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RECEIVED

By Alameda County Environmental Health at 11:18 am, Jul 11, 2014

Alameda County Health Care Services
1131 Harbor Bay Parkway, Suite 250
Alameda, CA 94502-6577

Re: Chevron Service Station No. 91153
3135 Gibbons Drive (3126 Fernside Blvd)
Alameda, CA

I have reviewed the attached report titled *Conceptual Site Model and Data Gap Work Plan*.

The information in this report is accurate to the best of my knowledge and all local Agency/Regional Board guidelines have been followed. This report was prepared by Conestoga-Rovers & Associates, upon whose assistance and advice I have relied.

This letter is submitted pursuant to the requirements of California Water Code Section 13267(b)(1) and the regulating implementation entitled Appendix A pertaining thereto.

I declare under penalty of perjury that the foregoing is true and correct to the best of my knowledge.

Sincerely,

A handwritten signature in blue ink that reads "Alexis Fischer".

Alexis Fischer
Project Manager

Attachment: *Conceptual Site Model and Data Gap Work Plan*



**CONESTOGA-ROVERS
& ASSOCIATES**

5900 Hollis Street, Suite A
Emeryville, California 94608
Telephone: (510) 420-0700 Fax: (510) 420-9170
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July 10, 2014

Reference No. 311642

Mr. Mark Detterman
Alameda County Environmental Health Services
1131 Harbor Bay Parkway, Suite 250
Alameda, CA 94502 6577

Re: Response to Technical Comments and Focused Conceptual Site Model
Former Chevron Service Station 91153
3135 Gibbons Drive (3126 Fernside Boulevard)
Alameda, California
Fuel Leak Case No. RO0000341

Dear Mr. Mark Detterman:

Conestoga-Rovers & Associates (CRA) is submitting this *Response to Technical Comments and Focused Conceptual Site Model* for the site referenced above on behalf of Chevron Environmental Management Company (CEMC). On April 24, 2014, Alameda County Department of Environmental Health (ACEH), CEMC, and CRA attended a joint meeting to discuss action items to move the case toward closure. Additionally, in two letters dated March 24, 2014, ACEH requested a focused conceptual site model (CSM) and requested several technical comments be addressed. A response to the technical comments is provided in this letter with a focused CSM enclosed. The CSM includes an evaluation of the site conditions with respect to the State Water Resource Control Board's Low Threat Closure Policy (LTCP) case closure criteria, and a data gap evaluation.

RESPONSE TO REGULATORY LETTER

1. Comments and Observations on Vapor Sampling

In response to CRA's December 20, 2013 *Crawl Space, Indoor Ambient Air and Sub-Slab Soil Gas Investigation Report*, ACEH had twelve comments and observations in regards to the vapor sampling effort at the site. Following the comments, ACEH's letter stated "**Based on the data, it is apparent that additional information is required as to the extent of the public notification process, and the exact protocols used to collect the samples (garage usage, crawl space vents, and other).**" The requested additional information is addressed below.

- Chevron will contact the property owners to obtain the number of vents and discuss the necessity to keep them clear.

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- Prior to collecting indoor air samples, a building survey was completed and no PID detections were recorded inside the house.
- CRA inquired that all vehicles be removed from and remain out of the garage during sampling. The resident's vehicle was in the garage when the Summa™ canisters were set up in the garage for the 24-hour sampling period. Therefore, it is possible the residents' vehicle exited or entered the garage during the sampling period.
- A vapor notification flyer was not provided to the property owners; however, the CRA project manager, Nathan Lee, and Chevron representatives have been in regular contact with them for the past 3 to 4 years and have shared all information and requirements with them. On behalf of Chevron, CRA will provide a vapor notification information sheet to the house occupants as described in the DTSC *Vapor Intrusion Public Participation Advisory*.
- Leak testing was performed during sub-slab vapor sampling using laboratory grade helium to determine if ambient air was entering the Summa™ canisters during sampling. A shroud was used to surround the vapor sampling equipment and the connections between the sampling equipment and the vapor probe tubing. A helium detector was placed inside the shroud to quantify helium concentrations inside the shroud. The helium detector meter indicated an atmosphere of approximately 40 percent helium was created and maintained for the duration of vapor sampling; however this information was not recorded on the field data sheets. No helium was detected above detection limits in any samples.

2. Groundwater Monitoring of Recovery Well

ACEH directed recovery well RW-1 be incorporated into the groundwater monitoring program. Well and/or trench RW-1 is a vertical pipe connected to a horizontal slotted pipe located within a thin vertical trench as shown in Appendix D of the CSM. CRA will evaluate the current status and construction of RW-1 and determine whether or not it can be sampled. If sampled, the analytical data should only be used for comparison purposes to the previous data collected from RW-1 and should not be used to compare to monitoring well data, due to its unique construction.

3. Vapor Mitigation Evaluation and Interim Remedial Action Plan

CRA has a meeting scheduled with Chevron's experts to evaluate the site data and recommend appropriate vapor intrusion mitigation controls. Following this meeting the mitigation options will be discussed with the property owners and ACEH. CRA will then submit a Vapor Intrusion Mitigation Plan and/or Interim Remedial Action Plan in a separate report.



**CONESTOGA-ROVERS
& ASSOCIATES**

July 10, 2014

Reference No. 311642

- 3 -

CLOSING

Please contact Nathan Lee at (925) 849-1003 if you have any questions or require additional information.

Regards,

CONESTOGA-ROVERS & ASSOCIATES

Kiersten Hoey

Brandon S. Wilken, PG 7564



KH/aa/33
Encl.

Focused Conceptual Site Model

cc: Ms. Alexis Fischer, Chevron
Mr. Mark Hom, Property Owner



FOCUSED CONCEPTUAL SITE MODEL

**Former Chevron Service Station 91153
3135 Gibbons Drive (3126 Fernside Boulevard)
Alameda, California
ACEH Case #RO0341**

Prepared for:

**Mr. Mark Detterman
Alameda County Health Services Agency
Environmental Health Department
1131 Harbor Bay Parkway, Suite 250
Alameda, California 94502**

**Prepared by:
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**JULY 10, 2014
REF. NO. 311642 (33)**



FOCUSED CONCEPTUAL SITE MODEL

Former Chevron Service Station 91153
3135 Gibbons Drive (3126 Fernside Boulevard)
Alameda, California
ACEH Case #RO0341

Kiersten Hoey



Brandon S. Wilken, PG 7564

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JULY 10, 2014
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Section 1.0 Introduction

Conestoga-Rovers & Associates (CRA) is submitting this *Conceptual Site Model and Data Gap Work Plan* for Former Chevron Service Station 91153 located at 3135 Gibbons Drive (formerly 3136 Fernside Boulevard) in Alameda, California (Figure 1) on behalf of Chevron Environmental Management Company (CEMC). On April 24, 2014, Alameda County Department of Environmental Health (ACEH), CEMC, and CRA attended a joint meeting to discuss action items to move the case forward. As requested by ACEH in a March 24, 2014 letter (Appendix A) and agreed on during the meeting, presented below are a CSM, an evaluation of the site conditions with respect to the State Water Resource Control Board's Low Threat Closure Policy (LTCP) case closure criteria, and a data gap evaluation.

Section 2.0 Conceptual Site Model

2.1 Site Description

The site is located on a triangularly-shaped lot at the intersections of Gibbons Drive, Fernside Boulevard, and High Street in Alameda, California (Figure 1). A former service station operated until June 1986. A residence was built on the property in 1989 (Figures 2 and 3). Surrounding area use is residential and commercial.

2.2 Historical Ownership

A service station was constructed at the site in 1956 and was in operation until 1986 when all underground storage tanks (USTs) were removed. Mr. Larry Bolten purchased the property and in 1989 built a single family residential home onsite. The current property/home owner is Mr. Mark Hom.

2.3 Geology and Hydrogeology

Boring logs are included in Appendix B, and Geologic Cross-Sections A-A' and B-B' are included on Figures 4 and 5. As shown on the cross-sections, soil beneath the site consists primarily of sand with some silt and clay to the total depth explored of approximately 23 feet below grade (fbg).

The site and its surroundings are generally flat at an elevation of approximately 8 feet above mean sea level. Depth to water in wells ranges from approximately 0 to 6.5 fbg. Groundwater beneath the site is designated as an existing or potential drinking water resource by the Regional Water Quality Control Board – San Francisco Bay Region (RWQCB-SF).¹ Groundwater flow direction is typically east-southeast toward the Oakland Alameda Estuary/Canal, located approximately 550 feet downgradient of the site. Since 2010, LNAPL has been measured in well C-1, ranging in thickness from 0.01 to 2.20 feet.

¹ Regional Water Quality Control Board – San Francisco Bay Region Groundwater Committee; June 1999, *East Bay Plain Groundwater Basin Beneficial Use Evaluation Report, Alameda and Contra Costa Counties, California; California.*

2.4 Release History

Based on soil and groundwater data, the release source appears to be the former dispenser islands and product lines that were removed in 1986. The product volume released is unknown. Cumulative historical soil data is located on Table 1.

2.5 Potential Offsite Sources

No potential offsite sources of hydrocarbons or other contaminants were located near the site.

2.6 Previous Environmental Investigations

Environmental investigations began in 1986 with the underground storage tank (UST) removals. Since 1986, 30 soil samples were collected at 15 locations (surface and 1.5 fbg) and eight confirmation samples were collected, and 16 soil borings, 10 groundwater monitoring wells (well C-2 has been destroyed), one groundwater recovery trench (RW-1), one temporary well, 44 temporary soil vapor probes, and two sub-slab probes have been installed (Figures 2 and 3). Indoor, outdoor, and crawl space air samples have been collected. Groundwater has been monitored since 1986. Remediation conducted has included an excavation during UST removal and during the foundation construction for the house, a groundwater pump and treat system, oxygen releasing compound (ORC) and hydrogen peroxide injections, groundwater extraction events, and since 1995 weekly to quarterly light non-aqueous phase liquid (LNAPL) removal by bailing and sorbent socks. Two well surveys and preferential pathway studies have also been conducted. A summary of previous environmental investigation and remediation is included in Appendix C.

2.7 Hydrocarbon Remediation

Primary Source Removal

In 1986, all USTs, associated piping, and all above ground structures were removed during service station demolition. An unspecified volume of soil was excavated from the UST vicinity, stockpiled and aerated onsite; then used as backfill for the excavations. In addition, some soil from beneath the current residence was removed during foundation construction. Additional information is available in Blaine Tech Services, Inc.'s June 19, 1986 *Field Sampling* report and Weiss Associates' (Weiss) December 20, 1994 *Comprehensive Site Evaluation and Proposed Future Action Plan*.

Secondary Source Removal

In 1991, groundwater extraction well RW-1 and an extraction/recovery trench was installed in the site's eastern portion to enhance groundwater extraction (GWE). Groundwater was extracted using an electric pump, treated with aqueous-phase granular-activated carbon, then discharged to the sanitary sewer. As of May 31, 1994, approximately 99,850 gallons of groundwater had been removed at a

pumping rate of approximately 0.08 gallon per minute (gpm). A performance summary of the GWE system is included as Appendix D.

In 1997, ORC socks were placed in wells MW-6 and MW-7 and hydrogen peroxide was injected into well C-1 to remediate LNAPL. The ORC socks were removed in the first quarter of 1999. In July 1999, 3 gallons of 3 percent hydrogen peroxide solution and 2 gallons of 10 percent hydrogen peroxide solution were injected in well C-1 to oxidize residual hydrocarbons.

Between 2001 and 2002, 5 groundwater batch extraction events were completed in well C-1 and removed approximately 2,350 gallons of groundwater.

Weekly to quarterly LNAPL bailing has occurred in well C-1 since 1995 which has removed approximately 72 gallons of LNAPL mixed with groundwater.

2.8 Distribution of Residual Hydrocarbons

The primary constituents of concern (COCs) are total petroleum hydrocarbons as gasoline (TPHg) and benzene. Other COCs are toluene, ethylbenzene, and xylenes. Methyl tertiary butyl ether (MTBE) is not a COC. A discussion of hydrocarbon distribution is presented below.

2.8.1 Soil

Soil beneath the site has been sampled between the surface and 12 fbg. The highest benzene concentration detected in soil is 45 mg/kg benzene in boring SB2 at 4 fbg. As shown on Figure 6, the extent of benzene in soil is primarily in the southern and eastern portion of the site and in a limited area near the former northern dispenser island. Hydrocarbons in soil are vertically defined (Figures 3 and 4) to below LTCP criteria by samples collected from borings B-1 through B-8 at 9.5 fbg, and horizontally defined (Figure 6) in all directions. However, the source area delineation is not fully complete due to the house and other improvements limiting drilling locations. Cumulative analytical data in soil is presented in Table 1, on geologic cross-sections shown on Figures 4 and 5 and benzene in soil on Figure 6.

Since 1986, 71 soil samples were collected between 0 and 5 fbg, and 19 soil samples were collected between 5 and 10 fbg. Seventeen TPH concentrations between 0 and 10 fbg exceed the LTCP criteria of 100 mg/kg for vapor intrusion to indoor air. Eleven benzene and 10 ethylbenzene concentrations between 0 and 5 fbg exceed the LTCP criteria of 1.9 mg/kg and 21 mg/kg, respectively, for residential direct contact exposure. One benzene concentration of 11 mg/kg and no ethylbenzene concentrations between 5 and 10 fbg exceeds the LTCP criteria of 8.2 mg/kg for volatilization to outdoor air. Five benzene concentrations and no ethylbenzene concentrations between 0 and 10 fbg exceed the LTCP criteria of 14 mg/kg for direct contact by a utility worker. However, a site specific vapor intrusion assessment has been completed and potential vapor intrusion mitigation measures are currently being evaluated.

2.8.2 Groundwater

Groundwater has been monitored and sampled since 1986 by ten wells (well C-2 has been destroyed). The top of all well screens is 2 or 3 fbg, but the bottom of the well screens range from 9 to 22 fbg. Recent groundwater data are summarized below in Table 2.1 and historic groundwater data are presented in Appendix E. Monitoring well construction details are included in Table 2 and grab-groundwater analytical data are listed in Table 3. Current groundwater data are illustrated on Figure 7.

TABLE 2.1: Groundwater Analytical Data – March 31, 2014						
Well ID	TPHg ($\mu\text{g/L}$)	Benzene ($\mu\text{g/L}$)	Toluene ($\mu\text{g/L}$)	Ethylbenzene ($\mu\text{g/L}$)	Total Xylenes ($\mu\text{g/L}$)	MTBE ($\mu\text{g/L}$)
WQOs/ESLs	100	1	40	30	20	5
C-1	LNAPL					
C-2	Destroyed					
C-3	<50	<0.5	<0.5	<0.5	<0.5	<0.5
MW-4	<50	<0.5	<0.5	<0.5	<0.5	<0.5
MW-5	<50	<0.5	<0.5	<0.5	<0.5	<0.5
MW-6	<50	<0.5	<0.5	<0.5	<0.5	<0.5
MW-7	350	<0.5	<0.5	<0.5	<0.5	<0.5
MW-8	<50	<0.5	<0.5	<0.5	<0.5	<0.5
MW-9	<50	<0.5	<0.5	<0.5	<0.5	<0.5
MW-10	<50	<0.5	<0.5	<0.5	<0.5	<0.5
Note:						
<	Indicates constituent was not detected at or above laboratory reporting limit.					
	Bold indicates results above the drinking water environmental screening level (ESL).					
WQO	Water Quality Objective (Regional Water Quality Control Board – San Francisco Bay Region, <i>Water Quality Control Plan (Basin Plan)</i> : dated December 31, 2011.)					
ESL	Environmental Screening Level (Regional Water Quality Control Board, San Francisco Bay Region (RWQCB), Screening for Environmental Concerns at Sites with Contaminated Soil and Groundwater, Interim Final, November 2007, revised May 2013.)					

LNAPL is detected in well C-1, located in the driveway on the southeast side of the site. Residual dissolved hydrocarbons are only detected in offsite well MW-7, located southeast (downgradient) of C-1. TPHg concentrations fluctuate but are decreasing overall. Benzene concentrations appear to be affected by groundwater elevation (Figure A below). When groundwater is high, no dissolved benzene is detected, although when groundwater is low, concentrations increase to approximately 100 micrograms per liter ($\mu\text{g/L}$). Although concentrations in MW-7 are fluctuating, the dissolved hydrocarbon plume is shrinking overall as indicated by the declining dissolved concentration trends observed in samples collected from well MW-7 (Figure A below), and the fact that dissolved hydrocarbons historically detected in crossgradient wells MW-5 and MW-6 have decreased to below laboratory detection limits. Additionally, no dissolved hydrocarbons are detected in downgradient well MW-10. This indicates that source mass flux to groundwater is decreasing as the hydrocarbon source mass is depleting.

Well MW-7 is properly located downgradient of C-1 when you evaluate the grab-groundwater data collected from borings BH-A, BH-B, and BH-C. As shown on Figure 2, BH-A was collected in Fernside Boulevard near the corner of the major intersection where BH-B was collected and BH-C was collected nearly in line with C-1 and MW-7. Only low dissolved petroleum hydrocarbon concentrations were detected in BH-A and BH-B and elevated concentrations indicative of LNAPL were detected in BH-C. Therefore, no additional wells are needed and the plume is adequately delineated by the current well network. Historical and current groundwater data is presented in Appendix E. Grab-groundwater samples are summarized in Table 3.

Dissolved Hydrocarbon Trends and Degradation Rates

To support a site specific evaluation of the shrinking plume, CRA uses the guidance provided within the United States Environmental Protection Agency (EPA) document *Calculation and Use of First-Order Rate Constants for Monitored Natural Attenuation Studies* (November 2002) to estimate the time for groundwater concentrations to reach water quality objectives (WQOs). CRA also uses the EPA document *On-line Tools for Assessing Petroleum Releases* (September 2004) to assess the proper methodology of determining where to begin a trend analysis. A receptor is located some distance from the source, and no impact to the receptor is seen when the release first occurs. The analytes take time to travel to the receptor. The first data points that show an analyte detection is called the first arrival time. The first arrival time varies for each receptor based upon distance from the receptor and the transport rates through the heterogeneous medium. As the analyte plume expands and stabilizes, the analyte concentration reaches the maximum concentration. If the source of the release is finite (e.g., a single release from an underground storage tank), the concentration will eventually decrease from the maximum, to below the concentration of concern. This period is called the duration.

CRA evaluates groundwater monitoring data from each well (the receptor) and creates a degradation trend analysis for site COCs from the maximum detection through the latest sampling date. The starting point can vary from the maximum detection if the transport mechanisms are not sufficiently linear. For example, groundwater monitoring data may show that the maximum concentration occurred at some point in the past and that degradation seemed to be occurring. However, due to the heterogeneous nature of the subsurface and seasonal groundwater level fluctuations, the duration does not demonstrate a steady degradation behavior. The concentrations of the analyte may increase one or more times before showing consistent attenuation towards the concentration objective.

CRA calculated dissolved TPHg and benzene concentration trends for well MW-7 to meet the RWQCB's WQOs. These WQOs are 100 µg/L TPHg and 1 µg/L benzene. Since LNAPL is detected in C-1 and no dissolved benzene, toluene, ethylbenzene, or xylenes (BTEX) concentrations are detected in any other site well, degradation graphs were not presented for these wells. No MTBE is detected in groundwater,

so no MTBE graphs are presented. CRA used the following first order exponential decay rate calculation² to estimate the time to meet the applicable WQOs:

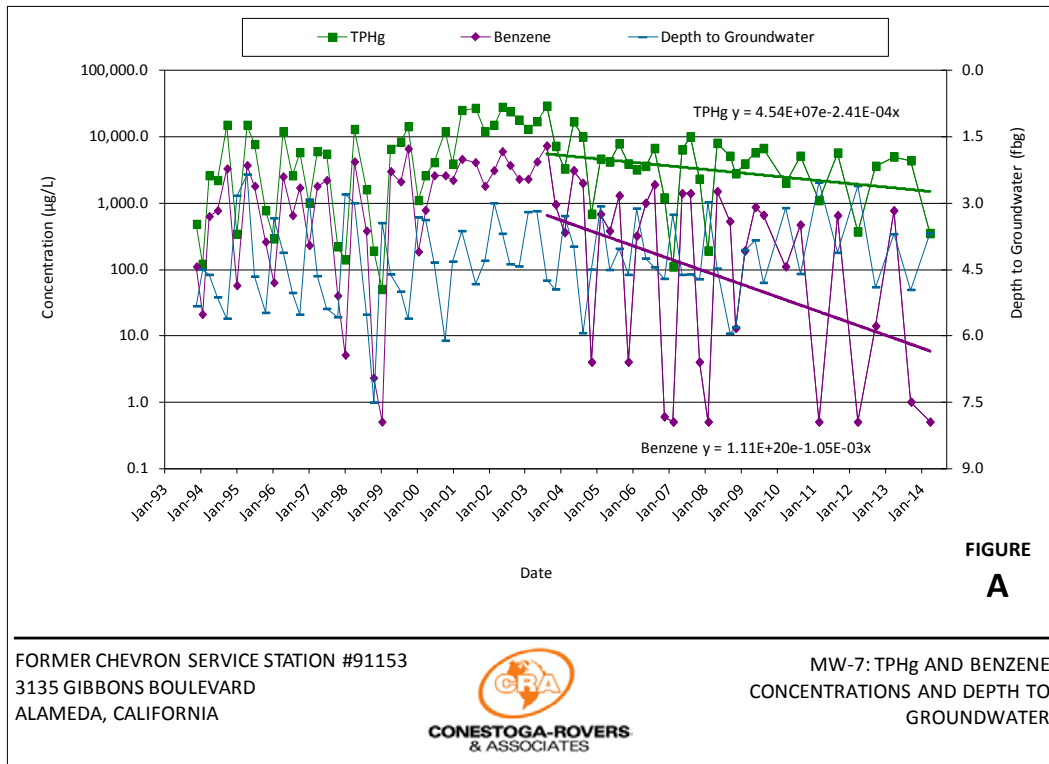
$$y = be^{(ax)}$$

Where "a" is a decay constant, "b" is a concentration at time (x), y is concentration (WQO) and "x" is time. A summary of historical maximum concentrations and current concentrations for all active wells and projections to meet the WQOs are presented in Table 2.2. Trend graphs and degradation calculations are presented as Appendix F.

Well ID	Analyte	Maximum Concentrations	Current Concentrations	WQO	Date to Reach WQO	Years to Reach WQO
MW-7	TPHg	29,000	350	100	2048	34
	Benzene	7,300	<0.5	1	2020	6
Note:						
<	Indicates constituent was not detected at or above laboratory reporting limit.					
	Bold indicates results above the drinking water environmental screening level (ESL).					
WQO	Water Quality Objective (Regional Water Quality Control Board – San Francisco Bay Region, <i>Water Quality Control Plan (Basin Plan)</i> : dated December 31, 2011.)					

TPHg and benzene are calculated to reach WQO in 34 and 6 years, respectively, and the concentration trends are illustrated in Figure A below. Due to the wide ranging fluctuations in dissolved benzene concentrations its trend is steeper leading to a faster degradation rate. However, if you look at the higher fluctuating benzene concentrations, the degradation rate is likely similar to the TPHg rate in MW-7.

² EPA-Groundwater Issue; Calculation and Use of First-Order Rate Constants for Monitored Natural Attenuation Studies; Charles J. Newell, et al., 2002.



2.8.3 Soil Vapor

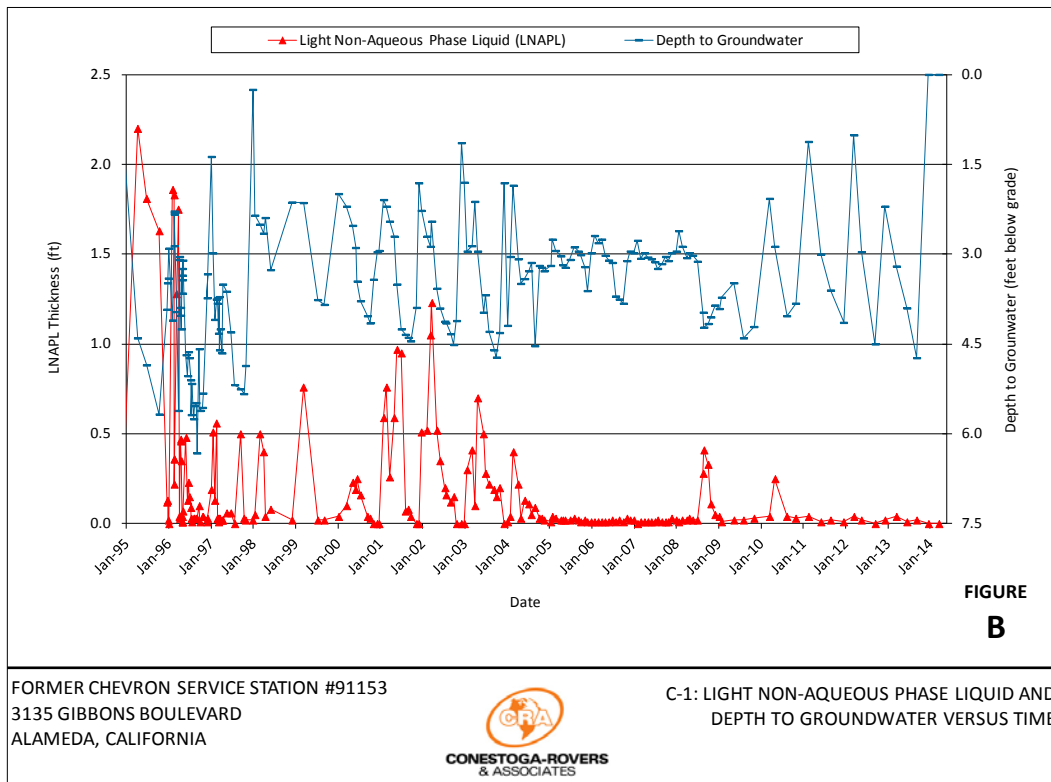
Soil vapor samples were collected in 1987, 1989, 2002, and 2013. Cumulative soil vapor data are summarized in Table 4 and all soil vapor sampling locations are included on Figure 3.

To assess soil vapor conditions beneath the garage slab and to assess ambient air on the property, in September 2013, CRA installed and sampled two sub-slab vapor probes within the garage and collected ambient indoor, crawl space, and outdoor air (Table 4). Indoor ambient air hydrocarbon concentrations are significantly higher than both outdoor and crawl space ambient air; however the concentrations of both outside and crawl space ambient air are very similar. The detected outside and crawl space ambient air concentrations likely have a significant contribution from vehicle emissions from the heavily traveled High Street and Fernside Boulevard intersection. The outdoor, crawl space, and indoor ambient air concentrations are similar to the concentrations detected and reported in CRA's *Subsurface and Crawl Space, Indoor and Ambient Air Investigation* dated April 18, 2012. The highest indoor ambient air concentrations were detected in sample IA-3 which was inside the garage used to house vehicles. CRA inquired that all vehicles be removed from and remain outside of the garage during sampling; however at least one vehicle was in the garage during the sampling. Although the garage sub-slab vapor probes concentrations were elevated, the benzene concentration in IA-3 is approximately 5000 times lower than sub-slab vapor concentrations. Though ambient air concentrations are above ESLs levels for residential occupation, the factors used to confirm that the source of vapor intrusion is from a

sub-surface hydrocarbon source have not been met. Therefore the concentrations detected in indoor air are likely due to sources other than sub-surface hydrocarbons, such as an indoor or garage source.

2.8.4 LNAPL

LNAPL has historically been detected in well C-1 at a maximum thickness of 2.20 feet in 1995. As indicated in Figure B above, LNAPL thickness has decreased over time, with a current measured thickness of 0.02 foot (March 2014). The combination of remedial actions taken and natural attenuation have led to the reduction in LNAPL thicknesses. Historical LNAPL thicknesses are listed in Appendix E.



2.9 Potential Receptors and Exposure Pathways

2.9.1 Potential Human Receptors

This site is a single family residential home in a primarily residential area. Residential homes are located to the east, across Fernside Boulevard to the north and across Gibbons Street to the south. European Auto Service is located southeast across the intersection and Marina Garden Nursing Center (eldercare facility) is located directly east across the intersection. Beyond the auto service station and eldercare facility are more residential homes and the Oakland Alameda Estuary/Canal. Potential human receptors include the onsite residential occupants and any future potential utility/construction workers.

CRA reviewed online mapping services (i.e. Google Earth®) and performed a physical site reconnaissance to identify other potential human receptors within a ¼-mile radius (1,320 feet), including basements, schools, hospitals, day care centres, and eldercare facilities. One childcare facility (Peakaboo Preschool) is located 500 feet north (crossgradient) of the site, but due to its distance and proximity to the site, it is not considered at risk of being affected by hydrocarbons originating at the site. One ElderCare Facility (Marina Garden Nursing Center) is located east (downgradient) of the site; however, no hydrocarbons are detected in well MW-9, located between it and the site and is therefore not at risk of being affected by hydrocarbons originating at the site. Several other potential receptors were identified between ¼ and 1 mile of the site, but are well beyond the extent of hydrocarbons in soil and groundwater originating at this site. Potential Sensitive Receptors are located on Figures 8 and 9.

2.9.2 Water Supply Wells

In 1987, Pacific Environmental Group, Inc. (PEG) conducted a well survey and identified wells within approximately ½ mile of the site. The majority of these wells were used for groundwater monitoring or cathodic protection and some were used for irrigation. None of the wells were listed as municipal drinking water supply wells. Additional information is available in PEG's August 12, 1987 *Well Survey Report*.

In 2010, CRA compiled well data provided by California Department of Water Resources (DWR) to identify wells within ½ mile of the site and used aerial photography to measure approximate distances from the site to each well. All wells farther than ½ mile from the site were not included in the survey. Borings and monitoring wells were also excluded. No municipal wells were identified. Local water utilities rely on imported water to meet the region's water needs.³ The closest irrigation and domestic wells are greater than 850 feet from the site and are either upgradient or located in Oakland across the Oakland Alameda Estuary/Canal. The well survey results, including a table and area map, are included as Appendix G. The wells identified in the survey are not considered at risk from hydrocarbons originating from the site. Additional details of the well survey are presented in CRA's September 20, 2010 *Preferential Pathway Study and Well Survey Report*.

2.9.3 Surface Waters

The nearest surface water features to the site are the Oakland Alameda Estuary/Canal located approximately 550 feet east (downgradient), the San Leandro Bay located approximately 3,000 feet south (crossgradient), and a number of unnamed water bodies located over 1 mile west (upgradient) of the site. Dissolved hydrocarbon concentrations have historically been below detection limits in downgradient wells C-8, C-9, and C-10. This indicates the dissolved hydrocarbon plume is stable and

³ Regional Water Quality Control Board – San Francisco Bay Region Groundwater Committee; June 1999, *East Bay Plain Groundwater Basin Beneficial Use Evaluation Report, Alameda and Contra Costa Counties, California; California*.

defined and these surface water bodies are not considered at risk from hydrocarbons originating from the site.

2.9.4 Potential Vapor Receptors

The primary potential receptor from hydrocarbon vapors is the onsite residence. Figure 2 shows the location of the existing residence overlaying the location of the former service station. In 1989, the majority of soil beneath the house footprint was excavated prior to construction. The house was constructed with a ventilated crawl space, which helps make the vapor intrusion pathway incomplete. The properties immediately adjacent to the site are also residential; however, there is no evidence of hydrocarbons underlying any of the other residences.

2.9.5 Preferential Pathway Study

In 1996, Fluor Daniel GTI (FD-GTI) compiled utility location and depth information to analyze the potential for offsite migration of dissolved hydrocarbons in utility trenches. The report concluded that several utilities penetrated groundwater, but that these utilities were not acting as preferential pathways. The report states that the buried utilities were installed in materials similar to native soil and were unlikely to result in preferential flow. In addition, monitoring well data near the utilities was not consistent with preferential flow. Additional information is available in FD-GTI's May 15, 1996 *Evaluation for Potential Migration Pathway via Buried Utility Pipelines*.

In 2010, CRA conducted a preferential pathway study to evaluate potential pathways for hydrocarbon migration from the site. Major utilities near the site include electric, natural gas, water, communication, storm drain sewer, and sanitary sewer lines. Depth to groundwater onsite has ranged from approximately 0 to 6.5 fbg (C-1) since monitoring began in 1986. The average depth to groundwater onsite is approximately 3.5 fbg. Groundwater flow direction is primarily to the east-southeast. Utilities identified during this study range in depth from approximately 1 to 8 fbg. Although some of the utilities intersect the groundwater table, groundwater flow direction and hydrocarbon concentrations in monitoring wells, indicate the utilities on and in the vicinity of the site are not acting as significant pathways for hydrocarbon migration. This includes the storm and sanitary sewers in High Street based on historical hydrocarbon concentrations in well MW-10. Utility locations are illustrated on Figure 2. Additional details are in CRA's September 20, 2010 *Preferential Pathway Study and Well Survey Report*.

2.9.6 Potential Receptor and Exposure Pathway Survey Conclusions

Potential sensitive receptors are listed in Table 5 and locations are shown on Figures 8 and 9. Based on the dissolved plume length and that it is defined in all directions to below laboratory detection limits, no potential offsite sensitive receptors listed above will be affected by hydrocarbons originating at the site. Additionally, as shown on Figure 8, CRA estimates that this site's TPHg and benzene plumes are approximately 120 feet in length, and provides the average TPHg and benzene plume lengths from the

source area (248 feet and 198 feet) and the maximum plume lengths (855 feet and 554 feet).⁴ The dissolved TPHg and benzene plumes originating at this site are well below the average lengths according to the Technical Justification.⁵ The nearest downgradient potential receptor is the Marina Garden Nursing Center, approximately 300 feet east, which is beyond both the measured plume lengths and also the average plume lengths.

According to the CRA and FD-GTI preferential pathway studies, groundwater flow direction and monitoring well data indicate underground utilities are not acting as preferential pathways for hydrocarbons migration.

Section 3.0 Request for Low-Threat Closure

3.1 General Criteria

a) The Unauthorized Release is Located Within the Service Area of a Public Water System

Yes. The site receives water from the East Bay Municipal Utility District.

b) The Unauthorized Release Consists Only of Petroleum

Yes. All unauthorized releases consisted of hydrocarbons originating from the gasoline USTs and product piping.

c) The Unauthorized ('Primary') Release from the UST System has Stopped

Yes. All station facilities including the fuel USTs, product piping, and dispenser islands were removed in 1986.

d) Free Product has been Removed to the Maximum Extent Practicable

Yes. LNAPL has historically been detected in well C-1 since 1995 and has decreased overtime from 2.20 feet in 1995 to the current measured thickness of 0.02 foot (Appendix E). July 1998, a 10 percent solution was injected in well C-1 to oxidize residual hydrocarbons. Between 2001 and 2002, five groundwater batch extraction events were completed in well C-1 and removed approximately 2,350 gallons of groundwater. Weekly to quarterly LNAPL bailing has occurred in well C-1 since 1995 removing approximately 72 gallons of LNAPL mixed with groundwater.

e) A Conceptual Site Model that Assesses the Nature, Extent, and Mobility of the Release has been Developed

Yes. A CSM is presented herein.

⁴ California State Water Resource Control Board, *Technical Justification for Groundwater Plume Lengths, Indicator Constituents, Concentrations, and Buffer Distances (Separation Distances) to Receptors*, 2011.

⁵ Regional Water Quality Control Board – San Francisco Bay Region Groundwater Committee; June 1999, *East Bay Plain Groundwater Basin Beneficial Use Evaluation Report, Alameda and Contra Costa Counties, California; California*.

f) Secondary Source has been Removed to the Extent Practicable

No. In addition to the LNAPL removal described in section d) above, in 1991, groundwater extraction well RW-1 was installed in the site's eastern portion and an extraction/recovery trench was connected to well RW-1 to enhance GWE. Groundwater was extracted using an electric pump, treated with aqueous-phase granular-activated carbon, then discharged to the sanitary sewer. As of May 31, 1994, approximately 99,850 gallons of groundwater had been removed at a pumping rate of approximately 0.08 gallon per minute (gpm). A performance summary of the GWE system is included as Appendix D.

g) Soil and Groundwater have been Tested for MTBE and Results Reported in Accordance with Health and Safety Code Section 25296.15

Yes. Soil and groundwater have been tested for MTBE and are presented in Table 1 (soil data) and Appendix E (groundwater data).

h) Nuisance as Defined by Water Code Section 13050 Does Not Exist at the Site

No. A nuisance does exist considering that the condition where free use of the property does not exist.

3.2 Media-Specific Criteria

3.2.1 Groundwater

Long-term groundwater monitoring data show that the plume above WQOs is stable or decreasing in areal extent, as required by the LTCP. The LTCP has five classes that define a stable plume as "low threat". Based on the following data this site meets Criteria 5 as follows.

- a. The TPHg and BTEX plumes are less than 250 feet in length and fully delineated; no MTBE is detected in groundwater. (Figure 7 and 8).
- b. Free product has been removed to the extent possible but still exists in well C-1 (thickness has been reduced from a high of 2.20 feet to the current measurement of 0.02 foot).
- c. The plume has been stable to decreasing since peak dissolved concentrations in MW-7 were detected in 2003.
- d. No water supply wells are located within 850 feet of the site; the nearest surface water to the site is the Oakland Alameda Estuary/Canal located approximately 550 feet east (downgradient).

3.2.2 Vapor Intrusion to Indoor Air

A single family residential home exists on the site and does not meet any of the low-threat vapor intrusion criteria 1 through 4.

- LNAPL exists in groundwater approximately 1 to 5 fbg.

- Soil vapor samples collected from sub-slab probes in the garage contained concentrations exceeding those listed in Scenario 4 and there is no attenuation zone.
- Seventeen TPH/TPHg concentrations detected in soil between 0 and 10 fbg exceed 100 mg/kg.

To assess soil vapor conditions beneath the garage slab and to assess ambient air on the property, CRA completed two investigations in January 2012 and September 2013 (Table 4). The results of the investigation were that ambient air concentrations are above ESLs levels for residential occupation, however the factors used to confirm that the source of vapor intrusion is from a subsurface hydrocarbon source have not been met. Therefore the concentrations detected in indoor air are likely due to sources other than subsurface hydrocarbons, such as an indoor or garage source.

Based on a review of the vapor data, no risk to human health and/or the environment currently exist, although in order to ensure the safety to human health and/or environment, in the event that conditions change, CRA proposes that a vapor mitigation plan be evaluated. The vapor mitigation plan would evaluate institutional or engineering controls to mitigate petroleum vapors potentially migrating from soil or groundwater into the residential home onsite.

3.2.3 Direct Contact and Outdoor Air Exposure

The LTCP contains concentration criteria for benzene, ethylbenzene, naphthalene, and PAHs in soil between 0 and 5 fbg and 5 to 10 fbg that are defined as “low threat” for the direct contact and outdoor air pathway for various receptors. The criteria are listed below in Table 4.1:

Constituent	Table 4.1 Policy Criteria for Direct Contact/Outdoor Air (DC/OA)					Site Data	
	Residential		Commercial/Industrial		Utility Worker	Site Maximum Concentration.	
	0 – 5 fbg mg/kg	Volatilization to outdoor air (5 – 10 fbg) mg/kg	0 – 5 fbg mg/kg	Volatilization to outdoor air (5 – 10 fbg) mg/kg	0 – 10 fbg mg/kg	0 – 5 fbg	>5 – 10 fbg
Benzene	1.9	2.8	8.2	12	14	45	11
Ethylbenzene	21	32	89	134	314	180	2
Naphthalene	9.7	9.7	45	45	219	NA	NA
PAH*	0.063	NA	0.68	NA	4.5	NA	NA

*Notes: Based on the seven carcinogenic polynuclear aromatic hydrocarbons (PAHs) as benzo(a)pyrene toxicity equivalent [BaPe]. The PAH screening level is only applicable where soil is affected by either waste oil and/or Bunker C fuel.

This site contains a single family residential home and therefore residential values apply to this site. Of the 71 soil samples collected between 0 and 5 fbg, 11 benzene and 10 ethylbenzene concentrations exceed the residential LTCP criteria for direct contact exposure. Of the 19 soil samples collected between 5 and 10 fbg, one benzene and one ethylbenzene concentrations exceed the residential LTCP volatilization to outdoor air criteria. No ethylbenzene, although five benzene concentrations exceed the

LTCP utility worker direct contact exposure criteria. Soil has not been analyzed for naphthalene or poly-aromatic hydrocarbons (PAHs). Due to the residential home located onsite, remedial options are limited and difficult to implement; therefore CRA proposes to evaluate mitigation measures to protect human health and/or the environment. Cumulative soil analytical data is listed in Table 1.

Section 4.0 Data Gaps

Based on the data presented above, the following data gaps exist at this site:

1. As stated in the March 24, 2014 ACEH letter, no vapor notification flyer was provided to the occupants of the onsite house as stated in the Department of Toxic Substance Control's March 5, 2012 *Vapor Intrusion Public Participation Advisory*. CRA will provide a copy of this document to the property owner.
2. Vapor intrusion mitigation evaluation and interim remedial action. CRA has a meeting scheduled with Chevron's experts to evaluate the site data and recommend appropriate vapor intrusion mitigation controls. Following this meeting the mitigation options will be discussed with the property owners and ACEH. CRA will then submit a Vapor Intrusion Mitigation Plan and/or Interim Remedial Action Plan in a separate report.
3. Well and/or trench RW-1 is a vertical pipe connected to a horizontal slotted pipe located within a thin vertical trench as shown in Appendix D. CRA will evaluate the current status and construction of RW-1 and determine whether or not it can be sampled. If sampled, the analytical data should only be used for comparison purposes to the previous data collected from RW-1 and should not be used to compare to monitoring well data, due to its unique construction.

Figures

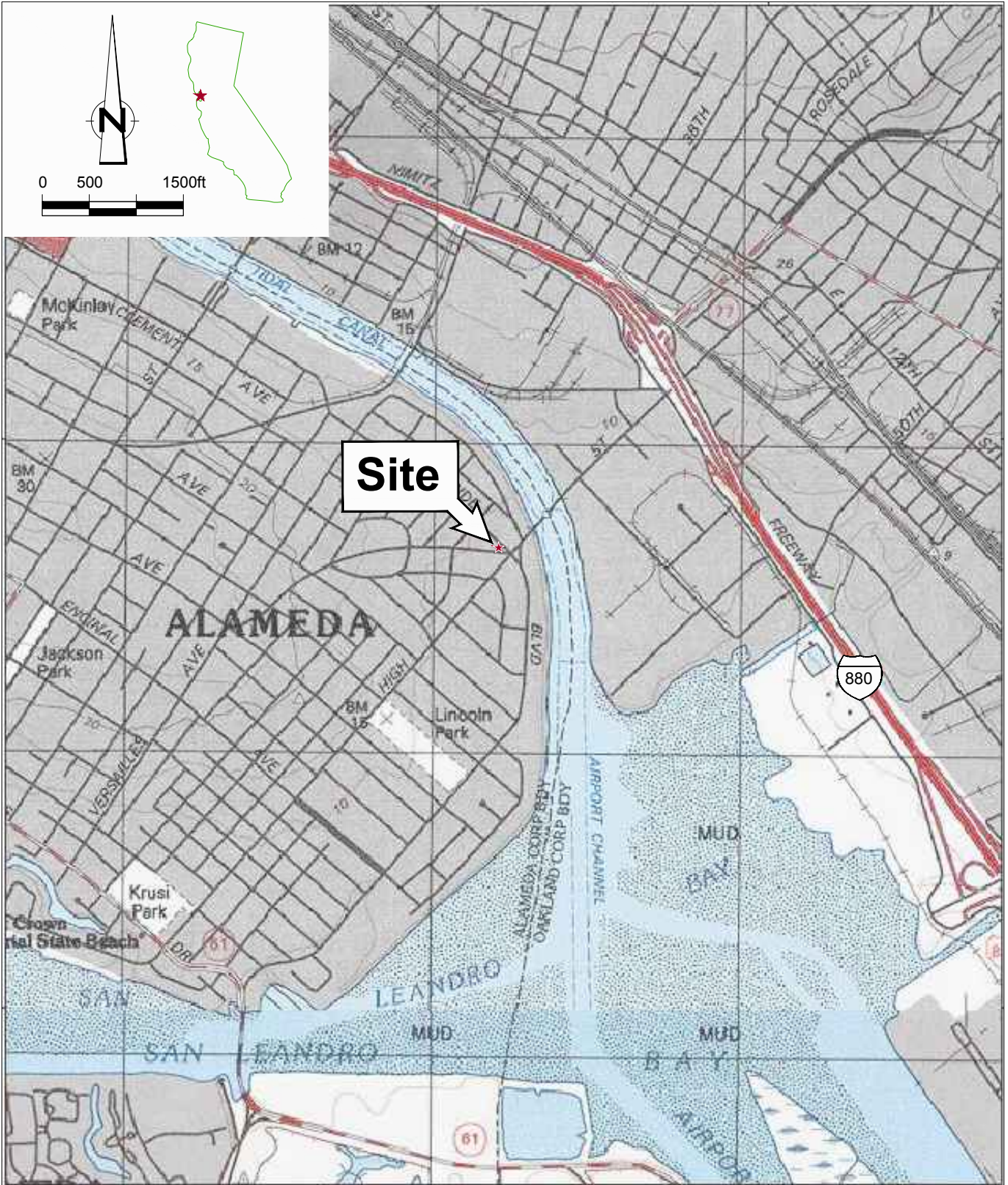


Figure 1
 VICINITY MAP
 FORMER CHEVRON SERVICE STATION 91153
 3135 GIBBONS DRIVE (3126 FERNSIDE BLVD)
 Alameda, California



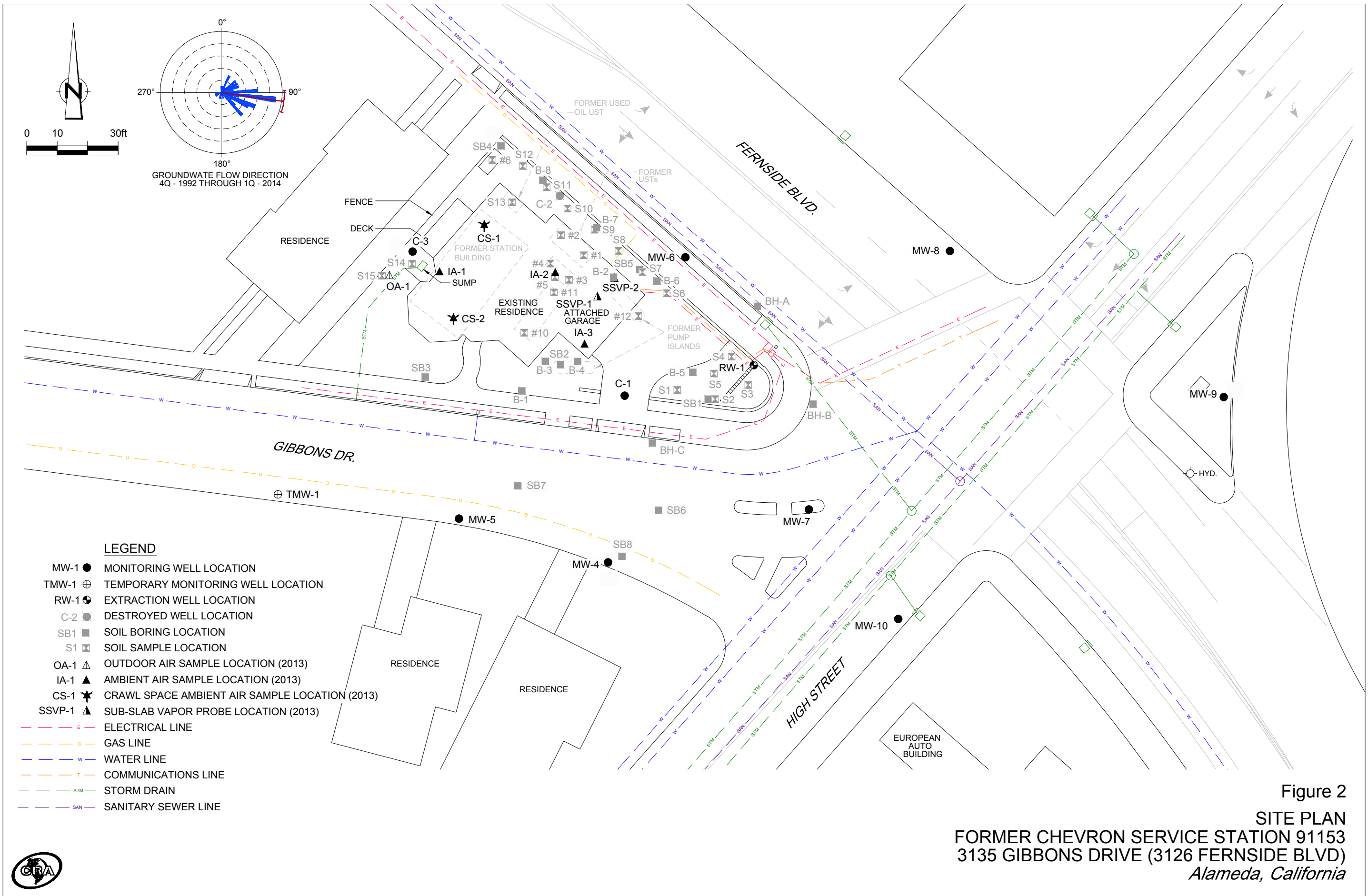


Figure 2
 SITE PLAN
 FORMER CHEVRON SERVICE STATION 91153
 3135 GIBBONS DRIVE (3126 FERNSIDE BLVD)
 Alameda, California



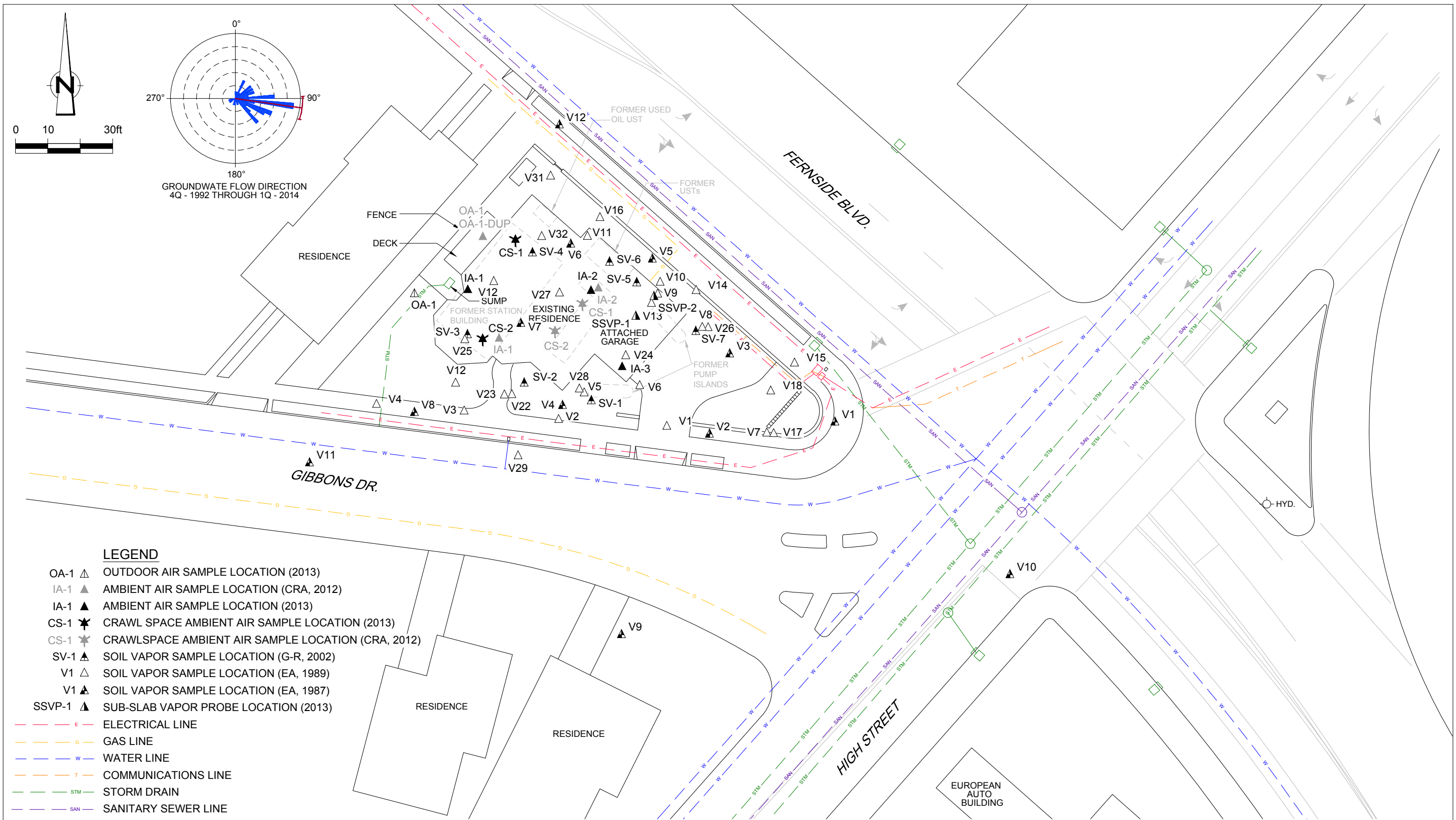
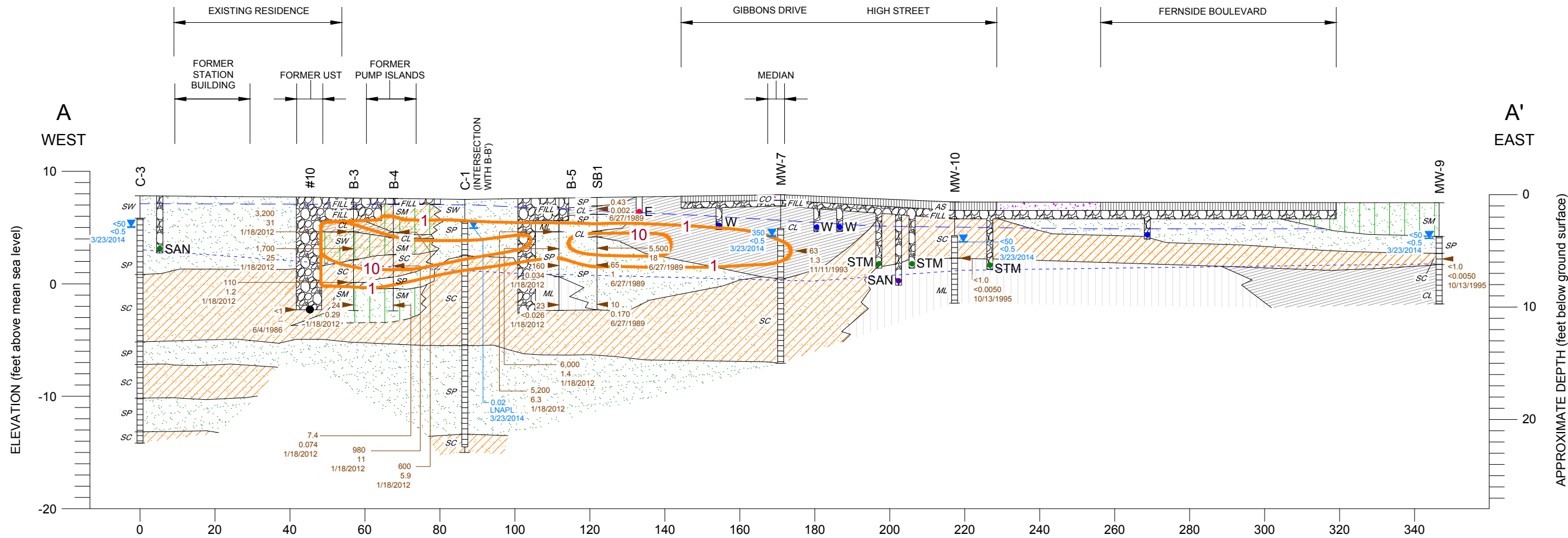


Figure 3
 HISTORICAL VAPOR AND AMBIENT AIR SAMPLE LOCATIONS
 FORMER CHEVRON SERVICE STATION 91153
 3135 GIBBONS DRIVE (3126 FERNSIDE BLVD)
 Alameda, California





DISTANCE (feet)
 SCALE: HORZ. 1" = 30'
 VERT. 1" = 10'

LEGEND

- WELL DESIGNATION
- GROUND SURFACE
- OBSERVATION WELL INSTALLATION
- STRATIGRAPHIC BOUNDARY
- TYPICAL SOIL CLASSIFICATION
- SCREENED INTERVAL
- BOTTOM OF BORING
- ▲ APPROXIMATE SOIL SAMPLE LOCATION
- ▲ HYDROCARBON CONCENTRATIONS IN SOIL, IN MILLIGRAMS PER KILOGRAM (mg/kg)
- ▲ DATE
- ▲ APPROXIMATE GROUNDWATER SAMPLE LOCATION
- ▲ HYDROCARBON CONCENTRATIONS IN GROUNDWATER, IN MICROGRAMS PER LITER (µg/L)
- ▲ DATE
- SOIL SAMPLE LOCATION
- AS - ASPHALT
- CO - CONCRETE
- FILL
- SW - WELL-GRADED SAND, GRAVELLY SANDS, LITTLE OR NO FINES
- SP - POORLY-GRADED SANDS, GRAVELLY SANDS, LITTLE OR NO FINES
- SC - CLAYEY SANDS, SAND-CLAY MIXTURES
- E ELECTRICAL LINE
- W WATER LINE
- STM STORM DRAIN LINE
- SAN SANITARY SEWER LINE
- 10 BENZENE CONCENTRATION CONTOUR
- CL - INORGANIC CLAYS OF LOW TO MEDIUM PLASTICITY, GRAVELLY CLAYS, SANDY CLAYS, SILTY CLAYS, LEAN CLAYS
- SM - SILTY SANDS, SAND-SILT MIXTURES
- ML - INORGANIC SILTS, VERY FINE SANDS, SILTY OR CLAYEY FINE SANDS, CLAYEY SILTS WITH SLIGHT PLASTICITY
- NOT AVAILABLE
- LNAPL LIGHT NON-AQUEOUS PHASE LIQUID
- LOWEST GROUNDWATER ELEVATION (MSL)
- HIGHEST GROUNDWATER ELEVATION (MSL)

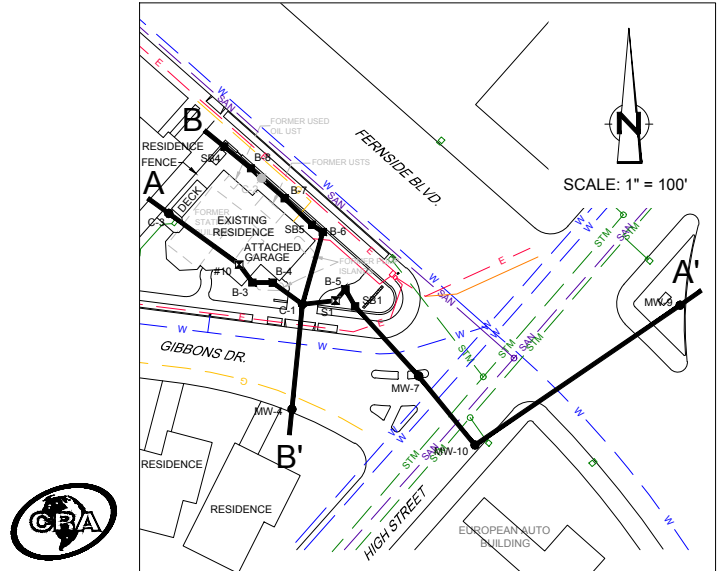
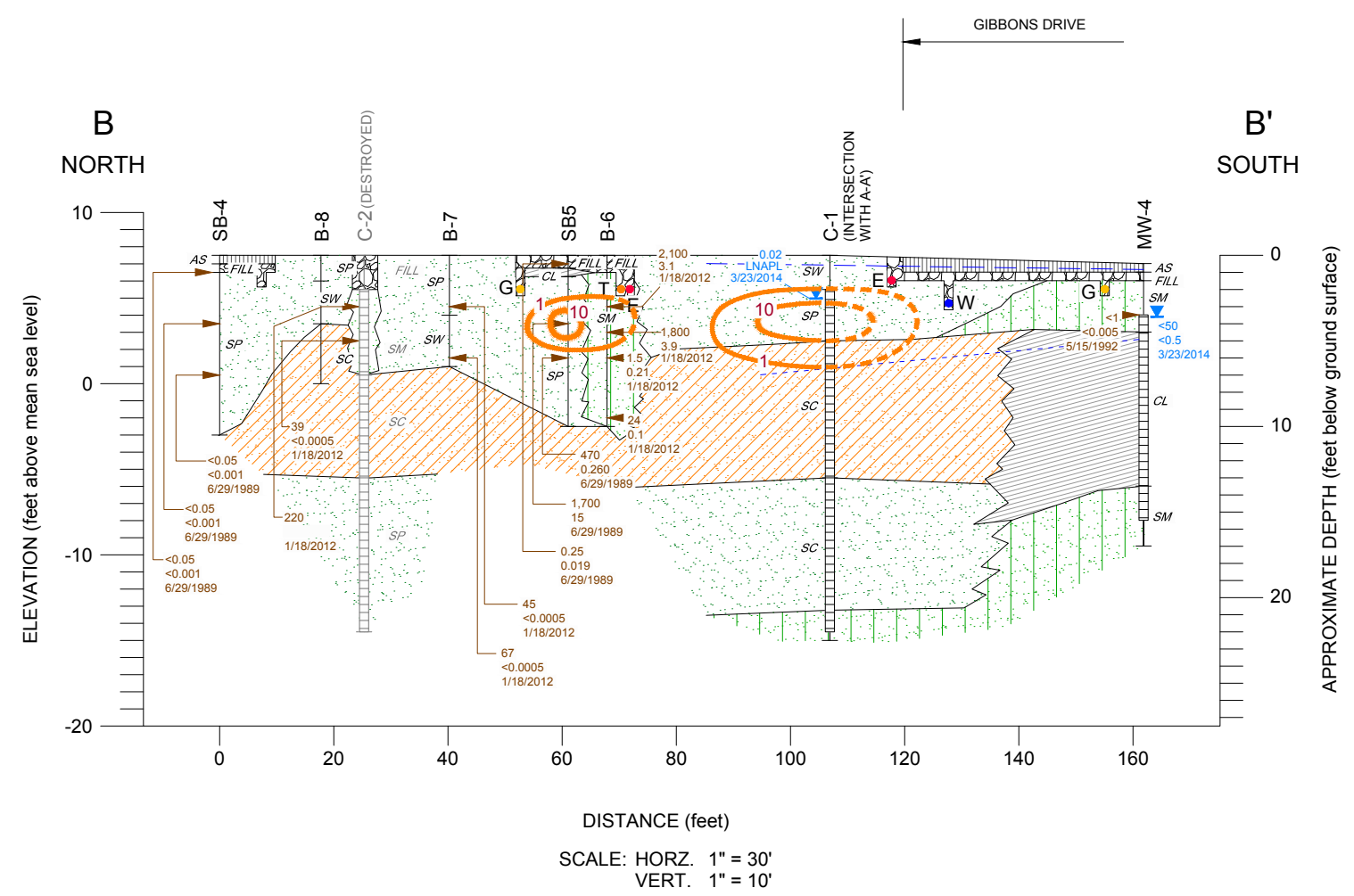


Figure 4
GEOLOGIC CROSS-SECTION A-A'
FORMER CHEVRON SERVICE STATION 91153
3135 GIBBONS DRIVE (3126 FERNESIDE BLVD)
Alameda, California

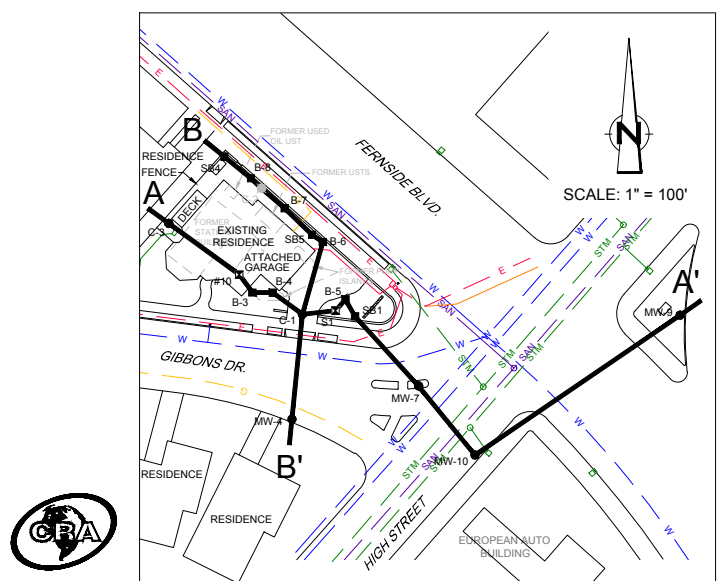


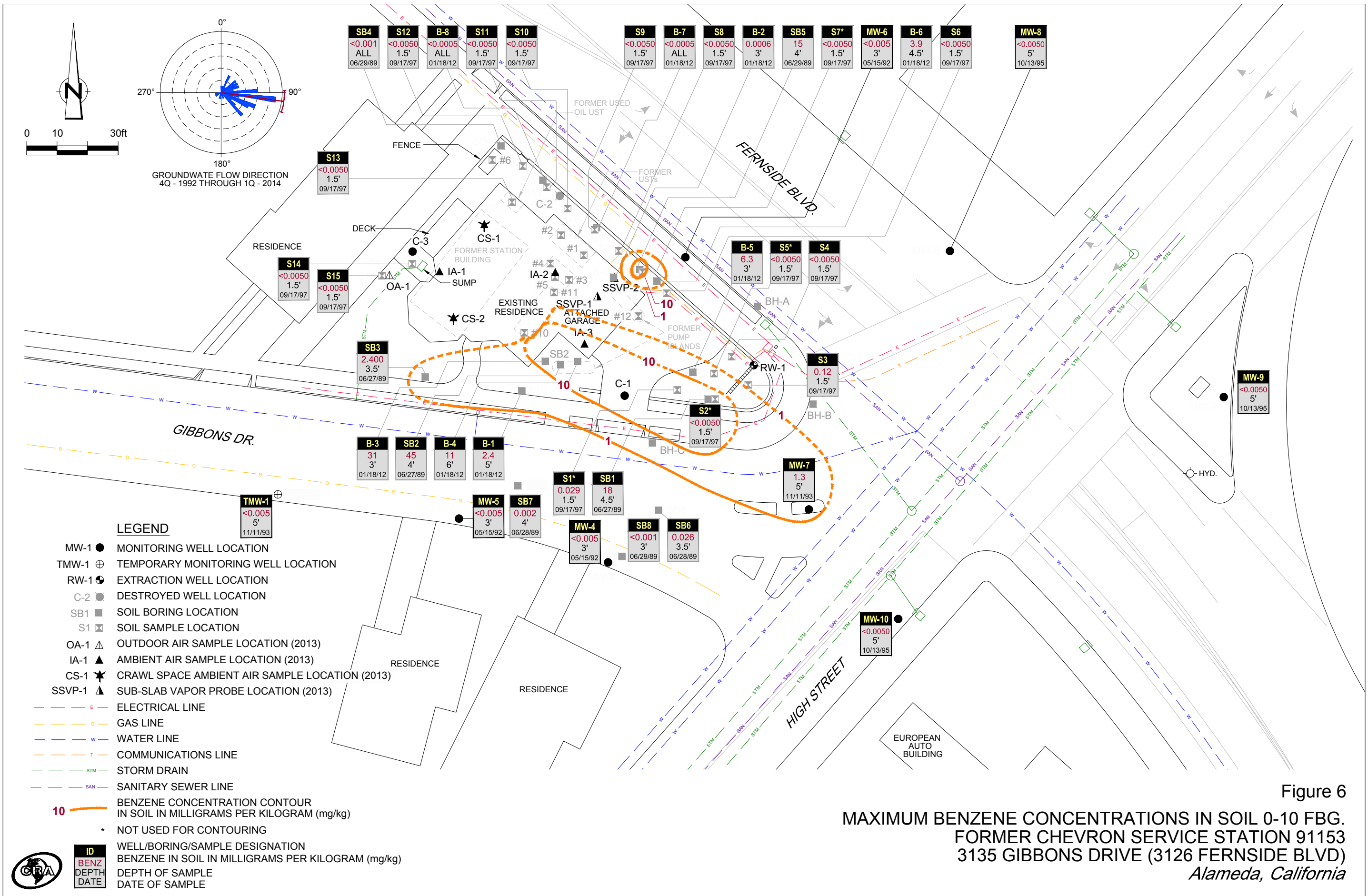
SCALE: HORZ. 1" = 30'
VERT. 1" = 10'

LEGEND

- | | | |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <ul style="list-style-type: none"> — WELL DESIGNATION — GROUND SURFACE — OBSERVATION WELL INSTALLATION — STRATIGRAPHIC BOUNDARY — TYPICAL SOIL CLASSIFICATION — SCREENED INTERVAL — BOTTOM OF BORING ▲ APPROXIMATE SOIL SAMPLE LOCATION ▲ TPH / TPHg BENZENE CONCENTRATIONS IN SOIL, IN MILLIGRAMS PER KILOGRAM (mg/kg) ▲ DATE ▲ APPROXIMATE GROUNDWATER SAMPLE LOCATION ▲ TPHg BENZENE CONCENTRATIONS IN GROUNDWATER, IN MICROGRAMS PER LITER (µg/L) ▲ DATE | <ul style="list-style-type: none"> AS - ASPHALT FILL SW - WELL-GRADED SAND, GRAVELLY SANDS, LITTLE OR NO FINES SP - POORLY-GRADED SANDS, GRAVELLY SANDS, LITTLE OR NO FINES SC - CLAYEY SANDS, SAND-CLAY MIXTURES E ELECTRICAL LINE W WATER LINE STM STORM DRAIN LINE SAN SANITARY SEWER LINE G GAS LINE T TELECOMMUNICATION LINE 10 BENZENE CONCENTRATION CONTOUR | <ul style="list-style-type: none"> CL - INORGANIC CLAYS OF LOW TO MEDIUM PLASTICITY, GRAVELLY CLAYS, SANDY CLAYS, SILTY CLAYS, LEAN CLAYS SM - SILTY SANDS, SAND-SILT MIXTURES ML - INORGANIC SILTS, VERY FINE SANDS, SILTY OR CLAYEY FINE SANDS, CLAYEY SILTS WITH SLIGHT PLASTICITY -- NOT AVAILABLE LNAPL LIGHT NON-AQUEOUS PHASE LIQUID --- LOWEST GROUNDWATER ELEVATION (MSL) --- HIGHEST GROUNDWATER ELEVATION (MSL) |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

Figure 5
GEOLOGIC CROSS SECTION B-B'
FORMER CHEVRON SERVICE STATION 91153
3135 GIBBONS DRIVE (3126 FERNSIDE BLVD)
Alameda, California





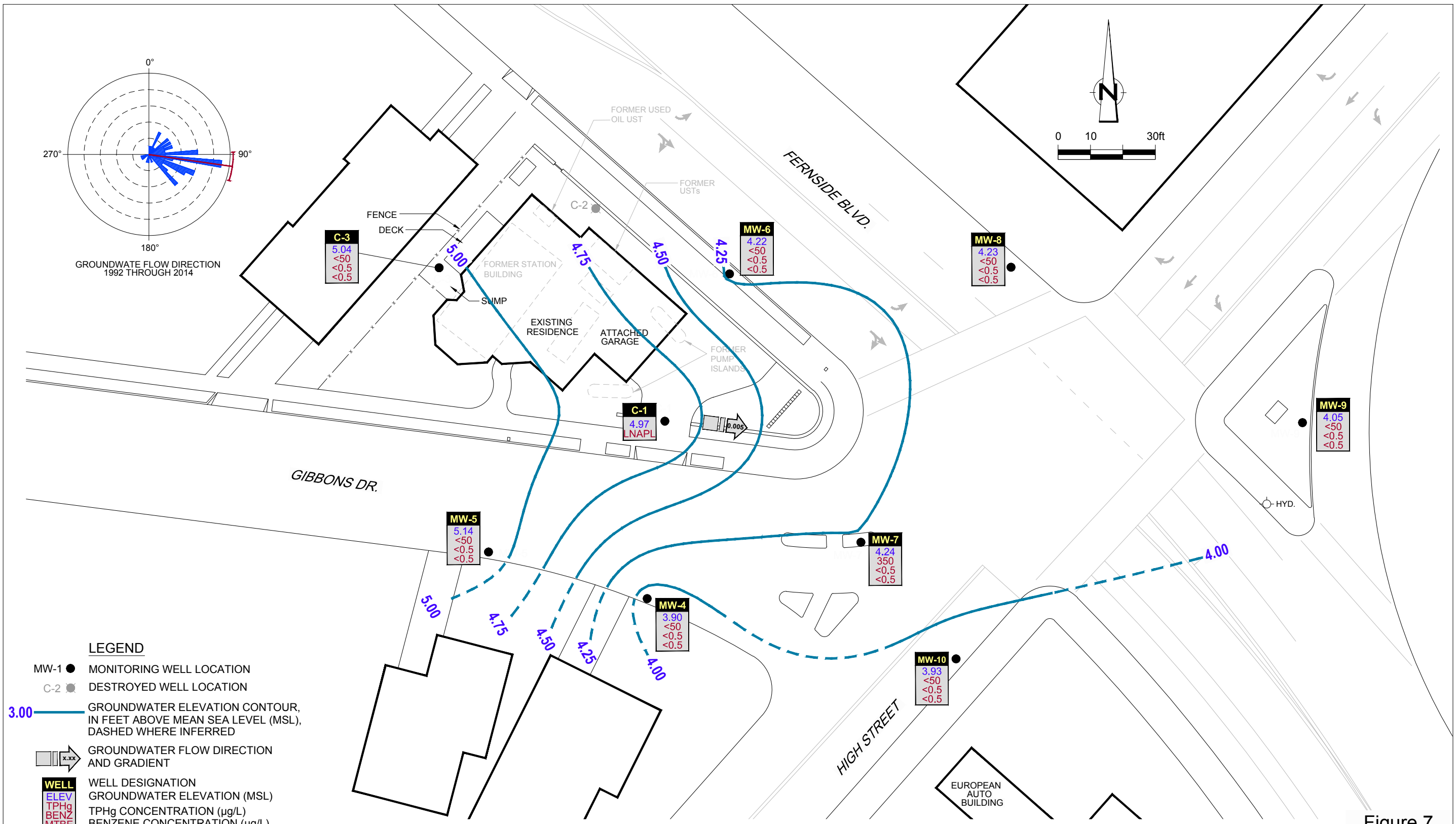
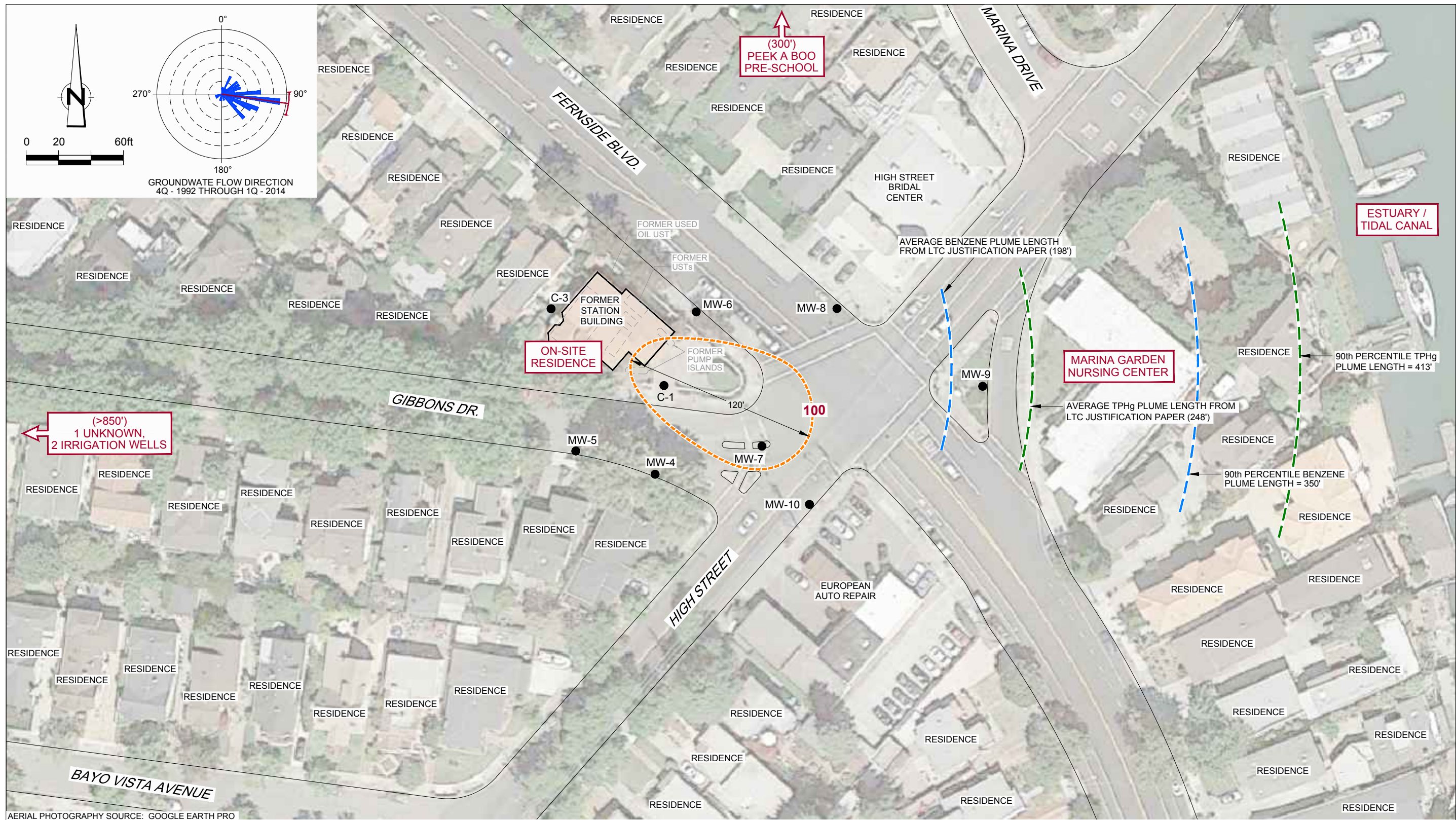


Figure 7
GROUNDWATER ELEVATION AND HYDROCARBON CONCENTRATION MAP
 FORMER CHEVRON SERVICE STATION 91153
 3135 GIBBONS DRIVE (3126 FERNSIDE BLVD)
 Alameda, California
 March 31, 2014





AERIAL PHOTOGRAPHY SOURCE: GOOGLE EARTH PRO

LEGEND

- MW-1 ● MONITORING WELL LOCATION
- 100 ——— TPH CONCENTRATION CONTOUR IN GROUNDWATER IN MICROGRAMS PER LITER (µg/L)
- ▭ POTENTIAL SENSITIVE RECEPTOR


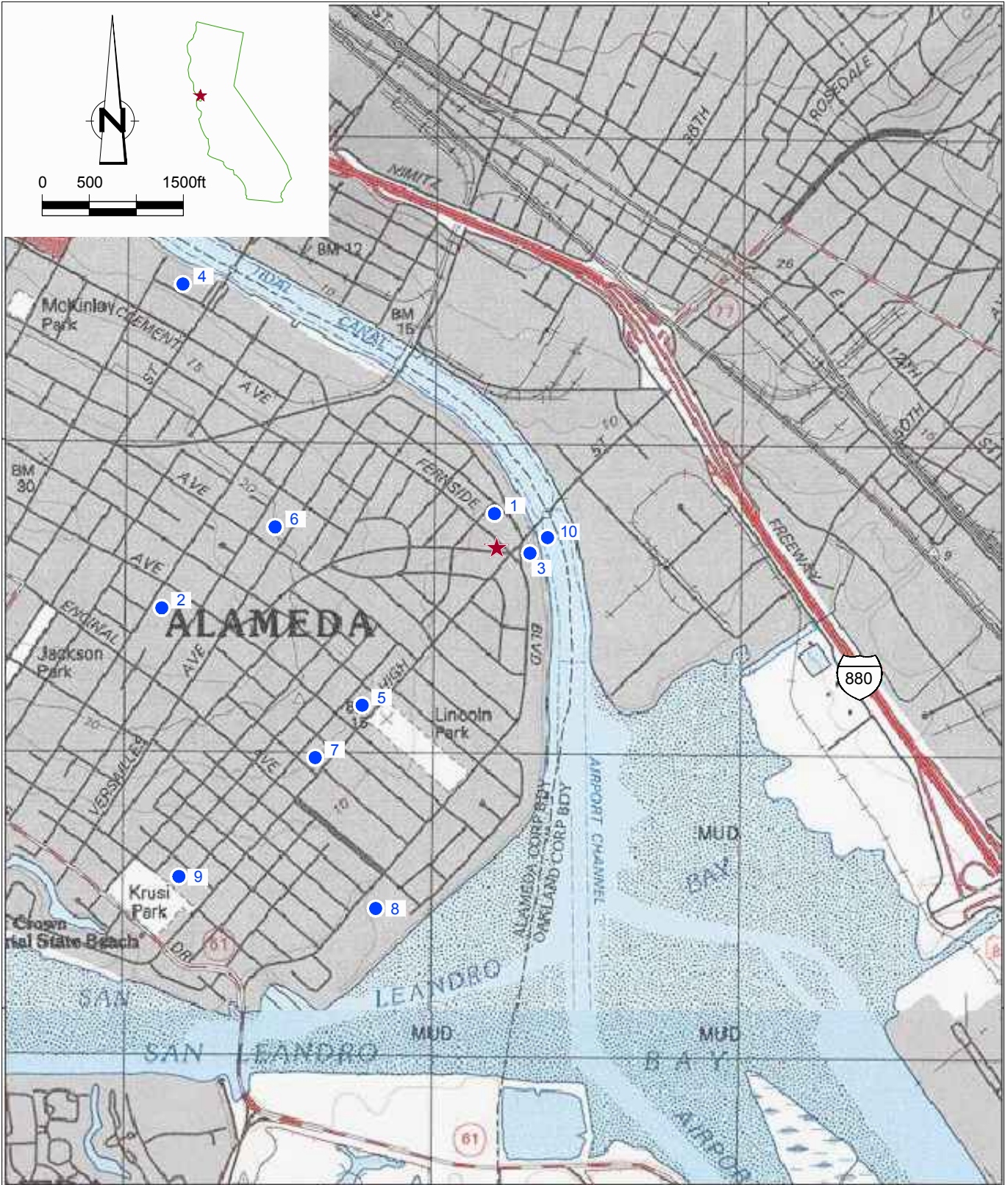


Figure 8
POTENTIAL RECEPTORS AND GROUNDWATER PLUME
FORMER CHEVRON SERVICE STATION 91153
3135 GIBBONS DRIVE (3126 FERNSIDE BLVD)
Alameda, California



LEGEND

- ★ SITE LOCATION
- 1 ● SENSITIVE RECEPTOR

Figure 9

POTENTIAL SENSITIVE RECEPTORS MAP
FORMER CHEVRON SERVICE STATION 91153
3135 GIBBONS DRIVE (3126 FERNSIDE BLVD)
Alameda, California



Tables

**TABLE 1
CUMULATIVE SOIL ANALYTICAL DATA
FORMER CHEVRON STATION 91153
3135 GIBBONS DRIVE (3126 FERNSIDE BOULEVARD), ALAMEDA, CALIFORNIA**

Sample ID	Date	Depth (fbg)	TPH		TPHd	TPHg	Benzene	Toluene	Ethyl- benzene	Total Xylenes	MTBE	Lead	EDB	1,2-DCA	Naph- thalene	PAHs
			Used-Oil	TPH												

Low-Threat Underground Storage Tank Case Closure Criteria^b

Vapor Intrusion to Indoor Air (0-10 fbg) (No LNAPL)		--	--	--	100	--	--	--	--	--	--	--	--	--	--	--
Direct Contact (0-5 fbg)	Residential	--	--	--	--	1.9	--	21	--	--	--	--	--	--	9.7	0.063
	Commercial	--	--	--	--	8.2	--	89	--	--	--	--	--	--	45	0.68
Volatilization to Outdoor Air (5-10 fbg)	Residential	--	--	--	--	2.8	--	32	--	--	--	--	--	--	9.7	NA
	Commercial	--	--	--	--	12	--	134	--	--	--	--	--	--	45	NA
Diret Contact (0-10 fbg)	Utility Worker	--	--	--	--	14	--	314	--	--	--	--	--	--	219	4.5

Soil Borings

B-1	1/18/2012	3	<10	<10	6.2	<9.3	<0.0005	<0.001	<0.001	<0.001	<0.0005	--	<0.001	<0.001	--	--
B-1	1/18/2012	5	31	31	850	2,900	2.4	1.1	100	290	<0.023	--	<0.046	<0.046	--	--
B-1	1/18/2012	9.5	<10	<10	<4.0	8.2	0.027	<0.050	0.11	0.27	<0.025	--	<0.050	<0.050	--	--
B-2	1/18/2012	3	<10	<10	5.7	<1.0	0.0006	<0.001	<0.001	<0.001	<0.0006	--	<0.001	<0.001	--	--
B-2	1/18/2012	4.5	110	110	41	2.2	<0.0005	<0.001	<0.001	<0.001	<0.0005	--	<0.001	<0.001	--	--
B-3	1/18/2012	3	16	16	440	3,200	31	350	110	630	<0.25	--	<0.50	<0.50	--	--
B-3	1/18/2012	4.5	<10	<10	110	1,700	25	240	72	370	<0.05	--	<0.50	<0.50	--	--
B-3	1/18/2012	7.5	<10	<10	<4.0	110	1.2	2.6	1.4	7.1	<0.025	--	<0.051	<0.051	--	--
B-3	1/18/2012	9.5	<10	<10	4.4	24	0.29	2.2	0.86	4.7	<0.024	--	<0.048	<0.048	--	--
B-4	1/18/2012	3	<10	<10	59	600	5.9	4.4	6.6	24	<0.026	--	<0.053	<0.053	--	--
B-4	1/18/2012	6	<10	<10	540	980	11	0.15	1.1	0.81	<0.028	--	<0.055	<0.055	--	--
B-4	1/18/2012	9.5	<10	<10	<4.0	7.4	0.074	0.13	0.2	0.81	<0.026	--	<0.051	<0.051	--	--
B-5	1/18/2012	3	51	51	1,300	5,200	6.3	43	110	570	<0.26	--	<0.52	<0.52	--	--
B-5	1/18/2012	4.5	36	36	1,600	6,000	1.4	1.8	180	240	<0.47	--	<0.93	<0.93	--	--
B-5	1/18/2012	6	<10	<10	19	160	0.034	0.77	1.3	401	<0.024	--	<0.048	<0.048	--	--
B-5	1/18/2012	9.5	<10	<10	4.2	23	<0.026	0.024	0.028	1.1	<0.026	--	<0.051	<0.051	--	--

**TABLE 1
CUMULATIVE SOIL ANALYTICAL DATA
FORMER CHEVRON STATION 91153
3135 GIBBONS DRIVE (3126 FERNSIDE BOULEVARD), ALAMEDA, CALIFORNIA**

Sample ID	Date	Depth (fbg)	TPH				Benzene	Toluene	Ethyl- benzene	Total Xylenes	MTBE	Lead	EDB	1,2-DCA	Naph- thalene	PAHs
			Used-Oil	TPH	TPHd	TPHg										
Low-Threat Underground Storage Tank Case Closure Criteria ^b																
Vapor Intrusion to Indoor Air (0-10 fbg) (No LNAPL)			--	--	--	100	--	--	--	--	--	--	--	--	--	
Direct Contact (0-5 fbg)	Residential	--	--	--	--	1.9	--	21	--	--	--	--	--	9.7	0.063	
	Commercial	--	--	--	--	8.2	--	89	--	--	--	--	--	45	0.68	
Volatilization to Outdoor Air (5-10 fbg)	Residential	--	--	--	--	2.8	--	32	--	--	--	--	--	9.7	NA	
	Commercial	--	--	--	--	12	--	134	--	--	--	--	--	45	NA	
Diret Contact (0-10 fbg)	Utility Worker	--	--	--	--	14	--	314	--	--	--	--	--	219	4.5	
B-6	1/18/2012	3	37	37	420	2,100	3.1	64	59	350	<0.10	--	<0.20	<0.20	--	--
B-6	1/18/2012	4.5	<10	<10	110	1,800	3.9	72	47	260	<0.10	--	<0.20	<0.20	--	--
B-6	1/18/2012	6	<10	<10	<4.0	1.5	0.21	0.006	0.006	0.017	<0.0005	--	<0.001	<0.001	--	--
B-6	1/18/2012	9.5	<10	<10	<4.0	24	0.1	2.2	2	12	<0.027	--	<0.053	<0.053	--	--
B-7	1/18/2012	3.0	45	45	21	<1.0	<0.0005	<0.001	<0.001	0.001	<0.0005	--	<0.001	<0.001	--	--
B-7	1/18/2012	6.0	67	67	28	<1.0	<0.0005	<0.001	<0.001	0.001	<0.0005	--	<0.001	<0.001	--	--
B-8	1/18/2012	3.0	220	220	47	<10	<0.0005	<0.001	<0.001	<0.001	<0.0005	--	<0.001	<0.001	--	--
B-8	1/18/2012	5.0	39	39	24	<1.0	<0.0005	<0.001	<0.001	<0.001	<0.0005	--	<0.001	<0.001	--	--
Soil Samples																
S1	9/17/1997	Surface	--	--	--	<1.0	<0.0050	<0.0050	<0.0050	<0.0050	<0.025	85	--	--	--	--
S1	9/17/1997	1.5	--	--	--	<1.0	0.029	<0.0050	<0.0050	<0.0050	<0.025	13	--	--	--	--
S2	9/17/1997	Surface	--	--	--	<1.0	<0.0050	<0.0050	<0.0050	<0.0050	<0.025	160	--	--	--	--
S2	9/17/1997	1.5	--	--	--	<1.0	<0.0050	<0.0050	<0.0050	<0.0050	<0.025	6.7	--	--	--	--
S3	9/17/1997	Surface	--	--	--	<1.0	<0.0050	<0.0050	<0.0050	<0.0050	<0.025	140	--	--	--	--
S3	9/17/1997	1.5	--	--	--	19	0.12	0.28	0.3	1.4	0.11	12	--	--	--	--
S4	9/17/1997	Surface	--	--	--	<1.0	<0.0050	<0.0050	<0.0050	<0.0050	<0.025	200	--	--	--	--
S4	9/17/1997	1.5	--	--	--	<1.0	<0.0050	<0.0050	<0.0050	<0.0050	<0.025	16	--	--	--	--

**TABLE 1
CUMULATIVE SOIL ANALYTICAL DATA
FORMER CHEVRON STATION 91153
3135 GIBBONS DRIVE (3126 FERNSIDE BOULEVARD), ALAMEDA, CALIFORNIA**

Sample ID	Date	Depth (fbg)	TPH				Benzene	Toluene	Ethyl- benzene	Total Xylenes	MTBE	Lead	EDB	1,2-DCA	Naph- thalene	PAHs
			Used-Oil	TPH	TPHd	TPHg										

Low-Threat Underground Storage Tank Case Closure Criteria^b

Vapor Intrusion to Indoor Air (0-10 fbg) (No LNAPL)		--	--	--	100	--	--	--	--	--	--	--	--	--	--
Direct Contact (0-5 fbg)	Residential	--	--	--	--	1.9	--	21	--	--	--	--	--	9.7	0.063
	Commercial	--	--	--	--	8.2	--	89	--	--	--	--	--	45	0.68
Volatilization to Outdoor Air (5-10 fbg)	Residential	--	--	--	--	2.8	--	32	--	--	--	--	--	9.7	NA
	Commercial	--	--	--	--	12	--	134	--	--	--	--	--	45	NA
Direct Contact (0-10 fbg)	Utility Worker	--	--	--	--	14	--	314	--	--	--	--	--	219	4.5

S5	9/17/1997	Surface	--	--	--	<1.0	<0.0050	<0.0050	<0.0050	0.0078	<0.025	110	--	--	--	--
S5	9/17/1997	1.5	--	--	--	<1.0	<0.0050	<0.0050	<0.0050	<0.0050	<0.025	15	--	--	--	--
S6	9/17/1997	Surface	--	--	--	<1.0	<0.0050	<0.0050	<0.0050	<0.0050	<0.025	38	--	--	--	--
S6	9/17/1997	1.5	--	--	--	<1.0	<0.0050	<0.0050	<0.0050	<0.0050	<0.025	15	--	--	--	--
S7	9/17/1997	Surface	--	--	--	<1.0	<0.0050	<0.0050	<0.0050	<0.0050	<0.025	35	--	--	--	--
S7	9/17/1997	1.5	--	--	--	<1.0	<0.0050	<0.0050	<0.0050	<0.0050	<0.025	a	--	--	--	--
S8	9/17/1997	Surface	--	--	--	<1.0	<0.0050	<0.0050	<0.0050	<0.0050	<0.025	a	--	--	--	--
S8	9/17/1997	1.5	--	--	--	4.9	<0.0050	<0.0050	0.011	0.048	<0.025	a	--	--	--	--
S9	9/17/1997	Surface	--	--	--	<1.0	<0.0050	<0.0050	<0.0050	<0.0050	<0.025	a	--	--	--	--
S9	9/17/1997	1.5	--	--	--	<1.0	<0.0050	<0.0050	<0.0050	<0.0050	<0.025	a	--	--	--	--
S10	9/17/1997	Surface	--	--	--	<1.0	<0.0050	<0.0050	<0.0050	<0.0050	<0.025	a	--	--	--	--
S10	9/17/1997	1.5	--	--	--	<1.0	<0.0050	<0.0050	<0.0050	<0.0050	<0.025	a	--	--	--	--
S11	9/17/1997	Surface	--	--	--	<1.0	<0.0050	<0.0050	<0.0050	<0.0050	<0.025	a	--	--	--	--
S11	9/17/1997	1.5	--	--	--	<1.0	<0.0050	<0.0050	<0.0050	<0.0050	<0.025	a	--	--	--	--
S12	9/17/1997	Surface	--	--	--	<1.0	<0.0050	<0.0050	<0.0050	<0.0050	<0.025	a	--	--	--	--
S12	9/17/1997	1.5	--	--	--	<1.0	<0.0050	<0.0050	<0.0050	<0.0050	<0.025	a	--	--	--	--
S13	9/17/1997	Surface	--	--	--	<1.0	<0.0050	<0.0050	<0.0050	<0.0050	<0.025	a	--	--	--	--
S13	9/17/1997	1.5	--	--	--	<1.0	<0.0050	<0.0050	<0.0050	<0.0050	<0.025	a	--	--	--	--
S14	9/17/1997	Surface	--	--	--	<1.0	<0.0050	<0.0050	<0.0050	<0.0050	<0.025	a	--	--	--	--
S14	9/17/1997	1.5	--	--	--	<1.0	<0.0050	<0.0050	<0.0050	<0.0050	<0.025	20	--	--	--	--

TABLE 1
CUMULATIVE SOIL ANALYTICAL DATA
FORMER CHEVRON STATION 91153
3135 GIBBONS DRIVE (3126 FERNSIDE BOULEVARD), ALAMEDA, CALIFORNIA

Sample ID	Date	Depth (fbg)	TPH				Benzene	Toluene	Ethyl- benzene	Total Xylenes	MTBE	Lead	EDB	1,2-DCA	Naph- thalene	PAHs
			Used-Oil	TPH	TPHd	TPHg										
Low-Threat Underground Storage Tank Case Closure Criteria^b																
Vapor Intrusion to Indoor Air (0-10 fbg) (No LNAPL)			--	--	--	100	--	--	--	--	--	--	--	--	--	
Direct Contact (0-5 fbg)	Residential	--	--	--	--	1.9	--	21	--	--	--	--	--	9.7	0.063	
	Commercial	--	--	--	--	8.2	--	89	--	--	--	--	--	45	0.68	
Volatilization to Outdoor Air (5-10 fbg)	Residential	--	--	--	--	2.8	--	32	--	--	--	--	--	9.7	NA	
	Commercial	--	--	--	--	12	--	134	--	--	--	--	--	45	NA	
Diret Contact (0-10 fbg)	Utility Worker	--	--	--	--	14	--	314	--	--	--	--	--	219	4.5	
S15	9/17/1997	Surface	--	--	--	1.6	<0.0050	<0.0050	<0.0050	<0.0050	<0.025	40	--	--	--	
S15	9/17/1997	1.5	--	--	--	3.5	<0.0050	<0.0050	<0.0050	<0.0050	<0.025	12	--	--	--	
Monitoring Wells																
MW-4	5/15/1992	3	--	--	--	<1	<0.005	<0.005	<0.005	<0.005	--	--	--	--	--	
MW-5	5/15/1992	3	--	--	--	<1	<0.005	<0.005	<0.005	<0.005	--	--	--	--	--	
MW-6	5/15/1992	3	--	--	--	<1	<0.005	<0.005	<0.005	<0.005	--	--	--	--	--	
MW-7	11/11/1993	5	--	--	--	63	1.3	0.67	1.6	4.6	--	--	--	--	--	
TMW-1	11/11/1993	5	--	--	--	<1.0	<0.0050	<0.0050	<0.0050	<0.017	--	--	--	--	--	
MW-8	10/13/1995	5	--	--	--	<1.0	<0.0050	<0.0050	<0.0050	<0.0050	--	--	--	--	--	
MW-9	10/13/1995	5	--	--	--	<1.0	<0.0050	<0.0050	<0.0050	<0.0050	--	--	--	--	--	
MW-10	10/13/1995	5	--	--	--	<1.0	<0.0050	<0.0050	<0.0050	<0.0050	--	--	--	--	--	
Soil Borings																
SB1	6/27/1989	1	--	0.43	--	--	0.002	<0.001	0.001	0.008	--	--	--	--	--	
SB1 (Duplicate)	6/27/1989	1	--	--	--	--	0.001	<0.001	<0.001	0.008	--	--	--	--	--	
SB1	6/27/1989	4.5	--	5,500	--	--	18	111	37	149	--	--	--	--	--	
SB1	6/27/1989	6	--	65	--	--	1	2.200	0.540	1.930	--	--	--	--	--	
SB1	6/27/1989	9.5	--	10	--	--	0.170	0.460	0.140	0.530	--	--	--	--	--	

**TABLE 1
CUMULATIVE SOIL ANALYTICAL DATA
FORMER CHEVRON STATION 91153
3135 GIBBONS DRIVE (3126 FERNSIDE BOULEVARD), ALAMEDA, CALIFORNIA**

Sample ID	Date	Depth (fbg)	TPH				Benzene	Toluene	Ethyl- benzene	Total Xylenes	MTBE	Lead	EDB	1,2-DCA	Naph- thalene	PAHs
			Used-Oil	TPH	TPHd	TPHg										
<i>Low-Threat Underground Storage Tank Case Closure Criteria^b</i>																
Vapor Intrusion to Indoor Air (0-10 fbg) (No LNAPL)			--	--	--	100	--	--	--	--	--	--	--	--	--	
Direct Contact (0-5 fbg)	Residential	--	--	--	--	1.9	--	21	--	--	--	--	--	9.7	0.063	
	Commercial	--	--	--	--	8.2	--	89	--	--	--	--	--	45	0.68	
Volatilization to Outdoor Air (5-10 fbg)	Residential	--	--	--	--	2.8	--	32	--	--	--	--	--	9.7	NA	
	Commercial	--	--	--	--	12	--	134	--	--	--	--	--	45	NA	
Diret Contact (0-10 fbg)	Utility Worker	--	--	--	--	14	--	314	--	--	--	--	--	219	4.5	
SB2	6/27/1989	1	--	<0.05	--	--	0.009	0.024	0.010	0.026	--	--	--	--	--	
SB2 (Duplicate)	6/27/1989	1	--	<0.05	--	--	--	--	--	--	--	--	--	--	--	
SB2	6/27/1989	4	--	1,500	--	--	45	230	78	283	--	--	--	--	--	
SB2	6/27/1989	6	--	4.7	--	--	0.470	1.300	0.310	1.120	--	--	--	--	--	
SB3	6/27/1989	0.5	--	0.07	--	--	<0.001	<0.001	<0.001	<0.001	--	--	--	--	--	
SB3	6/27/1989	3.5	--	850	--	--	2.400	3.200	5.300	17.8	--	--	--	--	--	
SB4	6/29/1989	1	--	<0.05	--	--	<0.001	<0.001	<0.001	<0.001	--	--	--	--	--	
SB4 (Duplicate)	6/29/1989	1	--	<0.05	--	--	--	--	--	--	--	--	--	--	--	
SB4	6/29/1989	4	--	<0.05	--	--	<0.001	<0.001	<0.001	<0.001	--	--	--	--	--	
SB4	6/29/1989	7	--	<0.05	--	--	<0.001	<0.001	<0.001	<0.001	--	--	--	--	--	
SB5	6/29/1989	0.5	--	0.25	--	--	0.019	0.017	0.019	0.153	--	--	--	--	--	
SB5 (Duplicate)	6/29/1989	0.5	--	--	--	--	0.020	0.021	0.023	0.178	--	--	--	--	--	
SB5	6/29/1989	4	--	1,700	--	--	15	81	30	108	--	--	--	--	--	
SB5 (Duplicate)	6/29/1989	4	--	1,600	--	--	--	--	--	--	--	--	--	--	--	
SB5	6/29/1989	6	--	470	--	--	0.260	1.900	1.400	5.200	--	--	--	--	--	
SB6	6/28/1989	3.5	--	15	--	--	0.026	0.100	0.160	0.370	--	--	--	--	--	

**TABLE 1
CUMULATIVE SOIL ANALYTICAL DATA
FORMER CHEVRON STATION 91153
3135 GIBBONS DRIVE (3126 FERNSIDE BOULEVARD), ALAMEDA, CALIFORNIA**

Sample ID	Date	Depth (fbg)	TPH				Benzene	Toluene	Ethyl- benzene	Total Xylenes	MTBE	Lead	EDB	1,2-DCA	Naph- thalene	PAHs
			Used-Oil	TPH	TPHd	TPHg										
Low-Threat Underground Storage Tank Case Closure Criteria^b																
Vapor Intrusion to Indoor Air (0-10 fbg) (No LNAPL)			--	--	--	100	--	--	--	--	--	--	--	--	--	
Direct Contact (0-5 fbg)	Residential	--	--	--	--	1.9	--	21	--	--	--	--	--	9.7	0.063	
	Commercial	--	--	--	--	8.2	--	89	--	--	--	--	--	45	0.68	
Volatilization to Outdoor Air (5-10 fbg)	Residential	--	--	--	--	2.8	--	32	--	--	--	--	--	9.7	NA	
	Commercial	--	--	--	--	12	--	134	--	--	--	--	--	45	NA	
Diret Contact (0-10 fbg)	Utility Worker	--	--	--	--	14	--	314	--	--	--	--	--	219	4.5	
SB7	6/28/1989	4	--	<0.05	--	--	0.002	<0.001	<0.001	<0.001	--	--	--	--	--	
SB7 (Duplicate)	6/28/1989	4	--	--	--	--	0.002	<0.001	<0.001	<0.001	--	--	--	--	--	
SB8	6/29/1989	3	--	<0.05	--	--	<0.001	<0.001	<0.001	<0.001	--	--	--	--	--	
UST/Excavation Samples																
1	6/4/1986	11	--	--	--	<1	--	--	--	--	--	--	--	--	--	
2	6/4/1986	12	--	--	--	<1	--	--	--	--	--	--	--	--	--	
3	6/4/1986	10	--	--	--	<1	--	--	--	--	--	--	--	--	--	
4	6/4/1986	10.5	--	--	--	<1	--	--	--	--	--	--	--	--	--	
6	6/4/1986	8	<11	--	--	--	--	--	--	--	--	--	--	--	--	
10	6/4/1986	10	--	--	--	<1	--	--	--	--	--	--	--	--	--	
11	6/4/1986	12	--	--	--	<1	--	--	--	--	--	--	--	--	--	
12	6/4/1986	10	<11	--	--	--	--	--	--	--	--	--	--	--	--	

**TABLE 1
CUMULATIVE SOIL ANALYTICAL DATA
FORMER CHEVRON STATION 91153
3135 GIBBONS DRIVE (3126 FERNSIDE BOULEVARD), ALAMEDA, CALIFORNIA**

Sample ID	Date	Depth (fbg)	TPH		TPHd	TPHg	Benzene	Toluene	Ethyl- benzene	Total Xylenes	MTBE	Lead	EDB	1,2-DCA	Naph- thalene	PAHs
			Used-Oil	TPH												

Low-Threat Underground Storage Tank Case Closure Criteria^b

Vapor Intrusion to Indoor Air (0-10 fbg) (No LNAPL)		--	--	--	100	--	--	--	--	--	--	--	--	--	--	--
Direct Contact (0-5 fbg)	Residential	--	--	--	--	1.9	--	21	--	--	--	--	--	--	9.7	0.063
	Commercial	--	--	--	--	8.2	--	89	--	--	--	--	--	--	45	0.68
Volatilization to Outdoor Air (5-10 fbg)	Residential	--	--	--	--	2.8	--	32	--	--	--	--	--	--	9.7	NA
	Commercial	--	--	--	--	12	--	134	--	--	--	--	--	--	45	NA
Diret Contact (0-10 fbg)	Utility Worker	--	--	--	--	14	--	314	--	--	--	--	--	--	219	4.5

Explanation:

- fbg = feet below grade
- TPHg = Total petroleum hydrocarbons as gasoline by EPA Method 8015
- TPH used-oil by EPA Method 3510
- BTEX = Benzene, toluene, ethylbenzene, xylene by EPA Method 8020
- MTBE = methyl tertiary butyl ether
- <x.xx = Not present above laboratory detection limit
- a = results could not be located
- b The Low Threat Underground Storage Tank Case Closure Policy was established in 2012 by the State Water Board to provide standard statewide closure criteria for low threat UST sites that are subject to Chapter 6.7 of Division 20 of the Health and Safety Code and Chapter 16 of Division 3 of Title 23 of the California Code of Regulations

TABLE 3
WELL CONSTRUCTION DETAILS
FORMER CHEVRON STATION 91153
3135 GIBBONS DRIVE (3126 FERNSIDE BOULEVARD), ALAMEDA, CALIFORNIA

<i>Well ID</i>	<i>Date Installed</i>	<i>TOC</i>	<i>Total Depth (fbg)</i>	<i>Borehole Diameter (inches)</i>	<i>Casing Diameter* (inches)</i>	<i>Slot Size (inches)</i>	<i>Screen Interval (fbg)</i>	<i>Filter Pack (fbg)</i>	<i>Status</i>
C-1	8/18/1986	7.50	22.5	8	3	0.020	2-22	1.5-22	Active
C-3	8/18/1986	7.83	22	8	3	0.020	2-22	1.5-22	Active
MW-4	5/15/1992	7.01	16.5	8	2	0.020	2.5-15	3-16.5	Active
MW-5	5/15/1992	7.04	16.5	8	2	0.020	3-15	2.5-16.5	Active
MW-6	5/15/1992	7.27	16.5	8	2	0.020	3-15	2.5-16.5	Active
MW-7	11/11/1993	7.92	15	8	2	0.020	3-15	2.5-15	Active
MW-8	10/13/1995	6.96	9	6.25	2	0.020	3-9	2-9	Active
MW-9	10/13/1995	7.21	9	6.25	2	0.020	3-9	2-9	Active
MW-10	10/13/1995	7.28	9	6	2	0.020	3-9	2-9	Active

Abbreviations & Notes

TOC = Top of casing elevation (feet above mean sea level)

fbg = Feet below grade

* = Casing material: Schedule 40 PVC

NA = Not available

TABLE 3
FORMER CHEVRON SERVICE STATION 91153
3135 GIBBONS DRIVE (3126 FERNSIDE BOULEVARD),
ALAMEDA, CALIFORNIA

<i>Sample ID</i>	<i>Date</i>	<i>TPH</i>	<i>Benzene</i>	<i>Toluene</i>	<i>Ethylbenzene</i>	<i>Total Xylenes</i>	<i>MTBE</i>
<i>micrograms per liter (µg/L)</i>							
ESL Table F-1a: Groundwater is a potential drinking water resource		100	1	40	30	20	5
#5 (UST pit sample)	6/4/1996	130,000	--	--	--	--	--
SB1	06/27/89	110,000	52,000	64,000	6,700	23,700	--
SB2	06/28/89	160,000	30,000	59,000	6,600	26,200	--
SB4	06/29/89	<50	<1	<1	<1	<1	--
SB5	06/29/89	110,000	27,000	22,000	4,600	13,400	--
SB6	06/27/89	74,000	12,000	7,400	2,500	7,100	--
SB7	06/28/89	50,000	14,000	6,800	3,300	8,200	--
SB8	06/29/89	<50	<1	<1	<1	<1	--
BH-A	03/09/93	160	6.4	1.6	1.0	3.2	--
BH-B	03/09/93	<50	2.1	<0.5	<0.5	<0.5	--
BH-C	03/09/93	190,000	3,200	830	6,000	1,500	--
TMW-1	11/11/93	<1	<0.5	<0.5	<0.5	<0.5	--

Explanation:

TPH = Total Petroleum Hydrocarbons by EPA Method 8015

Benzene, Toluene, Ethylbenzene, Xylenes by EPA Method 8015

MTBE = methyl tertiary butyl ether

-- = Not analyzed

<n = Not present above laboratory detection limit

2 = Environmental Screening Levels (ESLs) for shallow soil gas from Screening for Environmental Concerns at Sites with Contaminated Soil and Groundwater prepared by the California Regional Water Quality Control Board, San Francisco Bay Region Interim Final February 2013.

**TABLE 4
CUMULATIVE AIR AND SOIL GAS ANALYTICAL DATA
FORMER CHEVRON STATION 91153
3135 GIBBONS DRIVE (3126 FERNSIDE BOULEVARD), ALAMEDA, CALIFORNIA**

Sample ID	Date	Sample Depth (fbg)	TPHg	Benzene	Toluene	Ethyl-benzene	m,p-Xylene	o-Xylene	Total Xylenes ¹	MTBE	Naphthalene	(% Volume)				
												Oxygen	N ₂	CO ₂	Methane	He
<i>ESL Table E-3 Ambient and Indoor Air Screening Levels, Lowest Residential²</i>			290	0.084	310	0.97	100	100	100	9.4	0.072	NE	NE	NE	NE	NE
<i>LTCP Soil Gas Criteria - Residential³</i>			NE	85	NE	1,100	NE	NE	NE	NE	93	NE	NE	NE	NE	NE
CRA - Indoor Air/ Outdoor Air/ Crawl Space Air and Soil Vapor Sampling																
OA-1	09/19/13	--	<66	0.25 J	1.0	0.17	0.61	0.22	--	0.0075 J	<4.2	21	79	0.041	0.00020	<0.080
OA-1 DUP	09/19/13	--	<67	0.24 J	0.96	0.17	0.61	0.23	--	0.0062 J	<4.3	21	79	0.041	0.00022	<0.082
IA-1	09/19/13	--	150	0.60	3.4	0.95	2.9	0.98	--	0.0094 J	<4.4	21	79	0.064	0.00048	<0.084
IA-2	09/19/13	--	190	1.7	6.3	1.1	3.8	1.2	--	0.013 J	<4.6	21	79	0.052	0.00031	<0.087
IA-3	09/19/13	--	270	4.0	12	1.8	6.1	2.0	--	0.028 J	<4.8	21	79	0.048	0.00028	<0.091
CS-1	09/19/13	--	<67	0.18 J	0.52	0.089 J	0.30	0.12 J	--	<0.59	<4.3	21	79	0.039	0.00017	<0.082
CS-2	09/19/13	--	<67	0.28	0.94	0.16	0.54	0.21	--	0.012 J	<4.3	22	78	0.043	0.00022	<0.082
TB (6L)	09/19/13	--	<41	0.019J	0.011J	<0.087	<0.17	<0.087	--	<0.36	<2.6	22	78	0.043	0.00022	<0.082
SSVP-1	09/20/13	0.8	98,000,000	10,000 J	<36,000	<41,000	<41,000	<41,000	--	<34,000	13,000 J	1.5	69	15	12	<0.12
SSVP-2	09/20/13	0.8	120,000,000	20,000 J	8,700 J	<56,000	<56,000	<56,000	--	<47,000	10,000 J	1.3	66	15	15	<0.13
TB (1L)	09/20/13	--	<100	<1.6	1.8 J	<2.2	0.57J	<2.2	--	<1.8	<10	21	79	0.052J	<0.00070	<0.35
OA-1	01/26/12	--	<72	0.88	2.5	0.49	1.6	0.54	--	<0.63	<4.6	--	--	--	--	--
OA-1 DUP	01/26/12	--	<71	0.86	2.7	0.46	1.6	0.58	--	<0.62	<4.5	--	--	--	--	--
IA-1	01/26/12	--	410	5.1	21	3.4	11	3.4	--	<0.68	<4.9	--	--	--	--	--
IA-2	01/26/12	--	1,100	20	85	13	40	12	--	<0.59	<4.3	--	--	--	--	--
CS-1	01/26/12	--	<66	0.98	2.6	0.51	1.6	0.57	--	<0.58	<4.2	--	--	--	--	--
CS-2	01/26/12	--	94	1.0	3.0	0.59	1.9	0.68	--	<0.57	<4.1	--	--	--	--	--

**TABLE 4
 CUMULATIVE AIR AND SOIL GAS ANALYTICAL DATA
 FORMER CHEVRON STATION 91153
 3135 GIBBONS DRIVE (3126 FERNSIDE BOULEVARD), ALAMEDA, CALIFORNIA**

Sample ID	Date	Sample Depth (fbg)	TPHg	Benzene	Toluene	Ethyl-benzene	m,p-Xylene	o-Xylene	Total Xylenes ¹	MTBE	Naphthalene	(% Volume)				
												Oxygen	N ₂	CO ₂	Methane	He
<i>ESL Table E-3 Ambient and Indoor Air Screening Levels, Lowest Residential²</i>			290	0.084	310	0.97	100	100	100	9.4	0.072	NE	NE	NE	NE	NE
<i>LTCP Soil Gas Criteria - Residential³</i>			NE	85	NE	1,100	NE	NE	NE	NE	93	NE	NE	NE	NE	NE

Previous Consultants - Soil Vapor Sampling

Sample ID	Date	Sample Depth (fbg)	TPHg	Reported in ppm							Reported in ppm					
				Benzene	Toluene	Ethyl-benzene	m,p-Xylene	o-Xylene	Total Xylenes ¹	MTBE	Naphthalene	Oxygen	N ₂	CO ₂	Methane	He
V1/A	05/04/89	2.5	--	25	<1	<1	--	--	23	--	--	--	--	--	--	--
V1/B	05/04/89	4.5	--	<1	16	<1	--	--	1	--	--	--	--	--	--	--
V2/A	05/04/89	2.5	--	80	69	<1	--	--	17	--	--	--	--	--	--	--
V2/B	05/04/89	4.5	--	<1	<1	<1	--	--	<1	--	--	--	--	--	--	--
V3/A	05/04/89	2.5	--	<1	70	<1	--	--	1	--	--	--	--	--	--	--
V3/B	05/04/89	4.5	--	<1	<1	<1	--	--	<1	--	--	--	--	--	--	--
V4/A	05/04/89	2.5	--	<1	<1	<1	--	--	<1	--	--	--	--	--	--	--
V4/B	05/04/89	4.5	--	<1	<1	<1	--	--	<1	--	--	--	--	--	--	--
V5/A	05/04/89	2.5	--	250	2,400	450	--	--	2,400	--	--	--	--	--	--	--
V5/B	05/04/89	2.5	--	8	83	<1	--	--	51	--	--	--	--	--	--	--
V6/A	05/04/89	2	--	<1	<1	3	--	--	<1	--	--	--	--	--	--	--
V6/B	05/04/89	3	--	34	39	10	--	--	12	--	--	--	--	--	--	--
V7	05/04/89	2.5	--	2,200	2,700	43	--	--	200	--	--	--	--	--	--	--
V8/A	05/04/89	2.5	--	1	<1	<1	--	--	<1	--	--	--	--	--	--	--
V8/B	05/04/89	4.5	--	1	<1	--	--	--	--	--	--	--	--	--	--	--
V9-HS	05/04/89	3	--	<1	<1	<1	--	--	<1	--	--	--	--	--	--	--
V10/A	05/04/89	2.5	--	1	1	<1	--	--	<1	--	--	--	--	--	--	--
V10/B	05/04/89	4.5	--	1	1	<1	--	--	<1	--	--	--	--	--	--	--
V11/A	05/04/89	3	--	0.5	1	<1	--	--	<1	--	--	--	--	--	--	--
V11/B	05/04/89	4.5	--	2	5	<1	--	--	2	--	--	--	--	--	--	--

**TABLE 4
 CUMULATIVE AIR AND SOIL GAS ANALYTICAL DATA
 FORMER CHEVRON STATION 91153
 3135 GIBBONS DRIVE (3126 FERNSIDE BOULEVARD), ALAMEDA, CALIFORNIA**

Sample ID	Date	Sample Depth (fbg)	TPHg	Benzene	Toluene	Ethyl-benzene	m,p-Xylene	o-Xylene	Total Xylenes ¹	MTBE	Naphthalene	(% Volume)				
												Oxygen	N ₂	CO ₂	Methane	He
ESL Table E-3 Ambient and Indoor Air Screening Levels, Lowest Residential²			290	0.084	310	0.97	100	100	100	9.4	0.072	NE	NE	NE	NE	NE
LTCP Soil Gas Criteria - Residential³			NE	85	NE	1,100	NE	NE	NE	NE	93	NE	NE	NE	NE	NE
V12/A	05/04/89	2.5	--	<1	<1	<1	--	--	<1	--	--	--	--	--	--	--
V12/B	05/04/89	4.5	--	<1	<1	<1	--	--	<1	--	--	--	--	--	--	--
V13/A	05/04/89	3	--	<1	<1	<1	--	--	<1	--	--	--	--	--	--	--
V13/B	05/04/89	4.5	--	<1	1	<1	--	--	<1	--	--	--	--	--	--	--
V14	05/04/89	2.5	--	360	310	69	--	--	340	--	--	--	--	--	--	--
V15	05/04/89	2.5	--	8	7	<1	--	--	<1	--	--	--	--	--	--	--
V16	05/04/89	2.25	--	<1	<1	<1	--	--	<1	--	--	--	--	--	--	--
V17	05/10/89	2.5	--	2,300	2,500	150	--	--	670	--	--	--	--	--	--	--
V18	05/10/89	2.5	--	490	220	10	--	--	32	--	--	--	--	--	--	--
V19/A	05/10/89	25	--	<1	<1	<1	--	--	<1	--	--	--	--	--	--	--
V19/B	05/10/89	4.5	--	<1	<1	<1	--	--	<1	--	--	--	--	--	--	--
V20/A	05/10/89	2.5	--	<1	<1	<1	--	--	<1	--	--	--	--	--	--	--
V20/B	05/10/89	4	--	<1	<1	<1	--	--	<1	--	--	--	--	--	--	--
V21/A	05/10/89	2.5	--	<1	<1	<1	--	--	<1	--	--	--	--	--	--	--
V21/B	05/10/89	4	--	<1	<1	<1	--	--	<1	--	--	--	--	--	--	--
V22	05/10/89	2.5	--	7	3	<1	--	--	<1	--	--	--	--	--	--	--
V23	05/10/89	2	--	<1	1	<1	--	--	<1	--	--	--	--	--	--	--
V24/A	05/10/89	2.5	--	<1	<1	<1	--	--	<1	--	--	--	--	--	--	--
V24/B	05/10/89	4	--	<1	<1	<1	--	--	<1	--	--	--	--	--	--	--
V24-HS	05/10/89	4	--	140	500	48	--	--	340	--	--	--	--	--	--	--
V24/C	05/10/89	3.5	--	<1	<1	<1	--	--	<1	--	--	--	--	--	--	--
V25	05/10/89	2.5	--	<1	<1	<1	--	--	<1	--	--	--	--	--	--	--

**TABLE 4
 CUMULATIVE AIR AND SOIL GAS ANALYTICAL DATA
 FORMER CHEVRON STATION 91153
 3135 GIBBONS DRIVE (3126 FERNSIDE BOULEVARD), ALAMEDA, CALIFORNIA**

Sample ID	Date	Sample Depth (fbg)	TPHg	Benzene	Toluene	Ethyl-benzene	m,p-Xylene	o-Xylene	Total Xylenes ¹	MTBE	Naphthalene	(% Volume)				
												Oxygen	N ₂	CO ₂	Methane	He
ESL Table E-3 Ambient and Indoor Air Screening Levels, Lowest Residential²			290	0.084	310	0.97	100	100	100	9.4	0.072	NE	NE	NE	NE	NE
LTCP Soil Gas Criteria - Residential³			NE	85	NE	1,100	NE	NE	NE	NE	93	NE	NE	NE	NE	NE
V26	05/10/89	2	--	1	<1	<1	--	--	<1	--	--	--	--	--	--	--
V27	05/10/89	0	--	<1	<1	<1	--	--	<1	--	--	--	--	--	--	--
V27/A	05/10/89	2	--	<1	<1	<1	--	--	<1	--	--	--	--	--	--	--
V27/B	05/10/89	4	--	<1	15	<1	--	--	<1	--	--	--	--	--	--	--
V28/A	05/10/89	2	--	10	25	<1	--	--	42	--	--	--	--	--	--	--
V28/B	05/10/89	2.5	--	<1	1	<1	--	--	6	--	--	--	--	--	--	--
V29	05/10/89	2.5	--	5	49	<1	--	--	<1	--	--	--	--	--	--	--
V30	05/10/89	2	--	<1	<1	<1	--	--	<1	--	--	--	--	--	--	--
V31	05/10/89	2.5	--	<1	<1	<1	--	--	<1	--	--	--	--	--	--	--
V32	05/10/89	2.5	--	<1	<1	<1	--	--	<1	--	--	--	--	--	--	--
V1	07/21/87	3	--	110	30	--	--	--	--	--	--	--	--	--	--	--
V2	07/21/87	3	--	1,900	500	--	--	--	--	--	--	--	--	--	--	--
V3	07/21/87	3	--	120	50	--	--	--	--	--	--	--	--	--	--	--
V4	07/21/87	3	--	70	180	--	--	--	--	--	--	--	--	--	--	--
V5	07/21/87	3	--	<1	<1	--	--	--	--	--	--	--	--	--	--	--
V6	07/21/87	3	--	10	10	--	--	--	--	--	--	--	--	--	--	--
V7	07/21/87	3	--	<1	<1	--	--	--	--	--	--	--	--	--	--	--
V8	07/21/87	3	--	5	5	--	--	--	--	--	--	--	--	--	--	--
V9	07/21/87	3	--	<1	<1	--	--	--	--	--	--	--	--	--	--	--
V10	07/21/87	3	--	<1	<1	--	--	--	--	--	--	--	--	--	--	--
V11	07/21/87	3	--	<1	<1	--	--	--	--	--	--	--	--	--	--	--

**TABLE 4
 CUMULATIVE AIR AND SOIL GAS ANALYTICAL DATA
 FORMER CHEVRON STATION 91153
 3135 GIBBONS DRIVE (3126 FERNSIDE BOULEVARD), ALAMEDA, CALIFORNIA**

<i>Sample ID</i>	<i>Date</i>	<i>Sample Depth (fbg)</i>	<i>TPHg</i>	<i>Benzene</i>	<i>Toluene</i>	<i>Ethyl-benzene</i>	<i>m,p-Xylene</i>	<i>o-Xylene</i>	<i>Total Xylenes¹</i>	<i>MTBE</i>	<i>Naphthalene</i>	<i>Oxygen N₂ CO₂ Methane He (% Volume)</i>				
<i>ESL Table E-3 Ambient and Indoor Air Screening Levels, Lowest Residential²</i>			<i>290</i>	<i>0.084</i>	<i>310</i>	<i>0.97</i>	<i>100</i>	<i>100</i>	<i>100</i>	<i>9.4</i>	<i>0.072</i>	<i>NE</i>	<i>NE</i>	<i>NE</i>	<i>NE</i>	<i>NE</i>
<i>LTCP Soil Gas Criteria - Residential³</i>			<i>NE</i>	<i>85</i>	<i>NE</i>	<i>1,100</i>	<i>NE</i>	<i>NE</i>	<i>NE</i>	<i>NE</i>	<i>93</i>	<i>NE</i>	<i>NE</i>	<i>NE</i>	<i>NE</i>	<i>NE</i>
V12	07/21/87	3	--	<1	<1	--	--	--	--	--	--	--	--	--	--	--

**TABLE 4
CUMULATIVE AIR AND SOIL GAS ANALYTICAL DATA
FORMER CHEVRON STATION 91153
3135 GIBBONS DRIVE (3126 FERNSIDE BOULEVARD), ALAMEDA, CALIFORNIA**

Sample ID	Date	Sample Depth (fbg)	TPHg	Benzene	Toluene	Ethyl-benzene	m,p-Xylene	o-Xylene	Total Xylenes ¹	MTBE	Naphthalene	(% Volume)				
												Oxygen	N ₂	CO ₂	Methane	He
ESL Table E-3 Ambient and Indoor Air Screening Levels, Lowest Residential²			290	0.084	310	0.97	100	100	100	9.4	0.072	NE	NE	NE	NE	NE
LTCP Soil Gas Criteria - Residential³			NE	85	NE	1,100	NE	NE	NE	NE	93	NE	NE	NE	NE	NE

Abbreviations/Notes:

Total petroleum hydrocarbons as gasoline (TPHg) by EPA Method TO-15 or EPA Method TO-15 SIM

Benzene, toluene, ethylbenzene, xylenes (BTEX), methyl tertiary butyl ether (MTBE), and naphthalene by EPA Method TO-15 or EPA Method TO-15 SIM.

Oxygen, nitrogen (N₂), carbon dioxide (CO₂), methane, and helium (He) by ASTM D-1946.

fbg = Feet below grade.

Micrograms per meter cubed (µg/m³).

Percent Volume (%).

Parts per million (ppm).

TB = Trip blank

<X = Not detected above method detection limit x.

-- = not analyzed or not applicable.

1 = total xylene, m,p-xylene plus o-xylene, concentration reported.

2 = Environmental Screening Levels (ESLs) for shallow soil gas from Screening for Environmental Concerns at Sites with Contaminated Soil and Groundwater prepared by the California Regional Water Quality Control Board, San Francisco Bay Region Interim Final November 2007, revised May 2008, revised May 2013, Table E-3.

3 = Low-Threat Underground Storage Tank Case Closure Policy - Soil Gas Criteria No Bioattenuation Zone - prepared by the California State Water Resources Control Board, August 17, 2012.

1989 soil vapor samples collected analyzed using a chromatograph equipped with a flame ionization detector

1987 soil vapor samples collected analyzed using a chromatograph equipped with a photo ionization detector

J = Estimated value

Bold = Concentration exceeds applicable ESL.

TABLE 5
POTENTIAL SENSITIVE RECEPTORS
FORMER CHEVRON SERVICE STATION 91153
3135 GIBBONS DRIVE (3126 FERNSIDE BOULEVARD), ALAMEDA, CALIFORNIA

Potential Receptor	Address	Distance from site (feet)	Direction
Onsite Residential home	3135 Gibbons Drive	0	Onsite
Childcare Facilities			
1 Peekaboo Preschool	3112 Windsor Drive	500	North
2 Voilets Home Childcare	1362 Broadway	3,500	West
Eldercare Facilities			
3 Marina Garden Nursing Center	3201 Fernside Boulevard	300	East
4 Waters Edge Nursing Home	2401 Blanding Avenue	4,200	Northwest
Schools			
5 Rising Star Montessori School	1421 High Street	2,100	Southwest
6 Alameda Island Kids at Edison Elementary	2700 Buena Vista Avenue	2,200	West
7 Saint Philip Neri Catholic Elementary School	1335 High Street	2,800	Southwest
8 Lincoln Middle School	1250 Fernside Boulevard	4,500	South
9 Otis Elementary	3010 Fillmore Street	4,700	Southwest
Surface Waters			
10 Estuary/Tidal Channel (connecting San Leandro Harbor and Alameda Harbor)		550	East

Appendix A
Regulatory Letter



ENVIRONMENTAL HEALTH SERVICES
ENVIRONMENTAL PROTECTION
1131 Harbor Bay Parkway, Suite 250
Alameda, CA 94502-6577
(510) 567-6700
FAX (510) 337-9335

March 24, 2014

NOTICE TO COMPLY

Mr. Brian Waite
Chevron Environmental Management Co.
6101 Bollinger Canyon Road
San Ramon, CA 94583
(sent via electronic mail to
bwaite@chevron.com)

Mr. Mark Hom and Anna Cheng
3135 Gibbons Drive
Alameda, CA, 94501-1749
(sent via electronic mail to
mark@galvinhom.com)

JL and Jane Bolton
Address Unknown

John Thompson
Address Unknown

Shirley & Ruben Cohen
Address Unknown

Gary & Jerri Fenstermaker
Address Unknown

Claire Cepollina & Fred Martini
Address Unknown

Subject: Notice to Comply: Request for Data Gap Work Plan and Focused Site Conceptual Model;
Fuel Leak Case No. RO0000341; (Global ID # T0600100330); Chevron #9-1153, (3126
Fernside Blvd), 3135 Gibbons Drive, Alameda, CA 94501

Dear Messrs. Waite and Hom, and Ms. Cheng:

As discussed in our meeting of March 13, 2014, and in an effort to move this case forward, Alameda County Environmental Health Department (ACEH) staff has reviewed the case file and submittals that are due to ACEH for compliance purposes. On August 31, 2012 a directive letter was sent denying the proposed use of surfactant at the subject site, requested a Site Conceptual Model (SCM) and Data Gap Work Plan, responded to previous vapor sampling at the site with a request for further analysis and collection of additional vapor data, requested the monitoring of well RW-1, and several additional items.

Subsequently, a soil vapor work plan was submitted on April 24, 2013. On July 9, 2013, ACEH issued a directive letter that commented on the soil vapor work plan, and again requested a Data Gap Work Plan and focused SCM to address the other issues at the site. The vapor investigation report was requested to be submitted largely within two weeks of the Data Gap Work Plan and focused SCM and was due by September 13, 2013. A request for an extension for the 2 month overdue submittal of the vapor investigation report was received by ACEH on November 22, 2013, was denied, but resulted in an extension until December 20, 2013. To date ACEH has not received the Data Gap Work Plan and SCM. Finally, the fourth quarter 2013 quarterly groundwater monitoring report has not been submitted by February 14, 2014 as requested. Each of these reports remains overdue; you are out of compliance with this agency's directives. Additionally, after collection of the data please submit a Feasibly Study / Corrective Action Plan if appropriate.

In order to regain compliance please submit the documents in accordance with the schedule below. Failure to do so will result in the issuance of a Notice of Violation.

COMPLIANCE SCHEDULE

Please upload technical reports to the ACEH ftp site (Attention: Mark Detterman), and to the State Water Resources Control Board's Geotracker website, in accordance with the specified file naming convention below, according to the following schedule:

- **April 11, 2014** – Fourth Quarter 2013 Groundwater Monitoring
File to be named: RO341_GWM_R_yyyy-mm-dd
- **May 30, 2014** – First Quarter 2014 Groundwater Monitoring
File to be named: RO341_GWM_R_yyyy-mm-dd
- **June 27, 2014** – Data Gap Investigation Plan and Focused Site Conceptual Model
File to be named: RO341_WP_R_yyyy-mm-dd
- **July 25, 2014** – Second Quarter 2014 Groundwater Monitoring
File to be named: RO341_GWM_R_yyyy-mm-dd
- **November 21, 2014** – Third Quarter 2014 Groundwater Monitoring
File to be named: RO341_GWM_R_yyyy-mm-dd
- **60 Days After SCM & Data Gap Work Plan Approval** – Soil & Groundwater Investigation
File to be named: RO341_SWI_R_yyyy-mm-dd
- **60 Days After Soil & Groundwater Investigation Review** – Feasibility Study / Corrective Action Plan; File to be named: RO341_FEASSTUD_R_yyyy-mm-dd

These reports are being requested pursuant to California Health and Safety Code Section 25296.10. 23 CCR Sections 2652 through 2654, and 2721 through 2728 outline the responsibilities of a responsible party in response to an unauthorized release from a petroleum UST system, and require your compliance with this request.

Online case files are available for review at the following website: <http://www.acgov.org/aceh/index.htm>.

If you have any questions, please call me at (510) 567-6876 or send me an electronic mail message at mark.detterman@acgov.org.

Sincerely,



Digitally signed by Mark E. Detterman
DN: cn=Mark E. Detterman, o, ou, email, c=US
Date: 2014.03.24 13:52:50 -07'00'

Mark E. Detterman, PG, CEG
Senior Hazardous Materials Specialist

Enclosures: Attachment 1 – Responsible Party (ies) Legal Requirements / Obligations
Electronic Report Upload (ftp) Instructions

cc: N. Scott MacLeod, Conestoga-Rovers & Assoc., 5900 Hollis Street, Suite A, Emeryville, CA 94608
(sent via electronic mail to smacleod@croworld.com)

Nathan Lee, Conestoga-Rovers & Assoc., 5900 Hollis Street, Suite A, Emeryville, CA 94608
(sent via electronic mail to nlee@croworld.com)

Dilan Roe, ACEH (sent via electronic mail to dilan.roe@acgov.org)
Mark Detterman, ACEH (sent via electronic mail to mark.detterman@acgov.org)
Electronic File, GeoTracker

Attachment 1

Responsible Party(ies) Legal Requirements/Obligations

REPORT/DATA REQUESTS

These reports/data are being requested pursuant to Division 7 of the California Water Code (Water Quality), Chapter 6.7 of Division 20 of the California Health and Safety Code (Underground Storage of Hazardous Substances), and Chapter 16 of Division 3 of Title 23 of the California Code of Regulations (Underground Storage Tank Regulations).

ELECTRONIC SUBMITTAL OF REPORTS

ACEH's Environmental Cleanup Oversight Programs (Local Oversight Program [LOP] for unauthorized releases from petroleum Underground Storage Tanks [USTs], and Site Cleanup Program [SCP] for unauthorized releases of non-petroleum hazardous substances) require submission of reports in electronic format pursuant to Chapter 3 of Division 7, Sections 13195 and 13197.5 of the California Water Code, and Chapter 30, Articles 1 and 2, Sections 3890 to 3895 of Division 3 of Title 23 of the California Code of Regulations (23 CCR). Instructions for submission of electronic documents to the ACEH FTP site are provided on the attached "Electronic Report Upload Instructions."

Submission of reports to the ACEH FTP site is in addition to requirements for electronic submittal of information (ESI) to the State Water Resources Control Board's (SWRCB) Geotracker website. In April 2001, the SWRCB adopted 23 CCR, Division 3, Chapter 16, Article 12, Sections 2729 and 2729.1 (Electronic Submission of Laboratory Data for UST Reports). Article 12 required electronic submittal of analytical laboratory data submitted in a report to a regulatory agency (effective September 1, 2001), and surveyed locations (latitude, longitude and elevation) of groundwater monitoring wells (effective January 1, 2002) in Electronic Deliverable Format (EDF) to Geotracker. Article 12 was subsequently repealed in 2004 and replaced with Article 30 (Electronic Submittal of Information) which expanded the ESI requirements to include electronic submittal of any report or data required by a regulatory agency from a cleanup site. The expanded ESI submittal requirements for petroleum UST sites subject to the requirements of 23 CCR, Division, 3, Chapter 16, Article 11, became effective December 16, 2004. All other electronic submittals required pursuant to Chapter 30 became effective January 1, 2005. Please visit the SWRCB website for more information on these requirements: (http://www.waterboards.ca.gov/water_issues/programs/ust/electronic_submittal/).

PERJURY STATEMENT

All work plans, technical reports, or technical documents submitted to ACEH must be accompanied by a cover letter from the responsible party that states, at a minimum, the following: "I declare, under penalty of perjury, that the information and/or recommendations contained in the attached document or report is true and correct to the best of my knowledge." This letter must be signed by an officer or legally authorized representative of your company. Please include a cover letter satisfying these requirements with all future reports and technical documents submitted for this fuel leak case.

PROFESSIONAL CERTIFICATION & CONCLUSIONS/RECOMMENDATIONS

The California Business and Professions Code (Sections 6735, 7835, and 7835.1) requires that work plans and technical or implementation reports containing geologic or engineering evaluations and/or judgments be performed under the direction of an appropriately registered or certified professional. For your submittal to be considered a valid technical report, you are to present site specific data, data interpretations, and recommendations prepared by an appropriately licensed professional and include the professional registration stamp, signature, and statement of professional certification. Please ensure all that all technical reports submitted for this fuel leak case meet this requirement.

UNDERGROUND STORAGE TANK CLEANUP FUND

Please note that delays in investigation, late reports, or enforcement actions may result in your becoming ineligible to receive grant money from the state's Underground Storage Tank Cleanup Fund (Senate Bill 2004) to reimburse you for the cost of cleanup.

AGENCY OVERSIGHT

If it appears as though significant delays are occurring or reports are not submitted as requested, we will consider referring your case to the Regional Board or other appropriate agency, including the County District Attorney, for possible enforcement actions. California Health and Safety Code, Section 25299.76 authorizes enforcement including administrative action or monetary penalties of up to \$10,000 per day for each day of violation.

Alameda County Environmental Cleanup Oversight Programs (LOP and SCP)	REVISION DATE: July 25, 2012
	ISSUE DATE: July 5, 2005
	PREVIOUS REVISIONS: October 31, 2005; December 16, 2005; March 27, 2009; July 8, 2010
SECTION: Miscellaneous Administrative Topics & Procedures	SUBJECT: Electronic Report Upload (ftp) Instructions

The Alameda County Environmental Cleanup Oversight Programs (petroleum UST and SCP) require submission of all reports in electronic form to the county's FTP site. Paper copies of reports will no longer be accepted. The electronic copy replaces the paper copy and will be used for all public information requests, regulatory review, and compliance/enforcement activities.

REQUIREMENTS

- Please **do not** submit reports as attachments to electronic mail.
- Entire report including cover letter must be submitted to the ftp site as a **single Portable Document Format (PDF) with no password protection**.
- It is **preferable** that reports be converted to PDF format from their original format, (e.g., Microsoft Word) rather than scanned.
- **Signature pages and perjury statements must be included and have either original or electronic signature.**
- **Do not password protect the document.** Once indexed and inserted into the correct electronic case file, the document will be secured in compliance with the County's current security standards and a password. **Documents with password protection will not be accepted.**
- Each page in the PDF document should be rotated in the direction that will make it easiest to read on a computer monitor.
- Reports must be named and saved using the following naming convention:

RO#_Report Name_Year-Month-Date (e.g., RO#5555_WorkPlan_2005-06-14)

Submission Instructions

- 1) Obtain User Name and Password
 - a) Contact the Alameda County Environmental Health Department to obtain a User Name and Password to upload files to the ftp site.
 - i) Send an e-mail to deh.loptoxic@acgov.org
 - b) In the subject line of your request, be sure to include "**ftp PASSWORD REQUEST**" and in the body of your request, include the **Contact Information, Site Addresses, and the Case Numbers (RO# available in Geotracker) you will be posting for.**
- 2) Upload Files to the ftp Site
 - a) Using Internet Explorer (IE4+), go to <ftp://alcoftp1.acgov.org>
 - (i) Note: Netscape, Safari, and Firefox browsers will not open the FTP site as they are NOT being supported at this time.
 - b) Click on Page located on the Command bar on upper right side of window, and then scroll down to Open FTP Site in Windows Explorer.
 - c) Enter your User Name and Password. (Note: Both are Case Sensitive.)
 - d) Open "My Computer" on your computer and navigate to the file(s) you wish to upload to the ftp site.
 - e) With both "My Computer" and the ftp site open in separate windows, drag and drop the file(s) from "My Computer" to the ftp window.
- 3) Send E-mail Notifications to the Environmental Cleanup Oversight Programs
 - a) Send email to deh.loptoxic@acgov.org notify us that you have placed a report on our ftp site.
 - b) Copy your Caseworker on the e-mail. Your Caseworker's e-mail address is the entire first name then a period and entire last name @acgov.org. (e.g., firstname.lastname@acgov.org)
 - c) The subject line of the e-mail must start with the RO# followed by **Report Upload**. (e.g., Subject: RO1234 Report Upload) If site is a new case without an RO#, use the street address instead.
 - d) If your document meets the above requirements and you follow the submission instructions, you will receive a notification by email indicating that your document was successfully uploaded to the ftp site.



ENVIRONMENTAL HEALTH SERVICES
ENVIRONMENTAL PROTECTION
1131 Harbor Bay Parkway, Suite 250
Alameda, CA 94502-6577
(510) 567-6700
FAX (510) 337-9335

March 24, 2014

Mr. Brian Waite
Chevron Environmental Management Co.
6101 Bollinger Canyon Road
San Ramon, CA 94583
(sent via electronic mail to
bwaite@chevron.com)

Mr. Mark Hom and Anna Cheng
3135 Gibbons Drive
Alameda, CA, 94501-1749
(sent via electronic mail to
mark@galvinhom.com)

JL and Jane Bolton
Address Unknown

John Thompson
Address Unknown

Shirley & Ruben Cohen
Address Unknown

Gary & Jerri Fenstermaker
Address Unknown

Claire Cepollina & Fred Martini
Address Unknown

Subject: Request for Vapor Mitigation Evaluation; Fuel Leak Case No. R0000341; (Global ID # T0600100330); Chevron #9-1153, (3126 Fernside Blvd), 3135 Gibbons Drive, Alameda, CA 94501

Dear Messrs. Waite and Hom, and Ms. Cheng:

As discussed in our meeting of March 13, 2014, and in an effort to move this case forward, Alameda County Environmental Health Department (ACEH) staff has reviewed the case file, including the *Crawl Space, Indoor Air and Sub-Slab Soil Gas Investigation Report*, dated December 20, 2013 and the *Third Quarter 2013 Groundwater Monitoring and Sampling Report*, dated November 20, 2013. Both reports were prepared and submitted by Conestoga-Rovers & Associates (CRA) on your behalf. Thank you for submitting the reports.

The soil gas report documents the installation of two subslab vapor points in the garage, the collection of an additional three indoor air vapor samples, and one background outdoor air vapor sample. Based on the review of the case file ACEH requests that you address the following technical comments and send us the documents requested below.

TECHNICAL COMMENTS

1. **Comments and Observations on Vapor Sampling** – ACEH has a number of comments and observations in regards to the vapor sampling effort at the site:

- The first observation by ACEH is that all benzene vapor concentrations, including outdoor air samples, are above generic but conservative Environmental Screening Levels (ESLs) promulgated by the San Francisco Regional Water Quality Control Board (RWQCB). Concentrations below ESLs are generally considered to be protective of human health. ACEH notes that the site is at one of the corners of a five-star intersection, and anticipates that air concentrations could be expected to be elevated above indoor ESLs.
- Outdoor air and crawl space vapor concentrations were essentially similar. This appears to indicate that ventilation in the crawl space may be adequate; however, ACEH requests information relative to the number of crawl space vents, and an assessment of the ability, and the commitment, to keep these vents permanently free of obstructions in the future.

- Indoor air benzene and ethylbenzene concentrations are above, sometimes significantly above, outdoor air or crawl space concentrations and the concentrations consistently increase toward the garage.
- ACEH uses a level of "significance" for benzene that corresponds to the indoor air ESL of 0.084 micrograms per cubic meter ($\mu\text{g}/\text{m}^3$), and for ethylbenzene of $0.97 \mu\text{g}/\text{m}^3$.
- The building survey form indicates no PID detections at the house during the survey, thus suggest no contribution from household products in the house or garage. It does not appear, or is not reported, if household consumer products were removed prior to sampling to eliminate the potential for contribution to the vapor sample results.
- Garage indoor air concentrations are significantly above ESLs, and relative to subslab vapor samples, indicate an attenuation factor due to the presence of the concrete slab.
- Subslab vapor concentrations beneath the garage are exceptional and significant for a residential parcel. These subslab concentrations cannot be compared to the Low Threat Closure Policy (LTCP) soil gas criteria assumed to have been collected at a depth five feet below the foundation (presumed 6.5 to 7 feet bgs), whereas the subslab samples were collected at a depth of 0.8 feet below grade surface (bgs), and a sufficient thickness of soil is not present to mitigate the concentrations.
- It is unclear or not reported, if the garage was used during the sampling period. The entry or exit of a vehicle would be expected to influence the garage results.
- The detection limit for naphthalene in all indoor, outdoor, and crawl space samples is significantly above the ESL for naphthalene. In subslab samples the estimated concentration was significantly above the ESL.
- Oxygen beneath the slab ranged between 1.3 and 1.5%, substantially below the minimum of 4% required by the LTCP at 6.5 to 7 feet in depth.
- It does not appear, or is not reported, that a vapor notification flyer was provided to the occupants of the house in regards to the importance of the collection of representative vapor samples. Department of Toxic Substance Control (DTSC) guidance exists to efficiently communicate this information (March 5, 2012 DTSC *Vapor Intrusion Public Participation Advisory*).
- It is reported that a shroud atmosphere of approximately 40% helium was created during vapor sampling; however, there do not appear to be shroud helium concentrations reported, either as meter readings or through laboratory analysis.

Based on the data, it is apparent that additional information is required as to the extent of the public notification process, and the exact protocols used to collect the samples (garage usage, crawl space vents, and other). It is also apparent that a vapor intrusion mitigation evaluation is required for the home. Therefore, by the date identified below, ACEH requests a response and the appropriateness of immediate vapor mitigation at the site. ACEH will respond within 30 days of the submittal.

2. **Groundwater Monitoring of Recovery Well** – The August 31, 2012 directive letter requested that recovery well RW-1 be incorporated into the groundwater monitoring program. This does not appear to have been done, and ACEH has not located a recent response of the status of the recovery well. As before, the well does not appear to have been monitored in recent history; however, appears to be present. ACEH requests that well RW-1 be incorporated into the current monitoring schedule, after it has been redeveloped. Please include redevelopment field sheets for the well in the next groundwater monitoring report, and past analytical data in all future groundwater monitoring reports, by the dates identified below.

TECHNICAL REPORT REQUEST

Please upload technical reports to the ACEH ftp site (Attention: Mark Detterman), and to the State Water Resources Control Board's Geotracker website, in accordance with the specified file naming convention below, according to the following schedule:

- **April 27, 2014** – Vapor Mitigation Evaluation; Interim Remedial Action Plan
File to be named: RO341_IRAP_R_yyyy-mm-dd
- **May 30, 2014** – First Quarter 2014 Groundwater Monitoring and RW-1 Incorporation into Tables
File to be named: RO341_GWM_R_yyyy-mm-dd

These reports are being requested pursuant to California Health and Safety Code Section 25296.10. 23 CCR Sections 2652 through 2654, and 2721 through 2728 outline the responsibilities of a responsible party in response to an unauthorized release from a petroleum UST system, and require your compliance with this request.

Online case files are available for review at the following website: <http://www.acgov.org/aceh/index.htm>.

If you have any questions, please call me at (510) 567-6876 or send me an electronic mail message at mark.detterman@acgov.org.

Sincerely,



Digitally signed by Mark E. Detterman
DN: cn=Mark E. Detterman, o, ou,
email, c=US
Date: 2014.03.24 14:07:54 -07'00'

Mark E. Detterman, PG, CEG
Senior Hazardous Materials Specialist

Enclosures: Attachment 1 – Responsible Party (ies) Legal Requirements / Obligations
Electronic Report Upload (ftp) Instructions

cc: N. Scott MacLeod, Conestoga-Rovers & Assoc., 5900 Hollis Street, Suite A, Emeryville, CA 94608
(sent via electronic mail to smacleod@croworld.com)

Nathan Lee, Conestoga-Rovers & Assoc., 5900 Hollis Street, Suite A, Emeryville, CA 94608
(sent via electronic mail to nlee@croworld.com)

Dilan Roe, ACEH (sent via electronic mail to dilan.roe@acgov.org)
Mark Detterman, ACEH (sent via electronic mail to mark.detterman@acgov.org)
Electronic File, GeoTracker

Attachment 1

Responsible Party(ies) Legal Requirements/Obligations

REPORT/DATA REQUESTS

These reports/data are being requested pursuant to Division 7 of the California Water Code (Water Quality), Chapter 6.7 of Division 20 of the California Health and Safety Code (Underground Storage of Hazardous Substances), and Chapter 16 of Division 3 of Title 23 of the California Code of Regulations (Underground Storage Tank Regulations).

ELECTRONIC SUBMITTAL OF REPORTS

ACEH's Environmental Cleanup Oversight Programs (Local Oversight Program [LOP] for unauthorized releases from petroleum Underground Storage Tanks [USTs], and Site Cleanup Program [SCP] for unauthorized releases of non-petroleum hazardous substances) require submission of reports in electronic format pursuant to Chapter 3 of Division 7, Sections 13195 and 13197.5 of the California Water Code, and Chapter 30, Articles 1 and 2, Sections 3890 to 3895 of Division 3 of Title 23 of the California Code of Regulations (23 CCR). Instructions for submission of electronic documents to the ACEH FTP site are provided on the attached "Electronic Report Upload Instructions."

Submission of reports to the ACEH FTP site is in addition to requirements for electronic submittal of information (ESI) to the State Water Resources Control Board's (SWRCB) Geotracker website. In April 2001, the SWRCB adopted 23 CCR, Division 3, Chapter 16, Article 12, Sections 2729 and 2729.1 (Electronic Submission of Laboratory Data for UST Reports). Article 12 required electronic submittal of analytical laboratory data submitted in a report to a regulatory agency (effective September 1, 2001), and surveyed locations (latitude, longitude and elevation) of groundwater monitoring wells (effective January 1, 2002) in Electronic Deliverable Format (EDF) to Geotracker. Article 12 was subsequently repealed in 2004 and replaced with Article 30 (Electronic Submittal of Information) which expanded the ESI requirements to include electronic submittal of any report or data required by a regulatory agency from a cleanup site. The expanded ESI submittal requirements for petroleum UST sites subject to the requirements of 23 CCR, Division, 3, Chapter 16, Article 11, became effective December 16, 2004. All other electronic submittals required pursuant to Chapter 30 became effective January 1, 2005. Please visit the SWRCB website for more information on these requirements: (http://www.waterboards.ca.gov/water_issues/programs/ust/electronic_submittal/).

PERJURY STATEMENT

All work plans, technical reports, or technical documents submitted to ACEH must be accompanied by a cover letter from the responsible party that states, at a minimum, the following: "I declare, under penalty of perjury, that the information and/or recommendations contained in the attached document or report is true and correct to the best of my knowledge." This letter must be signed by an officer or legally authorized representative of your company. Please include a cover letter satisfying these requirements with all future reports and technical documents submitted for this fuel leak case.

PROFESSIONAL CERTIFICATION & CONCLUSIONS/RECOMMENDATIONS

The California Business and Professions Code (Sections 6735, 7835, and 7835.1) requires that work plans and technical or implementation reports containing geologic or engineering evaluations and/or judgments be performed under the direction of an appropriately registered or certified professional. For your submittal to be considered a valid technical report, you are to present site specific data, data interpretations, and recommendations prepared by an appropriately licensed professional and include the professional registration stamp, signature, and statement of professional certification. Please ensure all that all technical reports submitted for this fuel leak case meet this requirement.

UNDERGROUND STORAGE TANK CLEANUP FUND

Please note that delays in investigation, late reports, or enforcement actions may result in your becoming ineligible to receive grant money from the state's Underground Storage Tank Cleanup Fund (Senate Bill 2004) to reimburse you for the cost of cleanup.

AGENCY OVERSIGHT

If it appears as though significant delays are occurring or reports are not submitted as requested, we will consider referring your case to the Regional Board or other appropriate agency, including the County District Attorney, for possible enforcement actions. California Health and Safety Code, Section 25299.76 authorizes enforcement including administrative action or monetary penalties of up to \$10,000 per day for each day of violation.

Alameda County Environmental Cleanup Oversight Programs (LOP and SCP)	REVISION DATE: July 25, 2012
	ISSUE DATE: July 5, 2005
	PREVIOUS REVISIONS: October 31, 2005; December 16, 2005; March 27, 2009; July 8, 2010
SECTION: Miscellaneous Administrative Topics & Procedures	SUBJECT: Electronic Report Upload (ftp) Instructions

The Alameda County Environmental Cleanup Oversight Programs (petroleum UST and SCP) require submission of all reports in electronic form to the county's FTP site. Paper copies of reports will no longer be accepted. The electronic copy replaces the paper copy and will be used for all public information requests, regulatory review, and compliance/enforcement activities.

REQUIREMENTS

- Please **do not** submit reports as attachments to electronic mail.
- Entire report including cover letter must be submitted to the ftp site as a **single Portable Document Format (PDF) with no password protection**.
- It is **preferable** that reports be converted to PDF format from their original format, (e.g., Microsoft Word) rather than scanned.
- **Signature pages and perjury statements must be included and have either original or electronic signature.**
- **Do not password protect the document.** Once indexed and inserted into the correct electronic case file, the document will be secured in compliance with the County's current security standards and a password. **Documents with password protection will not be accepted.**
- Each page in the PDF document should be rotated in the direction that will make it easiest to read on a computer monitor.
- Reports must be named and saved using the following naming convention:

RO#_Report Name_Year-Month-Date (e.g., RO#5555_WorkPlan_2005-06-14)

Submission Instructions

- 1) Obtain User Name and Password
 - a) Contact the Alameda County Environmental Health Department to obtain a User Name and Password to upload files to the ftp site.
 - i) Send an e-mail to deh.loptoxic@acgov.org
 - b) In the subject line of your request, be sure to include **"ftp PASSWORD REQUEST"** and in the body of your request, include the **Contact Information, Site Addresses, and the Case Numbers (RO# available in Geotracker) you will be posting for.**
- 2) Upload Files to the ftp Site
 - a) Using Internet Explorer (IE4+), go to <ftp://alcoftp1.acgov.org>
 - i) Note: Netscape, Safari, and Firefox browsers will not open the FTP site as they are NOT being supported at this time.
 - b) Click on Page located on the Command bar on upper right side of window, and then scroll down to Open FTP Site in Windows Explorer.
 - c) Enter your User Name and Password. (Note: Both are Case Sensitive.)
 - d) Open "My Computer" on your computer and navigate to the file(s) you wish to upload to the ftp site.
 - e) With both "My Computer" and the ftp site open in separate windows, drag and drop the file(s) from "My Computer" to the ftp window.
- 3) Send E-mail Notifications to the Environmental Cleanup Oversight Programs
 - a) Send email to deh.loptoxic@acgov.org notify us that you have placed a report on our ftp site.
 - b) Copy your Caseworker on the e-mail. Your Caseworker's e-mail address is the entire first name then a period and entire last name @acgov.org. (e.g., firstname.lastname@acgov.org)
 - c) The subject line of the e-mail must start with the RO# followed by **Report Upload**. (e.g., Subject: RO1234 Report Upload) If site is a new case without an RO#, use the street address instead.
 - d) If your document meets the above requirements and you follow the submission instructions, you will receive a notification by email indicating that your document was successfully uploaded to the ftp site.

Appendix B
Boring Logs

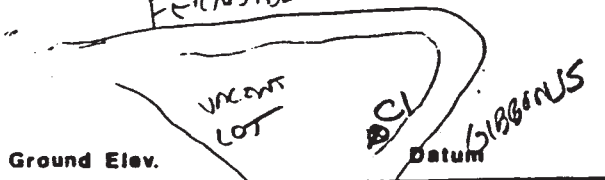


LOG OF EXPLORATORY BORING

PROJECT No. 90075.01 E 8-18-86
 CLIENT GR CHEKON
 LOCATION ALAMEDA
 LOGGED BY EFL DRILLER BAYLAND

BORING No. G1
 Sheet 1
 of 1

Field location of boring: FERRISIDE



Drilling method H-S AUGER Hole dia. 8"

Casing Installation data 3" PIC SLOTTED CASING INSTALLED FROM 2 TO 2 FEET; GULD TO SURFACE; SAND PACK TO 16"; BENTONITE TO 14"; CONCRETE TO SURFACE.

Pocket Torrvane TSF	Pocket Penetrometer TSF	Blows/ft. or Pressure PSI	Type of Sample	Sample Number	Depth	Sample	Soil Group Symbol (U.S.C.S.)
					2		SW
					4		SC
	25	4/4/4	DE-L 100%	(1)	6		SC
					8		
	3.0	1/8/16	DE-L 100%	(2)	10		
					12		
					14		
		7/2/18	DE-L 100%	(3)	16		
					18		
		12/2/30	DE-L 100%	(4)	20		
					22		
	3.0	10/2/17	DE-L 100%	(5)			

Water level	4.8'	4.1'		
Time	13.05	16.06		
Date	8-18-86	8-18-86		

DESCRIPTION

SAND-FILL; BROWN (10YR, 5/3); 10-20% FINES; 70-80% FINE SAND; 10-20% MED SAND TO FINE GRAVEL; LOOSE; DRY; NPO.
 @ 1 1/2 FEET; STRONG GAS ODR.

SAND; DARK GRAY (2.5Y, N4); 5-10% FINES; FINE SAND; LOOSE; WET; STRONG GAS ODR.

CLAYEY SAND; DARK GRAY (2.5Y, N4); 30-40% FINES; FINE SAND; VERY STIFF; WET; STRONG GAS ODR.
 @ 9-10 1/2 FT; DARK GRAY/ISA BROWN (2.5Y, 4/2); FAINT GAS ODR.

SAND; OLIVE BROWN; (2.5Y, 4/4); 5-10% FINES; 80-90% FINE SAND; 5-10% MEDIUM SAND; MEDIUM DENSE; WET; NO GAS ODR.
 @ 19-20 1/2 FEET; 5) COARSE SAND TO FINE GRAVEL; VERY DENSE; NPO.

CLAYEY SAND; GRAYISH BROWN (2.5Y, 5/2); 25-35% FINES TO 80% FINE SAND; VERY STIFF; WET; NPO.

BOTTOM OF BORING AT 22 1/2 FEET.

9-1153

PRELIMINARY

WELL DETAILS

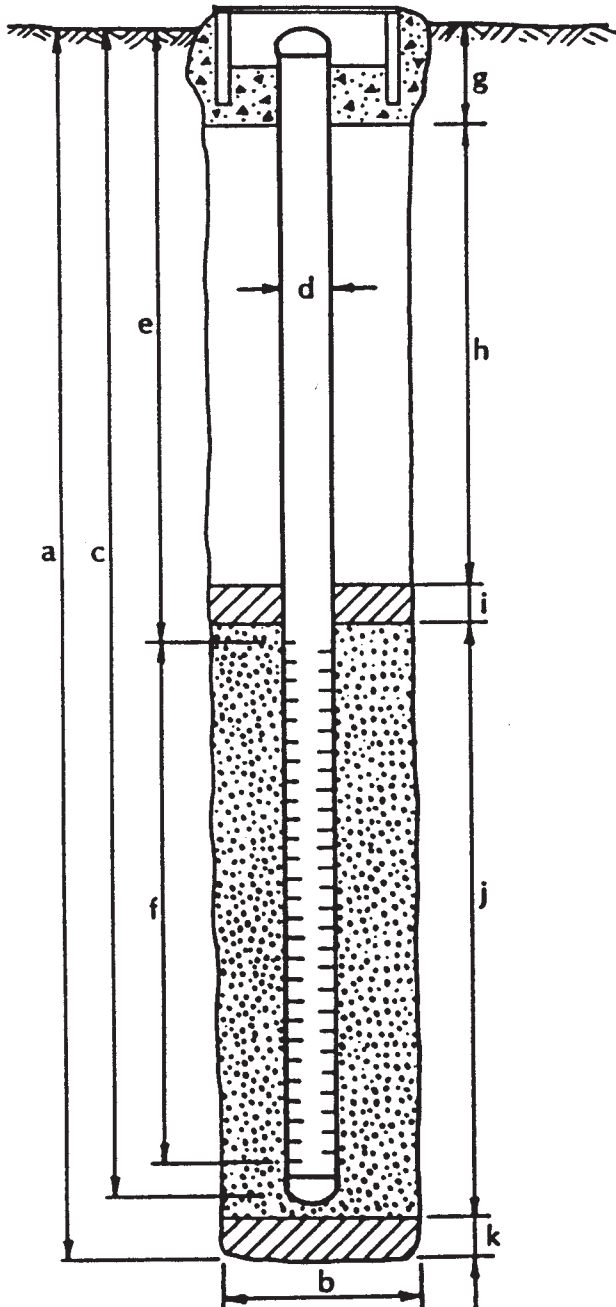


PROJECT NUMBER 800-75101
 PROJECT NAME G-2 (HEVPII)
 COUNTY ALAMEDA
 WELL PERMIT NO. _____

BORING / WELL NO. C-1
 TOP OF CASING ELEV. _____
 GROUND SURFACE ELEV. 7'± MSL
 DATUM USGS

G-5 vault box (Std.)

DRAFT



EXPLORATORY BORING

- a. Total depth 22 1/2 ft.
- b. Diameter 8" in.
- Drilling method HOLLOW-STEM AUGER

WELL CONSTRUCTION

- c. Casing length 22 ft.
Material STEEL 40 PIC
- d. Diameter 3 in.
- e. Depth to top perforations 2 ft.
- f. Perforated length 20 ft.
Perforated interval from 22 to 2 ft.
Perforation type MACHINED SLOT
Perforation size .020 INCH
- g. Surface seal 1.2 ft.
Seal material CEMENT GROUT
- h. Backfill 0 ft.
Backfill material _____
- i. Seal 0.3 ft.
Seal material PERITE
- j. Gravel pack (22 TO 1.5 FEET) 20.5 ft.
Pack material COARSE AQUARIUM SAND
- k. Bottom seal 0.5 ft.
Seal material PERITE

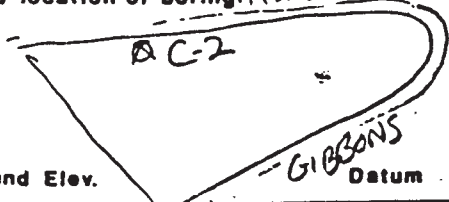


LOG OF EXPLORATORY BORING

PROJECT No. 200 1514 DATE 0-10-80
 CLIENT GR CHE, RON
 LOCATION ALAMEDA
 LOGGED BY EBL DRILLER RAYLIND

BORING N
G-2
 Sheet 1
 of 1

Field location of boring: FERNSIDE



Ground Elev.

Drilling method HS AUGER

Hole dia. 8"

Casing installation data 3" PVC SLOTTED CASING INSTALLED FROM 22 TO 2 FEET; SOLID CASING FROM 2 FEET TO SURFACE. SAND PAIL TO 18"; BENTONITE TO 14"; CONCRETE TO SURFACE.

Pocket Torr vane TSF	Pocket Penetrometer TSF	Blows/ft. or Pressure PSI	Type of Sample	Sample Number	Depth	Sample	Soil Group Symbol (U.S.C.S.)
					2		SW
					4		SM
		11/11	DR-L 33%	(1)	6		
					8		SC
	1.0	3/6.8	DR-L 100%	(2)	10		
					12		
		7/18/19	DR-L 100%	(3)	14		SP
					16		
					18		
					20		
		15/15/15	DR-L 100%	(4)	22		
					24		
					26		
					28		
					30		

Water level	4.1'			
Time	16:04			
Date	8-18-86			

DESCRIPTION

SAND-FILL; OLIVE GRAY; (54, 4/2); 10-20% FINES; 55-65% FINE SAND; 10-20% MED TO COARSE SAND; 10-20% FINE TO COARSE GRAIN LOOSE; MOIST; NO PRODUCT ODOR

SILTY SAND; VERY DARK GRAY (25Y, N2); 15-25% FINE TO COARSE SAND; LOOSE; WET; STRONG GAS ODOR

CLAYEY SAND; OLIVE GRAY (5Y, 4/2); 30-40% FINE TO COARSE SAND; STIFF; WET; NO PRODUCT ODOR

SAND; OLIVE BROWN (2.5Y, 4/4); 5-10% FINES; 80-90% FINE SAND; 5-10% MEDIUM SAND; DENSE; WET; NO PRODUCT ODOR.

@ 20'-22 FEET; 10-15% FINES; MEDIUM DENSE TO DENSE; NO PRODUCT ODOR.

BOTTOM OF BORING AT 22 FEET

PRELIMINARY

WELL DETAILS

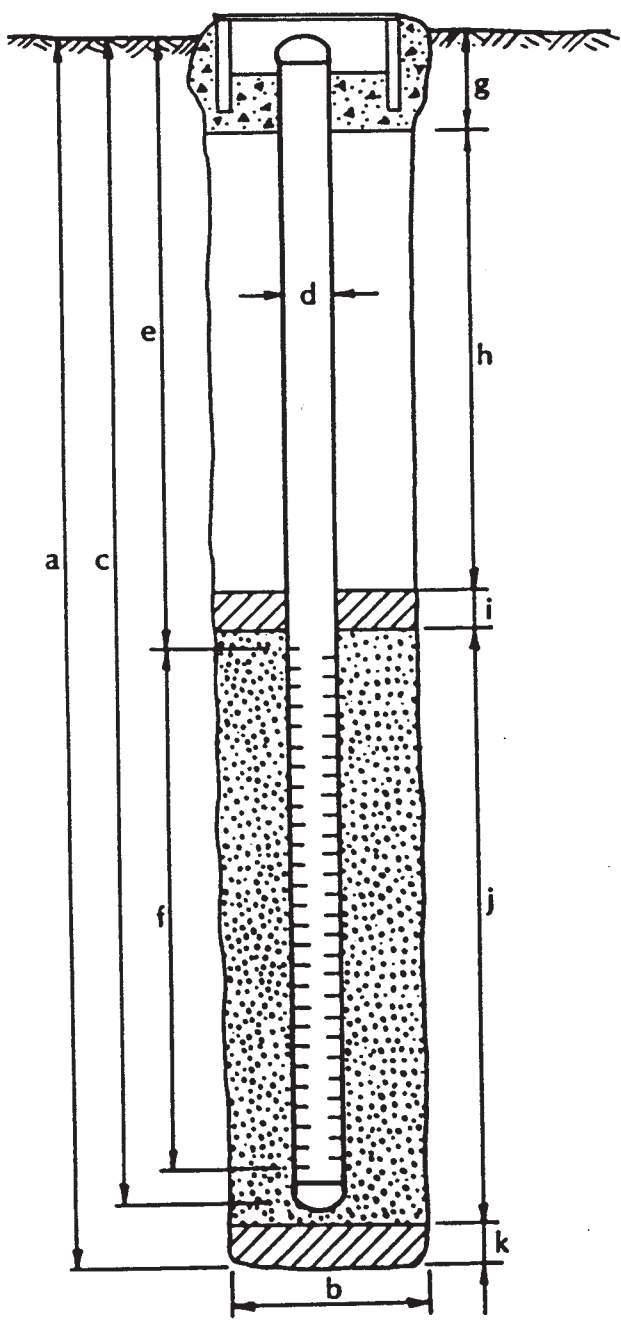


PROJECT NUMBER 800-75.01
 PROJECT NAME GR CHEVRON
 COUNTY ALAMEDA
 WELL PERMIT NO. _____

BORING / WELL NO. C-2
 TOP OF CASING ELEV. _____
 GROUND SURFACE ELEV. 7 1/2 MSL
 DATUM USGS

G-5 vault box (Std.)

DRAFT



EXPLORATORY BORING

- a. Total depth 22 ft.
- b. Diameter 8 in.
- Drilling method HOLLOW ST-11M AUGER

WELL CONSTRUCTION

- c. Casing length 22 ft.
Material SCHEDULE 40 PVC
- d. Diameter 3 in.
- e. Depth to top perforations 2 ft.
- f. Perforated length 20 ft.
Perforated interval from 22 to 2 ft.
Perforation type MACHINED SLOT
Perforation size .020 INCH
- g. Surface seal 1.2 ft.
Seal material CEMENT GROUT
- h. Backfill 0 ft.
Backfill material _____
- i. Seal 0.3 ft.
Seal material BENTONITE
- j. Gravel pack (22 to 1.5 FEET) 20.5 ft.
Pack material COARSE AQUICLUS SAND
- k. Bottom seal 0 ft.
Seal material _____

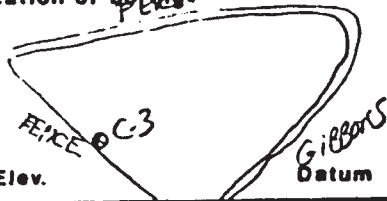


LOG OF EXPLORATORY BORING

PROJECT No. BLD 15.01 TE 8-18-86
 CLIENT GR CMEIRON
 LOCATION ALAMEDA
 LOGGED BY EBL DRILLER BYLAND

BORING No. C-3
 Sheet 1
 of 1

Field location of blow side



Drilling method H-S. ANGER
 Hole dia. 8"

Casing Installation data 3" PVC SLOTTED CASING INSTALLED FROM 22 TO 2 FEET; SOLID PVC FROM 2 FEET TO SURFACE; SAND PACK FROM 22' TO 18"; BENTONITE FROM 18" TO 14"; CONCRETE FROM 14" TO SURFACE.

Pocket Torque	Pocket Penetrometer TSF	Blows/ft. or Pressure PSI	Type of Sample	Sample Number	Depth	Sample	Soil Group Symbol (U.S.C.S.)
					2	SP	
		2/5/7	DR-L 20%	(1)	4	SP	
					6	SP	
					8	SP	
	2.0	5/8/11	DR-L 100%	(2)	10	SP	
					12	SP	
					14	SP	
	3.0	9/25/35	DR-L 100%	(3)	16	SC	
					18	SP	
					20	SP	
	1.5	12/14/12	DR-L 100%	(4)	22	SC	
					24		
					26		
					28		
					30		

Water level	4.0'		
Time	1676		
Date	8-18-86		

DESCRIPTION

SAND-FILL; OLIVE GRAY (SY, 4/2); 10-20% FINES - 60-70% FINE SAND; 10-20% MEDIUM TO COARSE SAND; 10-20% FINE TO COARSE GRAVEL; CONCRETE FRAGMENTS; LOOSE; DRY TO MOIST; FANT GAS ODOUR.

SAND; VERY DARK GRAYISH BROWN (10YR, 3/2); 5-10% FINES; FINE SAND; 10-20% MEDIUM TO COARSE SAND; LOOSE; MOIST; NO PRODUCT ODOUR

CLAYEY SAND; GRAYISH BROWN (10YR, 5/2); 40-50% FINES; FINE SAND; STIFF; WET; NO PRODUCT ODOUR; ROOT FRAGMENTS AND HOLES.

SAND; BROWN (10YR, 4/3); 5-10% FINES; FINE SAND; 5-10% MEDIUM SAND; DENSE; WET; NO PRODUCT ODOUR.

CLAYEY SAND; BROWN (10YR, 5/3); 25-35% FINES; FINE SAND; VERY STIFF; WET; NO PRODUCT ODOUR.

SAND; BROWN (10YR, 4/3); > 10% FINES; 80-90% FINE SAND; MEDIUM DENSE; WET; NPO

CLAYEY SAND; DARK GRAY (2.5Y, N4); 35-45% FINES; FINE SAND; STIFF; WET; NPO

BOTTOM OF BORING AT 22 FEET

PRELIMINARY

WELL DETAILS

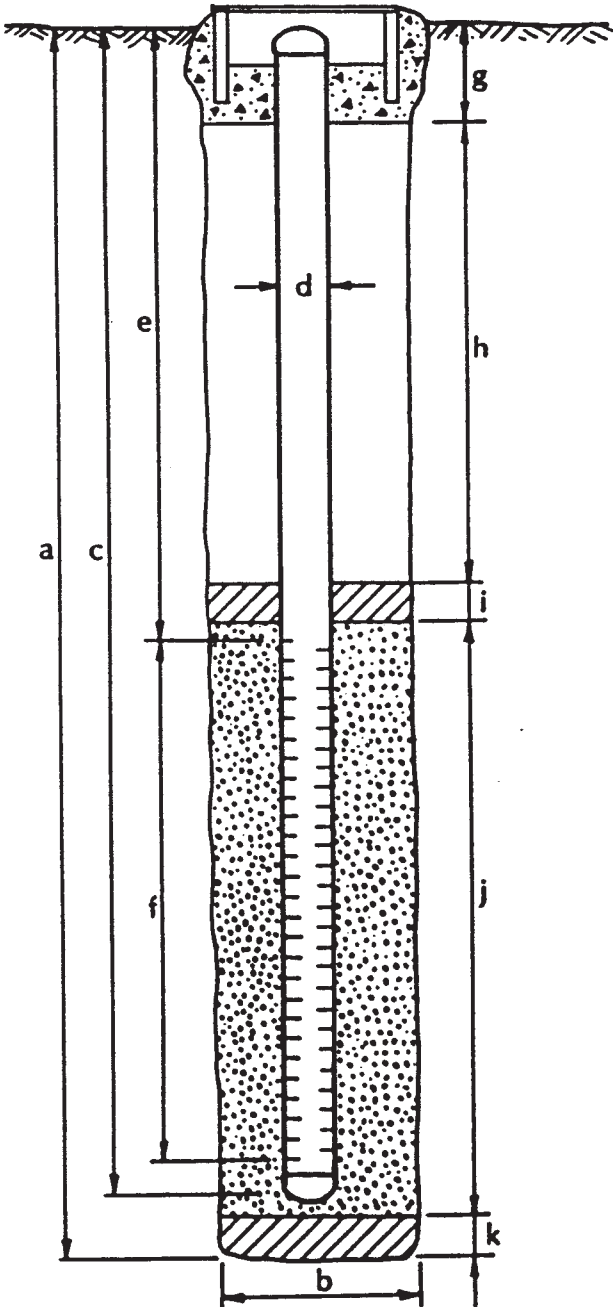


PROJECT NUMBER 800-75.01
 PROJECT NAME GR CHEVRON
 COUNTY ALAMEDA
 WELL PERMIT NO. _____

BORING / WELL NO. C-3
 TOP OF CASING ELEV. _____
 GROUND SURFACE ELEV. 7'±MSL
 DATUM USGS

G-5 vault box (Std.)

DRAFT



EXPLORATORY BORING

- a. Total depth 22 ft.
 b. Diameter 8 in.
 Drilling method HOLLOW-STEM AUGER

WELL CONSTRUCTION

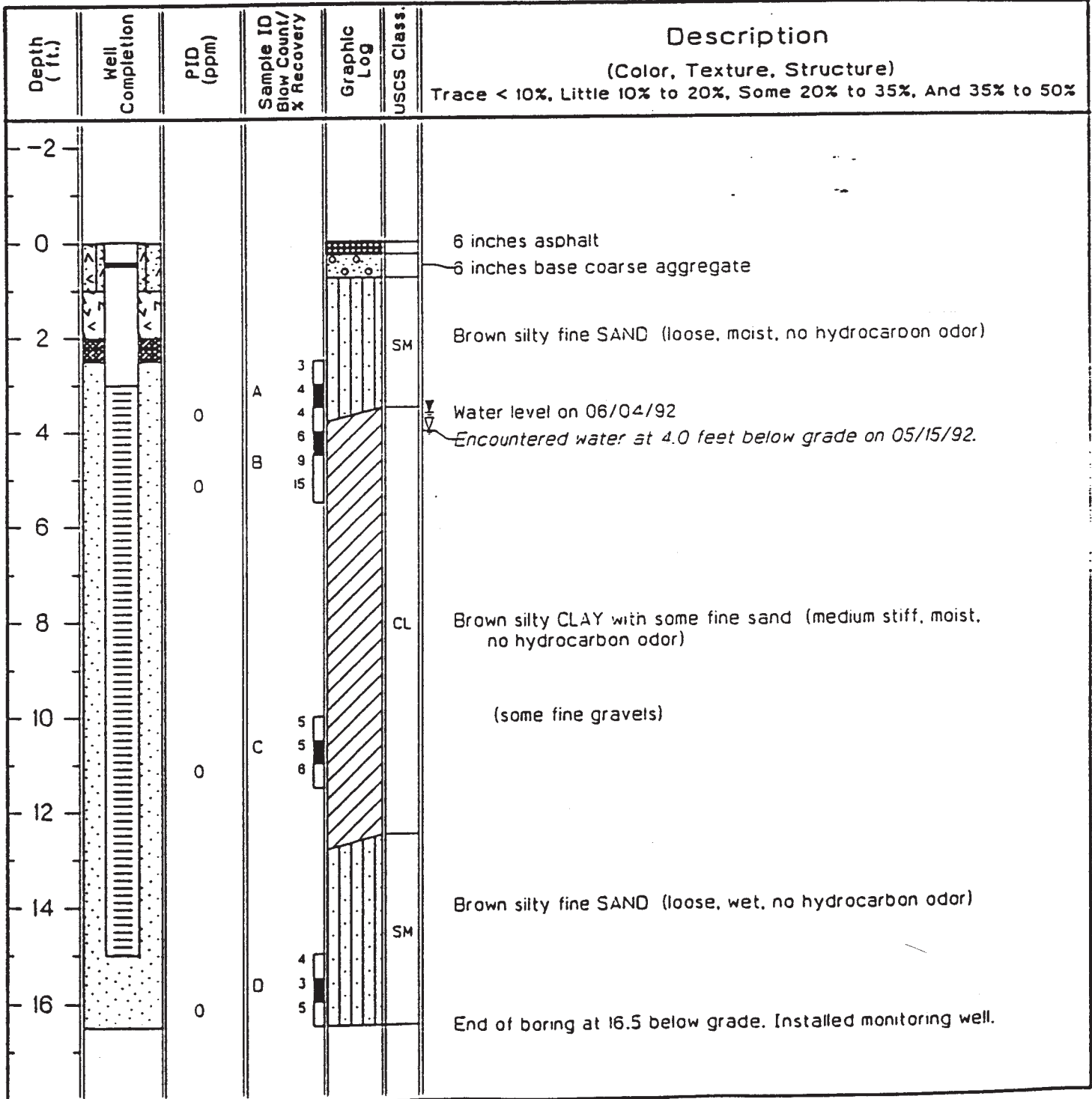
- c. Casing length 22 ft.
 Material SCHEDULE 40 PVC
 d. Diameter 3 in.
 e. Depth to top perforations 2 ft.
 f. Perforated length 20 ft.
 Perforated interval from 22 to 2 ft.
 Perforation type MACHINED SLOT
 Perforation size 0.020 INCH
 g. Surface seal 1.2 ft.
 Seal material CEMENT GROUT
 h. Backfill 8 ft.
 Backfill material _____
 i. Seal 0.3 ft.
 Seal material EPOXYITE
 j. Gravel pack (22 TO 1.5 FEET) 20.5 ft.
 Pack material COARSE AQUARIUM SAND
 k. Bottom seal 0 ft.
 Seal material _____



Project CHEVRON FERNSIDE Owner CHEVRON U.S.A. INC.
 Location 3125 Fernside Blvd. Project No. 020202747 Date drilled 05/15/92
 Surface Elev. _____ Total Hole Depth 16.5 ft. Diameter 3 inches
 Top of Casing 3.58 ft. Water Level Initial 4.0 ft. Static 3.63 ft.
 Screen Dia 2 in. Length 12 ft. Type/Size 0.020 in.
 Casing Dia 2 in. Length 3.0 ft. Type Sched. 40 PVC
 Filter Pack Material Lapis Lustre No. 2/12 Rig/Core Type Mobile B-53/split spoon
 Drilling Company Kvithaug Drilling Method Hollow stem auger Permit # _____
 Driller Mike Crocker Log By Steve Kranvak
 Checked By David R. Kleesattel License No. 5136 *David Kleesattel*

See Site Map
For Boring Location

COMMENTS:





**GROUNDWATER
TECHNOLOGY**

Drilling Log

Monitoring Well MW-5

Project CHEVRON FERNSIDE Owner CHEVRON U.S.A. INC.
 Location 3125 Fernside Blvd. Project No. 022222747 Date drilled 05/15/92
 Surface Elev. _____ Total Hole Depth 15.5 ft. Diameter 3 inches
 Top of Casing 3.61 ft. Water Level Initial 4.0 ft. Static 3.25 ft.
 Screen: Dia 2 in. Length 12 ft. Type/Size 0.020 in.
 Casing: Dia 2 in. Length 3.0 ft. Type Sched. 40 PVC
 Filter Pack Material Lapis Lustre No. 2/12 Rig/Core Type Mobile B-53/spilt spoon
 Drilling Company Kvitgaard Drilling Method Hollow stem auger Permit # _____
 Driller Mike Crocker Log By Steve Kranvak
 Checked By David R. Kleesattel License No. 5136 *D. Kleesattel*

See Site Map
For Boring Location

COMMENTS:

Depth (ft.)	Well Completion	PTD (ppm)	Sample ID Blow Count/ % Recovery	Graphic Log	USCS Class.	Description (Color, Texture, Structure) Trace < 10%, Little 10% to 20%, Some 20% to 35%, And 35% to 50%
-2						
0						6 inches asphalt 3 inches of base coarse aggregate
2						Brown silty fine SAND (loose, wet, no hydrocarbon odor)
3			A		SM	Water elevation on 06/04/92
4		0				Encountered water at 4.0 feet below grade on 05/15/92.
6						
8						Brown and gray mottled silty CLAY with some fine sand (soft, wet, no hydrocarbon odor)
10			B			
12		0				
14						Brown silty fine SAND (loose, wet, no hydrocarbon odor)
16			C			
16.5		0				End of boring at 16.5 below grade. Installed monitoring well.



**GROUNDWATER
TECHNOLOGY**

Drilling Log

Monitoring Well MW-6

Project CHEYRON FERNSIDE Owner CHEYRON U.S.A. INC.
 Location 3125 Fernside Blvd. Project No. 020202747 Date drilled 05/15/92
 Surface Elev. _____ Total Hole Depth 16.5 ft. Diameter 8 inches
 Top of Casing 3.85 ft. Water Level Initial 4.0 ft. Static 3.89 ft.
 Screen Dia 2 in. Length 12 ft. Type/Size 0.020 in.
 Casing Dia 2 in. Length 3.0 ft. Type Sched. 40 PVC
 Filter Pack Material Lapis Lustre No. 2/12 Rig/Core Type Mobile B-53/split spoon
 Drilling Company Kvilhaug Drilling Method Hollow stem auger Permit # _____
 Driller Mike Crocker Log By Steve Kranvak
 Checked By David R. Kleesattel License No. 5136 *David Kleesattel*

See Site Map
For Boring Location

COMMENTS:

Depth (ft.)	Well Completion	PTD (ppm)	Sample ID Blow Count/ % Recovery	Graphic Log	USCS Class.	Description (Color, Texture, Structure) Trace < 10%, Little 10% to 20%, Some 20% to 35%, And 35% to 50%
-2						
0						
2					SM	Dark brown silty fine SAND (loose, moist, no hydrocarbon odor)
3			A			
4		0	4			Water elevation on 06/04/92 Encountered water at 4.0 feet below grade on 05/15/92.
6						
8					CL	Brown and grey mottled silty CLAY with some fine sand (soft, wet, no hydrocarbon odor)
10		0	B			
12						
14						
16		0	C		SM	Brown silty fine SAND (loose, wet, no hydrocarbon odor)
						End of boring at 16.5 below grade. Installed monitoring well.



Project 3126 Fernside Blvd. Owner Chevron U.S.A., Inc.
 Location Alameda, CA Proj. No. 020204604
 Surface Elev. N/A ft. Total Hole Depth 15 ft. Diameter 8 in.
 Top of Casing N/A ft. Water Level Initial 7 ft. Static N/A ft.
 Screen: Dia 2 in. Length 12 ft. Type/Size 0.020 in.
 Casing: Dia 2 in. Length 3 ft. Type PVC sch 40
 Fill Material #3 sand Rig/Core Limited Access/Split Spoon
 Drill Co. SES, Inc. Method Hollow Stem Auger
 Driller D. Paxinos Log By S.C. Hurley Date 11/11/93 Permit # N/A
 Checked By David Kleesattel License No. RG# 5136 D. Kleesattel

See Site Map
For Boring Location

COMMENTS:

The screen was set at approximately 1 feet below grade. The decon water in the soil cuttings were stored in 55-gal drums and left on site until the content could be analyzed for proper disposal. Depth to water was approximately 7.0 feet on 11-11-93.

Depth (ft.)	Well Completion	PID (ppm)	Sample ID	Blow Count/ % Recovery	Graphic Log	USCS Class.	Description
							(Color, Texture, Structure)
-2							
0							Concrete
0							Asphalt
2							CLAY, dark brown/olive, about 80% clay, about 20% silt, (very moist, strong hydrocarbon odor).
4		271	5	5 12 11		CL	(wet)
6							
8							Clayey SAND, gray, about 60% fine sand, about 30% clay, about 10% silt, (saturated, strong hydrocarbon odor).
10		875	10	6 8 14		SC	
12							(Grading to sand, tan, no hydrocarbon odor).
14		12.4	15	19 28 39			End of boring at 15 feet.
16							
18							
20							
22							
24							



GROUNDWATER
TECHNOLOGY

Drilling Log

Monitoring Well MW-8

Project CHV/9-1153 Owner CHV/USA
 Location 3126 Fernside Alameda Project No. 020200124 Date drilled 10/13/95
 Surface Elev. 7.39 ft. Total Hole Depth 9 ft. Diameter 6.25 in.
 Top of Casing 6.96 ft. Water Level Initial 4 ft. Static 4.40 ft.
 Screen: Dia 2 in. Length 6 ft. Type/Size PVC/0.020 in.
 Casing: Dia 2 in. Length 3 ft. Type PVC
 Filter Pack Material #3 Monterey Sand Rig/Core Type Simco 2400 SK-1/Splitspoon
 Drilling Company Geo-Environmental Method Hollow Stem Auger Permit # 95663
 Driller Jim Condry Log By Terry James
 Checked By Mike Blundell License No. R.G. 5146

See Site Map
For Boring Location

COMMENTS:

Well is located on Fernside Blvd. in front of a driveway

Depth (ft.)	Well Completion	PID (ppm)	Sample ID Blow Count/ % Recovery	Graphic Log	USCS Class.	Description (Color, Texture, Structure) Trace < 10%, Little 10% to 20%, Some 20% to 35%, And 35% to 50%
-2						
0						Asphalt: very thick
2						Aggregate base
2						Cobbles: up to 10 in., former road surface.
4						Clayey SAND: fine sand, dark brown, slightly plastic, damp, no hydrocarbon odor
4						Groundwater encountered during drilling
4						Static water level prior to development, 10/17/95
6					SC	Grades wet, slight light brown mottling
6						Clayey SAND (40,60): fine sand, light olive gray, medium stiff, slightly plastic, wet, no hydrocarbon odor
8						
10						End of boring (All percentages are approximate.)
12						
14						
16						
18						
20						
22						
24						



GROUNDWATER
TECHNOLOGY

Drilling Log

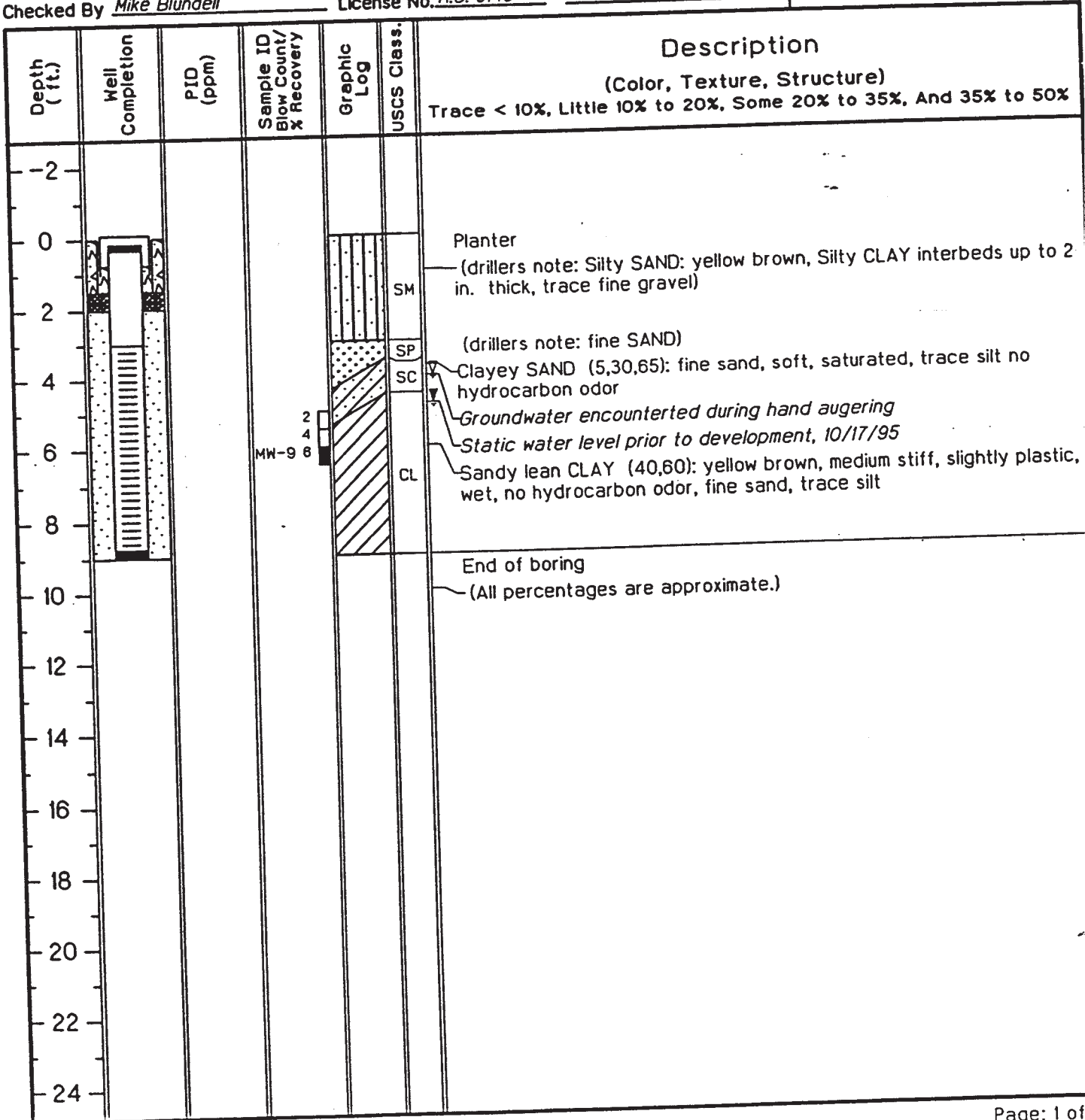
Monitoring Well MW-9

Project CHV/9-1153 Owner CHV/USA
 Location 3126 Fernside Alameda Project No. 020200124 Date drilled 10/13/95
 Surface Elev. 7.90 ft. Total Hole Depth 9 ft. Diameter 6.25 in.
 Top of Casing 7.21 ft. Water Level Initial 4 ft. Static 4.80 ft.
 Screen: Dia 2 in. Length 6 ft. Type/Size PVC/0.020 in.
 Casing: Dia 2 in. Length 3 ft. Type PVC
 Filter Pack Material #3 Monterey Sand Rig/Core Type Simco 2400 SK-1/Splitspoon
 Drilling Company Geo-Environmental Method Hollow Stem Auger Permit # 95663
 Driller Jim Condry Log By Terry James
 Checked By Mike Blundell License No. R.G. 5146

See Site Map
For Boring Location

COMMENTS:

Well is located in a landscaped median, at the intersection of Fernside Blvd. and High Street.



Drilling Log

Monitoring Well MW-10



GROUNDWATER
TECHNOLOGY

Project CHV/9-1153 Owner CHV/USA
 Location 3126 Fernside Alameda Project No. 020200124 Date drilled 10/13/95
 Surface Elev. 7.66 ft. Total Hole Depth 9 ft. Diameter 6.25 in.
 Top of Casing 7.28 ft. Water Level Initial 4 ft. Static 5.05 ft.
 Screen: Dia 2 in. Length 6 ft. Type/Size PVC/0.020 in.
 Casing: Dia 2 in. Length 3 ft. Type PVC
 Filter Pack Material #3 Monterey Sand Rig/Core Type Simco 2400 SK-1/Splitspoon
 Drilling Company Geo-Environmental Method Hollow Stem Auger Permit # 95663
 Driller Jim Condry Log By Terry James
 Checked By Mike Blundell License No. R.G. 5146

See Site Map
For Boring Location

COMMENTS:

Well is located in the center of the east bound lane, on High St.

Depth (ft.)	Well Completion	PID (ppm)	Sample ID Blow Count/ % Recovery	Graphic Log	USCS Class.	Description
						(Color, Texture, Structure) Trace < 10%, Little 10% to 20%, Some 20% to 35%, And 35% to 50%
-2						
0						Asphalt road
0						Aggregate base
2					SC	(drillers note: Clayey SAND: silty, clayey fine sand (20,30,50), dark gray, soft, damp, slight hydrocarbon odor)
4						Groundwater encountered during hand augering
4						Static water level prior to development, 10/17/95.
6					ML	SILT: Sandy clayey SILT (10,40,50), yellow brown, stiff, damp, slightly plastic, no hydrocarbon odor, slight green and brown mottling
6						
8						
10						End of boring (All percentages are approximate.)
12						
14						
16						
18						
20						
22						
24						

Drilling Log



**GROUNDWATER
TECHNOLOGY**

Soil Boring **TMW-1**

Project 3126 Fernside Blvd. Owner Chevron U.S.A., Inc.
 Location Alameda, CA Proj. No. 020204604
 Surface Elev. N/A ft. Total Hole Depth 15 ft. Diameter 8 in.
 Top of Casing N/A ft. Water Level Initial 6.5 ft. Static N/A ft.
 Screen: Dia N/A in. Length N/A ft. Type/Size N/A in.
 Casing: Dia N/A in. Length N/A ft. Type N/A
 Fill Material N/A Rig/Core Limited Access/Split Spoon
 Drill Co. SES, Inc. Method Hollow Stem Auger
 Driller D. Paxinos Log By S.C. Hurley Date 11/11/93 Permit # N/A
 Checked By David Kleesattel License No. RG# 5136 *David Kleesattel*

See Site Map
For Boring Location

COMMENTS:

The decon water and soil cuttings were stored 55-gallon drums and left on site until the contents could be analyzed for proper disposal. Depth to water was approximately 6.5 feet on 11-11-93.

Depth (ft.)	PID (ppm)	Sample ID	Blow Count/ x Recovery	Graphic Log	USCS Class.	Description (Color, Texture, Structure) Trace < 10%, Little 10% to 20%, Some 20% to 35%, And 35% to 50%
-2						
0				[Asphalt pattern]		Asphalt
2				[Sand pattern]		SAND, gray, about 100% fine sand, (about 50% quartz, about 50% mafic minerals).
4	5.6	5	6 9 10	[Clay pattern]		Sandy CLAY, brown, about 80% clay, about 20% fine sand, (moist, no hydrocarbon odor).
6					▽	(wet)
8				[Clay pattern]	CL	
10	5.6	10	8 11 12	[Clay pattern]		(saturated)
14		15	19 29 28	[Clay pattern]		(No recovery. End of boring at 15 feet.)
16						
18						
20						
22						
24						

Western Division EA		CLIENT Chevron	SITE NUMBER SS 9-1153	LOCATION 3126 Fernside Blvd. Alameda, CA
LOG OF SOIL BORING RW1		DRILLING AND SAMPLING METHODS Backhoe		
Coordinates: 122°16'30" W 37°46'19" N		WATER LEVEL 8	DRILLING START FINISH	
Elevation top of casing: N/A Casing below surface: N/A		TIME 10:00	TIME 9:00	TIME 12:00
		DATE 12/20/90	DATE 12/6/90	DATE 12/7/90
		REFERENCE Surface		

Inches		WELL DETAIL	DEPTH (Feet)	GRAPHIC LOG	SURFACE CONDITIONS Planter.
Driven	Recover				
			0	CL	Silt, clayey soil, black, moist, slight fuel odor.
			1	CL	Silty clay, black, strong fuel odor.
			2	CH	Gray/bluish clay, wet, strong odor.
		>1,000	3		
		>1,000	4	SC	Fine grained silty sand, dark gray, wet, fuel odor.
		>1,000	5		
		300	6		
		300	7	SC	Fine grained sand, light gray, saturated, clayey lenses.
		300	8		
			9		
			10		
			11		
			12		
			13		
			14		
			15		
			16		
			17		
			18		
			19		
			20		



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LOG OF SOIL BORING SB1

Coordinates:

Elevation top of casing:

Casing below surface:

CLIENT Chevron	SITE NUMBER SS 9-1153	LOCATION 3126 Fernside Drive Alameda, CA.
DRILLING AND SAMPLING METHODS Sampled using hand-driven modified California Split Spoon Sampler with 1.5" diam. brass liners. Starting at 5ft borehole was hand augered to 4" diam. and sampling was hand taken with 1.5" diam. brass liner from the soil cuttings.		
WATER LEVEL		DRILLING
TIME		START FINISH
DATE		TIME 10:30 TIME 12:00
REFERENCE		DATE 06/27/89 DATE 06/27/89

Inches Driven	Recover	Blows/6" Sampler	OVA Reading	WELL DETAIL	DEPTH (Feet)	GRAPHIC LOG	SURFACE CONDITIONS Flower bed at southeast corner of the site.
			1.5		0	SP	Gravelly Sand. Dark yellowish brown (10YR 4/2), moist, poorly graded, trace rootlets and organic material - bits of bark, etc., engineered fill, no odor.
			649		1	CL	
			567		2	SP	Silty Clay. Olive gray (5YR 4/1), damp, parting perp. to ground surface, parting surfaces have dark iron staining, abundant rootlets, strong product odor.
			98		3	CL	
			449		4	SP	Sand. Dusky brown (5YR 2/2), moist, very fine to medium grained, poorly graded, very strong product odor. Sand becomes dark yellowish brown by 2.5ft., strong product odor.
			519		5	CL	
			277		6	SP	Clay as above in top portion of sample.
			461		7	SP	
			534		8		Same sand as above.
			470		9		
			909		10	SP	Sand as above, saturated.
			16		11		
			39		12		GLOBULES OF PRODUCT ON WATER WHEN SAMPLED.
					13		
					14		
					15		
					16		
					17		
					18		
					19		
				20			



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LOG OF SOIL BORING SB2

Coordinates:

Elevation top of casing:

Casing below surface:

CLIENT Chevron	SITE NUMBER SS 9-1153	LOCATION 3126 Fernside Drive Alameda, CA.
DRILLING AND SAMPLING METHODS	Sampled using hand-driven modified California Split Spoon Sampler with 1.5" diam. brass liners. Starting at 5ft borehole was hand augered to 4" diam. and sampling was hand taken with 1.5" diam. brass liner from the soil cuttings.	
WATER LEVEL	2.8	DRILLING
TIME	15:30	START FINISH
DATE	6/28/89	TIME 12:25 TIME 13:20
REFERENCE	Grnd.	DATE 06/27/89 DATE 06/27/89

Inches Driven	Recover	Blows/6" Sampler	OVA Reading	WELL DETAIL	DEPTH (Feet)	GRAPHIC LOG	SURFACE CONDITIONS
			0	[Cross-hatched pattern]	0	SP	Garden area west of the garage on south side of the house.
			89		1	SP	DESCRIPTION by: C.B. Reaber
			25		2	SP	
			716		3	SP	Gravel and Sand Fill.
			624		4		Sand. Dark yellowish brown (10YR 4/2), saturated, fine to medium grained, poorly sorted, possible product odor.
			517		5		Interbedded Sand and Clay. Sand is dusky brown (5YR 2/2), very fine to medium grained, saturated, area of dark yellowish brown sand that is well sorted. Clay is medium gray (N5), slight to moderate plasticity, very strong product odor, high OVM readings came from both sand and clay.
			618		6	SP	
			658		7		Sand. Olive gray (5YR 3/2) to grayish black (N2), saturated, very fine grained to medium grained, as above, very strong product odor.
			457		8	SP	Same Sand as above.
			365		9	SP	As above.
			286	10		Flock at 9.5 ft. prevented further boring.	
			392	11		SHEEN ON WATER SAMPLED.	
			347	12			
			356	13			
			441	14			
				15			
				16			
				17			
				18			
				19			
				20			



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LOG OF SOIL BORING SB3

Coordinates:

Elevation top of casing:

Casing below surface:

CLIENT Chevron	SITE NUMBER SS 9-1153	LOCATION 3126 Fernside Drive Alameda, CA.
DRILLING AND SAMPLING METHODS Sampled using hand-driven modified California Split Spoon Sampler with 1.5" diam. brass liners. Starting at 5ft borehole was hand augered to 4" diam. and sampling was hand taken with 1.5" diam. brass liner from the soil cuttings.		
WATER LEVEL		DRILLING
TIME		START FINISH
DATE		TIME 14:35 TIME 15:15
REFERENCE		DATE 06/27/89 DATE 06/27/89

Inches Driven Recover	Blows/6" Sampler	OVA Reading	WELL DETAIL	DEPTH (Feet)	GRAPHIC LOG	SURFACE CONDITIONS	DESCRIPTION by:	
		0 9		0	SP	Beside sidewalk and walkway to house entrance on south end of house.	C.B. Reaber	
		10		1				Sand. Dark to dusky yellowish brown (10YR 4/2 to 10YR 2/2), saturated, poorly sorted, very fine grained to medium grained, mild product odor.
		931 856		2	SP			Sand (as above) except olive gray (5YR 4/1).
		790 968		3				
		888		4	SP			As above.
		506		5				AUGER REFUSAL
				6				
				7				
				8				
				9				
				10				
				11				
				12				
				13				
				14				
				15				
				16				
				17				
				18				
				19				
			20					



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LOG OF SOIL BORING SB4

Coordinates:

Elevation top of casing:

Casing below surface:

CLIENT Chevron	SITE NUMBER SS 9-1153	LOCATION 3126 Fernside Drive Alameda, CA.
DRILLING AND SAMPLING METHODS	Sampled using hand-driven modified California Split Spoon Sampler with 1.5" diam. brass liners. Starting at 5ft borehole was hand augered to 4" diam. and sampling was hand taken with 1.5" diam. brass liner from the soil cuttings.	
WATER LEVEL		DRILLING
TIME		START FINISH
DATE		TIME 11:55 TIME 14:25
REFERENCE		DATE 06/29/89 DATE 06/29/89

Inches	Driven	Recover	Blows/6" Sampler	OVA Reading	WELL DETAIL	DEPTH (Feet)	GRAPHIC LOG	SURFACE CONDITIONS	DESCRIPTION by:
								Located at the northernmost corner of the site	C.B. Reaber

				0		0	SP	Gravelly, Sandy Fill.
				0		1	SP	Sand. Dark yellowish brown (10YR 4/2), damp, very fine grained to medium grained, no odor.
						2		As above.
				0		3		
				0		4	SP	As above, but mottled dark yellowish brown (10YR 6/6) and light olive gray (5YR 5/2).
						5		
				0		6		
				0		7	SP	As above, but saturated.
						8		
				0		9	SP	As above.
				0		10		As above.
						11		
						12		
						13		
						14		
						15		
						16		
						17		
						18		
						19		
					20			



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LOG OF SOIL BORING SB5

Coordinates:

Elevation top of casing:

Casing below surface:

CLIENT Chevron	SITE NUMBER SS 9-1153	LOCATION 3126 Fernside Drive Alameda, CA.
DRILLING AND SAMPLING METHODS Sampled using hand-driven modified California Spill Spoon Sampler with 1.5" diam. brass liners. Starting at 5ft borehole was hand augered to 4" diam. and sampling was hand taken with 1.5" diam. brass liner from the soil cuttings.		
WATER LEVEL		DRILLING
TIME		START FINISH
DATE		TIME 14:30 TIME 16:20
REFERENCE		DATE 06/29/89 DATE 06/29/89

Inches Driven Recover	Blows/6" Sampler	OVA Reading	WELL DETAIL	DEPTH (Feet)	GRAPHIC LOG	SURFACE CONDITIONS	DESCRIPTION by:
		0		0	SP	Northeast of the house between the garage and the wall.	C.B. Reaber
		41		1	CL	Sandy Fill.	Clay. Olive gray (5YR 3/2), damp, moderately plastic, strong organic (product?) odor.
		263		2	SP	Sand. Dusky yellowish brown (10YR 2/2), very fine grained to medium grained, poorly sorted, strong product odor.	
		254		3		As above, except moist, very strong organic and product odor.	
		136		4	SP	As above, except moist.	
		162		5		Sand. Light olive gray, wet.	
		669		6		As above, except mottled dark yellowish brown (10YR 6/6) and light olive gray (5YR 5/2), increase in silt/clay.	
		730		7	SP		
		697		8			
		438		9	SP	As above.	
		486		10			
		523		11			
		201		12			
		9		13			
		10		14			
				15			
				16			
				17			
				18			
				19			
			20				



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LOG OF SOIL BORING SB6

Coordinates:

Elevation top of casing:

Casing below surface:

CLIENT Chevron	SITE NUMBER SS 9-1153	LOCATION 3126 Fernside Drive Alameda, CA.
DRILLING AND SAMPLING METHODS Sampled using hand-driven modified California Split Spoon Sampler with 1.5" diam. brass liners. Starting at 5ft borehole was hand augered to 4" diam. and sampling was hand taken with 1.5" diam. brass liner from the soil cuttings.		
WATER LEVEL		DRILLING START FINISH
TIME		TIME 10:30 TIME 13:15
DATE		DATE 06/08/89 DATE 06/08/89
REFERENCE		

Inches Driven Recover	Blows/6" Sampler	OVA Reading	WELL DETAIL	DEPTH (Feet)	GRAPHIC LOG	SURFACE CONDITIONS In asphalt at center line on Gibbons Drive, southeast of site.
		0		0		DESCRIPTION by: C.B. Reaber
		185		1	SC	Asphalt.
		225				Soil with wood.
		343		2	SP	Sand. Dark yellowish brown (10YR 4/2), moist, very fine grained to medium grained, poorly sorted, wood fibers in upper sample of upper sample tube, very strong product odor.
		150		3		As above, except color change to olive gray (5YR 4/1).
		125		4		As above, except saturated. Sample had obvious product in it, sheen was apparent throughout, trace clay, strong product odor.
		585		5	SP	As above except increase in clay. Mottled dark yellowish brown (10YR 6/6) and light olive gray (5YR 5/2).
		614		6		As above except decrease in clay.
		90		7	SP	As above except decrease in clay.
		38		8		
		6		9	SP	
		5		10		
		10		11		
		7		12		
				13		
				14		
				15		
				16		
				17		
				18		
			19			
			20			

WATER SAMPLE WAS 'VISCIOUS' AND TURBID-
PROBABLY HAD PRODUCT IN IT. BAILER INTO TSP
CLEANER CREATED SHEEN ON WATER.



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TECHNOLOGY, INC.

LOG OF SOIL BORING SB7

Coordinates:

Elevation top of casing:

Casing below surface:

CLIENT Chevron	SITE NUMBER SS 9-1153	LOCATION 3126 Fernside Drive Alameda, CA.
DRILLING AND SAMPLING METHODS Sampled using hand-driven modified California Split Spoon Sampler with 1.5" diam. brass liners. Starting at 5ft borehole was hand augered to 4" diam. and sampling was hand taken with 1.5" diam. brass liner from the soil cuttings.		
WATER LEVEL		DRILLING START FINISH
TIME		TIME 13:55 TIME 16:00
DATE		DATE 06/28/89 DATE 06/28/89
REFERENCE		

Inches Driven	Recover	Blows/6" Sampler	OVA Reading	WELL DETAIL	DEPTH (Feet)	GRAPHIC LOG	SURFACE CONDITIONS	DESCRIPTION by:
					0		In asphalt on center line of Gibbons Drive, south of site.	C.B. Reaber
			300		1	SP	Asphalt.	
			310		2		Sand. Olive gray (5YR 3/2), moist, very fine grained to medium grained, poorly sorted, moderate product odor.	
			111		3		Sand. As above except slightly lighter.	
			110		4	SP		
			60		5		Sand. As above except saturated and strong product odor.	
			59		6	SP		
			81		7		Sand. As above except mottled dark olive gray (10YR 6/6) and light olive gray (5YR 5/2), moderate to strong product odor.	
			76		8	SP		
			243		9		As above, possible product odor.	
			221		10	SP		
			255		11		As above, possible product odor.	
			123		12		As above.	
			89		13			
			68		14			
			5.3		15			
			8.8		16			
			4		17	SP		
			3		18			
			3.7		19			
			4		20			
							WATER SAMPLE WAS 'VISCIOUS'.	



EA ENGINEERING,
SCIENCE, AND
TECHNOLOGY, INC.

LOG OF SOIL BORING SB8

Coordinates:

Elevation top of casing:

Casing below surface:

CLIENT Chevron	SITE NUMBER SS 9-1153	LOCATION 3126 Fernside Drive Alameda, CA.	
DRILLING AND SAMPLING METHODS Sampled using hand-driven modified California Split Spoon Sampler with 1.5" diam. brass liners. Starting at 5ft borehole was hand augered to 4" diam. and sampling was hand taken with 1.5" diam. brass liner from the soil cuttings.		DRILLING START FINISH TIME 09:15 TIME 10:50 DATE 06/29/89 DATE 06/29/89	
WATER LEVEL	5.2		
TIME	10:55		
DATE	06/29/89		
REFERENCE			

Inches	Driven	Recoveries	Blows/6" Sampler	OVA Reading	WELL DETAIL	DEPTH (Feet)	GRAPHIC LOG	SURFACE CONDITIONS	DESCRIPTION by:
				0		0		In asphalt on far side of Gibbons Drive, south of the site	C.B. Reaber
				0		1	SP	Asphalt.	
				0		2		Sand, Dusky brown (5yr 2/2) to moderate brown (5YR 3/4), moist, very fine grained to medium grained, poorly sorted, trace rootlets, possible organic odor - no product odor.	
				0		3		Color change to mottled light brown (5YR 5/6) and light olive gray (5YR 6/1), wet, abundant rootlets, no odor.	
				0		4	SP	As above.	
				0		5		As above, except saturated, increase in silty clay with depth.	
				0		6	SP	As above.	
				0		7		As above.	
				0		8	SP	As above.	
				0		9		As above.	
						10			
						11			
						12			
						13			
						14			
						15			
						16			
						17			
						18			
						19			
					20				



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BORING / WELL LOG

CLIENT NAME	Chevron Environmental Management Company	BORING/WELL NAME	B-1
JOB/SITE NAME	9-1153	DRILLING STARTED	18-Jan-12
LOCATION	3135 Gibbons Drive, Alameda	DRILLING COMPLETED	18-Jan-12
PROJECT NUMBER	311642	WELL DEVELOPMENT DATE (YIELD)	NA
DRILLER	Vapor Tech Services, C-57 #916085	GROUND SURFACE ELEVATION	NA
DRILLING METHOD	Hand Auger	TOP OF CASING ELEVATION	NA
BORING DIAMETER	3-inches	SCREENED INTERVALS	NA
LOGGED BY	A. McDonell	DEPTH TO WATER (First Encountered)	4.50 fbg
REVIEWED BY	N. Lee, PG# 8486	DEPTH TO WATER (Static)	NA
REMARKS			

WELL LOG (PID) I:\CHEVRON\3116-311642-9-1153 ALAMEDA\311642-BORING LOGS\311642-SOIL BORINGS 2012.1.18.GPJ DEFAULT.GDT 4/9/12

PID (ppm)	BLOW COUNTS	SAMPLE ID	EXTENT DEPTH (fbg)	U.S.C.S.	GRAPHIC LOG	LITHOLOGIC DESCRIPTION	CONTACT DEPTH (fbg)	WELL DIAGRAM
2.1		B-1@3		SP		TOPSOIL SAND with silt: Dark brown; poorly graded, moist.	0.5	
307		B-2@5	5	SC		@3.5 fbg: Color change to greyish brown. @4.5 fbg: Color change to greenish grey; wet.	5.5	
				SM		Silty SAND: Greenish grey; wet. @ 9 fbg: Increase in sand.	8.0	
27		B-1@9.5	10				10.0	
								Bottom of Boring @ 10 fbg



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BORING / WELL LOG

CLIENT NAME	Chevron Environmental Management Company	BORING/WELL NAME	B-2
JOB/SITE NAME	9-1153	DRILLING STARTED	18-Jan-12
LOCATION	3135 Gibbons Drive, Alameda	DRILLING COMPLETED	18-Jan-12
PROJECT NUMBER	311642	WELL DEVELOPMENT DATE (YIELD)	NA
DRILLER	Vapor Tech Services, C-57 #916085	GROUND SURFACE ELEVATION	NA
DRILLING METHOD	Hand Auger	TOP OF CASING ELEVATION	NA
BORING DIAMETER	3-inches	SCREENED INTERVALS	NA
LOGGED BY	A. McDonell	DEPTH TO WATER (First Encountered)	4.50 fbg
REVIEWED BY	N. Lee, PG# 8486	DEPTH TO WATER (Static)	NA
REMARKS	Refusal at 7 ft due to boring caving in		

WELL LOG (PID) I:\CHEVRON\3116-311642-9-1153 ALAMEDA\311642-BORING LOGS\311642-SOIL BORINGS 2012.1.18.GPJ DEFAULT.GDT 4/9/12

PID (ppm)	BLOW COUNTS	SAMPLE ID	EXTENT	DEPTH (fbg)	U.S.C.S.	GRAPHIC LOG	LITHOLOGIC DESCRIPTION	CONTACT DEPTH (fbg)	WELL DIAGRAM
							FILL		
2.2		B-2 @ 3			SP		SAND: Medium brown; poorly graded, moist.	2.0	
3.4		B-2 @ 4.5			SM		Silty SAND: Greenish grey; wet. @ 5.5 fbg: Color change to dark grey. @ 6 fbg: Increase in silty and clay. @ 7 fbg: Increase in silt.	4.5	
								7.0	
									Bottom of Boring @ 7 fbg



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BORING / WELL LOG

CLIENT NAME	Chevron Environmental Management Company	BORING/WELL NAME	B-3
JOB/SITE NAME	9-1153	DRILLING STARTED	18-Jan-12
LOCATION	3135 Gibbons Drive, Alameda	DRILLING COMPLETED	18-Jan-12
PROJECT NUMBER	311642	WELL DEVELOPMENT DATE (YIELD)	NA
DRILLER	Vapor Tech Services, C-57 #916085	GROUND SURFACE ELEVATION	NA
DRILLING METHOD	Hand Auger	TOP OF CASING ELEVATION	NA
BORING DIAMETER	3-inches	SCREENED INTERVALS	NA
LOGGED BY	A. McDonell	DEPTH TO WATER (First Encountered)	4.50 fbg
REVIEWED BY	N. Lee, PG# 8486	DEPTH TO WATER (Static)	NA
REMARKS			

WELL LOG (PID) I:\CHEVRON\3116--\311642 9-1153 ALAMEDA\311642-BORING LOGS\311642-SOIL BORINGS 2012.1.18.GPJ DEFAULT.GDT 4/9/12

PID (ppm)	BLOW COUNTS	SAMPLE ID	EXTENT	DEPTH (fbg)	U.S.C.S.	GRAPHIC LOG	LITHOLOGIC DESCRIPTION	CONTACT DEPTH (fbg)	WELL DIAGRAM	
							TOPSOIL	1.0		
							FILL: Gravel, with asphalt and bricks.	2.0		
					CL		CLAY: Greenish grey; moist, high estimated plasticity.	3.0		
367		B-3 @ 3.5					Silty SAND: Dark brownish grey; fine grain sand; moist.			
846		B-3 @ 4.5		5	SM			4.50		
					SC		Clayey SAND: Medium grey; wet.	5.5		← Portland Type I/II
605		B-3 @ 7.5					Silty SAND: Medium grey; wet.	7.0		
					SM		@ 8 fbg: Increase in clay.			
178		B-3 @ 9.5		10			@ 9.5 fbg: Color change to dark brown; mottling.	10.0		
										Bottom of Boring @ 10 fbg



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BORING / WELL LOG

CLIENT NAME	Chevron Environmental Management Company	BORING/WELL NAME	B-4
JOB/SITE NAME	9-1153	DRILLING STARTED	18-Jan-12
LOCATION	3135 Gibbons Drive, Alameda	DRILLING COMPLETED	18-Jan-12
PROJECT NUMBER	311642	WELL DEVELOPMENT DATE (YIELD)	NA
DRILLER	Vapor Tech Services, C-57 #916085	GROUND SURFACE ELEVATION	NA
DRILLING METHOD	Hand Auger	TOP OF CASING ELEVATION	NA
BORING DIAMETER	3-inches	SCREENED INTERVALS	NA
LOGGED BY	A. McDonell	DEPTH TO WATER (First Encountered)	4.50 fbg
REVIEWED BY	N. Lee, PG# 8486	DEPTH TO WATER (Static)	NA
REMARKS			

WELL LOG (PID) I:\CHEVRON\3116--\311642-9-1153 ALAMEDA\311642-BORING LOGS\311642-SOIL BORINGS 2012.1.18.GPJ DEFAULT.GDT 4/9/12

PID (ppm)	BLOW COUNTS	SAMPLE ID	EXTENT	DEPTH (fbg)	U.S.C.S.	GRAPHIC LOG	LITHOLOGIC DESCRIPTION	CONTACT DEPTH (fbg)	WELL DIAGRAM
							TOPSOIL: Brown; top soil with gravel fill.	0.5	
					SM		Silty SAND: Grey brown; medium grain sand; moist.		
366		B-4 @ 3			CL		CLAY: Greyish green; high estimated plasticity, moist.	3.0	
							Silty SAND: Grey; wet.	3.5	
					SM			5.0	
				5			Clayey SAND: Grey, mottled; wet.		
686		B-4 @ 6			SC				
							SAND with silt: Grey; mottled; poorly sorted, wet.	7.0	
					SP			8.0	
					SM		Silty SAND: Grey; mottled, wet.		
462		B-4 @ 9.5						10.0	Bottom of Boring @ 10 fbg



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BORING / WELL LOG

CLIENT NAME	Chevron Environmental Management Company	BORING/WELL NAME	B-5
JOB/SITE NAME	9-1153	DRILLING STARTED	18-Jan-12
LOCATION	3135 Gibbons Drive, Alameda	DRILLING COMPLETED	18-Jan-12
PROJECT NUMBER	311642	WELL DEVELOPMENT DATE (YIELD)	NA
DRILLER	Vapor Tech Services, C-57 #916085	GROUND SURFACE ELEVATION	NA
DRILLING METHOD	Hand Auger	TOP OF CASING ELEVATION	NA
BORING DIAMETER	3-inches	SCREENED INTERVALS	NA
LOGGED BY	A. McDonell	DEPTH TO WATER (First Encountered)	4.50 fbg
REVIEWED BY	N. Lee, PG# 8486	DEPTH TO WATER (Static)	NA
REMARKS			

WELL LOG (PID) I:\CHEVRON\3116--\311642-9-1153 ALAMEDA\311642-BORING LOGS\311642-SOIL BORINGS 2012.1.18.GPJ DEFAULT.GDT 4/9/12

PID (ppm)	BLOW COUNTS	SAMPLE ID	EXTENT	DEPTH (fbg)	U.S.C.S.	GRAPHIC LOG	LITHOLOGIC DESCRIPTION	CONTACT DEPTH (fbg)	WELL DIAGRAM
							TOPSOIL: Brown, cobbles and fill, dry.		
					ML		SILT with sand: Tan; dry.	2.0	
1164		B-5 @ 3					SAND with silt: Brown; poorly sorted; dry.	3.0	
552		B-5 @ 4.5		5	SP		@ 4.5: Color change to grey green; wet.		
513		B-5 @ 6					Sandy SILT: Grey; with trace clay; low estimated plasticity; wet.	7.0	
200		B-5 @ 9.5		10	ML		@8 fbg: Color change to brown; mottled.	10.0	Bottom of Boring @ 10 fbg



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BORING / WELL LOG

CLIENT NAME	Chevron Environmental Management Company	BORING/WELL NAME	B-6
JOB/SITE NAME	9-1153	DRILLING STARTED	18-Jan-12
LOCATION	3135 Gibbons Drive, Alameda	DRILLING COMPLETED	18-Jan-12
PROJECT NUMBER	311642	WELL DEVELOPMENT DATE (YIELD)	NA
DRILLER	Vapor Tech Services, C-57 #916085	GROUND SURFACE ELEVATION	NA
DRILLING METHOD	Hand Auger	TOP OF CASING ELEVATION	NA
BORING DIAMETER	3-inches	SCREENED INTERVALS	NA
LOGGED BY	A. McDonell	DEPTH TO WATER (First Encountered)	4.50 fbg
REVIEWED BY	N. Lee, PG# 8486	DEPTH TO WATER (Static)	NA
REMARKS			

WELL LOG (PID) I:\CHEVRON\3116--\311642 9-1153 ALAMEDA\311642-BORING LOGS\311642-SOIL BORINGS 2012.1.18.GPJ DEFAULT.GDT 4/9/12

PID (ppm)	BLOW COUNTS	SAMPLE ID	EXTENT	DEPTH (fbg)	U.S.C.S.	GRAPHIC LOG	LITHOLOGIC DESCRIPTION	CONTACT DEPTH (fbg)	WELL DIAGRAM
							TOPSOIL: Tan; dry; with fill.	1.0	
							Silty SAND: Tan; dry.		
304		B-6 @ 3					@2 fbg: Color change to black; moist.		
573		B-6 @ 4.5		5	SM		@4 fbg: Color change to greenish grey; wet. @5 fbg: Color change to grey.		
120		B-6 @ 6					@7 fbg: Trace clay.		
54		B-6 @ 9.5		10				10.0	Bottom of Boring @ 10 fbg



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BORING / WELL LOG

CLIENT NAME	Chevron Environmental Management Company	BORING/WELL NAME	B-7
JOB/SITE NAME	9-1153	DRILLING STARTED	18-Jan-12
LOCATION	3135 Gibbons Drive, Alameda	DRILLING COMPLETED	18-Jan-12
PROJECT NUMBER	311642	WELL DEVELOPMENT DATE (YIELD)	NA
DRILLER	Vapor Tech Services, C-57 #916085	GROUND SURFACE ELEVATION	NA
DRILLING METHOD	Hand Auger	TOP OF CASING ELEVATION	NA
BORING DIAMETER	3-inches	SCREENED INTERVALS	NA
LOGGED BY	A. McDonell	DEPTH TO WATER (First Encountered)	5.50 fbg
REVIEWED BY	N. Lee, PG# 8486	DEPTH TO WATER (Static)	NA
REMARKS			

WELL LOG (PID) I:\CHEVRON\3116--\311642-9-1153 ALAMEDA\311642-BORING LOGS\311642-SOIL BORINGS 2012.1.18.GPJ DEFAULT.GDT 4/9/12

PID (ppm)	BLOW COUNTS	SAMPLE ID	EXTENT DEPTH (fbg)	U.S.C.S.	GRAPHIC LOG	LITHOLOGIC DESCRIPTION	CONTACT DEPTH (fbg)	WELL DIAGRAM
0		B-7 @ 3		SP		SAND: Brown; dry, poorly graded.		
			5	SW		SAND with gravel: Brown; fine grained sand, medium grained gravel; well graded; moist. @5.5 fbg: Color change to grey; wet.	3.5 5.5	
0		B-7 @ 6				Abandoned due to subsurface obstruction.	6.5	



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BORING / WELL LOG

CLIENT NAME	Chevron Environmental Management Company	BORING/WELL NAME	B-8
JOB/SITE NAME	9-1153	DRILLING STARTED	18-Jan-12
LOCATION	3135 Gibbons Drive, Alameda	DRILLING COMPLETED	18-Jan-12
PROJECT NUMBER	311642	WELL DEVELOPMENT DATE (YIELD)	NA
DRILLER	Vapor Tech Services, C-57 #916085	GROUND SURFACE ELEVATION	NA
DRILLING METHOD	Hand Auger	TOP OF CASING ELEVATION	NA
BORING DIAMETER	3-inches	SCREENED INTERVALS	NA
LOGGED BY	A. McDonell	DEPTH TO WATER (First Encountered)	5.00 fbg
REVIEWED BY	N. Lee, PG# 8486	DEPTH TO WATER (Static)	NA
REMARKS			

WELL LOG (PID) I:\CHEVRON\3116--\311642-9-1153 ALAMEDA\311642-BORING LOGS\311642-SOIL BORINGS 2012.1.18.GPJ DEFAULT.GDT 4/9/12

PID (ppm)	BLOW COUNTS	SAMPLE ID	EXTENT	DEPTH (fbg)	U.S.C.S.	GRAPHIC LOG	LITHOLOGIC DESCRIPTION	CONTACT DEPTH (fbg)	WELL DIAGRAM
0		B-8 @ 3			SP		SAND: Brown; dry; poorly graded.	1.5	
					SW		SAND with gravel: Brown; dry; roots.	4.0	
0		B-8 @ 5		5	SC		Clayey SAND: Grey; moist. @ 5 fbg: Color change to black, increase in silt.	7.5	
							Abandoned due to boring caving.		

Appendix C

Previous Environmental Investigations and Remediation

PREVIOUS ENVIRONMENTAL INVESTIGATION AND REMEDIATION

1986 UST Removal and Excavation

The underground storage tanks (USTs) were removed and an unreported volume of soil was excavated from the former UST pit and product line trenches. Excavated soil was aerated onsite and used as backfill. Additional information is available in Blaine Tech Services, Inc.'s June 19, 1986 *Field Sampling* report and Weiss Associates' (Weiss) December 20, 1994 *Comprehensive Site Evaluation and Proposed Future Action Plan*.

1986 Well Installation

Wells C-1 through C-3 were installed onsite. Additional information is available in Emcon Associates' September 18, 1986 *Well Installation Memorandum*.

1987 Area Well Survey

In August 1987, Pacific Environmental Group, Inc. (PEG) conducted a well survey and identified wells within approximately 0.5 mile of the site. The majority of these wells were used for groundwater monitoring or cathodic protection and some were used for irrigation. None of the wells were listed as municipal drinking water supply wells. Additional information is available in PEG's August 12, 1987 *Well Survey Report*.

1989 House Construction and Destruction of Monitoring Well C-2

According to Weiss' December 20, 1994 *Comprehensive Site Evaluation and Proposed Future Action Plan*, Chevron indicated a majority of the soil beneath the planned residence footprint was removed for installation of the foundation. No exact depth was indicated. Groundwater monitoring well C-2 was apparently destroyed during construction prior to May 1989. Additional information is available in Weiss' December 20, 1994 *Comprehensive Site Evaluation and Proposed Future Action Plan*.

1987 and 1989 Soil Vapor Survey

Soil vapor surveys were conducted to quantify vapor intrusion to indoor air risks for onsite residents. Based on vapor concentrations from samples collected from the southeastern portion of the site, a vapor barrier was recommended for any structures. Additional information is available in EA Engineering's August 19, 1987 *Risk Assessment* and June 9, 1989 *Soil Vapor Contaminant Assessment Report of Investigation*.

1989 Subsurface Investigation

In July 1989, EA collected soil samples from between 0.5 and 9.5 feet below grade (fbg) in five shallow onsite borings and three shallow offsite borings (SB1 through SB8). The highest concentrations of total petroleum hydrocarbons as gasoline (TPHg) and benzene, toluene, ethylbenzene and xylenes (BTEX) were found in the areas east of the UST complex and pump islands. Additional information is available in Weiss' December 20, 1994 *Comprehensive Site Evaluation and Proposed Future Action Plan*.

1991 Groundwater Treatment

A groundwater pump and treat system was installed and operated by EA from 1991 to 1994. The system extracted groundwater from a recovery trench and extraction well RW-1. Additional information is available in Weiss' December 20, 1994 *Comprehensive Site Evaluation and Proposed Future Action Plan*.

1992 Well Installations

Offsite wells MW-4 through MW-6 were installed to further delineate the lateral extent of dissolved hydrocarbons. Additional information is available in Groundwater Technology Inc.'s (GTI) July 16, 1992 *Environmental Assessment Report*.

1993 Offsite Groundwater Sampling

Weiss collected groundwater samples from temporary offsite borings BH-A, BH-B, and BH-C, located crossgradient and downgradient of the groundwater extraction trench. Additional information is available in Weiss' December 20, 1994 *Comprehensive Site Evaluation and Proposed Future Action Plan*.

1993 Monitoring Well Installation

On November 11, 1993 GTI installed groundwater monitoring well MW-7 and temporary monitoring well TMW-1 to further characterize the distribution of hydrocarbons in soil and groundwater upgradient and downgradient of the site. Additional information is available in GTI's January 31, 1994 *Additional Environmental Assessment Report*.

1994 Site Evaluation and Proposed Further Action

At Chevron's request, Weiss prepared a site evaluation to summarize all investigative and remedial actions performed to date and to outline a recommended future action plan. Additional information is available in WA's December 20, 1994 *Site Evaluation and Proposed Further Action Plan*.

1995 Well Installations

Wells MW-8 through MW-10 were installed to further delineate the downgradient extent of hydrocarbons in groundwater. Additional information is available in GTI's October 31, 1995 *Additional Site Assessment Report*.

1996 Evaluation for Potential Migration Pathway via Buried Utility Pipelines

Fluor Daniel GTI (FD-GTI) compiled utility location and depth information to analyze the potential for offsite migration of dissolved hydrocarbons in utility trenches. The report concluded that several utilities penetrated groundwater, but that these utilities were not acting as preferential pathways. The report states that the buried utilities were installed in materials similar to native soil and were unlikely to result in preferential flow. In addition, monitoring well data near the utilities was not consistent with

preferential flow. Additional information is available in FD-GTI's May 15, 1996 *Evaluation for Potential Migration Pathway via Buried Utility Pipelines*.

1996 Geophysical Investigation for Buried Underground Storage Tanks

FD-GTI performed a geophysical survey of approximately 70 feet of sidewalk along Gibbons Boulevard and near monitoring well C-1. Both ground penetrating radar and vertical magnetic gradiometer were used. No buried underground storage tanks were identified within the survey areas. Additional information is available in FD-GTI's July 8, 1996 *Geophysical Investigation for Buried Underground Storage Tanks*.

1997 Shallow Soil Investigation

Shallow soil samples S-1 through S-15 were collected along the north, west, and east property boundaries to assess lead concentrations in onsite soil. Additional information is available in Gettler-Ryan's (G-R) October 22, 1997 *Soil Sampling Report*.

1997 ORC and Peroxide Injection

Oxygen releasing compound (ORC) was placed in well MW-6 and MW-7 and hydrogen peroxide was injected in well MW-1 to remediate light non-aqueous phase liquids. Additional information is available in Chevron Energy Research and Technology Company's (Chevron ETC) May 2003 *Risk-Based Corrective Action Evaluation of Vapor Intrusion to Indoor Air from Soil Vapor*,

1998 Bio-Parameter Evaluation

Three samples collected during the third quarter 1998 groundwater monitoring event were analyzed for bio-parameter data to evaluate biodegradation processes. The report concluded that not enough parameters indicated biodegradation was occurring. However, the report states that the recently added ORC and hydrogen peroxide would potentially increase bioremediation. Additional information is available in Chevron's September 29, 1998 *Bio-Remediation Evaluation Letter*.

1999 Hydrogen Peroxide Injection

In July 1999, Cambria Environmental Technology, Inc. (Cambria) injected a hydrogen peroxide solution into well C-1 to oxidize residual hydrocarbons. Additional information is available in Cambria's July 12, 1999 *Hydrogen Peroxide Injection* report.

2001 to 2002 Groundwater Batch Extraction Events

Five groundwater batch extraction events were conducted. These events were discontinued because of inconvenience to the resident. Additional Information available in Chevron ETC's May 2003 *Risk-Based Corrective Action Evaluation of Vapor Intrusion to Indoor Air from Soil Vapor*.

2002-2003 Vapor Intrusion Study and Risk-Based Correction Action Evaluation of Vapor Intrusion to Indoor Air from Soil Vapor

Borings SV-1 through SV-7 were hand-augured along the edges of the current building and soil-vapor samples were collected from temporary probes. These data were used to evaluate potential indoor air risks to onsite residents. Data was compared to the United States Environmental Protection Agency's established target risk levels for adults and children. The report concludes that vapor intrusion risks from soil vapor intrusion to indoor air were below the established guidelines. Additional information is available in Chevron ETC's May 2003 *Risk-Based Corrective Action Evaluation of Vapor Intrusion to Indoor Air from Soil Vapor*.

2010 Preferential Pathway and Well Survey

In 2010, Conestoga-Rovers & Associates (CRA) completed another preferential pathway analysis and well survey. CRA located electric, natural gas, water, communication, storm drain sewer, and sanitary sewer lines near the site. Although some of these utilities periodically intersect the groundwater table, hydrocarbon concentrations in monitoring wells indicate that utilities are not acting as significant pathways for hydrocarbon migration. This is consistent with previous assessments. The closest water supply wells are over 1,000 feet from the site. These wells are either upgradient or located in Oakland across the Oakland Alameda Estuary. The wells identified in the survey are not at risk from hydrocarbons originating from the site. Additional information is available in CRA's September 30, 2010 *Preferential Pathway Study and Well Survey Report*.

2012 Subsurface and Crawl Space and Indoor Ambient Air Investigation

In 2012, Conestoga-Rovers & Associates (CRA) collected indoor ambient air samples IA-1 and IA-2 from inside the residence, ambient air samples CS-1 and CS-2 from within the crawl space, and outdoor ambient air sample OA-1. Also eight soil borings B-1 through B-8 were advanced onsite. Additional information is available in CRA's April 18, 2012 *Subsurface and Crawl Space, Indoor and Ambient Air Investigation Report*.

2013 Subsurface and Crawl Space and Indoor Ambient Air Investigation

In 2013, Conestoga-Rovers & Associates (CRA) installed sub-slab vapor probes SSVP-1 and SSVP-2 in the garage and collected indoor ambient air samples IA-1 through IA-2 from inside the residence and IA-3 from inside the garage, ambient air samples CS-1 and CS-2 from within the crawl space, outdoor ambient air sample OA-1, and sub-slab soil vapor samples from SSVP-1 and SSVP-2. Additional information is available in CRA's December 20, 2013 *Crawl Space, Indoor Ambient Air and Sub-Slab Soil Gas Investigation Report*.

Appendix D

Groundwater Extraction Performance Data and RW-1 Construction

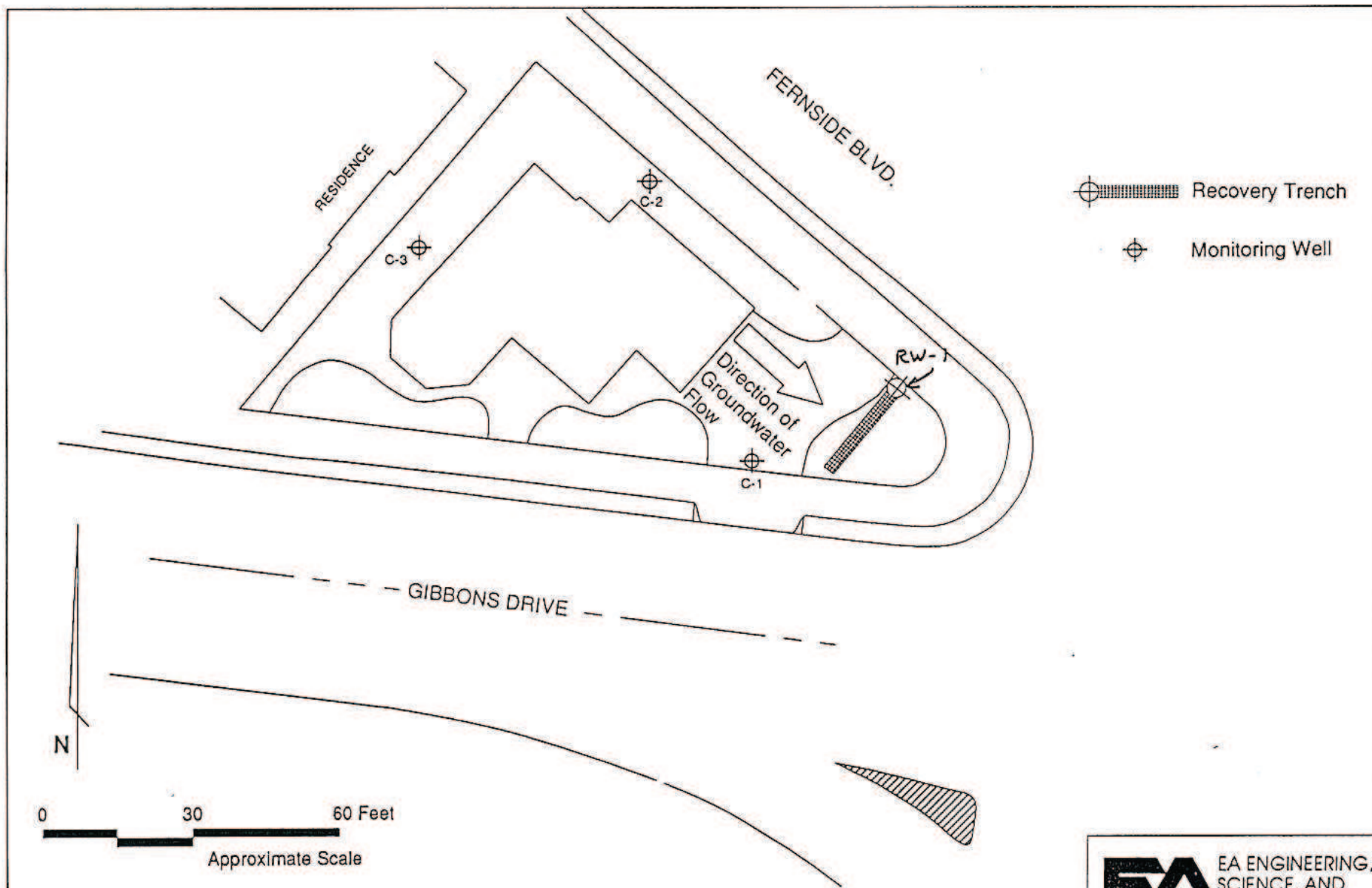


Figure 1. Monitoring/recovery well and recovery trench location, former Chevron SS 9-1153, Alameda, California.

Drawn	Date
Reviewed	Date

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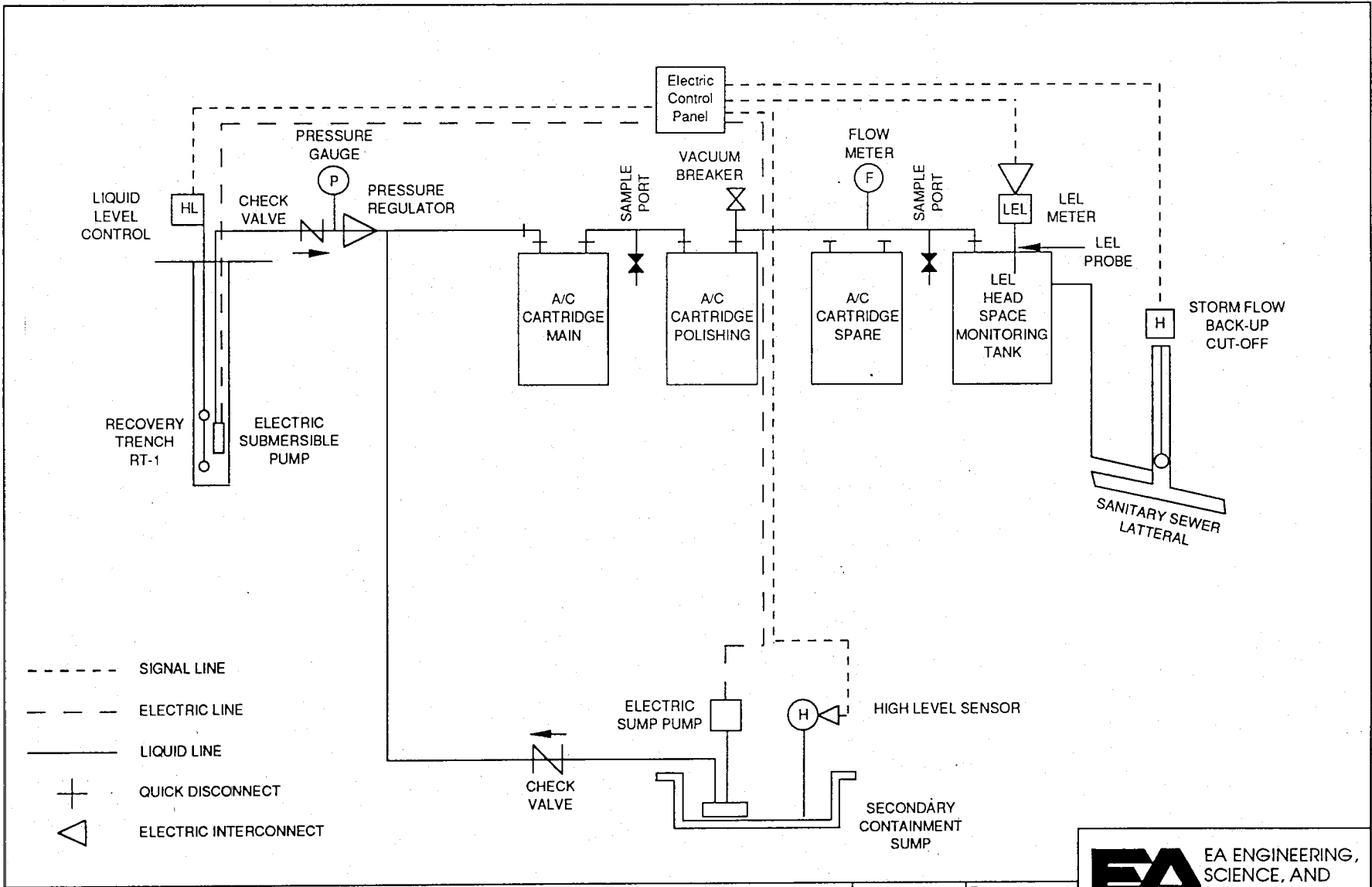


Figure 12. Process and Instrumentation Diagram, former Chevron SS 9-1153, Alameda, California.

Drawn	Date
Reviewed <i>JB</i>	Date <i>3-9-90</i>

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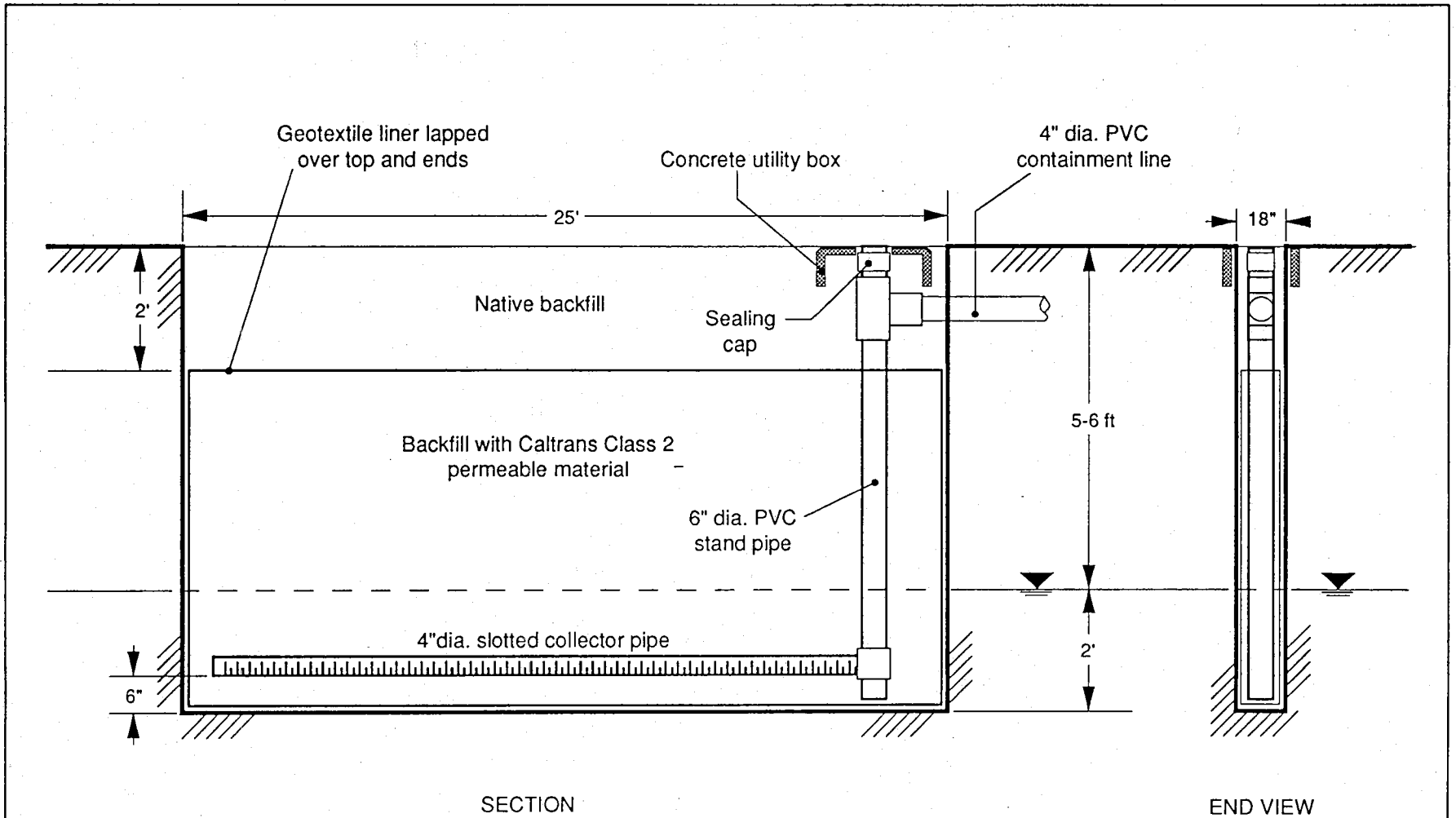


Figure 13. Detail of proposed recovery trench, former Chevron SS 9-1153, Alameda, California.

Drawn	Date
Reviewed	Date

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Table 1. Performance Summary, Chevron Service Station #9-1153,
3126 Fernside Drive, Alameda, California

DATE SAMPLED	TOTAL FLOW (gallons)	FLOW BETWEEN READINGS	DAYS BETWEEN READINGS	AVERAGE FLOW (gpm)	NOTES
10/03/91 a	659	0	0	-	
10/07/91	821	162	4	0.03	
10/18/91	1,051	230	11	0.01	
10/28/91	2,017	966	10	0.07	
11/05/91	2,698	681	8	0.06	
11/15/91	3,546	848	10	0.06	
11/21/91	4,234	688	6	0.08	
12/05/91	5,130	896	14	0.04	
01/06/92	7,788	2,658	32	0.06	
01/28/92	8,961	1,173	22	0.04	
02/10/92	10,597	1,636	13	0.09	
02/18/92	15,181	4,584	8	0.40	
03/06/92	18,157	2,976	17	0.12	
03/13/92	18,991	834	7	0.08	
03/18/92	NM	NM	5	-	
03/24/92	21,042	2,051	6	0.24	
04/29/92	25,392	4,350	36	0.08	
05/12/92	29,862	4,470	13	0.24	
06/09/92	36,730	6,868	28	0.17	
07/14/92	39,950	3,220	35	0.06	
08/11/92	41,880	1,930	28	0.05	
09/09/92	44,043	2,163	29	0.05	
10/07/92	45,840	1,797	28	0.04	
11/10/92	48,742	2,902	34	0.06	
12/30/92	55,797	7,055	50	0.10	
01/12/93	59,091	3,294	13	0.18	
02/10/93	66,506	7,415	29	0.18	
03/09/93	70,412	3,906	27	0.10	
04/22/93	75,176	4,764	44	0.08	
05/10/93	76,443	1,267	18	0.05	
06/21/93	76,460	17	42	0.00	Discharge line found clogged. Cleaned and restarted
07/14/93	78,552	2,092	23	0.06	Pressure regulator repaired. System operational
08/19/93	79,348	1,296	36	0.03	
09/09/93	80,514	666	21	0.02	Carbon drum #1 changed out.
09/17/93	80,722	208	8	0.02	
10/15/93	81,160	438	28	0.01	
10/19/93	81,242	82	4	0.01	Autodialer installed.
10/28/93	82,019	777	9	0.06	Autodialer indicated system off on 11/29/93.
12/07/93	84,316	2,297	40	0.04	System operational when inspected.
03/22/94	94,022	9,706	105	0.06	
04/13/94	95,022	1,900	22	0.06	
04/26/94	97,331	1,409	13	0.08	
05/31/94	99,850	2,519	35	0.05	System shut off indefinitely.

Notes:

a = Values for 10/3/91 thru 2/18/92 based on data collected by EA Engineering, Science, and Technology, Lafayette, CA
gpm = gallons per minute

Table 2. Summary of Analytic Results, Chevron Service Station #9-1153, 3126 Fernside Drive, Alameda, California

DATE SAMPLED	LAB	SYSTEM INFLUENT					SYSTEM MIDPOINT					SYSTEM EFFLUENT				
		TPH-G	B	E	T	X	First Carbon Effluent					Second Carbon Effluent				
							TPH-G	B	E	T	X	TPH-G	B	E	T	X
-----parts per billion (ppb)----->																
10/03/91	a SPA	47,000	7,100	1,300	4,100	4,900	<50	2.1	0.5	1.3	1.7	<50	<0.5	<0.5	<0.5	<0.5
10/07/91	SPA	29,000	57,000	1,000	4,100	4,800	<50	<0.5	<0.5	<0.5	<0.5	<50	<0.5	<0.5	<0.5	<0.5
10/18/91	SPA	40,000	4,600	660	2,300	2,700	<50	<1	<3	<3	<3	<50	<1	<3	<3	<3
10/28/91	SPA	9,500	900	190	790	1,000	<50	<0.5	<0.5	1.4	<0.5	<50	<0.5	<0.5	1.4	<0.5
11/05/91	SPA	14,000	2,700	330	1,600	1,500	<50	<0.5	<0.5	<0.5	<0.5	<50	<0.5	<0.5	<0.5	<0.5
11/15/91	SPA	12,000	3,700	300	1,700	1,300	<50	<0.5	<0.5	<0.5	<0.5	<50	<0.5	<0.5	<0.5	<0.5
11/21/91	SPA	15,000	4,000	360	2,600	1,800	NA	NA	NA	NA	NA	<50	<0.5	<0.5	<0.5	<0.5
12/05/91	SPA	15,000	3,200	290	1,800	1,400	<50	<0.5	<0.5	<0.5	<0.5	<50	<0.5	<0.5	<0.5	<0.5
01/06/92	SPA	2,000	340	35	190	170	<50	<0.5	<0.5	<0.5	<0.5	<50	<0.5	<0.5	<0.5	<0.5
01/28/92	SPA	5,300	1,600	100	730	490	<50	<0.5	<0.5	<0.5	<0.5	<50	<0.5	<0.5	<0.5	<0.5
02/10/92	SPA	27,000	8,700	520	2,800	1,500	<50	<0.5	<0.5	<0.5	<0.5	<50	<0.5	<0.5	<0.5	<0.5
02/18/92	SPA	22,000	5,700	420	2,800	1,500	88	25	1.5	11	5.6	<50	<0.5	<0.5	<0.5	<0.5
03/06/92	SPA	16,000	2,700	150	940	640	<50	<0.5	<0.5	<0.5	<0.5	<50	<0.5	<0.5	<0.5	<0.5
03/13/92	SPA	33,000	9,200	520	4,300	2,600	<50	<0.5	<0.5	<0.5	<0.5	<50	<0.5	<0.5	<0.5	<0.5
03/18/92	SPA	42,000	17,000	720	5,200	2,700	<50	1.4	<0.5	<0.5	<0.5	<50	<0.5	<0.5	<0.5	<0.5
03/24/92	SPA	5,800	5,500	250	1,600	870	<50	1.0	<0.5	<0.5	<0.5	<50	<0.5	<0.5	<0.5	<0.5
04/29/92	SPA	24,000	3,400	260	1,300	1,100	<50	0.7	<0.5	<0.5	<0.5	<50	<0.5	<0.5	<0.5	<0.5
05/12/92	SPA	11,000	1,400	120	600	680	<50	1.2	0.6	<0.5	<0.5	<50	<0.5	<0.5	<0.5	<0.5
06/09/92	SPA	48,000	8,600	820	4,500	3,700	<50	1.0	<0.5	<0.5	<0.5	<50	<0.5	<0.5	<0.5	<0.5
07/14/92	SPA	66,000	9,900	1,300	7,400	6,800	<50	0.9	<0.5	<0.5	<0.5	<50	<0.5	<0.5	<0.5	<0.5
08/11/92	SPA	85,000	11,000	1,600	7,500	7,400	<50	1.3	<0.5	<0.5	<0.5	<50	<0.5	<0.5	<0.5	<0.5
09/09/92	SPA	3,400	840	<5	34	220	<50	<0.5	<0.5	<0.5	<0.5	<50	<0.5	<0.5	<0.5	<0.5
10/07/92	SPA	52,000	9,100	1,100	4,800	5,000	51	2.1	<0.5	<0.5	<0.5	<50	<0.5	<0.5	<0.5	<0.5
11/07/92	SPA	60,000	13,000	920	5,000	4,500	59	3.9	<0.5	0.5	<0.5	<50	<0.5	<0.5	<0.5	<0.5
12/30/92	SPA	17,000	1,600	150	800	1,200	78	14	<0.5	<0.5	<0.5	<50	<0.5	<0.5	<0.5	<0.5

-- Table 2 continues on next page --



Table 2. Summary of Analytic Results, Chevron Service Station #9-1153, 3126 Fernside Drive, Alameda, California
(continued)

DATE SAMPLED	LAB	SYSTEM INFLUENT					SYSTEM MIDPOINT First Carbon Effluent					SYSTEM EFFLUENT Second Carbon Effluent				
		TPH-G	B	E	T	X	TPH-G	B	E	T	X	TPH-G	B	E	T	X
-----parts per billion (ppb)-----																
01/19/93	SPA	110,000	16,000	1,300	12,000	6,000	99	25	<0.5	<0.5	<0.5	<50	<0.5	<0.5	<0.5	<0.5
02/10/93	SPA	89,000	6,900	1,300	11,000	7,700	150	32	<0.5	<0.5	<0.5	<50	<0.5	<0.5	<0.5	<0.5
03/09/93	SPA	110,000	18,000	570	13,000	6,500	220	57	<0.5	<0.5	<0.5	<50	<0.5	<0.5	<0.5	<0.5
04/22/93	SPA	190,000	17,000	2,700	20,000	14,000	910	180	18	22	4.9	<50	<0.5	<0.5	<0.5	<1.5
05/10/93	SPA	150,000	19,000	2,500	18,000	14,000	440	180	<0.5	0.9	<1.5	<50	<0.5	<0.5	<0.5	<1.5
06/21/93	SPA	58,000	7,500	1,800	15,000	11,000	510	160	<0.5	1.2	2.1	<50	<0.5	<0.5	<0.5	<1.5
07/14/93	SPA	67,000	6,600	1,700	7,800	14,000	400	250	<0.5	1.8	<1.5	<50	<0.5	<0.5	<0.5	<1.5
08/19/93	SPA	82,000	8,400	1,200	4,300	9,000	640	210	<0.5	1.2	<1.5	<50	<0.5	<0.5	<0.5	<1.5
09/17/93	SPA	53,000	6,700	940	3,000	6,200	<50	<0.5	<0.5	<0.5	<0.5	<50	<0.5	<0.5	<0.5	<1.5
03/22/94	SPA	71,000	17,000	1,100	10,000	6,100	<50	1.6	<0.5	0.6	<0.5	<50	<0.5	<0.5	<0.5	<0.5

Abbreviations:

a = Values for 10/3/91 thru 2/18/92 based on data collected by EA Engineering, science, and Technology, Lafayette, CA

NA = Not Available

TPH-G = Total petroleum hydrocarbons as gasoline by modified EPA Method 8015

B = Benzene By EPA Method 8020

E = Ethlybenzene by EPA Method 8020

T = Tolueneby EPA Method 8020

X = Xylenes by EPA Method 8020

<n = Not detected at detection limit of n ppb

SPA = Superior Precision Analytical Lab, San Francisco, California

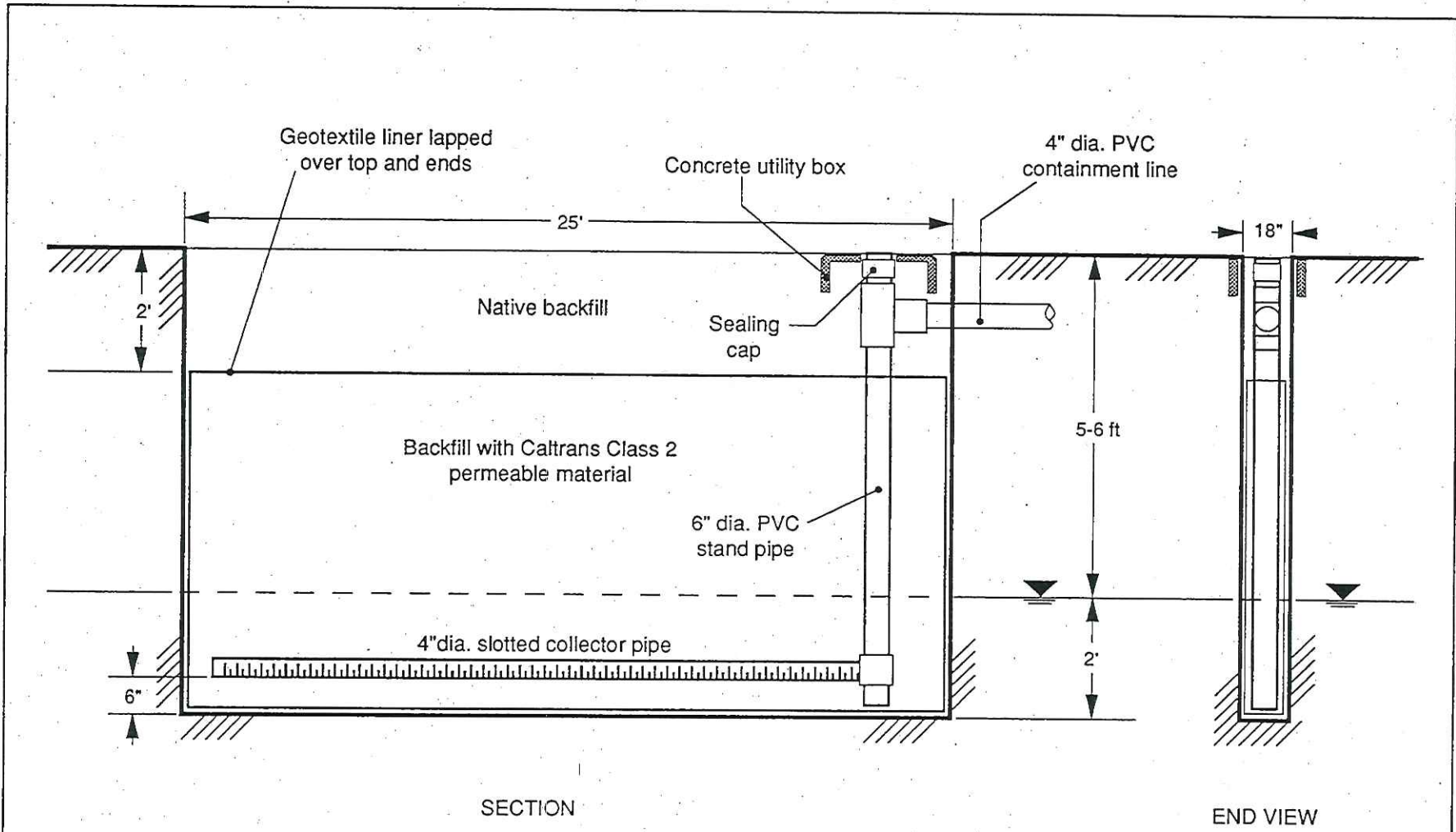


Figure 13. Detail of proposed recovery trench, former Chevron SS 9-1153, Alameda, California.

Drawn	Date
Reviewed	Date

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Lafayette, CA. 94549

Feb 90

Appendix E
Groundwater Monitoring and Sampling Data

TABLE 1

GROUNDWATER MONITORING AND SAMPLING DATA
 FORMER CHEVRON SERVICE STATION 91153
 3135 GIBBONS DRIVE (3126 FERNSIDE BOULEVARD)
 ALAMEDA, CALIFORNIA

Location	Date	TOC	DTW	GWE	LNAPLT	FIELD PARAMETERS	HYDROCARBONS	PRIMARY VOCS				MTBE by SW8260
						Dissolved Oxygen	TPH-GRO	B	T	E	X	
	Units	ft	ft	ft-anst	ft	mg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
q												
C-1	08/18/1986	-	4.10	-	-	-	-	-	-	-	-	-
C-1	09/04/1986	-	-	-	-	-	15,000	760	820	1,500	-	-
C-1	07/22/1987	-	-	-	-	-	1,100	250	7.0	40	-	-
C-1	05/03/1989	-	4.46	-	-	-	6,900	3,800	190	229	-	-
C-1	12/04/1989	-	4.16	-	-	-	17,000	8,000	490	470	-	-
C-1	02/14/1990	-	3.64	-	-	-	19,000	12,000	990	1,050	-	-
C-1	03/07/1990	-	3.36	-	-	-	-	4,260	261	430	-	-
C-1	09/06/1991	-	4.43	-	-	-	21,000	10,000	100	240	560	-
C-1	12/15/1991	-	4.78	-	-	-	20,000	4,900	43	110	330	-
C-1	03/03/1992	-	2.39	-	-	-	13,000	5,800	730	340	1,200	-
C-1	06/04/1992	4.08	4.08	0.00	0.00	-	34,000	9,400	350	290	1,200	-
C-1	10/13/1992	4.08	4.75	-0.67	0.00	-	24,000	11,000	98	280	530	-
C-1	01/11/1993	4.08	2.26	1.82	Sheen	-	7,100	1,500	130	150	700	-
C-1	04/14/1993	4.08	2.90	1.18	Sheen	-	29,000	7,300	4,000	640	2,300	-
C-1	07/13/1993	4.08	3.97	0.11	Sheen	-	650,000	27,000	18,000	6,300	29,000	-
C-1	10/19/1993	4.08	4.50	-0.42	0.00	-	40,000	12,000	730	1,100	3,600	-
C-1	11/30/1993	7.50	4.27	3.23	0.00	-	-	-	-	-	-	-
C-1	01/27/1994	7.50	3.35	4.15	0.00	-	36,000	8,600	220	670	1,900	-
C-1	04/07/1994	7.50	3.42	4.08	0.00	-	53,000	12,000	3,500	480	3,300	-
C-1	07/01/1994	7.50	3.96	3.54	0.00	-	65,000	19,000	5,900	1,000	9,000	-
C-1	10/05/1994	7.50	4.39	3.11	0.00	-	160,000	23,000	12,000	2,200	11,000	-
C-1	01/12/1995	7.50	1.52	6.38	0.50	-	-	-	-	-	-	-
C-1	04/26/1995	7.50	4.40	4.86	2.20	-	-	-	-	-	-	-
C-1	07/12/1995	7.50	4.85	4.10	1.81	-	-	-	-	-	-	-
C-1	10/30/1995	7.50	5.67	3.13	1.63	-	-	-	-	-	-	-

TABLE 1

GROUNDWATER MONITORING AND SAMPLING DATA
 FORMER CHEVRON SERVICE STATION 91153
 3135 GIBBONS DRIVE (3126 FERNSIDE BOULEVARD)
 ALAMEDA, CALIFORNIA

Location	Date	TOC	DTW	GWE	LNAPL	FIELD PARAMETERS	HYDROCARBONS	PRIMARY VOCS				
						Dissolved Oxygen	TPH-GRO	B	T	E	X	MTBE by SW8260
	Units	ft	ft	ft-ansl	ft	mg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
q												
C-1	01/04/1996	7.50	3.92	3.68	0.12	-	-	-	-	-	-	-
C-1	01/10/1996	7.50	3.48	4.12	0.13	-	-	-	-	-	-	-
C-1	01/17/1996	7.50	3.40	4.12	0.02	-	-	-	-	-	-	-
C-1	01/22/1996	7.50	2.90	4.60	0.00	-	82,000	18,000	4,400	1,400	5,200	<1,000
C-1	02/23/1996	7.50	4.10	4.89	1.86	-	-	-	-	-	-	-
C-1	02/28/1996	7.50	-	-	0.83 >	-	-	-	-	-	-	-
C-1	03/08/1996	7.50	2.86	6.10	1.83	-	-	-	-	-	-	-
C-1	03/26/1996	7.50	3.96	4.56	1.28	-	-	-	-	-	-	-
C-1	04/11/1996	7.50	5.61	3.29	1.75	-	-	-	-	-	-	-
C-1	04/19/1996	7.50	3.09	4.44	0.04	-	-	-	-	-	-	-
C-1	04/24/1996	7.50	3.04	4.48	0.03	-	-	-	-	-	-	-
C-1	05/03/1996	7.50	4.02	3.85	0.46	-	-	-	-	-	-	-
C-1	05/08/1996	7.50	4.25	3.53	0.35	-	-	-	-	-	-	-
C-1	05/17/1996	7.50	3.24	4.29	0.04	-	-	-	-	-	-	-
C-1	05/22/1996	7.50	3.10	4.46	0.07	-	-	-	-	-	-	-
C-1	06/18/1996	7.50	4.68	3.20	0.48	-	-	-	-	-	-	-
C-1	07/03/1996	7.50	5.03	2.57	0.13	-	-	-	-	-	-	-
C-1	07/09/1996	7.50	4.63	3.05	0.23	-	-	-	-	-	-	-
C-1	07/17/1996	7.50	4.73	2.89	0.15	-	-	-	-	-	-	-
C-1	07/29/1996	7.50	5.10	2.47	0.09	-	-	-	-	-	-	-
C-1	08/02/1996	7.50	5.68	1.84	0.03	-	-	-	-	-	-	-
C-1	08/07/1996	7.50	5.16	2.35	0.01	-	-	-	-	-	-	-
C-1	08/23/1996	7.50	5.75	1.77	0.03	-	-	-	-	-	-	-
C-1	08/28/1996	7.50	5.53	1.99	0.03	-	-	-	-	-	-	-
C-1	09/06/1996	7.50	5.38	2.12	0.00	-	-	-	-	-	-	-

TABLE 1

GROUNDWATER MONITORING AND SAMPLING DATA
 FORMER CHEVRON SERVICE STATION 91153
 3135 GIBBONS DRIVE (3126 FERNSIDE BOULEVARD)
 ALAMEDA, CALIFORNIA

Location	Date	TOC	DTW	GWE	LNAPL	FIELD PARAMETERS	HYDROCARBONS	PRIMARY VOCS				
						Dissolved Oxygen	TPH-GRO	B	T	E	X	MTBE by SW8260
	Units	ft	ft	ft-ansl	ft	mg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
q												
C-1	09/12/1996	7.50	5.48	2.04	0.03	-	-	-	-	-	-	-
C-1	09/19/1996	7.50	6.32	1.20	0.03	-	-	-	-	-	-	-
C-1	10/10/1996	7.50	4.58	3.00	0.10	-	-	-	-	-	-	-
C-1	10/17/1996	7.50	5.61	1.90	0.01	-	-	-	-	-	-	-
C-1	10/29/1996	7.50	6.01	1.49	0.00	-	-	-	-	-	-	-
C-1	11/07/1996	7.50	5.56	1.94	0.04	-	-	-	-	-	-	-
C-1	11/11/1996	7.50	5.32	2.18	0.04	-	-	-	-	-	-	-
C-1	12/17/1996	7.50	3.73	3.77	0.01	-	-	-	-	-	-	-
C-1	12/20/1996	7.50	3.33	4.17	0.03	-	-	-	-	-	-	-
C-1	01/15/1997	7.50	2.74	4.76	0.00	-	47,000	16,000	2,800	1,300	4,900	<1,000
C-1	01/22/1997	7.50	1.37	6.13	0.19	-	-	-	-	-	-	-
C-1	02/04/1997	7.50	2.98	4.52	0.51	-	-	-	-	-	-	-
C-1	02/20/1997	7.50	4.09	3.41	0.13	-	-	-	-	-	-	-
C-1	03/06/1997	7.50	3.75	3.75	0.56	-	-	-	-	-	-	-
C-1	03/14/1997	7.50	3.82	3.68	0.03	-	-	-	-	-	-	-
C-1	03/20/1997	7.50	3.73	3.77	0.03	-	-	-	-	-	-	-
C-1	03/25/1997	7.50	4.32	3.18	0.01	-	-	-	-	-	-	-
C-1	03/31/1997	7.50	3.71	3.79	0.03	-	-	-	-	-	-	-
C-1	04/03/1997	7.50	4.60	2.92	0.03	-	-	-	-	-	-	-
C-1	04/09/1997	7.50	4.25	3.27	0.02	-	-	-	-	-	-	-
C-1	04/24/1997	7.50	4.65	2.87	0.02	-	-	-	-	-	-	-
C-1	04/30/1997	7.50	3.50	4.02	0.02	-	-	-	-	-	-	-
C-1	05/22/1997	7.50	4.97	2.53	0.00	-	-	-	-	-	-	-
C-1	06/03/1997	7.50	3.62	3.93	0.06	-	-	-	-	-	-	-
C-1	07/09/1997	7.50	4.30	3.25	0.06	-	-	-	-	-	-	-

TABLE 1

GROUNDWATER MONITORING AND SAMPLING DATA
 FORMER CHEVRON SERVICE STATION 91153
 3135 GIBBONS DRIVE (3126 FERNSIDE BOULEVARD)
 ALAMEDA, CALIFORNIA

Location	Date	TOC	DTW	GWE	LNAPLT	FIELD PARAMETERS	HYDROCARBONS	PRIMARY VOCS				
						Dissolved Oxygen	TPH-GRO	B	T	E	X	MTBE by SW8260
	Units	ft	ft	ft-ansl	ft	mg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
q												
C-1	08/12/1997	7.50	5.18	2.32	0.00	-	-	-	-	-	-	-
C-1	09/30/1997	7.50	5.25	2.65	0.50	-	-	-	-	-	-	-
C-1	10/29/1997	7.50	5.33	2.19	0.03	-	-	-	-	-	-	-
C-1	11/13/1997	7.50	4.86	2.66	0.02	-	-	-	-	-	-	-
C-1	12/18/1997	7.50	2.34	5.16	0.00	-	-	-	-	-	-	-
C-1	01/14/1998	7.50	0.25	7.27	0.02	-	-	-	-	-	-	-
C-1	02/02/1998	7.50	2.35	5.19	0.05	-	-	-	-	-	-	-
C-1	03/16/1998	7.50	2.50	5.40	0.50	-	-	-	-	-	-	-
C-1	04/17/1998	7.50	2.65	5.17	0.40	-	-	-	-	-	-	-
C-1	05/01/1998	7.50	2.39	5.14	0.04	-	-	-	-	-	-	-
C-1	06/17/1998	7.50	3.26	4.30	0.08	-	-	-	-	-	-	-
C-1	07/15/1998	7.50	3.55	3.95	0.00	-	110,000	22,000	22,000	1,000	10,000	<250
C-1	09/01/1998	7.50	4.00	3.50	0.00	-	-	-	-	-	-	-
C-1	10/27/1998	7.50	4.48	3.02	0.00	-	45,000	12,000	5,400	590	4,300	<500
C-1	11/19/1998	7.50	3.89	3.61	0.00	-	-	-	-	-	-	-
C-1	12/19/1998	7.50	2.13	5.39	0.02	-	-	-	-	-	-	-
C-1	01/20/1999	7.50	3.98	3.52	0.00	-	50,300	7,050	5,030	244	6,090	<40
C-1	02/24/1999	7.50	2.55	4.95	0.00	-	-	-	-	-	-	-
C-1	03/26/1999	7.50	2.14	5.97	0.76	-	-	-	-	-	-	-
C-1	04/19/1999	7.50	1.04	6.46	0.00	-	150,000	21,000	20,000	3,000	18,000	49 ² / _{<2.5}
C-1	07/29/1999	7.50	3.76	3.76	0.02	-	-	-	-	-	-	-
C-1	08/30/1999	7.50	4.30	3.20	0.00	-	-	-	-	-	-	-
C-1	09/23/1999	7.50	3.84	3.68	0.02	-	-	-	-	-	-	-
C-1	10/13/1999	7.50	1.27	6.23	0.00	-	136,000	23,900	30,000	2,390	17,300	<500
C-1	11/17/1999	7.50	3.59	3.91	0.00	-	-	-	-	-	-	-

TABLE 1

GROUNDWATER MONITORING AND SAMPLING DATA
 FORMER CHEVRON SERVICE STATION 91153
 3135 GIBBONS DRIVE (3126 FERNSIDE BOULEVARD)
 ALAMEDA, CALIFORNIA

Location	Date	TOC	DTW	GWE	LNAPL	FIELD PARAMETERS	HYDROCARBONS	PRIMARY VOCS				MTBE by SW8260
						Dissolved Oxygen	TPH-GRO	B	T	E	X	
	Units	ft	ft	ft-ansl	ft	mg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
q												
C-1	12/08/1999	7.50	3.79	3.71	0.00	-	-	-	-	-	-	-
C-1	01/25/2000	7.50	1.99	5.54	0.04	-	-	-	-	-	-	-
C-1	04/03/2000**	7.50	2.20	5.38	0.10	-	-	-	-	-	-	-
C-1	05/26/2000**	7.50	2.52	5.16	0.23	-	-	-	-	-	-	-
C-1	06/19/2000**	7.50	2.89	4.76	0.19	-	-	-	-	-	-	-
C-1	07/03/2000**	7.50	3.45	4.25	0.25	-	-	-	-	-	-	-
C-1	08/01/2000**	7.50	3.78	3.85	0.16	-	-	-	-	-	-	-
C-1	09/30/2000**	7.50	4.03	3.50	0.04	-	-	-	-	-	-	-
C-1	10/23/2000**	7.50	4.15	3.37	0.03	-	-	-	-	-	-	-
C-1	11/21/2000	7.50	3.42	4.08	0.00	-	-	-	-	-	-	-
C-1	12/22/2000	7.50	2.96	4.54	0.00	-	-	-	-	-	-	-
C-1	01/08/2001	7.50	2.94	4.56	0.00	-	-	-	-	-	-	-
C-1	02/17/2001**	7.50	2.09	5.88	0.59	-	-	-	-	-	-	-
C-1	03/13/2001**	7.50	2.20	5.91	0.76	-	-	-	-	-	-	-
C-1	04/09/2001 ^{18,**}	7.50	2.45	5.26	0.26	-	-	-	-	-	-	-
C-1	05/18/2001**	7.50	2.70	5.27	0.59	-	-	-	-	-	-	-
C-1	06/12/2001**	7.50	3.50	4.78	0.97	-	-	-	-	-	-	-
C-1	07/19/2001**	7.50	4.25	4.01	0.95	-	-	-	-	-	-	-
C-1	08/23/2001 ^{18,**}	7.50	4.34	3.22	0.07	-	-	-	-	-	-	-
C-1	09/17/2001**	7.50	4.39	3.17	0.08	-	-	-	-	-	-	-
C-1	10/08/2001**	7.50	4.45	3.08	0.04	-	-	-	-	-	-	-
C-1	11/27/2001	7.50	3.89	3.61	0.00	-	330,000	9,800	5,300	3,800	22,000	<50
C-1	12/17/2001	7.50	1.81	5.69	0.00	-	-	-	-	-	-	-
C-1	01/07/2002**	7.50	2.27	5.64	0.51	-	-	-	-	-	-	-
C-1	02/26/2002 ^{18,**}	7.50	2.70	5.22	0.52	-	-	-	-	-	-	-

TABLE 1

GROUNDWATER MONITORING AND SAMPLING DATA
 FORMER CHEVRON SERVICE STATION 91153
 3135 GIBBONS DRIVE (3126 FERNSIDE BOULEVARD)
 ALAMEDA, CALIFORNIA

Location	Date	TOC	DTW	GWE	LNAPL	FIELD PARAMETERS	HYDROCARBONS	PRIMARY VOCS				
						Dissolved Oxygen	TPH-GRO	B	T	E	X	MTBE by SW8260
	Units	ft	ft	ft-ansl	ft	mg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
q												
C-1	03/27/2002**	7.50	2.87	5.47	1.05	-	-	-	-	-	-	-
C-1	04/08/2002**	7.50	2.45	6.03	1.23	-	-	-	-	-	-	-
C-1	05/23/2002 ^{18,**}	7.50	3.57	4.35	0.52	-	-	-	-	-	-	-
C-1	06/17/2002**	7.50	3.90	3.88	0.35	-	-	-	-	-	-	-
C-1	07/31/2002**	7.50	4.12	3.54	0.20	-	-	-	-	-	-	-
C-1	08/09/2002 ^{18,**}	7.50	4.15	3.48	0.16	-	-	-	-	-	-	-
C-1	09/17/2002**	7.50	4.33	3.27	0.12	-	-	-	-	-	-	-
C-1	10/15/2002**	7.50	4.51	3.11	0.15	-	-	-	-	-	-	-
C-1	11/08/2002	7.50	4.11	3.39	0.00	-	51,000	7,000	510	820	5,800	<3.0
C-1	12/19/2002	7.50	1.14	6.36	0.00	-	-	-	-	-	-	-
C-1	01/14/2003	7.50	1.80	5.70	0.00	-	-	-	-	-	-	-
C-1	02/07/2003 ^{18,**}	7.50	2.95	4.79	0.30	-	-	-	-	-	-	-
C-1	03/20/2003**	7.50	2.86	4.97	0.41	-	-	-	-	-	-	-
C-1	04/15/2003**	7.50	2.12	5.46	0.10	-	-	-	-	-	-	-
C-1	05/09/2003 ^{18,**}	7.50	2.95	5.11	0.70	-	-	-	-	-	-	-
C-1	06/27/2003**	7.50	3.97	3.93	0.50	-	-	-	-	-	-	-
C-1	07/16/2003**	7.50	3.68	4.04	0.28	-	-	-	-	-	-	-
C-1	08/15/2003 ^{18,**}	7.50	4.29	3.39	0.22	-	-	-	-	-	-	-
C-1	09/26/2003**	7.50	4.60	3.05	0.19	-	-	-	-	-	-	-
C-1	10/18/2003**	7.50	4.72	2.90	0.15	-	-	-	-	-	-	-
C-1	11/14/2003 ^{18,**}	7.50	4.31	3.35	0.20	-	-	-	-	-	-	-
C-1	12/23/2003	7.50	1.81	5.69	0.00	-	-	-	-	-	-	-
C-1	01/22/2004**	7.50	4.19	3.32	0.01	-	-	-	-	-	-	-
C-1	02/13/2004 ^{18,**}	7.50	3.04	4.49	0.04	-	-	-	-	-	-	-
C-1	03/11/2004**	7.50	1.85	5.97	0.40	-	-	-	-	-	-	-

TABLE 1

GROUNDWATER MONITORING AND SAMPLING DATA
 FORMER CHEVRON SERVICE STATION 91153
 3135 GIBBONS DRIVE (3126 FERNSIDE BOULEVARD)
 ALAMEDA, CALIFORNIA

Location	Date	TOC	DTW	GWE	LNAPL	FIELD PARAMETERS	HYDROCARBONS	PRIMARY VOCS				
						Dissolved Oxygen	TPH-GRO	B	T	E	X	MTBE by SW8260
	Units	ft	ft	ft-ansl	ft	mg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
q												
C-1	04/22/2004**	7.50	3.08	4.60	0.22	-	-	-	-	-	-	-
C-1	05/14/2004 ^{18,**}	7.50	3.49	4.03	0.03	-	-	-	-	-	-	-
C-1	06/18/2004**	7.50	3.41	4.19	0.13	-	-	-	-	-	-	-
C-1	07/23/2004**	7.50	3.28	4.31	0.11	-	-	-	-	-	-	-
C-1	08/13/2004 ^{18,**}	7.50	3.14	4.40	0.05	-	-	-	-	-	-	-
C-1	09/13/2004**	7.50	4.53	3.04	0.09	-	-	-	-	-	-	-
C-1	10/22/2004**	7.50	3.19	4.33	0.03	-	-	-	-	-	-	-
C-1	11/12/2004 ^{18,**}	7.50	3.22	4.30	0.03	-	-	-	-	-	-	-
C-1	12/02/2004**	7.50	3.28	4.24	0.02	-	-	-	-	-	-	-
C-1	01/28/2005**	7.50	3.19	4.32	0.01	-	-	-	-	-	-	-
C-1	02/11/2005 ^{18,**}	7.50	2.75	4.78	0.04	-	-	-	-	-	-	-
C-1	03/11/2005**	7.50	2.94	4.58	0.03	-	-	-	-	-	-	-
C-1	04/26/2005**	7.50	3.03	4.49	0.02	-	-	-	-	-	-	-
C-1	05/13/2005 ^{18,**}	7.50	3.18	4.34	0.02	-	-	-	-	-	-	-
C-1	06/01/2005**	7.50	3.22	4.30	0.02	-	-	-	-	-	-	-
C-1	07/15/2005**	7.50	3.09	4.43	0.02	-	-	-	-	-	-	-
C-1	08/19/2005 ^{18,**}	7.50	2.88	4.64	0.03	-	-	-	-	-	-	-
C-1	09/23/2005**	7.50	2.95	4.57	0.02	-	-	-	-	-	-	-
C-1	10/14/2005**	7.50	3.01	4.50	0.01	-	-	-	-	-	-	-
C-1	11/18/2005 ^{18,**}	7.50	3.21	4.31	0.02	-	-	-	-	-	-	-
C-1	12/09/2005**	7.50	3.61	3.90	0.01	-	-	-	-	-	-	-
C-1	01/12/2006**	7.50	2.98	4.53	0.01	-	-	-	-	-	-	-
C-1	02/10/2006 ^{15,**}	7.50	2.69	4.82	0.01	-	100,000	11,000	2,500	2,900	15,000	<10
C-1	03/13/2006**	7.50	2.81	4.70	0.01	-	-	-	-	-	-	-
C-1	04/13/2006**	7.50	2.75	4.76	0.01	-	-	-	-	-	-	-

TABLE 1

GROUNDWATER MONITORING AND SAMPLING DATA
 FORMER CHEVRON SERVICE STATION 91153
 3135 GIBBONS DRIVE (3126 FERNSIDE BOULEVARD)
 ALAMEDA, CALIFORNIA

Location	Date	TOC	DTW	GWE	LNAPL	FIELD PARAMETERS	HYDROCARBONS	PRIMARY VOCS				MTBE by SW8260
						Dissolved Oxygen	TPH-GRO	B	T	E	X	
	Units	ft	ft	ft-ansl	ft	mg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
q												
C-1	05/12/2006 ^{18,**}	7.50	3.02	4.49	0.01	-	-	-	-	-	-	-
C-1	06/12/2006 ^{**}	7.50	3.10	4.41	0.01	-	-	-	-	-	-	-
C-1	07/13/2006 ^{**}	7.50	3.14	4.38	0.02	-	-	-	-	-	-	-
C-1	08/11/2006 ^{15,**}	7.50	3.70	3.81	0.01	-	200,000	8,600	470	1,700	8,800	<10
C-1	09/11/2006 ^{**}	7.50	3.75	3.77	0.02	-	-	-	-	-	-	-
C-1	10/17/2006 ^{**}	7.50	3.82	3.69	0.01	-	-	-	-	-	-	-
C-1	11/17/2006 ^{18,**}	7.50	3.11	4.41	0.03	-	-	-	-	-	-	-
C-1	12/15/2006 ^{**}	7.50	2.95	4.57	0.02	-	-	-	-	-	-	-
C-1	01/16/2007 ^{**}	7.50	2.98	4.54	0.02	-	-	-	-	-	-	-
C-1	02/16/2007 ¹⁵	7.50	2.77	4.73	0.00	-	25,000	4,300	260	310	3,300	<5
C-1	03/16/2007 ^{**}	7.50	3.07	4.44	0.01	-	-	-	-	-	-	-
C-1	04/17/2007 ^{**}	7.50	2.98	4.53	0.01	-	-	-	-	-	-	-
C-1	05/17/2007 ^{15,**}	7.50	3.05	4.46	0.01	-	110,000 ¹⁶	12,000 ¹⁶	1,000 ¹⁶	2,000 ¹⁶	15,000 ¹⁶	<5
C-1	06/15/2007 ^{**}	7.50	3.08	4.43	0.01	-	-	-	-	-	-	-
C-1	07/17/2007 ^{**}	7.50	3.13	4.38	0.01	-	-	-	-	-	-	-
C-1	08/09/2007 ^{18,**}	7.50	3.24	4.28	0.02	-	-	-	-	-	-	-
C-1	09/14/2007 ^{**}	7.50	3.16	4.35	0.01	-	-	-	-	-	-	-
C-1	10/16/2007 ^{**}	7.50	3.04	4.47	0.01	-	-	-	-	-	-	-
C-1	11/08/2007 ^{15,**}	7.50	3.11	4.40	0.01	-	150,000	13,000	570	1,800	10,000	<13
C-1	12/07/2007 ^{**}	7.50	2.98	4.54	0.03	-	-	-	-	-	-	-
C-1	01/16/2008 ^{**}	7.50	2.95	4.57	0.02	-	-	-	-	-	-	-
C-1	02/06/2008 ^{15,**}	7.50	2.61	4.90	0.01	-	110,000	13,000	500	5,300	21,000	<10
C-1	03/07/2008 ^{**}	7.50	2.87	4.65	0.02	-	-	-	-	-	-	-
C-1	04/16/2008 ^{**}	7.50	3.06	4.46	0.02	-	-	-	-	-	-	-
C-1	05/07/2008 ^{18,**}	7.50	2.98	4.54	0.03	-	-	-	-	-	-	-

TABLE 1

GROUNDWATER MONITORING AND SAMPLING DATA
 FORMER CHEVRON SERVICE STATION 91153
 3135 GIBBONS DRIVE (3126 FERNSIDE BOULEVARD)
 ALAMEDA, CALIFORNIA

Location	Date	TOC	DTW	GWE	LNAPL	FIELD PARAMETERS	HYDROCARBONS	PRIMARY VOCS				MTBE by SW8260
						Dissolved Oxygen	TPH-GRO	B	T	E	X	
	Units	ft	ft	ft-ansl	ft	mg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
q												
C-1	06/06/2008**	7.50	3.02	4.50	0.02	-	-	-	-	-	-	-
C-1	07/16/2008**	7.50	3.12	4.40	0.02	-	-	-	-	-	-	-
C-1	09/05/2008**	7.50	3.97	3.75	0.28	-	-	-	-	-	-	-
C-1	09/11/2008 ^{18,**}	7.50	4.22	3.61	0.41	-	-	-	-	-	-	-
C-1	10/17/2008**	7.50	4.16	3.60	0.33	-	-	-	-	-	-	-
C-1	11/10/2008 ^{18,**}	7.50	4.05	3.54	0.11	-	-	-	-	-	-	-
C-1	12/15/2008**	7.50	3.85	3.69	0.05	-	-	-	-	-	-	-
C-1	01/21/2009**	7.50	3.91	3.62	0.04	-	-	-	-	-	-	-
C-1	02/09/2009 ^{15,**}	7.50	3.72	3.79	0.01	-	53,000	3,100	66	660	3,700	<1
C-1	05/28/2009	7.50	3.48	4.02	0.02	-	-	-	-	-	-	-
C-1	08/18/2009	7.50	4.40	3.10	0.02	-	-	-	-	-	-	-
C-1	11/17/2009	7.50	4.21	3.29	0.03	-	-	-	-	-	-	-
C-1	03/31/2010	7.50	2.07	5.46	0.04	-	-	-	-	-	-	-
C-1	05/17/2010	7.50	2.87	4.83	0.25	-	-	-	-	-	-	-
C-1	08/26/2010 ¹⁸	7.50	4.03	3.50	0.04	-	-	-	-	-	-	-
C-1	11/11/2010 ^{18,**}	7.50	3.82	3.70	0.03	-	-	-	-	-	-	-
C-1	03/02/2011 ^{18,**}	7.50	1.12	6.41	0.04	-	-	-	-	-	-	-
C-1	06/17/2011 ^{18,**}	7.50	3.00	4.51	0.01	-	-	-	-	-	-	-
C-1	09/08/2011 ^{18,**}	7.50	3.60	3.92	0.02	-	-	-	-	-	-	-
C-1	12/29/2011 ^{18,**}	7.50	4.14	3.37	0.01	-	-	-	-	-	-	-
C-1	03/28/2012 ^{18,**}	7.50	1.01	6.52	0.04	-	-	-	-	-	-	-
C-1	05/31/2012 ^{18,**}	7.50	2.96	4.56	0.02	-	-	-	-	-	-	-
C-1	09/28/2012	7.50	4.50	3.00	0.00	-	48,000	8,600	81	1,800	3,300	<5
C-1	12/21/2012 ^{18,**}	7.50	2.20	5.32	0.02	-	-	-	-	-	-	-
C-1	03/29/2013 ^{18,**}	7.50	3.20	4.33	0.04	-	-	-	-	-	-	-

TABLE 1

GROUNDWATER MONITORING AND SAMPLING DATA
 FORMER CHEVRON SERVICE STATION 91153
 3135 GIBBONS DRIVE (3126 FERNSIDE BOULEVARD)
 ALAMEDA, CALIFORNIA

Location	Date	TOC	DTW	GWE	LNAPL	FIELD PARAMETERS	HYDROCARBONS	PRIMARY VOCS				MTBE by SW8260
						Dissolved Oxygen	TPH-GRO	B	T	E	X	
	Units	ft	ft	ft-anst	ft	mg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
q												
C-1	06/28/2013 ^{18,**}	7.50	3.90	3.61	0.01	-	-	-	-	-	-	-
C-1	09/20/2013 ^{18,**}	7.50	4.73	2.79	0.02	-	-	-	-	-	-	-
C-1	12/30/2013 ^{18,**}	7.50	4.41	3.10	0.01	-	-	-	-	-	-	-
C-1	03/31/2014 ^{18,**}	7.50	2.55	4.97	0.02	-	-	-	-	-	-	-
C-3	08/18/1986	-	4.00	-	-	-	-	-	-	-	-	-
C-3	09/04/1986	-	-	-	-	-	50	3.2	5.4	5.8	-	-
C-3	07/22/1987	-	-	-	-	-	<50	<0.5	<1.0	<4.0	-	-
C-3	05/03/1989	-	4.15	-	-	-	<50	<0.5	<1.0	<2.0	-	-
C-3	12/04/1989	-	4.24	-	-	-	<250	<0.5	<0.5	<0.5	-	-
C-3	02/14/1990	-	3.57	-	-	-	<50	<0.5	<0.5	<0.5	-	-
C-3	03/07/1990	-	3.31	-	-	-	-	<5.0	<5.0	<5.0	-	-
C-3	09/06/1991	-	4.59	-	-	-	<50	<0.5	<0.5	<0.5	<0.5	-
C-3	12/15/1991	-	4.84	-	-	-	<50	<0.5	<0.5	<0.5	<0.5	-
C-3	03/03/1992	-	2.17	-	-	-	<50	<0.5	<0.5	<0.5	<0.5	-
C-3	06/04/1992	4.41	4.01	0.40	0.00	-	<50	<0.5	<0.5	<0.5	<0.5	-
C-3	10/13/1992	4.41	4.79	-0.38	0.00	-	<50	<0.5	<0.5	<0.5	<0.5	-
C-3	01/11/1993	4.41	2.01	2.40	0.00	-	<50	<0.5	<0.5	<0.5	<0.5	-
C-3	04/14/1993	4.41	2.76	1.65	0.00	-	<50	<0.5	<0.5	<0.5	<0.5	-
C-3	07/13/1993	4.41	3.96	0.45	0.00	-	<50	<0.5	<0.5	<0.5	<1.5	-
C-3	10/19/1993	4.41	4.53	-0.12	0.00	-	66	12	1.4	1.0	8.4	-
C-3	11/30/1993	7.83	4.04	3.79	0.00	-	-	-	-	-	-	-
C-3	01/27/1994	7.83	3.17	4.66	0.00	-	<50	<0.5	<0.5	<0.5	<0.5	-
C-3	04/07/1994	7.83	3.20	4.63	0.00	-	<50	<0.5	<0.5	<0.5	<0.5	-
C-3	07/01/1994	7.83	3.99	3.84	0.00	-	<50	<0.5	<0.5	<0.5	<0.5	-

TABLE 1

GROUNDWATER MONITORING AND SAMPLING DATA
 FORMER CHEVRON SERVICE STATION 91153
 3135 GIBBONS DRIVE (3126 FERNSIDE BOULEVARD)
 ALAMEDA, CALIFORNIA

Location	Date	TOC	DTW	GWE	LNAPL	FIELD PARAMETERS	HYDROCARBONS	PRIMARY VOCS				
						Dissolved Oxygen	TPH-GRO	B	T	E	X	MTBE by SW8260
	Units	ft	ft	ft-ansl	ft	mg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
q												
C-3	10/05/1994	7.83	4.54	3.29	0.00	-	<50	<0.5	<0.5	<0.5	<0.5	-
C-3	01/12/1995	7.83	0.80	7.03	0.00	-	<50	<0.5	<0.5	<0.5	<0.5	-
C-3	05/02/1995	7.83	2.15	5.68	0.00	-	<50	<0.5	<0.5	<0.5	<0.5	-
C-3	07/12/1995	7.83	3.42	4.41	0.00	-	<50	<0.5	<0.5	<0.5	<0.5	-
C-3	10/30/1995	7.83	4.46	3.37	0.00	-	<50	<0.5	<0.5	<0.5	<0.5	<2.5
C-3	01/22/1996	7.83	1.73	6.10	0.00	-	<50	<0.5	<0.5	<0.5	<0.5	<2.5
C-3	04/24/1996	7.83	2.62	5.21	0.00	-	<50	<0.5	<0.5	<0.5	<0.5	<2.5
C-3	07/29/1996	7.83	3.94	3.89	0.00	-	<50	<0.5	<0.5	<0.5	<0.5	<2.5
C-3	10/10/1996	7.83	4.06	3.77	0.00	-	<50	<0.5	<0.5	<0.5	<0.5	<2.5
C-3	01/15/1997	7.83	1.54	6.29	0.00	-	<50	<0.5	<0.5	<0.5	<0.5	<2.5
C-3	04/03/1997	7.83	3.23	4.60	0.00	-	<50	<0.5	<0.5	<0.5	<0.5	<2.5
C-3	07/09/1997	7.83	4.36	3.47	0.00	-	<50	<0.5	<0.5	<0.5	<0.5	<2.5
C-3	10/29/1997	7.83	4.65	3.18	0.00	-	<50	<0.5	<0.5	<0.5	<0.5	<2.5
C-3	01/14/1998	7.83	0.77	7.06	0.00	-	<50	<0.5	<0.5	<0.5	<0.5	<2.5
C-3	07/15/1998	7.83	3.72	4.11	0.00	-	<50	<0.5	<0.5	<0.5	<0.5	<2.5
C-3	01/20/1999	7.83	2.65	5.18	0.00	-	<50	<0.5	<0.5	<0.5	<0.5	<2.0
C-3	04/19/1999	7.83	1.78	6.05	0.00	-	-	-	-	-	-	-
C-3	04/03/2000 ¹⁹	7.83	-	-	-	-	-	-	-	-	-	-
C-3	07/03/2000	7.83	-	-	-	-	-	-	-	-	-	-
C-3	10/23/2000	7.83	-	-	-	-	-	-	-	-	-	-
C-3	01/08/2001 ¹¹	7.83	3.71	4.12	0.00	-	<50	<0.50	<0.50	<0.50	<0.50	<2.5
C-3	04/09/2001	7.83	-	-	-	-	-	-	-	-	-	-
C-3	08/23/2001 ¹⁹	7.83	-	-	-	-	-	-	-	-	-	-
C-3	11/27/2001 ¹⁹	7.83	-	-	-	-	-	-	-	-	-	-
C-3	02/26/2002	7.83	2.38	5.45	0.00	-	<50	<0.50	<0.50	<0.50	<1.5	<2.5

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GROUNDWATER MONITORING AND SAMPLING DATA
 FORMER CHEVRON SERVICE STATION 91153
 3135 GIBBONS DRIVE (3126 FERNSIDE BOULEVARD)
 ALAMEDA, CALIFORNIA

Location	Date	TOC	DTW	GWE	LNAPL	FIELD PARAMETERS	HYDROCARBONS	PRIMARY VOCS				MTBE by SW8260
						Dissolved Oxygen	TPH-GRO	B	T	E	X	
	Units	ft	ft	ft-anst	ft	mg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
q												
C-3	05/23/2002 ¹⁹	7.83	-	-	-	-	-	-	-	-	-	-
C-3	08/09/2002 ¹⁹	7.83	-	-	-	-	-	-	-	-	-	-
C-3	11/08/2002 ¹⁹	7.83	-	-	-	-	-	-	-	-	-	-
C-3	02/07/2003	7.83	2.73	5.10	0.00	-	<50	<0.50	<0.50	<0.50	<1.5	<2.5
C-3	05/09/2003 ¹⁹	7.83	-	-	-	-	-	-	-	-	-	-
C-3	08/15/2003 ¹⁹	7.83	-	-	-	-	-	-	-	-	-	-
C-3	11/14/2003 ¹⁹	7.83	-	-	-	-	-	-	-	-	-	-
C-3	02/13/2004 ¹⁵	7.83	2.81	5.02	0.00	-	<50	<0.5	<0.5	<0.5	<0.5	<0.5
C-3	05/14/2004 ¹⁹	7.83	-	-	-	-	-	-	-	-	-	-
C-3	11/12/2004 ¹⁹	7.83	-	-	-	-	-	-	-	-	-	-
C-3	02/11/2005 ¹⁵	7.83	2.58	5.25	0.00	-	<50	<0.5	<0.5	<0.5	<0.5	<0.5
C-3	05/13/2005 ¹⁹	7.83	-	-	-	-	-	-	-	-	-	-
C-3	08/19/2005 ¹⁹	7.83	-	-	-	-	-	-	-	-	-	-
C-3	11/18/2005 ¹⁹	7.83	-	-	-	-	-	-	-	-	-	-
C-3	02/10/2006 ¹⁵	7.83	2.52	5.31	0.00	-	<50	<0.5	<0.5	<0.5	<0.5	<0.5
C-3	05/12/2006 ¹⁹	7.83	-	-	-	-	-	-	-	-	-	-
C-3	08/11/2006 ¹⁹	7.83	-	-	-	-	-	-	-	-	-	-
C-3	11/17/2006 ¹⁹	7.83	-	-	-	-	-	-	-	-	-	-
C-3	02/16/2007 ¹⁵	7.83	2.63	5.20	0.00	-	<50	<0.5	<0.5	<0.5	<0.5	<0.5
C-3	05/17/2007 ¹⁹	7.83	-	-	-	-	-	-	-	-	-	-
C-3	08/09/2007 ¹⁹	7.83	-	-	-	-	-	-	-	-	-	-
C-3	11/08/2007 ¹⁹	7.83	-	-	-	-	-	-	-	-	-	-
C-3	02/06/2008 ¹⁵	7.83	2.91	4.92	0.00	-	<50	<0.5	<0.5	<0.5	<0.5	<0.5
C-3	05/07/2008 ¹⁹	7.83	-	-	-	-	-	-	-	-	-	-
C-3	09/11/2008 ¹⁹	7.83	-	-	-	-	-	-	-	-	-	-

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GROUNDWATER MONITORING AND SAMPLING DATA
 FORMER CHEVRON SERVICE STATION 91153
 3135 GIBBONS DRIVE (3126 FERNSIDE BOULEVARD)
 ALAMEDA, CALIFORNIA

Location	Date	TOC	DTW	GWE	LNAPL	FIELD PARAMETERS	HYDROCARBONS	PRIMARY VOCS				
						Dissolved Oxygen	TPH-GRO	B	T	E	X	MTBE by SW8260
	Units	ft	ft	ft-ansl	ft	mg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
q												
C-3	11/10/2008 ¹⁹	7.83	-	-	-	-	-	-	-	-	-	-
C-3	02/09/2009 ¹⁵	7.83	2.95	4.88	0.00	-	<50	<0.5	<0.5	<0.5	<0.5	<0.5
C-3	03/31/2010	7.83	2.22	5.61	0.00	-	<50	<0.5	<0.5	<0.5	<0.5	<0.5
C-3	05/17/2010	7.83	3.07	4.76	0.00	-	-	-	-	-	-	-
C-3	08/26/2010 ¹⁹	7.83	4.29	3.54	0.00	-	-	-	-	-	-	-
C-3	11/11/2010 ¹⁹	7.83	4.48	3.35	0.00	-	-	-	-	-	-	-
C-3	03/02/2011 ¹⁹	7.83	1.45	6.38	0.00	-	<50	<0.5	<0.5	<0.5	<0.5	<0.5
C-3	06/17/2011 ¹⁹	7.83	3.24	4.59	0.00	-	-	-	-	-	-	-
C-3	09/08/2011 ¹⁹	7.83	4.02	3.81	0.00	-	-	-	-	-	-	-
C-3	12/29/2011 ¹⁹	7.83	4.42	3.41	0.00	-	-	-	-	-	-	-
C-3	03/28/2012	7.83	0.94	6.89	0.00	-	<50	<0.5	<0.5	<0.5	<0.5	<0.5
C-3	05/31/2012 ¹⁹	7.83	3.40	4.43	0.00	-	-	-	-	-	-	-
C-3	09/28/2012 ¹⁹	7.83	4.72	3.11	0.00	-	-	-	-	-	-	-
C-3	12/21/2012 ¹⁹	7.83	2.41	5.42	0.00	-	-	-	-	-	-	-
C-3	03/29/2013	7.83	3.45	4.38	0.00	-	<50	<0.5	<0.5	<0.5	<0.5	<0.5
C-3	06/28/2013	7.83	4.29	3.54	0.00	-	-	-	-	-	-	-
C-3	09/20/2013	7.83	4.81	3.02	0.00	-	-	-	-	-	-	-
C-3	12/30/2013	7.83	4.79	3.04	0.00	-	-	-	-	-	-	-
C-3	03/31/2014	7.83	2.79	5.04	0.00	-	<50	<0.5	<0.5	<0.5	<0.5	<0.5
MW-4	06/04/1992	3.58	3.63	-0.05	0.00	-	<50	0.8	<0.5	<0.5	<0.5	-
MW-4	10/13/1992	3.58	-	-	-	-	-	-	-	-	-	-
MW-4	01/11/1993	3.58	1.89	1.69	0.00	-	<50	<0.5	<0.5	<0.5	<0.5	-
MW-4	04/14/1993	3.58	2.20	1.38	0.00	-	<50	<0.5	<0.5	<0.5	<1.5	-
MW-4	07/13/1993	3.58	3.51	0.07	0.00	-	54	2.6	1.6	<0.5	<1.5	-

GROUNDWATER MONITORING AND SAMPLING DATA
 FORMER CHEVRON SERVICE STATION 91153
 3135 GIBBONS DRIVE (3126 FERNSIDE BOULEVARD)
 ALAMEDA, CALIFORNIA

Location	Date	TOC	DTW	GWE	LNAPL	FIELD PARAMETERS	HYDROCARBONS	PRIMARY VOCS				MTBE by SW8260
						Dissolved Oxygen	TPH-GRO	B	T	E	X	
	Units	ft	ft	ft-ansl	ft	mg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
q												
MW-4	10/19/1993	3.58	4.22	-0.64	0.00	-	<50	<0.5	<0.5	<0.5	<0.5	-
MW-4	11/30/1993	7.01	4.01	3.00	0.00	-	-	-	-	-	-	-
MW-4	01/27/1994	7.01	2.89	4.12	0.00	-	<50	<0.5	<0.5	<0.5	<0.5	-
MW-4	04/07/1994	7.01	3.06	3.95	0.00	-	<50	<0.5	<0.5	<0.5	<0.5	-
MW-4	07/01/1994	7.01	3.59	3.42	0.00	-	<50	<0.5	<0.5	<0.5	<0.5	-
MW-4	10/05/1994	7.01	4.33	2.68	0.00	-	<50	<0.5	<0.5	<0.5	<0.5	-
MW-4	01/12/1995	7.01	1.20	5.81	0.00	-	<50	<0.5	<0.5	<0.5	<0.5	-
MW-4	04/26/1995	7.01	1.15	5.86	0.00	-	<50	<0.5	<0.5	<0.5	<0.5	-
MW-4	07/12/1995	7.01	2.72	4.29	0.00	-	<50	6.4	<0.5	0.63	0.72	-
MW-4	10/30/1995	7.01	4.08	2.93	0.00	-	<50	<0.5	<0.5	<0.5	<0.5	<2.5
MW-4	01/22/1996	7.01	1.76	5.25	0.00	-	<50	<0.5	<0.5	<0.5	<0.5	<2.5
MW-4	04/24/1996	7.01	1.95	5.06	0.00	-	<50	<0.5	<0.5	<0.5	<0.5	<2.5
MW-4	07/29/1996	7.01	3.37	3.64	0.00	-	<50	<0.5	<0.5	<0.5	<0.5	<2.5
MW-4	10/10/1996	7.01	3.96	3.05	0.00	-	<50	<0.5	<0.5	<0.5	<0.5	<2.5
MW-4	01/15/1997	7.01	1.27	5.74	0.00	-	<50	<0.5	<0.5	<0.5	<0.5	<2.5
MW-4	04/03/1997	7.01	2.11	4.90	0.00	-	<50	<0.5	<0.5	<0.5	<0.5	<2.5
MW-4	07/09/1997	7.01	4.04	2.97	0.00	-	<50	<0.5	<0.5	<0.5	<0.5	<2.5
MW-4	10/29/1997	7.01	4.56	2.45	0.00	-	<50	<0.5	<0.5	<0.5	<0.5	<2.5
MW-4	01/14/1998	7.01	0.39	6.62	0.00	-	<50	<0.5	<0.5	<0.5	<0.5	<2.5
MW-4	01/20/1999	7.01	2.83	4.18	0.00	-	<50	<0.5	<0.5	<0.5	<0.5	<2.0
MW-4	04/19/1999	7.01	2.91	4.10	0.00	-	-	-	-	-	-	-
MW-4	01/25/2000	7.01	1.92	5.09	0.00	-	<50	<0.5	<0.5	<0.5	<0.5	<2.5
MW-4	04/03/2000 ¹⁹	7.01	-	-	-	-	-	-	-	-	-	-
MW-4	07/03/2000	7.01	-	-	-	-	-	-	-	-	-	-
MW-4	10/23/2000	7.01	-	-	-	-	-	-	-	-	-	-

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GROUNDWATER MONITORING AND SAMPLING DATA
 FORMER CHEVRON SERVICE STATION 91153
 3135 GIBBONS DRIVE (3126 FERNSIDE BOULEVARD)
 ALAMEDA, CALIFORNIA

Location	Date	TOC	DTW	GWE	LNAPL	FIELD PARAMETERS	HYDROCARBONS	PRIMARY VOCS				MTBE by SW8260
						Dissolved Oxygen	TPH-GRO	B	T	E	X	
	Units	ft	ft	ft-ansl	ft	mg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
q												
MW-4	01/08/2001 ¹¹	7.01	3.02	3.99	0.00	-	87 ¹²	<0.50	<0.50	0.55	2.9	<2.5
MW-4	04/09/2001	7.01	-	-	-	-	-	-	-	-	-	-
MW-4	08/23/2001 ¹⁹	7.01	-	-	-	-	-	-	-	-	-	-
MW-4	11/27/2001 ¹⁹	7.01	-	-	-	-	-	-	-	-	-	-
MW-4	02/26/2002	7.01	1.37	5.64	0.00	-	<50	<0.50	<0.50	<0.50	<1.5	<2.5
MW-4	05/23/2002 ¹⁹	7.01	-	-	-	-	-	-	-	-	-	-
MW-4	08/09/2002 ¹⁹	7.01	-	-	-	-	-	-	-	-	-	-
MW-4	11/08/2002 ¹⁹	7.01	-	-	-	-	-	-	-	-	-	-
MW-4	02/07/2003	7.01	1.72	5.29	0.00	-	<50	<0.50	<0.50	<0.50	<1.5	<2.5
MW-4	05/09/2003 ¹⁹	7.01	-	-	-	-	-	-	-	-	-	-
MW-4	08/15/2003 ¹⁹	7.01	-	-	-	-	-	-	-	-	-	-
MW-4	11/14/2003 ¹⁹	7.01	-	-	-	-	-	-	-	-	-	-
MW-4	02/13/2004 ¹⁵	7.01	1.82	5.19	0.00	-	<50	<0.5	<0.5	<0.5	<0.5	<0.5
MW-4	05/14/2004 ¹⁹	7.01	-	-	-	-	-	-	-	-	-	-
MW-4	11/12/2004 ¹⁹	7.01	-	-	-	-	-	-	-	-	-	-
MW-4	02/11/2005 ¹⁵	7.01	1.46	5.55	0.00	-	<50	<0.5	<0.5	<0.5	<0.5	<0.5
MW-4	05/13/2005 ¹⁹	7.01	-	-	-	-	-	-	-	-	-	-
MW-4	08/19/2005 ¹⁹	7.01	-	-	-	-	-	-	-	-	-	-
MW-4	11/18/2005 ¹⁹	7.01	-	-	-	-	-	-	-	-	-	-
MW-4	02/10/2006 ¹⁵	7.01	1.35	5.66	0.00	-	<50	<0.5	<0.5	<0.5	<0.5	<0.5
MW-4	05/12/2006 ¹⁹	7.01	-	-	-	-	-	-	-	-	-	-
MW-4	08/11/2006 ¹⁹	7.01	-	-	-	-	-	-	-	-	-	-
MW-4	11/17/2006 ¹⁹	7.01	-	-	-	-	-	-	-	-	-	-
MW-4	02/16/2007 ¹⁵	7.01	1.48	5.53	0.00	-	<50	<0.5	<0.5	<0.5	<0.5	<0.5
MW-4	05/17/2007 ¹⁹	7.01	-	-	-	-	-	-	-	-	-	-

GROUNDWATER MONITORING AND SAMPLING DATA
 FORMER CHEVRON SERVICE STATION 91153
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 ALAMEDA, CALIFORNIA

Location	Date	TOC	DTW	GWE	LNAPL	FIELD PARAMETERS	HYDROCARBONS	PRIMARY VOCS				MTBE by SW8260
						Dissolved Oxygen	TPH-GRO	B	T	E	X	
	Units	ft	ft	ft-anst	ft	mg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
q												
MW-4	08/09/2007 ¹⁹	7.01	-	-	-	-	-	-	-	-	-	-
MW-4	11/08/2007 ¹⁹	7.01	-	-	-	-	-	-	-	-	-	-
MW-4	02/06/2008 ¹⁵	7.01	1.27	5.74	0.00	-	<50	<0.5	<0.5	<0.5	<0.5	<0.5
MW-4	05/07/2008 ¹⁹	7.01	-	-	-	-	-	-	-	-	-	-
MW-4	09/11/2008 ¹⁹	7.01	-	-	-	-	-	-	-	-	-	-
MW-4	11/10/2008 ¹⁹	7.01	-	-	-	-	-	-	-	-	-	-
MW-4	02/09/2009 ¹⁵	7.01	2.33	4.68	0.00	-	<50	<0.5	<0.5	<0.5	<0.5	<0.5
MW-4	03/31/2010	7.01	2.13	4.88	0.00	-	<50	<0.5	<0.5	<0.5	<0.5	<0.5
MW-4	05/17/2010	7.01	2.05	4.96	0.00	-	-	-	-	-	-	-
MW-4	08/26/2010 ¹⁹	7.01	3.70	3.31	0.00	-	-	-	-	-	-	-
MW-4	11/11/2010 ¹⁹	7.01	3.98	3.03	0.00	-	-	-	-	-	-	-
MW-4	03/02/2011 ¹⁹	7.01	0.75	6.26	0.00	-	<50	<0.5	<0.5	<0.5	<0.5	<0.5
MW-4	06/17/2011 ¹⁹	7.01	2.36	4.65	0.00	-	-	-	-	-	-	-
MW-4	09/08/2011 ¹⁹	7.01	3.36	3.65	0.00	-	-	-	-	-	-	-
MW-4	12/29/2011 ¹⁹	7.01	3.65	3.36	0.00	-	-	-	-	-	-	-
MW-4	03/28/2012	7.01	1.20	5.81	0.00	-	<50	<0.5	<0.5	<0.5	<0.5	<0.5
MW-4	05/31/2012 ¹⁹	7.01	1.62	5.39	0.00	-	-	-	-	-	-	-
MW-4	09/28/2012 ¹⁹	7.01	3.70	3.31	0.00	-	-	-	-	-	-	-
MW-4	12/21/2012 ¹⁹	7.01	1.31	5.70	0.00	-	-	-	-	-	-	-
MW-4	03/29/2013	7.01	2.35	4.66	0.00	-	<50	<0.5	<0.5	<0.5	<0.5	<0.5
MW-4	06/28/2013	7.01	3.46	3.55	0.00	-	-	-	-	-	-	-
MW-4	09/20/2013	7.01	4.29	2.72	0.00	-	<50	<0.5	<0.5	<0.5	<0.5	<0.5
MW-4	12/30/2013	7.01	4.00	3.01	0.00	-	-	-	-	-	-	-
MW-4	03/31/2014	7.01	3.11	3.90	0.00	-	<50	<0.5	<0.5	<0.5	<0.5	<0.5

TABLE 1

GROUNDWATER MONITORING AND SAMPLING DATA
 FORMER CHEVRON SERVICE STATION 91153
 3135 GIBBONS DRIVE (3126 FERNSIDE BOULEVARD)
 ALAMEDA, CALIFORNIA

Location	Date	TOC	DTW	GWE	LNAPLT	FIELD PARAMETERS	HYDROCARBONS	PRIMARY VOCS				
						Dissolved Oxygen	TPH-GRO	B	T	E	X	MTBE by SW8260
	Units	ft	ft	ft-ansl	ft	mg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
q												
MW-5	06/04/1992	3.61	3.25	0.36	0.00	-	560	110	0.5	37	2.2	-
MW-5	10/13/1992	3.61	4.20	-0.59	0.00	-	1,200	150	<2.5	84	8.6	-
MW-5	01/11/1993	3.61	1.30	2.31	0.00	-	1,300	48	1.0	83	33	-
MW-5	04/14/1993	3.61	1.20	2.41	0.00	-	2,600	240	6.1	250	170	-
MW-5	07/13/1993	3.61	3.15	0.46	0.00	-	1,700	260	7.8	160	100	-
MW-5	10/19/1993	3.61	3.82	-0.21	0.00	-	1,900	190	3.3	200	93	-
MW-5	11/30/1993	7.04	3.56	3.48	0.00	-	-	-	-	-	-	-
MW-5	01/27/1994	7.04	2.42	4.62	0.00	-	4,000	100	12	210	110	-
MW-5	04/07/1994	7.04	2.33	4.71	0.00	-	2,600	170	10	150	88	-
MW-5	07/01/1994	7.04	3.18	3.86	0.00	-	2,300	350	9.1	110	76	-
MW-5	10/05/1994	7.04	3.98	3.06	0.00	-	11,000	840	150	130	340	-
MW-5	01/12/1995	7.04	0.40	6.64	0.00	-	2,300	82	<2.5	54	20	-
MW-5	04/26/1995	7.04	0.50	6.54	0.00	-	1,600	52	<5.0	36	61	-
MW-5	07/12/1995	7.04	2.41	4.63	0.00	-	2,800	150	<5.0	34	38	-
MW-5	10/30/1995	7.04	3.78	3.26	0.00	-	1,100	81	<5.0	<5.0	<5.0	35
MW-5	01/22/1996	7.04	0.78	6.26	0.00	-	880	7.3	<2.0	15	4.8	<10
MW-5	04/24/1996	7.04	1.65	5.39	0.00	-	1,600	51	3.8	14	5.6	56
MW-5	07/29/1996 ²¹	7.04	-	-	-	-	-	-	-	-	-	-
MW-5	10/10/1996	7.04	3.60	3.44	0.00	-	1,000	18	<1.2	1.5	<1.2	<6.2
MW-5	01/15/1997	7.04	0.45	6.59	0.00	-	520	0.84	<0.5	3.1	1.2	8.4
MW-5	04/03/1997	7.04	2.11	4.93	0.00	-	1,400	13	<2.0	4.3	8.4	32
MW-5	07/09/1997	7.04	3.71	3.33	0.00	-	810	3.6	0.97	<0.5	<0.5	9.7
MW-5	10/29/1997	7.04	4.20	2.84	0.00	-	<50	<0.5	<0.5	<0.5	<0.5	<2.5
MW-5	01/14/1998	7.04	0.00	7.04	0.00	-	430	5.8	2.4	<0.5	1.6	17
MW-5	04/17/1998 ²⁰	7.04	0.71	6.33	0.00	-	-	-	-	-	-	-

TABLE 1

GROUNDWATER MONITORING AND SAMPLING DATA
 FORMER CHEVRON SERVICE STATION 91153
 3135 GIBBONS DRIVE (3126 FERNSIDE BOULEVARD)
 ALAMEDA, CALIFORNIA

Location	Date	TOC	DTW	GWE	LNAPL	FIELD PARAMETERS	HYDROCARBONS	PRIMARY VOCS				
						Dissolved Oxygen	TPH-GRO	B	T	E	X	MTBE by SW8260
	Units	ft	ft	ft-ansl	ft	mg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
q												
MW-5	07/15/1998	7.04	0.00	7.04	0.00	-	990	11	3.9	0.56	2.2	61
MW-5	10/27/1998	7.04	4.23	2.81	0.00	-	-	-	-	-	-	-
MW-5	01/20/1999	7.04	2.58	4.46	0.00	-	168	<0.5	<0.5	<0.5	0.692	<2.0
MW-5	04/19/1999	7.04	2.07	4.97	0.00	-	-	-	-	-	-	-
MW-5	07/29/1999	7.04	3.43	3.61	0.00	-	246	1.54	<0.5	<0.5	<0.5	<2.0 ² / ² <5.0
MW-5	10/13/1999 ²¹	7.04	-	-	-	-	-	-	-	-	-	-
MW-5	01/25/2000	7.04	1.51	5.53	0.00	-	169	1.94	<0.5	<0.5	<0.5	201
MW-5	04/03/2000	7.04	1.20	5.84	0.00	-	-	-	-	-	-	-
MW-5	07/03/2000	7.04	2.98	4.06	0.00	-	320 ^{6,10}	5.3	1.1	<0.50	<0.50	5.0
MW-5	10/23/2000	7.04	4.18	2.86	0.00	-	-	-	-	-	-	-
MW-5	01/08/2001 ¹¹	7.04	2.92	4.12	0.00	-	220 ⁶	3.9	<0.50	<0.50	<0.50	7.7
MW-5	04/09/2001	7.04	1.01	6.03	0.00	-	-	-	-	-	-	-
MW-5	08/23/2001	7.04	3.48	3.56	0.00	-	630	40	3.5	<2.5	<2.5	43
MW-5	11/27/2001 ²⁰	7.04	3.05	3.99	0.00	-	-	-	-	-	-	-
MW-5	02/26/2002	7.04	1.00	6.04	0.00	-	410	4.3	<0.50	<0.50	<1.5	<2.5
MW-5	05/23/2002 ²⁰	7.04	2.21	4.83	0.00	-	-	-	-	-	-	-
MW-5	08/09/2002	7.04	3.38	3.66	0.00	-	240	1.3	<0.50	<0.50	<1.5	<2.5
MW-5	11/08/2002 ²⁰	7.04	4.56	2.48	0.00	-	-	-	-	-	-	-
MW-5	02/07/2003	7.04	1.42	5.62	0.00	-	380	3.2	<0.50	0.64	<1.5	<2.5
MW-5	05/09/2003 ²⁰	7.04	1.25	5.79	0.00	-	-	-	-	-	-	-
MW-5	08/15/2003 ¹⁵	7.04	3.61	3.43	0.00	-	<50	<0.5	<0.5	<0.5	<0.5	<0.5
MW-5	11/14/2003 ²⁰	7.04	3.57	3.47	0.00	-	-	-	-	-	-	-
MW-5	02/13/2004 ¹⁵	7.04	1.50	5.54	0.00	-	<50	<0.5	<0.5	<0.5	<0.5	<0.5
MW-5	05/14/2004 ²⁰	7.04	2.47	4.57	0.00	-	-	-	-	-	-	-
MW-5	08/13/2004 ¹⁵	7.04	5.46	1.58	0.00	-	<50	<0.5	<0.5	<0.5	<0.5	<0.5

GROUNDWATER MONITORING AND SAMPLING DATA
 FORMER CHEVRON SERVICE STATION 91153
 3135 GIBBONS DRIVE (3126 FERNSIDE BOULEVARD)
 ALAMEDA, CALIFORNIA

Location	Date	TOC	DTW	GWE	LNAPL	FIELD PARAMETERS	HYDROCARBONS	PRIMARY VOCS				MTBE by SW8260
						Dissolved Oxygen	TPH-GRO	B	T	E	X	
	Units	ft	ft	ft-ansl	ft	mg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
q												
MW-5	11/12/2004 ²⁰	7.04	4.65	2.39	0.00	-	-	-	-	-	-	-
MW-5	02/11/2005 ¹⁵	7.04	1.20	5.84	0.00	-	130	<0.5	<0.5	<0.5	<0.5	<0.5
MW-5	05/13/2005 ²⁰	7.04	4.36	2.68	0.00	-	-	-	-	-	-	-
MW-5	08/19/2005 ¹⁵	7.04	2.78	4.26	0.00	-	96	<0.5	<0.5	<0.5	<0.5	<0.5
MW-5	11/18/2005 ²⁰	7.04	4.51	2.53	0.00	-	-	-	-	-	-	-
MW-5	02/10/2006 ¹⁵	7.04	1.12	5.92	0.00	-	<50	<0.5	<0.5	<0.5	<0.5	<0.5
MW-5	05/12/2006 ²⁰	7.04	2.23	4.81	0.00	-	-	-	-	-	-	-
MW-5	08/11/2006 ¹⁵	7.04	3.40	3.64	0.00	-	<50	<0.5	<0.5	<0.5	<0.5	<0.5
MW-5	11/17/2006 ²⁰	7.04	4.16	2.88	0.00	-	-	-	-	-	-	-
MW-5	02/16/2007 ¹⁵	7.04	1.22	5.82	0.00	-	<50	<0.5	<0.7	<0.8	<0.8	<0.5
MW-5	05/17/2007 ²⁰	7.04	4.06	2.98	0.00	-	-	-	-	-	-	-
MW-5	08/09/2007 ¹⁵	7.04	3.61	3.43	0.00	-	<50	<0.5	<0.5	<0.5	<0.5	<0.5
MW-5	11/08/2007 ²⁰	7.04	3.70	3.34	0.00	-	-	-	-	-	-	-
MW-5	02/06/2008 ¹⁵	7.04	1.06	5.98	0.00	-	<50	<0.5	<0.5	<0.5	<0.5	<0.5
MW-5	05/07/2008 ²⁰	7.04	3.57	3.47	0.00	-	-	-	-	-	-	-
MW-5	09/11/2008 ¹⁵	7.04	4.58	2.46	0.00	-	<50	<0.5	<0.5	<0.5	<0.5	<0.5
MW-5	11/10/2008 ²⁰	7.04	4.26	2.78	0.00	-	-	-	-	-	-	-
MW-5	02/09/2009 ¹⁵	7.04	2.15	4.89	0.00	-	<50	<0.5	<0.5	<0.5	<0.5	<0.5
MW-5	05/28/2009	7.04	2.76	4.28	0.00	-	-	-	-	-	-	-
MW-5	08/18/2009 ¹⁵	7.04	3.81	3.23	0.00	-	<50	<0.5	<0.5	<0.5	<0.5	<0.5
MW-5	11/17/2009	7.04	4.02	3.02	0.00	-	-	-	-	-	-	-
MW-5	03/31/2010	7.04	1.86	5.18	0.00	-	<50	<0.5	<0.5	<0.5	<0.5	<0.5
MW-5	05/17/2010	7.04	1.57	5.47	0.00	-	-	-	-	-	-	-
MW-5	08/26/2010	7.04	3.25	3.79	0.00	-	<50	<0.5	<0.5	<0.5	<0.5	<0.5
MW-5	11/11/2010 ²⁰	7.04	3.52	3.52	0.00	-	-	-	-	-	-	-

TABLE 1

GROUNDWATER MONITORING AND SAMPLING DATA
 FORMER CHEVRON SERVICE STATION 91153
 3135 GIBBONS DRIVE (3126 FERNSIDE BOULEVARD)
 ALAMEDA, CALIFORNIA

Location	Date	TOC	DTW	GWE	LNAPL	FIELD PARAMETERS	HYDROCARBONS	PRIMARY VOCS				
						Dissolved Oxygen	TPH-GRO	B	T	E	X	MTBE by SW8260
	Units	ft	ft	ft-ansl	ft	mg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
q												
MW-5	03/02/2011 ²⁰	7.04	1.55	5.49	0.00	-	<50	<0.5	<0.5	<0.5	<0.5	<0.5
MW-5	06/17/2011 ²⁰	7.04	1.84	5.20	0.00	-	-	-	-	-	-	-
MW-5	09/08/2011 ²⁰	7.04	2.50	4.54	0.00	-	<50	<0.5	<0.5	<0.5	<0.5	<0.5
MW-5	12/29/2011 ²⁰	7.04	3.40	3.64	0.00	-	-	-	-	-	-	-
MW-5	03/28/2012	7.04	1.72	5.32	0.00	-	<50	<0.5	<0.5	<0.5	<0.5	<0.5
MW-5	05/31/2012 ²⁰	7.04	0.20	6.84	0.00	-	-	-	-	-	-	-
MW-5	09/28/2012	7.04	3.90	3.14	0.00	-	<50	<0.5	<0.5	<0.5	<0.5	<0.5
MW-5	12/21/2012 ²⁰	7.04	1.59	5.45	0.00	-	-	-	-	-	-	-
MW-5	03/29/2013	7.04	2.00	5.04	0.00	-	<50	<0.5	<0.5	<0.5	<0.5	<0.5
MW-5	06/28/2013	7.04	3.35	3.69	0.00	-	-	-	-	-	-	-
MW-5	09/20/2013	7.04	4.04	3.00	0.00	-	<50	<0.5	<0.5	<0.5	<0.5	<0.5
MW-5	12/30/2013	7.04	3.80	3.24	0.00	-	-	-	-	-	-	-
MW-5	03/31/2014	7.04	1.90	5.14	0.00	-	<50	<0.5	<0.5	<0.5	<0.5	<0.5
MW-6	06/04/1992	3.85	3.89	-0.04	0.00	-	210	54	<0.5	1.9	2.4	-
MW-6	10/13/1992	3.85	4.56	-0.71	0.00	-	10,000	5,300	<10	70	<10	-
MW-6	01/11/1993	3.85	2.36	1.49	0.00	-	100	50	<0.5	<0.5	<0.5	-
MW-6	04/14/1993	3.85	3.15	0.70	0.00	-	<50	<0.5	<0.5	<0.5	<0.5	-
MW-6	07/13/1993	3.85	3.94	-0.09	0.00	-	<50	1.8	<0.5	<0.5	<1.5	-
MW-6	10/19/1993	3.85	4.40	-0.55	0.00	-	320	150	<0.5	0.8	<0.5	-
MW-6	11/30/1993	7.27	4.16	3.11	0.00	-	-	-	-	-	-	-
MW-6	01/27/1994	7.27	3.33	3.94	0.00	-	120	45	<0.5	<0.5	<0.5	-
MW-6	04/07/1994	7.27	3.43	3.84	0.00	-	<50	<0.5	<0.5	<0.5	<0.5	-
MW-6	07/01/1994	7.27	3.94	3.33	0.00	-	<50	<0.5	<0.5	<0.5	<0.5	-
MW-6	10/05/1994	7.27	4.38	2.89	0.00	-	8,300	2,400	160	42	190	-

GROUNDWATER MONITORING AND SAMPLING DATA
 FORMER CHEVRON SERVICE STATION 91153
 3135 GIBBONS DRIVE (3126 FERNSIDE BOULEVARD)
 ALAMEDA, CALIFORNIA

Location	Date	TOC	DTW	GWE	LNAPLT	FIELD PARAMETERS	HYDROCARBONS	PRIMARY VOCS				
						Dissolved Oxygen	TPH-GRO	B	T	E	X	MTBE by SW8260
	Units	ft	ft	ft-ansl	ft	mg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
q												
MW-6	01/12/1995 ¹	7.27	2.43	4.84	0.00	-	<50	12	<0.5	<0.5	<0.5	-
MW-6	04/26/1995	7.27	2.06	5.21	0.00	-	<50	5.5	0.67	<0.5	1.3	-
MW-6	07/12/1995	7.27	3.53	3.74	0.00	-	65	27	<0.5	<0.5	<0.5	-
MW-6	10/30/1995	7.27	4.34	2.93	0.00	-	<50	3.9	<0.5	<0.5	<0.5	<2.5
MW-6	01/22/1996	7.27	2.61	4.66	0.00	-	<50	0.93	<0.5	<0.5	<0.5	<2.5
MW-6	04/24/1996	7.27	2.50	4.77	0.00	-	260	110	<1.2	<1.2	<1.2	<6.2
MW-6	07/29/1996	7.27	3.85	3.42	0.00	-	<50	23	<0.5	<0.5	<0.5	<2.5
MW-6	10/10/1996	7.27	4.37	2.90	0.00	-	79	31	<0.5	<0.5	<0.5	<2.5
MW-6	01/15/1997	7.27	2.63	4.64	0.00	-	<50	<0.5	<0.5	<0.5	<0.5	<2.5
MW-6	04/03/1997	7.27	3.42	3.85	0.00	-	670	360	<5.0	<5.0	<5.0	<25
MW-6	07/09/1997	7.27	4.29	2.98	0.00	-	330	140	<2.0	<2.0	<2.0	<10
MW-6	10/29/1997	7.27	4.56	2.71	0.00	-	400	260	<2.0	<2.0	<2.0	5.8
MW-6	01/14/1998	7.27	1.01	6.26	0.00	-	<50	<0.5	<0.5	<0.5	<0.5	<2.5
MW-6	04/17/1998	7.27	2.94	4.33	0.00	-	<50	1.7	<0.5	<0.5	<0.5	<2.5
MW-6	07/15/1998	7.27	4.72	2.55	0.00	-	<50	<0.5	<0.5	<0.5	<0.5	<2.5
MW-6	10/27/1998 ²¹	7.27	-	-	-	-	-	-	-	-	-	-
MW-6	11/25/1998	7.27	4.16	3.11	0.00	-	110 ³	54	<0.5	<0.5	<0.5	<2.5
MW-6	01/20/1999	7.27	3.45	3.82	0.00	-	<50	10	<0.5	<0.5	<0.5	<2.0
MW-6	04/19/1999	7.27	3.39	3.88	0.00	-	<50	2.6	<0.5	<0.5	<0.5	<2.0/<2.5 ²
MW-6	07/29/1999 ⁴	7.27	4.34	2.93	0.00	-	<5,000	2,590	<50	<50	<50	<500
MW-6	10/13/1999	7.27	5.89	1.38	0.00	-	9,270	4,610	44.2	<25	<25	<125
MW-6	01/25/2000	7.27	4.11	3.16	0.00	-	529	289	<0.5	<0.5	<0.5	738
MW-6	04/03/2000 ^{7,8}	7.27	2.84	4.43	0.00	-	<50	<0.50	<0.50	<0.50	<0.50	<2.5
MW-6	07/03/2000 ⁷	7.27	3.77	3.50	0.00	-	91 ⁶	89	0.77	<0.50	<0.50	<2.5
MW-6	10/12/2000	7.27	6.32	0.95	0.00	-	<50	8.0	<0.50	<0.50	<0.50	<2.5

TABLE 1

GROUNDWATER MONITORING AND SAMPLING DATA
 FORMER CHEVRON SERVICE STATION 91153
 3135 GIBBONS DRIVE (3126 FERNSIDE BOULEVARD)
 ALAMEDA, CALIFORNIA

Location	Date	TOC	DTW	GWE	LNAPLT	FIELD PARAMETERS	HYDROCARBONS	PRIMARY VOCS				
						Dissolved Oxygen	TPH-GRO	B	T	E	X	MTBE by SW8260
	Units	ft	ft	ft-ansl	ft	mg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
q												
MW-6	01/08/2001 ^{7,11}	7.27	3.74	3.53	0.00	-	400 ⁶	640	8.2	8.0	5.0	10
MW-6	04/09/2001 ⁷	7.27	3.03	4.24	0.00	-	91.3	22.0	3.36	0.751	2.14	<0.500
MW-6	08/23/2001 ⁷	7.27	4.70	2.57	0.00	-	53 ¹³	23	0.50	<0.50	1.1	<2.5
MW-6	11/27/2001 ¹⁴	7.27	4.43	2.84	0.00	-	<50	4.1	<0.50	<0.50	<1.5	<2.5
MW-6	02/26/2002 ¹⁴	7.27	2.50	4.77	0.00	-	100	53	<0.50	<0.50	<1.5	<2.5
MW-6	05/23/2002	7.27	3.27	4.00	0.00	-	610	260	4.2	1.7	2.1	<2.5
MW-6	08/09/2002	7.27	4.11	3.16	0.00	-	<50	1.1	<0.50	<0.50	<1.5	<2.5
MW-6	11/08/2002	7.27	4.12	3.15	0.00	2.10	<50	<0.50	<0.50	<0.50	<1.5	<2.5
MW-6	02/07/2003	7.27	2.60	4.67	0.00	2.60	<50	0.65	<0.50	<0.50	<1.5	<2.5
MW-6	05/09/2003	7.27	2.57	4.70	0.00	3.10	<50	1.9	<0.5	<0.5	<1.5	<2.5
MW-6	08/15/2003 ¹⁵	7.27	4.15	3.12	0.00	2.90	<50	<0.5	<0.5	<0.5	<0.5	<0.5
MW-6	11/14/2003 ¹⁵	7.27	4.10	3.17	0.00	3.41	<50	<0.5	0.6	<0.5	<0.5	1
MW-6	02/13/2004 ¹⁵	7.27	2.66	4.61	0.00	-	<50	<0.5	<0.5	<0.5	<0.5	<0.5
MW-6	05/14/2004 ¹⁵	7.27	3.55	3.72	0.00	-	<50	3	<0.5	<0.5	<0.5	<0.5
MW-6	08/13/2004 ¹⁵	7.27	4.32	2.95	0.00	-	<50	<0.5	<0.5	<0.5	<0.5	<0.5
MW-6	11/12/2004 ¹⁵	7.27	4.20	3.07	0.00	-	<50	<0.5	<0.5	<0.5	<0.5	<0.5
MW-6	02/11/2005 ¹⁵	7.27	2.18	5.09	0.00	-	<50	<0.5	<0.5	<0.5	<0.5	<0.5
MW-6	05/13/2005 ¹⁵	7.27	4.11	3.16	0.00	-	<50	<0.5	<0.5	<0.5	<0.5	<0.5
MW-6	08/19/2005 ¹⁵	7.27	3.70	3.57	0.00	1.90	<50	<0.5	<0.5	<0.5	<0.5	<0.5
MW-6	11/18/2005 ¹⁵	7.27	3.98	3.29	0.00	1.70	<50	<0.5	<0.5	<0.5	<0.5	<0.5
MW-6	02/10/2006 ¹⁵	7.27	2.11	5.16	0.00	2.20	<50	<0.5	<0.5	<0.5	<0.5	<0.5
MW-6	05/12/2006 ¹⁵	7.27	3.18	4.09	0.00	2.80	<50	<0.5	<0.5	<0.5	<0.5	<0.5
MW-6	08/11/2006 ¹⁵	7.27	3.80	3.47	0.00	2.50	<50	<0.5	<0.5	<0.5	<0.5	<0.5
MW-6	11/17/2006 ¹⁵	7.27	3.78	3.49	0.00	2.20	<50	<0.5	<0.5	<0.5	<0.5	<0.5
MW-6	02/16/2007 ¹⁵	7.27	2.08	5.19	0.00	1.80	<50	1	<0.5	<0.5	<0.5	<0.5

TABLE 1

GROUNDWATER MONITORING AND SAMPLING DATA
 FORMER CHEVRON SERVICE STATION 91153
 3135 GIBBONS DRIVE (3126 FERNSIDE BOULEVARD)
 ALAMEDA, CALIFORNIA

Location	Date	TOC	DTW	GWE	LNAPLT	FIELD PARAMETERS	HYDROCARBONS	PRIMARY VOCS				
						Dissolved Oxygen	TPH-GRO	B	T	E	X	MTBE by SW8260
	Units	ft	ft	ft-ansl	ft	mg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
q												
MW-6	05/17/2007 ¹⁵	7.27	3.61	3.66	0.00	2.0	<50	<0.5	<0.5	<0.5	<0.5	<0.5
MW-6	08/09/2007 ¹⁵	7.27	4.05	3.22	0.00	2.6	<50	<0.5	<0.5	<0.5	<0.5	<0.5
MW-6	11/08/2007 ¹⁵	7.27	4.12	3.15	0.00	2.2	<50	5	<0.5	<0.5	<0.5	<0.5
MW-6	02/06/2008 ¹⁵	7.27	1.85	5.42	0.00	2.4	<50	<0.5	<0.5	<0.5	<0.5	<0.5
MW-6	05/07/2008 ¹⁵	7.27	3.91	3.36	0.00	2.3	63	18	<0.5	<0.5	<0.5	<0.5
MW-6	09/11/2008 ¹⁵	7.27	4.93	2.34	0.00	1.9	<50	<0.5	<0.5	<0.5	<0.5	<0.5
MW-6	11/10/2008 ¹⁵	7.27	4.30	2.97	0.00	2.2	<50	<0.5	<0.5	<0.5	<0.5	<0.5
MW-6	02/09/2009 ¹⁵	7.27	2.97	4.30	0.00	2.0	<50	2	<0.5	<0.5	<0.5	<0.5
MW-6	05/28/2009 ¹⁵	7.27	3.53	3.74	0.00	1.77	<50	4	<0.5	<0.5	<0.5	<0.5
MW-6	08/18/2009 ¹⁵	7.27	3.38	3.89	0.00	1.81	560	130	3	<0.5	0.7 J	<0.5
MW-6	11/17/2009	7.27	4.00	3.27	0.00	-	-	-	-	-	-	-
MW-6	03/31/2010	7.27	2.44	4.83	0.00	-	<50	<0.5	<0.5	<0.5	<0.5	<0.5
MW-6	05/17/2010	7.27	3.30	3.97	0.00	-	-	-	-	-	-	-
MW-6	08/26/2010	7.27	4.15	3.12	0.00	-	<50	<0.5	<0.5	<0.5	<0.5	<0.5
MW-6	11/11/2010 ²⁰	7.27	4.16	3.11	0.00	-	-	-	-	-	-	-
MW-6	03/02/2011 ²⁰	7.27	2.27	5.00	0.00	-	<50	<0.5	<0.5	<0.5	<0.5	<0.5
MW-6	06/17/2011 ²⁰	7.27	3.69	3.58	0.00	-	-	-	-	-	-	-
MW-6	09/08/2011 ²⁰	7.27	3.82	3.45	0.00	-	<50	2	<0.5	<0.5	<0.5	<0.5
MW-6	12/29/2011 ²⁰	7.27	3.90	3.37	0.00	-	-	-	-	-	-	-
MW-6	03/28/2012	7.27	1.99	5.28	0.00	-	<50	<0.5	<0.5	<0.5	<0.5	<0.5
MW-6	05/31/2012 ²⁰	7.27	3.28	3.99	0.00	-	-	-	-	-	-	-
MW-6	09/28/2012	7.27	4.47	2.80	0.00	-	<50	<0.5	<0.5	<0.5	<0.5	<0.5
MW-6	12/21/2012 ²⁰	7.27	2.68	4.59	0.00	-	-	-	-	-	-	-
MW-6	03/29/2013	7.27	3.73	3.54	0.00	-	<50	<0.5	<0.5	<0.5	<0.5	<0.5
MW-6	06/28/2013	7.27	4.17	3.10	0.00	-	-	-	-	-	-	-

TABLE 1

GROUNDWATER MONITORING AND SAMPLING DATA
 FORMER CHEVRON SERVICE STATION 91153
 3135 GIBBONS DRIVE (3126 FERNSIDE BOULEVARD)
 ALAMEDA, CALIFORNIA

Location	Date	TOC	DTW	GWE	LNAPL	FIELD PARAMETERS	HYDROCARBONS	PRIMARY VOCS				
						Dissolved Oxygen	TPH-GRO	B	T	E	X	MTBE by SW8260
	Units	ft	ft	ft-ansl	ft	mg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
q												
MW-6	09/20/2013	7.27	4.48	2.79	0.00	-	-	-	-	-	-	-
MW-6	12/30/2013	7.27	4.27	3.00	0.00	-	-	-	-	-	-	-
MW-6	03/31/2014	7.27	3.05	4.22	0.00	-	<50	<0.5	<0.5	<0.5	<0.5	<0.5
MW-7	11/30/1993	8.22	5.33	2.89	0.00	-	480	110	41	4.4	38	-
MW-7	01/27/1994	8.22	4.50	3.72	0.00	-	120	21	1.1	2.2	4.8	-
MW-7	04/07/1994	8.22	4.62	3.60	0.00	-	2,600	630	39	56	94	-
MW-7	07/01/1994	8.22	5.13	3.09	0.00	-	2,200	770	42	<10	92	-
MW-7	10/05/1994	8.22	5.61	2.61	0.00	-	15,000	3,300	90	130	320	-
MW-7	01/12/1995	8.22	2.83	5.39	0.00	-	340	57	<1.3	18	6.4	-
MW-7	04/26/1995	8.22	2.35	5.87	0.00	-	15,000	3,700	210	520	800	-
MW-7	07/12/1995	8.22	4.66	3.56	0.00	-	7,700	1,800	59	130	370	-
MW-7	10/30/1995	8.22	5.48	2.74	0.00	-	770	260	<5.0	33	48	25
MW-7	01/22/1996	8.22	3.34	4.88	0.00	-	290	63	<1.0	6.4	5.7	<5.0
MW-7	04/24/1996	8.22	4.12	4.10	0.00	-	12,000	2,500	510	380	810	<125
MW-7	07/29/1996	8.22	5.03	3.19	0.00	-	2,600	650	<25	61	150	<125
MW-7	10/10/1996	8.22	5.52	2.70	0.00	-	5,800	1,700	28	170	210	<62
MW-7	01/15/1997	8.22	2.92	5.30	0.00	-	1,000	230	<2.5	28	11	63
MW-7	04/03/1997	8.22	4.65	3.57	0.00	-	6,000	1,800	100	140	170	<100
MW-7	07/09/1997	8.22	5.39	2.83	0.00	-	5,500	2,200	<20	41	30	<100
MW-7	10/29/1997	8.22	5.58	2.64	0.00	-	220	40	0.61	3.0	2.4	7.6
MW-7	01/14/1998	8.22	2.80	5.42	0.00	-	140	5.1	<0.5	<0.5	1.4	<2.5
MW-7	04/17/1998	8.22	3.00	5.22	0.00	-	13,000	4,200	98	250	240	250
MW-7	07/15/1998 ²¹	8.22	-	-	-	-	-	-	-	-	-	-
MW-7	08/17/1998 ⁵	7.92	5.52	2.40	0.00	-	1,600	380	51	68	280	22

TABLE 1

**GROUNDWATER MONITORING AND SAMPLING DATA
FORMER CHEVRON SERVICE STATION 91153
3135 GIBBONS DRIVE (3126 FERNSIDE BOULEVARD)
ALAMEDA, CALIFORNIA**

Location	Date	TOC	DTW	GWE	LNAPL	FIELD PARAMETERS	HYDROCARBONS	PRIMARY VOCS				
						Dissolved Oxygen	TPH-GRO	B	T	E	X	MTBE by SW8260
	Units	ft	ft	ft-ansl	ft	mg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
q												
MW-7	10/27/1998	7.92	7.51	0.41	0.00	-	190	2.3	0.53	<0.5	<0.5	33
MW-7	01/20/1999	7.92	3.45	4.47	0.00	-	<50	<0.5	<0.5	<0.5	<0.5	<2.0
MW-7	04/19/1999	7.92	4.61	3.31	0.00	-	6,500	3,000	<0.5	110	210	150 ² /310
MW-7	07/29/1999 ⁴	7.92	5.00	2.92	0.00	-	8,390	2,100	129	222	729	248
MW-7	10/13/1999	7.92	5.61	2.31	0.00	-	14,300	6,600	58.8	117	190	<125
MW-7	01/25/2000	7.92	3.32	4.60	0.00	-	1,100	184	<5.0	13.5	33.7	151
MW-7	04/03/2000 ^{7,9}	7.92	3.38	4.54	0.00	-	2,600 ⁶	780	12	<5.0	61	95
MW-7	07/03/2000 ⁷	7.92	4.34	3.58	0.00	-	4,100 ⁶	2,600	72	240	690	<50
MW-7	10/23/2000	7.92	6.11	1.81	0.00	-	12,000 ⁶	2,600	<50	150	290	<250
MW-7	01/08/2001 ^{7,11}	7.92	4.32	3.60	0.00	-	3,900 ⁶	2,200	61	140	350	<25
MW-7	04/09/2001 ⁷	7.92	3.63	4.29	0.00	-	25,100	4,590	1,200	843	1,920	48.1
MW-7	08/23/2001 ⁷	7.92	4.83	3.09	0.00	-	27,000	4,100	970	1,100	3,500	<500
MW-7	11/27/2001	7.92	4.30	3.62	0.00	-	12,000	1,800	50	450	830	91
MW-7	02/26/2002	7.92	3.00	4.92	0.00	-	15,000	3,100	260	380	860	<10
MW-7	05/23/2002	7.92	3.69	4.23	0.00	-	28,000	6,000	120	820	1,900	42
MW-7	08/09/2002	7.92	4.38	3.54	0.00	-	24,000	3,700	81	710	1,300	56
MW-7	11/08/2002	7.92	4.43	3.49	0.00	-98.00	18,000	2,300	150	660	1,400	<100
MW-7	02/07/2003	7.92	3.20	4.72	0.00	2.90	13,000	2,300	200	310	620	<25
MW-7	05/09/2003	7.92	3.18	4.74	0.00	2.60	17,000	4,200	36	350	360	<50
MW-7	08/15/2003 ¹⁵	7.92	4.75	3.17	0.00	2.30	29,000	7,300	140	780	1,900	<5
MW-7	11/14/2003 ¹⁵	7.92	4.95	2.97	0.00	1.87	7,200	950	3	45	20	7
MW-7	02/13/2004 ¹⁵	7.92	3.29	4.63	0.00	-	3,300	360	4	82	130	3
MW-7	05/14/2004 ¹⁵	7.92	3.98	3.94	0.00	-	17,000	3,100	480	510	1,300	3
MW-7	08/13/2004 ¹⁵	7.92	5.94	1.98	0.00	-	10,000	2,000	4	130	150	4
MW-7	11/12/2004 ¹⁵	7.92	4.50	3.42	0.00	-	680	4	<0.5	1	0.7	0.8

TABLE 1

GROUNDWATER MONITORING AND SAMPLING DATA
 FORMER CHEVRON SERVICE STATION 91153
 3135 GIBBONS DRIVE (3126 FERNSIDE BOULEVARD)
 ALAMEDA, CALIFORNIA

Location	Date	TOC	DTW	GWE	LNAPL	FIELD PARAMETERS	HYDROCARBONS	PRIMARY VOCS				
						Dissolved Oxygen	TPH-GRO	B	T	E	X	MTBE by SW8260
	Units	ft	ft	ft-ansl	ft	mg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
q												
MW-7	02/11/2005 ¹⁵	7.92	3.07	4.85	0.00	-	4,600	680	6	80	44	4
MW-7	05/13/2005 ¹⁵	7.92	4.51	3.41	0.00	-	4,200	380	3	38	13	2
MW-7	08/19/2005 ¹⁵	7.92	4.03	3.89	0.00	0.80	7,900	1,300	3	190	310	<1
MW-7	11/18/2005 ¹⁵	7.92	4.62	3.30	0.00	0.90	3,900	4	1	16	8	2
MW-7	02/10/2006 ¹⁵	7.92	3.12	4.80	0.00	1.30	3,200	320	2	14	8	2
MW-7	05/12/2006 ¹⁵	7.92	4.25	3.67	0.00	1.40	3,600	1,000	2	65	27	<1
MW-7	08/11/2006 ¹⁵	7.92	4.45	3.47	0.00	1.10	6,700	1,900	6	280	300	<1
MW-7	11/17/2006 ¹⁵	7.92	4.71	3.21	0.00	0.70	1,200	0.6	<0.5	1	0.8	<0.5
MW-7	02/16/2007 ¹⁵	7.92	3.26	4.66	0.00	1.10	110	<0.5	<0.5	<0.5	<0.5	<0.5
MW-7	05/17/2007 ¹⁵	7.92	4.62	3.30	0.00	1.7	6,400	1,400	4	130	26	<1
MW-7	08/09/2007 ¹⁵	7.92	4.61	3.31	0.00	1.2	10,000	1,400	4	230	12	<3
MW-7	11/08/2007 ¹⁵	7.92	4.72	3.20	0.00	0.9	2,300	4	1	3	7	0.9
MW-7	02/06/2008 ¹⁵	7.92	2.98	4.94	0.00	0.5	190	<0.5	<0.5	<0.5	<0.5	<0.5
MW-7	05/07/2008 ¹⁵	7.92	4.48	3.44	0.00	1.2	8,000	1,500	15	380	260	<1
MW-7	09/11/2008 ¹⁵	7.92	5.95	1.97	0.00	1.0	5,100	530	4	47	12	0.7
MW-7	11/10/2008 ¹⁵	7.92	5.81	2.11	0.00	0.6	2,800	13	1	1	7	<0.5
MW-7	02/09/2009 ¹⁵	7.92	4.06	3.86	0.00	0.8	3,900	190	2	51	11	0.5
MW-7	05/28/2009 ^{15,17}	7.92	3.84	4.08	0.00	0.45	5,800	870	8	220	27	<0.5
MW-7	08/18/2009 ¹⁵	7.92	4.80	3.12	0.00	0.57	6,700	660	4	110	13	0.7 J
MW-7	11/17/2009	7.92	4.52	3.40	0.00	-	-	-	-	-	-	-
MW-7	03/31/2010	7.92	3.11	4.81	0.00	-	2,000	110	1	2	3	0.7 J
MW-7	05/17/2010	7.92	3.41	4.51	0.00	-	-	-	-	-	-	-
MW-7	08/26/2010	7.92	4.60	3.32	0.00	-	5,100	470	3	150	9	<0.5
MW-7	11/11/2010 ²⁰	7.92	4.68	3.24	0.00	-	-	-	-	-	-	-
MW-7	03/02/2011 ²⁰	7.92	2.53	5.39	0.00	-	1,100	<0.5	<0.5	<0.5	<0.5	<0.5

GROUNDWATER MONITORING AND SAMPLING DATA
 FORMER CHEVRON SERVICE STATION 91153
 3135 GIBBONS DRIVE (3126 FERNSIDE BOULEVARD)
 ALAMEDA, CALIFORNIA

Location	Date	TOC	DTW	GWE	LNAPL	FIELD PARAMETERS	HYDROCARBONS	PRIMARY VOCS				
						Dissolved Oxygen	TPH-GRO	B	T	E	X	MTBE by SW8260
	Units	ft	ft	ft-ansl	ft	mg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
q												
MW-7	06/17/2011 ²⁰	7.92	4.02	3.90	0.00	-	-	-	-	-	-	-
MW-7	09/08/2011 ²⁰	7.92	4.12	3.80	0.00	-	5,700	650	7	140	31	<0.5
MW-7	12/29/2011 ²⁰	7.92	4.12	3.80	0.00	-	-	-	-	-	-	-
MW-7	03/28/2012	7.92	2.61	5.31	0.00	-	370	<0.5	<0.5	<0.5	<0.5	<0.5
MW-7	05/31/2012 ²⁰	7.92	3.79	4.13	0.00	-	-	-	-	-	-	-
MW-7	09/28/2012	7.92	4.90	3.02	0.00	-	3,600	14	<5	<5	5 J	<5
MW-7	12/21/2012 ²⁰	7.92	3.09	4.83	0.00	-	-	-	-	-	-	-
MW-7	03/29/2013	7.92	3.70	4.22	0.00	-	5,000	770	11	57	12	<0.5
MW-7	06/28/2013	7.92	4.59	3.33	0.00	-	-	-	-	-	-	-
MW-7	09/20/2013	7.92	4.96	2.96	0.00	-	4,400	1	2	1	4	<0.5
MW-7	12/30/2013	7.92	4.60	3.32	0.00	-	-	-	-	-	-	-
MW-7	03/31/2014	7.92	3.68	4.24	0.00	-	350	<0.5	<0.5	<0.5	<0.5	<0.5
MW-8	10/17/1995	6.96	4.40	2.56	0.00	-	-	-	-	-	-	-
MW-8	10/30/1995	6.96	4.44	2.52	0.00	-	<50	<0.5	<0.5	<0.5	<0.5	<2.5
MW-8	01/22/1996	6.96	2.24	4.72	0.00	-	<50	<0.5	<0.5	<0.5	<0.5	<2.5
MW-8	04/24/1996	6.96	2.97	3.99	0.00	-	<50	<0.5	<0.5	<0.5	<0.5	<2.5
MW-8	07/29/1996	6.96	3.37	3.59	0.00	-	<50	<0.5	<0.5	<0.5	<0.5	<2.5
MW-8	10/10/1996	6.96	4.12	2.84	0.00	-	<50	<0.5	<0.5	<0.5	<0.5	<2.5
MW-8	01/15/1997	6.96	0.94	6.02	0.00	-	<50	<0.5	<0.5	<0.5	<0.5	<2.5
MW-8	04/03/1997	6.96	2.20	4.76	0.00	-	<50	<0.5	<0.5	<0.5	<0.5	<2.5
MW-8	07/09/1997	6.96	4.30	2.66	0.00	-	<50	<0.5	<0.5	<0.5	<0.5	<2.5
MW-8	10/29/1997	6.96	4.57	2.39	0.00	-	<50	<0.5	<0.5	<0.5	<0.5	<2.5
MW-8	01/14/1998	6.96	0.83	6.13	0.00	-	<50	<0.5	<0.5	<0.5	<0.5	<2.5
MW-8	01/20/1999	6.96	2.69	4.27	0.00	-	<50	<0.5	<0.5	<0.5	<0.5	<2.0

TABLE 1

GROUNDWATER MONITORING AND SAMPLING DATA
 FORMER CHEVRON SERVICE STATION 91153
 3135 GIBBONS DRIVE (3126 FERNSIDE BOULEVARD)
 ALAMEDA, CALIFORNIA

Location	Date	TOC	DTW	GWE	LNAPL	FIELD PARAMETERS	HYDROCARBONS	PRIMARY VOCS				
						Dissolved Oxygen	TPH-GRO	B	T	E	X	MTBE by SW8260
	Units	ft	ft	ft-ansl	ft	mg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
q												
MW-8	04/19/1999	6.96	3.76	3.20	0.00	-	-	-	-	-	-	-
MW-8	01/25/2000	6.96	1.41	5.55	0.00	-	<50	<0.5	<0.5	<0.5	<0.5	<2.5
MW-8	04/03/2000 ¹⁹	6.96	-	-	-	-	-	-	-	-	-	-
MW-8	07/03/2000	6.96	-	-	-	-	-	-	-	-	-	-
MW-8	10/23/2000	6.96	-	-	-	-	-	-	-	-	-	-
MW-8	01/08/2001 ¹¹	6.96	3.58	3.38	0.00	-	<50	<0.50	<0.50	<0.50	<0.50	<2.5
MW-8	04/09/2001	6.96	-	-	-	-	-	-	-	-	-	-
MW-8	08/23/2001 ¹⁹	6.96	-	-	-	-	-	-	-	-	-	-
MW-8	11/27/2001 ¹⁹	6.96	-	-	-	-	-	-	-	-	-	-
MW-8	02/26/2002	6.96	2.91	4.05	0.00	-	<50	<0.50	<0.50	<0.50	<1.5	<2.5
MW-8	05/23/2002 ¹⁹	6.96	-	-	-	-	-	-	-	-	-	-
MW-8	08/09/2002 ¹⁹	6.96	-	-	-	-	-	-	-	-	-	-
MW-8	11/08/2002 ¹⁹	6.96	-	-	-	-	-	-	-	-	-	-
MW-8	02/07/2003	6.96	3.13	3.83	0.00	-	<50	<0.50	<0.50	<0.50	<1.5	<2.5
MW-8	05/09/2003 ¹⁹	6.96	-	-	-	-	-	-	-	-	-	-
MW-8	08/15/2003 ¹⁹	6.96	-	-	-	-	-	-	-	-	-	-
MW-8	11/14/2003 ¹⁹	6.96	-	-	-	-	-	-	-	-	-	-
MW-8	02/13/2004 ¹⁵	6.96	3.20	3.76	0.00	-	<50	<0.5	<0.5	<0.5	<0.5	<0.5
MW-8	05/14/2004 ¹⁹	6.96	-	-	-	-	-	-	-	-	-	-
MW-8	11/12/2004 ¹⁹	6.96	-	-	-	-	-	-	-	-	-	-
MW-8	02/11/2005 ¹⁵	6.96	2.85	4.11	0.00	-	<50	<0.5	<0.5	<0.5	<0.5	<0.5
MW-8	05/13/2005 ¹⁹	6.96	-	-	-	-	-	-	-	-	-	-
MW-8	08/19/2005 ¹⁹	6.96	-	-	-	-	-	-	-	-	-	-
MW-8	11/18/2005 ¹⁹	6.96	-	-	-	-	-	-	-	-	-	-
MW-8	02/10/2006 ¹⁵	6.96	2.74	4.22	<50	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5

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GROUNDWATER MONITORING AND SAMPLING DATA
 FORMER CHEVRON SERVICE STATION 91153
 3135 GIBBONS DRIVE (3126 FERNSIDE BOULEVARD)
 ALAMEDA, CALIFORNIA

Location	Date	TOC	DTW	GWE	LNAPL	FIELD PARAMETERS	HYDROCARBONS	PRIMARY VOCS				MTBE by SW8260
						Dissolved Oxygen	TPH-GRO	B	T	E	X	
	Units	ft	ft	ft-ansl	ft	mg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
q												
MW-8	05/12/2006 ¹⁹	6.96	-	-	-	-	-	-	-	-	-	-
MW-8	08/11/2006 ¹⁹	6.96	-	-	-	-	-	-	-	-	-	-
MW-8	11/17/2006 ¹⁹	6.96	-	-	-	-	-	-	-	-	-	-
MW-8	02/16/2007 ¹⁵	6.96	2.69	4.27	0.00	-	<50	<0.5	<0.5	<0.5	<0.5	<0.5
MW-8	05/17/2007 ¹⁹	6.96	-	-	-	-	-	-	-	-	-	-
MW-8	08/09/2007 ¹⁹	6.96	-	-	-	-	-	-	-	-	-	-
MW-8	11/08/2007 ¹⁹	6.96	-	-	-	-	-	-	-	-	-	-
MW-8	02/06/2008 ¹⁵	6.96	2.57	4.39	0.00	-	<50	<0.5	<0.5	<0.5	<0.5	<0.5
MW-8	05/07/2008 ¹⁹	6.96	-	-	-	-	-	-	-	-	-	-
MW-8	09/11/2008 ¹⁹	6.96	-	-	-	-	-	-	-	-	-	-
MW-8	11/10/2008 ¹⁹	6.96	-	-	-	-	-	-	-	-	-	-
MW-8	02/09/2009 ¹⁵	6.96	3.28	3.68	0.00	-	<50	<0.5	<0.5	<0.5	<0.5	<0.5
MW-8	03/31/2010	6.96	2.85	4.11	0.00	-	<50	<0.5	<0.5	<0.5	<0.5	<0.5
MW-8	05/17/2010	6.96	3.33	3.63	0.00	-	-	-	-	-	-	-
MW-8	08/26/2010 ¹⁹	6.96	4.27	2.69	0.00	-	-	-	-	-	-	-
MW-8	11/11/2010 ¹⁹	6.96	3.82	3.14	0.00	-	-	-	-	-	-	-
MW-8	03/02/2011 ¹⁹	6.96	1.66	5.30	0.00	-	<50	<0.5	<0.5	<0.5	<0.5	<0.5
MW-8	06/17/2011 ¹⁹	6.96	3.79	3.17	0.00	-	-	-	-	-	-	-
MW-8	09/08/2011 ¹⁹	6.96	2.97	3.99	0.00	-	-	-	-	-	-	-
MW-8	12/29/2011 ¹⁹	6.96	3.70	3.26	0.00	-	-	-	-	-	-	-
MW-8	03/28/2012	6.96	0.48	6.48	0.00	-	<50	<0.5	<0.5	<0.5	<0.5	<0.5
MW-8	05/31/2012 ¹⁹	6.96	1.66	5.30	0.00	-	-	-	-	-	-	-
MW-8	09/28/2012 ¹⁹	6.96	4.87	2.09	0.00	-	-	-	-	-	-	-
MW-8	12/21/2012 ¹⁹	6.96	2.28	4.68	0.00	-	-	-	-	-	-	-
MW-8	03/29/2013	6.96	3.73	3.23	0.00	-	<50	<0.5	<0.5	<0.5	<0.5	<0.5

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GROUNDWATER MONITORING AND SAMPLING DATA
 FORMER CHEVRON SERVICE STATION 91153
 3135 GIBBONS DRIVE (3126 FERNSIDE BOULEVARD)
 ALAMEDA, CALIFORNIA

Location	Date	TOC	DTW	GWE	LNAPL	FIELD PARAMETERS	HYDROCARBONS	PRIMARY VOCS				
						Dissolved Oxygen	TPH-GRO	B	T	E	X	MTBE by SW8260
	Units	ft	ft	ft-ansl	ft	mg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
q												
MW-8	06/28/2013	6.96	3.99	2.97	0.00	-	-	-	-	-	-	-
MW-8	09/20/2013	6.96	4.44	2.52	0.00	-	-	-	-	-	-	-
MW-8	12/30/2013	6.96	4.62	2.34	0.00	-	-	-	-	-	-	-
MW-8	03/31/2014	6.96	2.73	4.23	0.00	-	<50	<0.5	<0.5	<0.5	<0.5	<0.5
MW-9	10/17/1995	7.21	4.80	2.41	0.00	-	-	-	-	-	-	-
MW-9	10/30/1995	7.21	4.97	2.24	0.00	-	<50	<0.5	<0.5	<0.5	<0.5	<2.5
MW-9	01/22/1996	7.21	3.40	3.81	0.00	-	<50	<0.5	<0.5	<0.5	<0.5	<2.5
MW-9	04/24/1996	7.21	4.18	3.03	0.00	-	<50	<0.5	<0.5	<0.5	<0.5	<2.5
MW-9	07/29/1996	7.21	4.69	2.52	0.00	-	<50	<0.5	<0.5	<0.5	<0.5	<2.5
MW-9	10/10/1996	7.21	5.20	2.01	0.00	-	<50	<0.5	<0.5	<0.5	<0.5	<2.5
MW-9	01/15/1997	7.21	3.31	3.90	0.00	-	<50	<0.5	<0.5	<0.5	<0.5	<2.5
MW-9	04/03/1997	7.21	4.57	2.64	0.00	-	<50	<0.5	<0.5	<0.5	<0.5	<2.5
MW-9	07/09/1997	7.21	5.04	2.17	0.00	-	<50	<0.5	<0.5	<0.5	<0.5	<2.5
MW-9	10/29/1997	7.21	4.96	2.25	0.00	-	<50	<0.5	<0.5	<0.5	<0.5	<2.5
MW-9	01/14/1998	7.21	2.40	4.81	0.00	-	<50	<0.5	<0.5	<0.5	<0.5	<2.5
MW-9	01/20/1999	7.21	4.31	2.90	0.00	-	<50	<0.5	<0.5	<0.5	<0.5	<2.0
MW-9	04/19/1999	7.21	3.92	3.29	0.00	-	-	-	-	-	-	-
MW-9	01/25/2000	7.21	2.95	4.26	0.00	-	<50	<0.5	<0.5	<0.5	<0.5	<2.5
MW-9	04/03/2000 ¹⁹	7.21	-	-	-	-	-	-	-	-	-	-
MW-9	07/03/2000	7.21	-	-	-	-	-	-	-	-	-	-
MW-9	10/23/2000	7.21	-	-	-	-	-	-	-	-	-	-
MW-9	01/08/2001 ¹¹	7.21	4.59	2.62	0.00	-	<50	<0.50	<0.50	<0.50	<0.50	<2.5
MW-9	04/09/2001	7.21	-	-	-	-	-	-	-	-	-	-
MW-9	08/23/2001 ¹⁹	7.21	-	-	-	-	-	-	-	-	-	-

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GROUNDWATER MONITORING AND SAMPLING DATA
 FORMER CHEVRON SERVICE STATION 91153
 3135 GIBBONS DRIVE (3126 FERNSIDE BOULEVARD)
 ALAMEDA, CALIFORNIA

Location	Date	TOC	DTW	GWE	LNAPL	FIELD PARAMETERS	HYDROCARBONS	PRIMARY VOCS				MTBE by SW8260
						Dissolved Oxygen	TPH-GRO	B	T	E	X	
	Units	ft	ft	ft-ansl	ft	mg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
q												
MW-9	11/27/2001 ¹⁹	7.21	-	-	-	-	-	-	-	-	-	-
MW-9	02/26/2002	7.21	3.75	3.46	0.00	-	<50	<0.50	<0.50	<0.50	<1.5	<2.5
MW-9	05/23/2002 ¹⁹	7.21	-	-	-	-	-	-	-	-	-	-
MW-9	08/09/2002 ¹⁹	7.21	-	-	-	-	-	-	-	-	-	-
MW-9	11/08/2002 ¹⁹	7.21	-	-	-	-	-	-	-	-	-	-
MW-9	02/07/2003	7.21	3.97	3.24	0.00	-	<50	<0.50	<0.50	<0.50	<1.5	<2.5
MW-9	05/09/2003 ¹⁹	7.21	-	-	-	-	-	-	-	-	-	-
MW-9	08/15/2003 ¹⁹	7.21	-	-	-	-	-	-	-	-	-	-
MW-9	11/14/2003 ¹⁹	7.21	-	-	-	-	-	-	-	-	-	-
MW-9	02/13/2004 ¹⁵	7.21	3.94	3.27	0.00	-	<50	<0.5	<0.5	<0.5	<0.5	<0.5
MW-9	05/14/2004 ¹⁹	7.21	-	-	-	-	-	-	-	-	-	-
MW-9	11/12/2004 ¹⁹	7.21	-	-	-	-	-	-	-	-	-	-
MW-9	02/11/2005 ¹⁵	7.21	3.66	3.55	0.00	-	<50	<0.5	<0.5	<0.5	<0.5	<0.5
MW-9	05/13/2005 ¹⁹	7.21	-	-	-	-	-	-	-	-	-	-
MW-9	08/19/2005 ¹⁹	7.21	-	-	-	-	-	-	-	-	-	-
MW-9	11/18/2005 ¹⁹	7.21	-	-	-	-	-	-	-	-	-	-
MW-9	02/10/2006 ¹⁵	7.21	3.53	3.68	0.00	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
MW-9	05/12/2006 ¹⁹	7.21	-	-	-	-	-	-	-	-	-	-
MW-9	08/11/2006 ¹⁹	7.21	-	-	-	-	-	-	-	-	-	-
MW-9	11/17/2006 ¹⁹	7.21	-	-	-	-	-	-	-	-	-	-
MW-9	02/16/2007 ¹⁵	7.21	3.50	3.71	0.00	-	<50	<0.5	<0.5	<0.5	<0.5	<0.5
MW-9	05/17/2007 ¹⁹	7.21	-	-	-	-	-	-	-	-	-	-
MW-9	08/09/2007 ¹⁹	7.21	-	-	-	-	-	-	-	-	-	-
MW-9	11/08/2007 ¹⁹	7.21	-	-	-	-	-	-	-	-	-	-
MW-9	02/06/2008 ¹⁵	7.21	3.14	4.07	0.00	-	<50	<0.5	<0.5	<0.5	<0.5	<0.5

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GROUNDWATER MONITORING AND SAMPLING DATA
 FORMER CHEVRON SERVICE STATION 91153
 3135 GIBBONS DRIVE (3126 FERNSIDE BOULEVARD)
 ALAMEDA, CALIFORNIA

Location	Date	TOC	DTW	GWE	LNAPLT	FIELD PARAMETERS	HYDROCARBONS	PRIMARY VOCS				MTBE by SW8260
						Dissolved Oxygen	TPH-GRO	B	T	E	X	
	Units	ft	ft	ft-anst	ft	mg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
q												
MW-9	05/07/2008 ¹⁹	7.21	-	-	-	-	-	-	-	-	-	-
MW-9	09/11/2008 ¹⁹	7.21	-	-	-	-	-	-	-	-	-	-
MW-9	11/10/2008 ¹⁹	7.21	-	-	-	-	-	-	-	-	-	-
MW-9	02/09/2009 ¹⁵	7.21	3.91	3.30	0.00	-	<50	<0.5	<0.5	<0.5	<0.5	<0.5
MW-9	03/31/2010	7.21	3.16	4.05	0.00	-	<50	<0.5	<0.5	<0.5	<0.5	<0.5
MW-9	05/17/2010	7.21	3.44	3.77	0.00	-	-	-	-	-	-	-
MW-9	08/26/2010 ¹⁹	7.21	4.77	2.44	0.00	-	-	-	-	-	-	-
MW-9	11/11/2010 ¹⁹	7.21	4.29	2.92	0.00	-	-	-	-	-	-	-
MW-9	03/02/2011 ¹⁹	7.21	2.75	4.46	0.00	-	<50	<0.5	<0.5	<0.5	<0.5	<0.5
MW-9	06/17/2011 ¹⁹	7.21	3.86	3.35	0.00	-	-	-	-	-	-	-
MW-9	09/08/2011 ¹⁹	7.21	4.28	2.93	0.00	-	-	-	-	-	-	-
MW-9	12/29/2011 ¹⁹	7.21	4.58	2.63	0.00	-	-	-	-	-	-	-
MW-9	03/28/2012	7.21	2.32	4.89	0.00	-	<50	<0.5	<0.5	<0.5	<0.5	<0.5
MW-9	05/31/2012 ¹⁹	7.21	4.15	3.06	0.00	-	-	-	-	-	-	-
MW-9	09/28/2012 ¹⁹	7.21	4.96	2.25	0.00	-	-	-	-	-	-	-
MW-9	12/21/2012 ¹⁹	7.21	2.32	4.89	0.00	-	-	-	-	-	-	-
MW-9	03/29/2013	7.21	4.20	3.01	0.00	-	<50	<0.5	<0.5	<0.5	<0.5	<0.5
MW-9	06/28/2013	7.21	4.61	2.60	0.00	-	-	-	-	-	-	-
MW-9	09/20/2013	7.21	4.71	2.50	0.00	-	-	-	-	-	-	-
MW-9	12/30/2013	7.21	5.12	2.09	0.00	-	-	-	-	-	-	-
MW-9	03/31/2014	7.21	3.16	4.05	0.00	-	<50	<0.5	<0.5	<0.5	<0.5	<0.5
MW-10	10/17/1995	7.28	5.05	2.23	0.00	-	-	-	-	-	-	-
MW-10	10/30/1995	7.28	5.11	2.17	0.00	-	<50	<0.5	<0.5	<0.5	<0.5	5.1
MW-10	01/22/1996	7.28	4.03	3.25	0.00	-	<50	<0.5	<0.5	<0.5	0.70	17

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 FORMER CHEVRON SERVICE STATION 91153
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 ALAMEDA, CALIFORNIA

Location	Date	TOC	DTW	GWE	LNAPL	FIELD PARAMETERS	HYDROCARBONS	PRIMARY VOCS				
						Dissolved Oxygen	TPH-GRO	B	T	E	X	MTBE by SW8260
	Units	ft	ft	ft-ansl	ft	mg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
q												
MW-10	04/24/1996	7.28	4.30	2.98	0.00	-	<50	<0.5	<0.5	<0.5	<0.5	12
MW-10	07/29/1996	7.28	4.70	2.58	0.00	-	<50	<0.5	<0.5	<0.5	<0.5	14
MW-10	10/10/1996	7.28	5.24	2.04	0.00	-	<50	<0.5	<0.5	<0.5	<0.5	<2.5
MW-10	01/15/1997	7.28	3.35	3.93	0.00	-	<50	<0.5	<0.5	<0.5	<0.5	<2.5
MW-10	04/03/1997	7.28	4.64	2.64	0.00	-	<50	<0.5	<0.5	<0.5	<0.5	8.2
MW-10	07/09/1997	7.28	5.12	2.16	0.00	-	<50	<0.5	<0.5	<0.5	<0.5	<2.5
MW-10	10/29/1997	7.28	5.10	2.18	0.00	-	<50	<0.5	<0.5	<0.5	<0.5	5.3
MW-10	01/14/1998	7.28	3.08	4.20	0.00	-	<50	<0.5	<0.5	<0.5	<0.5	8.6
MW-10	04/17/1998 ²⁰	7.28	3.79	3.49	0.00	-	-	-	-	-	-	-
MW-10	07/15/1998	7.28	4.55	2.73	0.00	-	<50	<0.5	<0.5	<0.5	<0.5	7.5
MW-10	10/27/1998	7.28	5.32	1.96	0.00	-	-	-	-	-	-	-
MW-10	01/20/1999	7.28	4.24	3.04	0.00	-	<50	<0.5	<0.5	<0.5	<0.5	<2.0
MW-10	04/19/1999	7.28	4.07	3.21	0.00	-	-	-	-	-	-	-
MW-10	07/29/1999	7.28	4.82	2.46	0.00	-	<50	<0.5	<0.5	<0.5	<0.5	<5.0/2.4 ²
MW-10	10/13/1999	7.28	4.86	2.42	0.00	-	-	-	-	-	-	-
MW-10	01/25/2000	7.28	3.00	4.28	0.00	-	<50	<0.5	<0.5	<0.5	<0.5	4.33
MW-10	04/03/2000	7.28	3.04	4.24	0.00	-	-	-	-	-	-	-
MW-10	07/03/2000	7.28	4.00	3.28	0.00	-	<50	<0.50	<0.50	<0.50	<0.50	4.7
MW-10	10/23/2000	7.28	5.86	1.42	0.00	-	-	-	-	-	-	-
MW-10	01/08/2001 ¹¹	7.28	3.98	3.30	0.00	-	<50	<0.50	<0.50	<0.50	<0.50	<2.5
MW-10	04/09/2001	7.28	3.74	3.54	0.00	-	-	-	-	-	-	-
MW-10	08/23/2001 ²¹	7.28	-	-	-	-	-	-	-	-	-	-
MW-10	11/27/2001 ²⁰	7.28	4.13	3.15	0.00	-	-	-	-	-	-	-
MW-10	02/26/2002	7.28	3.54	3.74	0.00	-	<50	<0.50	<0.50	<0.50	<1.5	<2.5
MW-10	05/23/2002 ²⁰	7.28	3.82	3.46	0.00	-	-	-	-	-	-	-

TABLE 1

GROUNDWATER MONITORING AND SAMPLING DATA
 FORMER CHEVRON SERVICE STATION 91153
 3135 GIBBONS DRIVE (3126 FERNSIDE BOULEVARD)
 ALAMEDA, CALIFORNIA

Location	Date	TOC	DTW	GWE	LNAPL	FIELD PARAMETERS	HYDROCARBONS	PRIMARY VOCS				MTBE by SW8260
						Dissolved Oxygen	TPH-GRO	B	T	E	X	
	Units	ft	ft	ft-ansl	ft	mg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
q												
MW-10	08/09/2002	7.28	4.18	3.10	0.00	-	<50	<0.50	<0.50	<0.50	<1.5	<2.5
MW-10	11/08/2002 ²⁰	7.28	3.91	3.37	0.00	-	-	-	-	-	-	-
MW-10	02/07/2003	7.28	3.61	3.67	0.00	-	<50	<0.50	<0.50	<0.50	<1.5	<2.5
MW-10	05/09/2003 ²⁰	7.28	3.25	4.03	0.00	-	-	-	-	-	-	-
MW-10	08/15/2003 ¹⁵	7.28	4.35	2.93	0.00	-	<50	<0.5	<0.5	<0.5	<0.5	<0.5
MW-10	11/14/2003 ²⁰	7.28	4.30	2.98	0.00	-	-	-	-	-	-	-
MW-10	02/13/2004 ¹⁵	7.28	4.27	3.01	0.00	-	<50	<0.5	<0.5	<0.5	<0.5	<0.5
MW-10	05/14/2004 ²⁰	7.28	4.08	3.20	0.00	-	-	-	-	-	-	-
MW-10	08/13/2004 ¹⁵	7.28	3.92	3.36	0.00	-	<50	<0.5	<0.5	<0.5	<0.5	<0.5
MW-10	11/12/2004 ²⁰	7.28	3.98	3.30	0.00	-	-	-	-	-	-	-
MW-10	02/11/2005 ¹⁵	7.28	4.07	3.21	0.00	-	<50	<0.5	<0.5	<0.5	<0.5	<0.5
MW-10	05/13/2005 ²⁰	7.28	4.01	3.27	0.00	-	-	-	-	-	-	-
MW-10	08/19/2005 ¹⁵	7.28	3.69	3.59	0.00	-	<50	<0.5	<0.5	<0.5	<0.5	<0.5
MW-10	11/18/2005 ²⁰	7.28	3.86	3.42	0.00	-	-	-	-	-	-	-
MW-10	02/10/2006 ¹⁵	7.28	3.94	3.34	0.00	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
MW-10	05/12/2006 ²⁰	7.28	4.07	3.21	0.00	-	-	-	-	-	-	-
MW-10	08/11/2006 ¹⁵	7.28	4.21	3.07	0.00	-	<50	<0.5	<0.5	<0.5	<0.5	<0.5
MW-10	11/17/2006 ²⁰	7.28	3.83	3.45	0.00	-	-	-	-	-	-	-
MW-10	02/16/2007 ¹⁵	7.28	3.87	3.41	0.00	-	<50	<0.5	<0.5	<0.5	<0.5	<0.5
MW-10	05/17/2007 ²⁰	7.28	3.71	3.57	0.00	-	-	-	-	-	-	-
MW-10	08/09/2007 ²¹	7.28	-	-	-	-	-	-	-	-	-	-
MW-10	11/08/2007 ²¹	7.28	-	-	-	-	-	-	-	-	-	-
MW-10	02/06/2008 ²¹	7.28	-	-	-	-	-	-	-	-	-	-
MW-10	05/07/2008 ²¹	7.28	-	-	-	-	-	-	-	-	-	-
MW-10	09/11/2008 ¹⁵	7.28	4.63	2.65	0.00	-	<50	<0.5	<0.5	<0.5	<0.5	<0.5

GROUNDWATER MONITORING AND SAMPLING DATA
 FORMER CHEVRON SERVICE STATION 91153
 3135 GIBBONS DRIVE (3126 FERNSIDE BOULEVARD)
 ALAMEDA, CALIFORNIA

Location	Date	TOC	DTW	GWE	LNAPL	FIELD PARAMETERS	HYDROCARBONS	PRIMARY VOCS				MTBE by SW8260
						Dissolved Oxygen	TPH-GRO	B	T	E	X	
	Units	ft	ft	ft-ansl	ft	mg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
q												
MW-10	11/10/2008 ²⁰	7.28	4.28	3.00	0.00	-	-	-	-	-	-	-
MW-10	02/09/2009 ¹⁵	7.28	2.17	5.11	0.00	-	<50	<0.5	<0.5	<0.5	<0.5	<0.5
MW-10	05/28/2009	7.28	3.69	3.59	0.00	-	-	-	-	-	-	-
MW-10	08/18/2009 ¹⁵	7.28	4.07	3.21	0.00	-	<50	<0.5	<0.5	<0.5	<0.5	<0.5
MW-10	11/17/2009	7.28	4.12	3.16	0.00	-	-	-	-	-	-	-
MW-10	03/31/2010	7.28	3.43	3.85	0.00	-	<50	<0.5	<0.5	<0.5	<0.5	<0.5
MW-10	05/17/2010	7.28	3.53	3.75	0.00	-	-	-	-	-	-	-
MW-10	08/26/2010	7.28	4.33	2.95	0.00	-	<50	<0.5	<0.5	<0.5	<0.5	<0.5
MW-10	11/11/2010 ²⁰	7.28	4.34	2.94	0.00	-	-	-	-	-	-	-
MW-10	03/02/2011 ²⁰	7.28	3.33	3.95	0.00	-	<50	<0.5	<0.5	<0.5	<0.5	<0.5
MW-10	06/17/2011 ²⁰	7.28	3.92	3.36	0.00	-	-	-	-	-	-	-
MW-10	09/08/2011 ²⁰	7.28	3.95	3.33	0.00	-	<50	<0.5	<0.5	<0.5	<0.5	<0.5
MW-10	12/29/2011 ²⁰	7.28	4.00	3.28	0.00	-	-	-	-	-	-	-
MW-10	03/28/2012	7.28	2.96	4.32	0.00	-	<50	<0.5	<0.5	<0.5	<0.5	<0.5
MW-10	05/31/2012 ²⁰	7.28	3.90	3.38	0.00	-	-	-	-	-	-	-
MW-10	09/28/2012	7.28	3.60	3.68	0.00	-	<50	<0.5	<0.5	<0.5	<0.5	<0.5
MW-10	12/21/2012 ²⁰	7.28	3.44	3.84	0.00	-	-	-	-	-	-	-
MW-10	03/29/2013	7.28	2.95	4.33	0.00	-	<50	<0.5	<0.5	<0.5	<0.5	<0.5
MW-10	06/28/2013	7.28	3.50	3.78	0.00	-	-	-	-	-	-	-
MW-10	09/20/2013	7.28	3.37	3.91	0.00	-	<50	<0.5	<0.5	<0.5	<0.5	<0.5
MW-10	12/30/2013	7.28	3.09	4.19	0.00	-	-	-	-	-	-	-
MW-10	03/31/2014	7.28	3.35	3.93	0.00	-	<50	<0.5	<0.5	<0.5	<0.5	<0.5
C-2	09/04/1986	-	-	-	-	-	1,100	49	18	84	-	-
C-2	07/22/1987	-	-	-	-	-	<50	1.8	<1.0	<4.0	-	-

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GROUNDWATER MONITORING AND SAMPLING DATA
 FORMER CHEVRON SERVICE STATION 91153
 3135 GIBBONS DRIVE (3126 FERNSIDE BOULEVARD)
 ALAMEDA, CALIFORNIA

Location	Date	TOC	DTW	GWE	LNAPL	FIELD PARAMETERS	HYDROCARBONS	PRIMARY VOCS				
						Dissolved Oxygen	TPH-GRO	B	T	E	X	MTBE by SW8260
	Units	ft	ft	ft-anst	ft	mg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
TMW-1	11/11/1993	-	-	-	-	-	<1.0	<0.5	<0.5	<0.5	<0.5	-
3115A GIBBONS DR.	01/14/1998	-	-	-	-	-	<50	<0.5	<0.5	<0.5	<0.5	<2.5
QA	02/14/1990	-	-	-	-	-	<50	<0.5	1.1	<0.5	<0.5	-
QA	09/06/1991	-	-	-	-	-	<50	<0.5	<0.5	<0.5	<0.5	-
QA	12/15/1991	-	-	-	-	-	<50	<0.5	<0.5	<0.5	<0.5	-
QA	03/03/1992	-	-	-	-	-	<50	<0.5	<0.5	<0.5	<0.5	-
QA	06/04/1992	-	-	-	-	-	<50	<0.5	<0.5	<0.5	<0.5	-
QA	10/13/1992	-	-	-	-	-	<50	<0.5	<0.5	<0.5	<0.5	-
QA	01/11/1993	-	-	-	-	-	<50	<0.5	<0.5	<0.5	<0.5	-
QA	04/14/1993	-	-	-	-	-	<50	<0.5	<0.5	<0.5	<0.5	-
QA	07/13/1993	-	-	-	-	-	<50	<0.5	<0.5	<0.5	<0.5	-
QA	10/19/1993	-	-	-	-	-	<50	<0.5	<0.5	<0.5	<1.5	-
QA	01/27/1994	-	-	-	-	-	<50	<0.5	<0.5	<0.5	<0.5	-
QA	04/07/1994	-	-	-	-	-	<50	<0.5	<0.5	<0.5	<0.5	-
QA	07/01/1994	-	-	-	-	-	<50	<0.5	<0.5	<0.5	<0.5	-
QA	10/05/1994	-	-	-	-	-	<50	<0.5	<0.5	<0.5	<0.5	-
QA	01/12/1995	-	-	-	-	-	<50	<0.5	<0.5	<0.5	<0.5	-
QA	04/26/1995	-	-	-	-	-	<50	<0.5	<0.5	<0.5	<0.5	-
QA	07/12/1995	-	-	-	-	-	<50	<0.5	<0.5	<0.5	<0.5	-
QA	10/30/1995	-	-	-	-	-	<50	<0.5	<0.5	<0.5	<0.5	-
QA	01/22/1996	-	-	-	-	-	<50	<0.5	<0.5	<0.5	<0.5	<2.5
QA	04/24/1996	-	-	-	-	-	<50	<0.5	<0.5	<0.5	<0.5	<2.5

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GROUNDWATER MONITORING AND SAMPLING DATA
 FORMER CHEVRON SERVICE STATION 91153
 3135 GIBBONS DRIVE (3126 FERNSIDE BOULEVARD)
 ALAMEDA, CALIFORNIA

Location	Date	TOC	DTW	GWE	LNAPL	FIELD PARAMETERS	HYDROCARBONS	PRIMARY VOCS				
						Dissolved Oxygen	TPH-GRO	B	T	E	X	MTBE by SW8260
	Units	ft	ft	ft-anst	ft	mg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
q												
QA	07/29/1996	-	-	-	-	-	<50	<0.5	<0.5	<0.5	<0.5	<2.5
QA	01/15/1997	-	-	-	-	-	<50	<0.5	<0.5	<0.5	<0.5	<2.5
QA	04/03/1997	-	-	-	-	-	<50	<0.5	<0.5	<0.5	<0.5	<2.5
QA	07/09/1997	-	-	-	-	-	<50	<0.5	<0.5	<0.5	<0.5	<2.5
QA	10/29/1997	-	-	-	-	-	<50	<0.5	<0.5	<0.5	<0.5	<2.5
QA	01/14/1998	-	-	-	-	-	<50	<0.5	<0.5	<0.5	<0.5	<2.5
QA	04/17/1998	-	-	-	-	-	<50	<0.5	<0.5	<0.5	<0.5	<2.5
QA	07/15/1998	-	-	-	-	-	<50	<0.5	<0.5	<0.5	<0.5	<2.5
QA	10/27/1998	-	-	-	-	-	<50	<0.5	<0.5	<0.5	<0.5	<2.5
QA	01/20/1999	-	-	-	-	-	<50	<0.5	<0.5	<0.5	<0.5	<2.0
QA	04/19/1999	-	-	-	-	-	<50	<0.5	<0.5	<0.5	<0.5	<2.5
QA	07/29/1999	-	-	-	-	-	<50	<0.5	<0.5	<0.5	<0.5	<5.0
QA	10/13/1999	-	-	-	-	-	<50	<0.5	<0.5	<0.5	<0.5	<2.5
QA	01/25/2000	-	-	-	-	-	<50	<0.5	<0.5	<0.5	<0.5	<2.5
QA	04/03/2000	-	-	-	-	-	<50	<0.50	<0.50	<0.50	<0.50	<2.5
QA	07/03/2000	-	-	-	-	-	<50	<0.50	<0.50	<0.50	<0.50	<2.5
QA	10/23/2000	-	-	-	-	-	<50	<0.50	<0.50	<0.50	<0.50	<2.5
QA	01/08/2001 ¹¹	-	-	-	-	-	<50	<0.50	<0.50	<0.50	<0.50	<2.5
QA	04/09/2001	-	-	-	-	-	<50.0	<0.500	<2.00	<0.500	<2.00	<0.500
QA	08/23/2001	-	-	-	-	-	<50	<0.50	<0.50	<0.50	<0.50	<2.5
QA	11/27/2001	-	-	-	-	-	<50	<0.50	<0.50	<0.50	<1.5	<2.5
QA	02/26/2002	-	-	-	-	-	<50	<0.50	<0.50	<0.50	<1.5	<2.5
QA	05/23/2002	-	-	-	-	-	<50	<0.50	<0.50	<0.50	<1.5	<2.5
QA	08/09/2002	-	-	-	-	-	<50	<0.50	<0.50	<0.50	<1.5	<2.5
QA	11/08/2002	-	-	-	-	-	<50	<0.50	<0.50	<0.50	<1.5	<2.5

TABLE 1

GROUNDWATER MONITORING AND SAMPLING DATA
 FORMER CHEVRON SERVICE STATION 91153
 3135 GIBBONS DRIVE (3126 FERNSIDE BOULEVARD)
 ALAMEDA, CALIFORNIA

Location	Date	TOC	DTW	GWE	LNAPL	FIELD PARAMETERS	HYDROCARBONS	PRIMARY VOCS				MTBE by SW8260
						Dissolved Oxygen	TPH-GRO	B	T	E	X	
	Units	ft	ft	ft-anst	ft	mg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
q												
QA	02/07/2003	-	-	-	-	-	<50	<0.50	<0.50	<0.50	<1.5	<2.5
QA	05/09/2003	-	-	-	-	-	<50	<0.5	<0.5	<0.5	<1.5	<2.5
QA	08/15/2003 ¹⁵	-	-	-	-	-	<50	<0.5	<0.5	<0.5	<0.5	<0.5
QA	11/14/2003	-	-	-	-	-	<50	<0.5	<0.5	<0.5	<0.5	<0.5
QA	02/13/2004 ¹⁵	-	-	-	-	-	<50	<0.5	<0.5	<0.5	<0.5	<0.5
QA	05/14/2004 ¹⁵	-	-	-	-	-	<50	<0.5	<0.5	<0.5	<0.5	<0.5
QA	08/13/2004 ¹⁵	-	-	-	-	-	<50	<0.5	<0.5	<0.5	<0.5	<0.5
QA	11/12/2004 ¹⁵	-	-	-	-	-	<50	<0.5	<0.5	<0.5	<0.5	<0.5
QA	02/11/2005 ¹⁵	-	-	-	-	-	<50	<0.5	<0.5	<0.5	<0.5	<0.5
QA	05/13/2005 ¹⁵	-	-	-	-	-	<50	<0.5	<0.5	<0.5	<0.5	<0.5
QA	08/19/2005 ¹⁵	-	-	-	-	-	<50	<0.5	<0.5	<0.5	<0.5	<0.5
QA	11/18/2005 ¹⁵	-	-	-	-	-	<50	<0.5	<0.5	<0.5	<0.5	<0.5
QA	02/10/2006 ¹⁵	-	-	-	-	-	<50	<0.5	<0.5	<0.5	<0.5	<0.5
QA	05/12/2006 ¹⁵	-	-	-	-	-	<50	<0.5	<0.5	<0.5	<0.5	<0.5
QA	08/11/2006 ¹⁵	-	-	-	-	-	<50	<0.5	<0.5	<0.5	<0.5	<0.5
QA	11/17/2006 ¹⁵	-	-	-	-	-	<50	<0.5	<0.5	<0.5	<0.5	<0.5
QA	02/16/2007 ¹⁵	-	-	-	-	-	<50	<0.5	<0.5	<0.5	<0.5	<0.5
QA	05/17/2007 ¹⁵	-	-	-	-	-	<50	<0.5	<0.5	<0.5	<0.5	<0.5
QA	08/09/2007 ¹⁵	-	-	-	-	-	<50	<0.5	<0.5	<0.5	<0.5	<0.5
QA	11/08/2007 ¹⁵	-	-	-	-	-	<50	<0.5	<0.5	<0.5	<0.5	<0.5
QA	02/06/2008 ¹⁵	-	-	-	-	-	<50	<0.5	<0.5	<0.5	<0.5	<0.5
QA	05/07/2008 ¹⁵	-	-	-	-	-	<50	<0.5	<0.5	<0.5	<0.5	<0.5
QA	09/11/2008 ¹⁵	-	-	-	-	-	<50	<0.5	<0.5	<0.5	<0.5	<0.5
QA	11/10/2008 ¹⁵	-	-	-	-	-	<50	<0.5	<0.5	<0.5	<0.5	<0.5
QA	02/09/2009 ¹⁵	-	-	-	-	-	<50	<0.5	<0.5	<0.5	<0.5	<0.5

GROUNDWATER MONITORING AND SAMPLING DATA
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 ALAMEDA, CALIFORNIA

Location	Date	TOC	DTW	GWE	LNAPLT	FIELD PARAMETERS	HYDROCARBONS	PRIMARY VOCS				
						Dissolved Oxygen	TPH-GRO	B	T	E	X	MTBE by SW8260
	Units	ft	ft	ft-amsl	ft	mg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
q												
QA	05/28/2009 ¹⁵	-	-	-	-	-	<50	<0.5	<0.5	<0.5	<0.5	<0.5
QA	08/18/2009 ¹⁵	-	-	-	-	-	<50	<0.5	<0.5	<0.5	<0.5	<0.5
QA	03/31/2010	-	-	-	-	-	<50	<0.5	<0.5	<0.5	<0.5	<0.5
QA	08/26/2010	-	-	-	-	-	<50	<0.5	<0.5	<0.5	<0.5	<0.5
QA	03/02/2011	-	-	-	-	-	<50	<0.5	<0.5	<0.5	<0.5	<0.5
QA	09/08/2011	-	-	-	-	-	<50	<0.5	<0.5	<0.5	<0.5	<0.5
QA	03/28/2012	-	-	-	-	-	<50	<0.5	<0.5	<0.5	<0.5	<0.5
QA	09/28/2012	-	-	-	-	-	<50	<0.5	<0.5	<0.5	<0.5	<0.5
QA	03/29/2013	-	-	-	-	-	<50	<0.5	<0.5	<0.5	<0.5	<0.5
QA	09/20/2013	-	-	-	-	-	<50	<0.5	<0.5	<0.5	<0.5	<0.5
QA	03/31/2014	-	-	-	-	-	<50	<0.5	<0.5	<0.5	<0.5	<0.5

Abbreviations and Notes:

TOC = Top of casing

DTW = Depth to water

GWE = Groundwater elevation

LNAPL - Light Non-Aqueous Phase Liquid

LNAPLT - Light Non-Aqueous Phase Liquid

(ft-amsl) = Feet above mean sea level

ft = Feet

mg/L - Milligrams per liter

µg/L = Micrograms per liter

TPH-GRO = Total petroleum hydrocarbons - gasoline range organics

VOCS = Volatile organic compounds

B = Benzene

**GROUNDWATER MONITORING AND SAMPLING DATA
FORMER CHEVRON SERVICE STATION 91153
3135 GIBBONS DRIVE (3126 FERNSIDE BOULEVARD)
ALAMEDA, CALIFORNIA**

Location	Date	TOC	DTW	GWE	LNAPL	FIELD PARAMETERS	HYDROCARBONS	PRIMARY VOCS				
						Dissolved Oxygen	TPH-GRO	B	T	E	X	MTBE by SW8260
Units	ft	ft	ft-anst	ft	mg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L

T = Toluene

E = Ethylbenzene

X = Xylenes (Total)

MTBE = Methyl tert butyl ether

J = Estimated value (the result ≥ the method detection limit < the limit of quantitation)

-- = Not available / not applicable

<x = Not detected above laboratory method detection limit

** GWE has been corrected due to the presence of LNAPL; correction factor: [(TOC - DTW) + (LNAPL × 0.80)].

1 Laboratory report indicates EPA 8010 were not detected (ND)

2 MTBE confirmed

3 Chromatogram report indicates an unidentified hydrocarbon

4 ORC installed

5 TOC elevation altered due to well head maintenance

6 Laboratory report indicates gasoline C6-C12

7 ORC in well

8 Laboratory report indicates Dissolved Oxygen was 1.50 parts per million (ppm) by EPA Method 360.1

9 Laboratory report indicates Dissolved Oxygen was 0.300 ppm by EPA Method 360.1

10 Laboratory report indicates sample originally shot in hold time at a raise D.L. re-analyzed and reported past hold time

11 Laboratory report indicates this sample was analyzed outside of the EPA recommended holding time

12 Laboratory report indicates unidentified hydrocarbons C6-C12

13 Laboratory report indicates hydrocarbon pattern is present in the requested fuel quantitation range but does not resemble the pattern of the requested fuel

14 ORC removed

15 BTEX and MTBE by EPA Method 8260

16 Laboratory confirmed analytical result

17 The vial submitted did not have pH<2. The pH of this sample used for the undiluted analysis was pH = 3

GROUNDWATER MONITORING AND SAMPLING DATA
 FORMER CHEVRON SERVICE STATION 91153
 3135 GIBBONS DRIVE (3126 FERNSIDE BOULEVARD)
 ALAMEDA, CALIFORNIA

Location	Date	TOC	DTW	GWE	LNAPL	FIELD PARAMETERS	HYDROCARBONS	PRIMARY VOCS				
						Dissolved Oxygen	TPH-GRO	B	T	E	X	MTBE by SW8260
Units		ft	ft	ft-anst	ft	mg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L

q

- 18 Not sampled due to the presence of LNAPL in the well.
- 19 Sampled annually.
- 20 Sampled semi-annually
- 21 Inaccessible

Appendix F

Trend Graphs and Degradation Calculations

Table A - Summary of Degradation Rate Calculations
Former Chevron Service Station #91153, 3135 Gibbons Boulevard, Alameda, California

Well	Analyte	Maximum Concentration (ug/L)	Current Concentration (ug/L)	Half-Life (years)	Date to Reach ESL	Years to Reach ESL
MW-7	TPHg	29,000	350	7.88	Feb 2048	34
	Benzene	7,300	<0.5	1.80	Jan 2020	6

Notes and Abbreviations:

TPHg = Total petroleum hydrocarbons as gasoline

ug/L = Micrograms per liter

ESL = Environmental Screening Level

Predicted Time to Reach Environmental Screening Levels (ESL) in Well MW-7

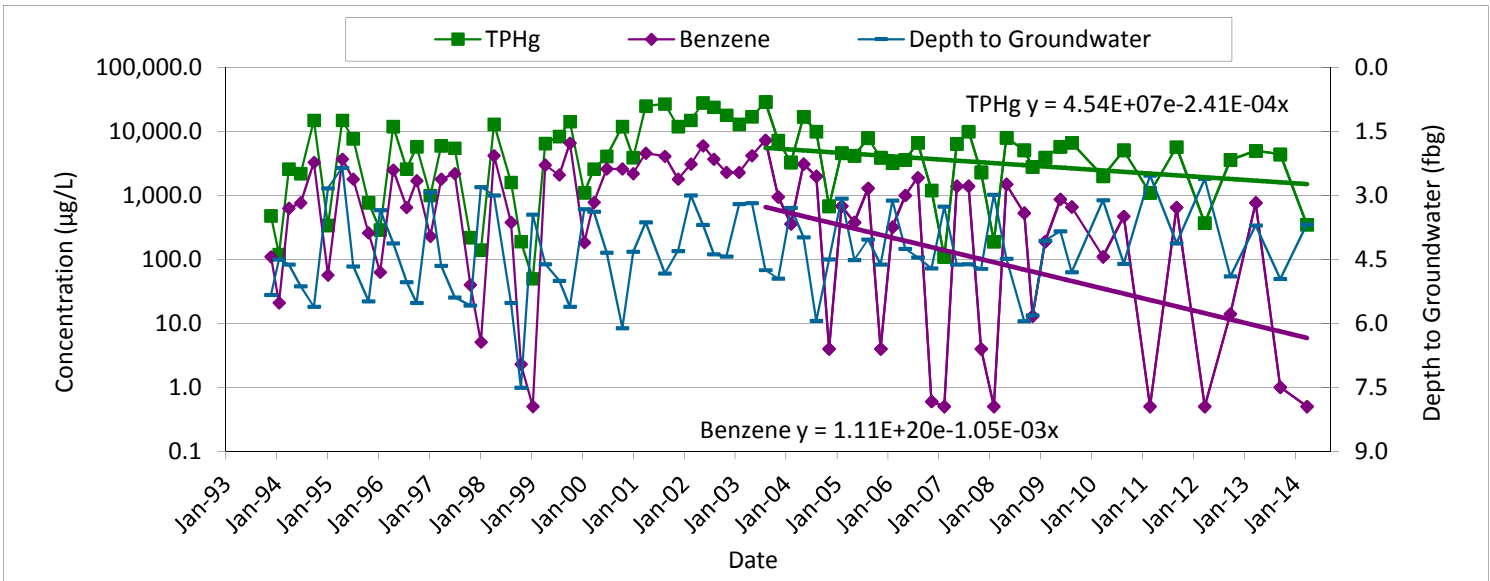
Former Chevron Service Station #91153, 3135 Gibbons Boulevard, Alameda, California

$$y = b e^{ax} \quad \implies \quad x = \ln(y/b) / a$$

where: y = concentration in µg/L a = decay constant
 b = concentration at time (x) x = time (x) in days

Given	Constituent	Total Petroleum Hydrocarbons as Gasoline (TPHg)	Benzene
Environmental Screening Levels (ESL):	y	100	1
Constant:	b	4.54E+07	1.11E+20
Constant:	a	-2.41E-04	-1.05E-03
Starting date for current trend:		8/15/2003	8/15/2003

Calculate		TPHg	Benzene
Attenuation Half Life (years):	$(-\ln(2)/a)/365.25$	7.88	1.80
Estimated Date to Reach ESL:	$(x = \ln(y/b) / a)$	Feb 2048	Jan 2020



FORMER CHEVRON SERVICE STATION #91153
 3135 GIBBONS BOULEVARD
 ALAMEDA, CALIFORNIA



MW-7: TPHg AND BENZENE CONCENTRATIONS
 AND DEPTH TO GROUNDWATER

Appendix G

Well Survey Data Table and Location Maps

TABLE 1
WELL SURVEY RESULTS
FORMER CHEVRON SERVICE STATION #9-1153
3135 GIBBONS DRIVE (3126 FERNSIDE BLVD.), ALAMEDA, CALIFORNIA

<i>Well ID</i>	<i>Well Address</i>	<i>City</i>	<i>Well Use</i>	<i>Distance From Site* (ft)</i>	<i>Total Depth (fbg)</i>
1?	3001 Gibbons Dr	Alameda	?	850	49
1e	401 High St	Oakland	EXT	950	31
1e	401 High St	Oakland	EXT	950	31
1e	401 High St	Oakland	EXT	950	29
1e	401 High St	Oakland	EXT	950	31
1e	401 High St	Oakland	EXT	950	29
1e	401 High St	Oakland	EXT	950	29
1e	401 High St	Oakland	EXT	950	31
1e	401 High St	Oakland	EXT	950	30
1e	401 High St	Oakland	EXT	950	33
1o	301 - 411 High St	Oakland	OTH	970	32
1i	2978 Northwood Dr	Alameda	IRR	1,180	55
2i	2936 Gibbons Dr	Alameda	IRR	1,490	40
1d	500 High St	Oakland	DOM	2,000	127
3i	3801 E 8th St	Oakland	IRR	2,350	180
1t	3801 E 8th St	Oakland	TES	2,350	23
4i	1522 E Shore Dr	Alameda	IRR	2,420	17
2t	720 High St	Oakland	TES	2,700	17

TABLE 1

**WELL SURVEY RESULTS
FORMER CHEVRON SERVICE STATION #9-1153
3135 GIBBONS DRIVE (3126 FERNSIDE BLVD.), ALAMEDA, CALIFORNIA**

<i>Well ID</i>	<i>Well Address</i>	<i>City</i>	<i>Well Use</i>	<i>Distance From Site* (ft)</i>	<i>Total Depth (fbg)</i>
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Notes/Abbreviations:

Well survey radius is 2,500 feet from the site. Results tabulated from a survey of Department of Water Resources Well Completion Reports conducted on July 20, 2010.

Ft = Feet.

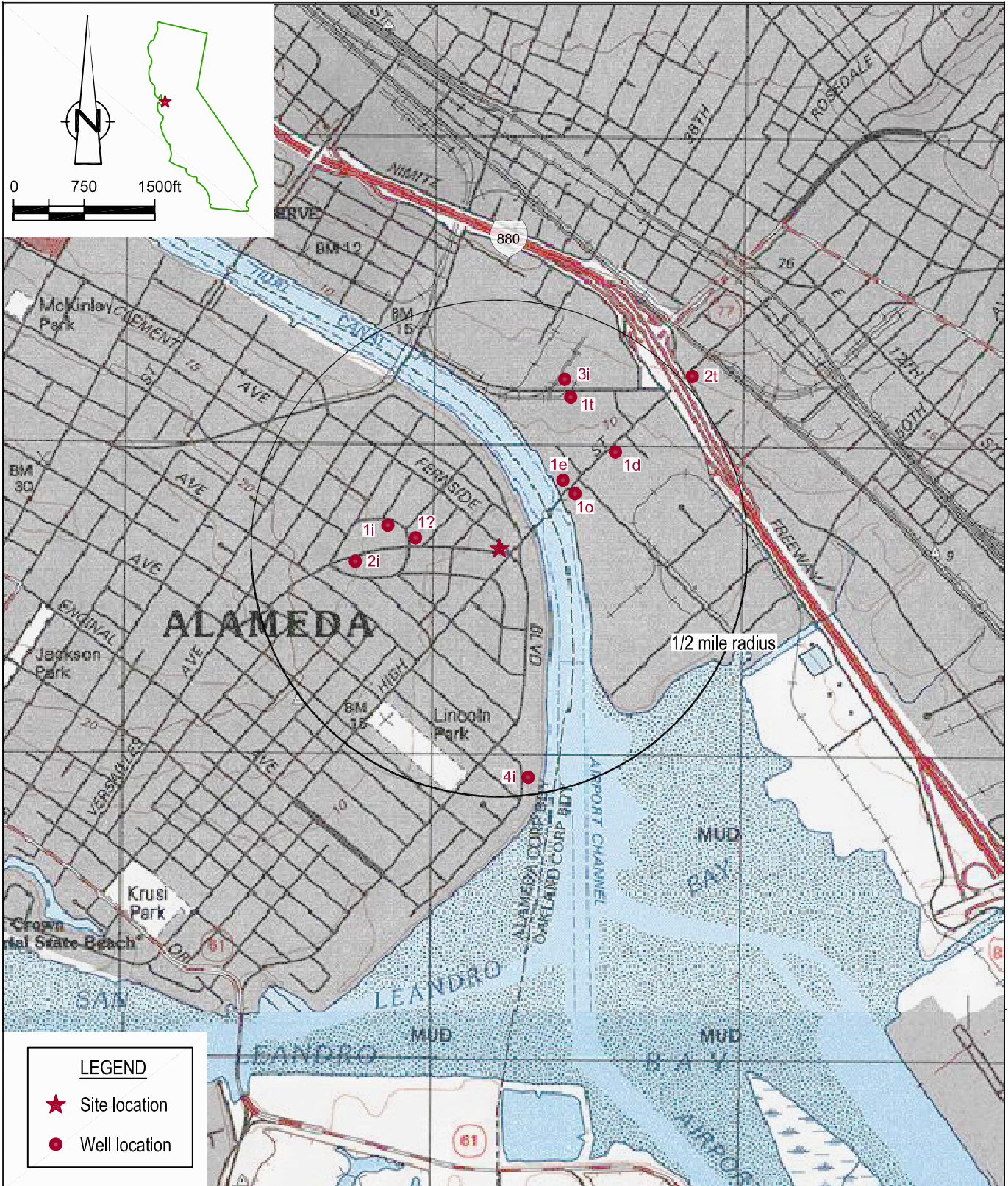
Fbg = Feet below grade.

Well use/designations include: domestic (DOM), irrigation (IRR), test (TES), extraction/vapor (EXT), no information found or given (?), and other (OTH).

* = Distances from site are approximate and measured using aerial photography.

-- = Not available/not applicable.

Note: Only MUN, DOM, IRR, EXT, TES, ABN, OTH and ? Wells included. Other types are not sensitive receptors.



LEGEND

- ★ Site location
- Well location

Figure 3

WELL SURVEY MAP
 FORMER CHEVRON STTION 9-1153
 3135 GIBBONS DRIVE (3126 FERNSIDE BLVD)
 Alameda, California



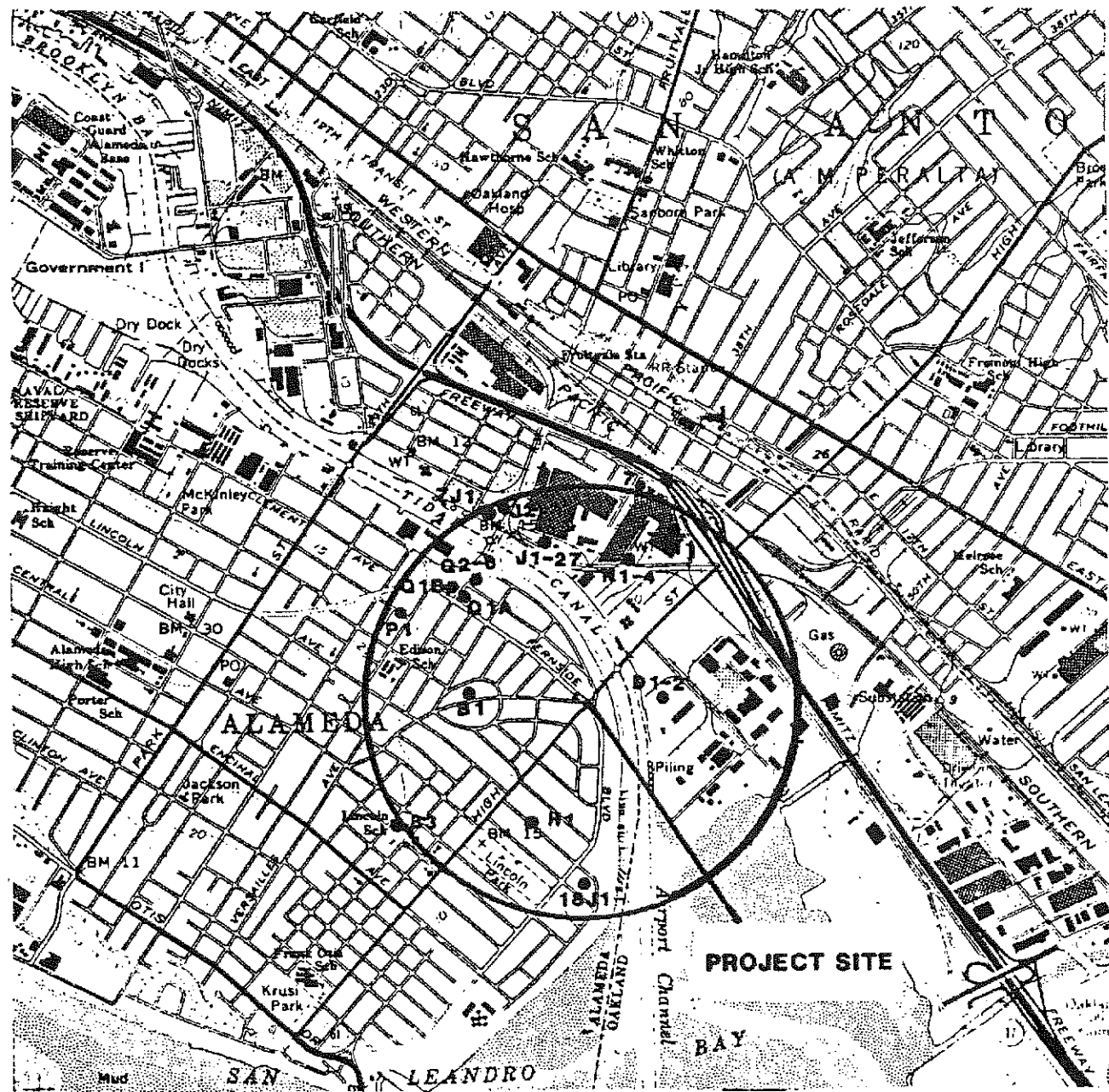
TABLE 1
SUMMARY OF WELL SURVEY DATA

Wells Within 1/2-mile Radius of the Site

<u>Well Number</u>	<u>Depth (feet)</u>	<u>Year Drilled</u>	<u>Use</u> —
2S3W7J1	464	1911	?
2S3W7J2	180	1910	?
2S3W7J1-27	16-30	1986	Monitoring
2S3W7P1	120	1976	Cathodic
2S3W7Q1A	24	1977	Irrigation
2S3W7Q1B	76	1976	Cathodic
2S3W7Q2-6	10-30	1984	Monitoring
2S3W7	292	?	?
2S3W8M1	22	1986	Monitoring
2S3W8N1-4	31	1986	Monitoring
2S3W17D1-2	20, 15	1986	Monitoring
2S3W18B1	55	1977	Irrigation
2S3W18B3	40	1977	Irrigation
2S3W18H1	120	1975	Cathodic
2S3W18J1	16.5	1977	Irrigation

NOTE: Monitoring wells have been grouped together on this table and on the map (Figure 1).

SOURCE: California Department of Water Resources, and Alameda County Flood Control and Water Conservation District.



M 1 ● WELL LOCATION



PACIFIC ENVIRONMENTAL GROUP, INC.

CHEVRON STATION #1153
3126 FERNSIDE BLVD. (AT GIBBONS)
ALAMEDA, CALIFORNIA

WELL LOCATION MAP

FIGURE 1
PROJECT NO. 120-36.01