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Date: June 3, 2016

Reference No.: Chevron 90076 / 311977

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

Subject: RO#0427

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1	Site Investigation Report and Updated Focused Site Conceptual Model	24	

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Remarks:

Should you have any questions or require additional information, please contact Kiersten Hoey at
(510) 420 3347

Copy to: Mark Horne, Chevron EMC (*electronic*)
Ms. Josephine N. Le

Completed by: Kiersten Hoey
[Please Print]

Signed:

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

Re: Chevron Service Station No. 90076
4265 Foothill Boulevard
Oakland, CA

I have reviewed the attached report titled *Site Investigation Report and Updated Focused Site Conceptual Model*.

I agree with the conclusions and recommendations presented in the referenced report. 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 GHD Services Inc, 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 black ink that reads "Mark E. Horne".

Mark Horne
Project Manager

Attachment: *Site Investigation Report and Updated Focused Site Conceptual Model*



Site Investigation Report and Updated Focused Site Conceptual Model

Chevron Service Station 90076
4265 Foothill Boulevard
Oakland, California
ACEH Case RO# 0427

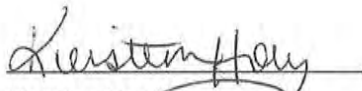
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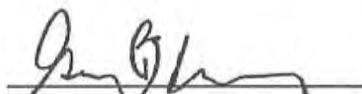
2300 Clayton Road Suite 920 Concord California 94596
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Site Investigation Report and Updated Focused Site Conceptual Model

Chevron Service Station 90076
4265 Foothill Boulevard
Oakland, California
ACEH Case RO# 0427


Kiersten Hoey


Greg Barclay PG 6260



2300 Clayton Road Suite 920 Concord California 94596
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1. Introduction

GHD Services Inc. (GHD) is submitting this Site Investigation Report and Updated Focused Site Conceptual Model for the site referenced above (Figure 1) on behalf of Chevron Environmental Management Company (EMC). GHD performed the site investigation as outlined in GHD's Site Investigation Report, Updated Focused Site Conceptual Model, and Work Plan dated April 17, 2015 and GHD's Response Letter dated August 21, 2015, approved by Alameda County Environmental Health (ACEH) in letters dated June 10, 2015 and October 7, 2015 (Appendix A). The purpose of the subsurface investigation was to evaluate groundwater concentrations along the western perimeter of the site and beneath an apparent vapor source, and to collect confirmation samples along the southern margin of the site. The due date for the submittal of this report was extended to June 3, 2016 due to the City of Oakland requirements to obtain an encroachment permit and weather conditions (Appendix A). The investigation results, Focused Conceptual Site Model (CSM) and conclusions are presented below.

2. Site Background

2.1 Site Description

The site is an active Chevron-branded service station located on the western corner of the intersection of Foothill Boulevard and High Street in Oakland, California (Figures 2 and 3). Surrounding land use is mixed commercial and residential. A Westco station (former BP station, Fuel Leak Case RO0426) is located north (upgradient) across Foothill Boulevard, and a former Shell station (Fuel Leak Case RO0415) is located southeast (crossgradient) across High Street. Fremont High School is located east across the intersection of Foothill Boulevard and High Street, a single family home is located adjacent to the site to the southwest, and an apartment building is located adjacent to the site to the northwest.

Chevron purchased the subject property, developed it into a service station, and began operation in 1966. The station and all site facilities were reconstructed in 1987 into its current configuration. Dispenser and product line replacements occurred sometime in the 1980s and again in 1997. Current site facilities consist of a kiosk, five dispenser islands beneath a common canopy, and a building which appears to be a storage and restroom facility. Three 10,000-gallon double-walled fiberglass gasoline underground storage tanks (USTs) are located in a common pit, located directly the kiosk's southwest. The previous USTs were located in the same location. A former used-oil UST, located between the kiosk and gasoline UST complex, was removed in 1987 and it was not replaced.

2.2 Previous Environmental Work

The site has been an open environmental case since 1989 under ACEH jurisdiction (Fuel Leak Case RO0427 and GeoTracker Global ID T0600100339). Since 1987, a total of seven soil borings have been advanced, and six vapor probes and eleven monitoring wells have been installed. A groundwater extraction system operated between 1991 and 1993 in well C-2 and extracted approximately 10,200 gallons of groundwater. A summary of environmental investigation and remediation is presented in Appendix B.

2.3 Site Geology

The site is predominantly underlain by clays and silts to the maximum depth explored of approximately 59 feet below grade (fbg). A sand unit with an average thickness of 5 feet is encountered in several borings at depths ranging from 10 to 20 fbg, and a gravel unit is encountered in some borings between 45 to 55 fbg. Boring logs are included in Appendix C and geologic cross-sections are presented on Figures 4 and 5.

2.4 Site Hydrogeology

The site elevation is approximately 40 feet above mean sea level (msl). Topography in the area slopes gently southwest, towards the San Francisco Bay. The nearest surface water is the Oakland Inner Harbor, approximately 0.9 miles southwest. Groundwater monitoring has been ongoing since 1989. Historically, depth to groundwater in onsite wells has ranged from approximately 7 to 30 fbg, but is typically between 10 and 20 fbg; depth to water in offsite, downgradient wells has historically ranged from 20 to 44 fbg, but is typically between 20 and 25 fbg. Depth to groundwater in onsite wells C-4 and C-10 is generally a few feet shallower than the other onsite wells. Both wells are located adjacent to onsite catch basins, which may contribute to the shallow groundwater at these locations (Figure 3). Groundwater flow is typically south-southwest, with a gradient of 0.04 to 0.1.

3. Subsurface Investigation

To assess the groundwater concentrations along the western perimeter of the site and investigate an apparent vapor source, GHD installed monitoring well C-13. To confirm soil concentrations along the southern margin of the site, GHD advanced soil boring B-7. To further assess vapor intrusion risks to the adjacent property, GHD sampled soil vapor probes VP-5 and VP-6. Field activities are summarized below.

3.1 Site-specific Health and Safety Plan

GHD performed all work under the guidelines set forth in a comprehensive site-specific health and safety plan. The plan was reviewed and signed by all site workers and visitors, and kept onsite at all times.

3.2 Permits

GHD obtained Alameda County Public Works Agency (ACPWA) drilling permits W2016-0022 and W2016-0023, and City of Oakland excavation permit X1600099, obstruction permit OB1600063, and traffic control permit TSD-16-0008 to conduct work within the public right-of-way (ROW). All permits are included in Appendix D.

3.3 Utility Clearance

Prior to drilling, GHD contacted Underground Service Alert (USA) to mark existing underground utilities near the proposed boring locations. GHD contracted NORCAL Geophysical Consultants, Inc. (NORCAL) of Cotati, California to verify underground utility locations near the proposed locations. A metal detector, tracer cable, electronic line location equipment, and ground penetrating radar (GPR) were used by NORCAL to determine utility locations in the areas of the proposed

locations. Additionally, each boring location was hand cleared using a hand auger to 8 fbg to further ensure no underground utilities existed.

3.4 Drilling

On February 23, 2016, Vapor Tech Services (VTS) of Hayward, California (C-57 License #916085) was contracted to advance one soil boring and install one monitoring well. GHD personnel managed the drilling under the supervision of California Professional Geologist Nathan Lee, PG 8486. Standard field procedures for soil boring and monitoring well installation and soil vapor probe sampling are presented in Appendix E.

3.4.1 Soil Borings

Soil boring B-7 was advanced to 10 fbg using a hand auger (Figure 2). After the boring was completed, it was backfilled with Portland Type II/V cement. The boring log is included in Appendix C.

3.4.2 Monitoring Well Installation

Following the borehole clearance to 8 fbg, direct-push technology (DPT) was utilized to determine lithology, groundwater depth, and to collect soil samples prior to monitoring well installation. Monitoring well C-13 was advanced to 25 fbg. Following DPT advancement, 8-inch hollow-stem augers were advanced to approximately 19 fbg. The monitoring well was constructed with 2-inch diameter Schedule 40 polyvinyl chloride (PVC) and screened with a 0.020-inch factory-machine slotted PVC from 9 to 19 fbg. Monterey #2/12 sand was used to fill the annular space from 19 fbg to approximately 8 fbg, one foot above the screened interval. Approximately 1 foot of hydrated bentonite seal was placed above the sand pack. The remainder of the well annulus was backfilled with Portland Type II/V cement. A well box equipped with a traffic-rated lid was installed flush to grade with concrete. A well log is included in Appendix C.

3.5 Soil Sampling

Soil samples were collected from C-13 at approximately 3 fbg and at 5-foot intervals starting at 5 fbg to the total depth explored. Soil samples were collected from B-7 at approximately 5 fbg and 10 fbg. Soil samples above 8 fbg were collected using a slide-hammer lined with 6-inch stainless steel tubes. The 10 fbg sample from B-7 was collected from the hand auger bucket due to water in the boring. All remaining relatively undisturbed soil samples were collected from acetate lined direct push samplers. Soil was continuously logged using the American Society for Testing and Materials (ASTM) D2488-06 Unified Soil Classification System (USCS) and screened using a photoionization detector (PID). Samples collected for analyses were capped with Teflon® tape and plastic end caps. All samples were properly sealed, labeled, preserved on ice, logged on chain-of-custody forms, and released to Eurofins Lancaster Laboratories (Eurofins) of Lancaster, Pennsylvania for analysis.

3.6 Well Development and Sampling

On March 3, 2016, Blaine Tech Services, Inc. (Blaine Tech) of San Jose, California developed C-13 by alternating surging the well with a bailer and purging the well with a pump to draw groundwater into the well and remove accumulated sediments. Well development sheets are included in

Appendix F. On March 8, 2016, Blaine Tech sampled C-13 as part of routine groundwater monitoring and sampling at the site.

3.7 Soil Vapor Sampling

On February 24, 2016, GHD collected vapor samples from VP-5 and VP-6 using 100 percent laboratory certified 1-liter Summa™ canisters. Prior to collecting a sample, a closed circuit sampling train was created by attaching the sample Summa™ canister in series with the purge Summa™ canister via a steam-cleaned, stainless-steel manifold. A "shut-in" test was performed prior to connecting the sampling equipment to the vapor probe tubing. This test was performed by sealing all openings to ambient air, opening the purge Summa™ canister to establish a vacuum inside the sampling train and waiting to ensure the vacuum remained stable over time. The shut-in test reduces the potential for ambient air to dilute the soil vapor samples. Once the sampling train passed the "shut-in" test, it was connected to the probe tubing.

Using the same flow rate as is used during sampling, approximately three purge volumes were purged from the sampling tubing using the purge pump before sampling began. While sampling, the Summa™ canister's vacuum was used to draw the soil vapor through the flow controller until a negative pressure of approximately 5 inches of mercury (inHg) was observed on the vacuum gauge. In accordance with the Department of Toxic Substances Control (DTSC) *Advisory – Active Soil Gas Investigation* guidance document, dated July 2015, leak testing was performed during sampling using laboratory grade helium. The vapor probe vault, probe tubing, and entire sampling train was enclosed in a rigid shroud. A helium meter kept inside the shroud indicated a helium concentration inside the shroud was maintained above 30 percent helium. All Summa™ canister samples were labeled, logged on a chain-of-custody form, stored at ambient temperature, and shipped to Eurofins Air Toxics, Inc. (EATI) of Folsom, California for analysis.

The vapor probes were also sampled for naphthalene simultaneously using sorbent tubes by Environmental Protection Agency (EPA) Method TO-17. The sampling train consisted of a sorbent tube attached to the sub-slab probe using unions and fittings. A disposable syringe was then attached to the sorbent tube to allow for vapor to be pulled through the sorbent tube. The syringe pulls the air into the sorbent tube until the desired volume has been collected. Approximately 200 milliliters of vapor was collected for each sorbent tube sample.

GHD's *Standard Field Procedures for Soil Vapor Probe Installation and Soil vapor Sampling* is presented in Appendix E. Laboratory analytical reports are presented in Appendix G.

3.8 Chemical Analyses

All soil samples collected were analyzed by Eurofins for the following:

- Total petroleum hydrocarbons as gasoline (TPHg) by EPA Method 8015
- Benzene, toluene, ethylbenzene, and xylenes (BTEX) and naphthalene by EPA Method 8260B

All soil vapor samples collected were analyzed by EATI for the following:

- TPHg, BTEX, methyl tertiary butyl ether (MTBE) by EPA Method TO-15
- Naphthalene by EPA Method TO-17
- Air phase hydrocarbons (APH) Fractions (Sp) Aromatics C8-C12 by Modified TO-15 GC/MS Full Scan

- APH Fractions (Sp) Aliphatics C5-C12 by Modified TO-15 GC/MS Full Scan
- Oxygen, carbon dioxide, nitrogen, methane, and helium by ASTM D-1946 (GC/TCD)

Laboratory analytical reports are included in Appendix G.

3.9 Well Survey

On February 29, 2016, Morrow Surveying, Inc. (Morrow) of West Sacramento, California surveyed monitoring well C-13's geographical coordinates and the top of casing elevation. Survey data is included in Appendix H.

3.10 Waste Disposal

Soil cuttings, decontamination rinsate water, and construction debris were temporarily stored onsite in sealed and labeled Department of Transportation (DOT) approved 55-gallon drums. On April 28, 2016, all drums were transported by Belshire Environmental Services to Altamont Landfill and Resource Recovery Facility in Livermore, California for disposal.

4. Conceptual Site Model

Presented below is the updated CSM incorporating the most recent investigation data.

4.1 Petroleum Hydrocarbon Source

Data collected during the 1987 UST replacements,¹ 1997 product piping upgrades,² and subsurface investigations indicate the primary source of hydrocarbons in soil and groundwater are from the first generation dispensers located near the High Street property boundary and Foothill Boulevard property boundary.

4.2 Distribution of Constituents of Concern

The primary constituents of concern (COCs) are TPHg, benzene, and MTBE. Secondary COCs include toluene, ethylbenzene, and xylenes. Hydrocarbon concentrations in soil and groundwater are shown on Figures 4 through 16; soil and soil vapor data are presented in Tables 1 through 4; and historical groundwater monitoring and sampling data are presented in Table 5.

4.3 Hydrocarbon Source Remediation

Primary Source Removal

In May 1987, Blaine Tech removed three steel gasoline USTs and one fiberglass used-oil UST¹. Three 10,000-gallon double-walled fiberglass fuel USTs were installed in the same excavation in June 1987. The used-oil tank was removed and not replaced. In July 1997, the dispensers and product piping were upgraded to meet new containment requirements.² The first generation

¹ Blaine Tech Services, Inc., *Product and Waste Oil Tank Removal*, dated August 14, 1987

² Gettler-Ryan Inc., *Soil Sampling During Product Dispenser Upgrade and Partial Product Line Replacement Report*, dated September 24, 1997

dispensers were removed and replaced in the current configuration sometime in the 1980s (according to historical aerial photos).³ No report of this activity was located.

Secondary Source Removal

An unspecified volume of excavated soil removed from the fuel UST pit in 1987 was reportedly aerated and reused onsite or disposed of at a landfill.¹ During the 1997 dispenser piping upgrades, approximately 46 tons of soil was excavated and disposed of offsite.²

A groundwater extraction system in well C-2 operated from November 1991 to October 1993, and extracted approximately 10,200 gallons of groundwater.⁴

4.4 Light Non-Aqueous Phase Liquid (LNAPL)

Approximately 2 feet of LNAPL was reported in well C-2 when it was installed in 1987. Between 1989 through 2005, LNAPL was measured intermittently in C-2 at a maximum thickness of 0.17 feet in 1990, and between a sheen and 0.09 feet thereafter. No LNAPL has been detected at the site since 2005 when 0.01 feet was reported in C-2.

4.5 Petroleum Hydrocarbon Distribution in Soil

In this investigation, soil samples were collected from onsite well boring C-13 and boring B-7, advanced in the sidewalk immediately downgradient of well C-4. No TPHg, BTEX or naphthalene were detected in soil from C-13; however, MTBE was detected in saturated soil between 10 and 25 fbg at a maximum concentration of 0.51 milligrams per kilogram (mg/kg). Soil samples were collected from B-7 at 5 and 10 fbg. No hydrocarbons were detected at 10 fbg; however, 320 mg/kg TPHg and 1.2 mg/kg naphthalene were detected at 5 fbg.

Based on the distribution in soil, hydrocarbons appear to have originated primarily from the first generation fuel dispensers (Figures 4 through 13) with the highest TPHg and benzene concentrations detected in 2015 borings B1 through B4 and B6, and in 1987 borings C-A, C-2, and C-4, all located at or downgradient of the former dispensers.

To date, 53 soil samples have been collected between 0 and 10 fbg and of those, only 2 soil samples C-A at 8.5 and C-2 at 9 fbg collected in 1987, exceeded Low-Threat Underground Storage Tank Case Closure Policy (LTC) Table 1⁵ criteria for benzene for volatilization to outdoor air on a commercial property and for direct exposure risk for utility workers. No soil samples exceeded the criteria for ethylbenzene or naphthalene. In 2015, soil samples collected from B-5 advanced in the location of the former used-oil UST were additionally analyzed for PAHs. The PAH concentrations detected in soil samples collected at 3 and 8 fbg were below the LTC commercial and utility worker direct contact criteria. Cumulative soil analytical results are presented in Tables 1 through 3. The laboratory analytical reports for soil are included in Appendix G.

³ Environmental Data Resource, Inc., "The EDR Aerial Photo Decade Package", 311977 – Oakland, CA, 4265 Foothill Blvd, Oakland, CA 94601, Inquiry Number: 1969259.5. dated July 2, 2007

⁴ Delta Environmental Consultants, Inc., *Site Conceptual Model and Risk Based Corrective Action Plan*, dated 28, 2000

⁵ State Water Control Board Resolution No. 2012-006, Low-Threat Underground Storage Tank Closure Policy (LTP), California State Water Resources Control Board, August 17, 2012.

4.6 Petroleum Hydrocarbon Distribution in Groundwater

Groundwater monitoring and sampling has been ongoing for 29 years since 1987. On March 8, 2016, Blaine Tech Services sampled all wells, including newly installed well C-13, per the established sampling schedule. Offsite wells C-7 and C-9 were not monitored and sampled because a new access agreement has not been established with the new property owner. The March 8, 2016 groundwater sampling data is summarized in Table 4.1 below and cumulative monitoring and sampling data are presented in Table 5. The analytical laboratory report is included in Appendix G and the well monitoring data sheets are included in Appendix F. Based on well construction details, C-6 through C-9 are not screened through the shallower water zone and therefore groundwater is generally deeper in these wells. Monitoring well construction details are presented in Table 6.

Table 4.1 Hydrocarbon Concentrations in Groundwater

	Sample Date	DTW (fbg)	TPHg	Benzene	Toluene	Ethyl-benzene	Total Xylenes	MTBE
Concentrations in micrograms per liter (µg/L)								
ESL Table F-1a Drinking Groundwater ESLs			100	1	40	13	20	5
C-1	03/08/16	9.9	1,300	180	4	1	2	29
C-2	03/08/16	11.91	9,700	540	27	140	140	37
C-3	03/08/16	19.65	55 J	<0.5	<0.5	<0.5	<0.5	290
C-4	03/08/16	9.22	6,300	910	19	15	38	9 J
C-5	03/08/16	18.98	81 J	3	<0.5	0.7 J	<0.5	6
C-6	03/08/16	20.54	180	<0.5	<0.5	<0.5	<0.5	3
C-7 ^a	09/25/14 ^b	25.75	1,300	15	0.5 J	15	27	8
C-8	03/08/16	25.23	<50	<0.5	<0.5	<0.5	<0.5	<0.5
C-9 ^a	03/13/14 ^b	24.82	<50	<0.5	<0.5	<0.5	<0.5	<0.5
C-10	03/08/16	7.22	<50	<0.5	<0.5	<0.5	<0.5	0.7 J
C-11	03/08/16	13.00	280	27	1	2	<0.5	<0.5
C-13	03/08/16	12.21	<50	<0.5	6	<0.5	1	31

ESLs = Environmental Screening Levels 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 – 2016

J = Estimated value (the result is ≥ the Method Detection Limit and < the Limit of Quantitation)

a = No access agreement

b = Most recent sampling event

No TPHg or benzene were detected in C-13; however, 31 micrograms per liter (µg/L) MTBE were detected in the well. As shown on Figure 14, dissolved TPHg and benzene concentrations with in the shallow water zone are centered on wells C-2 and C-4, located downgradient of the former first generation fuel dispensers. The dissolved plume is approximately 400 feet in length.

Concentrations detected in wells C-6, C-8, C-9, screened in the deeper water zone, are near or below water quality objectives (WQOs).⁶ After 5 years of low or no detectable concentrations, dissolved hydrocarbons in well C-7 (screened in the deeper water zone), increased in June 2009 and have generally declined since 2011. The dissolved MTBE plume is approximately 220 feet in

⁶ WQOs are the Environmental Screening Levels 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 December 2013

length, is primarily localized onsite in wells C-1 through C-4 and C-13 and is defined to below the WQO by wells C-6, C-8, C-10 and C-11.

4.7 Dissolved Hydrocarbon Concentration Trends and Projections

GHD uses the guidance provided within the 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 WQOs.

GHD estimated times for TPHg, benzene, and MTBE concentrations in wells C-1 through C-7 to achieve WQO.⁷ Times for downgradient wells C-8 and C-9, and upgradient C-10 were not calculated because concentrations have already reached the WQO. GHD used the following first order exponential decay rate calculation:⁸

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

Where "a" is a decay constant, "b" is a concentration at time (x), y is concentration (ESL), and "x" is time.

A summary of historical maximum concentrations, the most current concentrations, and projections to meet the WQOs are presented in Table 4.2. The trend graphs and degradation calculations are presented in Appendix I.

Table 4.2 – Summary Of Degradation Rate Calculations

Well	Analyte	Maximum Concentration (µg/L)	Current Concentration (µg/L)	ESL (µg/L)	Date to Reach ESLs	Years to Reach ESL
C-1	TPHg	20,000	1,300	100	2028	12
	Benzene	2,500	180	1	Near WQO	Near WQO
	MTBE	2,500	29	5	2016	1
C-2	TPHg	1,100,000	9,700	100	2050	34
	Benzene	30,000	540	1	2046	30
	MTBE	5,200	37	5	2019	3
C-3	TPHg	560	55	100	WQO met	WQO met
	Benzene	36	<0.5	1	WQO met	WQO met
	MTBE	400	290	5	Fluctuating	Fluctuating
C-4	TPHg	48,000	6,300	100	2089	74
	Benzene	14,000	910	1	2139	123
	MTBE	4,600	9	5	2019	3
C-5	TPHg	110	81	100	WQO met	WQO met
	Benzene	10	3	1	WQO met	WQO met
	MTBE	34	6	5	2015	1
C-6	TPHg	11,000	180	100	WQO met	WQO met
	Benzene	3,200	<0.5	1	WQO met	WQO met
	MTBE	220	3	5	WQO met	WQO met
C-7	TPHg	46,000	1,300	100	2020	4
	Benzene	12,000	15	1	2024	8
	MTBE	190	8	5	2014	Near WQO

Fluctuating = concentrations by one to three orders of magnitude

Near WQO = WQO has been met, but concentration occasionally increase for one sampling event

⁷ WQO are the San Francisco Regional Water Quality Control Board's Environmental Screening Levels (ESLs)

⁸ EPA-Groundwater Issue; Calculation and Use of First-Order Rate Constants for Monitored Natural Attenuation Studies; Charles J. Newell, et al., 2002.

TPHg and benzene concentrations are centered on wells C-2 and C-4, downgradient from the source area in the southern corner. Concentrations in C-2 are expected to reach WQOs within 34 years, and in C-4 within 123 years. TPHg and benzene concentrations in wells C-1 (upgradient), C-3 and C-5 (crossgradient), and C-6 and C-7 (downgradient) have either reached the WQOs or will reach WQOs in 12 years or less.

MTBE concentrations are centered on well C-3, located adjacent to the fuel USTs, and are fluctuating one to three orders of magnitude with the current concentration (290 µg/L) the same magnitude as the historical maximum concentration (400 µg/L). MTBE in all other wells have either reached the WQO or are expected to reach the WQO in 3 years or less.

4.8 Petroleum Hydrocarbon Distribution in Soil Vapor

Complete soil vapor results are included as Table 4. The laboratory analytical reports are included in Appendix G. Soil gas analytical results are summarized in Table 4.3 below.

Table 4.3 Soil Vapor Hydrocarbon Analytical Results – February 24, 2016

Sample ID	Depth	TPHg	Benzene	Toluene	Ethylbenzene	m,p-Xylene	o-Xylene	MTBE	Naphthalene (TO-15 / TO-17)
Concentrations in micrograms per cubic meter (µg/m ³)									
LTCP Soil Gas Criteria – Residential ¹		NE	85	NE	1,100	NE	NE	NW	93
LTCP Soil Gas Criteria – Commercial ¹		NE	280	NE	3,600	NE	NE	NE	310
VP-5	5.50-5.75	86,000	54	<33	<38	<38	<38	1,800	<91 / <5.0
VP-6	5.50-5.75	<570	<4.5	<5.3	<6.1	<6.1	<6.1	<5.0	<15 / <5.0
VP-6 DUP	5.50-5.75	<570	<4.4	<5.2	<6.0	<6.0	<6.0	<5.0	<14 / <5.0

¹ = Low-Threat Underground Storage Tank Case Closure Policy – Soil Gas Criteria No Bioattenuation Zone, California State Water Resources Control Board, August 2012

Elevated TPHg concentrations were detected in VP-5. Benzene, ethylbenzene, and naphthalene concentrations were below the residential and commercial LTCP criteria and/or not detected. No helium was detected in any vapor probe samples. The absence of helium indicates that no ambient air entered the canisters during the sampling process and the samples are considered representative.

Aliphatic (non-carcinogenic) and aromatic (carcinogenic) hydrocarbons APH Fraction analytical data for VP-5 and VP-6 are presented in Table 4, and summarized in Table 4.4 below.

Table 4.4 Soil Vapor APH Fractionation Analytical Results – February 24, 2016

Sample ID	Depth	C5-C6 Aliphatic	>C6-C8 Aliphatic	>C8-C10 Aliphatic	>C10-C12 Aliphatic	>C8-C-10 Aromatic	>C10-C12 Aromatic
		Concentrations in micrograms per cubic meter ($\mu\text{g}/\text{m}^3$)					
LTCP Soil Gas Criteria – Commercial ¹		NE	280	NE	3,600	NE	NE
VP-5	5.50-5.75	30,000	69,000	2,200	<1,200	<860	<960
VP-6	5.50-5.75	<91	<110	<160	<200	<140	<150
VP-6 DUP	5.50-5.75	<90	<110	<160	<190	<140	<150

Vapor probes VP-1, VP-3, and VP-4 are located along the southern property boundary, which are adjacent to the single family home with the basement. Soil vapor concentrations from those probes are below the LTC criteria for indoor vapor intrusion risk for both commercial and residential.

Soil vapor in VP-5 and VP-6, located along the western property boundary adjacent to the apartment building, are below LTCP criteria for residential and commercial indoor vapor intrusion risk. Oxygen concentration in VP-5 was less than 4 percent indicating there is little to no bioattenuation zone, while oxygen concentration in VP-6 was 13 percent indicating that there might be a bioattenuation zone. The apartment building is built on a vented crawl space which would allow any potential vapors to dissipate.

4.9 Sensitive Receptors

In 2015, GHD contacted Department of Water Resources (DWR) and Alameda County Public Works Agency (ACPWA) regarding wells within 2,000 feet of the site. Sixty-two wells were identified in the search area. Of these, two were cathodic protection wells and one was identified as an irrigation well. Of the remaining wells, 51 were identified as monitoring wells, three as test wells, two as soil vapor probes, two as borings, and one as an observation well. The irrigation well was reportedly located approximately 1,600 feet northeast of the site (crossgradient). No domestic or municipal water supply wells were identified within the search area.

The nearest surface water bodies are Peralta Creek approximately 3,700 feet northwest and the Oakland Inner Harbor located approximately 4,800 feet southwest. Based on their distances and/or direction from the site and the limited extent of the dissolved hydrocarbon plume, these water bodies are not at risk of being affected by hydrocarbons originating at the site.

The site is located in a mixed residential and commercial area. A single family home with a basement is located adjacent to the site along the southern property boundary and a single family home with a basement is located approximately 100 feet south across High Street. An apartment building is located adjacent to the western property boundary. Due to the locations of the residences, GHD completed a soil vapor assessment in February 2016. The results are discussed in Section 4.8.

In 2015, CRA completed a Google search for other potential sensitive receptors within ½-mile radius of the site including schools, childcare centers, hospitals, and eldercare centers. The nearest school is Fremont High School located approximately 100 feet east (crossgradient) across the Foothill Boulevard/High Street intersection. No TPHg or BTEX and only trace MTBE is detected in well C-10 located between the source area and the school; therefore, it does not appear the school is at risk of being affected by hydrocarbons originating at the site. Oakland Charter

Academy Middle School is located approximately 150 feet west (crossgradient). Ascend Elementary School is located approximately 2,500 feet southwest, well beyond the extent of dissolved hydrocarbons originating at the site. No childcare centers, eldercare centers, or hospitals were identified in the search area.

4.10 Preferential Pathway Study

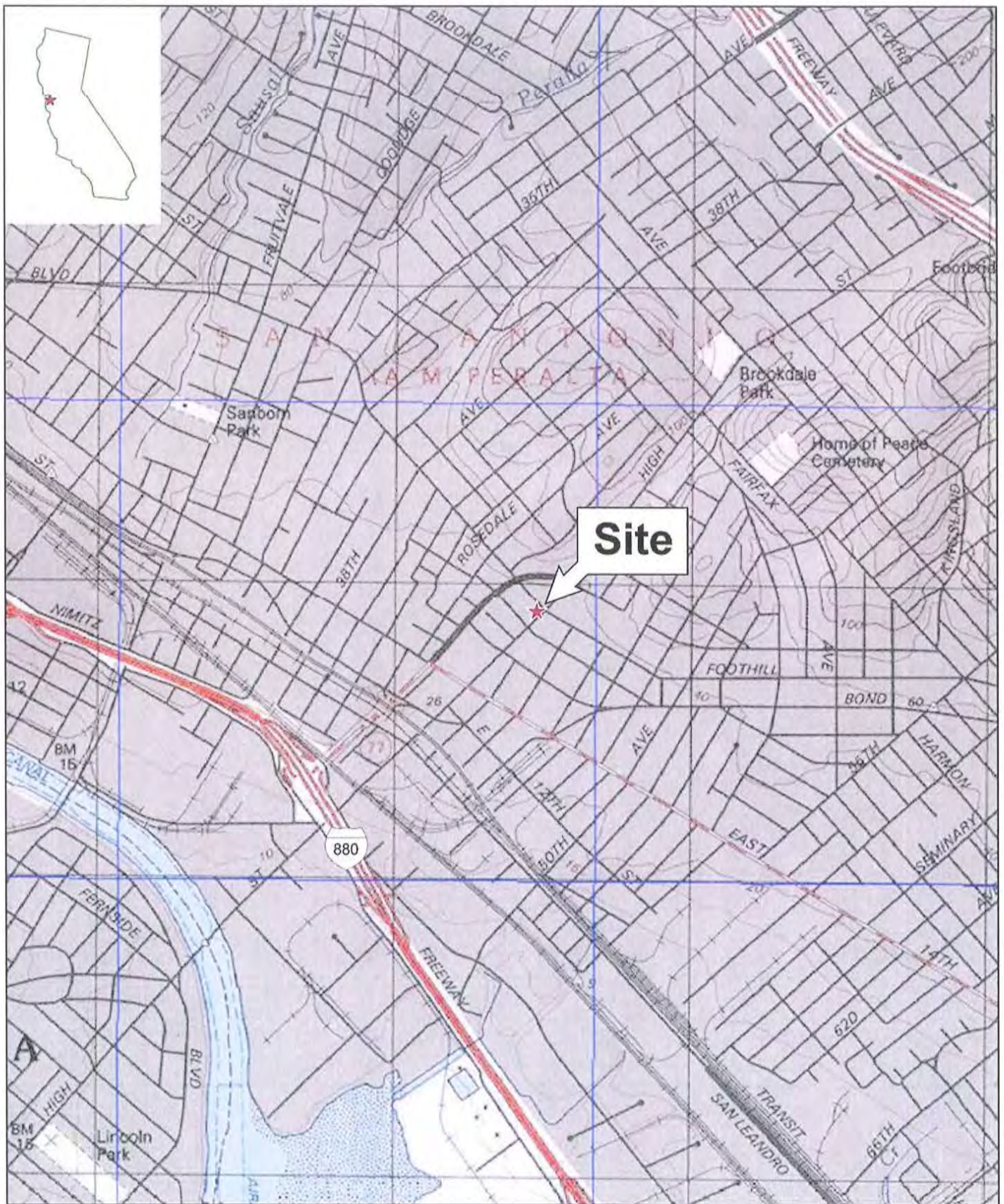
In addition to the utility line details presented in CRA's September 14, 2012 *Soil Vapor Sampling, Preferential Pathway Study, and Work Plan*, GHD identified four catch basins located along the High Street and Foothill Boulevard property boundaries. These catch basins are connected to the street gutters by drain lines located no deeper than 6 inches. Utility locations and catch basins are illustrated on Figure 3. These catch basins might be contributing to the higher groundwater elevation seen in C-4 and C-10.

5. Conclusions

Based on GHD's evaluation of the data obtained from this current investigation, the following conclusions can be made:

- Soil vapor in VP-5 and VP-6, located along the western property boundary adjacent to the apartment building are below LTCP criteria for commercial indoor vapor intrusion risk. Soil vapor concentrations in VP-5 and VP-6 are below LTCP criteria for residential indoor vapor intrusion risk except for benzene. Oxygen concentration in VP-5 was less than 4 percent indicating there is little to no bioattenuation zone, while oxygen concentration in VP-6 was 13 percent indicating that there might be a bioattenuation zone. The apartment building is built on a vented crawl space which would allow any potential vapors to dissipate.
- Monitoring well C-13 was installed along the western site property boundary to assess the source of hydrocarbons detected in soil vapor from VP-5. No TPHg, benzene, ethylbenzene, or naphthalene were detected in soil or groundwater collected from C-13.
- Well C-13 will be monitored quarterly for 1 year, and accordingly with the existing well network thereafter.
- Soil samples were collected at 5 and 10 fbg from soil boring B-7, advanced in the sidewalk adjacent to the offsite residence (southwest of the site) and immediately downgradient of C-4, for offsite direct contact evaluation. No benzene was detected, and the 0.71 mg/kg ethylbenzene and 1.2 mg/kg naphthalene are below the LTP residential direct exposure criteria.
- GHD and Chevron have not been able to obtain information regarding the depth of the basement beneath the residence adjacent to the southwest (downgradient) site boundary. However, all soil vapor samples collected from vapor probes VP-1, VP-3 and VP-4, located adjacent to the house, are below the LTCP criteria for both commercial and residential indoor vapor intrusion.
- The only water supply well located within 2,000 feet is an irrigation well approximately 1,600-feet northeast of the site (crossgradient).
- All previous data gaps and ACEH concerns have been addressed, with exception of locating the depth of the basement beneath the residence adjacent to the southwestern (downgradient) property boundary.

Figures



SOURCE: TOPO! MAPS

0 500 1500ft

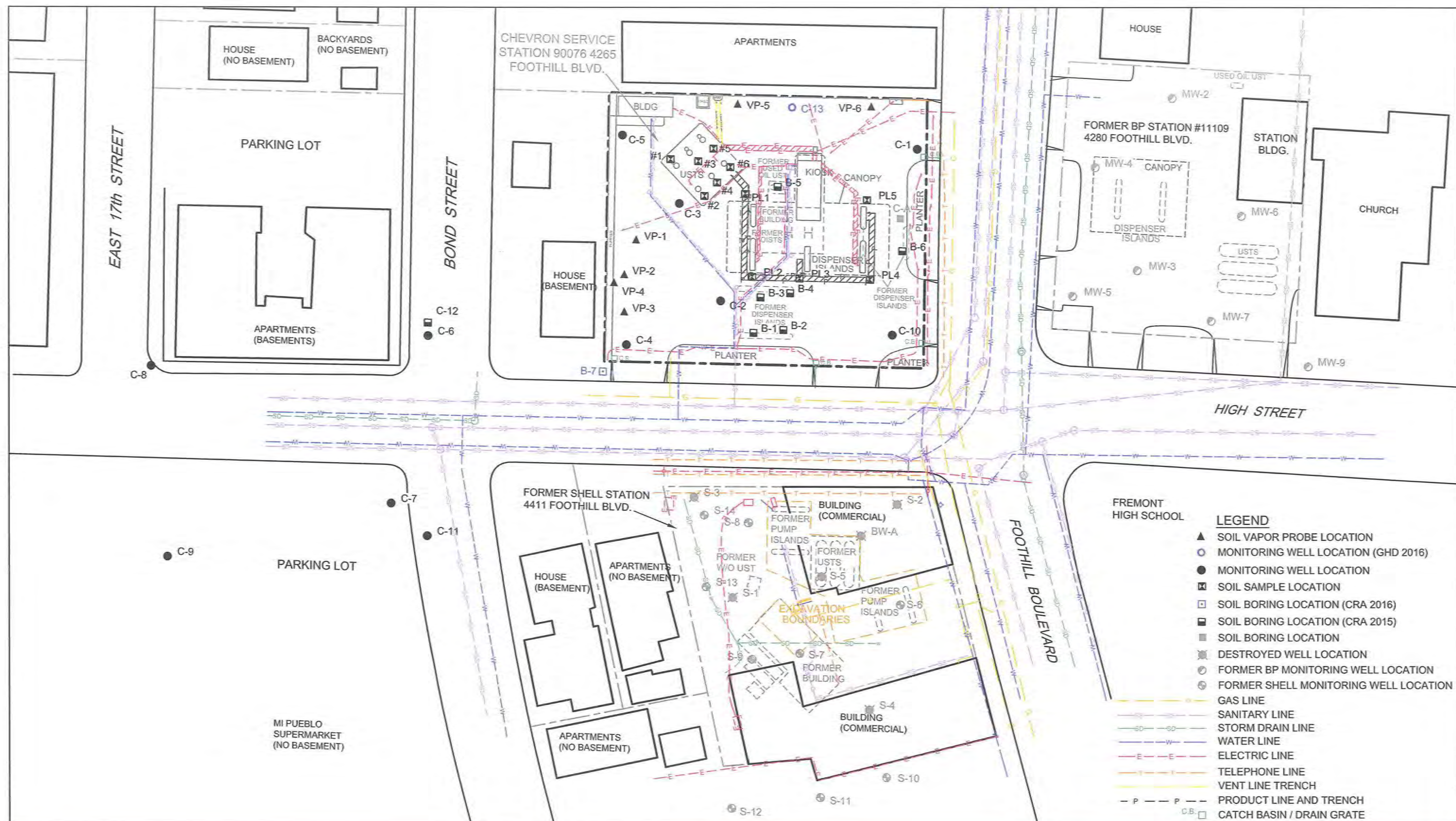


CHEVRON SERVICE STATION 90076
4265 FOOTHILL BOULEVARD
OAKLAND, CALIFORNIA

311977
Apr 4, 2016

VICINITY MAP

Figure 1



0 20 50ft



SOURCE: MORROW SURVEYING .DWG DRAWING DATED MARCH, 2015 FOR CRA. SURVEYED DATE 2/25/15. COORDINATES BASED ON CA STATE PLANE ZONE 3. COORDINATES FROM GPS OBSERVATIONS USING CSDS VIRTUAL SURVEY NETWORK. COORDINATE DATUM IS NAD 83.
NOTE: BASEMENT PRESENCE BASED ON FIELD OBSERVATIONS

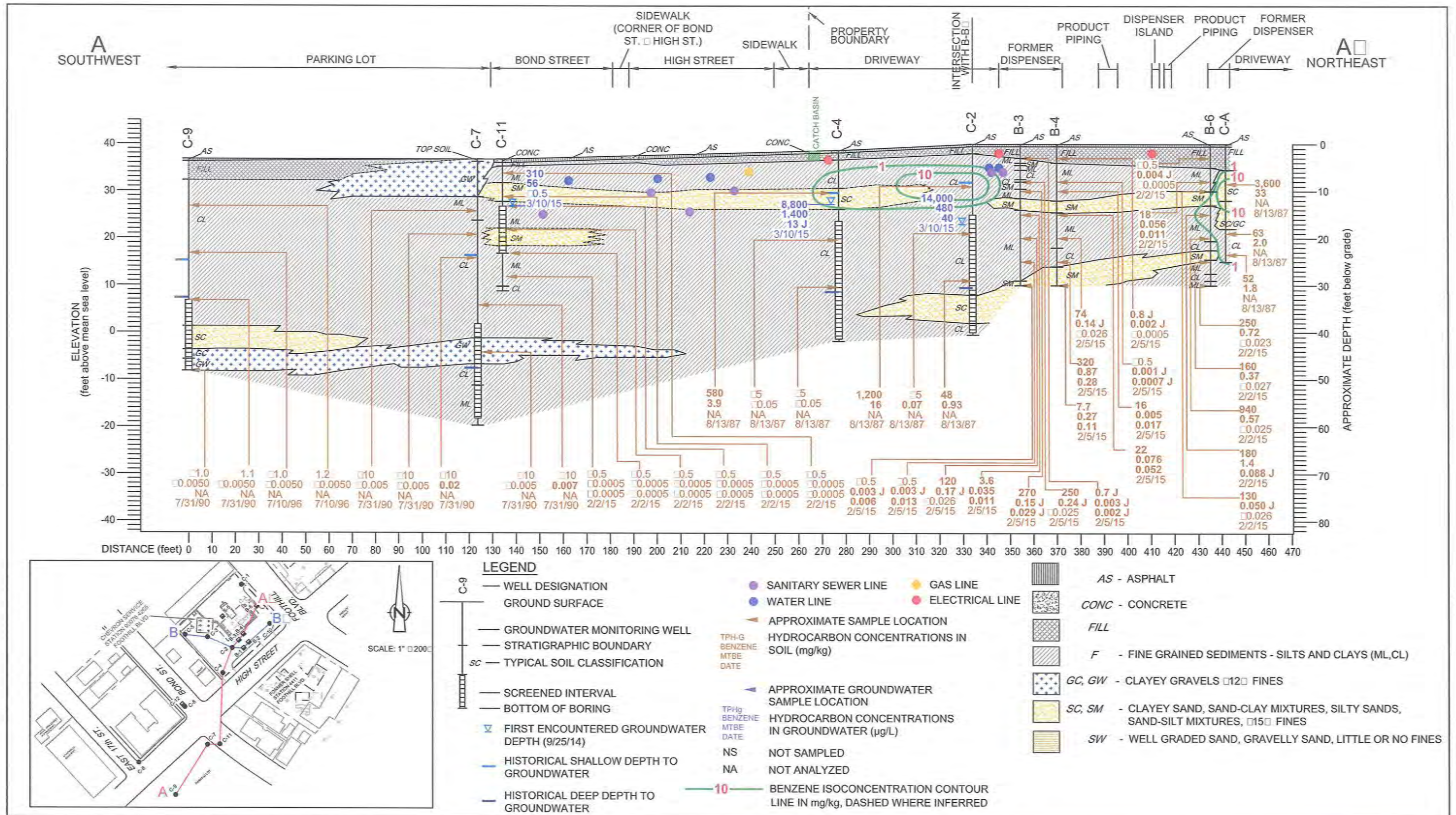


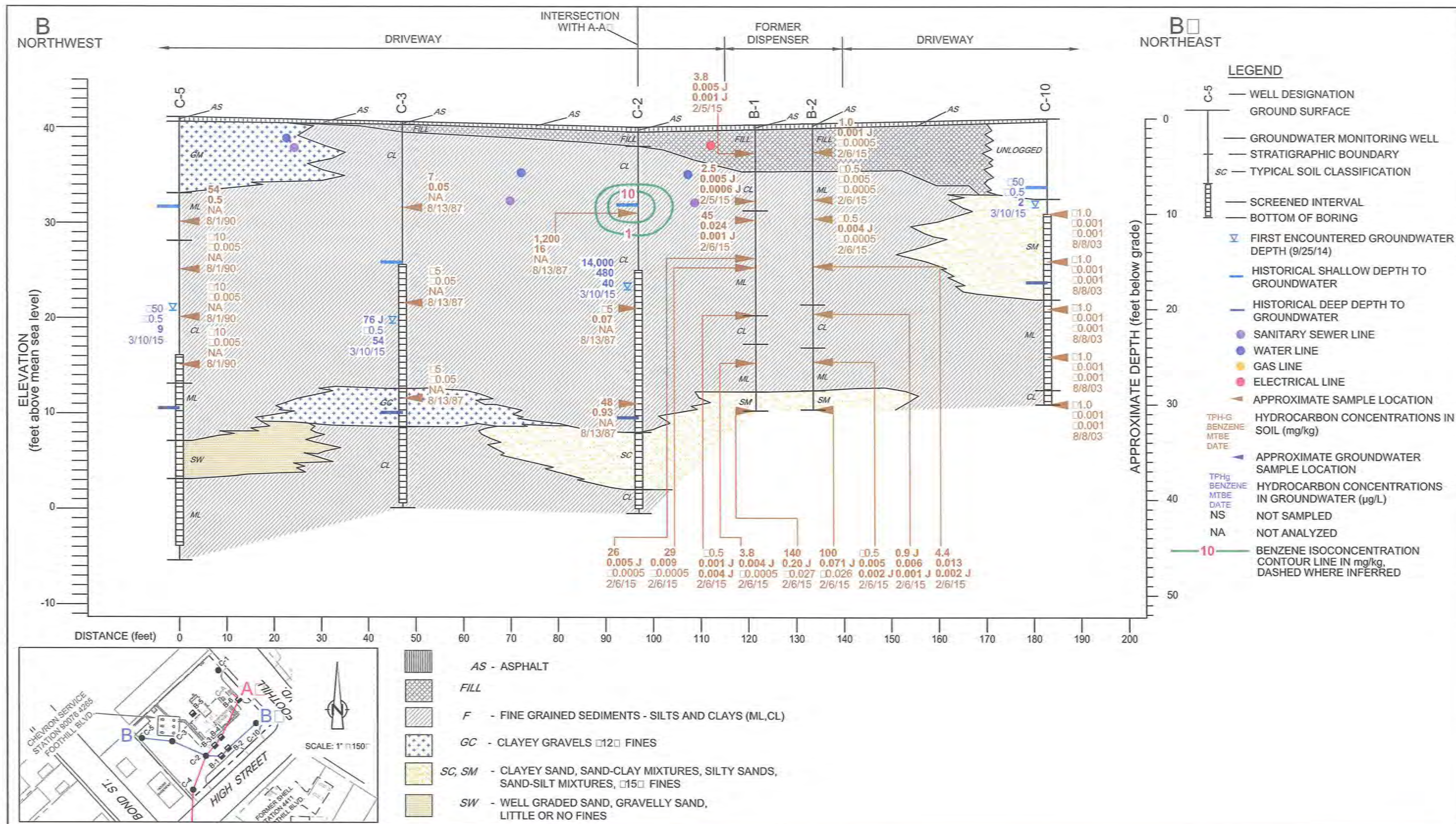
CHEVRON SERVICE STATION 90076
4265 FOOTHILL BOULEVARD
OAKLAND, CALIFORNIA
SITE PLAN WITH
UNDERGROUND UTILITIES

311977-2016

May 27, 2016

Figure 3





CHEVRON SERVICE STATION 90076
 4265 FOOTHILL BOULEVARD
 OAKLAND, CALIFORNIA

GEOLOGIC CROSS SECTION B-B

311977-2016
 A 19, 2016

Figure 5



0 10 30ft



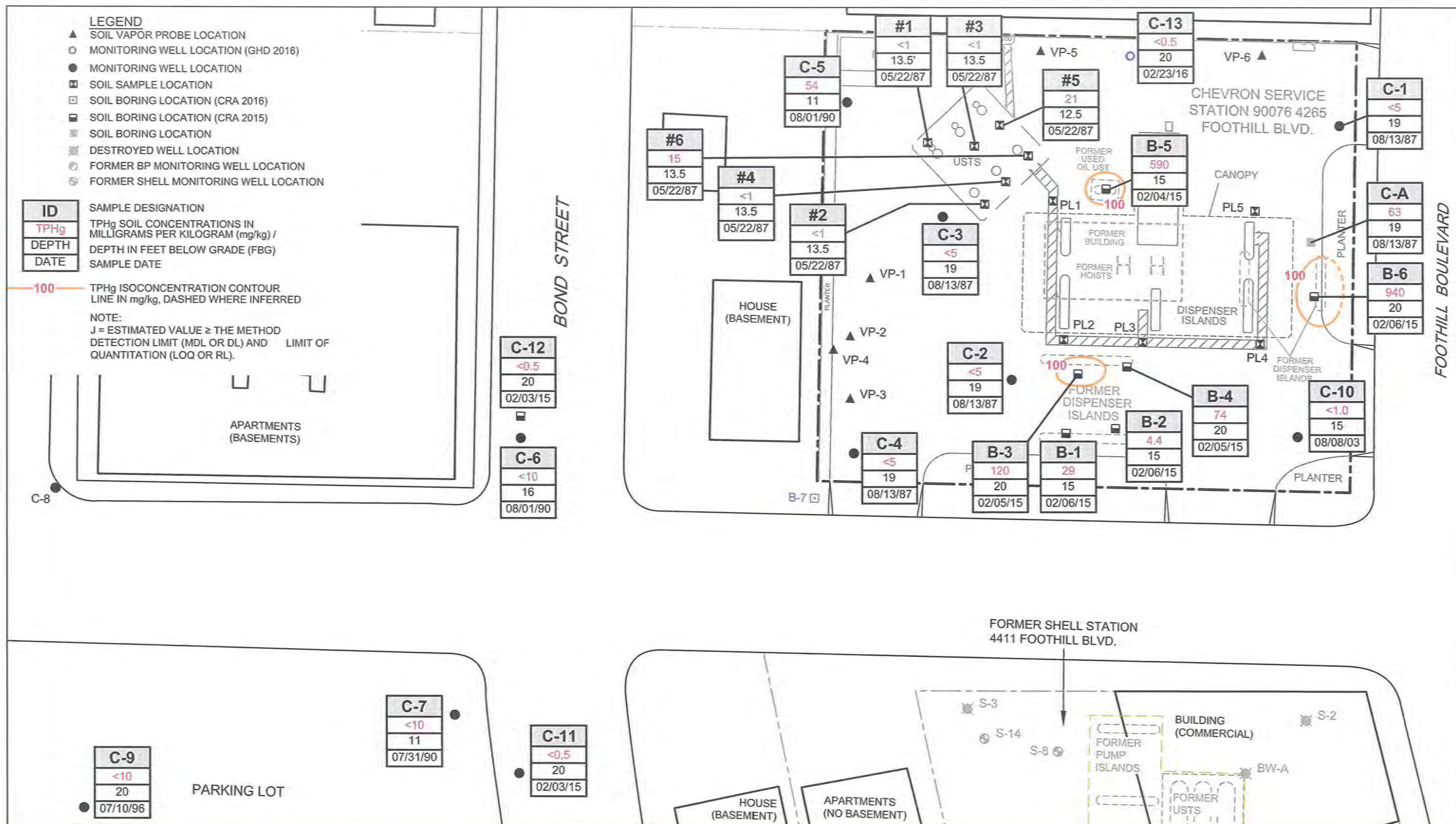
SOURCE: MORROW SURVEYING .DWG DRAWING DATED MARCH, 2015 FOR CRA. SURVEYED DATE 2/25/15. COORDINATES BASED ON CA STATE PLANE ZONE 3. COORDINATES FROM GPS OBSERVATIONS USING CSDS VIRTUAL SURVEY NETWORK. COORDINATE DATUM IS NAD 83.
NOTE: BASEMENT PRESENCE BASED ON FIELD OBSERVATIONS



CHEVRON SERVICE STATION 90076
4265 FOOTHILL BOULEVARD
OAKLAND, CALIFORNIA
MAXIMUM TPHg CONCENTRATIONS IN SOIL
0 to 5 FBG

311977-2016
May 27, 2016

Figure 6



0 10 30ft



SOURCE: MORROW SURVEYING .DWG DRAWING DATED MARCH, 2015 FOR CRA. SURVEYED DATE 2/25/15. COORDINATES BASED ON CA STATE PLANE ZONE 3. COORDINATES FROM GPS OBSERVATIONS USING CSDS VIRTUAL SURVEY NETWORK. COORDINATE DATUM IS NAD 83.
 NOTE: BASEMENT PRESENCE BASED ON FIELD OBSERVATIONS



CHEVRON SERVICE STATION 90076
 4265 FOOTHILL BOULEVARD
 OAKLAND, CALIFORNIA
 MAXIMUM TPHg CONCENTRATIONS IN SOIL
 > 10 to 20 FBG

311977-2016
 May 27, 2016

Figure 8



0 10 30ft



SOURCE: MORROW SURVEYING .DWG DRAWING DATED MARCH, 2015 FOR CRA. SURVEYED DATE 2/25/15. COORDINATES BASED ON CA STATE PLANE ZONE 3. COORDINATES FROM GPS OBSERVATIONS USING CSDS VIRTUAL SURVEY NETWORK. COORDINATE DATUM IS NAD 83.
NOTE: BASEMENT PRESENCE BASED ON FIELD OBSERVATIONS



CHEVRON SERVICE STATION 90076
4265 FOOTHILL BOULEVARD
OAKLAND, CALIFORNIA
MAXIMUM TPHg CONCENTRATIONS IN SOIL
> 20 to 45 FBG

311977-2016
May 27, 2016

Figure 9



Figure 10



0 10 30ft



SOURCE: MORROW SURVEYING .DWG DRAWING DATED MARCH, 2015 FOR CRA. SURVEYED DATE 2/25/15. COORDINATES BASED ON CA STATE PLANE ZONE 3. COORDINATES FROM GPS OBSERVATIONS USING CSDS VIRTUAL SURVEY NETWORK. COORDINATE DATUM IS NAD 83.
NOTE: BASEMENT PRESENCE BASED ON FIELD OBSERVATIONS



CHEVRON SERVICE STATION 90076
4265 FOOTHILL BOULEVARD
OAKLAND, CALIFORNIA
MAXIMUM BENZENE CONCENTRATIONS IN SOIL
> 10 to 20 FBG

311977-2016
May 27, 2016

Figure 12



0 10 30ft



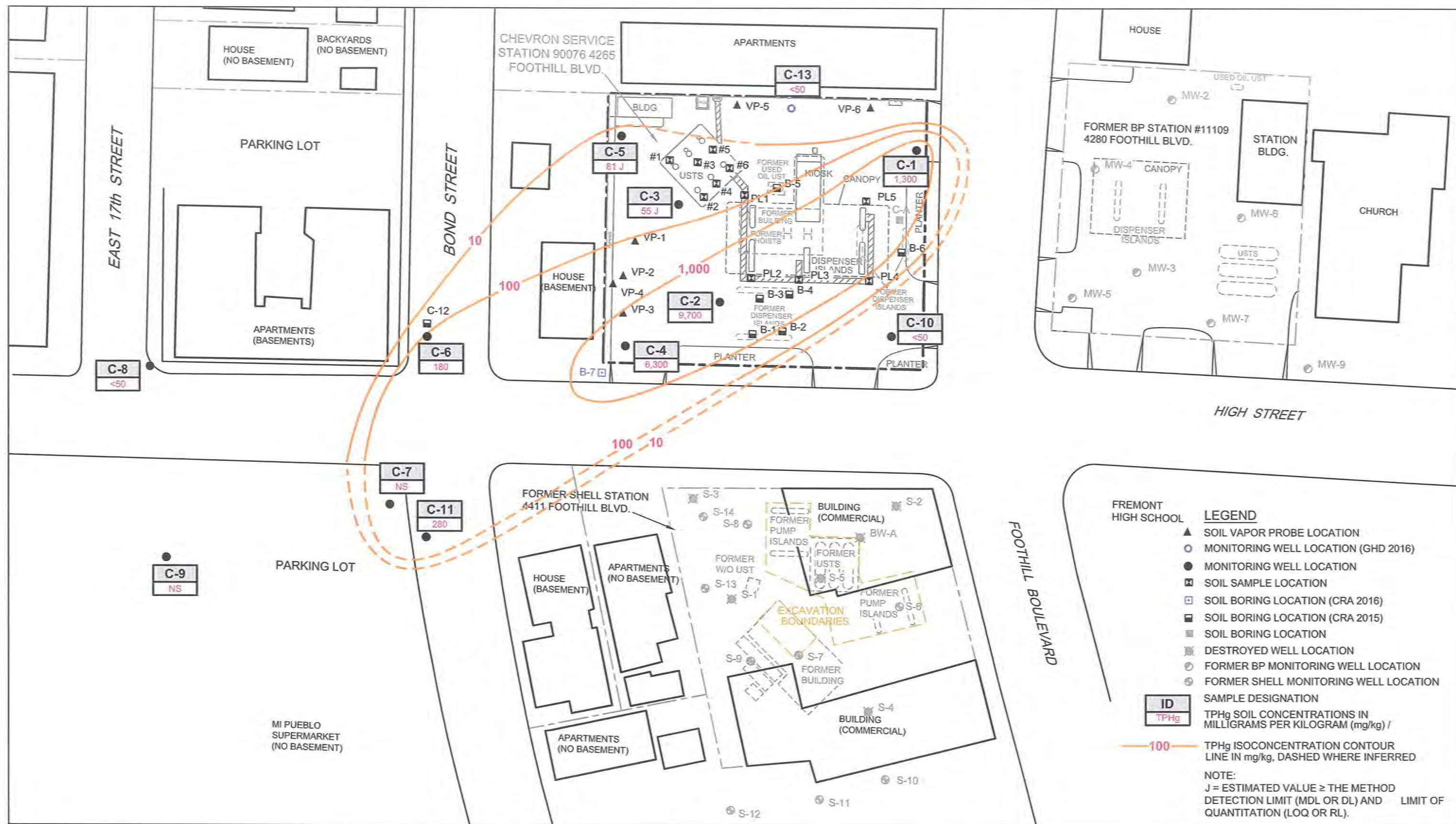
SOURCE: MORROW SURVEYING .DWG DRAWING DATED MARCH, 2015 FOR CRA. SURVEYED DATE 2/25/15. COORDINATES BASED ON CA STATE PLANE ZONE 3. COORDINATES FROM GPS OBSERVATIONS USING CSDS VIRTUAL SURVEY NETWORK. COORDINATE DATUM IS NAD 83.
NOTE: BASEMENT PRESENCE BASED ON FIELD OBSERVATIONS



CHEVRON SERVICE STATION 90076
4265 FOOTHILL BOULEVARD
OAKLAND, CALIFORNIA
MAXIMUM BENZENE CONCENTRATIONS IN SOIL
> 20 to 45 FBG

311977-2016
May 27, 2016

Figure 13



0 20 50ft



SOURCE: MORROW SURVEYING .DWG DRAWING DATED MARCH, 2015 FOR CRA. SURVEYED DATE 2/25/15. COORDINATES BASED ON CA STATE PLANE ZONE 3. COORDINATES FROM GPS OBSERVATIONS USING CSDS VIRTUAL SURVEY NETWORK. COORDINATE DATUM IS NAD 83.
NOTE: BASEMENT PRESENCE BASED ON FIELD OBSERVATIONS.

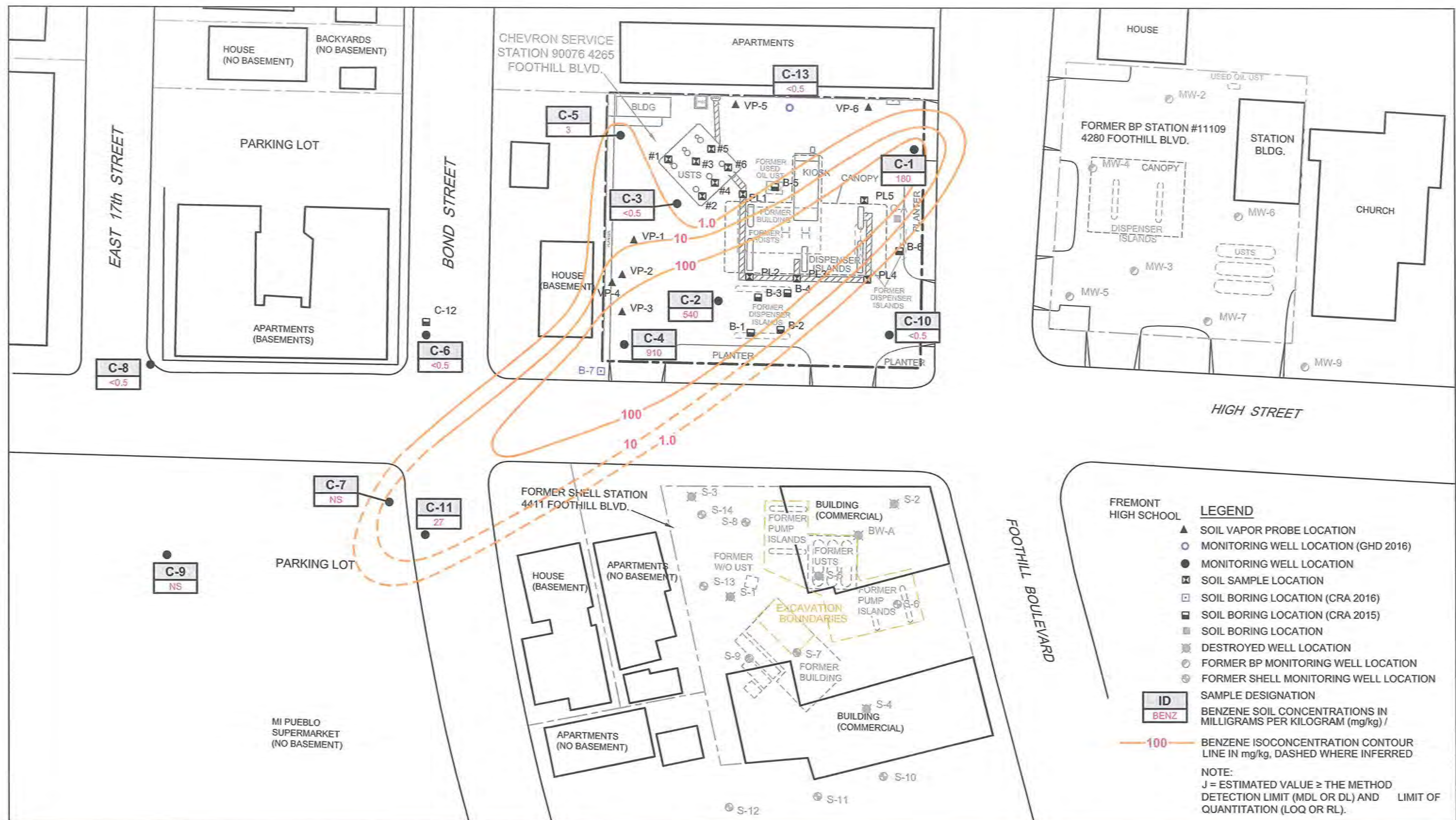


CHEVRON SERVICE STATION 90076
4265 FOOTHILL BOULEVARD
OAKLAND, CALIFORNIA
TPHg CONCENTRATION IN GROUNDWATER
MARCH 8, 2016

311977-2016

May 27, 2016

Figure 14



0 20 50ft



SOURCE: MORROW SURVEYING .DWG DRAWING DATED MARCH, 2015 FOR CRA. SURVEYED DATE 2/25/15. COORDINATES BASED ON CA STATE PLANE ZONE 3. COORDINATES FROM GPS OBSERVATIONS USING CSDS VIRTUAL SURVEY NETWORK. COORDINATE DATUM IS NAD 83.
NOTE: BASEMENT PRESENCE BASED ON FIELD OBSERVATIONS



CHEVRON SERVICE STATION 90076
4265 FOOTHILL BOULEVARD
OAKLAND, CALIFORNIA
BENZENE CONCENTRATION IN GROUNDWATER
MARCH 8, 2016

311977-2016
May 27, 2016

Figure 15

Tables

TABLE 1
CUMMULATIVE SOIL ANALYTICAL DATA
CHEVRON STATION 90076
4265 FOOTHILL BOULEVARD, OAKLAND, CALIFORNIA

Sample ID	Date	Depth (fbg)	TOG	TPHmo	TPHd	TPHg	Benzene	Toluene	Ethyl- benzene	Total Xylenes	MTBE	Naphthalene	DIPE	TAME	TBA	ETBE	1,2-DCA	EDB	Other VOCs	SVOCs	Pesticide s/ PCBs	Cadmium	Total Chromium	Lead	Nickel	Zinc
Concentrations reported in milligrams per kilogram (mg/kg)																										
LTC - Residential- 0 to 5 fbg ^a			--	--	--	--	1.9	--	21	--	--	9.7	--	--	--	--	--	--	--	--	--	--	--	--	--	--
LTC - Commercial - 0 to 5 fbg ^a			--	--	--	--	8.2	--	89	--	--	45	--	--	--	--	--	--	--	--	--	--	--	--	--	--
LTC - Residential- Outdoor Air - 5 to 10 fbg ^a			--	--	--	--	2.8	--	32	--	--	9.7	--	--	--	--	--	--	--	--	--	--	--	--	--	--
LTC - Commercial - Outdoor Air - 5 to 10 fbg ^a			--	--	--	--	12	--	134	--	--	45	--	--	--	--	--	--	--	--	--	--	--	--	--	--
LTC - Utility Worker - 0 to 10 fbg ^a			--	--	--	--	14	--	314	--	--	219	--	--	--	--	--	--	--	--	--	--	--	--	--	--
ESL Table K-2 - Direct Contact Commercial (Metals) ^d			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	1,000	No Value	320	19,000	310,000
ESL Table K-3 - Direct Contact Construction Worker (Metals) ^d			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	110	No Value	320	6,100	93,000
2016 Site Investigation																										
C-13	02/23/16	3	--	--	--	<4.9	<0.0005	<0.001	<0.001	<0.001	<0.0005	<0.001	--	--	--	--	--	--	--	--	--	--	--	--	--	--
C-13	02/23/16	5	--	--	--	<0.5	<0.0005	<0.001	<0.001	<0.001	<0.0005	<0.001	--	--	--	--	--	--	--	--	--	--	--	--	--	--
C-13	02/23/16	10	--	--	--	<0.5	<0.0005	<0.001	<0.001	<0.001	0.001 J	<0.001	--	--	--	--	--	--	--	--	--	--	--	--	--	--
C-13	02/23/16	15	--	--	--	<0.5	<0.0005	<0.001	<0.001	<0.001	0.0005 J	<0.001	--	--	--	--	--	--	--	--	--	--	--	--	--	--
C-13	02/23/16	20	--	--	--	<0.5	<0.0005	<0.001	<0.001	<0.001	0.13	<0.001	--	--	--	--	--	--	--	--	--	--	--	--	--	--
C-13	02/23/16	25	--	--	--	<0.5	<0.0005	<0.001	<0.001	<0.001	0.51	<0.001	--	--	--	--	--	--	--	--	--	--	--	--	--	--
B-7	02/23/16	5	--	--	--	320	<0.025	<0.050	0.71	1.0	<0.025	1.2	--	--	--	--	--	--	--	--	--	--	--	--	--	--
B-7	02/23/16	10	--	--	--	<0.5	<0.0005	<0.001	<0.001	<0.001	<0.0005	<0.001	--	--	--	--	--	--	--	--	--	--	--	--	--	--
2015 Site Investigation																										
C-11	02/02/15	3	--	--	--	<0.5	<0.0005	<0.001	<0.001	<0.001	<0.0005	<0.001	--	--	--	--	--	--	--	--	--	--	--	--	--	--
C-11	02/02/15	8	--	--	--	<0.5	<0.0005	<0.001	<0.001	<0.001	<0.0005	<0.001	--	--	--	--	--	--	--	--	--	--	--	--	--	--
C-11	02/03/15	10	--	--	--	<0.5	<0.0005	<0.001	<0.001	<0.001	<0.0005	<0.001	--	--	--	--	--	--	--	--	--	--	--	--	--	--
C-11	02/03/15	15	--	--	--	<0.5	<0.0005	<0.001	<0.001	<0.001	<0.0005	<0.001	--	--	--	--	--	--	--	--	--	--	--	--	--	--
C-11	02/03/15	20	--	--	--	<0.5	<0.0005	<0.001	<0.001	<0.001	<0.0005	<0.001	--	--	--	--	--	--	--	--	--	--	--	--	--	--
C-11	02/03/15	25	--	--	--	<0.5	<0.0005	<0.001	<0.001	<0.001	<0.0005	<0.001	--	--	--	--	--	--	--	--	--	--	--	--	--	--
C-12*	02/02/15	3	--	--	--	<0.5	<0.0005	<0.001	<0.001	<0.001	<0.0005	<0.001	--	--	--	--	--	--	--	--	--	--	--	--	--	--
C-12*	02/02/15	8	--	--	--	<0.5	<0.0005	<0.001	<0.001	<0.001	<0.0005	<0.001	--	--	--	--	--	--	--	--	--	--	--	--	--	--
C-12*	02/03/15	10	--	--	--	<0.5	<0.0005	<0.001	<0.001	<0.001	<0.0005	<0.001	--	--	--	--	--	--	--	--	--	--	--	--	--	--
C-12*	02/03/15	15	--	--	--	<0.5	<0.0005	<0.001	<0.001	<0.001	<0.0005	<0.001	--	--	--	--	--	--	--	--	--	--	--	--	--	--
C-12*	02/03/15	20	--	--	--	<0.5	<0.0005	<0.001	<0.001	<0.001	<0.0005	<0.001	--	--	--	--	--	--	--	--	--	--	--	--	--	--
C-12*	02/03/15	25	--	--	--	<0.5	<0.0005	<0.001	<0.001	<0.001	<0.0005	<0.001	--	--	--	--	--	--	--	--	--	--	--	--	--	--
C-12*	02/03/15	30	--	--	--	<0.5	<0.0005	<0.001	<0.001	<0.001	0.0009 J	<0.001	--	--	--	--	--	--	--	--	--	--	--	--	--	--
B1	02/05/15	3	--	--	--	3.8	0.005 J	<0.001	<0.001	0.002 J	0.001 J	<0.001	--	--	--	--	--	--	--	--	--	--	--	--	--	--
B1	02/05/15	8	--	--	--	2.5	0.005 J	<0.001	0.003 J	<0.001	0.0006 J	<0.001	--	--	--	--	--	--	--	--	--	--	--	--	--	--
B1	02/06/15	10	--	--	--	45	0.024 ^b	<0.0009 ^b	0.26 ^b	0.13 ^b	0.001 ^b J	0.21 ^b	--	--	--	--	--	--	--	--	--	--	--	--	--	--
B1	02/06/15	14	--	--	--	26	0.005 J	<0.001	0.26	0.094	<0.0005	0.29	--	--	--	--	--	--	--	--	--	--	--	--	--	--
B1	02/06/15	15	--	--	--	29	0.009	0.005 J	0.23	0.74	<0.0005	0.089	--	--	--	--	--	--	--	--	--	--	--	--	--	--

TABLE 1
CUMMULATIVE SOIL ANALYTICAL DATA
CHEVRON STATION 90076
4265 FOOTHILL BOULEVARD, OAKLAND, CALIFORNIA

Sample ID	Date	Depth (fbg)	TOG	TPHmo	TPHd	TPHg	Benzene	Toluene	Ethyl- benzene	Total Xylenes	MTBE	Naphthalene	DIPE	TAME	TBA	ETBE	1,2-DCA	EDB	Other VOCs	SVOCs	Pesticide s/ PCBs	Cadmium	Total Chromium	Lead	Nickel	Zinc	
Concentrations reported in milligrams per kilogram (mg/kg)																											
LTC - Residential- 0 to 5 fbg ^a			--	--	--	--	1.9	--	21	--	--	9.7	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
LTC - Commercial - 0 to 5 fbg ^a			--	--	--	--	8.2	--	89	--	--	45	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
LTC - Residential- Outdoor Air - 5 to 10 fbg ^a			--	--	--	--	2.8	--	32	--	--	9.7	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
LTC - Commercial - Outdoor Air - 5 to 10 fbg ^a			--	--	--	--	12	--	134	--	--	45	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
LTC - Utility Worker - 0 to 10 fbg ^a			--	--	--	--	14	--	314	--	--	219	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
ESL Table K-2 - Direct Contact Commercial (Metals) ^d			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	1,000	No Value	320	19,000	310,000
ESL Table K-3 - Direct Contact Construction Worker (Metals) ^d			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	110	No Value	320	6,100	93,000
B1	02/06/15	20	--	--	--	<0.5	0.001 J	<0.001	0.002 J	0.007	0.004 J	0.002 J	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
B1	02/06/15	25	--	--	--	3.8	0.004 J	0.001 J	0.083	0.35	<0.0005	0.066	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
B1	02/06/15	30	--	--	--	140	0.20 J	<0.054	0.45	0.97	<0.027	0.49	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
B2	02/06/15	3	--	--	--	1.0	0.001 J	<0.001	<0.001	<0.001	<0.0005	<0.001	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
B2	02/06/15	8	--	--	--	<0.5	<0.0005	<0.001	<0.001	<0.001	<0.0005	<0.001	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
B2	02/06/15	10	--	--	--	<0.5	0.004 J	<0.001	<0.001	<0.001	<0.0005	<0.001	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
B2	02/06/15	15	--	--	--	4.4	0.013	<0.0009	0.002 J	<0.0009	0.002 J	0.001 J	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
B2	02/06/15	20	--	--	--	0.9 J	0.006	<0.001	0.001 J	<0.001	0.001 J	<0.001	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
B2	02/06/15	25	--	--	--	<0.5	0.005	<0.001	0.001 J	<0.001	0.002 J	<0.001	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
B2	02/06/15	30	--	--	--	100	0.071 J	<0.052	0.27	1.1	<0.026	0.39	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
B3	02/05/15	3	--	--	--	0.7 J	0.003 J	<0.001	<0.001	0.003 J	0.002 J	<0.001	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
B3	02/05/15	8	--	--	--	250	0.24 J	<0.050	5.1	6.9	<0.025	5.1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
B3	02/05/15	10	--	--	--	270	0.15 J	<0.050	3.4	8.6	0.029 J	1.6	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
B3	02/05/15	15	--	--	--	3.6	0.035	<0.001	0.020	0.009	0.011	<0.001	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
B3	02/05/15	20	--	--	--	120	0.17 J	<0.053	4.8	13	<0.026	2.1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
B3	02/05/15	25	--	--	--	<0.5	0.003 J	<0.0009	0.001 J	0.003 J	0.013	<0.0009	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
B3	02/05/15	30	--	--	--	<0.5	0.003 J	<0.001	0.007	0.020	0.006	0.011	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
B4	02/05/15	3	--	--	--	0.8 J	0.002 J	<0.001	<0.001	<0.001	<0.0005	<0.001	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
B4	02/05/15	8	--	--	--	<0.5	0.001 J	<0.001	<0.001	<0.001	0.0007 J	<0.001	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
B4	02/05/15	10	--	--	--	16	0.005	<0.001	0.011	0.004 J	0.017	0.013	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
B4	02/05/15	15	--	--	--	22	0.076	0.001 J	0.21	0.31	0.052	0.23 ^c J	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
B4	02/05/15	20	--	--	--	74	0.14 J	<0.051	0.82	1.2	<0.026	0.58	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
B4	02/05/15	25	--	--	--	320	0.87	<0.055	4.3	4.0	0.28	0.35	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
B4	02/05/15	30	--	--	--	7.7	0.27	<0.001	0.098	0.006	0.11	0.006	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
B5	02/04/15	3	--	85	68	<0.5	0.001 J	<0.0009	<0.0009	<0.0009	0.001 J	<0.0009	<0.0009	<0.0009	<0.019	<0.0009	<0.0009	<0.0009	See Table 1A	See Table 1B	ND	0.712	61.8	325	68.5	365	
B5	02/04/15	8	--	<9.9	<4.0	<0.5	<0.0005	<0.001	<0.001	<0.001	<0.0005	<0.001	<0.001	<0.001	<0.020	<0.001	<0.001	<0.001	See Table 1A	See Table 1B	ND	<0.0324	70.5	12.4	115	58.4	
B5	02/04/15	10	--	<10	<4.0	<0.5	0.0008 J	<0.0009	<0.0009	0.001 J	0.002 J	<0.0009	<0.0009	<0.0009	<0.018	<0.0009	<0.0009	<0.0009	See Table 1A	See Table 1B	ND	0.0760 J	58.2	3.17	142	35.0	
B5	02/04/15	15	--	<9.9	86	590	0.035 J	1.4	13	55	<0.025	3.2	<0.051	<0.051	<1.0	<0.051	<0.051	<0.051	See Table 1A	See Table 1B	ND	0.0680 J	43.9	3.69	81.4	33.8	
B5	02/04/15	20	--	<10	32	61	<0.025	0.067 J	3.5	13.8	<0.025	1.4	<0.050	<0.050	<0.99	<0.050	<0.050	<0.050	See Table 1A	See Table 1B	ND	0.0843 J	83.9	3.77	127	39.2	
B5	02/04/15	25	--	<9.9	9.2 J	4.1	0.074	0.002 J	0.026	0.045	0.28	0.006	<0.001	<0.001	0.23	<0.001	<0.001	<0.001	See Table 1A	See Table 1B	ND	0.0431 J	41.3	4.97	70.7	44.4	
B5	02/04/15	30	--	<9.9	27	48	<0.026	0.18 J	1.8	8.1	0.055 J	0.20 J	<0.052	<0.052	<1.0	<0.052	<0.052	<0.052	See Table 1A	See Table 1B	ND	0.123 J	46.9	4.55	57.3	39.1	
B6	02/06/15	3	--	--	--	<0.5	0.004 J	<0.001	<0.001	<0.001	<0.0005	<0.001	--	--	--	--	--	--	--	--	--	--	--	--	--	--	

TABLE 1
CUMMULATIVE SOIL ANALYTICAL DATA
CHEVRON STATION 90076
4265 FOOTHILL BOULEVARD, OAKLAND, CALIFORNIA

Sample ID	Date	Depth (fbg)	TOG	TPHmo	TPHd	TPHg	Benzene	Toluene	Ethyl-benzene	Total Xylenes	MTBE	Naphthalene	DIPE	TAME	TBA	ETBE	1,2-DCA	EDB	Other VOCs	SVOCs	Pesticide s/ PCBs	Cadmium	Total Chromium	Lead	Nickel	Zinc	
Concentrations reported in milligrams per kilogram (mg/kg)																											
LTC - Residential- 0 to 5 fbg ^a			--	--	--	--	1.9	--	21	--	--	9.7	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
LTC - Commercial - 0 to 5 fbg ^a			--	--	--	--	8.2	--	89	--	--	45	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
LTC - Residential- Outdoor Air - 5 to 10 fbg ^a			--	--	--	--	2.8	--	32	--	--	9.7	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
LTC - Commercial - Outdoor Air - 5 to 10 fbg ^a			--	--	--	--	12	--	134	--	--	45	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
LTC - Utility Worker - 0 to 10 fbg ^a			--	--	--	--	14	--	314	--	--	219	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
ESL Table K-2 - Direct Contact Commercial (Metals) ^d			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	1,000	No Value	320	19,000	310,000
ESL Table K-3 - Direct Contact Construction Worker (Metals) ^d			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	110	No Value	320	6,100	93,000
B6	02/06/15	8	--	--	--	18	0.056	0.001 J	0.020	0.004 J	0.011	0.088	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
B6	02/06/15	10	--	--	--	130	0.050 J	<0.052	0.28	<0.052	<0.026	0.64	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
B6	02/06/15	15	--	--	--	180	1.4	0.15 J	8.3	0.97	0.088 J	1.7	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
B6	02/06/15	20	--	--	--	940	0.57	0.11 J	10	0.79	<0.025	2.7	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
B6	02/06/15	25	--	--	--	160	0.37	<0.054	0.96	0.057 J	<0.027	0.12 J	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
B6	02/06/15	30	--	--	--	250	0.72	0.61	3.0	6.7	<0.023	0.99	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
VP-4	02/05/15	3	--	--	--	<0.5	0.001 J	<0.001	<0.001	<0.001	<0.0005	<0.001	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
VP-4	02/05/15	6	--	--	--	<0.5	<0.0005	<0.001	<0.001	<0.001	<0.0005	<0.001	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
VP-5	02/04/15	3	--	--	--	1.2	0.0008 J	<0.001	<0.001	<0.001	0.002 J	<0.001	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
VP-5	02/04/15	6	--	--	--	<0.5	<0.0005	<0.001	<0.001	<0.001	0.01	<0.001	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
VP-6	02/04/15	3	--	--	--	<0.5	0.010	<0.001	0.002 J	0.003 J	0.002 J	<0.001	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
VP-6	02/04/15	6	--	--	--	<0.5	<0.0005	<0.001	<0.001	<0.001	0.0009 J	<0.001	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
2005 Soil Vapor Probe Installation																											
VP-1	11/21/05	7.0-7.5	--	--	--	<1.0	<0.0005	<0.001	<0.001	<0.001	0.001	--	<0.001	<0.001	<0.020	<0.001	<0.001	<0.001	--	--	--	--	--	--	--	--	
VP-2	11/21/05	6.5-7.0	--	--	--	<1.0	<0.0005	<0.001	<0.001	<0.001	0.002	--	<0.001	<0.001	<0.020	<0.001	<0.001	<0.001	--	--	--	--	--	--	--	--	
VP-3	11/21/05	5.5-6.0	--	--	--	<1.0	<0.0005	<0.001	<0.001	<0.001	0.002	--	<0.001	<0.001	<0.020	<0.001	<0.001	<0.001	--	--	--	--	--	--	--	--	
2003 Well Installation Sampling																											
C-10	08/08/03	10	--	--	--	<1.0	<0.001	<0.001	<0.001	<0.001	<0.001	--	<0.001	<0.001	<0.020	<0.001	<0.001	<0.001	--	--	--	--	--	--	--	--	
C-10	08/08/03	15	--	--	--	<1.0	<0.001	<0.001	<0.001	<0.001	<0.001	--	<0.001	<0.001	<0.020	<0.001	<0.001	<0.001	--	--	--	--	--	--	--	--	
C-10	08/08/03	20	--	--	--	<1.0	<0.001	<0.001	<0.001	<0.001	<0.001	--	<0.001	<0.001	<0.020	<0.001	<0.001	<0.001	--	--	--	--	--	--	--	--	
C-10	08/08/03	25	--	--	--	<1.0	<0.001	<0.001	<0.001	<0.001	<0.001	--	<0.001	<0.001	<0.020	<0.001	<0.001	<0.001	--	--	--	--	--	--	--	--	
C-10	08/08/03	30	--	--	--	<1.0	<0.001	<0.001	<0.001	<0.001	<0.001	--	<0.001	<0.001	<0.020	<0.001	<0.001	<0.001	--	--	--	--	--	--	--	--	
1997 Dispenser Island Upgrade and Product Piping Replacement Sampling																											
PL1	07/21/97	4	--	--	--	1.8	0.031	0.016	0.023	0.19	2.5	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
PL2	07/21/97	4	--	--	--	210	0.64	0.90	3.6	11	<2.5	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
PL3	07/21/97	4	--	--	--	34	0.20	0.15	0.88	4.4	10	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	

TABLE 1
CUMMULATIVE SOIL ANALYTICAL DATA
CHEVRON STATION 90076
4265 FOOTHILL BOULEVARD, OAKLAND, CALIFORNIA

Sample ID	Date	Depth (fbg)	TOG	TPHmo	TPHd	TPHg	Benzene	Toluene	Ethyl- benzene	Total Xylenes	MTBE	Naphthalene	DIPE	TAME	TBA	ETBE	1,2-DCA	EDB	Other VOCs	SVOCs	Pesticide s/ PCBs	Cadmium	Total Chromium	Lead	Nickel	Zinc	
Concentrations reported in milligrams per kilogram (mg/kg)																											
LTC - Residential- 0 to 5 fbg ^a			--	--	--	--	1.9	--	21	--	--	9.7	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
LTC - Commercial - 0 to 5 fbg ^a			--	--	--	--	8.2	--	89	--	--	45	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
LTC - Residential- Outdoor Air - 5 to 10 fbg ^a			--	--	--	--	2.8	--	32	--	--	9.7	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
LTC - Commercial - Outdoor Air - 5 to 10 fbg ^a			--	--	--	--	12	--	134	--	--	45	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
LTC - Utility Worker - 0 to 10 fbg ^a			--	--	--	--	14	--	314	--	--	219	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
ESL Table K-2 - Direct Contact Commercial (Metals) ^d			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	1,000	No Value	320	19,000	310,000	
ESL Table K-3 - Direct Contact Construction Worker (Metals) ^d			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	110	No Value	320	6,100	93,000	
PL4	07/21/97	4	--	--	--	45	<0.0050	<0.0050	0.87	3.5	10	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
PL5	07/21/97	4	--	--	--	130	0.64	0.25	0.71	0.51	6.9	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
1987 - 1996 Well Installation and Soil Boring Sampling																											
C-A	08/13/87	8.5	--	--	--	3,600	33	12	--	350	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
C-A	08/13/87	19	--	--	--	63	2.0	0.1	--	2.0	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
C-A	08/13/87	23.5	--	--	--	52	1.8	<0.1	--	0.4	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
C-1	08/13/87	9	--	--	--	<5	<0.05	<0.1	--	<0.4	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
C-1	08/13/87	19	--	--	--	<5	<0.05	<0.1	--	<0.4	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
C-1	08/13/87	29	--	--	--	<5	<0.05	<0.1	--	<0.4	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
C-2	08/13/87	9	--	--	--	1,200	16	54	--	120	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
C-2	08/13/87	19	--	--	--	<5	0.07	0.8	--	<0.4	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
C-2	08/13/87	29	--	--	--	48	0.93	0.1	--	3	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
C-3	08/13/87	9	--	--	--	7	0.05	<0.1	--	0.4	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
C-3	08/13/87	19	--	--	--	<5	<0.05	<0.1	--	<0.4	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
C-3	08/13/87	29	--	--	--	<5	<0.05	<0.1	--	<0.4	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
C-4	08/13/87	9	--	--	--	580	3.9	23	--	46	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
C-4	08/13/87	19	--	--	--	<5	<0.05	<0.1	--	<0.4	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
C-4	08/13/87	29	--	--	--	<5	<0.05	<0.1	--	<0.4	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
C-5 (BH-E)	08/01/90	11	--	--	--	54	0.5	1.7	0.8	4.5	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
C-5 (BH-E)	08/01/90	16	--	--	--	<10	<0.005	<0.005	<0.005	0.02	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
C-5 (BH-E)	08/01/90	21	--	--	--	<10	<0.005	<0.005	<0.005	<0.015	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
C-5 (BH-E)	08/01/90	26	--	--	--	<10	<0.005	<0.005	<0.005	<0.015	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
C-6 (BH-F)	08/01/90	16	--	--	--	<10	<0.005	<0.005	<0.005	<0.015	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
C-6 (BH-F)	08/01/90	21	--	--	--	<10	<0.005	<0.005	<0.005	<0.015	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
C-6 (BH-F)	08/01/90	31	--	--	--	42	0.2	<0.005	0.1	0.3	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
C-6 (BH-F)	08/01/90	41	--	--	--	<10	<0.005	<0.005	<0.005	<0.015	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
C-7 (BH-G)	07/31/90	11	--	--	--	<10	<0.005	<0.005	<0.005	<0.015	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
C-7 (BH-G)	07/31/90	16	--	--	--	<10	<0.005	<0.005	<0.005	<0.015	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
C-7 (BH-G)	07/31/90	21	--	--	--	<10	0.02	<0.005	<0.005	<0.015	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	

TABLE 1
CUMMULATIVE SOIL ANALYTICAL DATA
CHEVRON STATION 90076
4265 FOOTHILL BOULEVARD, OAKLAND, CALIFORNIA

Sample ID	Date	Depth (fbg)	TOG	TPHmo	TPHd	TPHg	Benzene	Toluene	Ethyl- benzene	Total Xylenes	MTBE	Naphthalene	DIPE	TAME	TBA	ETBE	1,2-DCA	EDB	Other VOCs	SVOCs	Pesticide s/ PCBs	Cadmium	Total Chromium	Lead	Nickel	Zinc
			Concentrations reported in milligrams per kilogram (mg/kg)																							
LTC - Residential- 0 to 5 fbg ^a			--	--	--	--	1.9	--	21	--	--	9.7	--	--	--	--	--	--	--	--	--	--	--	--	--	--
LTC - Commercial - 0 to 5 fbg ^a			--	--	--	--	8.2	--	89	--	--	45	--	--	--	--	--	--	--	--	--	--	--	--	--	--
LTC - Residential- Outdoor Air - 5 to 10 fbg ^a			--	--	--	--	2.8	--	32	--	--	9.7	--	--	--	--	--	--	--	--	--	--	--	--	--	--
LTC - Commercial - Outdoor Air - 5 to 10 fbg ^a			--	--	--	--	12	--	134	--	--	45	--	--	--	--	--	--	--	--	--	--	--	--	--	--
LTC - Utility Worker - 0 to 10 fbg ^a			--	--	--	--	14	--	314	--	--	219	--	--	--	--	--	--	--	--	--	--	--	--	--	--
ESL Table K-2 - Direct Contact Commercial (Metals) ^d			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	1,000	No Value	320	19,000	310,000
ESL Table K-3 - Direct Contact Construction Worker (Metals) ^d			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	110	No Value	320	6,100	93,000
C-7 (BH-G)	07/31/90	31	--	--	--	<10	<0.005	<0.005	<0.005	<0.015	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
C-7 (BH-G)	07/31/90	41	--	--	--	<10	0.007	<0.005	<0.005	<0.015	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
C-8 (BH-H)	11/01/90	5.5	--	--	--	<10	<0.005	<0.005	<0.005	<0.005	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
C-8 (BH-H)	11/01/90	40	--	--	--	<10	<0.005	<0.005	<0.005	<0.005	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
C-8 (BH-H)	11/01/90	45	--	--	--	<10	<0.005	<0.005	<0.005	<0.005	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
C-9	07/10/96	10	--	--	--	1.2	<0.0050	<0.0050	<0.0050	<0.0050	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
C-9	07/10/96	20	--	--	--	<1.0	<0.0050	<0.0050	<0.0050	<0.0050	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
C-9	07/10/96	30	--	--	--	1.1	<0.0050	<0.0050	<0.0050	<0.0050	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
C-9	07/10/96	45	--	--	--	<1.0	<0.0050	<0.0050	<0.0050	<0.0050	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1987 Underground Storage Tank Removal Sampling																										
#1	05/22/87	13.5	--	--	--	<1	<0.005	<0.005	--	<0.005	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
#2	05/22/87	13.5	--	--	--	<1	<0.005	<0.005	--	<0.005	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
#3	05/22/87	13.5	--	--	--	<1	<0.005	<0.005	--	<0.005	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
#4	05/22/87	13.5	--	--	--	<1	0.014	0.038	--	0.020	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
#5	05/22/87	12.5	--	--	--	21	0.057	0.092	--	0.029	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
#6	05/22/87	13.5	--	--	--	15	0.010	<0.005	--	<0.005	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
#7	05/21/87	9.5	100	63	--	--	0.005	0.020	<0.005	<0.005	--	--	--	--	--	--	--	--	ND	--	--	--	--	--	--	--
#8	05/21/87	9.5	<100	<5	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

TABLE 1
CUMMULATIVE SOIL ANALYTICAL DATA
CHEVRON STATION 90076
4265 FOOTHILL BOULEVARD, OAKLAND, CALIFORNIA

Sample ID	Date	Depth (fbg)	TOG	TPHmo	TPHd	TPHg	Benzene	Toluene	Ethyl- benzene	Total Xylenes	MTBE	Naphthalene	DIPE	TAME	TBA	ETBE	1,2-DCA	EDB	Other VOCs	SVOCs	Pesticide s/ PCBs	Cadmium	Total Chromium	Lead	Nickel	Zinc	
Concentrations reported in milligrams per kilogram (mg/kg)																											
LTC - Residential- 0 to 5 fbg ^a			--	--	--	--	1.9	--	21	--	--	9.7	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
LTC - Commercial - 0 to 5 fbg ^a			--	--	--	--	8.2	--	89	--	--	45	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
LTC - Residential- Outdoor Air - 5 to 10 fbg ^a			--	--	--	--	2.8	--	32	--	--	9.7	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
LTC - Commercial - Outdoor Air - 5 to 10 fbg ^a			--	--	--	--	12	--	134	--	--	45	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
LTC - Utility Worker - 0 to 10 fbg ^a			--	--	--	--	14	--	314	--	--	219	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
ESL Table K-2 - Direct Contact Commercial (Metals) ^d			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	1,000	No Value	320	19,000	310,000
ESL Table K-3 - Direct Contact Construction Worker (Metals) ^d			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	110	No Value	320	6,100	93,000

Abbreviations/Notes:
TOG = Total oil and grease analyzed by EPA Method 8015, unless otherwise noted
TPHmo = Total petroleum hydrocarbons as motor oil by EPA Method 8015
TPHd = Total petroleum hydrocarbons as diesel by EPA Method 8015
TPHg = Total petroleum hydrocarbons as gasoline analyzed by EPA Method 8015 unless otherwise noted
Benzene, toluene, ethylbenzene, and total xylenes analyzed by EPA Method 8260B; before 2003, analyzed by EPA Method 8020 unless otherwise noted
MTBE = Methyl tertiary-butyl ether analyzed by EPA Method 8260B, unless otherwise noted
DIPE = di-isopropyl ether, TAME = t-amyl methyl ether, TBA = tert-butyl alcohol, ETBE = ethyl tertiary butyl ether, 1,2-DCA = 1,2-dichloroethane and EDB = 1,2-Dibromoethane analyzed by EPA Method 8260B, unless otherwise noted.
VOC = Volatile organic compounds by EPA Method 8260B
SVOC = Semi-volatile organic compounds by EPA Method 8270C
Pesticides and polychlorinated biphenyls (PCBs) by EPA Method 8082
Cadmium, chromium, lead, nickel, and zinc by EPA Method 6010B
fbg = feet below grade
-- = not analyzed, not established, or not applicable
<x = Not detected at or above stated laboratory method detection limits
ND = Not detected at or above stated laboratory method detection limits
J = Estimated value ≥ the Method Detection Limit (MDL or DL) and the < Limit of Quantitation (LOQ or RL)
* Well boring was not converted to a well due to lack of encountered water
a = Low-Threat Underground Storage Tank Case Closure Policy Criteria (LTC) - California State Water Resources Control Board (SWRCB), August 2012, Low-Threat Underground Storage Tank Policy.
b = The recovery for the sample internal standard is outside the QC acceptance limits. The following corrective action was taken: The secondary vial leaked during re-analysis therefore the matrix effects observed in the initial analysis could not be confirmed. The values reported here are from the initial analysis.
c = The concentration reported for Naphthalene is estimated since it exceeds the calibration range of the instrument when determined by the low level method, but is less than the quantitation limit when determined by the high level method. The result reported is from the high level determination.
d = Environmental Screening Levels (ESLs) from the San Francisco Regional Water Quality Control Board, User's Guide, *Derivation and Application of Environmental Screening Levels*, December 2013

TABLE 2
SOIL ANALYTICAL DATA - VOLATILE ORGANIC COMPOUNDS (VOCs)
CHEVRON STATION 90076
4265 FOOTHILL BOULEVARD, OAKLAND, CALIFORNIA

Sample ID	Date	Depth (fbg)	Acetone	t-Amyl methyl ether	Benzene	Bromobenzene	Bromochloromethane	Bromodichloromethane	Bromoform	Bromomethane	2-Butanone	t-Butyl alcohol	n-Butylbenzene	sec-Butylbenzene	tert-Butylbenzene	Carbon Disulfide	Carbon Tetrachloride	Chlorobenzene	Chloroethane	2-Chloroethyl Vinyl Ether	Chloroform	Chloromethane	2-Chlorotoluene	4-Chlorotoluene	1,2-Dibromo-3-chloropropane	Dibromochloromethane	1,2-Dibromomethane	Dibromomethane	1,2-Dichlorobenzene	
Concentrations in milligrams per kilogram (mg/kg)																														
B5	02/04/15	3	0.12	<0.0009	0.001 J	<0.0009	<0.0009	<0.0009	<0.0009	<0.002	0.02	<0.019	<0.0009	<0.0009	<0.0009	<0.0009	<0.0009	<0.0009	<0.002	<0.002	<0.0009	<0.002	<0.0009	<0.0009	<0.002	<0.0009	<0.0009	<0.0009	<0.0009	
B5	02/04/15	8	0.01 J	<0.001	<0.0005	<0.001	<0.001	<0.001	<0.001	<0.002	<0.004	<0.020	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.002	<0.002	<0.001	<0.002	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	
B5	02/04/15	10	<0.006	<0.0009	0.0008 J	<0.0009	<0.0009	<0.0009	<0.0009	<0.002	<0.004	<0.018	<0.0009	<0.0009	<0.0009	<0.0009	<0.0009	<0.0009	<0.002	<0.002	<0.0009	<0.002	<0.0009	<0.0009	<0.002	<0.0009	<0.0009	<0.0009	<0.0009	
B5	02/04/15	15	<0.35	<0.051	0.035 J	<0.051	<0.051	<0.051	<0.051	<0.10	<0.20	<1.0	1.2	0.47	0.49	<0.051	<0.051	<0.051	<0.10	<0.10	<0.051	<0.10	<0.051	<0.051	<0.10	<0.051	<0.051	<0.051	<0.051	
B5	02/04/15	20	<0.35	<0.050	<0.025	<0.050	<0.050	<0.050	<0.050	<0.099	<0.20	<0.99	0.80	0.27	0.34	<0.050	<0.050	<0.050	<0.099	<0.099	<0.050	<0.099	<0.050	<0.050	<0.099	<0.050	<0.050	<0.050	<0.050	
B5	02/04/15	25	0.19	<0.001	0.074	<0.001	<0.001	<0.001	<0.001	<0.002	0.054	0.23	0.018	0.007	0.004 J	<0.001	<0.001	<0.001	<0.002	<0.002	<0.001	<0.002	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	
B5	02/04/15	30	<0.37	<0.052	<0.026	<0.052	<0.052	<0.052	<0.052	<0.10	<0.21	<1.0	0.17	0.075 J	0.054 J	<0.052	<0.052	<0.052	<0.10	<0.10	<0.052	<0.10	<0.052	<0.052	<0.10	<0.052	<0.052	<0.052	<0.052	
Sample ID	Date	Depth (fbg)	1,3-Dichlorobenzene	1,4-Dichlorobenzene	Dichlorodifluoromethane	1,1-Dichloroethane	1,2-Dichloroethane	1,1-Dichloroethene	cis-1,2-Dichloroethene	trans-1,2-Dichloroethene	1,2-Dichloropropane	1,3-Dichloropropene	2,2-Dichloropropane	1,1-Dichloropropene	cis-1,3-Dichloropropene	trans-1,3-Dichloropropene	Ethanol	Ethyl tertiary butyl ether	Ethylbenzene	Freon 113	Hexachlorobutadiene	2-Hexanone	di-Isopropyl ether	Isopropylbenzene	p-Isopropyltoluene	Methyl Tertiary Butyl Eth	4-Methyl-2-pentanone	Methylene Chloride	Naphthalene	
Concentrations in milligrams per kilogram (mg/kg)																														
B5	02/04/15	3	<0.0009	<0.0009	<0.002	<0.0009	<0.0009	<0.0009	<0.0009	<0.0009	<0.0009	<0.0009	<0.0009	<0.0009	<0.0009	<0.0009	<0.094	<0.0009	<0.0009	<0.002	<0.002	<0.003	<0.0009	<0.0009	<0.0009	0.001 J	<0.003	0.003 J	<0.0009	
B5	02/04/15	8	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.10	<0.001	<0.001	<0.002	<0.002	<0.003	<0.001	<0.001	<0.001	<0.0005	<0.003	<0.002	<0.001	
B5	02/04/15	10	<0.0009	<0.0009	<0.002	<0.0009	<0.0009	<0.0009	<0.0009	<0.0009	<0.0009	<0.0009	<0.0009	<0.0009	<0.0009	<0.0009	<0.091	<0.0009	<0.0009	<0.002	<0.002	<0.003	<0.0009	<0.0009	<0.0009	0.002 J	<0.003	<0.002	<0.0009	
B5	02/04/15	15	<0.051	<0.051	<0.10	<0.051	<0.051	<0.051	<0.051	<0.051	<0.051	<0.051	<0.051	<0.051	<0.051	<0.051	<5.1	<0.051	13	<0.10	<0.10	<0.15	<0.051	1.1	0.24 J	<0.025	<0.15	<0.10	3.2	
B5	02/04/15	20	<0.050	<0.050	<0.099	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<5.0	<0.050	3.5	<0.099	<0.099	<0.15	<0.050	0.50	0.13 J	<0.025	<0.15	<0.099	1.4	
B5	02/04/15	25	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.10	<0.001	0.026	<0.002	<0.002	<0.003	<0.001	0.008	0.004 J	0.28	<0.003	<0.002	0.006	
B5	02/04/15	30	<0.052	<0.052	<0.10	<0.052	<0.052	<0.052	<0.052	<0.052	<0.052	<0.052	<0.052	<0.052	<0.052	<0.052	<5.2	<0.052	1.8	<0.10	<0.10	<0.16	<0.052	0.16 J	<0.052	0.055 J	<0.16	<0.10	0.20 J	
Sample ID	Date	Depth (fbg)	n-Propylbenzene	Styrene	1,1,1,2-Tetrachloroethane	1,1,1,2,2-Tetrachloroethane	Tetrachloroethene	Toluene	1,2,3-Trichlorobenzene	1,2,4-Trichlorobenzene	1,1,1-Trichloroethane	1,1,2-Trichloroethane	Trichloroethene	Trichlorofluoromethane	1,2,3-Trichloropropane	1,2,4-Trimethylbenzene	1,3,5-Trimethylbenzene	Vinyl Chloride	m+p-Xylene	o-Xylene										
Concentrations in milligrams per kilogram (mg/kg)																														
B5	02/04/15	3	<0.0009	<0.0009	<0.0009	<0.0009	<0.0009	<0.0009	<0.0009	<0.0009	<0.0009	<0.0009	<0.0009	<0.002	<0.0009	<0.0009	<0.0009	<0.0009	<0.0009	<0.0009	<0.0009	<0.0009	<0.0009	<0.001 J	<0.0009	<0.0009	<0.0009	<0.0009	<0.0009	
B5	02/04/15	8	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	
B5	02/04/15	10	<0.0009	<0.0009	<0.0009	<0.0009	<0.0009	<0.0009	<0.0009	<0.0009	<0.0009	<0.0009	<0.0009	<0.002	<0.0009	<0.0009	<0.0009	<0.0009	<0.0009	0.001 J	<0.0009	<0.0009	<0.0009	<0.0009	<0.0009	<0.0009	<0.0009	<0.0009	<0.0009	
B5	02/04/15	15	4.3	<0.051	<0.051	<0.051	<0.051	1.4	0.059 J	<0.051	<0.051	<0.051	<0.051	<0.10	<0.051	24	8.4	<0.051	41	14										
B5	02/04/15	20	2.3	<0.050	<0.050	<0.050	<0.050	0.067 J	<0.050	<0.050	<0.050	<0.050	<0.050	<0.099	<0.050	13	4.4	<0.050	11	2.8										
B5	02/04/15	25	0.028	<0.001	<0.001	<0.001	<0.001	0.002 J	<0.001	<0.001	<0.001	<0.001	<0.001	<0.002	<0.001	0.040	0.014	<0.001	0.033	0.012										
B5	02/04/15	30	0.68	<0.052	<0.052	<0.052	<0.052	0.18 J	<0.052	<0.052	<0.052	<0.052	<0.052	<0.10	<0.052	3.2	1.1	<0.052	6.3	1.8										

Notes:

All analytes were analyzed by EPA Method 8260 Full Scan.
<x = Not detected above method detection limit
a = Low-Threat Underground Storage Tank Case Closure Policy Criteria - California State Water Resources Control Board (SWRCB), August 2012, Low-Threat Underground Storage Tank Policy.

TABLE 3
SOIL ANALYTICAL DATA - SEMI-VOLATILE ORGANIC COMPOUNDS (SVOCs)
CHEVRON STATION 90076
4265 FOOTHILL BOULEVARD, OAKLAND, CALIFORNIA

Sample ID	Date	Depth (fbg)	Acenaphthene	Acenaphthylene	Anthracene	Benzo (a) anthracene	Benzo (a) pyrene *	Benzo (b) fluoranthene	Benzo (g,h,i) perylene	Benzo (k) fluoranthene	4-Bromophenyl-phenylether	Butylbenzylphthalate	Di-n-butylphthalate	Carbazole	4-Chloro-3-methylphenol	4-Chloroaniline	Bis (2-Chloroethoxy) metha	Bis (2-Chloroethyl) ether	2-Chloronaphthalene	2-Chlorophenol	4-Chlorophenyl-phenylethe	2,2'-oxybis (1-Chloropropan	Chrysene	Dibenz (a,h) anthracene	Dibenzofuran	1,2-Dichlorobenzene	1,3-Dichlorobenzene	1,4-Dichlorobenzene	3,3'-Dichlorophenol	2,4-Dichlorophenol	
Concentrations in milligrams per kilogram (mg/kg)																															
B5	02/04/15	3	0.005 J	0.010 J	0.017	0.056	0.078	0.078	0.073	0.050	<0.017	<0.066	<0.066	<0.017	<0.017	<0.017	<0.017	<0.017	<0.007	<0.017	<0.017	<0.017	<0.017	0.094	0.007 J	<0.017	<0.017	<0.017	<0.017	<0.099	<0.017
B5	02/04/15	8	<0.003	<0.003	<0.003	0.006 J	0.007 J	0.008 J	0.006 J	0.005 J	<0.017	<0.066	<0.066	<0.017	<0.017	<0.017	<0.017	<0.017	<0.007	<0.017	<0.017	<0.017	<0.007	<0.008 J	<0.003	<0.017	<0.017	<0.017	<0.017	<0.10	<0.017
B5	02/04/15	10	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.017	<0.066	<0.066	<0.017	<0.017	<0.017	<0.017	<0.017	<0.007	<0.017	<0.017	<0.017	<0.003	<0.003	<0.017	<0.017	<0.017	<0.017	<0.099	<0.017	
B5	02/04/15	15	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.017	<0.067	<0.067	<0.017	<0.017	<0.017	<0.017	<0.017	<0.007	<0.017	<0.017	<0.017	<0.003	<0.003	<0.017	<0.017	<0.017	<0.017	<0.10	<0.017	
B5	02/04/15	20	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.018	<0.073	<0.073	<0.018	<0.018	<0.018	<0.018	<0.018	<0.008	<0.018	<0.018	<0.018	<0.004	<0.004	<0.018	<0.018	<0.018	<0.018	<0.11	<0.018	
B5	02/04/15	25	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.017	<0.067	<0.067	<0.017	<0.017	<0.017	<0.017	<0.017	<0.007	<0.017	<0.017	<0.017	<0.003	<0.003	<0.017	<0.017	<0.017	<0.017	<0.10	<0.017	
B5	02/04/15	30	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.017	<0.067	<0.067	<0.017	<0.017	<0.017	<0.017	<0.017	<0.007	<0.017	<0.017	<0.017	<0.003	<0.003	<0.017	<0.017	<0.017	<0.017	<0.10	<0.017	
Sample ID	Date	Depth (fbg)	Diethyl phthalate	2,4-Dimethylphenol	Dimethylphthalate	4,6-Dinitro-2-methylphenol	2,4-Dinitrophenol	2,4-Dinitrotoluene	2,6-Dinitrotoluene	bis (2-Ethylhexyl) phthalate	Fluoranthene	Fluorene	Hexachlorobenzene	Hexachlorobutadiene	Hexachlorocyclopentadien	Hexachloroethane	Indeno (1,2,3-cd) pyrene	Isophorone	2-Methylnaphthalene	2-Methylphenol	4-Methylphenol	Naphthalene	2-Nitroaniline	3-Nitroaniline	4-Nitroaniline	Nitrobenzene	2-Nitrophenol	4-Nitrophenol	N-nitroso-di-n-propylamine		
Concentrations in milligrams per kilogram (mg/kg)																															
B5	02/04/15	3	<0.066	<0.017	<0.066	<0.17	<0.30	<0.066	<0.017	<0.066	0.15	0.006 J	<0.003	<0.017	<0.17	<0.033	0.053	<0.017	0.009 J	<0.017	<0.017	0.020	<0.017	<0.066	<0.066	<0.017	<0.017	<0.17	<0.017		
B5	02/04/15	8	<0.066	<0.017	<0.066	<0.17	<0.30	<0.066	<0.017	<0.066	0.013 J	<0.003	<0.003	<0.017	<0.17	<0.033	0.006 J	<0.017	<0.003	<0.017	<0.017	<0.003	<0.017	<0.066	<0.066	<0.017	<0.017	<0.17	<0.017		
B5	02/04/15	10	<0.066	<0.017	<0.066	<0.17	<0.30	<0.066	<0.017	<0.066	<0.003	<0.003	<0.003	<0.017	<0.17	<0.033	<0.003	<0.017	<0.003	<0.017	<0.017	<0.003	<0.017	<0.066	<0.066	<0.017	<0.017	<0.17	<0.017		
B5	02/04/15	15	<0.067	<0.017	<0.067	<0.17	<0.30	<0.067	<0.017	<0.067	<0.003	<0.003	<0.003	<0.017	<0.17	<0.033	<0.003	<0.017	0.18	<0.017	<0.017	0.19	<0.017	<0.067	<0.067	<0.017	<0.017	<0.17	<0.017		
B5	02/04/15	20	<0.073	<0.018	<0.073	<0.018	<0.33	<0.073	<0.018	<0.073	<0.004	<0.004	<0.004	<0.018	<0.18	<0.037	<0.004	<0.018	0.011 J	<0.018	<0.018	0.008 J	<0.018	<0.073	<0.073	<0.018	<0.018	<0.18	<0.018		
B5	02/04/15	25	<0.067	<0.017	<0.067	<0.17	<0.30	<0.067	<0.017	<0.067	<0.003	<0.003	<0.003	<0.017	<0.17	<0.033	<0.003	<0.017	0.009 J	<0.017	<0.017	0.006 J	<0.017	<0.067	<0.067	<0.017	<0.017	<0.17	<0.017		
B5	02/04/15	30	<0.067	0.068	<0.067	<0.17	<0.30	<0.067	<0.017	<0.067	<0.003	<0.003	<0.003	<0.017	<0.17	<0.033	<0.003	<0.017	0.075	<0.017	<0.017	0.085	<0.017	<0.067	<0.067	<0.017	<0.017	<0.17	<0.017		
Sample ID	Date	Depth (fbg)	N-Nitrosodiphenylamine	Di-n-octylphthalate	Pentachlorophenol	Phenanthrene	Phenol	Pyrene	1,2,4-Trichlorobenzene	2,4,5-Trichlorophenol	2,4,6-Trichlorophenol																				
Concentrations in milligrams per kilogram (mg/kg)																															
B5	02/04/15	3	<0.017	<0.066	<0.033	0.099	<0.017	0.16	<0.017	<0.017	<0.017																				
B5	02/04/15	8	<0.017	<0.066	<0.033	0.007 J	<0.017	0.015 J	<0.017	<0.017	<0.017																				
B5	02/04/15	10	<0.017	<0.066	<0.033	<0.003	0.91	<0.003	<0.017	<0.017	<0.017																				
B5	02/04/15	15	<0.017	<0.067	<0.033	0.004 J	0.81	0.003 J	<0.017	<0.017	<0.017																				
B5	02/04/15	20	<0.018	<0.073	<0.037	<0.004	1.1	<0.004	<0.018	<0.018	<0.018																				
B5	02/04/15	25	<0.017	<0.067	<0.033	<0.003	1.6	<0.003	<0.017	<0.017	<0.017																				
B5	02/04/15	30	<0.017	<0.067	<0.033	<0.003	2.0	0.004 J	<0.017	<0.017	<0.017																				

Notes:

All analytes were analyzed by EPA Method 8270 Full Scan.

<x = Not detected above method detection limit

* = According to the California State Water Resources Control Board (SWRCB), August 2012, Low-Hazard Underground Storage Tank Policy, Table 1

"Concentrations of Petroleum Constituents in Soil That Will Have No Significant Risk of Adversely Affecting Human Health" Benzo(a)pyrene maximum concentrations in soil are as follows:

Commercial Direct Contact (0-5 fbg): 0.68 mg/kg

Commercial Volatilization to Outdoor Air (5-10 fbg): NA

Utility Worker Direct Contact (0-10 fbg): 4.5 mg/kg

TABLE 4
CUMULATIVE SOIL VAPOR ANALYTICAL DATA
CHEVRON STATION 90076
4265 FOOTHILL BOULEVARD, OAKLAND, CALIFORNIA

Sample ID	Date	Probe Depth (fbg)	TPHg	Benzene	Toluene	Ethylbenzene	m,p-Xylenes	o-Xylenes	MTBE	Naphthalene	Naphthalene (TO-17)	Aliphatic Hydrocarbons				Aromatic Hydrocarbons		O ₂	Nitrate as Nitrogen	CO ₂	CH ₄	He
												C5 - C6	>C6 - C8	>C8 - C10	>C10 - C12	>C8 - C10	>C10 - C12					
												Concentrations are in micrograms per cubic meter (µg/m ³)										
LTC - Soil Gas Criteria No Bioattenuation Zone (02<4%) ^a		Residential	NE	85	NE	1,100	NE	NE	NE	93	93	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE
		Commercial	NE	280	NE	3,600	NE	NE	NE	310	310	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE
LTC - Soil Gas Criteria Bioattenuation Zone (02>4%) ^a		Residential	NE	85,000	NE	1,100,000	NE	NE	NE	93,000	93,000	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE
		Commercial	NE	280,000	NE	3,600,000	NE	NE	NE	310,000	310,000	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE
2016 Vapor Sampling																						
VP-5	2/24/16	5.50-5.75	86,000	54	<33	<38	<38	<38	1,800	<91	<5.0	30,000	69,000	2,200	<1,200	<860	<960	1.5	76	17	5.2	<0.13
VP-6	2/24/16	5.50-5.75	<570	<4.5	<5.3	<6.1	<6.1	<6.1	<5.0	<15	<5.0	<91	<110	<160	<200	<140	<150	13	81	6.20	<0.00028	<0.14
VP-6 DUP	2/24/16	5.50-5.75	<570	<4.4	<5.2	<6.0	<6.0	<6.0	<5.0	<14	<5.0	<90	<110	<160	<190	<140	<150	13	81	6.1	<0.00028	<0.14
2015 Vapor Sampling																						
VP-1	02/17/15	5.25-5.75	<470	<3.7	<4.4	<5.0	<5.0	<5.0	<4.2	<24	<4.2	<75	<65	<130	<160	<110	<130	10	83	7.2	<0.00023	<0.12
VP-2	02/17/15	5.25-5.75	Not Sampled Due to Water in the Tubing																			
VP-3	02/17/15	5.25-5.75	<490	<3.8	<4.5	<5.2	8.0	5.7	<4.3	<25	4.5	<78	<98	<140	<170	<120	<130	5.5	85	9.5	<0.00024	<0.12
VP-4	02/17/15	5.50-5.75	<470	<3.7	<4.4	<5.0	<5.0	<5.0	<4.2	<24	<4.2	<75	<95	<140	<160	<110	<130	4.3	88	7.4	<0.00023	<0.12
VP-5	02/17/15	5.50-5.75	23,000	220	130	16	41	17	1,500	<25	10	7,600	11,000	1,000	230	<120	<130	2.5	78	12	7.9	<0.12
VP-5 DUP	02/17/15	5.50-5.75	25,000	220	130	16	42	16	1,500	<24	—	7,600	11,000	940	170	<110	<130	2.4	77	12	8.0	0.22
VP-6	02/17/15	5.50-5.75	62,000	92	150	61	170	86	<20	<110	4.3	24,000	10,000	2,900	<760	<540	<600	6.1	94	0.10	0.0035	<0.11
2012 Vapor Sampling																						
VP-2	08/13/12	5.25-5.75	<3,400	<54	<63	<73	<73	<73	<60	<350	—	<1,100	6,600	<2,000	<2,300	<1,600	<1,800	1.9	82	15	0.77	<0.084
VP-3	08/13/12	5.25-5.75	<160	<2.5	<3.0	<3.4	<3.4	<3.4	<2.8	<16	—	<51	<65	<92	<110	<78	<87	3.1	84	13	0.00016	<0.079
VP-3 DUP	08/13/12	5.25-5.75	<160	<2.5	<3.0	<3.4	<3.4	<3.4	<2.8	<16	—	<51	<65	<92	<110	<78	<87	2.8	84	13	<0.00016	<0.079

Notes:

TPHg, Benzene, toluene, ethylbenzene, m,p-xylene, o-xylene, MTBE, and naphthalene by Modified EPA Method TO-15
Oxygen (O2), methane (CH4), and carbon dioxide (CO2) analyzed by ASTM D-1946M
Aliphatic Hydrocarbons (C5-C6 Pentane + Hexane; >C6-C8 Heptane; >C-8-C10 Decane; and >C10-C12 Dodecane) by Modified EPA Method TO-15 APH
Aromatic Hydrocarbons (>C8-C10 1,2,3-TMB and >C10-C12 1,2,4,5-TMB) by Modified EPA Method TO-15 APH
TPHg = Totally petroleum hydrocarbons as gasoline
MTBE = Methyl tertiary butyl ether
ESL = Environmental screening levels
<x = Not detected above method detection limit
fbg = Feet below grade
DUP = Field duplicate
bold = concentrations detected at or above Soil Gas ESLs
a = Table E-2 - Shallow Soil Gas Screening Levels for Evaluation of Potential Vapor Intrusion Concerns 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.
b = Field duplicate collected simultaneously with original sample
NE = Not established

TABLE 5
GROUNDWATER MONITORING AND SAMPLING DATA
CHEVRON SERVICE STATION 90076
4265 FOOTHILL BOULEVARD, OAKLAND, CALIFORNIA

Location	Date	TOC	DTW	GWE	LNAPL	LNAPL REMOVED	HYDROCARBONS	PRIMARY VOCs					ADDITIONAL VOCs	FIELD PARAMETERS				GENERAL CHEMISTRY			
							TPH-GRO	B	T	E	X	MTBE by SW8260	ETHANOL	Dissolved oxygen, prepurge	Dissolved oxygen, postpurge	Oxidation reduction potential, prepurge	Oxidation reduction potential, postpurge	Alkalinity, total (as CaCO ₃)	Ferrous iron	Nitrate (as N)	Sulfate
	Units	ft	ft	ft-amsl	ft	gallons	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	millivolts	millivolts	µg/L	µg/L	µg/L	µg/L
C-1	04/28/1989	35.42	20.05	15.37	0.00	0.00	940	30	1.3	11	13	-	-	-	-	-	-	-	-	-	-
C-1	08/08/1989	35.42	24.07	11.35	0.00	0.00	820	45	2.0	13	13	-	-	-	-	-	-	-	-	-	-
C-1	12/21/1989	35.42	22.81	12.61	0.00	0.00	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C-1	08/27/1990	35.42	22.12	13.30	0.00	0.00	440	15	1.0	6.0	13	-	-	-	-	-	-	-	-	-	-
C-1	11/04/1990	35.42	25.56	9.86	0.00	0.00	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C-1	06/18/1991	35.42	21.64	13.78	0.00	0.00	74	5.6	0.6	1.9	1.3	-	-	-	-	-	-	-	-	-	-
C-1	09/19/1991	35.42	24.58	10.84	0.00	0.00	150	7.1	<0.5	2.3	3.0	-	-	-	-	-	-	-	-	-	-
C-1	12/20/1991	35.42	26.17	9.25	0.00	0.00	250	10	<0.5	3.7	1.6	-	-	-	-	-	-	-	-	-	-
C-1	03/18/1992	35.42	18.25	17.17	0.00	0.00	190	16	<0.5	8.5	3	-	-	-	-	-	-	-	-	-	-
C-1	07/14/1992	35.42	27.61	7.81	0.00	0.00	20,000	480	2,200	510	2,900	-	-	-	-	-	-	-	-	-	-
C-1	10/08/1992	35.42	24.44	10.98	0.00	0.00	360	34	4.6	19	12	-	-	-	-	-	-	-	-	-	-
C-1	01/08/1993	35.42	19.68	15.74	0.00	0.00	120	9.1	0.5	5.1	1.8	-	-	-	-	-	-	-	-	-	-
C-1	04/14/1993	35.42	16.38	19.04	0.00	0.00	190	74	0.6	1.0	2.0	-	-	-	-	-	-	-	-	-	-
C-1	07/16/1993	35.42	-	-	0.00	0.00	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C-1	07/27/1993	35.42	9.39	26.03	0.00	0.00	300	12	<0.5	5.0	2.0	-	-	-	-	-	-	-	-	-	-
C-1	09/21/1993	38.41	21.42	16.99	0.00	0.00	380	12	1.2	5.8	3.7	-	-	-	-	-	-	-	-	-	-
C-1	01/28/1994	38.41	19.57	18.84	0.00	0.00	370	24	1.0	13	4.0	-	-	-	-	-	-	-	-	-	-
C-1	03/17/1994	38.41	16.85	21.56	0.00	0.00	460	42	<0.5	6.7	3.7	-	-	-	-	-	-	-	-	-	-
C-1	06/16/1994	38.41	17.83	20.58	0.00	0.00	320	20	0.7	8.7	3.0	-	-	-	-	-	-	-	-	-	-
C-1	09/22/1994	38.41	20.26	18.15	0.00	0.00	380	24	0.6	8.8	1.9	-	-	-	-	-	-	-	-	-	-
C-1	12/15/1994	38.41	15.82	22.59	0.00	0.00	280	23	7.6	7.8	13	-	-	-	-	-	-	-	-	-	-
C-1	03/30/1995	38.41	12.02	26.39	0.00	0.00	2,200	890	8.9	15	<5.0	-	-	-	-	-	-	-	-	-	-

TABLE 5
GROUNDWATER MONITORING AND SAMPLING DATA
CHEVRON SERVICE STATION 90076
4265 FOOTHILL BOULEVARD, OAKLAND, CALIFORNIA

Location	Date	TOC	DTW	GWE	LNAPLT	LNAPL REMOVED	HYDROCARBONS	PRIMARY VOCs				ADDITIONAL VOCs	FIELD PARAMETERS				GENERAL CHEMISTRY					
							TPH-GRO	B	T	E	X	MTBE by SW6260	ETHANOL	Dissolved oxygen, prepurge	Dissolved oxygen, postpurge	Oxidation reduction potential, prepurge	Oxidation reduction potential, postpurge	Alkalinity, total (as CaCO3)	Ferrous iron	Nitrate (as N)	Sulfate	
	Units	ft	ft	ft-amsl	ft	gallons	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	millivolts	millivolts	µg/L	µg/L	µg/L	µg/L
C-1	06/20/1995	38.41	14.40	24.01	0.00	0.00	690	140	<2.0	9.4	2.8	-	-	-	-	-	-	-	-	-	-	
C-1	09/20/1995	38.41	13.82	24.59	0.00	0.00	730	27	78	26	130	-	-	-	-	-	-	-	-	-	-	
C-1	12/06/1995	38.41	20.60	17.81	0.00	0.00	220	16	<0.5	7.2	1.7	11	-	-	-	-	-	-	-	-	-	
C-1	03/21/1996	38.41	11.65	26.76	0.00	0.00	640	170	<2.0	6.7	<2.0	35	-	-	-	-	-	-	-	-	-	
C-1	06/21/1996	38.41	14.25	24.16	0.00	0.00	640	140	<1.2	8.7	2.0	23	-	-	-	-	-	-	-	-	-	
C-1	09/06/1996	38.41	16.75	21.66	0.00	0.00	460	24	0.56	10	2.4	43	-	-	-	-	-	-	-	-	-	
C-1	12/19/1996	38.41	13.98	24.43	0.00	0.00	790	120	22	13	19	<25	-	-	-	-	-	-	-	-	-	
C-1	03/17/1997	38.41	12.78	25.63	0.00	0.00	2,200	660	<10	15	<10	110	-	-	-	-	-	-	-	-	-	
C-1	06/11/1997	38.41	15.16	23.25	0.00	0.00	1,500	130	<2.0	16	3.4	130	-	-	-	-	-	-	-	-	-	
C-1	09/17/1997	38.41	16.94	21.47	0.00	0.00	910	160	23	13	49	180	-	1.4	8.8	101	104	2.0	1.1	<1.0	12	
C-1	12/11/1997	38.41	13.18	25.23	0.00	0.00	2,000	270	7.0	53	7.4	460	-	-	-	-	-	-	-	-	-	
C-1	03/12/1998	38.41	9.49	28.92	0.00	0.00	3,100	1,300	<20	42	<20	760	-	1.7	3.6	171	171	550	3.0	<1.0	6.6	
C-1	06/23/1998	38.41	10.22	28.19	0.00	0.00	1,300	650	6.9	22	6.5	290	-	-	-	-	-	-	-	-	-	
C-1	09/01/1998	38.41	16.98	21.43	0.00	0.00	270	6.0	<2.5	<2.5	<2.5	950	-	-	-	-	-	-	-	-	-	
C-1	12/30/1998	38.41	16.12	22.29	0.00	0.00	2,020	578	<5.0	<5.0	<5.0	1,720	-	-	-	-	-	-	-	-	-	
C-1	03/31/1999	38.41	13.88	24.53	0.00	0.00	2,140	778	5.89	<5.0	5.15	1,170	-	6.5	1.8	99	89	382	2,520 ¹⁴	0.418	8.23	
C-1	06/14/1999 ¹	38.41	15.32	23.09	0.00	0.00	1,450	524	<5.0	<5.0	<5.0	1,360 ² /1,150	-	-	-	-	-	-	-	-	-	
C-1	09/30/1999	38.41	16.11	22.30	0.00	0.00	79	1.12	<0.5	1.07	<0.5	677	-	-	-	-	-	-	-	-	-	
C-1	12/22/1999	38.41	15.04	23.37	0.00	0.00	501	157	4.45	<2.5	4.81	744	-	0.95	2.0	-95	-128	568	0.19	<0.1	11	
C-1	03/09/2000	38.41	7.13	31.28	0.00	0.00	3,300	2,500	28	37	<25	1,700	-	1.8	2.4	-47	-38	520	0.84	0.54	15	
C-1	06/23/2000 ³	38.41	12.55	25.86	0.00	0.00	2,200 ⁴	1,000	6.9	5.7	9.3	1,900	-	-	-	-	-	-	-	-	-	
C-1	09/05/2000 ³	38.41	17.13	21.28	0.00	0.00	<200	8.3	<2.0	<2.0	<2.0	1,000	-	1.74	2.66	105	59	520	0.41	1.6	10	

TABLE 5
GROUNDWATER MONITORING AND SAMPLING DATA
CHEVRON SERVICE STATION 90076
4265 FOOTHILL BOULEVARD, OAKLAND, CALIFORNIA

Location	Date	TOC	DTW	GWE	LNAPL	LNAPL REMOVED	HYDROCARBONS	PRIMARY VOCs					ADDITIONAL VOCs	FIELD PARAMETERS				GENERAL CHEMISTRY			
							TPH-GRO	B	T	E	X	MTBE by SW8260	ETHANOL	Dissolved oxygen, prepurge	Dissolved oxygen, postpurge	Oxidation reduction potential, prepurge	Oxidation reduction potential, postpurge	Alkalinity, total (as CaCO ₃)	Ferrous iron	Nitrate (as N)	Sulfate
		Units	ft	ft	ft-amsl	ft	gallons	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	millivolts	millivolts	µg/L	µg/L	µg/L	µg/L
C-1	12/04/2000	38.41	16.93	21.48	0.00	0.00	1,400 ⁴	600	<5.0	<5.0	<5.0	1,500	-	-	-	-	-	-	-	-	-
C-1	03/08/2001 ³	38.41	7.96	30.45	0.00	0.00	2,570	1,040	7.93	12.0	<5.00	1,470	-	-	-	-	-	-	-	-	-
C-1	06/07/2001 ³	38.41	12.96	25.45	0.00	0.00	750 ⁴	220	5.6	4.8	2.6	2,500 ⁵	-	-	-	-	-	-	-	-	-
C-1	09/13/2001 ³	38.41	18.50	19.91	0.00	0.00	670 ⁶	<5.0	<5.0	<5.0	<5.0	660	-	-	-	-	-	-	-	-	-
C-1	12/13/2001 ³	38.41	15.39	23.02	0.00	0.00	1,100	340	2.1	0.95	7.9	630	-	-	-	-	-	-	-	-	-
C-1	03/08/2002 ³	38.41	10.06	28.35	0.00	0.00	3,600	1,400	9.5	17	6.5	1,900	-	-	-	-	-	-	-	-	-
C-1	06/19/2002 ³	38.41	13.49	24.92	0.00	0.00	1,300	220	3.4	2.7	<3.0	1,400	-	-	-	-	-	-	-	-	-
C-1	09/11/2002 ³	38.41	17.23	21.18	0.00	0.00	400	22	<0.50	<0.50	<1.5	780	-	-	-	-	-	-	-	-	-
C-1	12/11/2002 ³	38.41	18.60	19.81	0.00	0.00	180	4.2	<0.50	1.1	<1.5	350	-	-	-	-	-	-	-	-	-
C-1	03/11/2003 ³	38.41	12.60	25.81	0.00	0.00	3,500	1,100	9.1	12	8.0	1,600	-	-	-	-	-	-	-	-	-
C-1	06/10/2003 ^{3,7}	38.41	12.68	25.73	0.00	0.00	1,600	350	2	3	3	1,300	-	-	-	-	-	-	-	-	-
C-1	09/09/2003 ^{3,7}	38.41	16.75	21.66	0.00	0.00	290	4	<1	1	1	710	<100	-	-	-	-	-	-	-	-
C-1	12/09/2003 ^{7,8}	38.41	17.68	20.73	0.00	0.00	<50	<0.5	<0.5	<0.5	<0.5	200	<50	-	-	-	-	-	-	-	-
C-1	03/09/2004 ⁷	38.41	7.80	30.61	0.00	0.00	7,100	2,000	15	23	10	1,100	<50	-	-	-	-	-	-	-	-
C-1	06/08/2004 ⁷	38.41	11.12	27.29	0.00	0.00	2,300	840	6	5	4	1,100	<50	-	-	-	-	-	-	-	-
C-1	09/08/2004 ⁷	38.41	14.30	24.11	0.00	0.00	150	110	2	0.5	1	730	<50	-	-	-	-	-	-	-	-
C-1	12/06/2004 ⁷	38.41	13.26	25.15	0.00	0.00	2,100	480	4	2	2	530	<50	-	-	-	-	-	-	-	-
C-1	03/07/2005 ⁷	38.41	6.48	31.93	0.00	0.00	4,100	1,200	9	10	5	1,100	<100	-	-	-	-	-	-	-	-
C-1	06/06/2005 ⁷	38.41	8.85	29.56	0.00	0.00	3,400	990	8	9	5	1,100	<100	-	-	-	-	-	-	-	-
C-1	09/06/2005 ⁷	38.41	11.42	26.99	0.00	0.00	1,100	83	2	0.9	1	810	<50	-	-	-	-	-	-	-	-
C-1	12/05/2005 ⁷	38.41	10.98	27.43	0.00	0.00	<50	<0.5	<0.5	<0.5	<0.5	78	<50	-	-	-	-	-	-	-	-
C-1	03/06/2006 ⁷	38.41	7.77	30.64	0.00	0.00	3,700	880	10	8	7	1,300	<50	-	-	-	-	-	-	-	-

TABLE 5
GROUNDWATER MONITORING AND SAMPLING DATA
CHEVRON SERVICE STATION 90076
4265 FOOTHILL BOULEVARD, OAKLAND, CALIFORNIA

Location	Date	TOC	DTW	GWE	LNAPLT	LNAPL REMOVED	HYDROCARBONS	PRIMARY VOCs					ADDITIONAL VOCs	FIELD PARAMETERS				GENERAL CHEMISTRY			
							TPH-GRO	B	T	E	X	MTBE by SW8260	ETHANOL	Dissolved oxygen, prepurge	Dissolved oxygen, postpurge	Oxidation reduction potential, prepurge	Oxidation reduction potential, postpurge	Alkalinity, total (as CaCO3)	Ferrous iron	Nitrate (as N)	Sulfate
Units	ft	ft	ft-amsl	ft	gallons	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	millivolts	millivolts	µg/L	µg/L	µg/L	µg/L
C-1	06/05/2006 ^T	38.41	8.90	29.51	0.00	0.00	380	7	<0.5	<0.5	<0.5	960	<50	-	-	-	-	-	-	-	-
C-1	09/05/2006 ^T	38.41	11.09	27.32	0.00	0.00	260	<0.5	<0.5	<0.5	<0.5	390	<50	-	-	-	-	-	-	-	-
C-1	12/04/2006 ^T	38.41	10.92	27.49	0.00	0.00	270	20	<0.5	<0.5	<0.5	250	<50	-	-	-	-	-	-	-	-
C-1	03/05/2007 ^T	38.41	9.78	28.63	0.00	0.00	2,000	370	5	2	2	820	<50	-	-	-	-	-	-	-	-
C-1	06/04/2007 ^T	38.41	9.40	29.01	0.00	0.00	180	<0.5	<0.5	<0.5	<0.5	320	<50	-	-	-	-	-	-	-	-
C-1	09/07/2007 ^T	38.41	10.55	27.86	0.00	0.00	120	<0.5	<0.5	<0.5	<0.5	72	<50	-	-	-	-	-	-	-	-
C-1	12/06/2007 ^T	38.41	12.15	26.26	0.00	0.00	170	<0.5	<0.5	<0.5	<0.5	58	<50	-	-	-	-	-	-	-	-
C-1	03/06/2008 ^T	38.41	8.28	30.13	0.00	0.00	3,400	790	8	4	4	610	<50	-	-	-	-	-	-	-	-
C-1	06/05/2008 ^T	38.41	10.11	28.30	0.00	0.00	210	<0.5	<0.5	<0.5	<0.5	290	<50	-	-	-	-	-	-	-	-
C-1	09/03/2008 ^T	38.41	12.90	25.51	0.00	0.00	130	<0.5	<0.5	<0.5	<0.5	110	<50	-	-	-	-	-	-	-	-
C-1	12/03/2008 ^T	38.41	13.85	24.56	0.00	0.00	70	<0.5	<0.5	<0.5	<0.5	29	<50	-	-	-	-	-	-	-	-
C-1	03/04/2009	38.41	7.65	30.76	0.00	0.00	1,400	200	3	0.90	2	240	<50	-	-	-	-	-	-	-	-
C-1	06/09/2009 ^T	38.41	10.52	27.81	0.00	0.00	280	2	<0.5	<0.5	<0.5	230	<50	-	-	-	-	-	-	-	-
C-1	09/30/2009 ^T	38.41	13.84	24.57	0.00	0.00	<50	<0.5	<0.5	<0.5	<0.5	78	<50	-	-	-	-	-	-	-	-
C-1	03/22/2010 ^T	38.41	8.34	30.07	0.00	0.00	1,000	290	4	2	2	99	<50	-	-	-	-	-	-	-	-
C-1	09/16/2010	38.41	12.70	25.71	0.00	0.00	170	<0.5	<0.5	<0.5	<0.5	20	<50	-	-	-	-	-	-	-	-
C-1	03/08/2011	38.41	8.00	30.41	0.00	0.00	2,000	280	5	2	3	74	<50	-	-	-	-	-	-	-	-
C-1	09/28/2011	38.41	12.13	26.28	0.00	0.00	52 J	<0.5	<0.5	<0.5	<0.5	6	<50	-	-	-	-	-	-	-	-
C-1	03/08/2012	38.41	13.02	25.39	0.00	0.00	<50	<0.5	<0.5	<0.5	<0.5	62	<50	-	-	-	-	-	-	-	-
C-1	09/20/2012	38.41	13.12	25.29	0.00	0.00	<50	<0.5	<0.5	<0.5	<0.5	2	<50	-	-	-	-	-	-	-	-
C-1	03/20/2013	38.41	9.74	28.67	0.00	0.00	210	18	0.6 J	<0.5	<0.5	37	<50	-	-	-	-	-	-	-	-
C-1	09/18/2013	38.41	12.50	25.91	0.00	0.00	<50	<0.5	<0.5	<0.5	<0.5	4	<50	-	-	-	-	-	-	-	-

TABLE 5
GROUNDWATER MONITORING AND SAMPLING DATA
CHEVRON SERVICE STATION 90076
4265 FOOTHILL BOULEVARD, OAKLAND, CALIFORNIA

Location	Date	TOC	DTW	GWE	LNAPLT	LNAPL REMOVED	HYDROCARBONS	PRIMARY VOCS					ADDITIONAL VOCS	FIELD PARAMETERS				GENERAL CHEMISTRY			
							TPH-GRO	B	T	E	X	MTBE by SW8260	ETHANOL	Dissolved oxygen, prepurge	Dissolved oxygen, postpurge	Oxidation reduction potential, prepurge	Oxidation reduction potential, postpurge	Alkalinity, total (as CaCO ₃)	Ferrous iron	Nitrate (as N)	Sulfate
	Units	ft	ft	ft-amsl	ft	gallons	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	millivolts	millivolts	µg/L	µg/L	µg/L	µg/L
C-1	03/13/2014	38.41	12.13	26.28	0.00	0.00	<50	<0.5	<0.5	<0.5	<0.5	12	<50	-	-	-	-	-	-	-	-
C-1	09/25/2014	38.41	14.17	24.24	0.00	0.00	430	<0.5	<0.5	<0.5	<0.5	9	<50	-	-	-	-	-	-	-	-
C-1	03/10/2015	40.69	13.29	27.40	0.00	0.00	650	28	0.6 J	<0.5	<0.5	27	<50	-	-	-	-	-	-	-	-
C-1	06/19/2015	40.69	12.28	28.41	0.00	0.00	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C-1	09/15/2015	40.69	16.70	23.99	0.00	0.00	<50	<0.5	<0.5	<0.5	<0.5	13	<50	-	-	-	-	-	-	-	-
C-1	12/22/2015 ¹⁵	40.69	15.67	25.02	0.00	0.00	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C-1	03/08/2016	40.69	9.92	30.77	0.00	0.00	1,300	180	4	1	2	29	<50	-	-	-	-	-	-	-	-
C-2	04/28/1989	35.18	26.44	8.74	0.00	0.00	120,000	30,000	22,000	3,000	17,000	-	-	-	-	-	-	-	-	-	-
C-2	08/08/1989	35.18	29.90	5.29	0.01	0.00	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C-2	12/21/1989	35.18	29.32	5.86	0.00	0.00	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C-2	08/27/1990	35.18	29.55	5.77	0.17	0.00	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C-2	11/04/1990	35.18	30.47	4.71	0.00	0.00	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C-2	06/18/1991	35.18	28.33	6.90	0.06	0.00	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C-2	09/19/1991	35.18	29.39	5.84	0.06	0.00	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C-2	12/20/1991	35.18	29.23	5.95	0.00	0.00	170,000	20,000	10,000	2,800	19,000	-	-	-	-	-	-	-	-	-	-
C-2	03/18/1992	35.18	13.60	21.58	0.09	0.00	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C-2	07/14/1992	35.18	-	-	0.00	0.00	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C-2	10/08/1992	35.18	-	-	0.00	0.00	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C-2	01/08/1993	35.18	24.20	10.98	Sheen	0.00	79,000	14,000	7,200	3,500	16,000	-	-	-	-	-	-	-	-	-	-
C-2	04/14/1993	35.18	-	-	0.00	0.00	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C-2	07/16/1993	35.18	30.15	5.03	0.00	0.00	2,200	440	73	24	350	-	-	-	-	-	-	-	-	-	-

TABLE 5
GROUNDWATER MONITORING AND SAMPLING DATA
CHEVRON SERVICE STATION 90076
4265 FOOTHILL BOULEVARD, OAKLAND, CALIFORNIA

Location	Date	TOC	DTW	GWE	LNAPLT	LNAPL REMOVED	HYDROCARBONS	PRIMARY VOCs					ADDITIONAL VOCs	FIELD PARAMETERS				GENERAL CHEMISTRY			
							TPH-GRO	B	T	E	X	MTBE by SW8260	ETHANOL	Dissolved oxygen, prepurge	Dissolved oxygen, postpurge	Oxidation reduction potential, prepurge	Oxidation reduction potential, postpurge	Alkalinity, total (as CaCO3)	Ferrous iron	Nitrate (as N)	Sulfate
	Units	ft	ft	ft-amsl	ft	gallons	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	millivolts	millivolts	µg/L	µg/L	µg/L	µg/L
C-2	09/21/1993	37.47	26.29	11.18	0.00	0.00	11,000	2,300	300	270	910	-	-	-	-	-	-	-	-	-	-
C-2	01/28/1994	37.47	23.96	13.51	0.00	0.00	49,000	11,000	3,900	1,600	12,000	-	-	-	-	-	-	-	-	-	-
C-2	03/17/1994	37.47	25.99	11.48	0.00	0.00	16,000	3,300	1,000	220	3,500	-	-	-	-	-	-	-	-	-	-
C-2	06/16/1994	37.47	23.92	13.55	0.00	0.00	20,000	4,800	1,500	520	4,300	-	-	-	-	-	-	-	-	-	-
C-2	09/22/1994	37.47	25.62	11.85	0.00	0.00	35,000	5,600	850	1,700	7,300	-	-	-	-	-	-	-	-	-	-
C-2	12/15/1994	37.47	21.16	16.31	0.00	0.00	96,000	9,000	3,500	3,300	13,000	-	-	-	-	-	-	-	-	-	-
C-2	03/30/1995	37.47	17.18	20.29	0.00	0.00	100,000	9,400	3,700	3,900	14,000	-	-	-	-	-	-	-	-	-	-
C-2	06/20/1995	37.47	18.95	18.52	0.00	0.00	93,000	6,400	1,900	2,900	11,000	-	-	-	-	-	-	-	-	-	-
C-2	09/20/1995	37.47	18.20	19.27	0.00	0.00	58,000	6,600	330	1,600	5,500	-	-	-	-	-	-	-	-	-	-
C-2	12/06/1995	37.47	24.76	12.71	0.00	0.00	40,000	5,000	86	1,800	3,700	<500	-	-	-	-	-	-	-	-	-
C-2	03/21/1996	37.47	16.17	21.30	0.00	0.13	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C-2	06/21/1996	37.47	18.15	19.34	0.02	0.03	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C-2	09/06/1996	37.47	21.14	16.36	0.04	0.08	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C-2	12/19/1996	37.47	17.55	19.94	0.03	0.05	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C-2	03/17/1997	37.47	18.59	18.88	0.00	0.00	58,000	4,800	1,200	1,800	6,300	3,400	-	-	-	-	-	-	-	-	-
C-2	06/11/1997	37.47	21.30	16.17	0.00	0.00	40,000	5,500	720	1,400	4,100	3,100	-	-	-	-	-	-	-	-	-
C-2	09/17/1997	37.47	23.14	14.33	0.00	0.00	30,000	4,800	220	1,200	1,800	3,200	-	1.3	-	150	-	560	4.7	<1.0	<1.0
C-2	12/11/1997	37.47	17.21	20.26	0.00	0.00	76,000	6,100	1,300	2,200	8,000	3,800	-	-	-	-	-	-	-	-	-
C-2	03/12/1998	37.47	14.17	23.30	0.00	0.00	45,000	6,000	1,400	1,800	5,900	2,700	-	1.1	1.1	176	174	420	3.5	<1.0	<1.0
C-2	06/23/1998 ³	37.47	14.82	22.65	0.00	0.00	1,100,000	6,800	5,100	13,000	38,000	<1,000	-	-	-	-	-	-	-	-	-
C-2	09/01/1998	37.47	21.78	15.69	0.00	0.00	9,700	300	8.2	6.2	250	3,700	-	-	-	-	-	-	-	-	-
C-2	12/30/1998	37.47	21.86	15.61	0.00	0.00	110,000	4,790	1,300	841	5,570	2,420	-	-	-	-	-	-	-	-	-

TABLE 5
GROUNDWATER MONITORING AND SAMPLING DATA
CHEVRON SERVICE STATION 90076
4265 FOOTHILL BOULEVARD, OAKLAND, CALIFORNIA

Location	Date	TOC	DTW	GWE	LNAPL ¹	LNAPL REMOVED	HYDROCARBONS	PRIMARY VOCs					ADDITIONAL VOCs	FIELD PARAMETERS				GENERAL CHEMISTRY			
							TPH-GRO	B	T	E	X	MTBE by SW8260	ETHANOL	Dissolved oxygen, prepurge	Dissolved oxygen, postpurge	Oxidation reduction potential, prepurge	Oxidation reduction potential, postpurge	Alkalinity, total (as CaCO ₃)	Ferrous iron	Nitrate (as N)	Sulfate
	Units	ft	ft	ft-amsl	ft	gallons	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	millivolts	millivolts	µg/L	µg/L	µg/L	µg/L
C-2	03/31/1999	37.47	16.90	20.57	0.00	0.00	48,000	4,800	1,110	1,520	5,450	2,160	-	1.5	1.6	151	157	456	2,100 ¹⁴	0.118	19.7
C-2	06/14/1999 ¹	37.47	20.15	17.32	Sheen	0.00	56,400	5,380	671	1,300	3,960	2,480/2,630 ²	-	-	-	-	-	-	-	-	-
C-2	09/30/1999	37.47	22.97	14.50	0.00	0.00	22,100	623	<100	529	1,250	2,430	-	-	-	-	-	-	-	-	-
C-2	12/22/1999	37.47	21.00	16.47	0.00	0.00	10,200	1,750	102	222	963	1,980	-	0.6	0.65	-90	-84	782	1.0	5.34	5.38
C-2	03/09/2000	37.47	12.20	25.27	0.00	0.00	26,000	4,800	930	1,200	4,400	1,800	-	1.0	1.6	-68	-70	450	0.31	<0.1	0.39
C-2	06/23/2000 ³	37.47	18.94	18.53	0.00	0.00	29,000 ⁴	3,400	360	440	2,500	2,800	-	-	-	-	-	-	-	-	-
C-2	09/05/2000 ³	37.47	20.46	17.01	0.00	0.00	35,000 ⁴	3,800	54	980	750	5,200	-	1.31	1.85	65	44	690	0.34	<1.0	<1.0
C-2	12/04/2000	37.47	20.93	16.54	0.00	0.00	16,000 ⁴	2,500	120	360	1,100	2,100	-	-	-	-	-	-	-	-	-
C-2	03/08/2001 ³	37.47	16.94	20.53	0.00	0.00	42,300	3,930	828	2,010	5,180	1,660	-	-	-	-	-	-	-	-	-
C-2	06/07/2001 ³	37.47	19.34	18.13	0.00	0.00	15,000 ⁴	3,400	150	700	1,300	1,900	-	-	-	-	-	-	-	-	-
C-2	09/13/2001 ³	37.47	22.19	15.28	0.00	0.00	9,600	1,200	<50	120	160	2,200	-	-	-	-	-	-	-	-	-
C-2	12/13/2001 ³	37.47	17.60	19.87	0.00	0.00	33,000	3,200	430	1,300	3,700	1,400	-	-	-	-	-	-	-	-	-
C-2	03/08/2002 ³	37.47	14.29	23.18	0.00	0.00	26,000	2,900	390	1,200	2,800	1,100	-	-	-	-	-	-	-	-	-
C-2	06/19/2002 ³	37.47	19.11	18.36	0.00	0.00	19,000	3,000	100	720	1,100	1,400	-	-	-	-	-	-	-	-	-
C-2	09/11/2002 ³	37.47	20.68	16.79	0.00	0.00	10,000	1,400	23	120	78	1,800	-	-	-	-	-	-	-	-	-
C-2	12/11/2002 ³	37.47	22.11	15.36	0.00	0.00	8,700	1,300	24	100	250	1,900	-	-	-	-	-	-	-	-	-
C-2	03/11/2003 ³	37.47	14.61	22.86	0.00	0.00	23,000	2,000	280	1,100	2,100	990	-	-	-	-	-	-	-	-	-
C-2	06/10/2003 ^{3,7}	37.47	17.11	20.36	0.00	0.00	14,000	1,300	91	450	720	480	-	-	-	-	-	-	-	-	-
C-2	09/09/2003 ^{3,7}	37.47	21.14	16.33	0.00	0.00	6,800	1,100	9	83	47	1,300	<200	-	-	-	-	-	-	-	-
C-2	12/09/2003 ⁷	37.47	19.20	18.27	0.00	0.00	22,000	1,100	120	570	1,000	460	<250	-	-	-	-	-	-	-	-
C-2	03/09/2004 ⁷	37.47	11.82	25.65	0.00	0.00	24,000	1,800	420	820	2,100	480	<250	-	-	-	-	-	-	-	-
C-2	06/08/2004 ⁷	37.47	16.42	21.05	0.00	0.00	1,200	180	5	1	10	170	<50	-	-	-	-	-	-	-	-

TABLE 5
GROUNDWATER MONITORING AND SAMPLING DATA
CHEVRON SERVICE STATION 90076
4265 FOOTHILL BOULEVARD, OAKLAND, CALIFORNIA

Location	Date	TOC	DTW	GWE	LNAPLT	LNAPL REMOVED	HYDROCARBONS	PRIMARY VOCs					ADDITIONAL VOCs	FIELD PARAMETERS				GENERAL CHEMISTRY				
							TPH-GRO	B	T	E	X	MTBE by SW8260	ETHANOL	Dissolved oxygen, prepurge	Dissolved oxygen, postpurge	Oxidation reduction potential, prepurge	Oxidation reduction potential, postpurge	Alkalinity, total (as CaCO3)	Ferrous iron	Nitrate (as N)	Sulfate	
	Units	ft	ft	ft-amsl	ft	gallons	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	millivolts	millivolts	µg/L	µg/L	µg/L	µg/L
C-2	09/08/2004 ⁷	37.47	13.16	24.32 ⁷	0.01	0.00	16,000	340	13	290	200	170	<250	-	-	-	-	-	-	-	-	
C-2	12/06/2004 ⁷	37.47	14.12	23.36 ⁷	0.01	0.00	13,000	730	130	340	570	280	<100	-	-	-	-	-	-	-	-	
C-2	03/07/2005 ⁷	37.47	10.57	26.91 ⁷	0.01	0.00	18,000	2,200	470	770	2,000	420	<250	-	-	-	-	-	-	-	-	
C-2	06/06/2005 ⁷	37.47	12.69	24.76	0.00	0.00	9,800	940	79	300	490	200	<100	-	-	-	-	-	-	-	-	
C-2	09/06/2005 ⁷	37.47	14.78	22.69	0.00	0.00	9,300	380	8	89	76	170	<100	-	-	-	-	-	-	-	-	
C-2	12/05/2005 ⁷	37.47	14.22	23.25	0.00	0.00	8,300	190	8	68	67	56	<50	-	-	-	-	-	-	-	-	
C-2	03/06/2006 ⁷	37.47	9.74	27.73	0.00	0.00	1,900	41	5	13	43	6	<50	-	-	-	-	-	-	-	-	
C-2	06/05/2006 ⁷	37.47	9.75	27.72	0.00	0.00	8,800	680	99	200	460	170	<50	-	-	-	-	-	-	-	-	
C-2	09/05/2006 ⁷	37.47	11.96	25.51	0.00	0.00	8,200	1,200	24	170	65	65	<100	-	-	-	-	-	-	-	-	
C-2	12/04/2006 ⁷	37.47	12.43	25.04	0.00	0.00	9,500	1,800	38	140	94	94	<100	-	-	-	-	-	-	-	-	
C-2	03/05/2007 ⁷	37.47	10.61	26.86	0.00	0.00	15,000 ¹¹	1,900 ¹¹	300 ¹¹	570 ¹¹	1,300 ¹¹	250 ¹¹	<250 ¹¹	-	-	-	-	-	-	-	-	
C-2	06/04/2007 ⁷	37.47	10.34	27.13	0.00	0.00	6,200	410	16	76	100	110	<50	-	-	-	-	-	-	-	-	
C-2	09/07/2007 ⁷	37.47	11.65	25.82	0.00	0.00	6,400	240	6	71	82	67	<50	-	-	-	-	-	-	-	-	
C-2	12/06/2007 ⁷	37.47	18.40	19.07	0.00	0.00	7,300	200	12	47	79	56	<50	-	-	-	-	-	-	-	-	
C-2	03/06/2008 ⁷	37.47	9.47	28.00	0.00	0.00	18,000	2,400	340	850	1,600	260	<100	-	-	-	-	-	-	-	-	
C-2	06/05/2008 ⁷	37.47	11.07	26.40	0.00	0.00	5,800	530	18	47	80	100	<250	-	-	-	-	-	-	-	-	
C-2	09/03/2008 ⁷	37.47	13.20	24.27	0.00	0.00	5,600	340	10	81	48	63	<50	-	-	-	-	-	-	-	-	
C-2	12/03/2008 ⁷	37.47	14.61	22.86	0.00	0.00	9,600	1,100	58	250	210	220	<130	-	-	-	-	-	-	-	-	
C-2	03/04/2009	37.47	11.69	25.78	0.00	0.00	9,200	640	94	250	670	73	<130	-	-	-	-	-	-	-	-	
C-2	06/09/2009 ⁷	37.47	11.27	20.20	0.00	0.00	9,100	590	20	77	45	110	<50	-	-	-	-	-	-	-	-	
C-2	09/30/2009 ⁷	37.47	16.54	20.93	0.00	0.00	7,800	290	9	11	24	200	<50	-	-	-	-	-	-	-	-	
C-2	03/22/2010 ⁷	37.47	9.63	27.84	0.00	0.00	14,000	890	120	460	750	120	<130	-	-	-	-	-	-	-	-	

TABLE 5
GROUNDWATER MONITORING AND SAMPLING DATA
CHEVRON SERVICE STATION 90076
4265 FOOTHILL BOULEVARD, OAKLAND, CALIFORNIA

Location	Date	TOC	DTW	GWE	LNAPLT	LNAPL REMOVED	HYDROCARBONS	PRIMARY VOCs				MTBE by SW8260	ADDITIONAL VOCs	FIELD PARAMETERS				GENERAL CHEMISTRY			
							TPH-GRO	B	T	E	X		ETHANOL	Dissolved oxygen, prepurge	Dissolved oxygen, postpurge	Oxidation reduction potential, prepurge	Oxidation reduction potential, postpurge	Alkalinity, total (as CaCO ₃)	Ferrous iron	Nitrate (as N)	Sulfate
		Units	ft	ft	ft-amsl	ft	gallons	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	millivolts	millivolts	µg/L	µg/L	µg/L	µg/L
C-2	09/16/2010	37.47	12.90	24.57	0.00	0.00	7,400	170	8	52	35	29	<50	-	-	-	-	-	-	-	-
C-2	03/03/2011	37.47	8.12	29.35	0.00	0.00	6,600	830	58	280	330	75	<100	-	-	-	-	-	-	-	-
C-2	09/28/2011	37.47	14.86	22.61	0.00	0.00	7,200	320	10	83	52	50	<250	-	-	-	-	-	-	-	-
C-2	03/08/2012	37.47	12.22	25.25	0.00	0.00	7,300	570	44	180	260	40	<500	-	-	-	-	-	-	-	-
C-2	09/20/2012	37.47	13.06	24.41	0.00	0.00	6,800	260	6	36	170	69	<50	-	-	-	-	-	-	-	-
C-2	03/20/2013	37.47	12.71	24.76	0.00	0.00	8,100	500	17	61	63	48	<130	-	-	-	-	-	-	-	-
C-2	09/18/2013	37.47	14.90	22.57	0.00	0.00	15,000	230	13	150	290	42	<50	-	-	-	-	-	-	-	-
C-2	03/13/2014	37.47	12.45	25.02	0.00	0.00	13,000	640	41	230	180	45	<50	-	-	-	-	-	-	-	-
C-2	09/25/2014	37.47	17.95	19.52	0.00	0.00	4,800	69	2	3	17	47	<50	-	-	-	-	-	-	-	-
C-2	03/10/2015	40.05	17.04	23.01	0.00	0.00	14,000	480	22	120	120	40	<500	-	-	-	-	-	-	-	-
C-2	06/19/2015	40.05	16.83	23.22	0.00	0.00	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C-2	09/15/2015	40.05	17.69	22.36	0.00	0.00	6,100	75	<3	<3	5	30	<250	-	-	-	-	-	-	-	-
C-2	12/22/2015	40.05	15.00	25.05	0.00	0.00	7,700	270	10	67	32	24	<250	-	-	-	-	-	-	-	-
C-2	03/08/2016	40.05	11.91	28.14	0.00	0.00	9,700	540	27	140	140	37	<250	-	-	-	-	-	-	-	-
C-3	04/28/1989	35.28	28.00	7.28	0.00	0.00	<500	1.7	<0.5	<0.5	<0.5	-	-	-	-	-	-	-	-	-	-
C-3	08/08/1989	35.28	30.00	5.28	0.00	0.00	<500	1.0	<0.5	<0.5	<0.5	-	-	-	-	-	-	-	-	-	-
C-3	12/21/1989	35.28	30.53	4.75	0.00	0.00	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C-3	08/27/1990	35.28	29.68	5.60	0.00	0.00	<50	<0.3	<0.3	<0.3	<0.6	-	-	-	-	-	-	-	-	-	-
C-3	11/04/1990	35.30	30.36	4.94	0.00	0.00	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C-3	06/18/1991	35.30	28.46	6.84	0.00	0.00	52	1.1	<0.5	<0.5	1.2	-	-	-	-	-	-	-	-	-	-
C-3	09/19/1991	35.30	29.33	5.97	0.00	0.00	73	1.2	<0.5	<0.5	<0.5	-	-	-	-	-	-	-	-	-	-
C-3	12/20/1991	35.30	29.77	5.53	0.00	0.00	<50	0.7	<0.5	<0.5	<0.5	-	-	-	-	-	-	-	-	-	-

TABLE 5
GROUNDWATER MONITORING AND SAMPLING DATA
CHEVRON SERVICE STATION 90076
4265 FOOTHILL BOULEVARD, OAKLAND, CALIFORNIA

Location	Date	TOC	DTW	GWE	LNAPLT	LNAPL REMOVED	HYDROCARBONS	PRIMARY VOCs					ADDITIONAL VOCs	FIELD PARAMETERS				GENERAL CHEMISTRY			
							TPH-GRO	B	T	E	X	MTBE by SW8260	ETHANOL	Dissolved oxygen, prepurge	Dissolved oxygen, postpurge	Oxidation reduction potential, prepurge	Oxidation reduction potential, postpurge	Alkalinity, total (as CaCO ₃)	Ferrous iron	Nitrate (as N)	Sulfate
	Units	ft	ft	ft-amsl	ft	gallons	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	millivolts	millivolts	µg/L	µg/L	µg/L	µg/L
C-3	03/18/1992	35.30	25.75	9.55	0.00	0.00	<50	<0.5	<0.5	<0.5	<0.5	-	-	-	-	-	-	-	-	-	-
C-3	07/14/1992	35.30	27.87	7.43	0.00	0.00	<50	<0.5	<0.5	<0.5	<0.5	-	-	-	-	-	-	-	-	-	-
C-3	10/08/1992	35.30	28.55	6.75	0.00	0.00	<50	<0.5	<0.5	<0.5	0.5	-	-	-	-	-	-	-	-	-	-
C-3	01/08/1993	35.30	25.85	9.45	0.00	0.00	<50	<0.5	<0.5	<0.5	<0.5	-	-	-	-	-	-	-	-	-	-
C-3	04/14/1993	35.30	23.96	11.34	0.00	0.00	<50	<0.5	<0.5	<0.5	<0.5	-	-	-	-	-	-	-	-	-	-
C-3	07/16/1993	35.30	25.64	9.66	0.00	0.00	<50	<0.5	<0.5	<0.5	<0.5	-	-	-	-	-	-	-	-	-	-
C-3	09/21/1993	38.37	26.22	12.15	0.00	0.00	<50	0.7	<0.5	<0.5	<0.8	-	-	-	-	-	-	-	-	-	-
C-3	01/28/1994	38.37	25.66	12.71	0.00	0.00	<50	2.0	<0.5	<0.5	1.0	-	-	-	-	-	-	-	-	-	-
C-3	03/17/1994	38.37	24.95	13.42	0.00	0.00	<50	2.8	<0.5	0.6	1.5	-	-	-	-	-	-	-	-	-	-
C-3	06/16/1994	38.37	24.31	14.06	0.00	0.00	<50	1.4	<0.5	<0.5	<0.5	-	-	-	-	-	-	-	-	-	-
C-3	09/22/1994	38.37	25.04	13.33	0.00	0.00	<50	0.6	<0.5	<0.5	<0.5	-	-	-	-	-	-	-	-	-	-
C-3	12/15/1994	38.37	22.22	16.15	0.00	0.00	<50	2.6	1.7	0.82	4.5	-	-	-	-	-	-	-	-	-	-
C-3	03/30/1995	38.37	18.42	19.95	0.00	0.00	<50	<0.5	<0.5	<0.5	<0.5	-	-	-	-	-	-	-	-	-	-
C-3	06/20/1995	38.37	19.79	18.58	0.00	0.00	110	2.2	<0.5	<0.5	1.2	-	-	-	-	-	-	-	-	-	-
C-3	09/20/1995	38.37	18.95	19.42	0.00	0.00	560	21	80	23	120	-	-	-	-	-	-	-	-	-	-
C-3	12/06/1995	38.37	24.16	14.21	0.00	0.00	<50	0.73	<0.5	<0.5	0.67	<2.5	-	-	-	-	-	-	-	-	-
C-3	03/21/1996	38.37	17.85	20.52	0.00	0.00	<50	<0.5	<0.5	<0.5	<0.5	<2.5	-	-	-	-	-	-	-	-	-
C-3	06/21/1996	38.37	19.78	18.59	0.00	0.00	57	<0.5	<0.5	<0.5	<0.5	<2.5	-	-	-	-	-	-	-	-	-
C-3	09/06/1996	38.37	21.63	16.74	0.00	0.00	<50	0.9	<0.5	<0.5	<0.5	<2.5	-	-	-	-	-	-	-	-	-
C-3	12/19/1996	38.37	22.30	16.07	0.00	0.00	310	36	33	6.5	28	<2.5	-	-	-	-	-	-	-	-	-
C-3	03/17/1997	38.37	18.95	19.42	0.00	0.00	54	1.1	<0.5	<0.5	0.76	<2.5	-	-	-	-	-	-	-	-	-
C-3	06/11/1997	38.37	21.15	17.22	0.00	0.00	120	1.1	<0.5	<0.5	<0.5	<2.5	-	-	-	-	-	-	-	-	-

TABLE 5
GROUNDWATER MONITORING AND SAMPLING DATA
CHEVRON SERVICE STATION 90076
4265 FOOTHILL BOULEVARD, OAKLAND, CALIFORNIA

Location	Date	TOC	DTW	GWE	LNAPLT	LNAPL REMOVED	HYDROCARBONS	PRIMARY VOCs					ADDITIONAL VOCs	FIELD PARAMETERS				GENERAL CHEMISTRY			
							TPH-GRO	B	T	E	X	MTBE by SW8260	ETHANOL	Dissolved oxygen, prepurge	Dissolved oxygen, postpurge	Oxidation reduction potential, prepurge	Oxidation reduction potential, postpurge	Alkalinity, total (as CaCO ₃)	Ferrous iron	Nitrate (as N)	Sulfate
	Units	ft	ft	ft-amsl	ft	gallons	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	millivolts	millivolts	µg/L	µg/L	µg/L	µg/L
C-3	09/17/1997	38.37	22.41	15.96	0.00	0.00	240	19	19	6.6	40	13	-	2.1	0.8	59	67	340	0.012	100	33
C-3	12/11/1997	38.37	22.26	16.11	0.00	0.00	<50	1.8	<0.5	<0.5	0.5	<2.5	-	-	-	-	-	-	-	-	-
C-3	03/12/1998	38.37	18.35	20.02	0.00	0.00	72	6.3	<0.5	0.64	3.1	2.6	-	2.8	2.5	165	163	260	0.14	88	32
C-3	06/23/1998	38.37	19.04	19.33	0.00	0.00	<50	<0.5	<0.5	<0.5	<0.5	<2.5	-	-	-	-	-	-	-	-	-
C-3	09/01/1998	38.37	19.97	18.40	0.00	0.00	200	6.8	0.31	0.52	2.0	<2.5	-	-	-	-	-	-	-	-	-
C-3	12/30/1998	38.37	21.31	17.06	0.00	0.00	<50	<0.5	<0.5	<0.5	<0.5	<2.0	-	-	-	-	-	-	-	-	-
C-3	03/31/1999	38.37	17.77	20.60	0.00	0.00	<50	<0.5	<0.5	<0.5	<0.5	12.6	-	4.1	3.3	101	89	258	<500 ¹⁴	18.4	72
C-3	06/14/1999	38.37	18.25	20.12	0.00	0.00	<50	<0.5	<0.5	<0.5	<0.5	<2.5	-	-	-	-	-	-	-	-	-
C-3	09/30/1999	38.37	21.19	17.18	0.00	0.00	79.2	3.04	0.794	<0.5	1.04	6.17	-	-	-	-	-	-	-	-	-
C-3	12/22/1999	38.37	22.32	16.05	0.00	0.00	<50	1.53	1.08	<0.5	0.66	12	-	0.98	1.48	69	107	402	0.013	67.7	37.6
C-3	03/09/2000	38.37	17.10	21.27	0.00	0.00	99	6.9	0.8	0.89	3.8	12	-	3.3	1.6	110	97	390	0.12	60	38
C-3	06/23/2000	38.37	19.15	19.22	0.00	0.00	<50	<0.50	<0.50	<0.50	<0.50	<2.5	-	-	-	-	-	-	-	-	-
C-3	09/05/2000	38.37	20.84	17.53	0.00	0.00	52 ⁴	4.3	<0.50	<0.50	0.93	29	-	3.79	2.53	202	203	430	0.011	52	40
C-3	12/04/2000	38.37	21.20	17.17	0.00	0.00	70 ⁴	4.0	<0.50	<0.50	0.71	25	-	-	-	-	-	-	-	-	-
C-3	03/08/2001	38.37	17.67	20.70	0.00	0.00	<50.0	0.873	<0.500	<0.500	<0.500	3.24	-	-	-	-	-	-	-	-	-
C-3	06/07/2001	38.37	18.90	19.47	0.00	0.00	140 ⁴	16	0.67	1.4	3.8	30	-	-	-	-	-	-	-	-	-
C-3	09/13/2001	38.37	21.01	17.36	0.00	0.00	<50	<0.50	<0.50	<0.50	<0.50	<2.5	-	-	-	-	-	-	-	-	-
C-3	12/13/2001	38.37	19.80	18.57	0.00	0.00	<50	1.2	<0.50	<0.50	<1.5	15	-	-	-	-	-	-	-	-	-
C-3	03/08/2002	38.37	17.78	20.59	0.00	0.00	82	5.4	<0.50	<0.50	<1.5	68	-	-	-	-	-	-	-	-	-
C-3	06/19/2002	38.37	18.40	19.97	0.00	0.00	74	2.1	<0.50	<0.50	<1.5	77	-	-	-	-	-	-	-	-	-
C-3	09/11/2002	38.37	20.17	18.20	0.00	0.00	110	4.7	<0.50	<0.50	<1.5	76	-	-	-	-	-	-	-	-	-
C-3	12/11/2002	38.37	21.75	16.62	0.00	0.00	79	1.5	<0.50	<0.50	<1.5	86	-	-	-	-	-	-	-	-	-

TABLE 5
GROUNDWATER MONITORING AND SAMPLING DATA
CHEVRON SERVICE STATION 90076
4265 FOOTHILL BOULEVARD, OAKLAND, CALIFORNIA

							HYDROCARBONS	PRIMARY VOCs					ADDITIONAL VOCs	FIELD PARAMETERS				GENERAL CHEMISTRY			
Location	Date	TOC	DTW	GWE	LNAPL	LNAPL REMOVED	TPH-GRO	B	T	E	X	MTBE by SW8260	ETHANOL	Dissolved oxygen, prepurge	Dissolved oxygen, postpurge	Oxidation reduction potential, prepurge	Oxidation reduction potential, postpurge	Alkalinity, total (as CaCO3)	Ferrous iron	Nitrate (as N)	Sulfate
	Units	ft	ft	ft-amsl	ft	gallons	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	millivolts	millivolts	µg/L	µg/L	µg/L	µg/L
C-3	03/11/2003	38.37	19.07	19.30	0.00	0.00	<50	2.1	<0.50	<0.50	<1.5	18	-	-	-	-	-	-	-	-	-
C-3	06/10/2003 ⁷	38.37	19.08	19.29	0.00	0.00	86	2	<0.5	<0.5	<0.5	93	-	-	-	-	-	-	-	-	-
C-3	09/09/2003 ⁷	38.37	20.70	17.67	0.00	0.00	<50	2	<0.5	<0.5	<0.5	160	<50	-	-	-	-	-	-	-	-
C-3	12/09/2003 ⁷	38.37	21.05	17.32	0.00	0.00	<50	<0.5	<0.5	<0.5	<0.5	0.9	<50	-	-	-	-	-	-	-	-
C-3	03/09/2004 ⁷	38.37	16.25	22.12	0.00	0.00	<50	<0.5	<0.5	<0.5	<0.5	<0.5	<50	-	-	-	-	-	-	-	-
C-3	06/08/2004 ⁷	38.37	18.50	19.87	0.00	0.00	<50	<0.5	<0.5	<0.5	<0.5	<0.5	<50	-	-	-	-	-	-	-	-
C-3	09/08/2004 ⁷	38.37	20.01	18.36	0.00	0.00	<50	<0.5	<0.5	<0.5	<0.5	22	<50	-	-	-	-	-	-	-	-
C-3	12/06/2004 ⁷	38.37	19.30	19.07	0.00	0.00	<50	<0.5	<0.5	<0.5	<0.5	<0.5	<50	-	-	-	-	-	-	-	-
C-3	03/07/2005 ⁷	38.37	18.02	20.35	0.00	0.00	<50	<0.5	<0.5	<0.5	<0.5	<0.5	<50	-	-	-	-	-	-	-	-
C-3	06/06/2005 ⁷	38.37	19.08	19.29	0.00	0.00	<50	<0.5	<0.5	<0.5	<0.5	<0.5	<50	-	-	-	-	-	-	-	-
C-3	09/06/2005 ⁷	38.37	18.15	20.22	0.00	0.00	<50	<0.5	<0.5	<0.5	<0.5	<0.5	<50	-	-	-	-	-	-	-	-
C-3	12/05/2005 ⁷	38.37	17.85	20.52	0.00	0.00	<50	<0.5	<0.5	<0.5	<0.5	<0.5	<50	-	-	-	-	-	-	-	-
C-3	03/06/2006 ⁷	38.37	17.93	20.44	0.00	0.00	<50	<0.5	<0.5	<0.5	<0.5	<0.5	<50	-	-	-	-	-	-	-	-
C-3	06/05/2006 ⁷	38.37	15.35	23.02	0.00	0.00	<50	<0.5	<0.5	<0.5	<0.5	65	<50	-	-	-	-	-	-	-	-
C-3	09/05/2006 ⁷	38.37	18.42	19.95	0.00	0.00	<50	<0.5	<0.5	<0.5	<0.5	<0.5	<50	-	-	-	-	-	-	-	-
C-3	12/04/2006 ⁷	38.37	18.29	20.08	0.00	0.00	<50	<0.5	<0.5	<0.5	<0.5	<0.5	<50	-	-	-	-	-	-	-	-
C-3	03/05/2007 ⁷	38.37	14.74	23.63	0.00	0.00	<50	<0.5	<0.5	<0.5	<0.5	<0.5	<50	-	-	-	-	-	-	-	-
C-3	06/04/2007 ⁷	38.37	15.68	22.69	0.00	0.00	<50	<0.5	<0.5	<0.5	<0.5	<0.5	<50	-	-	-	-	-	-	-	-
C-3	09/07/2007 ⁷	38.37	18.51	19.86	0.00	0.00	<50	<0.5	<0.5	<0.5	<0.5	<0.5	<50	-	-	-	-	-	-	-	-
C-3	12/06/2007 ⁷	38.37	19.41	18.96	0.00	0.00	<50	<0.5	<0.5	<0.5	<0.5	<0.5	<50	-	-	-	-	-	-	-	-
C-3	03/06/2008 ⁷	38.37	15.95	22.42	0.00	0.00	<50	<0.5	<0.5	<0.5	<0.5	1	<50	-	-	-	-	-	-	-	-
C-3	06/05/2008 ⁷	38.37	17.48	20.89	0.00	0.00	<50	<0.5	<0.5	<0.5	<0.5	0.6	<50	-	-	-	-	-	-	-	-

TABLE 5
GROUNDWATER MONITORING AND SAMPLING DATA
CHEVRON SERVICE STATION 90076
4265 FOOTHILL BOULEVARD, OAKLAND, CALIFORNIA

Location	Date	TOC	DTW	GWE	LNAPL ^T	LNAPL REMOVED	HYDROCARBONS	PRIMARY VOCs					ADDITIONAL VOCs	FIELD PARAMETERS				GENERAL CHEMISTRY			
							TPH-GRO	B	T	E	X	MTBE by SW8260	ETHANOL	Dissolved oxygen, prepurge	Dissolved oxygen, postpurge	Oxidation reduction potential, prepurge	Oxidation reduction potential, postpurge	Alkalinity, total (as CaCO ₃)	Ferrous iron	Nitrate (as N)	Sulfate
	Units	ft	ft	ft-amsl	ft	gallons	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	millivolts	millivolts	µg/L	µg/L	µg/L	µg/L
C-3	09/03/2008 ⁷	38.37	18.98	19.39	0.00	0.00	<50	<0.5	<0.5	<0.5	<0.5	<0.5	<50	-	-	-	-	-	-	-	-
C-3	12/03/2008 ⁷	38.37	20.18	18.19	0.00	0.00	<50	<0.5	<0.5	<0.5	<0.5	<0.5	<50	-	-	-	-	-	-	-	-
C-3	03/04/2009	38.37	16.52	21.85	0.00	0.00	<50	<0.5	<0.5	<0.5	<0.5	1	<50	-	-	-	-	-	-	-	-
C-3	06/09/2009 ⁷	38.37	17.62	26.82	0.00	0.00	140	<0.5	<0.5	<0.5	<0.5	240	<50	-	-	-	-	-	-	-	-
C-3	09/30/2009 ⁷	38.37	19.83	18.54	0.00	0.00	120	<0.5	<0.5	<0.5	<0.5	130	<50	-	-	-	-	-	-	-	-
C-3	03/22/2010 ⁷	38.37	16.84	21.53	0.00	0.00	<50	0.6 J	<0.5	<0.5	<0.5	4	<50	-	-	-	-	-	-	-	-
C-3	09/16/2010	38.37	19.92	18.45	0.00	0.00	80 J	<0.5	<0.5	<0.5	<0.5	390	<50	-	-	-	-	-	-	-	-
C-3	03/08/2011	38.37	16.10	22.27	0.00	0.00	<50	<0.5	<0.5	<0.5	<0.5	<0.5	<50	-	-	-	-	-	-	-	-
C-3	09/28/2011	38.37	18.76	19.61	0.00	0.00	100	0.8 J	<0.5	<0.5	0.5 J	300	<50	-	-	-	-	-	-	-	-
C-3	03/08/2012	38.37	19.24	19.13	0.00	0.00	<50	<0.5	<0.5	<0.5	<0.5	170	<50	-	-	-	-	-	-	-	-
C-3	09/20/2012	38.37	20.17	18.20	0.00	0.00	<50	<0.5	<0.5	<0.5	<0.5	<0.5	<50	-	-	-	-	-	-	-	-
C-3	03/20/2013	38.37	19.17	19.20	0.00	0.00	74 J	<0.5	<0.5	<0.5	<0.5	400	<50	-	-	-	-	-	-	-	-
C-3	09/18/2013	38.37	19.90	18.47	0.00	0.00	<50	<0.5	<0.5	<0.5	<0.5	<0.5	<50	-	-	-	-	-	-	-	-
C-3	03/13/2014	38.37	19.00	19.37	0.00	0.00	87 J	<0.5	<0.5	<0.5	<0.5	140	<50	-	-	-	-	-	-	-	-
C-3	09/25/2014	38.37	21.72	16.65	0.00	0.00	89 J	<0.5	<0.5	<0.5	<0.5	360	<50	-	-	-	-	-	-	-	-
C-3	03/10/2015	40.62	21.16	19.46	0.00	0.00	76 J	<0.5	<0.5	<0.5	<0.5	54	<50	-	-	-	-	-	-	-	-
C-3	06/19/2015	40.62	20.83	19.79	0.00	0.00	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C-3	09/15/2015	40.62	21.86	18.76	0.00	0.00	<50	<0.5	<0.5	<0.5	<0.5	390	<50	-	-	-	-	-	-	-	-
C-3	12/22/2015 ¹⁵	40.62	21.71	18.91	0.00	0.00	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C-3	03/08/2016	40.62	19.65	20.97	0.00	0.00	55 J	<0.5	<0.5	<0.5	<0.5	290	<50	-	-	-	-	-	-	-	-
C-4	01/12/1989	33.45	29.49	3.96	0.00	0.00	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

TABLE 5
GROUNDWATER MONITORING AND SAMPLING DATA
CHEVRON SERVICE STATION 90076
4265 FOOTHILL BOULEVARD, OAKLAND, CALIFORNIA

Location	Date	TOC	DTW	GWE	LNAPL	LNAPL REMOVED	HYDROCARBONS	PRIMARY VOCS					ADDITIONAL VOCS	FIELD PARAMETERS				GENERAL CHEMISTRY			
							TPH-GRO	B	T	E	X	MTBE by SW8260	ETHANOL	Dissolved oxygen, prepurge	Dissolved oxygen, postpurge	Oxidation reduction potential, prepurge	Oxidation reduction potential, postpurge	Alkalinity, total (as CaCO ₃)	Ferrous iron	Nitrate (as N)	Sulfate
	Units	ft	ft	ft-amsl	ft	gallons	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	millivolts	millivolts	µg/L	µg/L	µg/L	µg/L
C-4	04/12/1989	33.45	27.44	6.01	0.00	0.00	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C-4	04/28/1989	33.45	29.49	3.96	0.00	0.00	20,000	6,300	550	230	1,500	-	-	-	-	-	-	-	-	-	-
C-4	08/08/1989	33.45	29.55	3.90	0.00	0.00	8,000	7,500	340	88	1,000	-	-	-	-	-	-	-	-	-	-
C-4	12/21/1989	33.45	30.02	3.43	0.00	0.00	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C-4	08/27/1990	33.48	29.02	4.46	0.00	0.00	26,000	10,000	280	410	1,400	-	-	-	-	-	-	-	-	-	-
C-4	11/04/1990	33.48	29.81	3.67	0.00	0.00	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C-4	06/18/1991	33.48	27.45	6.03	0.00	0.00	34,000	14,000	410	450	1,300	-	-	-	-	-	-	-	-	-	-
C-4	09/19/1991	33.48	28.65	4.83	0.00	0.00	16,000	7,400	90	110	460	-	-	-	-	-	-	-	-	-	-
C-4	12/20/1991	33.48	28.84	4.64	0.00	0.00	24,000	12,000	120	260	740	-	-	-	-	-	-	-	-	-	-
C-4	03/18/1992	33.48	24.43	11.05	0.00	0.00	48,000	6,000	1,300	1,300	2,400	-	-	-	-	-	-	-	-	-	-
C-4	07/14/1992	33.48	26.89	6.59	0.00	0.00	40,000	14,000	920	550	2,400	-	-	-	-	-	-	-	-	-	-
C-4	10/08/1992	33.48	27.79	5.69	0.00	0.00	29,000	13,000	190	110	1,400	-	-	-	-	-	-	-	-	-	-
C-4	01/08/1993	33.48	23.50	9.98	0.00	0.00	25,000	7,000	630	860	1,800	-	-	-	-	-	-	-	-	-	-
C-4	04/14/1993	33.48	21.13	12.35	0.00	0.00	27,000	6,300	1,000	900	1,400	-	-	-	-	-	-	-	-	-	-
C-4	07/16/1993	33.48	23.96	9.52	0.00	0.00	28,000	7,800	1,100	830	2,100	-	-	-	-	-	-	-	-	-	-
C-4	09/21/1993	36.49	25.51	10.98	0.00	0.00	30,000	9,500	130	390	1,300	-	-	-	-	-	-	-	-	-	-
C-4	01/28/1994	36.49	23.31	13.18	0.00	0.00	18,000	7,800	440	260	1,200	-	-	-	-	-	-	-	-	-	-
C-4	03/17/1994	36.49	21.35	15.14	0.00	0.00	32,000	7,800	820	820	1,800	-	-	-	-	-	-	-	-	-	-
C-4	06/16/1994	36.49	22.50	13.99	0.00	0.00	25,000	7,600	710	600	1,800	-	-	-	-	-	-	-	-	-	-
C-4	09/22/1994	36.49	23.93	12.56	0.00	0.00	25,000	7,800	140	600	1,100	-	-	-	-	-	-	-	-	-	-
C-4	12/15/1994	36.49	19.02	17.47	0.00	0.00	38,000	7,500	460	1,200	2,000	-	-	-	-	-	-	-	-	-	-
C-4	03/30/1995	36.49	14.86	21.63	0.00	0.00	41,000	8,700	1,600	1,800	3,000	-	-	-	-	-	-	-	-	-	-

TABLE 5
GROUNDWATER MONITORING AND SAMPLING DATA
CHEVRON SERVICE STATION 90076
4265 FOOTHILL BOULEVARD, OAKLAND, CALIFORNIA

Location	Date	TOC	DTW	GWE	LNAPLT	LNAPL REMOVED	HYDROCARBONS	PRIMARY VOCs					ADDITIONAL VOCs	FIELD PARAMETERS				GENERAL CHEMISTRY			
							TPH-GRO	B	T	E	X	MTBE by SW8250	ETHANOL	Dissolved oxygen, prepurge	Dissolved oxygen, postpurge	Oxidation reduction potential, prepurge	Oxidation reduction potential, postpurge	Alkalinity, total (as CaCO ₃)	Ferrous iron	Nitrate (as N)	Sulfate
	Units	ft	ft	ft-amsl	ft	gallons	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	millivolts	millivolts	µg/L	µg/L	µg/L	µg/L
C-4	06/20/1995	36.49	16.90	19.59	0.00	0.00	29,000	6,000	890	960	1,800	-	-	-	-	-	-	-	-	-	-
C-4	09/20/1995	36.49	16.20	20.29	0.00	0.00	12,000	6,900	510	290	1,300	-	-	-	-	-	-	-	-	-	-
C-4	12/06/1995	36.49	23.12	13.37	0.00	0.00	13,000	3,900	42	30	250	<250	-	-	-	-	-	-	-	-	-
C-4	03/21/1996	36.49	14.10	22.39	0.00	0.00	39,000	4,800	640	1,000	1,800	<1,000	-	-	-	-	-	-	-	-	-
C-4	06/21/1996	36.49	16.95	19.54	0.00	0.00	26,000	4,400	640	960	1,800	2,000	-	-	-	-	-	-	-	-	-
C-4	09/06/1996	36.49	20.13	16.36	0.00	0.00	23,000	500	200	230	1,000	3,100	-	-	-	-	-	-	-	-	-
C-4	12/19/1996	36.49	16.92	19.57	0.00	0.00	23,000	4,900	320	1,100	2,000	<250	-	-	-	-	-	-	-	-	-
C-4	03/17/1997	36.49	17.40	19.09	0.00	0.00	30,000	5,800	700	1,400	2,200	1,700	-	-	-	-	-	-	-	-	-
C-4	06/11/1997	36.49	18.34	18.15	0.00	0.00	29,000	4,400	520	790	1,800	2,000	-	-	-	-	-	-	-	-	-
C-4	09/17/1997	36.49	21.46	15.03	0.00	0.00	17,000	4,300	140	940	1,100	4,600	-	0.6	0.2	102	107	540	5.9	<1.0	<1.0
C-4	12/11/1997	36.49	16.65	19.84	0.00	0.00	12,000	2,500	130	300	1,000	1,400	-	-	-	-	-	-	-	-	-
C-4	03/12/1998	36.49	16.59	19.90	0.00	0.00	46,000	11,000	1,500	2,300	5,000	3,400	-	1.5	2.6	173	175	550	1.3	<1.0	2.7
C-4	06/23/1998 ³	36.49	17.02	19.47	0.00	0.00	27,000	1,600	160	180	690	100	-	-	-	-	-	-	-	-	-
C-4	09/01/1998	36.49	21.45	15.04	0.00	0.00	520	14	2.3	<0.5	4.8	61	-	-	-	-	-	-	-	-	-
C-4	12/30/1998	36.49	21.42	15.07	0.00	0.00	122	14.1	1.86	<1.0	3.61	349	-	-	-	-	-	-	-	-	-
C-4	03/31/1999	36.49	15.20	21.29	0.00	0.00	20,300	4,450	443	1,000	2,130	1,320	-	1.8	2.2	170	176	492	1,560 ¹⁴	0.191	<1.0
C-4	06/14/1999 ¹	36.49	21.80	14.69	0.00	0.00	1,820	183	7.14	36.7	56.5	280 ² /291	-	-	-	-	-	-	-	-	-
C-4	09/30/1999	36.49	19.81	16.68	0.00	0.00	1,030	11.6	2.14	29.2	68.7	91.5	-	-	-	-	-	-	-	-	-
C-4	12/22/1999	36.49	20.27	16.22	0.00	0.00	217	4.45	0.765	2.82	8.21	70.2	-	6.8	5.68	-25	14	739	0.87	1.85	39.6
C-4	03/09/2000	36.49	13.36	23.13	0.00	0.00	8,300	2,600	270	510	1,400	650	-	1.1	1.9	-13	-39	530	<0.01	<0.1	4.5
C-4	06/23/2000 ³	36.49	19.40	17.09	0.00	0.00	55 ⁴	1.2	<0.50	<0.50	<0.50	250	-	-	-	-	-	-	-	-	-
C-4	09/05/2000 ³	36.49	21.43	15.06	0.00	0.00	110 ⁴	5.4	<0.50	<0.50	1.1	52	-	2.22	2.02	105	138	530	<0.010	<1.0	29

TABLE 5
GROUNDWATER MONITORING AND SAMPLING DATA
CHEVRON SERVICE STATION 90076
4265 FOOTHILL BOULEVARD, OAKLAND, CALIFORNIA

Location	Date	TOC	DTW	GWE	LNAPLT	LNAPL REMOVED	HYDROCARBONS	PRIMARY VOCs					ADDITIONAL VOCs	FIELD PARAMETERS				GENERAL CHEMISTRY			
							TPH-GRO	B	T	E	X	MTBE by SW8260	ETHANOL	Dissolved oxygen, prepurge	Dissolved oxygen, postpurge	Oxidation reduction potential, prepurge	Oxidation reduction potential, postpurge	Alkalinity, total (as CaCO ₃)	Ferrous iron	Nitrate (as N)	Sulfate
	Units	ft	ft	ft-amsl	ft	gallons	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	millivolts	millivolts	µg/L	µg/L	µg/L	µg/L
C-4	12/04/2000	36.49	21.78	14.71	0.00	0.00	<50	<0.50	0.56	<0.50	1.1	22	-	-	-	-	-	-	-	-	-
C-4	03/08/2001 ³	36.49	16.62	19.87	0.00	0.00	9,080	2,260	229	395	1,060	718	-	-	-	-	-	-	-	-	-
C-4	06/07/2001 ³	36.49	19.60	16.89	0.00	0.00	800 ⁴	75	4.3	22	33	340	-	-	-	-	-	-	-	-	-
C-4	09/13/2001 ³	36.49	21.71	14.78	0.00	0.00	<50	0.68	<0.50	<0.50	<0.50	18	-	-	-	-	-	-	-	-	-
C-4	12/13/2001 ³	36.49	17.95	18.54	0.00	0.00	5,800	1,400	43	21	470	540	-	-	-	-	-	-	-	-	-
C-4	03/08/2002 ³	36.49	16.78	19.71	0.00	0.00	7,000	1,300	67	280	390	610	-	-	-	-	-	-	-	-	-
C-4	06/19/2002 ³	36.49	18.80	17.69	0.00	0.00	3,100	130	6.5	29	55	250	-	-	-	-	-	-	-	-	-
C-4	09/11/2002 ³	36.49	20.30	16.19	0.00	0.00	820	6.2	1.0	2.2	2.5	26	-	-	-	-	-	-	-	-	-
C-4	12/11/2002 ³	36.49	21.97	14.52	0.00	0.00	<50	0.74	<0.50	<0.50	<1.5	9.3	-	-	-	-	-	-	-	-	-
C-4	03/11/2003 ³	36.49	18.39	18.10	0.00	0.00	5,500	490	12	100	210	330	-	-	-	-	-	-	-	-	-
C-4	06/10/2003 ^{3,7}	36.49	18.75	17.74	0.00	0.00	3,300	370	15	120	200	200	-	-	-	-	-	-	-	-	-
C-4	09/09/2003 ^{3,7}	36.49	20.79	15.70	0.00	0.00	690	8	0.8	5	5	30	<50	-	-	-	-	-	-	-	-
C-4	12/09/2003 ^{7,9}	36.49	20.30	16.19	0.00	0.00	<50	<0.5	<0.5	<0.5	<0.5	57	<50	-	-	-	-	-	-	-	-
C-4	03/09/2004 ⁷	36.49	13.46	23.03	0.00	0.00	15,000	1,600	73	520	460	230	<250	-	-	-	-	-	-	-	-
C-4	06/08/2004 ⁷	36.49	17.02	19.47	0.00	0.00	550	120	2	0.7	5	93	<50	-	-	-	-	-	-	-	-
C-4	09/08/2004 ⁷	36.49	17.58	18.91	0.00	0.00	<50	<0.5	<0.5	<0.5	<0.5	37	<50	-	-	-	-	-	-	-	-
C-4	12/06/2004 ⁷	36.49	16.78	19.71	0.00	0.00	7,000	1,600	39	230	260	180	<50	-	-	-	-	-	-	-	-
C-4	03/07/2005 ⁷	36.49	12.16	24.33	0.00	0.00	9,500	2,100	67	330	160	170	<250	-	-	-	-	-	-	-	-
C-4	06/06/2005 ⁷	36.49	13.63	22.86	0.00	0.00	7,700	2,000	39	280	130	130	<250	-	-	-	-	-	-	-	-
C-4	09/06/2005 ⁷	36.49	15.70	20.79	0.00	0.00	3,600	830	10	79	21	110	<50	-	-	-	-	-	-	-	-
C-4	12/05/2005 ⁷	36.49	16.45	20.04	0.00	0.00	4,400	1,000	11	80	23	120	<250	-	-	-	-	-	-	-	-
C-4	03/06/2006 ⁷	36.49	12.95	23.54	0.00	0.00	10,000	2,400	92	240	170	130	<500	-	-	-	-	-	-	-	-

TABLE 5
GROUNDWATER MONITORING AND SAMPLING DATA
CHEVRON SERVICE STATION 90076
4265 FOOTHILL BOULEVARD, OAKLAND, CALIFORNIA

Location	Date	TOC	DTW	GWE	LNAPLT	LNAPL REMOVED	HYDROCARBONS	PRIMARY VOCs					ADDITIONAL VOCs	FIELD PARAMETERS				GENERAL CHEMISTRY			
							TPH-GRO	B	T	E	X	MTBE by SW8260	ETHANOL	Dissolved oxygen, prepurge	Dissolved oxygen, postpurge	Oxidation reduction potential, prepurge	Oxidation reduction potential, postpurge	Alkalinity, total (as CaCO ₃)	Ferrous iron	Nitrate (as N)	Sulfate
	Units	ft	ft	ft-amsl	ft	gallons	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	millivolts	millivolts	µg/L	µg/L	µg/L	µg/L
C-4	06/05/2006 ⁷	36.49	11.02	25.47	0.00	0.00	16,000	3,300	160	350	370	150	<500	-	-	-	-	-	-	-	-
C-4	09/05/2006 ⁷	36.49	12.60	23.89	0.00	0.00	9,600	1,400	29	200	78	81	<100	-	-	-	-	-	-	-	-
C-4	12/04/2006 ⁷	36.49	13.20	23.29	0.00	0.00	13,000	1,800	40	150	99	100	<250	-	-	-	-	-	-	-	-
C-4	03/05/2007 ⁷	36.49	10.65	25.84	0.00	0.00	11,000	2,800	58	230	270	100	<500	-	-	-	-	-	-	-	-
C-4	06/04/2007 ⁷	36.49	11.54	24.95	0.00	0.00	13,000	3,500	87	300	230	94	<250	-	-	-	-	-	-	-	-
C-4	09/07/2007 ⁷	36.49	12.50	23.99	0.00	0.00	5,100	1,000	24	70	43	39	<130	-	-	-	-	-	-	-	-
C-4	12/06/2007 ⁷	36.49	12.42	24.07	0.00	0.00	9,900	2,000	65	210	210	74	<130	-	-	-	-	-	-	-	-
C-4	03/06/2008 ⁷	36.49	10.14	26.35	0.00	0.00	17,000	3,500	210	510	510	77	<250	-	-	-	-	-	-	-	-
C-4	06/05/2008 ⁷	36.49	11.58	24.91	0.00	0.00	12,000	3,500	120	300	240	76	<250	-	-	-	-	-	-	-	-
C-4	09/03/2008 ⁷	36.49	12.47	24.02	0.00	0.00	13,000	3,400	72	210	130	73	<250	-	-	-	-	-	-	-	-
C-4	12/03/2008 ⁷	36.49	14.08	22.41	0.00	0.00	12,000	2,600	55	200	180	60	<250	-	-	-	-	-	-	-	-
C-4	03/04/2009	36.49	12.48	24.01	0.00	0.00	14,000	2,500	78	350	340	58	<250	-	-	-	-	-	-	-	-
C-4	06/09/2009 ⁷	36.49	11.55	24.94	0.00	0.00	13,000	2,500	69	260	140	55	<100	-	-	-	-	-	-	-	-
C-4	09/30/2009 ⁷	36.49	12.25	24.24	0.00	0.00	10,000	1,900	40	140	87	44	<100	-	-	-	-	-	-	-	-
C-4	03/22/2010 ⁷	36.49	10.37	26.12	0.00	0.00	13,000	2,500	74	260	260	46	<50	-	-	-	-	-	-	-	-
C-4	09/16/2010	36.49	11.75	24.74	0.00	0.00	9,700	1,300	33	160	120	27	<100	-	-	-	-	-	-	-	-
C-4	03/08/2011	36.49	9.90	26.59	0.00	0.00	9,200	1,900	42	190	130	24	<250	-	-	-	-	-	-	-	-
C-4	09/28/2011	36.49	10.83	25.66	0.00	0.00	8,200	1,300	24	94	65	25	<250	-	-	-	-	-	-	-	-
C-4	03/08/2012	36.49	13.74	22.75	0.00	0.00	8,800	1,600	36	130	90	21	<500	-	-	-	-	-	-	-	-
C-4	09/20/2012	36.49	12.10	24.39	0.00	0.00	10,000	1,300	34	150	95	17	<500	-	-	-	-	-	-	-	-
C-4	03/20/2013	36.49	8.97	27.52	0.00	0.00	6,300	1,300	33	110	60	20	<100	-	-	-	-	-	-	-	-
C-4	09/18/2013	36.49	9.73	26.76	0.00	0.00	6,900	740	15	65	57	5	<50	-	-	-	-	-	-	-	-

TABLE 5
GROUNDWATER MONITORING AND SAMPLING DATA
CHEVRON SERVICE STATION 90076
4265 FOOTHILL BOULEVARD, OAKLAND, CALIFORNIA

Location	Date	TOC	DTW	GWE	LNAPLT	LNAPL REMOVED	HYDROCARBONS	PRIMARY VOCs					ADDITIONAL VOCs	FIELD PARAMETERS				GENERAL CHEMISTRY			
							TPH-GRO	B	T	E	X	MTBE by SW8260	ETHANOL	Dissolved oxygen, prepurge	Dissolved oxygen, postpurge	Oxidation reduction potential, prepurge	Oxidation reduction potential, postpurge	Alkalinity, total (as CaCO3)	Ferrous iron	Nitrate (as N)	Sulfate
		Units	ft	ft	ft-amsl	ft	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	millivolts	millivolts	µg/L	µg/L	µg/L	µg/L
C-4	03/13/2014	36.49	9.97	26.52	0.00	0.00	10,000	1,400	40	150	84	13	<100	-	-	-	-	-	-	-	-
C-4	09/25/2014	36.49	12.00	24.49	0.00	0.00	6,400	1,300	19	34	31	18	<250	-	-	-	-	-	-	-	-
C-4	03/10/2015	38.69	11.42	27.27	0.00	0.00	8,800	1,400	30	99	50	13 J	<1,000	-	-	-	-	-	-	-	-
C-4	06/19/2015	38.69	11.78	26.91	0.00	0.00	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C-4	09/15/2015	38.69	12.10	26.59	0.00	0.00	8,200	730	12	42	29	7	<250	-	-	-	-	-	-	-	-
C-4	12/22/2015	38.69	11.66	27.03	0.00	0.00	7,600	490	11	49	37	7	<250	-	-	-	-	-	-	-	-
C-4	03/08/2016	38.69	9.22	29.47	0.00	0.00	6,300	910	19	15	38	9 J	<500	-	-	-	-	-	-	-	-
C-5	08/27/1990	35.50	29.83	5.67	0.00	0.00	<50	<0.3	<0.3	<0.3	<0.6	-	-	-	-	-	-	-	-	-	-
C-5	11/14/1990	35.50	30.56	4.94	0.00	0.00	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C-5	06/18/1991	35.50	28.52	6.98	0.00	0.00	<50	<0.5	<0.5	<0.5	-	-	-	-	-	-	-	-	-	-	-
C-5	09/19/1991	35.50	29.51	5.99	0.00	0.00	<50	<0.5	<0.5	<0.5	<0.5	-	-	-	-	-	-	-	-	-	-
C-5	12/20/1991	35.50	29.96	5.54	0.00	0.00	<50	<0.5	<0.5	<0.5	<0.5	-	-	-	-	-	-	-	-	-	-
C-5	03/18/1992	35.50	25.92	9.58	0.00	0.00	<50	<0.5	<0.5	<0.5	<0.5	-	-	-	-	-	-	-	-	-	-
C-5	07/14/1992	35.50	28.00	7.50	0.00	0.00	<50	<0.5	<0.5	<0.5	<0.5	-	-	-	-	-	-	-	-	-	-
C-5	10/08/1992	35.50	28.65	6.85	0.00	0.00	<50	<0.5	<0.5	<0.5	<0.5	-	-	-	-	-	-	-	-	-	-
C-5	01/08/1993	35.50	26.02	9.48	0.00	0.00	<50	<0.5	<0.5	<0.5	<0.5	-	-	-	-	-	-	-	-	-	-
C-5	04/14/1993	35.50	24.04	11.46	0.00	0.00	<50	<0.5	<0.5	<0.5	<0.5	-	-	-	-	-	-	-	-	-	-
C-5	07/16/1993	35.50	25.21	10.29	0.00	0.00	<50	<0.5	<0.5	<0.5	<0.5	-	-	-	-	-	-	-	-	-	-
C-5	09/21/1993	38.50	26.36	12.14	0.00	0.00	60	10	8.1	1.9	9.4	-	-	-	-	-	-	-	-	-	-
C-5	01/28/1994	38.50	25.90	12.60	0.00	0.00	<50	<0.5	<0.5	<0.5	<0.5	-	-	-	-	-	-	-	-	-	-
C-5	03/17/1994	38.50	24.50	14.00	0.00	0.00	<50	<0.5	<0.5	<0.5	<0.5	-	-	-	-	-	-	-	-	-	-

TABLE 5
GROUNDWATER MONITORING AND SAMPLING DATA
CHEVRON SERVICE STATION 90076
4265 FOOTHILL BOULEVARD, OAKLAND, CALIFORNIA

Location	Date	TOC	DTW	GWE	LNAPLT	LNAPL REMOVED	HYDROCARBONS	PRIMARY VOCs					ADDITIONAL VOCs	FIELD PARAMETERS				GENERAL CHEMISTRY			
							TPH-GRO	B	T	E	X	MTBE by SW8260	ETHANOL	Dissolved oxygen, prepurge	Dissolved oxygen, postpurge	Oxidation reduction potential, prepurge	Oxidation reduction potential, postpurge	Alkalinity, total (as CaCO ₃)	Ferrous iron	Nitrate (as N)	Sulfate
Units	ft	ft	ft-amsl	ft	gallons	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	millivolts	millivolts	µg/L	µg/L	µg/L	µg/L
C-5	06/16/1994	38.50	24.40	14.10	0.00	0.00	<50	<0.5	<0.5	<0.5	<0.5	-	-	-	-	-	-	-	-	-	-
C-5	09/22/1994	38.50	25.16	13.34	0.00	0.00	<50	<0.5	<0.5	<0.5	<0.5	-	-	-	-	-	-	-	-	-	-
C-5	12/15/1994	38.50	22.89	15.61	0.00	0.00	<50	<0.5	<0.5	<0.5	<0.5	-	-	-	-	-	-	-	-	-	-
C-5	03/30/1995	38.50	18.54	19.96	0.00	0.00	<50	<0.5	<0.5	<0.5	<0.5	-	-	-	-	-	-	-	-	-	-
C-5	06/20/1995	38.50	20.13	18.37	0.00	0.00	<50	<0.5	<0.5	<0.5	<0.5	-	-	-	-	-	-	-	-	-	-
C-5	09/20/1995	38.50	24.34	14.16	0.00	0.00	<50	<0.5	<0.5	<0.5	<0.5	-	-	-	-	-	-	-	-	-	-
C-5	12/06/1995	38.50	24.10	14.40	0.00	0.00	<50	<0.5	<0.5	<0.5	<0.5	<2.5	-	-	-	-	-	-	-	-	-
C-5	03/21/1996	38.50	18.40	20.10	0.00	0.00	<50	<0.5	<0.5	<0.5	<0.5	<2.5	-	-	-	-	-	-	-	-	-
C-5	06/06/1996	38.50	21.90	16.60	0.00	0.00	<50	<0.5	<0.5	<0.5	<0.5	<2.5	-	-	-	-	-	-	-	-	-
C-5	06/21/1996	38.50	20.27	18.23	0.00	0.00	<50	<0.5	<0.5	<0.5	<0.5	8.7	-	-	-	-	-	-	-	-	-
C-5	12/19/1996	38.50	21.15	17.35	0.00	0.00	<50	<0.5	<0.5	<0.5	<0.5	<2.5	-	-	-	-	-	-	-	-	-
C-5	03/17/1997	38.50	19.84	18.66	0.00	0.00	<50	<0.5	<0.5	<0.5	<0.5	<2.5	-	-	-	-	-	-	-	-	-
C-5	06/11/1997	38.50	21.60	16.90	0.00	0.00	<50	<0.5	<0.5	<0.5	<0.5	<2.5	-	-	-	-	-	-	-	-	-
C-5	09/17/1997 ¹²	38.50	27.83	10.67	0.00	0.00	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C-5	12/11/1997	38.50	21.00	17.50	0.00	0.00	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C-5	03/12/1998	38.50	16.42	22.08	0.00	0.00	<50	<0.5	<0.5	<0.5	<0.5	<2.5	-	1.7	1.9	70	169	210	0.074	69	74
C-5	06/23/1998	38.50	16.98	21.52	0.00	0.00	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C-5	09/01/1998	38.50	20.42	18.08	0.00	0.00	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C-5	12/30/1998	38.50	20.79	17.71	0.00	0.00	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C-5	03/31/1999	38.50	17.05	21.45	0.00	0.00	<50	<0.5	<0.5	<0.5	<0.5	15	-	12.8	6.7	92	97	254	<500 ¹⁴	16.7	69.7
C-5	06/14/1999	38.50	17.48	21.02	0.00	0.00	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C-5	09/30/1999	38.50	18.73	19.77	0.00	0.00	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

TABLE 5
GROUNDWATER MONITORING AND SAMPLING DATA
CHEVRON SERVICE STATION 90076
4265 FOOTHILL BOULEVARD, OAKLAND, CALIFORNIA

Location	Date	TOC	DTW	GWE	LNAPLT	LNAPL REMOVED	HYDROCARBONS	PRIMARY VOCs					ADDITIONAL VOCs	FIELD PARAMETERS				GENERAL CHEMISTRY			
							TPH-GRO	B	T	E	X	MTBE by SW8260	ETHANOL	Dissolved oxygen, prepurge	Dissolved oxygen, postpurge	Oxidation reduction potential, prepurge	Oxidation reduction potential, postpurge	Alkalinity, total (as CaCO ₃)	Ferrous iron	Nitrate (as N)	Sulfate
Units		ft	ft	ft-amsl	ft	gallons	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	millivolts	millivolts	µg/L	µg/L	µg/L	µg/L
C-5	12/22/1999	38.50	22.18	16.32	0.00	0.00	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C-5	03/09/2000	38.50	16.98	21.52	0.00	0.00	<50	<0.5	<0.5	<0.5	0.87	3.5	-	2.8	3.6	120	118	230	0.39	60	74
C-5	06/23/2000 ¹²	38.50	19.65	18.85	0.00	0.00	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C-5	09/05/2000	38.50	20.47	18.03	0.00	0.00	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C-5	12/04/2000	38.50	21.46	17.04	0.00	0.00	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C-5	03/08/2001	38.50	17.53	20.97	0.00	0.00	<50.0	<0.500	<0.500	<0.500	<0.500	5.15	-	-	-	-	-	-	-	-	-
C-5	06/07/2001 ¹²	38.50	19.50	19.00	0.00	0.00	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C-5	09/13/2001 ¹²	38.50	21.43	17.07	0.00	0.00	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C-5	12/13/2001 ¹²	38.50	19.84	18.66	0.00	0.00	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C-5	03/08/2002	38.50	18.18	20.32	0.00	0.00	<50	<0.50	<0.50	<0.50	<1.5	3.5	-	-	-	-	-	-	-	-	-
C-5	06/19/2002 ¹²	38.50	18.88	19.62	0.00	0.00	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C-5	09/11/2002 ¹²	38.50	20.56	17.94	0.00	0.00	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C-5	12/11/2002 ¹²	38.50	21.82	16.68	0.00	0.00	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C-5	03/11/2003	38.50	18.96	19.54	0.00	0.00	<50	<0.50	<0.50	<0.50	<1.5	3.2	-	-	-	-	-	-	-	-	-
C-5	06/10/2003 ¹²	38.50	18.87	19.63	0.00	0.00	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C-5	09/09/2003 ¹²	38.50	20.68	17.82	0.00	0.00	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C-5	12/09/2003 ¹²	38.50	20.25	18.25	0.00	0.00	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C-5	03/09/2004 ⁷	38.50	16.68	21.82	0.00	0.00	<50	<0.5	<0.5	<0.5	<0.5	1	<50	-	-	-	-	-	-	-	-
C-5	06/08/2004 ¹²	38.50	19.34	19.16	0.00	0.00	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C-5	09/08/2004 ¹²	38.50	20.10	18.40	0.00	0.00	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C-5	12/06/2004 ¹²	38.50	19.75	18.75	0.00	0.00	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C-5	03/07/2005 ⁷	38.50	18.15	20.35	0.00	0.00	<50	<0.5	<0.5	<0.5	<0.5	<0.5	<50	-	-	-	-	-	-	-	-

TABLE 5
GROUNDWATER MONITORING AND SAMPLING DATA
CHEVRON SERVICE STATION 90076
4265 FOOTHILL BOULEVARD, OAKLAND, CALIFORNIA

Location	Date	TOC	DTW	GWE	LNAPL	LNAPL REMOVED	HYDROCARBONS	PRIMARY VOCs					ADDITIONAL VOCs	FIELD PARAMETERS				GENERAL CHEMISTRY			
							TPH-GRO	B	T	E	X	MTBE by SW8260	ETHANOL	Dissolved oxygen, prepurge	Dissolved oxygen, postpurge	Oxidation reduction potential, prepurge	Oxidation reduction potential, postpurge	Alkalinity, total (as CaCO ₃)	Ferrous iron	Nitrate (as N)	Sulfate
	Units	ft	ft	ft-amsl	ft	gallons	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	millivolts	millivolts	µg/L	µg/L	µg/L	µg/L
C-5	06/06/2005 ¹²	38.50	19.36	19.14	0.00	0.00	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C-5	09/06/2005 ¹²	38.50	18.26	20.24	0.00	0.00	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C-5	12/05/2005 ¹²	38.50	17.91	20.59	0.00	0.00	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C-5	03/06/2006 ⁷	38.50	18.20	20.30	0.00	0.00	<50	<0.5	<0.5	<0.5	<0.5	<0.5	<50	-	-	-	-	-	-	-	-
C-5	06/05/2006 ¹²	38.50	15.87	22.63	0.00	0.00	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C-5	09/05/2006 ¹²	38.50	18.78	19.72	0.00	0.00	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C-5	12/04/2006 ¹²	38.50	18.71	19.79	0.00	0.00	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C-5	03/05/2007 ⁷	38.50	16.27	22.23	0.00	0.00	<50	<0.5	<0.5	<0.5	<0.5	1	<50	-	-	-	-	-	-	-	-
C-5	06/04/2007 ¹²	38.50	16.27	22.23	0.00	0.00	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C-5	09/07/2007 ¹²	38.50	18.91	19.59	0.00	0.00	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C-5	12/06/2007 ¹²	38.50	19.35	19.15	0.00	0.00	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C-5	03/06/2008 ⁷	38.50	15.84	22.66	0.00	0.00	<50	<0.5	<0.5	<0.5	<0.5	0.7	<50	-	-	-	-	-	-	-	-
C-5	06/05/2008 ¹²	38.50	17.41	21.09	0.00	0.00	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C-5	09/03/2008 ¹²	38.50	19.31	19.19	0.00	0.00	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C-5	12/03/2008 ¹²	38.50	20.41	18.09	0.00	0.00	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C-5	03/04/2009	38.50	16.41	22.09	0.00	0.00	<50	<0.5	<0.5	<0.5	<0.5	2	<50	-	-	-	-	-	-	-	-
C-5	06/09/2009 ⁷	38.50	18.33	12.17	0.00	0.00	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C-5	09/30/2009 ⁷	38.50	19.95	18.55	0.00	0.00	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C-5	03/22/2010 ⁷	38.50	16.34	22.16	0.00	0.00	<50	1	<0.5	<0.5	<0.5	3	<50	-	-	-	-	-	-	-	-
C-5	09/16/2010 ¹²	38.50	19.20	19.30	0.00	0.00	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C-5	03/08/2011 ¹²	38.50	16.80	21.70	0.00	0.00	110	3	<0.5	2	2	3	<50	-	-	-	-	-	-	-	-
C-5	09/28/2011 ¹²	38.50	9.41	29.09	0.00	0.00	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

TABLE 5
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CHEVRON SERVICE STATION 90076
4265 FOOTHILL BOULEVARD, OAKLAND, CALIFORNIA

Location	Date	TOC	DTW	GWE	LNAPLT	LNAPL REMOVED	HYDROCARBONS	PRIMARY VOCs					ADDITIONAL VOCs	FIELD PARAMETERS				GENERAL CHEMISTRY			
							TPH-GRO	B	T	E	X	MTBE by SW8260	ETHANOL	Dissolved oxygen, prepurge	Dissolved oxygen, postpurge	Oxidation reduction potential, prepurge	Oxidation reduction potential, postpurge	Alkalinity, total (as CaCO ₃)	Ferrous iron	Nitrate (as N)	Sulfate
Units	ft	ft	ft-amsl	ft	gallons	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	millivolts	millivolts	µg/L	µg/L	µg/L	µg/L
C-5	03/08/2012 ¹²	38.50	20.00	18.50	0.00	0.00	96 J	10	0.7 J	3	3	34	<50	-	-	-	-	-	-	-	-
C-5	09/20/2012 ¹²	38.50	20.22	18.28	0.00	0.00	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C-5	03/20/2013	38.50	18.23	20.27	0.00	0.00	<50	6	<0.5	1	<0.5	13	<50	-	-	-	-	-	-	-	-
C-5	09/18/2013 ¹²	38.50	20.29	18.21	0.00	0.00	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C-5	03/13/2014 ¹²	38.50	20.26	18.24	0.00	0.00	64 J	4	<0.5	0.5 J	<0.5	4	<50	-	-	-	-	-	-	-	-
C-5	09/25/2014 ¹²	38.50	21.09	17.41	0.00	0.00	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C-5	03/10/2015	41.11	20.35	20.76	0.00	0.00	<50	<0.5	<0.5	<0.5	<0.5	9	<50	-	-	-	-	-	-	-	-
C-5	06/19/2015	41.11	20.63	20.48	0.00	0.00	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C-5	09/15/2015	41.11	21.30	19.81	0.00	0.00	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C-5	12/22/2015 ¹⁵	41.11	21.04	20.07	0.00	0.00	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C-5	03/08/2016	41.11	18.98	22.13	0.00	0.00	81 J	3	<0.5	0.7 J	<0.5	6	<50	-	-	-	-	-	-	-	-
C-6	08/27/1990	32.40	44.11	-11.71	0.00	0.00	7,200	2,100	6.0	41	300	-	-	-	-	-	-	-	-	-	-
C-6	11/14/1990	32.40	44.03	-11.63	0.00	0.00	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C-6	06/18/1991	32.40	43.49	-11.09	0.00	0.00	4,400	2,500	18	160	77	-	-	-	-	-	-	-	-	-	-
C-6	09/19/1991	32.40	34.32	-1.92	0.00	0.00	3,100	1,600	8.3	73	8.0	-	-	-	-	-	-	-	-	-	-
C-6	12/20/1991	32.40	41.35	-8.95	0.00	0.00	4,400	1,300	3.2	74	10	-	-	-	-	-	-	-	-	-	-
C-6	03/18/1992	32.40	40.69	-8.29	0.00	0.00	9,800	3,200	34	250	500	-	-	-	-	-	-	-	-	-	-
C-6	07/14/1992	32.40	38.89	-6.49	0.00	0.00	6,500	2,200	100	96	240	-	-	-	-	-	-	-	-	-	-
C-6	10/08/1992	32.40	38.67	-6.27	0.00	0.00	1,800	1,000	3.1	15	41	-	-	-	-	-	-	-	-	-	-
C-6	01/08/1993	32.40	37.81	-5.41	0.00	0.00	5,200	1,600	6.8	63	120	-	-	-	-	-	-	-	-	-	-
C-6	04/14/1993	32.40	34.70	-2.30	0.00	0.00	11,000	1,800	13	110	200	-	-	-	-	-	-	-	-	-	-

TABLE 5
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CHEVRON SERVICE STATION 90076
4265 FOOTHILL BOULEVARD, OAKLAND, CALIFORNIA

Location	Date	TOC	DTW	GWE	LNAPLT	LNAPL REMOVED	HYDROCARBONS	PRIMARY VOCs					ADDITIONAL VOCs	FIELD PARAMETERS				GENERAL CHEMISTRY			
							TPH-GRO	B	T	E	X	MTBE by SW8260	ETHANOL	Dissolved oxygen, prepurge	Dissolved oxygen, postpurge	Oxidation reduction potential, prepurge	Oxidation reduction potential, postpurge	Alkalinity, total (as CaCO ₃)	Ferrous iron	Nitrate (as N)	Sulfate
	Units	ft	ft	ft-amsl	ft	gallons	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	millivolts	millivolts	µg/L	µg/L	µg/L	µg/L
C-6	07/16/1993	32.40	33.87	-1.47	0.00	0.00	4,800	820	10	41	57	-	-	-	-	-	-	-	-	-	-
C-6	09/21/1993	35.40	33.98	1.42	0.00	0.00	4,100	1,200	<50	75	130	-	-	-	-	-	-	-	-	-	-
C-6	01/28/1994	35.40	33.86	1.54	0.00	0.00	3,100	930	14	40	34	-	-	-	-	-	-	-	-	-	-
C-6	03/17/1994	35.40	32.31	3.09	0.00	0.00	5,100	950	18	61	83	-	-	-	-	-	-	-	-	-	-
C-6	06/16/1994	35.40	31.50	3.90	0.00	0.00	3,800	970	6.4	52	62	-	-	-	-	-	-	-	-	-	-
C-6	09/22/1994	35.40	31.22	4.18	0.00	0.00	4,100	980	7.8	43	48	-	-	-	-	-	-	-	-	-	-
C-6	12/15/1994	35.40	31.40	4.00	0.00	0.00	5,000	1,400	<20	73	61	-	-	-	-	-	-	-	-	-	-
C-6	03/30/1995	35.40	26.38	9.02	0.00	0.00	5,500	1,700	<13	120	97	-	-	-	-	-	-	-	-	-	-
C-6	06/20/1995	35.40	25.01	10.39	0.00	0.00	1,700	470	<10	29	16	-	-	-	-	-	-	-	-	-	-
C-6	09/20/1995	35.40	24.05	11.35	0.00	0.00	3,500	770	<5.0	45	17	-	-	-	-	-	-	-	-	-	-
C-6	12/06/1995	35.40	28.12	7.28	0.00	0.00	3,100	710	<10	41	20	<50	-	-	-	-	-	-	-	-	-
C-6	03/21/1996	35.40	23.12	12.28	0.00	0.00	1,400	330	<2.5	15	8.1	19	-	-	-	-	-	-	-	-	-
C-6	06/21/1996	35.40	23.50	11.90	0.00	0.00	2,200	560	<5.0	18	<5.0	77	-	-	-	-	-	-	-	-	-
C-6	09/06/1996	35.40	24.83	10.57	0.00	0.00	2,800	720	<10	13	<10	160	-	-	-	-	-	-	-	-	-
C-6	12/19/1996	35.40	24.50	10.90	0.00	0.00	830	320	<2.5	<2.5	<2.5	14	-	-	-	-	-	-	-	-	-
C-6	03/17/1997	35.40	22.59	12.81	0.00	0.00	2,200	500	<10	25	<10	<50	-	-	-	-	-	-	-	-	-
C-6	06/11/1997	35.40	23.76	11.64	0.00	0.00	3,000	570	<5.0	29	10	220	-	-	-	-	-	-	-	-	-
C-6	09/17/1997	35.40	24.74	10.66	0.00	0.00	1,400	330	<5.0	<5.0	<5.0	76	-	1.5	1.2	-57	-48	620	1.1	<1.0	18
C-6	12/11/1997	35.40	24.65	10.75	0.00	0.00	1,600	230	<5.0	7.3	6.4	46	-	-	-	-	-	-	-	-	-
C-6	03/12/1998	35.40	27.12	8.28	0.00	0.00	980	300	<5.0	15	12	49	-	14.1	11.3	173	174	200	0.11	14	14
C-6	06/23/1998 ³	35.40	27.92	7.48	0.00	0.00	220	35	<0.5	2.5	1.1	<2.5	-	-	-	-	-	-	-	-	-
C-6	09/01/1998	35.40	31.60	3.80	0.00	0.00	1,800	370	2.8	19	5	44	-	-	-	-	-	-	-	-	-

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CHEVRON SERVICE STATION 90076
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Location	Date	TOC	DTW	GWE	LNAPLT	LNAPL REMOVED	HYDROCARBONS	PRIMARY VOCs					ADDITIONAL VOCs	FIELD PARAMETERS				GENERAL CHEMISTRY			
							TPH-GRO	B	T	E	X	MTBE by SW8260	ETHANOL	Dissolved oxygen, prepurge	Dissolved oxygen, postpurge	Oxidation reduction potential, prepurge	Oxidation reduction potential, postpurge	Alkalinity, total (as CaCO ₃)	Ferrous iron	Nitrate (as N)	Sulfate
	Units	ft	ft	ft-amsl	ft	gallons	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	millivolts	millivolts	µg/L	µg/L	µg/L	µg/L
C-6	12/30/1998	35.40	31.82	3.58	0.00	0.00	1,600	244	<1.0	8.53	<1.0	54.9	-	-	-	-	-	-	-	-	-
C-6	03/31/1999	35.40	26.06	9.34	0.00	0.00	741	92.2	<1.0	6.60	<1.0	27.9	-	9.8	8.4	162	168	534	<500 ¹⁴	0.849	45.3
C-6	06/14/1999 ¹	35.40	29.68	5.72	0.00	0.00	434	110	<1.0	5.76	1.46	13/6.96 ²	-	-	-	-	-	-	-	-	-
C-6	09/30/1999	35.40	23.06	12.34	0.00	0.00	481	92.7	<1.0	3.69	<1.0	32.9	-	-	-	-	-	-	-	-	-
C-6	12/22/1999	35.40	22.55	12.85	0.00	0.00	1,310	158	2.16	5.5	1.41	113	-	1.02	1.22	-65	-60	614	0.36	0.421	32
C-6	03/09/2000	35.40	20.03	15.37	0.00	0.00	470	120	0.74	5.0	2.5	38	-	5.4	1.6	-113	-35	540	0.26	0.14	24
C-6	06/23/2000 ³	35.40	22.15	13.25	0.00	0.00	1,700 ⁴	210	<5.0	<5.0	5.8	64	-	-	-	-	-	-	-	-	-
C-6	09/05/2000 ³	35.40	27.05	8.35	0.00	0.00	740 ⁴	99	0.60	5.1	2.2	80	-	1.90	2.73	45	31	550	0.18	<1.0	38
C-6	12/04/2000	35.40	25.15	10.25	0.00	0.00	450 ⁴	31	0.71	<0.50	<0.50	54	-	-	-	-	-	-	-	-	-
C-6	03/08/2001 ³	35.40	23.84	11.56	0.00	0.00	1,550	228	3.93	19.9	32.5	46.2	-	-	-	-	-	-	-	-	-
C-6	06/07/2001 ³	35.40	25.73	9.67	0.00	0.00	360 ⁴	21	1.8	2.4	3.8	100	-	-	-	-	-	-	-	-	-
C-6	09/13/2001 ³	35.40	23.80	11.60	0.00	0.00	950	180	<5.0	5.9	<5.0	170	-	-	-	-	-	-	-	-	-
C-6	12/13/2001 ³	35.40	25.19	10.21	0.00	0.00	2,000	170	0.86	6.4	4.1	77	-	-	-	-	-	-	-	-	-
C-6	03/08/2002 ³	35.40	21.08	14.32	0.00	0.00	600	33	0.91	1.8	<1.5	90	-	-	-	-	-	-	-	-	-
C-6	06/19/2002 ³	35.40	24.62	10.78	0.00	0.00	370	11	<0.50	<0.50	<1.5	88	-	-	-	-	-	-	-	-	-
C-6	09/11/2002 ³	35.40	29.00	6.40	0.00	0.00	490	16	0.50	<0.50	<1.5	120	-	-	-	-	-	-	-	-	-
C-6	12/11/2002 ³	35.40	24.18	11.22	0.00	0.00	430	17	<0.50	<0.50	<1.5	100	-	-	-	-	-	-	-	-	-
C-6	03/11/2003 ³	35.40	27.70	7.70	0.00	0.00	410	8.8	0.88	<0.50	<1.5	120	-	-	-	-	-	-	-	-	-
C-6	06/10/2003 ^{3,7}	35.40	21.60	13.80	0.00	0.00	460	10	<0.5	<0.5	<0.5	100	-	-	-	-	-	-	-	-	-
C-6	09/09/2003 ¹³	35.40	-	-	0.00	0.00	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C-6	12/09/2003 ^{7,8}	35.40	25.89	9.51	0.00	0.00	1,700	69	<0.5	3	0.6	83	<50	-	-	-	-	-	-	-	-
C-6	03/09/2004 ⁷	35.40	19.51	15.89	0.00	0.00	6,800	280	1	10	4	96	<50	-	-	-	-	-	-	-	-

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CHEVRON SERVICE STATION 90076
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Location	Date	TOC	DTW	GWE	LNAPL	LNAPL REMOVED	HYDROCARBONS	PRIMARY VOCs					ADDITIONAL VOCs	FIELD PARAMETERS				GENERAL CHEMISTRY			
							TPH-GRO	B	T	E	X	MTBE by SW8260	ETHANOL	Dissolved oxygen, prepurge	Dissolved oxygen, postpurge	Oxidation reduction potential, prepurge	Oxidation reduction potential, postpurge	Alkalinity, total (as CaCO ₃)	Ferrous Iron	Nitrate (as N)	Sulfate
Units		ft	ft	ft-amsl	ft	gallons	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	millivolts	millivolts	µg/L	µg/L	µg/L	µg/L
C-6	06/08/2004 ⁷	35.40	20.83	14.57	0.00	0.00	560	13	<0.5	<0.5	0.5	68	<50	-	-	-	-	-	-	-	-
C-6	09/08/2004 ⁷	35.40	21.88	13.52	0.00	0.00	290	16	<0.5	<0.5	<0.5	50	<50	-	-	-	-	-	-	-	-
C-6	12/06/2004 ⁷	35.40	21.34	14.06	0.00	0.00	290	18	<0.5	0.5	<0.5	44	<50	-	-	-	-	-	-	-	-
C-6	03/07/2005 ⁷	35.40	18.27	17.13	0.00	0.00	2,500	150	0.7	5	2	71	<50	-	-	-	-	-	-	-	-
C-6	06/06/2005 ⁷	35.40	18.52	16.88	0.00	0.00	1,900	110	<1	3	2	59	<100	-	-	-	-	-	-	-	-
C-6	09/06/2005 ⁷	35.40	20.38	15.02	0.00	0.00	800	16	<0.5	0.5	0.6	51	<50	-	-	-	-	-	-	-	-
C-6	12/05/2005 ⁷	35.40	20.06	15.34	0.00	0.00	540	15	<0.5	<0.5	0.6	45	<50	-	-	-	-	-	-	-	-
C-6	03/06/2006 ⁷	35.40	18.76	16.64	0.00	0.00	<50	<0.5	<0.5	<0.5	<0.5	<0.5	<50	-	-	-	-	-	-	-	-
C-6	06/05/2006 ⁷	35.40	17.60	17.60	0.00	0.00	<50	<0.5	<0.5	<0.5	<0.5	0.7	<50	-	-	-	-	-	-	-	-
C-6	09/05/2006 ⁷	35.40	20.00	15.40	0.00	0.00	1,200	17	<0.5	0.7	0.8	29	<50	-	-	-	-	-	-	-	-
C-6	12/04/2006 ⁷	35.40	20.91	14.49	0.00	0.00	<50	<0.5	<0.5	<0.5	<0.5	<0.5	<50	-	-	-	-	-	-	-	-
C-6	03/05/2007 ⁷	35.40	18.95	16.45	0.00	0.00	<50	<0.5	<0.5	<0.5	<0.5	<0.5	<50	-	-	-	-	-	-	-	-
C-6	06/04/2007 ⁷	35.40	18.36	17.04	0.00	0.00	<50	<0.5	<0.5	<0.5	<0.5	3	<50	-	-	-	-	-	-	-	-
C-6	09/07/2007 ⁷	35.40	21.05	14.35	0.00	0.00	<50	<0.5	<0.5	<0.5	<0.5	<0.5	<50	-	-	-	-	-	-	-	-
C-6	12/06/2007 ⁷	35.40	21.87	13.53	0.00	0.00	<50	<0.5	<0.5	<0.5	<0.5	<0.5	<50	-	-	-	-	-	-	-	-
C-6	03/06/2008 ⁷	35.40	21.68	13.72	0.00	0.00	<50	<0.5	<0.5	<0.5	<0.5	<0.5	<50	-	-	-	-	-	-	-	-
C-6	06/05/2008 ⁷	35.40	21.25	14.15	0.00	0.00	<50	<0.5	<0.5	<0.5	<0.5	2	<50	-	-	-	-	-	-	-	-
C-6	09/03/2008 ⁷	35.40	21.40	14.00	0.00	0.00	56	0.8	<0.5	<0.5	<0.5	5	<50	-	-	-	-	-	-	-	-
C-6	12/03/2008 ⁷	35.40	22.18	13.22	0.00	0.00	120	2	<0.5	<0.5	<0.5	5	<50	-	-	-	-	-	-	-	-
C-6	03/04/2009	25.40	21.82	13.58	0.00	0.00	<50	<0.5	<0.5	<0.5	<0.5	12	<50	-	-	-	-	-	-	-	-
C-6	06/09/2009 ⁷	35.40	20.33	25.07	0.00	0.00	<50	<0.5	<0.5	<0.5	<0.5	1	<50	-	-	-	-	-	-	-	-
C-6	09/30/2009 ⁷	35.40	21.72	13.68	0.00	0.00	790 J	1	<0.5	<0.5	<0.5	8	<50	-	-	-	-	-	-	-	-

TABLE 5
GROUNDWATER MONITORING AND SAMPLING DATA
CHEVRON SERVICE STATION 90076
4265 FOOTHILL BOULEVARD, OAKLAND, CALIFORNIA

Location	Date	TOC	DTW	GWE	LNAPL	LNAPL REMOVED	HYDROCARBONS	PRIMARY VOCs					ADDITIONAL VOCs	FIELD PARAMETERS				GENERAL CHEMISTRY			
							TPH-GRO	B	T	E	X	MTBE by SW8260	ETHANOL	Dissolved oxygen, prepurge	Dissolved oxygen, postpurge	Oxidation reduction potential, prepurge	Oxidation reduction potential, postpurge	Alkalinity, total (as CaCO ₃)	Ferrous iron	Nitrate (as N)	Sulfate
		Units	ft	ft	ft-amsl	ft	gallons	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	millivolts	millivolts	µg/L	µg/L	µg/L	µg/L
C-6	03/22/2010 ⁷	35.40	18.30	17.10	0.00	0.00	270	<0.5	<0.5	<0.5	<0.5	8	<50	-	-	-	-	-	-	-	-
C-6	09/16/2010	35.40	20.92	14.48	0.00	0.00	210	<0.5	<0.5	<0.5	<0.5	5	<50	-	-	-	-	-	-	-	-
C-6	03/08/2011	35.40	-	-	0.00	0.00	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C-6	09/28/2011	35.40	20.69	14.71	0.00	0.00	59 J	<0.5	<0.5	<0.5	<0.5	4	<50	-	-	-	-	-	-	-	-
C-6	03/08/2012	35.40	21.23	14.17	0.00	0.00	1,700	2	<0.5	<0.5	0.8 J	6	<50	-	-	-	-	-	-	-	-
C-6	09/20/2012	35.40	21.76	13.64	0.00	0.00	2,700	2	<0.5	<0.5	<0.5	10	<50	-	-	-	-	-	-	-	-
C-6	03/20/2013	35.40	19.79	15.61	0.00	0.00	120	<0.5	<0.5	<0.5	<0.5	3	<50	-	-	-	-	-	-	-	-
C-6	09/18/2013	35.40	21.68	13.72	0.00	0.00	1,700	1	<0.5	<0.5	<0.5	7	<50	-	-	-	-	-	-	-	-
C-6	03/13/2014	35.40	21.10	14.30	0.00	0.00	120	<0.5	<0.5	<0.5	<0.5	4	<50	-	-	-	-	-	-	-	-
C-6	09/25/2014	35.40	22.67	12.73	0.00	0.00	100	<0.5	<0.5	<0.5	<0.5	4	<50	-	-	-	-	-	-	-	-
C-6	03/10/2015	37.94	21.81	16.13	0.00	0.00	<50	<0.5	<0.5	<0.5	<0.5	<0.5	<50	-	-	-	-	-	-	-	-
C-6	06/19/2015	37.94	22.36	15.58	0.00	0.00	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C-6	09/15/2015	37.94	23.18	14.76	0.00	0.00	<50	<0.5	<0.5	<0.5	<0.5	<0.5	<50	-	-	-	-	-	-	-	-
C-6	12/22/2015	37.94	22.78	15.16	0.00	0.00	62 J	<0.5	<0.5	<0.5	<0.5	3	<50	-	-	-	-	-	-	-	-
C-6	03/08/2016	37.94	20.54	17.40	0.00	0.00	180	<0.5	<0.5	<0.5	<0.5	3	<50	-	-	-	-	-	-	-	-
C-7	08/27/1990	32.17	44.23	-12.06	0.00	0.00	110	26	0.8	4.0	6.0	-	-	-	-	-	-	-	-	-	-
C-7	11/14/1990	32.17	44.11	-11.94	0.00	0.00	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C-7	06/18/1991	32.17	42.05	-9.88	0.00	0.00	23,000	5,700	420	1,000	2,800	-	-	-	-	-	-	-	-	-	-
C-7	09/19/1991	32.17	41.72	-9.55	0.00	0.00	26,000	4,600	330	970	2,400	-	-	-	-	-	-	-	-	-	-
C-7	12/20/1991	32.17	41.67	-9.50	0.00	0.00	33,000	5,500	270	1,000	2,100	-	-	-	-	-	-	-	-	-	-
C-7	03/18/1992	32.17	41.20	-9.03	0.00	0.00	27,000	5,800	410	1,300	3,300	-	-	-	-	-	-	-	-	-	-

TABLE 5
GROUNDWATER MONITORING AND SAMPLING DATA
CHEVRON SERVICE STATION 90076
4265 FOOTHILL BOULEVARD, OAKLAND, CALIFORNIA

Location	Date	TOC	DTW	GWE	LNAPL	LNAPL REMOVED	HYDROCARBONS	PRIMARY VOCs					ADDITIONAL VOCs	FIELD PARAMETERS				GENERAL CHEMISTRY			
							TPH-GRO	B	T	E	X	MTBE by SW8260	ETHANOL	Dissolved oxygen, prepurge	Dissolved oxygen, postpurge	Oxidation reduction potential, prepurge	Oxidation reduction potential, postpurge	Alkalinity, total (as CaCO ₃)	Ferrous iron	Nitrate (as N)	Sulfate
	Units	ft	ft	ft-amsl	ft	gallons	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	millivolts	millivolts	µg/L	µg/L	µg/L	µg/L
C-7	07/14/1992	32.17	39.77	-7.60	0.00	0.00	46,000	12,000	720	1,700	4,600	-	-	-	-	-	-	-	-	-	-
C-7	10/08/1992	32.17	39.14	-6.97	0.00	0.00	22,000	6,800	370	1,300	3,200	-	-	-	-	-	-	-	-	-	-
C-7	01/08/1993	32.17	38.50	-6.33	0.00	0.00	36,000	7,600	540	1,700	4,200	-	-	-	-	-	-	-	-	-	-
C-7	04/14/1993	32.17	35.93	-3.76	0.00	0.00	23,000	3,100	450	670	1,900	-	-	-	-	-	-	-	-	-	-
C-7	07/16/1993	32.17	35.38	-3.21	0.00	0.00	19,000	3,200	330	550	1,800	-	-	-	-	-	-	-	-	-	-
C-7	09/21/1993	35.19	35.46	-0.27	0.00	0.00	17,000	2,700	160	410	760	-	-	-	-	-	-	-	-	-	-
C-7	01/28/1994	35.19	35.45	-0.26	0.00	0.00	14,000	1,800	210	390	1,000	-	-	-	-	-	-	-	-	-	-
C-7	03/17/1994	35.19	33.24	1.95	0.00	0.00	17,000	1,600	210	410	1,200	-	-	-	-	-	-	-	-	-	-
C-7	06/16/1994	35.19	33.07	2.12	0.00	0.00	12,000	1,600	180	410	1,200	-	-	-	-	-	-	-	-	-	-
C-7	09/22/1994	35.19	32.74	2.45	0.00	0.00	10,000	1,700	110	320	580	-	-	-	-	-	-	-	-	-	-
C-7	12/15/1994	35.19	31.92	3.27	0.00	0.00	10,000	1,200	120	280	710	-	-	-	-	-	-	-	-	-	-
C-7	03/30/1995	35.19	27.60	7.59	0.00	0.00	4,600	460	73	160	460	-	-	-	-	-	-	-	-	-	-
C-7	06/20/1995	35.19	27.87	7.32	0.00	0.00	26,000	4,400	450	900	2,400	-	-	-	-	-	-	-	-	-	-
C-7	09/20/1995	35.19	28.08	7.11	0.00	0.00	9,400	610	81	250	800	-	-	-	-	-	-	-	-	-	-
C-7	12/06/1995	35.19	30.62	4.57	0.00	0.00	1,200	110	12	25	71	34	-	-	-	-	-	-	-	-	-
C-7	03/21/1996	35.19	27.85	7.34	0.00	0.00	17,000	1,300	160	410	1,300	<100	-	-	-	-	-	-	-	-	-
C-7	09/06/1996	35.19	28.35	6.84	0.00	0.00	15,000	3,400	<50	460	850	<250	-	-	-	-	-	-	-	-	-
C-7	12/19/1996	35.19	29.11	6.08	0.00	0.00	530	9	0.5	0.85	3.4	<2.5	-	-	-	-	-	-	-	-	-
C-7	03/17/1997	35.19	27.14	8.05	0.00	0.00	4,600	310	46	110	310	98	-	-	-	-	-	-	-	-	-
C-7	06/11/1997	35.19	28.05	7.14	0.00	0.00	420	15	<0.5	3.3	5.1	<2.5	-	-	-	-	-	-	-	-	-
C-7	09/17/1997	35.19	29.00	6.19	0.00	0.00	1,400	120	11	31	84	54	-	0.6	0.4	126	115	600	4.8	<1.0	18
C-7	12/11/1997	35.19	29.26	5.93	0.00	0.00	210	10	<0.5	0.97	1.6	<2.5	-	-	-	-	-	-	-	-	-

TABLE 5
GROUNDWATER MONITORING AND SAMPLING DATA
CHEVRON SERVICE STATION 90076
4265 FOOTHILL BOULEVARD, OAKLAND, CALIFORNIA

Location	Date	TOC	DTW	GWE	LNAPL T	LNAPL REMOVED	HYDROCARBONS	PRIMARY VOCs					ADDITIONAL VOCs	FIELD PARAMETERS				GENERAL CHEMISTRY			
							TPH-GRO	B	T	E	X	MTBE by SWB260	ETHANOL	Dissolved oxygen, prepurge	Dissolved oxygen, postpurge	Oxidation reduction potential, prepurge	Oxidation reduction potential, postpurge	Alkalinity, total (as CaCO ₃)	Ferrous Iron	Nitrate (as N)	Sulfate
	Units	ft	ft	ft-amsl	ft	gallons	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	millivolts	millivolts	µg/L	µg/L	µg/L	µg/L
C-7	03/12/1998	35.19	24.92	10.27	0.00	0.00	68	<0.5	<0.5	<0.5	<0.5	<2.5	-	2.2	2.1	167	167	460	0.16	<1.0	29
C-7	06/23/1998	35.19	25.30	9.89	0.00	0.00	<50	<0.5	<0.5	<0.5	<0.5	<2.5	-	-	-	-	-	-	-	-	-
C-7	09/01/1998	35.19	26.27	8.92	0.00	0.00	570	24	1.4	8.4	22	24	-	-	-	-	-	-	-	-	-
C-7	12/30/1998	35.19	26.52	8.67	0.00	0.00	<50	4.85	1.26	<0.5	1.29	167	-	-	-	-	-	-	-	-	-
C-7	03/31/1999	35.19	24.76	10.43	0.00	0.00	53.1	<0.5	<0.5	<0.5	<0.5	<2.0	-	2.0	1.8	137	135	486	<500 ¹⁴	<0.1	29.4
C-7	06/14/1999 ¹	35.19	25.44	9.75	0.00	0.00	109	4.43	<0.5	<0.5	<0.5	<2.5/<2.0 ²	-	-	-	-	-	-	-	-	-
C-7	09/30/1999	35.19	26.87	8.32	0.00	0.00	2,400	282	26.3	120	236	126	-	-	-	-	-	-	-	-	-
C-7	12/22/1999	35.19	27.77	7.42	0.00	0.00	3,840	162	18.1	44.7	85.3	141	-	1.8	1.5	20	-60	400	1.6	0.434	16.9
C-7	03/09/2000	35.19	25.57	9.62	0.00	0.00	13,000	2,700	110	700	1,500	<130	-	0.7	2.5	10	-13	610	2.1	<0.1	5.5
C-7	06/23/2000	35.19	25.66	9.53	0.00	0.00	190 ⁴	3.4	<0.50	<0.50	1.6	7.3	-	-	-	-	-	-	-	-	-
C-7	09/05/2000	35.19	26.75	8.44	0.00	0.00	4,200 ⁴	330	26	120	200	190	-	1.77	1.46	133	46	590	1.8	<1.0	12
C-7	12/04/2000	35.19	27.16	8.03	0.00	0.00	2,500 ⁴	550	<5.0	73	62	<25	-	-	-	-	-	-	-	-	-
C-7	03/08/2001	35.19	25.43	9.76	0.00	0.00	1,180	39.2	2.41	15.5	30.8	10.3	-	-	-	-	-	-	-	-	-
C-7	06/07/2001	35.19	25.39	9.80	0.00	0.00	2,600 ⁴	440	14	110	130	56	-	-	-	-	-	-	-	-	-
C-7	09/13/2001	35.19	26.61	8.58	0.00	0.00	23,000 ⁶	670	<100	150	210	<500	-	-	-	-	-	-	-	-	-
C-7	12/13/2001	35.19	26.69	8.50	0.00	0.00	2,400	160	5.8	42	54	<10	-	-	-	-	-	-	-	-	-
C-7	03/08/2002	35.19	24.80	10.39	0.00	0.00	3,900	380	21	110	160	<20	-	-	-	-	-	-	-	-	-
C-7	06/19/2002	35.19	27.41	7.78	0.00	0.00	3,600	440	8.5	87	73	<10	-	-	-	-	-	-	-	-	-
C-7	09/11/2002	35.19	25.78	9.41	0.00	0.00	11,000	1,800	18	360	380	<10	-	-	-	-	-	-	-	-	-
C-7	12/11/2002	35.19	30.75	4.44	0.00	0.00	6,000	1,100	9.3	190	190	<10	-	-	-	-	-	-	-	-	-
C-7	03/11/2003	35.19	26.90	8.29	0.00	0.00	4,900	940	13	150	160	<25	-	-	-	-	-	-	-	-	-
C-7	06/10/2003 ⁷	35.19	30.91	4.28	0.00	0.00	3,100	500	7	83	77	4	-	-	-	-	-	-	-	-	-

TABLE 5
GROUNDWATER MONITORING AND SAMPLING DATA
CHEVRON SERVICE STATION 90076
4265 FOOTHILL BOULEVARD, OAKLAND, CALIFORNIA

Location	Date	TOC	DTW	GWE	LNAPL T	LNAPL REMOVED	HYDROCARBONS	PRIMARY VOCs					ADDITIONAL VOCs	FIELD PARAMETERS				GENERAL CHEMISTRY			
							TPH-GRO	B	T	E	X	MTBE by SW8260	ETHANOL	Dissolved oxygen, prepurge	Dissolved oxygen, postpurge	Oxidation reduction potential, prepurge	Oxidation reduction potential, postpurge	Alkalinity, total (as CaCO ₃)	Ferrous iron	Nitrate (as N)	Sulfate
	Units	ft	ft	ft-amsl	ft	gallons	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	millivolts	millivolts	µg/L	µg/L	µg/L	µg/L
C-7	09/09/2003 ^T	35.19	31.81	3.38	0.00	0.00	3,900	310	9	110	130	5	<50	-	-	-	-	-	-	-	-
C-7	12/09/2003 ^T	35.19	28.45	6.74	0.00	0.00	170	0.8	<0.5	<0.5	<0.5	5	<50	-	-	-	-	-	-	-	-
C-7	03/09/2004 ^T	35.19	24.46	10.73	0.00	0.00	80	<0.5	<0.5	<0.5	<0.5	4	<50	-	-	-	-	-	-	-	-
C-7	06/08/2004 ^T	35.19	26.96	8.23	0.00	0.00	<50	<0.5	<0.5	<0.5	<0.5	6	<50	-	-	-	-	-	-	-	-
C-7	09/08/2004 ^T	35.19	25.20	9.99	0.00	0.00	<50	<0.5	<0.5	<0.5	<0.5	7	<50	-	-	-	-	-	-	-	-
C-7	12/06/2004 ^T	35.19	24.91	10.28	0.00	0.00	<50	<0.5	<0.5	<0.5	<0.5	7	<50	-	-	-	-	-	-	-	-
C-7	03/07/2005 ^T	35.19	23.43	11.76	0.00	0.00	590	9	0.7	4	6	7	<50	-	-	-	-	-	-	-	-
C-7	06/06/2005 ^T	35.19	21.88	13.31	0.00	0.00	<50	<0.5	<0.5	<0.5	<0.5	6	<50	-	-	-	-	-	-	-	-
C-7	09/06/2005 ^T	35.19	23.59	11.60	0.00	0.00	<50	<0.5	<0.5	<0.5	<0.5	9	<50	-	-	-	-	-	-	-	-
C-7	12/05/2005 ^T	35.19	23.75	11.44	0.00	0.00	<50	0.6	<0.5	<0.5	<0.5	9	<50	-	-	-	-	-	-	-	-
C-7	03/06/2006 ^T	35.19	21.39	13.80	0.00	0.00	<50	<0.5	<0.5	<0.5	<0.5	7	<50	-	-	-	-	-	-	-	-
C-7	06/05/2006 ^T	35.19	20.41	14.78	0.00	0.00	<50	<0.5	<0.5	<0.5	<0.5	4	<50	-	-	-	-	-	-	-	-
C-7	09/05/2006 ^T	35.19	22.81	12.38	0.00	0.00	<50	<0.5	<0.5	<0.5	<0.5	2	<50	-	-	-	-	-	-	-	-
C-7	12/04/2006 ^T	35.19	23.35	11.84	0.00	0.00	<50	<0.5	<0.5	<0.5	<0.5	3	<50	-	-	-	-	-	-	-	-
C-7	03/05/2007 ^T	35.19	22.72	12.47	0.00	0.00	<50	<0.5	<0.5	<0.5	<0.5	2	<50	-	-	-	-	-	-	-	-
C-7	06/04/2007 ^T	35.19	20.95	14.24	0.00	0.00	<50	<0.5	<0.5	<0.5	<0.5	4	<50	-	-	-	-	-	-	-	-
C-7	09/07/2007 ^T	35.19	23.48	11.71	0.00	0.00	<50	<0.5	<0.5	<0.5	<0.5	5	<50	-	-	-	-	-	-	-	-
C-7	12/06/2007 ^T	35.19	24.32	10.87	0.00	0.00	<50	<0.5	<0.5	<0.5	<0.5	5	<50	-	-	-	-	-	-	-	-
C-7	03/06/2008 ^T	35.19	23.29	11.90	0.00	0.00	<50	<0.5	<0.5	<0.5	<0.5	6	<50	-	-	-	-	-	-	-	-
C-7	06/05/2008 ^T	35.19	23.27	11.92	0.00	0.00	<50	<0.5	<0.5	<0.5	<0.5	6	<50	-	-	-	-	-	-	-	-
C-7	09/03/2008 ^T	35.19	24.61	10.58	0.00	0.00	<50	<0.5	<0.5	<0.5	<0.5	4	<50	-	-	-	-	-	-	-	-
C-7	12/03/2008 ^T	35.19	25.22	9.97	0.00	0.00	<50	<0.5	<0.5	<0.5	<0.5	4	<50	-	-	-	-	-	-	-	-

TABLE 5
GROUNDWATER MONITORING AND SAMPLING DATA
CHEVRON SERVICE STATION 90076
4265 FOOTHILL BOULEVARD, OAKLAND, CALIFORNIA

Location	Date	TOC	DTW	GWE	LNAPL ¹	LNAPL REMOVED	HYDROCARBONS	PRIMARY VOCs					ADDITIONAL VOCs	FIELD PARAMETERS				GENERAL CHEMISTRY			
							TPH-GRO	B	T	E	X	MTBE by SWB260	ETHANOL	Dissolved oxygen, prepurge	Dissolved oxygen, postpurge	Oxidation reduction potential, prepurge	Oxidation reduction potential, postpurge	Alkalinity, total (as CaCO ₃)	Ferrous Iron	Nitrate (as N)	Sulfate
	Units	ft	ft	ft-amsl	ft	gallons	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	millivolts	millivolts	µg/L	µg/L	µg/L	µg/L
C-7	03/04/2009	35.19	23.55	11.64	0.00	0.00	<50	<0.5	<0.5	<0.5	<0.5	3	<50	-	-	-	-	-	-	-	-
C-7	06/09/2009 ⁷	35.19	23.45	11.74	0.00	0.00	3,300 J	12	3	60	120	11	<50	-	-	-	-	-	-	-	-
C-7	09/30/2009 ⁷	35.19	24.85	10.34	0.00	0.00	260	<0.5	<0.5	<0.5	<0.5	13	<50	-	-	-	-	-	-	-	-
C-7	03/22/2010 ⁷	35.19	22.39	12.80	0.00	0.00	2,600	150	4	78	120	11	<50	-	-	-	-	-	-	-	-
C-7	09/16/2010	35.19	24.00	11.19	0.00	0.00	1,900	30	1	26	55	9	<50	-	-	-	-	-	-	-	-
C-7	03/08/2011	35.19	21.16	14.03	0.00	0.00	4,200	620	5	190	140	5	<100	-	-	-	-	-	-	-	-
C-7	09/28/2011	35.19	23.81	11.38	0.00	0.00	4,500	670	5	170	110	5	<100	-	-	-	-	-	-	-	-
C-7	03/08/2012	35.19	24.00	11.19	0.00	0.00	<50	<0.5	<0.5	<0.5	<0.5	7	<50	-	-	-	-	-	-	-	-
C-7	09/20/2012	35.19	24.72	10.47	0.00	0.00	<50	<0.5	<0.5	<0.5	<0.5	8	<50	-	-	-	-	-	-	-	-
C-7	03/20/2013	35.19	23.59	11.60	0.00	0.00	1,700	24	2	37	76	8	<50	-	-	-	-	-	-	-	-
C-7	09/18/2013	35.19	25.00	10.19	0.00	0.00	<50	<0.5	<0.5	<0.5	<0.5	9	<50	-	-	-	-	-	-	-	-
C-7	03/13/2014	35.19	24.90	10.29	0.00	0.00	2,700	38	0.6 J	19	19	9	<50	-	-	-	-	-	-	-	-
C-7	09/25/2014	35.19	25.75	9.44	0.00	0.00	1,300	15	0.5 J	15	27	8	<50	-	-	-	-	-	-	-	-
C-7	03/10/2015 ¹³	35.19	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C-7	06/19/2015 ¹³	35.19	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C-7	09/15/2015 ¹³	35.19	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C-7	12/22/2015 ¹³	35.19	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C-7	03/08/2016 ¹³	35.19	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C-8	11/14/1990	30.68	43.29	-12.61	0.00	0.00	<50	<0.3	<0.3	<0.3	<0.6	-	-	-	-	-	-	-	-	-	-
C-8	06/18/1991	30.68	42.62	-11.94	0.00	0.00	<50	<0.5	<0.5	<0.5	<0.5	-	-	-	-	-	-	-	-	-	-
C-8	09/19/1991	30.68	41.72	-11.04	0.00	0.00	<50	<0.5	<0.5	<0.5	<0.5	-	-	-	-	-	-	-	-	-	-

TABLE 5
GROUNDWATER MONITORING AND SAMPLING DATA
CHEVRON SERVICE STATION 90076
4265 FOOTHILL BOULEVARD, OAKLAND, CALIFORNIA

Location	Date	TOC	DTW	GWE	LNAPLT	LNAPL REMOVED	HYDROCARBONS	PRIMARY VOCS					ADDITIONAL VOCS	FIELD PARAMETERS				GENERAL CHEMISTRY			
							TPH-GRO	B	T	E	X	MTBE by SW8260	ETHANOL	Dissolved oxygen, prepurge	Dissolved oxygen, postpurge	Oxidation reduction potential, prepurge	Oxidation reduction potential, postpurge	Alkalinity, total (as CaCO ₃)	Ferrous iron	Nitrate (as N)	Sulfate
	Units	ft	ft	ft-amsl	ft	gallons	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	millivolts	millivolts	µg/L	µg/L	µg/L	µg/L
C-8	12/20/1991	30.68	40.98	-10.30	0.00	0.00	<50	<0.5	<0.5	<0.5	<0.5	-	-	-	-	-	-	-	-	-	-
C-8	03/18/1992	30.68	40.02	-9.34	0.00	0.00	<50	<0.5	<0.5	<0.5	<0.5	-	-	-	-	-	-	-	-	-	-
C-8	07/14/1992	30.68	39.02	-8.34	0.00	0.00	<50	<0.5	<0.5	<0.5	<0.5	-	-	-	-	-	-	-	-	-	-
C-8	10/08/1992	30.68	38.68	-8.00	0.00	0.00	<50	<0.5	<0.5	<0.5	1.1	-	-	-	-	-	-	-	-	-	-
C-8	01/08/1993	30.68	38.07	-7.39	0.00	0.00	<50	<0.5	<0.5	<0.5	<0.5	-	-	-	-	-	-	-	-	-	-
C-8	04/14/1993	30.68	35.99	-5.31	0.00	0.00	<50	<0.5	<0.5	<0.5	<0.5	-	-	-	-	-	-	-	-	-	-
C-8	07/16/1993	30.68	35.32	-4.64	0.00	0.00	<50	<0.5	<0.5	<0.5	<0.5	-	-	-	-	-	-	-	-	-	-
C-8	09/21/1993	34.68	35.30	-0.62	0.00	0.00	<50	<0.5	<0.5	<0.5	<0.8	-	-	-	-	-	-	-	-	-	-
C-8	01/28/1994	34.68	35.61	-0.93	0.00	0.00	<50	<0.5	<0.5	<0.5	<0.5	-	-	-	-	-	-	-	-	-	-
C-8	03/17/1994	34.68	34.37	0.31	0.00	0.00	<50	<0.5	<0.5	<0.5	<0.5	-	-	-	-	-	-	-	-	-	-
C-8	06/16/1994	34.68	33.36	1.32	0.00	0.00	<50	<0.5	<0.5	<0.5	<0.5	-	-	-	-	-	-	-	-	-	-
C-8	09/22/1994	34.68	32.82	1.86	0.00	0.00	<50	<0.5	<0.5	<0.5	<0.5	-	-	-	-	-	-	-	-	-	-
C-8	12/15/1994	34.68	32.36	2.32	0.00	0.00	<50	<0.5	<0.5	<0.5	<0.5	-	-	-	-	-	-	-	-	-	-
C-8	03/30/1995	34.68	29.24	5.44	0.00	0.00	<50	<0.5	<0.5	<0.5	<0.5	-	-	-	-	-	-	-	-	-	-
C-8	06/20/1995	34.68	28.34	6.34	0.00	0.00	<50	<0.5	<0.5	<0.5	<0.5	-	-	-	-	-	-	-	-	-	-
C-8	09/20/1995	34.68	29.48	5.20	0.00	0.00	<50	<0.5	<0.5	<0.5	<0.5	-	-	-	-	-	-	-	-	-	-
C-8	12/06/1995	34.68	30.92	3.76	0.00	0.00	<50	<0.5	<0.5	<0.5	<0.5	<2.5	-	-	-	-	-	-	-	-	-
C-8	03/21/1996	34.68	28.65	6.03	0.00	0.00	<50	<0.5	<0.5	<0.5	<0.5	<2.5	-	-	-	-	-	-	-	-	-
C-8	06/21/1996	34.68	27.90	6.78	0.00	0.00	<50	<0.5	<0.5	<0.5	<0.5	<2.5	-	-	-	-	-	-	-	-	-
C-8	09/06/1996	34.68	28.70	5.98	0.00	0.00	<50	<0.5	<0.5	<0.5	<0.5	<2.5	-	-	-	-	-	-	-	-	-
C-8	12/19/1996	34.68	29.70	4.98	0.00	0.00	<50	<0.5	<0.5	<0.5	<0.5	<2.5	-	-	-	-	-	-	-	-	-
C-8	03/17/1997	34.68	27.76	6.92	0.00	0.00	<50	<0.5	<0.5	<0.5	<0.5	<2.5	-	-	-	-	-	-	-	-	-

TABLE 5
GROUNDWATER MONITORING AND SAMPLING DATA
CHEVRON SERVICE STATION 90076
4265 FOOTHILL BOULEVARD, OAKLAND, CALIFORNIA

Location	Date	TOC	DTW	GWE	LNAPLT	LNAPL REMOVED	HYDROCARBONS	PRIMARY VOCs					ADDITIONAL VOCs	FIELD PARAMETERS				GENERAL CHEMISTRY			
							TPH-GRO	B	T	E	X	MTBE by SW8260	ETHANOL	Dissolved oxygen, prepurge	Dissolved oxygen, postpurge	Oxidation reduction potential, prepurge	Oxidation reduction potential, postpurge	Alkalinity, total (as CaCO ₃)	Ferrous iron	Nitrate (as N)	Sulfate
	Units	ft	ft	ft-amsl	ft	gallons	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	millivolts	millivolts	µg/L	µg/L	µg/L	µg/L
C-8	06/11/1997	34.68	28.81	5.87	0.00	0.00	<50	<0.5	<0.5	<0.5	<0.5	<2.5	-	-	-	-	-	-	-	-	-
C-8	09/17/1997 ¹²	34.68	29.36	5.32	0.00	0.00	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C-8	12/11/1997	34.68	29.80	4.88	0.00	0.00	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C-8	03/12/1998	34.68	25.73	8.95	0.00	0.00	<50	<0.5	<0.5	<0.5	<0.5	2.6	-	1.0	1.1	171	169	110	0.16	7.4	8.2
C-8	06/23/1998	34.68	26.30	8.38	0.00	0.00	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C-8	09/01/1998	34.68	26.51	8.17	0.00	0.00	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C-8	12/30/1998	34.68	26.89	7.79	0.00	0.00	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C-8	03/31/1999	34.68	26.36	8.32	0.00	0.00	<50	<0.5	<0.5	<0.5	<0.5	11.8	-	1.8	1.5	149	132	264	<500 ¹⁴	17	71
C-8	06/14/1999	34.68	26.03	8.65	0.00	0.00	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C-8	09/30/1999	34.68	27.28	7.40	0.00	0.00	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C-8	12/22/1999	34.68	28.20	6.48	0.00	0.00	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C-8	03/09/2000	34.68	26.33	8.35	0.00	0.00	<50	<0.5	<0.5	<0.5	1.8	<2.5	-	2.7	3.3	141	160	270	0.24	29	35
C-8	06/23/2000 ¹²	34.68	26.19	8.49	0.00	0.00	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C-8	09/05/2000	34.68	26.97	7.71	0.00	0.00	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C-8	12/04/2000	34.68	27.42	7.26	0.00	0.00	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C-8	03/08/2001	34.68	26.10	8.58	0.00	0.00	<50.0	<0.500	<0.500	<0.500	<0.500	<2.50	-	-	-	-	-	-	-	-	-
C-8	06/07/2001 ¹²	34.68	25.79	8.89	0.00	0.00	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C-8	09/13/2001 ¹²	34.68	26.81	7.87	0.00	0.00	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C-8	12/13/2001 ¹²	34.68	27.16	7.52	0.00	0.00	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C-8	03/08/2002	34.68	25.30	9.38	0.00	0.00	<50	<0.50	<0.50	<0.50	<1.5	<2.5	-	-	-	-	-	-	-	-	-
C-8	06/19/2002 ¹²	34.68	24.93	9.75	0.00	0.00	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C-8	09/11/2002 ¹²	34.68	25.92	8.76	0.00	0.00	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

TABLE 5
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CHEVRON SERVICE STATION 90076
4265 FOOTHILL BOULEVARD, OAKLAND, CALIFORNIA

Location	Date	TOC	DTW	GWE	LNAPL	LNAPL REMOVED	HYDROCARBONS	PRIMARY VOCs					ADDITIONAL VOCs	FIELD PARAMETERS				GENERAL CHEMISTRY			
							TPH-GRO	B	T	E	X	MTBE by SW8260	ETHANOL	Dissolved oxygen, prepurge	Dissolved oxygen, postpurge	Oxidation reduction potential, prepurge	Oxidation reduction potential, postpurge	Alkalinity, total (as CaCO ₃)	Ferrous Iron	Nitrate (as N)	Sulfate
	Units	ft	ft	ft-amsl	ft	gallons	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	millivolts	millivolts	µg/L	µg/L	µg/L	µg/L
C-8	12/11/2002 ¹²	34.68	27.31	7.37	0.00	0.00	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C-8	03/11/2003	34.68	25.79	8.89	0.00	0.00	<50	<0.50	<0.50	<0.50	<1.5	<2.5	-	-	-	-	-	-	-	-	-
C-8	06/10/2003 ¹²	34.68	25.28	9.40	0.00	0.00	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C-8	09/09/2003 ¹²	34.68	26.11	8.57	0.00	0.00	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C-8	12/09/2003 ¹²	34.68	28.51	6.17	0.00	0.00	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C-8	03/09/2004 ⁷	34.68	23.98	10.70	0.00	0.00	<50	<0.5	<0.5	<0.5	<0.5	<0.5	<50	-	-	-	-	-	-	-	-
C-8	06/08/2004 ¹²	34.68	25.27	9.41	0.00	0.00	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C-8	09/08/2004 ¹²	34.68	25.83	8.85	0.00	0.00	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C-8	12/06/2004 ¹²	34.68	25.06	9.62	0.00	0.00	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C-8	03/07/2005 ⁷	34.68	23.35	11.33	0.00	0.00	<50	<0.5	<0.5	<0.5	<0.5	<0.5	<50	-	-	-	-	-	-	-	-
C-8	06/06/2005 ¹²	34.68	22.84	11.84	0.00	0.00	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C-8	09/06/2005 ¹²	34.68	24.91	9.77	0.00	0.00	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C-8	12/05/2005 ¹²	34.68	24.16	10.52	0.00	0.00	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C-8	03/06/2006 ⁷	34.68	22.55	12.13	0.00	0.00	<50	<0.5	<0.5	<0.5	<0.5	<0.5	<50	-	-	-	-	-	-	-	-
C-8	06/05/2006 ¹²	34.68	21.60	13.08	0.00	0.00	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C-8	09/05/2006 ¹²	34.68	23.75	10.93	0.00	0.00	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C-8	12/04/2006 ¹²	34.68	23.97	10.71	0.00	0.00	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C-8	03/05/2007 ⁷	34.68	23.05	11.63	0.00	0.00	<50	<0.5	<0.5	<0.5	<0.5	<0.5	<50	-	-	-	-	-	-	-	-
C-8	06/04/2007 ¹²	34.68	22.11	12.57	0.00	0.00	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C-8	09/07/2007 ¹²	34.68	24.07	10.61	0.00	0.00	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C-8	12/06/2007 ¹²	34.68	24.38	10.30	0.00	0.00	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C-8	03/06/2008 ⁷	34.68	23.36	11.32	0.00	0.00	<50	<0.5	<0.5	<0.5	<0.5	<0.5	<50	-	-	-	-	-	-	-	-

TABLE 5
GROUNDWATER MONITORING AND SAMPLING DATA
CHEVRON SERVICE STATION 90076
4265 FOOTHILL BOULEVARD, OAKLAND, CALIFORNIA

Location	Date	TOC	DTW	GWE	LNAPLT	LNAPL REMOVED	HYDROCARBONS	PRIMARY VOCs					ADDITIONAL VOCs	FIELD PARAMETERS				GENERAL CHEMISTRY			
							TPH-GRO	B	T	E	X	MTBE by SW8260	ETHANOL	Dissolved oxygen, prepurge	Dissolved oxygen, postpurge	Oxidation reduction potential, prepurge	Oxidation reduction potential, postpurge	Alkalinity, total (as CaCO3)	Ferrous iron	Nitrate (as N)	Sulfate
	Units	ft	ft	ft-amsl	ft	gallons	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	millivolts	millivolts	µg/L	µg/L	µg/L	µg/L
C-8	06/05/2008 ¹²	34.68	23.06	11.62	0.00	0.00	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C-8	09/03/2008 ¹²	34.68	24.93	9.75	0.00	0.00	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C-8	12/03/2008 ¹²	34.68	25.70	8.98	0.00	0.00	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C-8	03/04/2009	34.68	23.98	10.70	0.00	0.00	<50	<0.5	<0.5	<0.5	<0.5	<0.5	<50	-	-	-	-	-	-	-	-
C-8	06/09/2009 ¹²	34.68	23.85	12.83	0.00	0.00	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C-8	09/30/2009 ¹²	34.68	25.40	9.28	0.00	0.00	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C-8	03/22/2010	34.68	-	-	0.00	0.00	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C-8	09/16/2010 ¹²	34.68	24.34	10.34	0.00	0.00	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C-8	03/08/2011 ¹²	34.68	21.42	13.26	0.00	0.00	<50	<0.5	<0.5	<0.5	<0.5	<0.5	<50	-	-	-	-	-	-	-	-
C-8	09/28/2011 ¹²	34.68	23.27	11.41	0.00	0.00	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C-8	03/08/2012 ¹²	34.68	24.22	10.46	0.00	0.00	<50	<0.5	<0.5	<0.5	<0.5	<0.5	<50	-	-	-	-	-	-	-	-
C-8	09/20/2012 ¹²	34.68	25.01	9.67	0.00	0.00	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C-8	03/20/2013	34.68	23.93	10.75	0.00	0.00	<50	<0.5	<0.5	<0.5	<0.5	<0.5	<50	-	-	-	-	-	-	-	-
C-8	09/18/2013 ¹²	34.68	25.19	9.49	0.00	0.00	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C-8	03/13/2014 ¹²	34.68	25.01	9.67	0.00	0.00	<50	<0.5	<0.5	<0.5	<0.5	<0.5	<50	-	-	-	-	-	-	-	-
C-8	09/25/2014 ¹²	34.68	25.87	8.81	0.00	0.00	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C-8	03/10/2015	37.22	25.06	12.16	0.00	0.00	<50	1	<0.5	<0.5	<0.5	<0.5	<50	-	-	-	-	-	-	-	-
C-8	06/19/2015	37.22	25.03	12.19	0.00	0.00	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C-8	09/15/2015	37.22	26.11	11.11	0.00	0.00	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C-8	12/22/2015 ¹⁵	37.22	26.78	10.44	0.00	0.00	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C-8	03/08/2016	37.22	25.23	11.99	0.00	0.00	<50	<0.5	<0.5	<0.5	<0.5	<0.5	<50	-	-	-	-	-	-	-	-

TABLE 5
GROUNDWATER MONITORING AND SAMPLING DATA
CHEVRON SERVICE STATION 90076
4265 FOOTHILL BOULEVARD, OAKLAND, CALIFORNIA

Location	Date	TOC	DTW	GWE	LNAPLT	LNAPL REMOVED	HYDROCARBONS	PRIMARY VOCs					ADDITIONAL VOCs	FIELD PARAMETERS				GENERAL CHEMISTRY			
							TPH-GRO	B	T	E	X	M/TBE by SWB260	ETHANOL	Dissolved oxygen, prepurge	Dissolved oxygen, postpurge	Oxidation reduction potential, prepurge	Oxidation reduction potential, postpurge	Alkalinity, total (as CaCO ₃)	Ferrous iron	Nitrate (as N)	Sulfate
	Units	ft	ft	ft-amsl	ft	gallons	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	millivolts	millivolts	µg/L	µg/L	µg/L	µg/L
C-9	08/13/1996	-	28.27	-	0.00	0.00	ND	ND	ND	ND	ND	ND	-	-	-	-	-	-	-	-	-
C-9	09/06/1996	-	28.47	-	0.00	0.00	<50	<0.5	<0.5	<0.5	<0.5	<2.5	-	-	-	-	-	-	-	-	-
C-9	12/19/1996	30.68	29.29	1.39	0.00	0.00	<50	<0.5	<0.5	<0.5	<0.5	<2.5	-	-	-	-	-	-	-	-	-
C-9	03/17/1997	30.68	27.57	3.11	0.00	0.00	<50	<0.5	<0.5	<0.5	<0.5	<2.5	-	-	-	-	-	-	-	-	-
C-9	06/11/1997	30.68	28.27	2.41	0.00	0.00	<50	<0.5	<0.5	<0.5	<0.5	<2.5	-	-	-	-	-	-	-	-	-
C-9	09/17/1997 ¹²	30.68	28.63	2.05	0.00	0.00	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C-9	12/11/1997	30.68	29.43	1.25	0.00	0.00	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C-9	03/12/1998	30.68	25.62	5.06	0.00	0.00	<50	<0.5	<0.5	<0.5	<0.5	<2.5	-	2.5	2.5	172	168	230	0.048	59	58
C-9	06/23/1998	30.68	26.15	4.53	0.00	0.00	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C-9	09/01/1998	30.68	26.38	4.30	0.00	0.00	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C-9	12/30/1998	30.68	26.75	3.93	0.00	0.00	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C-9	03/31/1999	30.68	25.33	5.35	0.00	0.00	<50	<0.5	<0.5	<0.5	<0.5	12.5	-	2.1	2.3	154	142	236	<500 ¹⁴	18	72.7
C-9	06/14/1999	30.68	26.52	4.16	0.00	0.00	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C-9	09/30/1999	30.68	26.79	3.89	0.00	0.00	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C-9	12/22/1999	30.68	27.69	2.99	0.00	0.00	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C-9	03/09/2000	30.68	26.04	4.64	0.00	0.00	<50	<0.5	<0.5	<0.5	0.75	<2.5	-	2.5	3.7	108	138	190	0.79	100	73
C-9	06/23/2000	30.68	25.85	4.83	0.00	0.00	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C-9	09/05/2000	30.68	26.69	3.99	0.00	0.00	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C-9	12/04/2000	30.68	27.07	3.61	0.00	0.00	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C-9	03/08/2001	30.68	25.75	4.93	0.00	0.00	<50.0	<0.500	<0.500	<0.500	<0.500	<2.50	-	-	-	-	-	-	-	-	-
C-9	06/07/2001 ¹²	30.68	25.50	5.18	0.00	0.00	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C-9	09/13/2001 ¹²	30.68	26.55	4.13	0.00	0.00	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

TABLE 5
GROUNDWATER MONITORING AND SAMPLING DATA
CHEVRON SERVICE STATION 90076
4265 FOOTHILL BOULEVARD, OAKLAND, CALIFORNIA

Location	Date	TOC	DTW	GWE	LNAPLT	LNAPL REMOVED	HYDROCARBONS	PRIMARY VOCS					ADDITIONAL VOCS	FIELD PARAMETERS				GENERAL CHEMISTRY			
							TPH-GRO	B	T	E	X	MTBE by SW8260	ETHANOL	Dissolved oxygen, prepurge	Dissolved oxygen, postpurge	Oxidation reduction potential, prepurge	Oxidation reduction potential, postpurge	Alkalinity, total (as CaCO3)	Ferrous iron	Nitrate (as N)	Sulfate
	Units	ft	ft	ft-amsl	ft	gallons	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	millivolts	millivolts	µg/L	µg/L	µg/L	µg/L
C-9	12/13/2001 ¹²	30.68	26.77	3.91	0.00	0.00	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C-9	03/08/2002	30.68	25.00	5.68	0.00	0.00	<50	<0.50	<0.50	<0.50	<1.5	<2.5	-	-	-	-	-	-	-	-	-
C-9	06/19/2002 ¹²	30.68	24.67	6.01	0.00	0.00	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C-9	09/11/2002 ¹²	30.68	25.70	4.98	0.00	0.00	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C-9	12/11/2002 ¹²	30.68	27.07	3.61	0.00	0.00	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C-9	03/11/2003	30.68	24.48	6.20	0.00	0.00	<50	<0.50	<0.50	<0.50	<1.5	<2.5	-	-	-	-	-	-	-	-	-
C-9	06/10/2003 ¹²	30.68	25.00	5.68	0.00	0.00	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C-9	09/09/2003 ¹²	30.68	25.80	4.88	0.00	0.00	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C-9	12/09/2003 ¹²	30.68	28.22	2.46	0.00	0.00	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C-9	03/09/2004 ⁷	30.68	23.86	6.82	0.00	0.00	<50	<0.5	<0.5	<0.5	<0.5	<0.5	<50	-	-	-	-	-	-	-	-
C-9	06/08/2004 ¹²	- ¹⁰	25.21	- ¹⁰	0.00	0.00	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C-9	09/08/2004 ¹²	- ¹⁰	25.61	- ¹⁰	0.00	0.00	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C-9	12/06/2004 ¹²	- ¹⁰	24.77	- ¹⁰	0.00	0.00	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C-9	03/07/2005 ⁷	- ¹⁰	23.18	- ¹⁰	0.00	0.00	<50	<0.5	<0.5	<0.5	<0.5	<0.5	<50	-	-	-	-	-	-	-	-
C-9	06/06/2005 ¹²	- ¹⁰	22.65	- ¹⁰	0.00	0.00	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C-9	09/06/2005 ¹²	- ¹⁰	24.58	- ¹⁰	0.00	0.00	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C-9	12/05/2005 ¹²	- ¹⁰	23.80	- ¹⁰	0.00	0.00	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C-9	03/06/2006 ⁷	- ¹⁰	22.44	- ¹⁰	0.00	0.00	<50	<0.5	<0.5	<0.5	<0.5	<0.5	<50	-	-	-	-	-	-	-	-
C-9	06/05/2006 ¹²	- ¹⁰	21.54	- ¹⁰	0.00	0.00	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C-9	09/05/2006 ¹²	- ¹⁰	23.49	- ¹⁰	0.00	0.00	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C-9	12/04/2006 ¹²	- ¹⁰	23.72	- ¹⁰	0.00	0.00	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C-9	03/05/2007 ⁷	- ¹⁰	22.97	- ¹⁰	0.00	0.00	<50	<0.5	<0.5	<0.5	<0.5	<0.5	<50	-	-	-	-	-	-	-	-

TABLE 5
GROUNDWATER MONITORING AND SAMPLING DATA
CHEVRON SERVICE STATION 90076
4265 FOOTHILL BOULEVARD, OAKLAND, CALIFORNIA

Location	Date	TOC	DTW	GWE	LNAPLT	LNAPL REMOVED	HYDROCARBONS	PRIMARY VOCs					ADDITIONAL VOCs	FIELD PARAMETERS				GENERAL CHEMISTRY			
							TPH-GRO	B	T	E	X	MTBE by SWB260	ETHANOL	Dissolved oxygen, prepurge	Dissolved oxygen, postpurge	Oxidation reduction potential, prepurge	Oxidation reduction potential, postpurge	Alkalinity, total (as CaCO ₃)	Ferrous iron	Nitrate (as N)	Sulfate
	Units	ft	ft	ft-amsl	ft	gallons	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	millivolts	millivolts	µg/L	µg/L	µg/L	µg/L
C-9	06/04/2007 ¹²	10	21.89	10	0.00	0.00	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C-9	09/07/2007 ¹²	10	23.76	10	0.00	0.00	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C-9	12/06/2007 ¹²	10	24.17	10	0.00	0.00	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C-9	03/06/2008 ⁷	10	23.18	10	0.00	0.00	<50	<0.5	<0.5	<0.5	<0.5	<0.5	<50	-	-	-	-	-	-	-	-
C-9	06/05/2008 ¹²	10	23.11	10	0.00	0.00	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C-9	09/03/2008 ¹²	10	24.91	10	0.00	0.00	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C-9	12/03/2008 ¹²	10	25.51	10	0.00	0.00	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C-9	03/04/2009	10	23.92	10	0.00	0.00	<50	<0.5	<0.5	<0.5	<0.5	<0.5	<50	-	-	-	-	-	-	-	-
C-9	06/09/2009 ¹²	10	23.68	10	0.00	0.00	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C-9	09/30/2009 ¹²	10	25.41	10	0.00	0.00	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C-9	03/22/2010 ⁷	10	22.37	10	0.00	0.00	<50	<0.5	<0.5	<0.5	<0.5	<0.5	<50	-	-	-	-	-	-	-	-
C-9	09/16/2010 ¹²	10	24.30	10	0.00	0.00	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C-9	03/08/2011 ¹²	10	21.71	10	0.00	0.00	<50	<0.5	<0.5	<0.5	<0.5	<0.5	<50	-	-	-	-	-	-	-	-
C-9	09/28/2011 ¹²	10	23.36	10	0.00	0.00	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C-9	03/08/2012 ¹²	10	24.44	10	0.00	0.00	<50	<0.5	<0.5	<0.5	<0.5	<0.5	<50	-	-	-	-	-	-	-	-
C-9	09/20/2012 ¹²	10	24.92	10	0.00	0.00	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C-9	03/20/2013	10	23.36	10	0.00	0.00	190	7	<0.5	2	2	<0.5	<50	-	-	-	-	-	-	-	-
C-9	09/18/2013 ¹²	10	25.37	10	0.00	0.00	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C-9	03/13/2014 ¹²	10	24.82	10	0.00	0.00	<50	<0.5	<0.5	<0.5	<0.5	<0.5	<50	-	-	-	-	-	-	-	-
C-9	09/25/2014 ¹²	10	25.92	10	0.00	0.00	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C-9	03/10/2015 ¹³	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C-9	06/19/2015 ¹³	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

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4265 FOOTHILL BOULEVARD, OAKLAND, CALIFORNIA

Location	Date	TOC	DTW	GWE	LNAPL	LNAPL REMOVED	HYDROCARBONS	PRIMARY VOCs					ADDITIONAL VOCs	FIELD PARAMETERS				GENERAL CHEMISTRY			
							TPH-GRO	B	T	E	X	MTBE by SW8260	ETHANOL	Dissolved oxygen, prepurge	Dissolved oxygen, postpurge	Oxidation reduction potential, prepurge	Oxidation reduction potential, postpurge	Alkalinity, total (as CaCO ₃)	Ferrous Iron	Nitrate (as N)	Sulfate
	Units	ft	ft	ft-amsl	ft	gallons	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	millivolts	millivolts	µg/L	µg/L	µg/L	µg/L
C-9	09/15/2015 ¹³	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C-9	12/22/2015 ¹³	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C-9	03/08/2016 ¹³	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C-10	09/09/2003 ^{7,8}	-	17.18	-	0.00	0.00	<50	<0.5	<0.5	<0.5	0.5	14	<50	-	-	-	-	-	-	-	-
C-10	12/09/2003 ⁷	-	14.24	-	0.00	0.00	<50	<0.5	<0.5	<0.5	<0.5	2	<50	-	-	-	-	-	-	-	-
C-10	03/09/2004 ⁷	38.37	9.70	28.67	0.00	0.00	<50	<0.5	<0.5	<0.5	<0.5	15	<50	-	-	-	-	-	-	-	-
C-10	06/08/2004 ⁷	38.37	11.70	26.67	0.00	0.00	<50	<0.5	<0.5	<0.5	<0.5	44	<50	-	-	-	-	-	-	-	-
C-10	09/08/2004 ⁷	38.37	13.00	25.37	0.00	0.00	<50	<0.5	<0.5	<0.5	<0.5	2	<50	-	-	-	-	-	-	-	-
C-10	12/06/2004 ⁷	38.37	12.53	25.84	0.00	0.00	<50	<0.5	<0.5	<0.5	<0.5	3	<50	-	-	-	-	-	-	-	-
C-10	03/07/2005 ⁷	38.38	7.84	30.54	0.00	0.00	<50	<0.5	<0.5	<0.5	<0.5	140	<50	-	-	-	-	-	-	-	-
C-10	06/06/2005 ⁷	38.38	9.62	28.76	0.00	0.00	<50	<0.5	<0.5	<0.5	<0.5	390	<50	-	-	-	-	-	-	-	-
C-10	09/06/2005 ⁷	38.39	11.58	26.81	0.00	0.00	<50	<0.5	<0.5	<0.5	<0.5	190	<50	-	-	-	-	-	-	-	-
C-10	12/05/2005 ⁷	38.39	10.88	27.51	0.00	0.00	<50	<0.5	<0.5	<0.5	<0.5	67	<50	-	-	-	-	-	-	-	-
C-10	03/06/2006 ⁷	38.39	7.37	31.02	0.00	0.00	<50	<0.5	<0.5	<0.5	<0.5	280	<50	-	-	-	-	-	-	-	-
C-10	06/05/2006 ⁷	38.39	9.25	29.14	0.00	0.00	<50	<0.5	<0.5	<0.5	<0.5	280	<50	-	-	-	-	-	-	-	-
C-10	09/05/2006 ⁷	38.39	10.38	28.01	0.00	0.00	<50	3	3	2	16	63	<50	-	-	-	-	-	-	-	-
C-10	12/04/2006 ⁷	38.39	10.65	27.74	0.00	0.00	<50	<0.5	<0.5	<0.5	<0.5	93	<50	-	-	-	-	-	-	-	-
C-10	03/05/2007 ⁷	38.39	8.97	29.42	0.00	0.00	<50	<0.5	<0.5	<0.5	<0.5	100	<50	-	-	-	-	-	-	-	-
C-10	06/04/2007 ⁷	38.39	9.80	28.59	0.00	0.00	<50	<0.5	<0.5	<0.5	<0.5	48	<50	-	-	-	-	-	-	-	-
C-10	09/07/2007 ⁷	38.39	11.20	27.19	0.00	0.00	<50	<0.5	<0.5	<0.5	<0.5	18	<50	-	-	-	-	-	-	-	-
C-10	12/06/2007 ⁷	38.39	10.53	27.86	0.00	0.00	<50	<0.5	<0.5	<0.5	<0.5	19	<50	-	-	-	-	-	-	-	-

TABLE 5
GROUNDWATER MONITORING AND SAMPLING DATA
CHEVRON SERVICE STATION 90076
4265 FOOTHILL BOULEVARD, OAKLAND, CALIFORNIA

Location	Date	TOC	DTW	GWE	LNAPLT	LNAPL REMOVED	HYDROCARBONS	PRIMARY VOCs					ADDITIONAL VOCs	FIELD PARAMETERS				GENERAL CHEMISTRY			
							TPH-GRO	B	T	E	X	MTBE by SW8260	ETHANOL	Dissolved oxygen, prepurge	Dissolved oxygen, postpurge	Oxidation reduction potential, prepurge	Oxidation reduction potential, postpurge	Alkalinity, total (as CaCO ₃)	Ferrous iron	Nitrate (as N)	Sulfate
	Units	ft	ft	ft-amsl	ft	gallons	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	millivolts	millivolts	µg/L	µg/L	µg/L	µg/L
C-10	03/06/2008 ⁷	38.39	8.75	29.64	0.00	0.00	<50	<0.5	<0.5	<0.5	<0.5	43	<50	-	-	-	-	-	-	-	-
C-10	06/05/2008 ⁷	38.39	9.95	28.44	0.00	0.00	<50	<0.5	<0.5	<0.5	<0.5	25	<50	-	-	-	-	-	-	-	-
C-10	09/03/2008 ⁷	38.39	11.41	26.98	0.00	0.00	<50	<0.5	<0.5	<0.5	<0.5	12	<50	-	-	-	-	-	-	-	-
C-10	12/03/2008 ⁷	38.39	11.26	27.13	0.00	0.00	<50	<0.5	<0.5	<0.5	<0.5	8	<50	-	-	-	-	-	-	-	-
C-10	03/04/2009	38.39	7.16	31.23	0.00	0.00	<50	<0.5	<0.5	<0.5	<0.5	6	<50	-	-	-	-	-	-	-	-
C-10	06/09/2009 ⁷	38.39	9.66	28.73	0.00	0.00	<50	<0.5	<0.5	<0.5	<0.5	30	<50	-	-	-	-	-	-	-	-
C-10	09/30/2009 ⁷	38.39	10.92	27.47	0.00	0.00	<50	<0.5	<0.5	<0.5	<0.5	9	<50	-	-	-	-	-	-	-	-
C-10	03/22/2010 ⁷	38.39	7.47	30.92	0.00	0.00	<50	<0.5	<0.5	<0.5	<0.5	17	<50	-	-	-	-	-	-	-	-
C-10	09/16/2010	38.39	10.17	28.22	0.00	0.00	<50	<0.5	<0.5	<0.5	<0.5	12	<50	-	-	-	-	-	-	-	-
C-10	03/08/2011	38.39	8.50	29.89	0.00	0.00	<50	<0.5	<0.5	<0.5	<0.5	7	<50	-	-	-	-	-	-	-	-
C-10	09/28/2011	38.39	10.02	28.37	0.00	0.00	<50	<0.5	<0.5	<0.5	<0.5	6	<50	-	-	-	-	-	-	-	-
C-10	03/08/2012	38.39	12.80	25.59	0.00	0.00	<50	<0.5	<0.5	<0.5	<0.5	5	<50	-	-	-	-	-	-	-	-
C-10	09/20/2012	38.39	10.94	27.45	0.00	0.00	<50	<0.5	<0.5	<0.5	<0.5	0.8 J	<50	-	-	-	-	-	-	-	-
C-10	03/20/2013	38.39	9.29	29.10	0.00	0.00	<50	<0.5	<0.5	<0.5	<0.5	4	<50	-	-	-	-	-	-	-	-
C-10	09/18/2013	38.39	10.00	28.39	0.00	0.00	<50	<0.5	<0.5	<0.5	<0.5	<0.5	<50	-	-	-	-	-	-	-	-
C-10	03/13/2014	38.39	9.10	29.29	0.00	0.00	<50	<0.5	<0.5	<0.5	<0.5	<0.5	<50	-	-	-	-	-	-	-	-
C-10	09/25/2014	38.39	10.29	28.10	0.00	0.00	<50	<0.5	<0.5	<0.5	<0.5	0.9 J	<50	-	-	-	-	-	-	-	-
C-10	03/10/2015	40.96	9.30	31.66	0.00	0.00	<50	<0.5	<0.5	<0.5	<0.5	2	<50	-	-	-	-	-	-	-	-
C-10	06/19/2015	40.96	10.00	30.96	0.00	0.00	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C-10	09/15/2015	40.96	10.89	30.07	0.00	0.00	<50	<0.5	<0.5	<0.5	<0.5	0.6 J	<50	-	-	-	-	-	-	-	-
C-10	12/22/2015 ¹⁵	40.96	8.08	32.88	0.00	0.00	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C-10	03/08/2016	40.96	7.22	33.74	0.00	0.00	<50	<0.5	<0.5	<0.5	<0.5	0.7 J	<50	-	-	-	-	-	-	-	-

TABLE 5
GROUNDWATER MONITORING AND SAMPLING DATA
CHEVRON SERVICE STATION 90076
4265 FOOTHILL BOULEVARD, OAKLAND, CALIFORNIA

Location	Date	TOC	DTW	GWE	LNAPLT	LNAPL REMOVED	HYDROCARBONS	PRIMARY VOCs					ADDITIONAL VOCs	FIELD PARAMETERS				GENERAL CHEMISTRY			
							TPH-GRO	B	T	E	X	MTBE by SW8260	ETHANOL	Dissolved oxygen, prepurge	Dissolved oxygen, postpurge	Oxidation reduction potential, prepurge	Oxidation reduction potential, postpurge	Alkalinity, total (as CaCO ₃)	Ferrous iron	Nitrate (as N)	Sulfate
		Units	ft	ft	ft-amsl	ft	gallons	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	millivolts	millivolts	µg/L	µg/L	µg/L	µg/L
C-11	03/10/2015	36.79	9.95	26.84	0.00	0.00	310	56	1	1	0.9 J	<0.5	<50	-	-	-	-	-	-	-	-
C-11	06/19/2015	36.79	12.43	24.36	0.00	0.00	1,000	180	15	34	8	<0.5	<50	-	-	-	-	-	-	-	-
C-11	09/15/2015	36.79	15.88	20.91	0.00	0.00	1,300	170	3	12	2	<0.5	<50	-	-	-	-	-	-	-	-
C-11	12/22/2015	36.79	16.58	20.21	0.00	0.00	420	15	0.5 J	<0.5	<0.5	<0.5	<50	-	-	-	-	-	-	-	-
C-11	03/08/2016	36.79	13.00	23.79	0.00	0.00	280	27	1	2	<0.5	<0.5	<50	-	-	-	-	-	-	-	-
C-13	03/08/2016	42.02	12.21	29.81	0.00	0.00	<50	<0.5	6	<0.5	1	31	<50	-	-	-	-	-	-	-	-
QA	12/13/2001	-	-	-	-	-	<50	<0.50	<0.50	<0.50	<1.5	<2.5	-	-	-	-	-	-	-	-	-
QA	03/08/2002	-	-	-	-	-	<50	<0.50	<0.50	<0.50	<1.5	<2.5	-	-	-	-	-	-	-	-	-
QA	06/19/2002	-	-	-	-	-	<50	<0.50	<0.50	<0.50	<1.5	<2.5	-	-	-	-	-	-	-	-	-
QA	09/11/2002	-	-	-	-	-	<50	<0.50	<0.50	<0.50	<1.5	<2.5	-	-	-	-	-	-	-	-	-
QA	12/11/2002	-	-	-	-	-	<50	<0.50	<0.50	<0.50	<1.5	<2.5	-	-	-	-	-	-	-	-	-
QA	03/11/2003	-	-	-	-	-	<50	<0.50	<0.50	<0.50	<1.5	<2.5	-	-	-	-	-	-	-	-	-
QA	06/10/2003 ⁷	-	-	-	-	-	<50	<0.5	<0.5	<0.5	<0.5	<0.5	-	-	-	-	-	-	-	-	-
QA	09/09/2003 ⁷	-	-	-	-	-	<50	<0.5	<0.5	<0.5	<0.5	<0.5	-	-	-	-	-	-	-	-	-
QA	12/09/2003 ⁷	-	-	-	-	-	<50	<0.5	<0.5	<0.5	<0.5	<0.5	-	-	-	-	-	-	-	-	-
QA	03/09/2004 ⁷	-	-	-	-	-	<50	<0.5	<0.5	<0.5	<0.5	<0.5	-	-	-	-	-	-	-	-	-
QA	06/08/2004 ⁷	-	-	-	-	-	<50	<0.5	<0.5	<0.5	<0.5	<0.5	-	-	-	-	-	-	-	-	-
QA	09/08/2004 ⁷	-	-	-	-	-	<50	<0.5	<0.5	<0.5	<0.5	<0.5	-	-	-	-	-	-	-	-	-
QA	12/06/2004 ⁷	-	-	-	-	-	<50	<0.5	<0.5	<0.5	<0.5	<0.5	-	-	-	-	-	-	-	-	-

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CHEVRON SERVICE STATION 90076
4265 FOOTHILL BOULEVARD, OAKLAND, CALIFORNIA

Location	Date	TOC	DTW	GWE	LNAPL T	LNAPL REMOVED	HYDROCARBONS	PRIMARY VOCs					ADDITIONAL VOCs	FIELD PARAMETERS				GENERAL CHEMISTRY			
							TPH-GRO	B	T	E	X	MTBE by SW8260	ETHANOL	Dissolved oxygen, prepurge	Dissolved oxygen, postpurge	Oxidation reduction potential, prepurge	Oxidation reduction potential, postpurge	Alkalinity, total (as CaCO3)	Ferrous iron	Nitrate (as N)	Sulfate
	Units	ft	ft	ft-amsl	ft	gallons	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	millivolts	millivolts	µg/L	µg/L	µg/L	µg/L
QA	03/07/2005 ⁷	-	-	-	-	-	<50	<0.5	<0.5	<0.5	<0.5	<0.5	-	-	-	-	-	-	-	-	-
QA	06/06/2005 ⁷	-	-	-	-	-	<50	<0.5	<0.5	<0.5	<0.5	<0.5	-	-	-	-	-	-	-	-	-
QA	09/06/2005 ⁷	-	-	-	-	-	<50	<0.5	<0.5	<0.5	<0.5	<0.5	-	-	-	-	-	-	-	-	-
QA	12/05/2005 ⁷	-	-	-	-	-	<50	<0.5	<0.5	<0.5	<0.5	<0.5	-	-	-	-	-	-	-	-	-
QA	03/06/2006 ⁷	-	-	-	-	-	<50	<0.5	<0.5	<0.5	<0.5	<0.5	-	-	-	-	-	-	-	-	-
QA	06/05/2006 ⁷	-	-	-	-	-	<50	<0.5	<0.5	<0.5	<0.5	<0.5	-	-	-	-	-	-	-	-	-
QA	09/05/2006 ⁷	-	-	-	-	-	<50	<0.5	<0.5	<0.5	<0.5	<0.5	-	-	-	-	-	-	-	-	-
QA	12/04/2006 ⁷	-	-	-	-	-	<50	<0.5	<0.5	<0.5	<0.5	<0.5	-	-	-	-	-	-	-	-	-
QA	03/05/2007 ⁷	-	-	-	-	-	<50	<0.5	<0.5	<0.5	<0.5	<0.5	-	-	-	-	-	-	-	-	-
QA	06/04/2007 ⁷	-	-	-	-	-	<50	<0.5	<0.5	<0.5	<0.5	<0.5	-	-	-	-	-	-	-	-	-
QA	09/07/2007 ⁷	-	-	-	-	-	<50	<0.5	<0.5	<0.5	<0.5	<0.5	-	-	-	-	-	-	-	-	-
QA	12/06/2007 ⁷	-	-	-	-	-	<50	<0.5	<0.5	<0.5	<0.5	<0.5	-	-	-	-	-	-	-	-	-
QA	03/06/2008 ⁷	-	-	-	-	-	<50	<0.5	<0.5	<0.5	<0.5	<0.5	-	-	-	-	-	-	-	-	-
QA	06/05/2008 ⁷	-	-	-	-	-	<50	<0.5	<0.5	<0.5	<0.5	<0.5	-	-	-	-	-	-	-	-	-
QA	09/03/2008 ⁷	-	-	-	-	-	<50	<0.5	<0.5	<0.5	<0.5	<0.5	-	-	-	-	-	-	-	-	-
QA	12/03/2008 ⁷	-	-	-	-	-	<50	<0.5	<0.5	<0.5	<0.5	<0.5	-	-	-	-	-	-	-	-	-
QA	06/09/2009 ⁷	-	-	-	-	-	<50	<0.5	<0.5	<0.5	<0.5	<0.5	-	-	-	-	-	-	-	-	-
QA	09/30/2009 ⁷	-	-	-	-	-	<50	<0.5	<0.5	<0.5	<0.5	<0.5	-	-	-	-	-	-	-	-	-
QA	03/22/2010 ⁷	-	-	-	-	-	<50	<0.5	<0.5	<0.5	<0.5	<0.5	-	-	-	-	-	-	-	-	-
QA	09/16/2010	-	-	-	-	-	<50	<0.5	<0.5	<0.5	<0.5	<0.5	<50	-	-	-	-	-	-	-	-
QA	03/08/2011	-	-	-	-	-	<50	<0.5	<0.5	<0.5	<0.5	<0.5	-	-	-	-	-	-	-	-	-
QA	09/28/2011	-	-	-	-	-	<50	<0.5	<0.5	<0.5	<0.5	<0.5	-	-	-	-	-	-	-	-	-

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Location	Date	TOC	DTW	GWE	LNAPLT	LNAPL REMOVED	HYDROCARBONS	PRIMARY VOCs				MTBE by SW8260	ADDITIONAL VOCs	FIELD PARAMETERS				GENERAL CHEMISTRY			
							TPH-GRO	B	T	E	X		ETHANOL	Dissolved oxygen, prepurge	Dissolved oxygen, postpurge	Oxidation reduction potential, prepurge	Oxidation reduction potential, postpurge	Alkalinity, total (as CaCO ₃)	Ferrous iron	Nitrate (as N)	Sulfate
		Units	ft	ft	ft-amsl	ft	galions	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	millivolts	millivolts	µg/L	µg/L	µg/L	µg/L
QA	03/08/2012	-	-	-	-	-	<50	<0.5	<0.5	<0.5	<0.5	<0.5	-	-	-	-	-	-	-	-	-
QA	09/20/2012	-	-	-	-	-	<50	<0.5	<0.5	<0.5	<0.5	<0.5	-	-	-	-	-	-	-	-	-
QA	03/20/2013	-	-	-	-	-	<50	<0.5	<0.5	<0.5	<0.5	<0.5	-	-	-	-	-	-	-	-	-
QA	09/18/2013	-	-	-	-	-	<50	<0.5	<0.5	<0.5	<0.5	<0.5	-	-	-	-	-	-	-	-	-
QA	03/13/2014	-	-	-	-	-	<50	<0.5	<0.5	<0.5	<0.5	<0.5	-	-	-	-	-	-	-	-	-
QA	09/25/2014	-	-	-	-	-	<50	<0.5	<0.5	<0.5	<0.5	<0.5	-	-	-	-	-	-	-	-	-
QA	03/10/2015	-	-	-	-	-	<50	<0.5	<0.5	<0.5	<0.5	<0.5	-	-	-	-	-	-	-	-	-
QA	06/19/2015	-	-	-	-	-	<50	<0.5	<0.5	<0.5	<0.5	<0.5	-	-	-	-	-	-	-	-	-
QA	09/15/2015	-	-	-	-	-	<50	<0.5	<0.5	<0.5	<0.5	<0.5	-	-	-	-	-	-	-	-	-
QA	12/22/2015	-	-	-	-	-	<50	<0.5	<0.5	<0.5	<0.5	<0.5	-	-	-	-	-	-	-	-	-
QA	03/08/2016	-	-	-	-	-	<50	<0.5	<0.5	<0.5	<0.5	<0.5	-	-	-	-	-	-	-	-	-
Trip Blank	04/28/1989	-	-	-	-	-	<500	<0.5	<0.5	<0.5	<0.5	-	-	-	-	-	-	-	-	-	-
Trip Blank	06/08/1989	-	-	-	-	-	<500	<0.5	<0.5	<0.5	<0.5	-	-	-	-	-	-	-	-	-	-
Trip Blank	08/27/1990	-	-	-	-	-	<50	<0.3	<0.3	<0.3	<0.6	-	-	-	-	-	-	-	-	-	-
Trip Blank	11/14/1990	-	-	-	-	-	<50	<0.3	<0.3	<0.3	<0.6	-	-	-	-	-	-	-	-	-	-
Trip Blank	06/18/1991	-	-	-	-	-	<50	<0.5	<0.5	<0.5	<0.5	-	-	-	-	-	-	-	-	-	-
Trip Blank	09/19/1991	-	-	-	-	-	<50	<0.5	<0.5	<0.5	<0.5	-	-	-	-	-	-	-	-	-	-
Trip Blank	12/20/1991	-	-	-	-	-	<50	<0.5	<0.5	<0.5	<0.5	-	-	-	-	-	-	-	-	-	-
Trip Blank	03/18/1992	-	-	-	-	-	<50	<0.5	<0.5	<0.5	<0.5	-	-	-	-	-	-	-	-	-	-
Trip Blank	07/14/1992	-	-	-	-	-	<50	<0.5	<0.5	<0.5	<0.5	-	-	-	-	-	-	-	-	-	-
Trip Blank	10/08/1992	-	-	-	-	-	<50	<0.5	<0.5	<0.5	<0.5	-	-	-	-	-	-	-	-	-	-

TABLE 5
GROUNDWATER MONITORING AND SAMPLING DATA
CHEVRON SERVICE STATION 90076
4265 FOOTHILL BOULEVARD, OAKLAND, CALIFORNIA

Location	Date	TOC	DTW	GWE	LNAPLT	LNAPL REMOVED	HYDROCARBONS	PRIMARY VOCs					ADDITIONAL VOCs	FIELD PARAMETERS				GENERAL CHEMISTRY			
							TPH-GRO	B	T	E	X	MTBE by SW8260	ETHANOL	Dissolved oxygen, prepurge	Dissolved oxygen, postpurge	Oxidation reduction potential, prepurge	Oxidation reduction potential, postpurge	Alkalinity, total (as CaCO3)	Ferrous iron	Nitrate (as N)	Sulfate
	Units	ft	ft	ft-amsl	ft	gallons	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	millivolts	millivolts	µg/L	µg/L	µg/L	µg/L
Trip Blank	01/08/1993	-	-	-	-	-	<50	<0.5	<0.5	<0.5	<0.5	-	-	-	-	-	-	-	-	-	-
Trip Blank	04/14/1993	-	-	-	-	-	<50	<0.5	<0.5	<0.5	<0.5	-	-	-	-	-	-	-	-	-	-
Trip Blank	07/16/1993	-	-	-	-	-	<50	<0.5	<0.5	<0.5	<0.5	-	-	-	-	-	-	-	-	-	-
Trip Blank	09/21/1993	-	-	-	-	-	<50	<0.5	<0.5	<0.5	<0.8	-	-	-	-	-	-	-	-	-	-
Trip Blank	01/28/1994	-	-	-	-	-	<50	<0.5	<0.5	<0.5	<0.5	-	-	-	-	-	-	-	-	-	-
Trip Blank	03/17/1994	-	-	-	-	-	<50	<0.5	<0.5	<0.5	<0.5	-	-	-	-	-	-	-	-	-	-
Trip Blank	06/16/1994	-	-	-	-	-	<50	<0.5	<0.5	<0.5	<0.5	-	-	-	-	-	-	-	-	-	-
Trip Blank	09/22/1994	-	-	-	-	-	<50	<0.5	<0.5	<0.5	<0.5	-	-	-	-	-	-	-	-	-	-
Trip Blank	12/15/1994	-	-	-	-	-	<50	<0.5	<0.5	<0.5	<0.5	-	-	-	-	-	-	-	-	-	-
Trip Blank	03/30/1995	-	-	-	-	-	<50	<0.5	<0.5	<0.5	<0.5	-	-	-	-	-	-	-	-	-	-
Trip Blank	06/20/1995	-	-	-	-	-	<50	<0.5	<0.5	<0.5	<0.5	-	-	-	-	-	-	-	-	-	-
Trip Blank	09/20/1995	-	-	-	-	-	<50	<0.5	<0.5	<0.5	<0.5	-	-	-	-	-	-	-	-	-	-
Trip Blank	12/06/1995	-	-	-	-	-	<50	<0.5	<0.5	<0.5	<0.5	-	-	-	-	-	-	-	-	-	-
Trip Blank	03/21/1996	-	-	-	-	-	<50	<0.5	<0.5	<0.5	<0.5	<2.5	-	-	-	-	-	-	-	-	-
Trip Blank	06/21/1996	-	-	-	-	-	<50	<0.5	<0.5	<0.5	<0.5	<2.5	-	-	-	-	-	-	-	-	-
Trip Blank	09/06/1996	-	-	-	-	-	<50	<0.5	<0.5	<0.5	<0.5	-	-	-	-	-	-	-	-	-	-
Trip Blank	12/19/1996	-	-	-	-	-	<50	<0.5	<0.5	<0.5	<0.5	<2.5	-	-	-	-	-	-	-	-	-
Trip Blank	03/17/1997	-	-	-	-	-	<50	<0.5	<0.5	<0.5	<0.5	<2.5	-	-	-	-	-	-	-	-	-
Trip Blank	06/11/1997	-	-	-	-	-	<50	<0.5	<0.5	<0.5	<0.5	<2.5	-	-	-	-	-	-	-	-	-
Trip Blank	09/17/1997	-	-	-	-	-	<50	<0.5	<0.5	<0.5	<0.5	<2.5	-	-	-	-	-	-	-	-	-
Trip Blank	12/11/1997	-	-	-	-	-	<50	<0.5	<0.5	<0.5	<0.5	<2.5	-	-	-	-	-	-	-	-	-
Trip Blank	03/12/1998	-	-	-	-	-	<50	<0.5	<0.5	<0.5	<0.5	<2.5	-	-	-	-	-	-	-	-	-

TABLE 5
GROUNDWATER MONITORING AND SAMPLING DATA
CHEVRON SERVICE STATION 90076
4265 FOOTHILL BOULEVARD, OAKLAND, CALIFORNIA

Location	Date	TOC	DTW	GWE	LNAPLT	LNAPL REMOVED	HYDROCARBONS	PRIMARY VOCs					ADDITIONAL VOCs	FIELD PARAMETERS				GENERAL CHEMISTRY			
							TPH-GRO	B	T	E	X	MTBE by SW8260	ETHANOL	Dissolved oxygen, prepurge	Dissolved oxygen, postpurge	Oxidation reduction potential, prepurge	Oxidation reduction potential, postpurge	Alkalinity, total (as CaCO ₃)	Ferrous iron	Nitrate (as N)	Sulfate
		Units	ft	ft	ft-amsl	ft	gallons	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	millivolts	millivolts	µg/L	µg/L	µg/L	µg/L
Trip Blank	06/23/1998	-	-	-	-	-	<50	<0.5	<0.5	<0.5	<0.5	<2.5	-	-	-	-	-	-	-	-	-
Trip Blank	09/01/1998	-	-	-	-	-	<50	<0.5	<0.5	<0.5	<0.5	<2.5	-	-	-	-	-	-	-	-	-
Trip Blank	12/30/1998	-	-	-	-	-	<50	<0.5	<0.5	<0.5	<0.5	<2.0	-	-	-	-	-	-	-	-	-
Trip Blank	03/31/1999	-	-	-	-	-	<50	<0.5	<0.5	<0.5	<0.5	<2.0	-	-	-	-	-	-	-	-	-
Trip Blank	06/14/1999	-	-	-	-	-	<50	<0.5	<0.5	<0.5	<0.5	<2.5	-	-	-	-	-	-	-	-	-
Trip Blank	12/22/1999	-	-	-	-	-	<50	<0.5	<0.5	<0.5	<0.5	<2.5	-	-	-	-	-	-	-	-	-
Trip Blank	06/23/2000	-	-	-	-	-	<50	<0.50	<0.50	<0.50	<0.50	<2.5	-	-	-	-	-	-	-	-	-
Trip Blank	09/05/2000	-	-	-	-	-	<50	<0.50	<0.50	<0.50	<0.50	<2.5	-	-	-	-	-	-	-	-	-
Trip Blank	12/04/2000	-	-	-	-	-	<50	<0.50	<0.50	<0.50	<0.50	<2.5	-	-	-	-	-	-	-	-	-
Trip Blank	03/08/2001	-	-	-	-	-	<50.0	<0.500	<0.500	<0.500	<0.500	<2.50	-	-	-	-	-	-	-	-	-
Trip Blank	06/07/2001	-	-	-	-	-	<50	<0.50	<0.50	<0.50	<0.50	<2.5	-	-	-	-	-	-	-	-	-
Trip Blank	09/13/2001	-	-	-	-	-	<50	<0.50	<0.50	<0.50	<0.50	<2.5	-	-	-	-	-	-	-	-	-

Abbreviations and Notes:

TOC = Top of casing

DTW = Depth to water

GWE = Groundwater elevation

(ft-amsl) = Feet above mean sea level

ft = Feet

µg/L = Micrograms per liter

TABLE 5
GROUNDWATER MONITORING AND SAMPLING DATA
CHEVRON SERVICE STATION 90076
4265 FOOTHILL BOULEVARD, OAKLAND, CALIFORNIA

Location	Date	TOC	DTW	GWE	LNAPLT	LNAPL REMOVED	HYDROCARBONS	PRIMARY VOCs					ADDITIONAL VOCs	FIELD PARAMETERS				GENERAL CHEMISTRY				
							TPH-GRO	B	T	E	X	MTBE by SW8260	ETHANOL	Dissolved oxygen, prepurge	Dissolved oxygen, postpurge	Oxidation reduction potential, prepurge	Oxidation reduction potential, postpurge	Alkalinity, total (as CaCO3)	Ferrous Iron	Nitrate (as N)	Sulfate	
	Units	ft	ft	ft-amsl	ft	gallons	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	millivolts	millivolts	µg/L	µg/L	µg/L	µg/L

TPH-GRO = Total petroleum hydrocarbons - gasoline range organics

VOCs = Volatile Organic Compounds

B = Benzene

T = Toluene

E = Ethylbenzene

X = Xylene

MTBE = Methyl tert-butyl ether

-- = Not available or not applicable

<x = Not detected above laboratory method detection limit

J = Estimated value between method detection limit and laboratory reporting limit

* TOC elevation for C-10 was surveyed on September 26, 2003, by Virgil Chavez Land Surveying. The benchmark for this survey was a City of Oakland No. 1589, a cut square in the sidewalk at the mid-return at the west corner of High Street and Foothill Blvd., (Benchmark Elevation = 38.54 feet, NGVD 29).

** GWE corrected for the presence of LNAPL; correction factor: [(TOC - DTW) + (LNAPLT x 0.80)].

1 Confirmation run.

2 Sample was analyzed past hold-time, the results should be considered as estimated.

3 ORC present in well.

4 Laboratory report indicates gasoline C6-C12.

5 Laboratory report indicates sample was originally analyzed within holding time. Re-analysis for confirmation or dilution was performed past the recommended holding time.

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

7 BTEX and MTBE by EPA Method 8260.

8 Well development performed.

9 ORC removed from well.

TABLE 5
GROUNDWATER MONITORING AND SAMPLING DATA
CHEVRON SERVICE STATION 90076
4265 FOOTHILL BOULEVARD, OAKLAND, CALIFORNIA

Location	Date	TOC	DTW	GWE	LNAPLT	LNAPL REMOVED	HYDROCARBONS	PRIMARY VOCs				ADDITIONAL VOCs	FIELD PARAMETERS				GENERAL CHEMISTRY					
							TPH-GRO	B	T	E	X	MTBE by SW6260	ETHANOL	Dissolved oxygen, prepurge	Dissolved oxygen, postpurge	Oxidation reduction potential, prepurge	Oxidation reduction potential, postpurge	Alkalinity, total (as CaCO3)	Ferrous iron	Nitrate (as N)	Sulfate	
	Units	ft	ft	ft-amsl	ft	gallons	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	millivolts	millivolts	µg/L	µg/L	µg/L	µg/L

- 10 TOC has been altered; unable to determine an accurate GWE.
- 11 Laboratory confirmed result.
- 12 Sampled annually.
- 13 Inaccessible
- 14 Analyzed in part per billion (ppb)
- 15 Sampled semi-annually

TABLE 6
WELL CONSTRUCTION DETAILS
CHEVRON STATION 90076
4265 FOOTHILL BOULEVARD, OAKLAND, CALIFORNIA

Page 56 of 56

Well ID	Top of screen	Bottom of Screen	Screen Length	Diameter	Slot Size	Installation Date
C-1	15	40	25	3	0.020	08/13/87
C-2	15	40	25	3	0.020	08/13/87
C-3	15	40	25	3	0.020	08/13/87
C-4	15	40	25	3	0.020	08/13/87
C-5	25	45	20	2	0.020	08/01/90
C-6	35	55	20	2	0.020	08/01/90
C-7	35	55	20	2	0.020	07/31/90
C-8	39	59	20	2	0.020	11/01/90
C-9	30	45	15	2	0.020	07/10/96
C-10	10	30	20	2	0.010	08/08/03
C-11	10	20	10	2	0.020	02/03/15
C-13	9	19	10	2	0.020	2/23/16

Appendix A

Regulatory Correspondences

ALAMEDA COUNTY
HEALTH CARE SERVICES
AGENCY
ALEX BRISCOE, Agency Director



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

June 10, 2015

Mr. Mark Horne
Chevron Environmental Management Company
6101 Bollinger Canyon Rd.
San Ramon, CA 94583
(sent via electronic mail to: mark.horne@chevron.com)

Loi & Josephine Le
Loi V Le et al.
4265 Foothill Blvd.
Oakland, CA 94601

Subject: Modified Work Plan Approval; Fuel Leak Case No. RO0000427 and GeoTracker Global ID T0600100339, Chevron #9-0076, 4265 Foothill Blvd, Oakland, CA 94601

Dear Mr. Horne and Mr. and Ms. Le:

Alameda County Environmental Health (ACEH) staff has reviewed the case file for the above referenced site including the *Site Investigation Report*, *Updated Focused Site Conceptual Model*, and *Work Plan*, dated April 17, 2015 and the *First Semi-Annual 2015 Groundwater Monitoring and Sampling Report*, dated May 8, 2015. The reports were prepared and submitted on your behalf by Conestoga-Rovers & Associates (CRA). Thank you for submitting the reports.

The referenced work plan proposes to install one groundwater monitoring well along the "western" property line in order to evaluate groundwater concentrations along that perimeter, and beneath an apparent vapor source, as documented at recently installed vapor wells VP-5 and VP-6.

ACEH has previously evaluated the data and more recently collected data presented in the above-mentioned reports, in conjunction with the case files, and the State Water Resources Control Board's (SWRCBs) Low Threat Underground Storage Tank Case Closure Policy (LTCP). Based on ACEH staff review, we have determined that the site meets all General Criteria, but fails to meet the Media-Specific Criteria for Groundwater, the Media-Specific Criteria for Vapor Intrusion to Indoor Air, and the Media-Specific Criteria for Direct Contact (see Geotracker for a copy of the updated LTCP checklist).

Based on ACEH staff review of the work plan, the proposed scope of work is conditionally approved for implementation provided that the technical comments below are incorporated during the proposed work. Submittal of a revised work plan or a work plan addendum is not required unless an alternate scope of work outside that described in the work plan or these technical comments is proposed. We request that you address the following technical comments, perform the proposed work, and send us the report described below. Please provide 72-hour advance written notification to this office (e-mail preferred to: mark.datterman@acgov.org) prior to the start of field activities.

TECHNICAL COMMENTS

1. **Work Plan Modifications** – The referenced work plan proposes a series of actions with which ACEH is in general agreement of undertaking; however, ACEH requests several modifications to the approach. Please submit a report by the date specified below.
 - a. **Vicinity Basement / Foundation Depths** – The depth of basements in the vicinity of the subject site, in particular the basement of the immediately downgradient house, have not been determined or documented; thus it is uncertain if vapor wells VP-1 to VP-4, installed along the "southern" property perimeter to a depth of 5 to 6 feet below grade surface (bgs) sufficiently evaluate the potential for vapor intrusion at a depth of 5 feet below the building foundation. This is an outstanding request from previous directive letters. Existing vapor data appears to indicate that soils in the upper five feet along the "southern" property perimeter do not appear to be a significant source of vapor to the residential basement;

however, the vertical migration of vapor from groundwater to a basement does not appear to have been evaluated. This may be important at this location due to the proximal location of this basement relative to well C-4, the groundwater well with the highest groundwater concentrations at the site (downgradient well C-4 recent contained concentrations of 8,800 micrograms per liter ($\mu\text{g/l}$) Total Petroleum Hydrocarbons as gasoline [TPHg], and 1,400 $\mu\text{g/l}$ benzene in March 2015, utilizing a 25-foot long screen interval).

Please determine and report on the depth of this basement, and evaluate the appropriateness of vapor wells VP-1 to VP-4 to evaluate the potential for vapor intrusion into the basement from groundwater in conjunction with the LTCP requirement for the collection of vapor samples five feet beneath existing foundations. Please provide this data to ACEH in the report requested below, or alternatively in an effort to incorporate these actions into pending work, please communicate the need for additional data collection or additional vapor wells along the "southern" margin of the site prior to the commencement of the proposed field activities to address this apparent data gap.

- b. **Vapor Well Resampling (VP-5 and VP-6)** – It appears appropriate to request the resampling of vapor wells VP-5 and VP-6, by previously approved Standard Operating Procedures, in conjunction with the installation of the new groundwater monitoring well. This is in general conformance with Department of Toxic Substances Control (DTSC) guidance for multiple vapor sampling events. ACEH anticipates that this action would occur approximately six months after the initial sampling, would provide seasonal vapor fluctuation data, and may provide an additional line of evidence in regards to the potential for vapor intrusion to the immediately adjacent residential apartment building.
 - c. **Offsite Direct Contact Evaluation** – Based on older soil analytical data from well C-4 (3.9 milligrams per kilogram [mg/kg] benzene collected at a depth of nine feet bgs in 1987), if similar or representative of concentrations in soil beneath the offsite residence, soil adjacent or beneath the residence would not meet the residential Direct Contact Media-Specific Criteria. ACEH notes that no product odor was noted in the bore log for C-4 above this approximate depth, and additionally, more recent soil samples collected from bores VP-1 to VP-4, indicate non-detectable concentrations above approximately 7.5 feet. However, more recent data at deeper than 7.5 feet has not been collected. While ACEH anticipates that the degradation of benzene concentrations near C-4 will have occurred in the intervening years, please evaluate the appropriateness of confirmation soil samples in this area of the site. Similar to comments above, please provide this evaluation in the report requested below, or alternatively communicate the need for additional data collection along the "southern" margin of the site prior to the commencement of the proposed field activities to address this apparent data gap.
 - d. **Vicinity Well Survey** – Thank you for including a copy of the 1990 well survey in the referenced investigation report. In order to verify that no additional wells, as vertical conduits or sensitive receptors, have been installed in the intervening 25 years, please update, using Department of Water Resources (DWR) and Alameda County Public Works Agency (ACPWA) databases, the well survey for the site and vicinity. Please plot and list any deeper domestic, irrigation, cathodic protection, or other wells found within 2,000 feet of the subject site. Please be aware that well construction details, but not well addresses are considered confidential by the State. Therefore, please do not include the addresses in your report.
2. **Quarterly Groundwater Monitoring** – Please monitor recently installed wells on a quarterly basis for a minimum period of one hydrologic cycle. Please additionally include groundwater sampling and analysis from wells C-2, C-4, C-6, and C-7 in to the quarterly program. Depth-to-water measurements are requested from all wells, including non-sampled wells. Please submit quarterly 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 following specified file naming convention, and in Attachment 1, and schedule:

- **August 21, 2015** – Site Investigation Report and Updated Focused Site Conceptual Model
File to be named RO427_SWI_R_yyyy-mm-dd
- **November 20, 2015** – Third Quarter 2015 Groundwater Monitoring Report
File to be named: RO427_GWM_R_yyyy-mm-dd
- **February 26, 2016** – Fourth Quarter 2015 Groundwater Monitoring Report
File to be named: RO427_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 your email address does not appear on the cover page of this notification, ACEH is requesting you provide your email address so that we can correspond with you quickly and efficiently regarding your case.

Should you have any questions, please contact 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: 2015.06.10 12:03:42 -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: Nathan Lee, Conestoga-Rovers & Assoc., 5900 Hollis Street, Suite A, Emeryville, CA 94608
(sent via electronic mail to NLee@craworld.com)

Kiersten Hoey, Conestoga-Rovers & Assoc., 5900 Hollis Street, Suite A, Emeryville, CA 94608;
(sent via electronic mail to KHoey@craworld.com)

Dilan Roe, ACEH (Sent via E-mail to: dilan.roe@acgov.org)

Mark Detterman, ACEH, (sent via electronic mail to mark.detterman@acgov.org)
Geotracker, Electronic File

Attachment 1

Responsible Party(ies) Legal Requirements / Obligations

REPORT REQUESTS

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.

ELECTRONIC SUBMITTAL OF REPORTS

ACEH's Environmental Cleanup Oversight Programs (LOP and SLIC) require submission of reports in electronic form. The electronic copy replaces paper copies and is expected to be used for all public information requests, regulatory review, and compliance/enforcement activities. Instructions for submission of electronic documents to the Alameda County Environmental Cleanup Oversight Program FTP site are provided on the attached "Electronic Report Upload Instructions." Submission of reports to the Alameda County FTP site is an addition to existing requirements for electronic submittal of information to the State Water Resources Control Board (SWRCB) GeoTracker website. In September 2004, the SWRCB adopted regulations that require electronic submittal of information for all groundwater cleanup programs. For several years, responsible parties for cleanup of leaks from underground storage tanks (USTs) have been required to submit groundwater analytical data, surveyed locations of monitoring wells, and other data to the GeoTracker database over the Internet. Beginning July 1, 2005, these same reporting requirements were added to Spills, Leaks, Investigations, and Cleanup (SLIC) sites. Beginning July 1, 2005, electronic submittal of a complete copy of all reports for all sites is required in GeoTracker (in PDF format). 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, 6835, 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, later 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 SLIC)	REVISION DATE: May 15, 2014
	ISSUE DATE: July 5, 2005
	PREVIOUS REVISIONS: October 31, 2005; December 16, 2005; March 27, 2009; July 8, 2010, July 25, 2010
SECTION: Miscellaneous Administrative Topics & Procedures	SUBJECT: Electronic Report Upload (ftp) Instructions

The Alameda County Environmental Cleanup Oversight Programs (LOP and SLIC) 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://alcolftp1.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.

ALAMEDA COUNTY
HEALTH CARE SERVICES
AGENCY
ALEX BRISCOE, Agency Director



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

October 7, 2015

Mr. Mark Horne
Chevron Environmental Management Company
6101 Bollinger Canyon Rd.
San Ramon, CA 94583
(sent via electronic mail to: markhorne@chevron.com)

Loi & Josephine Le
Loi V Le et al.
4265 Foothill Blvd.
Oakland, CA 94601

Subject: Work Plan Addendum Approval; Fuel Leak Case No. RO0000427 and GeoTracker Global ID T0600100339, Chevron #9-0076, 4265 Foothill Blvd, Oakland, CA 94601

Dear Mr. Horne and Mr. and Ms. Le:

Alameda County Environmental Health (ACEH) staff has reviewed the case file for the above referenced site including the *Second Quarter 2015 Groundwater Monitoring and Sampling Report*, dated August 18, 2015, and the *Response Letter*, dated August 21, 2015. These documents were prepared and submitted on your behalf by GHD Services, Inc (GHD). Thank you for submitting the documents.

Based on ACEH staff review of the work plan, the proposed scope of work is conditionally approved for implementation provided that the technical comments below are incorporated during the proposed work. Submittal of a revised work plan or a work plan addendum is not required unless an alternate scope of work outside that described in the work plan or these technical comments is proposed. We request that you address the following technical comments, perform the proposed work, and send us the report described below. Please provide 72-hour advance written notification to this office (e-mail preferred to: mark.detterman@acgov.org) prior to the start of field activities.

TECHNICAL COMMENTS

1. **Work Plan Addendum Approval** – The *Response Letter* proposed several modifications to the scope of work contained in the previously approved *Site Investigation Report, Updated Focused Site Conceptual Model, and Work Plan*, dated April 17, 2015. ACEH is in general agreement that the proposed modifications are appropriate and are anticipated to expedite site and risk characterization of the site under the Low Threat Closure Policy. Please submit a report by the date specified 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 following specified file naming convention, and in Attachment 1, and schedule:

- **December 18, 2015** – Site Investigation Report and Updated Focused Site Conceptual Model
File to be named RO427_SWI_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>.

Mr. Horne and Mr. and Ms. Le
RO0000427
October 7, 2015, Page 2

If your email address does not appear on the cover page of this notification, ACEH is requesting you provide your email address so that we can correspond with you quickly and efficiently regarding your case.

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

Sincerely,



Digitally signed by Mark E. Dettelman
DN: cn=Mark E. Dettelman, o, ou,
email, c=US
Date: 2015.10.07 15:38:50 -07'00'

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

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

cc: 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 E-mail to: dilan.roe@acgov.org)
Mark Dettelman, ACEH, (sent via electronic mail to mark.dettelman@acgov.org)
Geotracker, Electronic File

Attachment 1

Responsible Party(ies) Legal Requirements / Obligations

REPORT REQUESTS

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.

ELECTRONIC SUBMITTAL OF REPORTS

ACEH's Environmental Cleanup Oversight Programs (LOP and SLIC) require submission of reports in electronic form. The electronic copy replaces paper copies and is expected to be used for all public information requests, regulatory review, and compliance/enforcement activities. Instructions for submission of electronic documents to the Alameda County Environmental Cleanup Oversight Program FTP site are provided on the attached "Electronic Report Upload Instructions." Submission of reports to the Alameda County FTP site is an addition to existing requirements for electronic submittal of information to the State Water Resources Control Board (SWRCB) GeoTracker website. In September 2004, the SWRCB adopted regulations that require electronic submittal of information for all groundwater cleanup programs. For several years, responsible parties for cleanup of leaks from underground storage tanks (USTs) have been required to submit groundwater analytical data, surveyed locations of monitoring wells, and other data to the GeoTracker database over the Internet. Beginning July 1, 2005, these same reporting requirements were added to Spills, Leaks, Investigations, and Cleanup (SLIC) sites. Beginning July 1, 2005, electronic submittal of a complete copy of all reports for all sites is required in GeoTracker (in PDF format). 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, 6835, 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, later 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 SLIC)	REVISION DATE: May 15, 2014
	ISSUE DATE: July 5, 2005
	PREVIOUS REVISIONS: October 31, 2005; December 16, 2005; March 27, 2009; July 8, 2010, July 25, 2010
SECTION: Miscellaneous Administrative Topics & Procedures	SUBJECT: Electronic Report Upload (ftp) Instructions

The Alameda County Environmental Cleanup Oversight Programs (LOP and SLIC) 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.toptoxic@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.
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 - a) Send email to deh.toptoxic@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)
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 - 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.

Weir, Carissa

From: Lee, Nathan
Sent: Friday, December 11, 2015 4:52 PM
To: Weir, Carissa
Subject: FW: Former Chevron 90076 - RO 0274 - Extension Request

Server and STRATA please

Nathan Lee. P.G.

GHD

T: +1 925 849 1003 | M: +1 510 385 2499 | E: nathan.lee@ghd.com
2300 Clayton Road Suite 920 Concord California 94520 United States | www.ghd.com
[WATER](#) | [ENERGY & RESOURCES](#) | [ENVIRONMENT](#) | [PROPERTY & BUILDINGS](#) | [TRANSPORTATION](#)

From: Detterman, Mark, Env. Health [<mailto:Mark.Detterman@acgov.org>]
Sent: Friday, 11 December 2015 4:36 PM
To: Lee, Nathan
Cc: MarkHorne@chevron.com
Subject: RE: Former Chevron 90076 - RO 0274 - Extension Request

Nathan and Mark,

I have updated Geotracker with the requested date of May 6, 2016. Please use this email to document the change.

Mark Detterman
Senior Hazardous Materials Specialist, PG, CEG
Alameda County Environmental Health
1131 Harbor Bay Parkway
Alameda, CA 94502
Direct: 510.567.6876
Fax: 510.337.9335
Email: mark.detterman@acgov.org

PDF copies of case files can be downloaded at:

<http://www.acgov.org/aceh/lop/ust.htm>

From: Lee, Nathan [<mailto:Nathan.Lee@ghd.com>]
Sent: Friday, December 11, 2015 3:19 PM
To: Detterman, Mark, Env. Health
Cc: MarkHorne@chevron.com
Subject: RE: Former Chevron 90076 - RO 0274 - Extension Request

Mark,

GHD Services Inc. (GHD) on behalf of Chevron Environmental Management Company (EMC), would like to request an extension for the *Site Investigation Report and Updated Focused Site Conceptual Model* that was requested by Alameda County Environmental Health's (ACEH) in their letter dated October 7, 2015. Due to the time required to obtain the necessary permits from the City of Oakland and subcontractor availability below are the scheduled dates of field activities:

January 14, 2016 – Utility locate

February 23, 2016 – Soil boring advancement

Therefore, an extension of **May 6, 2016** for the *Site Investigation Report and Updated Focused Site Conceptual Model* is requested, based on the time required to obtain the City of Oakland permits and subcontractor availability. This extension takes into account the two weeks that is required to obtain results from the laboratory. This requested extension date is dependent on City of Oakland not requiring any additional information in the permitting process.

Thanks,

Nathan Lee. P.G.

GHD

T: +1 925 849 1003 | M: +1 510 385 2499 | E: nathan.lee@ghd.com

2300 Clayton Road Suite 920 Concord California 94520 United States | www.ghd.com

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Lee, Nathan

From: Detterman, Mark, Env. Health <Mark.Detterman@acgov.org>
Sent: Thursday, 5 May 2016 3:18 PM
To: Lee, Nathan
Cc: MarkHorne@chevron.com
Subject: RE: Former Chevron 90076 - RO 0274 - Extension Request

Nate and Mark,
I have extended the delivery date to June 3rd per your request and the problems you encountered. If you need to document the extension you can use this email to do so.

Mark Detterman
Senior Hazardous Materials Specialist, PG, CEG
Alameda County Department of Environmental Health
1131 Harbor Bay Parkway
Alameda, CA 94502
Direct: 510.567.6876
Fax: 510.337.9335
Email: mark.detterman@acgov.org

PDF copies of case files can be downloaded at:

<http://www.acgov.org/aceh/lop/ust.htm>

From: Lee, Nathan [mailto:Nathan.Lee@ghd.com]
Sent: Wednesday, April 27, 2016 3:42 PM
To: Detterman, Mark, Env. Health
Cc: MarkHorne@chevron.com
Subject: RE: Former Chevron 90076 - RO 0274 - Extension Request

Mark,

GHD Services Inc. (GHD) on behalf of Chevron Environmental Management Company (EMC), would like to request an extension for the *Site Investigation Report and Updated Focused Site Conceptual Model* that was requested by Alameda County Environmental Health's (ACEH) in their letter dated October 7, 2015. This extension is requested, due to the amount of rain that was received during the time the soil vapor sampling event was scheduled to take place. Based on the California Environmental Protection Agency Department of Toxic Substances Control (DTSC) *Active Soil Gas Investigations* dated July 2015, GHD had to wait the designated amount of time to allow the soils to dry, prior to sampling. The amount of wait time after a rain event stated by DTSC, is approximately five days of dry weather. GHD had to delay the soil vapor sampling event based on weather conditions. As the sampling was delayed, the analytical results were also delayed from when GHD originally expected the results. Therefore, due to the delay in receipt of analytical data, an extension of **June 3, 2016** for the *Site Investigation Report and Updated Focused Site Conceptual Model* is requested.

Thanks,

Nathan Lee. P.G.

GHD

T: +1 925 849 1003 | M: +1 510 385 2499 | E: nathan.lee@ghd.com
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Sent: Friday, 11 December 2015 4:36 PM
To: Lee, Nathan
Cc: MarkHorne@chevron.com
Subject: RE: Former Chevron 90076 - RO 0274 - Extension Request

Nathan and Mark,
I have updated Geotracker with the requested date of May 6, 2016. Please use this email to document the change.

Mark Detterman
Senior Hazardous Materials Specialist, PG, CEG
Alameda County Environmental Health
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Alameda, CA 94502
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Email: mark.detterman@acgov.org

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Sent: Friday, December 11, 2015 3:19 PM
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Cc: MarkHorne@chevron.com
Subject: RE: Former Chevron 90076 - RO 0274 - Extension Request

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Thanks,

Nathan Lee. P.G.

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Appendix B

Summary of Environmental Investigation and Remediation

Appendix B

Summary of Environmental Investigation and Remediation Chevron Service Station 90076

May 1987 Tank Removal and Replacement

In May 1987, Blaine Tech Services removed three (8,000-, 6,000-, and 3,000-gallon) steel fuel underground storage tanks (USTs) and one 1,000-gallon fiberglass used-oil UST. An unknown volume of excavated backfill material was aerated and reused onsite. Additional impacted soil was disposed of at a Chevron approved, non-hazardous landfill. Three 10,000-gallon double-walled fiberglass USTs were installed in the same excavation in June 1987. The used-oil UST was not replaced. Soil samples were collected beneath the former fuel USTs and use-oil UST. Details are available in Blaine Tech's August 14, 1987 *Product and Waste Oil Tank Removal*.

July 1987 Excavation

On July 8, 1987, during excavation work to install a sign along Foothill Boulevard, petroleum hydrocarbon odors and a small amount of water with product sheen was reported in the excavated pit at 11 feet below grade (fbg). Details are available in Weiss Associates' (Weiss) December 18, 1990 *Subsurface Investigation Report*.

August 1987 Well Installation

In August 1987, Pacific Environmental Group, Inc. (PEG) oversaw the advancement of soil boring C-A and drilling/installation of 3-inch diameter groundwater monitoring wells C-1 through C-4. Light non-aqueous phase liquid (LNAPL) at a measured thickness of greater than 2.0 feet was reported in well C-2. As a result, well C-2 was not sampled. Details are available in PEG's September 23, 1987 *Soil and Groundwater Investigation Report*.

July/August 1990 Monitoring Well Installation

In July and August 1990, Weiss oversaw the drilling /installation of 2-inch diameter wells C-5 through C-7. Well C-8 was subsequently installed in November 1990. No hydrocarbons were detected in soil samples collected from C-8. Weiss also conducted a well survey within a one-half mile radius of the site. Forty wells were identified within the search area. Of these, two were cathodic protection wells, one was identified as irrigation well and one other identified as industrial. The remaining 36 wells were identified as monitoring wells. The irrigation well was reported less than 0.75 miles upgradient of the site. No domestic or municipal water supply wells were identified within the search area. Based on depth to water measurements, Weiss suggested that groundwater beneath the site may be perched. Depth to water in onsite well C-4 and offsite well C-6 differed by approximately 14 feet in 1990. Details are available in Weiss's December 18, 1990 *Subsurface Investigation Report*.

November 1991 Groundwater Extraction

In an attempt to achieve hydraulic control of dissolved-phase hydrocarbons, Weiss began operating a groundwater extraction system in well C-2 in November 1991. The system operated until October 1993 and extracted approximately 10,200 gallons of impacted groundwater. System operations were terminated due to noise complaints from the neighbors and low flow rates. Details were obtained from Weiss's July 30, 1993 *Monthly Monitoring Report*.

July 1996 Well Installation

PEG oversaw the drilling/installation of 2-inch diameter well C-9 on July 10, 1996, downgradient of C-7, in the Albertson's supermarket parking lot (currently, a Mi Pueblo Supermarket). Details are available in PEG's October 2, 1996 *Off-Site Monitoring Well Installation Report*.

July 1997 Product Line Upgrades

In July 1997, Gettler-Ryan (G-R) collected soil samples during partial product piping replacement in conjunction with dispenser and UST containment upgrades. Soil was excavated beneath the dispensers to accommodate new

containment requirements and beneath the product piping. Compliance soil samples PL1 through PL5 were collected at approximately 4 fbg. Approximately 46 tons of soil were excavated and disposed of offsite. Details are available in G-R's September 24, 1997, *Soil Sampling During Product Dispenser Upgrade and Partial Product Line Replacement Report*.

1998-2000 Site Conceptual Model and Risk-Based Corrective Action (RBCA) Plan

In May 1998, Delta Environmental Consultants, Inc. (Delta) completed a RBCA evaluation using analytic results from previous soil and groundwater assessment activities. This was followed by a site conceptual model (SCM) and proposed RBCA plan. The SCM indicated that the primary potential exposure receptors are current and future residents of properties near the intersection of High and Bond Streets and, possibly, workers and customers in the Albertson's parking lot. The only complete exposure pathway would be hydrocarbon volatilization from groundwater to outdoor and indoor air. Secondary potential exposure pathways are hydrocarbon volatilization from soil or direct dermal contact. A Tier 2 RBCA analysis was performed and showed that onsite and offsite representative concentrations exceeded the site-specific target levels for benzene. Delta concluded the adjacent residence with a basement may be at risk for benzene inhalation and recommended that site specific soil vapor samples be collected to evaluate current soil vapor levels. Delta also recommended continued use of oxygen releasing compound to enhance bioremediation and a continuation of over-purging C-1 through C-4. Details are available in Delta's July 28, 2000 *Site Conceptual Model and Risk-Based Corrective Action Plan*.

August 2003 Well Installation

In August 2003, Cambria Environmental Technology, Inc (Cambria) oversaw the drilling/installation of monitoring well C-10 in the eastern corner of the site to further evaluate subsurface conditions onsite and possible offsite impacts from the adjacent station. Details are available in Cambria's October 8, 2003 *Well Installation Report/Site Summary*.

November 2005 Vapor Probe Installation

In November 2005, Cambria oversaw the installation of soil vapor probes VP-1, VP-2, and VP-3 on the southern corner of the site to determine soil vapor concentrations along the downgradient property boundary. No formal report was submitted to the agency, detailing the work; however details of this investigation were submitted to ACEH on July 12, 2012.

August 2012 Soil Vapor Sampling and Preferential Pathway Study

In August 2012, Conestoga-Rovers & Associates (CRA) collected soil vapor samples from vapor probes VP-1, VP-2, and VP-3 to assess vapor conditions downgradient of well C-2. Hydrocarbons were only detected in the sample from VP-1. CRA also conducted a preferential pathway study. Based on historic groundwater monitoring and sampling data and depth of water, electrical, natural gas, and telecommunication utilities, it is unlikely that these utilities serve as preferential pathways. Sanitary sewer and storm drain lines are generally gravity fed, installed at depths deeper than 10 fbg, and backfilled with native material (permeability likely similar to native soils). Based on this, although it is possible that the deeper sanitary sewer and/or storm drain lines may act as a preferential pathway during high groundwater conditions, these conditions are not typical. Additional information is available in CRA's September 14, 2012 *Soil Vapor Sampling, Preferential Pathway Study, and Work Plan*.

February 2015 Subsurface Investigation

In February 2015, CRA advanced soil borings B-1 through B-6 to assess the first generation dispensers, including the area of former boring C-A and the former used-oil UST areas. To further evaluate dissolved hydrocarbon concentrations in shallow groundwater downgradient, CRA installed offsite monitoring well C-11 to 20 fbg, adjacent to well C-7. CRA attempted to install a shallow well adjacent to offsite well C-6, but no water was encountered, so a well was not installed. To assess potential vapor intrusion risks to adjacent properties, CRA installed soil vapor probes VP-4, VP-5, and VP-6 along the southern and western property boundaries. Additional information is available in CRA's April 15, 2015 *Site Investigation Report, Updated Focused Site Conceptual Model, and Work Plan*.

Appendix C

Boring Logs

LOCATION MAP C-A

ELEVATION

PACIFIC ENVIRONMENTAL GROUP, INC.

PROJECT NO. 120-57.01
 LOGGED BY: E.G.
 DRILLED BY: BAYLAND
 DRILLING METHOD: HSA
 SAMPLING METHOD: CAL. MOD.
 CASING TYPE: NA
 SLOT SIZE:
 GRAVEL PACK:

WELL / BORING NO. C-A
 PAGE 1 OF 1

CLIENT: G.R. CHEVRON USA
 DATE DRILLED: 8-13-87
 LOCATION: HIGH AND FOOTHILL
 HOLE DIAMETER: 8"
 HOLE DEPTH: 40-1/2'
 WELL DEPTH:
 WELL DIAMETER:

WELL COMPLETION	MOISTURE CONTENT		PENETRATION RESISTANCE (BLOW/FT)	DEPTH (feet)	SAMPLE	GRAPHIC	SOIL TYPE	LITHOLOGY/REMARKS
Backfilled with Concrete	Dp		12	2			SC	ASPHALT AND BASEROCK.
				4				CLAYEY SAND; fill; dark olive; 20-30% fines; fine to coarse grained; trace fine gravel; medium dense; damp; faint product odor to strong product odor starting at 4'.
			16	6				@ 5-1/2': intermixed SW and GW fill materials; some free product; still primarily SC.
			11	8				@ 7': free product.
			4	10				@ 8-1/2': free product.
	Dp		9	10				@ 10': nearly saturated with product.
			10	12			SC/	CLAYEY SAND and CLAYEY GRAVEL; interbedded; olive; 20-30% fines; silty; SAND; fine to coarse grained; 0-15% fine to medium gravel; very dense; faint product odor; GRAVEL;
			50	14			GC	15-25% fine to coarse sand; FeO mottled; fine to coarse grained; very dense; sub-rounded; damp; faint product odor.
			24	16				@ 16': strong product odor.
			28	18			CL	CLAY; strong brown; moderate plasticity; FeO mottled; slightly silty; stiff; 0-10% fine to medium sand; faint product odor.
	Mst		18	20				@ 23-1/2': faint product odor.
			49	22				Bottom of Boring at 25 feet.
				24				
			64	26				
				28				
				30				
				32				
				34				
				36				
				38				
				40				

PACIFIC ENVIRONMENTAL GROUP, INC.

WELL / C-1
BORING NO.
PAGE 1 OF 1

PROJECT NO. 120-57.01
LOGGED BY: E.G.
DRILLED BY: BAYLAND
DRILLING METHOD: HSA
SAMPLING METHOD: CAL. MOD.
CASING TYPE: SCH. 40 PVC
SLOT SIZE: 0.020
GRAVEL PACK: CA

CLIENT: G.R. CHEVRON USA
DATE DRILLED: 8-13-87
LOCATION: HIGH AND FOOTHILL
HOLE DIAMETER: 8"
HOLE DEPTH: 40-1/2"
WELL DEPTH: 40'
WELL DIAMETER: 3"

LOCATION MAP C-1

Islands

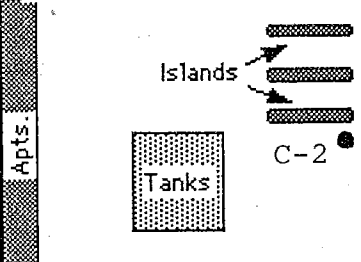
Tanks

High St.

ELEVATION 98.24' (project)

C-A attached at back of report

WELL COMPLETION	MOISTURE CONTENT	PENETRATION RESISTANCE (BLOW/FT)	DEPTH (feet)	SAMPLE	GRAPHIC	SOIL TYPE	LITHOLOGY/REMARKS
	Dp		2			CL	ASPHALT AND BASEROCK.
			4			CL	CLAY; fill; black; silty; 0-10% fine to coarse sand; disturbed; soft; no product odor.
	Dp	24	6				CLAY; olive; silty; 0-10% fine to medium sand; red to black; FeO stained.
	Dp-Mst	28	8				@ 7': 20-30% fine to coarse sand; trace caliche; occasional pores; FeO mottled; stiff; trace fine to coarse gravel; no product odor.
	Mst	40	10			SC	CLAYEY SAND; yellowish brown; 15-25% fines; fine to coarse grained; 0-10% fine to coarse gravel; sub-rounded; no product odor.
	Mst		12				
	Mst		14			CL	CLAY; olive to strong brown; 10-20% fine to medium sand; trace coarse sand; FeO stains; very stiff; wet in root holes; no product odor.
	Mst-Wt	49	16				
			18				@ 19': 20-30% fine sand intermittently; moderate plasticity; no product odor.
	Mst	56	20				
	Mst-Wt		22				
			24				@ 24': 20-30% fine to coarse sand; trace fine gravel; very stiff; moderate plasticity; no product odor.
	Mst	62	26				
	Mst-Wt		28				@ 29': light gray; 0-10% fine sand; moderate plasticity; caliche mottle; very stiff; no product odor.
			30				
			32				
	Wt	68	34			SP-SC	SAND TO CLAYEY SAND; olive to brown; 5-20% fines; fine to coarse grained; 10-25% fine to medium gravel; very dense; faint product odor.
			36				
			38				
	Wt	70	40			CL	CLAY; strong brown; as above; 20-30% fine sand to coarse gravel; stiff; no product odor.
							Bottom of boring at 40-1/2'

LOCATION MAP			PACIFIC ENVIRONMENTAL GROUP, INC.					WELL / BORING NO. C-2	
			PROJECT NO. 120-57.01 LOGGED BY: E.G. DRILLED BY: BAYLAND DRILLING METHOD: HSA SAMPLING METHOD: CAL. MOD. CASING TYPE: SCH. 40 PYC SLOT SIZE: 0.020 GRAVEL PACK: CA					CLIENT: G.R. CHEVRON USA DATE DRILLED: 8-13-87 LOCATION: HIGH AND FOOTHILL HOLE DIAMETER: 8" HOLE DEPTH: 40-1/2' WELL DEPTH: 40' WELL DIAMETER: 3"	
WELL COMPLETION		MOISTURE CONTENT	PENETRATION RESISTANCE (BLOW/FT)	DEPTH (feet)	SAMPLE	GRAPHIC	SOIL TYPE	LITHOLOGY/REMARKS	
Dp			22	2			CL	ASPHALT AND BASEROCK.	
				4			CL	CLAY FILL; black; abundant root fragments; silty; 0-10% fine sand; soft; faint product odor.	
Dp-Mst			42	6				CLAY; gray; 5-15% fine to coarse sand; moderate plasticity; silty; trace fine gravel; stiff; no product odor.	
				8			CL-GC	CLAY TO CLAYEY GRAVEL; strong brown; 30-60% fine to coarse sand and gravel; FeO mottled; sub-rounded to sub-angular; very stiff; strong product odor.	
Mst-Wt			50	10					
				12					
Mst-Wt			not rec.	14			CL	CLAY; Yellowish brown; silty; moderate plasticity; occasional root fragments; FeO mottled; very stiff; 10-20% fine to medium sand; no product odor.	
				16					
Mst-Wt			70	18					
				20				@ 24': contains up to 25% fine to coarse sand and fine gravel; faint product odor.	
Mst-Wt				22					
				24					
Wt			42	26				@ 29': Strong product odor.	
				28					
Wt			24	30				CLAYEY SAND; dark yellowish brown; 15-20% fines; fine to medium grained; medium dense; no product odor.	
				32			SC		
Wt				34					
				36					
Wt			57	38				CLAY; dark yellowish brown; 15-30% fine to coarse sand; silty; 10-15% fine to medium gravel; very stiff; no product odor.	
				40			CL	Bottom of Boring at 40-1/2'	

LOCATION MAP		PACIFIC ENVIRONMENTAL GROUP, INC.				WELL / BORING NO. C-3 PAGE 1 OF 1	
		PROJECT NO. 120-57.01 LOGGED BY: E.G. DRILLED BY: BAYLAND DRILLING METHOD: HSA SAMPLING METHOD: CAL. MOD. CASING TYPE: SCH. 40 PYC SLOT SIZE: 0.020 GRAVEL PACK: CA				CLIENT: G.R. CHEVRON USA DATE DRILLED: 8-13-87 LOCATION: HIGH AND FOOTHILL HOLE DIAMETER: 8" HOLE DEPTH: 40-1/2' WELL DEPTH: 40' WELL DIAMETER: 3"	
WELL COMPLETION	MOISTURE CONTENT	PENETRATION RESISTANCE (BLOW/FT)	DEPTH (feet)	SAMPLE	GRAPHIC	SOIL TYPE	LITHOLOGY/REMARKS
			2			CL	ASPHALT AND BASEROCK.
			4			CL	CLAY FILL; olive to black; 0-10% fine sand; silty; soft; no product odor.
			6				
			8				
			10				@ 9': yellowish brown; 30-40% fine sand to medium gravel; stiff; faint product odor.
			12				
			14				@ 14': yellowish brown; 5-10% fine to medium sand; FeO mottled; trace root fragments; moderate plasticity; no product odor.
			16				
			18				
			20				@ 19': no product odor.
			22				
			24				@ 24': no product odor.
			26				
			28				
			30			GC	CLAYEY GRAVEL; yellowish brown; 20-30% fines; 20% fine to coarse sand; fine to coarse grained; FeO stained; very stiff; no product odor.
			32				
			34			CL	CLAY; olive to yellowish brown; moderate plasticity; FeO stained; 0-5% fine to coarse sand; very stiff; no product odor.
			36				
			38				
			40				Bottom of Boring at 40-1/2'

LOCATION MAP

PACIFIC ENVIRONMENTAL GROUP, INC.

 WELL / C-4
 BORING NO.
 PAGE 1 OF 1

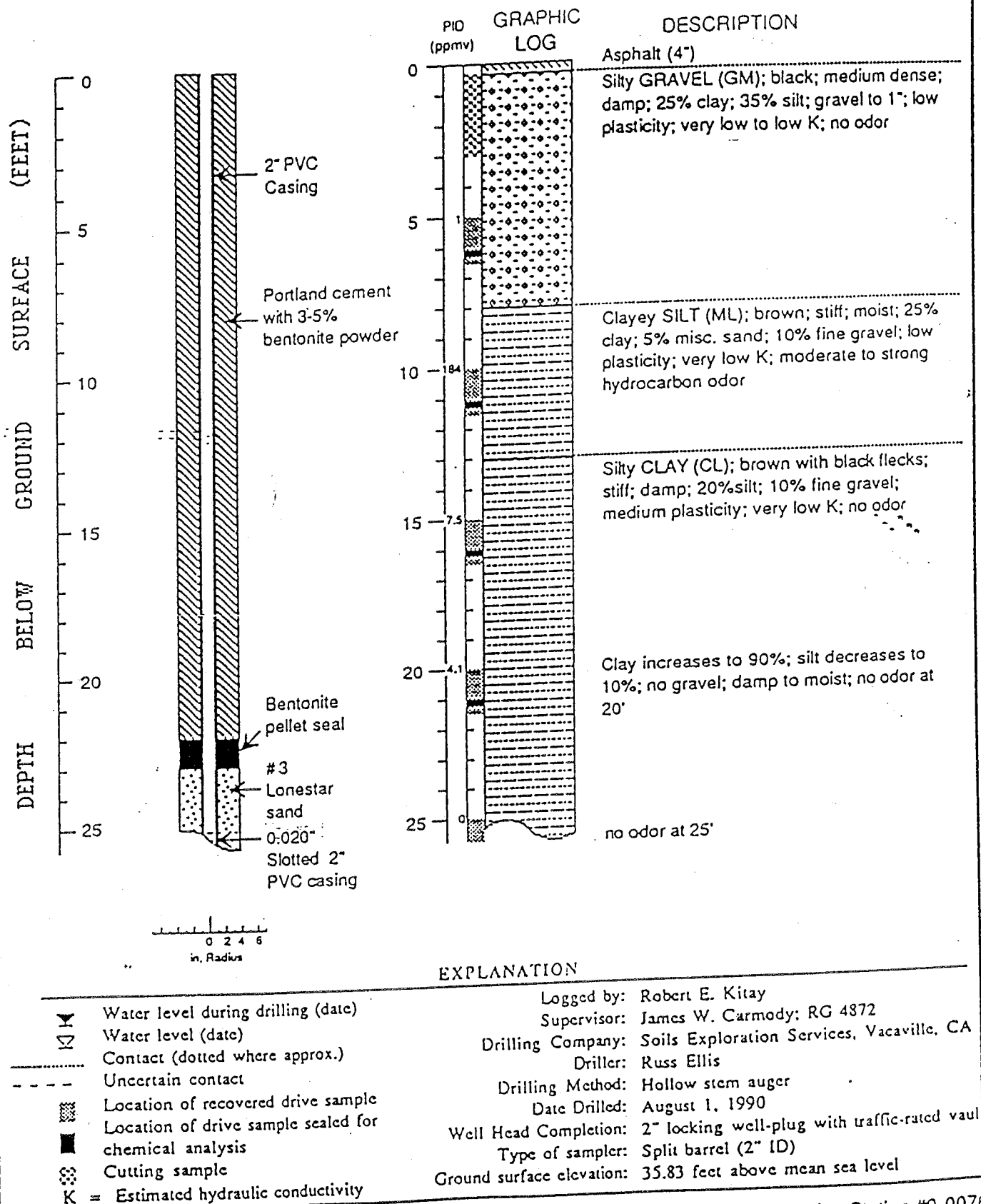
 PROJECT NO. 120-57.01
 LOGGED BY: E.G.
 DRILLED BY: BAYLAND
 DRILLING METHOD: HSA
 SAMPLING METHOD: CAL. MOD.
 CASING TYPE: SCH. 40 PYC
 SLOT SIZE: 0.020
 GRAVEL PACK: CA

 CLIENT: G.R. CHEVRON USA
 DATE DRILLED: 8-13-87
 LOCATION: HIGH AND FOOTHILL
 HOLE DIAMETER: 8"
 HOLE DEPTH: 40-1/2'
 WELL DEPTH: 40'
 WELL DIAMETER: 3"

ELEVATION 96.28' (project)

WELL COMPLETION	MOISTURE CONTENT	PENETRATION RESISTANCE (BLOW/FT)	DEPTH (feet)	SAMPLE	GRAPHIC	SOIL TYPE	LITHOLOGY/REMARKS
			2			CL	ASPHALT AND BASEROCK.
			4			CL	CLAY; fill; black; silty; 0-10% fine sand; no product odor.
			6				
			8				
			10			SC	CLAYEY SAND; yellowish brown; 20-40% fines; fine to medium grained; FeO stained; trace root fragments; hard; strong product odor.
			12				
			14			CL	CLAY; strong brown; slightly silty; moderate plasticity; 10-30% fine sand to medium gravel; hard; no product odor.
			16				
			18				
			20				@ 19': no product odor.
			22				
			24				@ 24': decrease sand; no product odor.
			26				
			28				
			30				@ 29': olive; 0-10% fine to medium sand; hard; no product odor.
			32				
			34				@ 34': yellowish brown; 20-25% fine to medium sand; silty; hard; no product odor.
			36				
			38				@ 39': olive; 0-10% fine to medium sand; slightly silty; hard; no product odor.
			40				Bottom of Boring at 40-1/2'

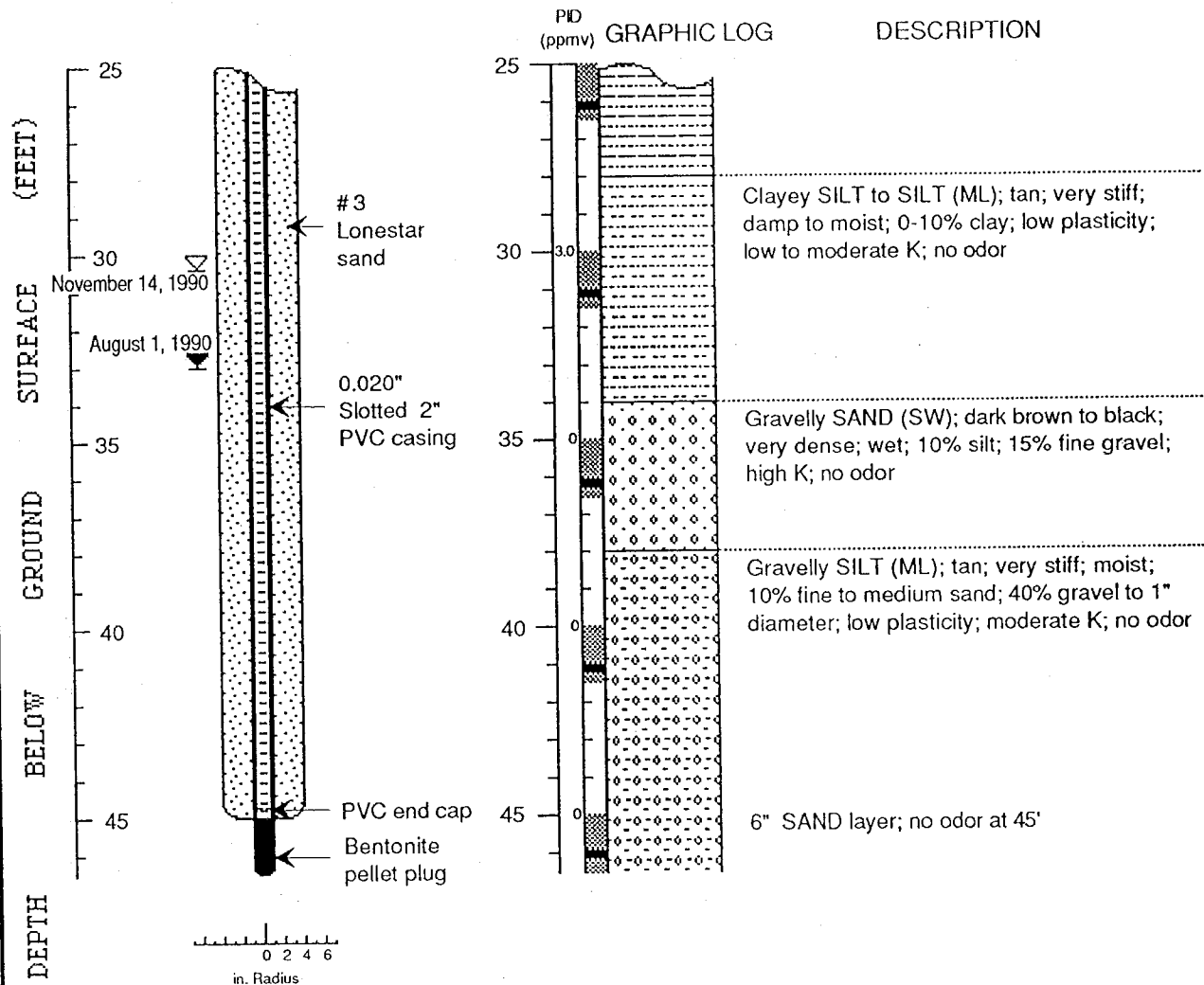
Well C-5 (BH-E)



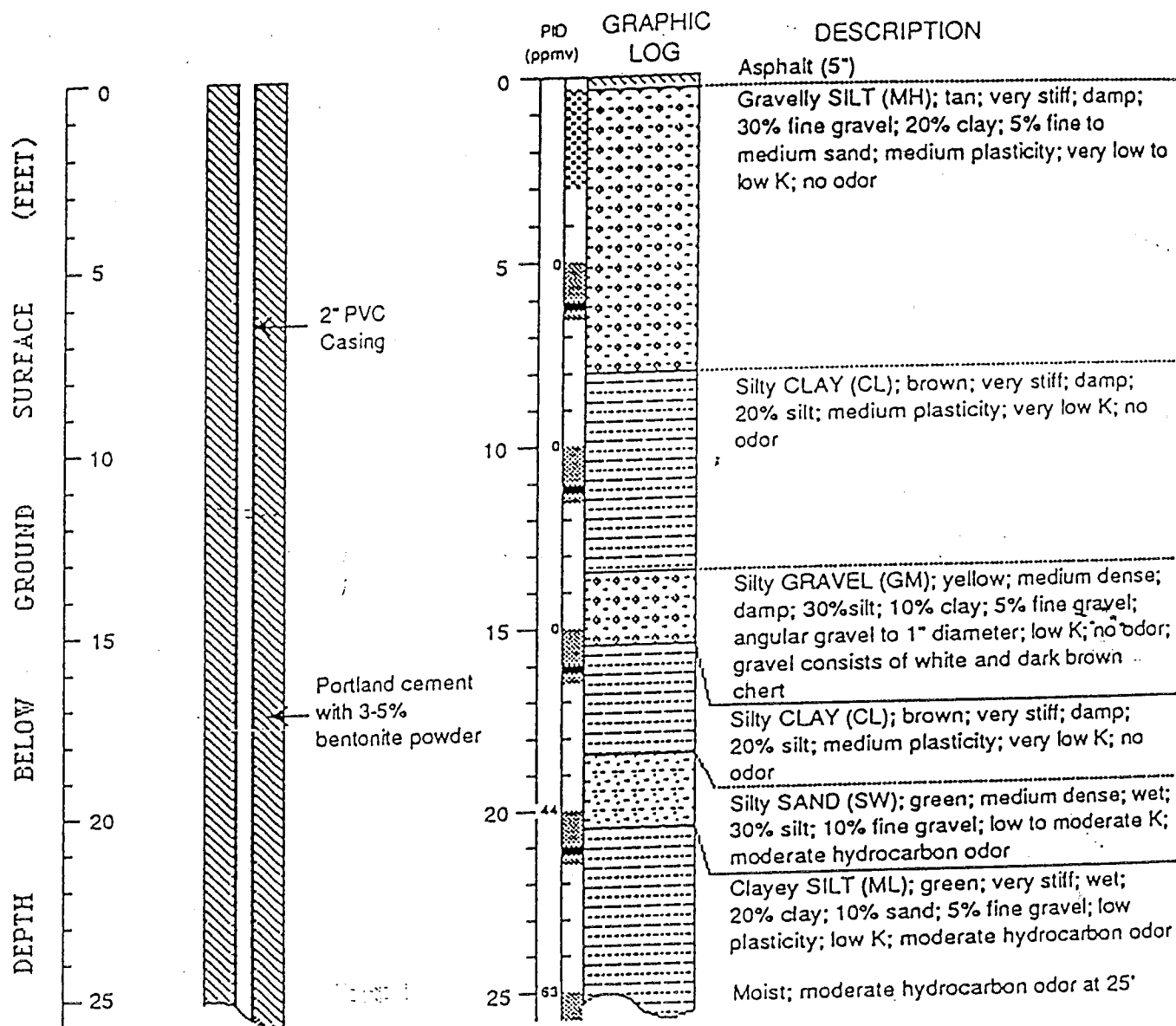
Well Construction and Boring Log Details - Well C-5 (BH-E)

Chevron Service Station #9-0076
Oakland, California

WELL C-5 (BH-E) (cont.)



Well C-6 (BH-F)

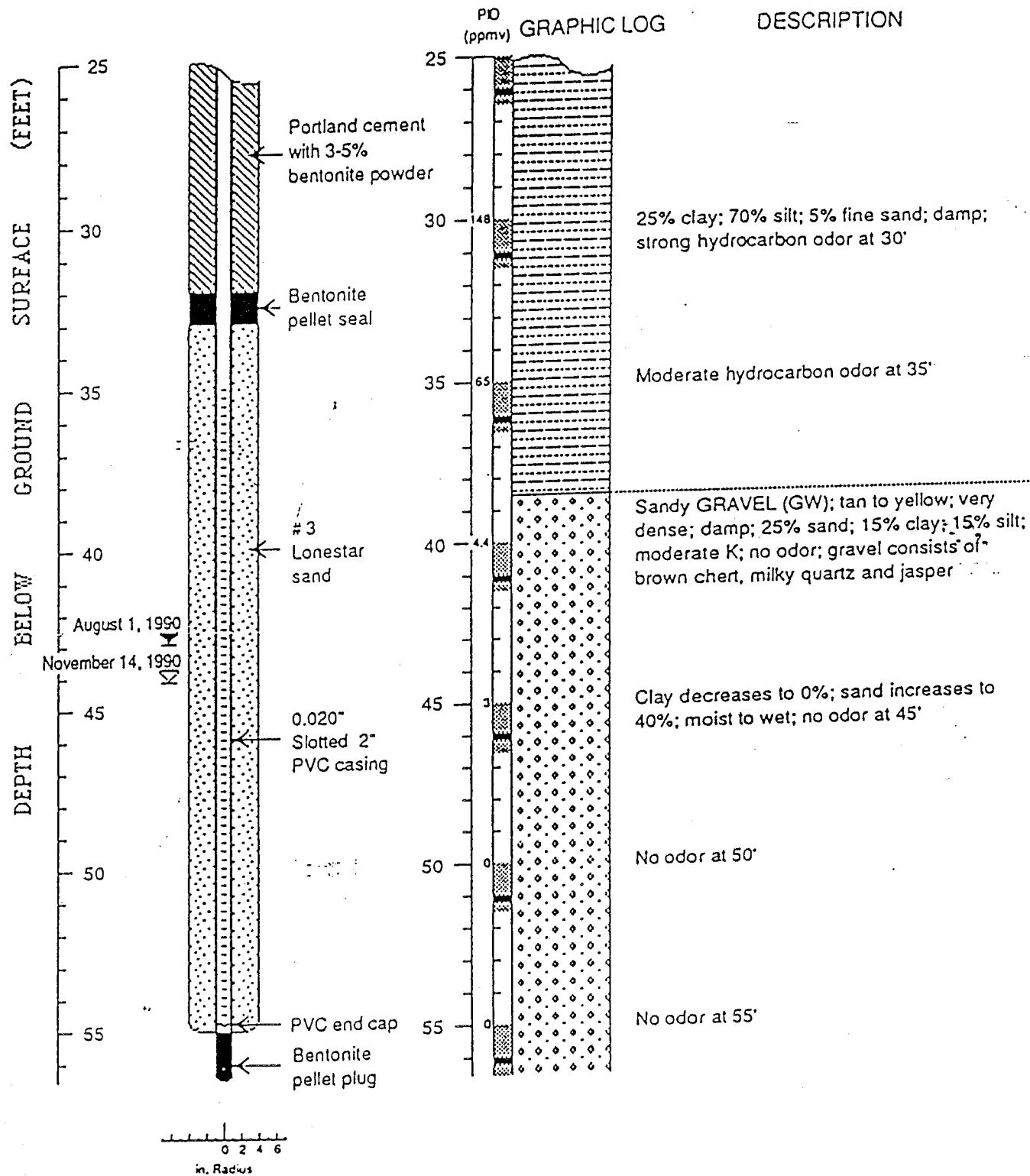


EXPLANATION

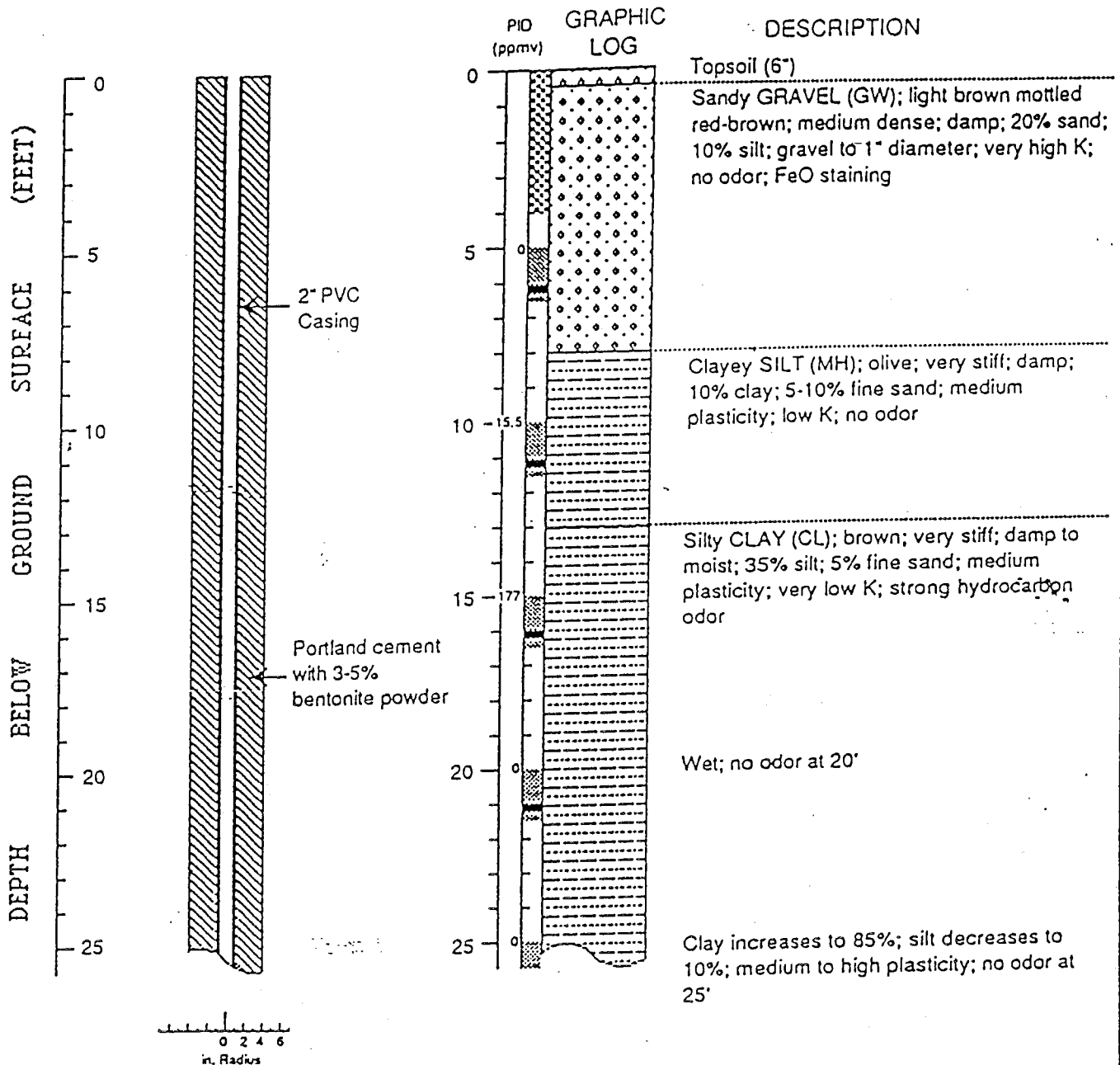
- Water level during drilling (date)
- Water level (date)
- Contact (dotted where approx.)
- Uncertain contact
- Location of recovered drive sample
- Location of drive sample sealed for chemical analysis
- Cutting sample
- K = Estimated hydraulic conductivity

Logged by: Robert E. Kitay
 Supervisor: James W. Carmody; RG 4872
 Drilling Company: Soils Exploration Services, Vacaville, CA
 Driller: Russ Ellis
 Drilling Method: Hollow stem auger
 Date Drilled: August 1, 1990
 Well Head Completion: 2" locking well-plug with traffic-rated
 Type of sampler: vault
 Ground surface elevation: Split barrel (2" ID)

WELL C-6 (BH-F) (cont.)



Well C-7 (BH-G)

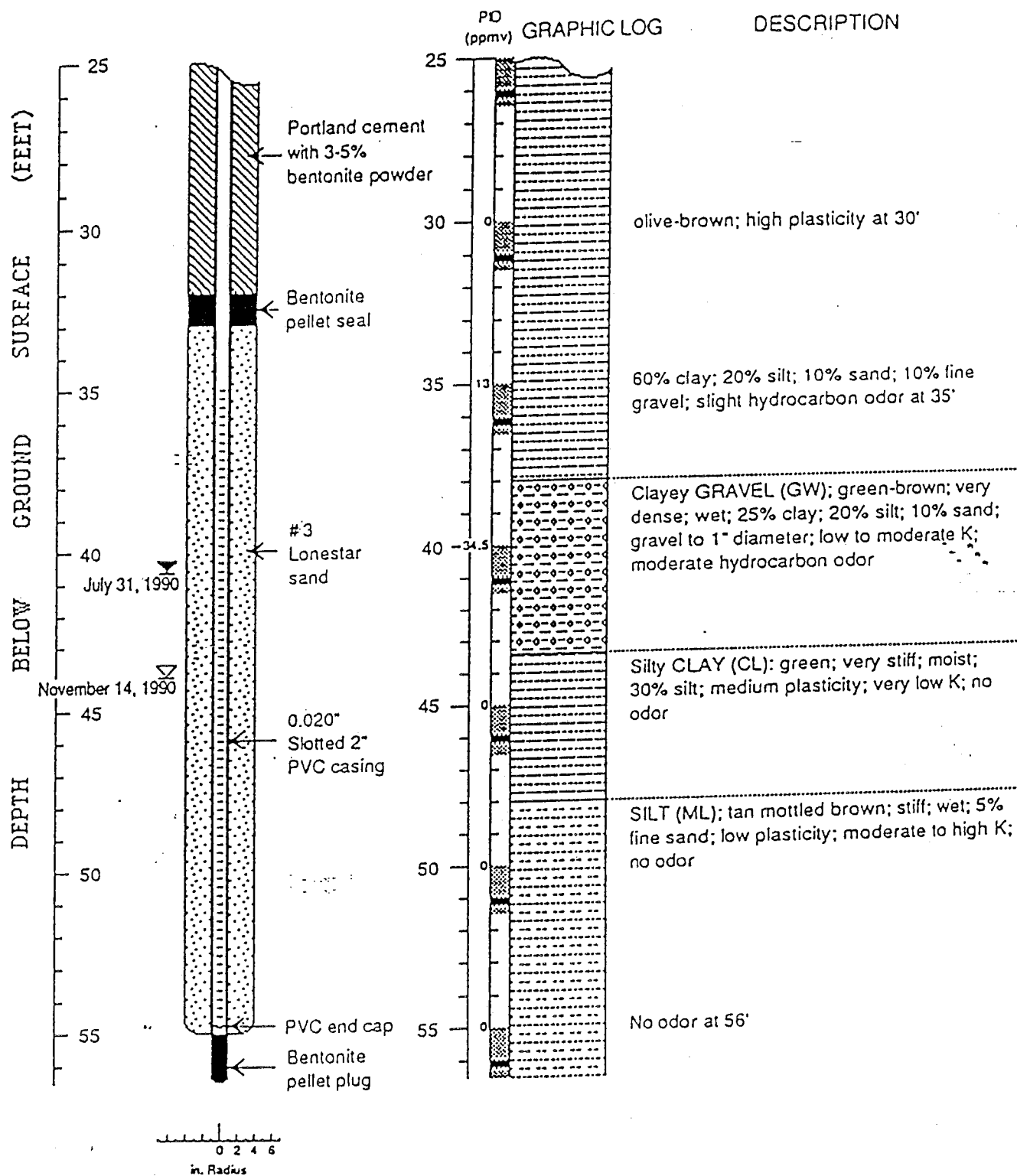


EXPLANATION

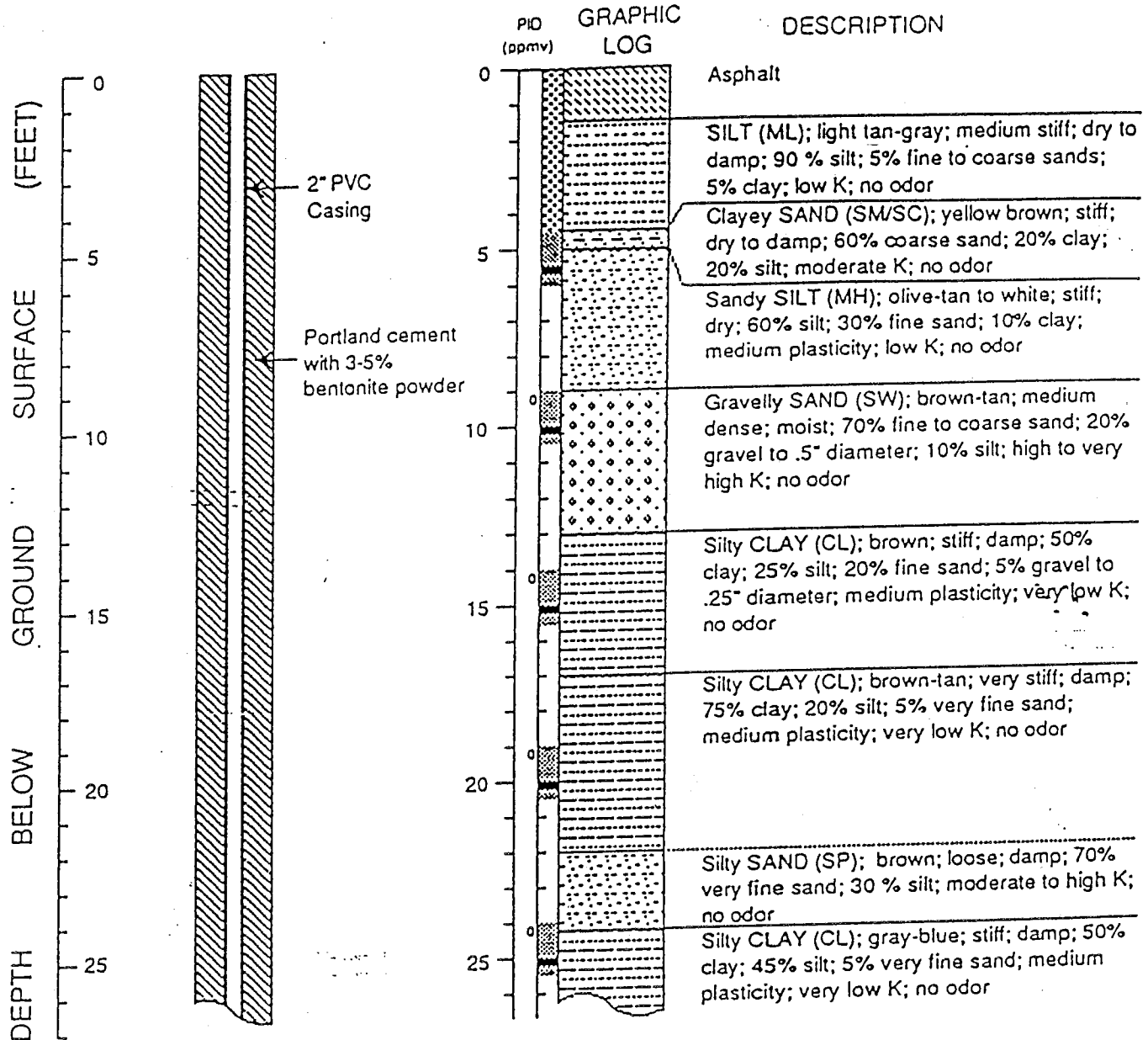
- Water level during drilling (date)
- Water level (date)
- Contact (dotted where approx.)
- Uncertain contact
- Location of recovered drive sample
- Location of drive sample sealed for chemical analysis
- Cutting sample
- K = Estimated hydraulic conductivity

Logged by: Robert E. Kitay
 Supervisor: James W. Carmody; RG 4872
 Drilling Company: Soils Exploration Services, Vacaville, CA
 Driller: Russ Ellis
 Drilling Method: Hollow stem auger
 Date Drilled: July 31, 1990
 Well Head Completion: 2" locking well-plug, stovepipe, traffic-rated vault
 Type of sampler: Split barrel (2" ID)
 Ground surface elevation: 32.65 feet above mean sea level

WELL C-7 (BH-G) (cont.)



WELL C-8 (BH-H)

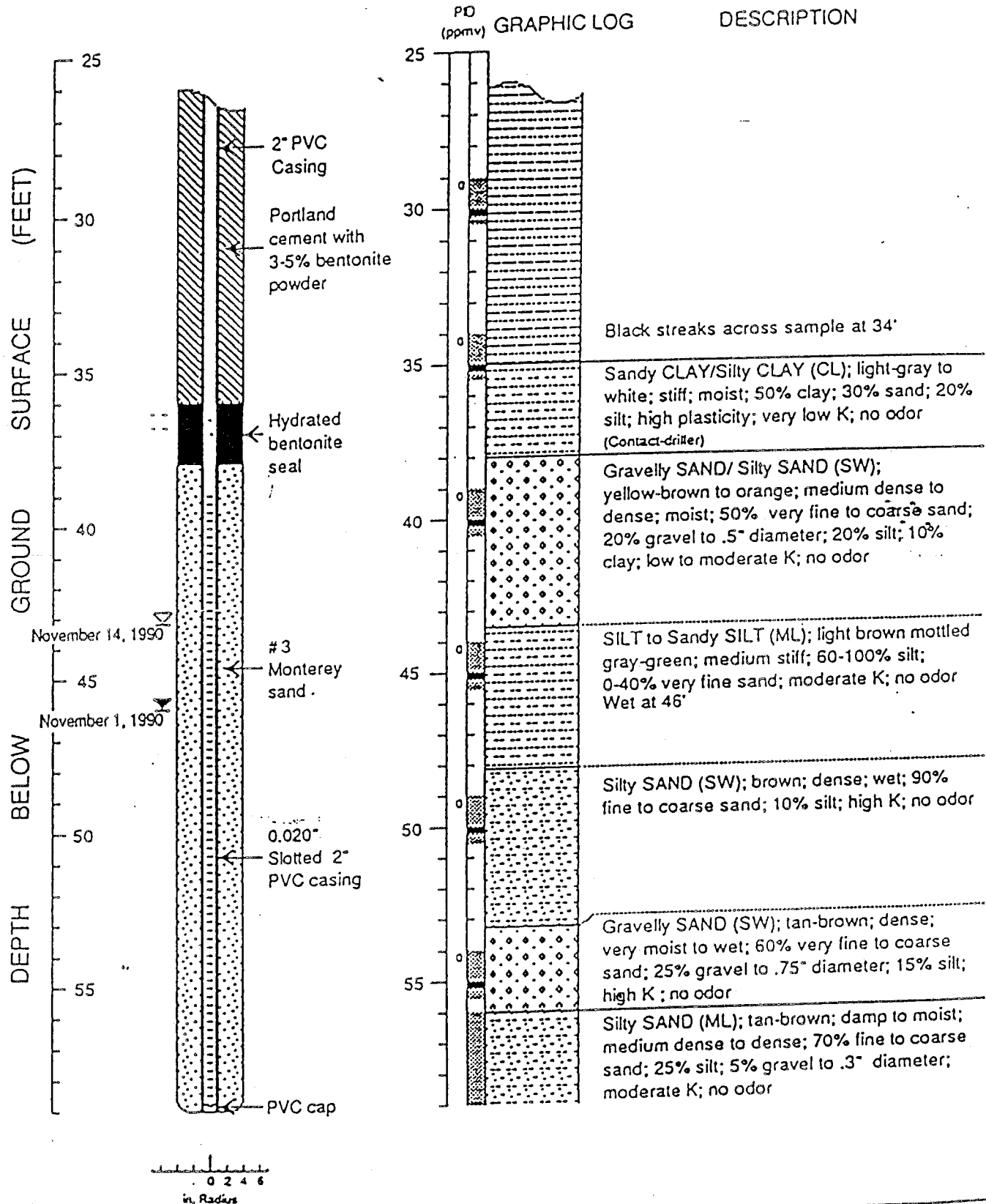


EXPLANATION

- Water level during drilling (date)
- Water level (date)
- Contact (dotted where approx.)
- Uncertain contact
- Gradational contact
- Location of recovered drive sample
- Location of drive sample sealed for chemical analysis
- Cutting sample
- K = Estimated hydraulic conductivity

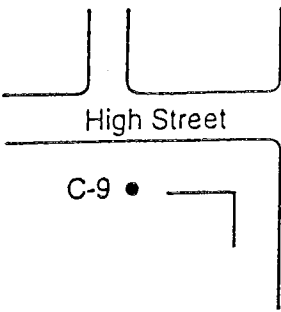
Logged by: Robert Kitay / Mariette Shin
 Supervisor: James W. Carmody; RG 4872
 Drilling Company: Soils Exploration Services, Vacaville, CA
 Driller: Rick Carr
 Drilling Method: Hollow-stem auger
 Date Drilled: November 1, 1990
 Well Head Completion: 2" locking well-plug; traffic rated vault
 Type of Sampler: Split barrel (2" ID)
 Ground Surface Elevation: 31.17 feet above mean sea level

WELL C-8 (BH-H) (cont.)



Boring Log and Well Construction Details - Well C-8 (BH-H)

Chevron Service Station #9-0076
Oakland, California

<p>LOCATION MAP</p> 	<p>PACIFIC ENVIRONMENTAL GROUP, INC.</p> <p>PROJECT NO. 325-024.1B LOGGED BY: CWR DRILLER: MDE DRILLING METHOD: HSA SAMPLING METHOD: CORE CASING TYPE: SCH 40 PVC SLOT SIZE: 0.020" SAND PACK: #3 SAND</p>	<p>WELL NO. C-9 PAGE 1 OF 1</p> <p>CLIENT: CHEVRON DATE DRILLED: 7-10-96 LOCATION: 4265 Foothill Blvd. HOLE DIAMETER: 8" HOLE DEPTH: 45' WELL DIAMETER: 2" WELL DEPTH: 45' CASING STICKUP: NA</p>
--	--	--

WELL COMPLETION	MOISTURE CONTENT	PID	PENETRATION (BLOWS/FT)	DEPTH (FEET)	RECOVERY SAMPLE INTERVAL	GRAPHIC	SOIL TYPE	LITHOLOGY / REMARKS
<div style="writing-mode: vertical-rl; transform: rotate(180deg);">GROUT</div>	Dp			2			GC	ASPHALT 4"
				4			CL	CLAYEY GRAVEL - FILL: dark yellowish brown; 15-20% clay; 10% medium sand; 70-75% subangular gravel to 2" diameter; wood chips; no product odor.
	Mst-Wt	0		6			CL	CLAY: dark yellowish brown; moderate plasticity; 90% clay with minor silt; 10% medium sand; no product odor.
				8				SANDY CLAY: dark yellowish brown; moderate plasticity; 60-70% clay; 30-40% coarse subangular sand to fine subangular gravel; no product odor.
	Dp	0		10				@10': as above; yellowish brown with pervasive gray and black mottling in thin horizontal bands; low to moderate plasticity; 60% clay; 20% silt; 20% medium sand; blocky fractures; manganese oxide streaks and specks; no product odor.
				12				
	Dp	0		14			CL	SILTY CLAY: dark yellowish brown; moderate plasticity; 60% clay; 30% silt; 10% fine sand; manganese oxide specks; some fracturing; no product odor.
	Dp	0		16				@21': as above; yellowish brown with light gray mottling; moderate plasticity; trace manganese oxide specks; blocky fractures; no product odor.
	Mst	0		20				SANDY CLAY: yellowish brown; pervasive orange brown and gray mottling; moderate plasticity; 60% clay; 10% silt; 30% fine sand; manganese oxide specks; some fracturing; no product odor.
	Dp			22				
	Dp			24			CL	@30': gray with yellowish brown; moderate plasticity; manganese oxide specks; 70% clay; 10% silt; 20% fine sand; trace fine gravel; extensive blocky fractures; no product odor.
		0		26				@35': as above; yellowish brown with pervasive gray mottling in horizontal bands; low to moderate plasticity; 50% clay; 20% silt; 30% fine sand; trace white mudstone lithic fragments; no product odor.
	Dp	0		30				CLAYEY SAND: yellowish brown; 30-40% clay; 20% silt; 40-50% fine sand; gray mottling; no product odor.
	Mst			34				CLAYEY GRAVEL: yellowish brown; 20-30% clay; 20% medium to coarse sand; 50-60% subangular to subrounded gravel comprised of predominately weathered clastic and volcanic fragments; no product odor.
		0		36			SC	
	Mst-Wt			38				
	Wt	0		40			GC	GRAVEL: black, brown, and white; trace fines; 10% coarse sand; 85% subrounded to subangular gravel to 4" diameter; clastics and volcanic fragments; no product odor.
				42			GW	
				44				

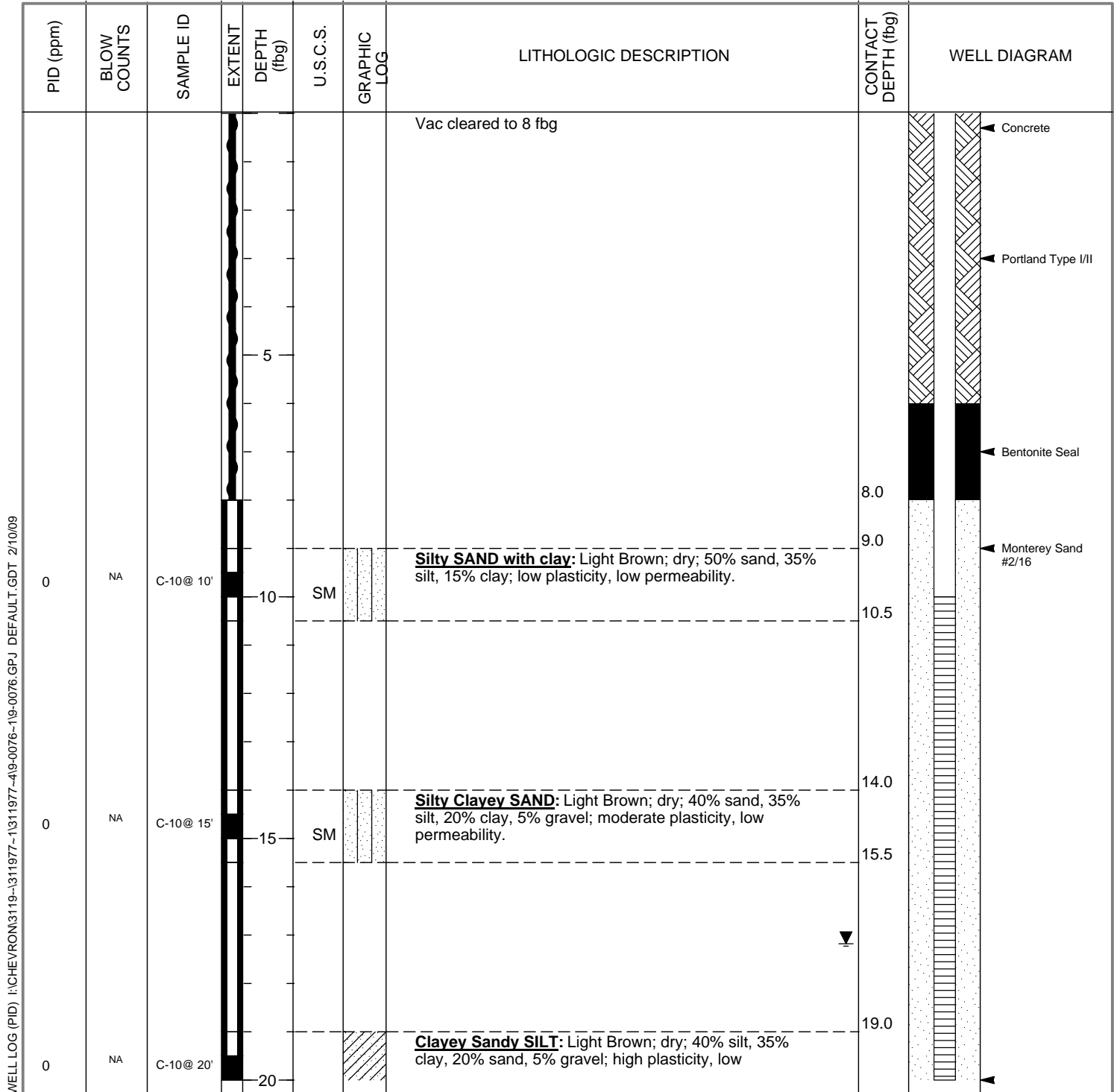
BOTTOM OF BORING AT 45'



Cambria Environmental Technology, Inc.
5900 Hollis Street, Suite A
Emeryville, CA 94608
Telephone: 510-420-0700
Fax: 510-420-9170

BORING / WELL LOG

CLIENT NAME	Chevron Environmental Management Company	BORING/WELL NAME	C-10
JOB/SITE NAME	9-0076	DRILLING STARTED	08-Aug-03
LOCATION	4265 Foothill Boulevard, Oakland CA	DRILLING COMPLETED	08-Aug-03
PROJECT NUMBER	31J-1977	WELL DEVELOPMENT DATE (YIELD)	09-Sep-03
DRILLER	Gregg Drilling	GROUND SURFACE ELEVATION	38.69 ft above msl
DRILLING METHOD	Hollow-stem auger	TOP OF CASING ELEVATION	38.37 ft above msl
BORING DIAMETER	8"	SCREENED INTERVALS	10 to 30 fbg
LOGGED BY	I. Robb	DEPTH TO WATER (First Encountered)	24.00 fbg (08-Aug-03) ▼
REVIEWED BY	B. Foss	DEPTH TO WATER (Static)	17.18 fbg (09-Sep-03) ▼
REMARKS	Well installed with limited access drill rig (no blow counts available)		



Continued Next Page



Conestoga Rovers & Associates
5900 Hollis Street Suite A
Emeryville, CA 94608
Telephone: 510-420-0700
Fax:

BORING / WELL LOG

CLIENT NAME	Chevron Environmental Management Company	BORING/WELL NAME	C-11
JOB/SITE NAME	90076	DRILLING STARTED	02-Feb-15
LOCATION	4265 Foothill Boulevard, Oakland, California	DRILLING COMPLETED	03-Feb-15
PROJECT NUMBER	311977	WELL DEVELOPMENT DATE (YIELD)	NA
DRILLER	Gregg Drilling and Testing, Inc., C-57 #485165	GROUND SURFACE ELEVATION	NA
DRILLING METHOD	Hollow-stem auger and Direct Push	TOP OF CASING ELEVATION	NA
BORING DIAMETER	3" and 8"	SCREENED INTERVALS	10 to 20 fbg
LOGGED BY	O. Yan	DEPTH TO WATER (First Encountered)	14.50 fbg
REVIEWED BY	N. Lee, PG# 8684	DEPTH TO WATER (Static)	NA
REMARKS	Hand augered to 8 fbg		

PID (ppm)	BLOW COUNTS	SAMPLE ID	EXTENT	DEPTH (fbg)	U.S.C.S.	GRAPHIC LOG	LITHOLOGIC DESCRIPTION	CONTACT DEPTH (fbg)	WELL DIAGRAM
							Concrete	0.8	
							FILL: Roadbase	1.5	
0.1		C-11 @ 3'			ML		SILT: Tannish brown, reddish oxidation; dry to moist; fine trace sand, fine gravels, medium plasticity.	4.0	2" diam., Schedule 40 PVC
				5	ML		SILT with sand: Tannish brown; dry; fine sand; low plasticity.	5.0	Portland Type I/II
					SM		Silty SAND with gravel: Tannish brown; dry; fine to coarse sand, fine rounded to subangular gravels.	7.0	Bentonite Seal
0.0		C-11 @ 8'			SM		Silty SAND: Tannish brown; dry; fine to medium sand.		
				10			SILT: Brown; moist; fine sand; low plasticity.	10.0	Monterey Sand #3
0.0		C-11 @ 10'			ML				
				15			Silty SAND: Brown, reddish oxidation; moist to wet; fine to coarse sand.	14.5	2"-diam., 0.020" Slotted Schedule 40 PVC
0.1		C-11 @ 15'			SM			19.0	
				20	ML		SILT with sand: Brown; moist; fine sand, organics; low plasticity.	22.0	Monterey Sand #3
		C-11 @ 20'					SILT: Brown; moist; fine to medium sand; medium plasticity.	27.0	Portland Type I/II
0.1		C-11 @ 25'			ML				
				25			CLAY: Brown; moist; fine trace sand; low plasticity	28.0	
					CL				Bottom of Boring @ 28 fbg

WELL LOG (PID) \\SFO-S1\SHARED\CHEVRON\3119--311977 9-0076 OAKLAND\311977-BORING LOGS\GPJ DEFAULT.GDT 3/18/15



Conestoga Rovers & Associates
5900 Hollis Street Suite A
Emeryville, CA 94608
Telephone: 510-420-0700
Fax:

BORING / WELL LOG

CLIENT NAME	Chevron Environmental Management Company	BORING/WELL NAME	C-12
JOB/SITE NAME	90076	DRILLING STARTED	02-Feb-15
LOCATION	4265 Foothill Boulevard, Oakland, California	DRILLING COMPLETED	03-Feb-15
PROJECT NUMBER	311977	WELL DEVELOPMENT DATE (YIELD)	NA
DRILLER	Gregg Drilling and Testing, Inc., C-57 #485165	GROUND SURFACE ELEVATION	NA
DRILLING METHOD	Direct push	TOP OF CASING ELEVATION	NA
BORING DIAMETER	3"	SCREENED INTERVALS	NA
LOGGED BY	O. Yan	DEPTH TO WATER (First Encountered)	NA
REVIEWED BY	N. Lee, PG# 8684	DEPTH TO WATER (Static)	NA
REMARKS	Hand augered to 8 fbg		



PID (ppm)	BLOW COUNTS	SAMPLE ID	EXTENT	DEPTH (fbg)	U.S.C.S.	GRAPHIC LOG	LITHOLOGIC DESCRIPTION	CONTACT DEPTH (fbg)	WELL DIAGRAM
							Concrete	0.8	
							<u>FILL</u> : Roadbase	1.5	
							<u>SILT</u> : Dark gray brown; dry; medium plasticity.		
0.0		C-12 @ 3'			ML				
				5				5.0	
					ML		<u>SILT with sand</u> : Tannish brown; dry; fine sand, fine trace gravels; low plasticity.		
0.0		C-12 @ 8'						9.5	
				10			<u>Silty SAND</u> : Light brown; dry; fine to coarse sand, fine gravels, angular to rounded.		
0.0		C-12 @ 10'			SM				
				15			<u>CLAY with sand</u> : Brown; dry; fine to coarse sand, fine gravels; low plasticity.	15.0	
0.0		C-12 @ 15'							
				20	CL			24.0	
0.0		C-12 @ 20'					<u>SILT</u> : Brown; moist; fine to medium sand; medium plasticity.		
				25	ML				
0.0		C-12 @ 25'					@ 29 fbg: Dry; low plasticity.	30.0	
				30					
0.0		C-12 @ 30'							
									Bottom of Boring @ 30 fbg

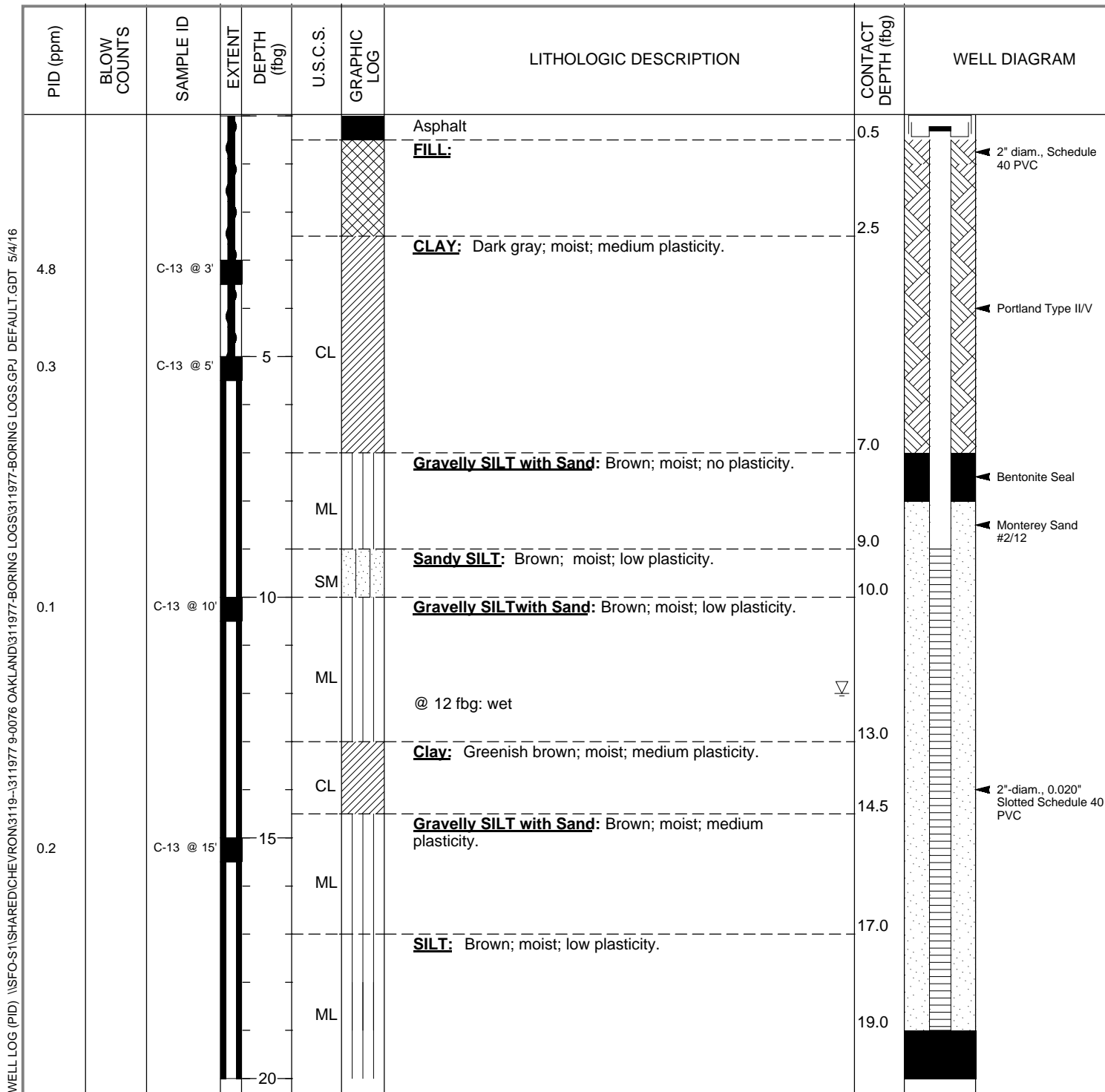
WELL LOG (PID) \\SFO-S1\SHARED\CHEVRON\3119--311977 9-0076 OAKLAND\311977-BORING LOGS\GPJ DEFAULT.GDT 3/18/15



GHD Services Inc.
2300 Clayton Road Suite 920
Concord, CA 94520
Telephone: 925-849-1000
Fax: 925-849-1040

BORING / WELL LOG

CLIENT NAME	Chevron Environmental Management Company	BORING/WELL NAME	C-13
JOB/SITE NAME	90076	DRILLING STARTED	23-Feb-16
LOCATION	4265 Foothill Boulevard, Oakland, California	DRILLING COMPLETED	23-Feb-16
PROJECT NUMBER	311977	WELL DEVELOPMENT DATE (YIELD)	03-Mar-16
DRILLER	Vapor Tech Servies C-57, #916085	GROUND SURFACE ELEVATION	42.47 ft above msl
DRILLING METHOD	Hollow-stem auger and Direct Push	TOP OF CASING ELEVATION	42.02 ft above msl
BORING DIAMETER	3" and 8"	SCREENED INTERVALS	9 to 19 fbg
LOGGED BY	B. Yifru	DEPTH TO WATER (First Encountered)	12.00 fbg 
REVIEWED BY	N. Lee, PG# 8486	DEPTH TO WATER (Static)	NA 
REMARKS	Hand Augered to 8 fbg		



Continued Next Page



GHD Services Inc.
2300 Clayton Road Suite 920
Concord, CA 94520
Telephone: 925-849-1000
Fax: 925-849-1040

BORING / WELL LOG

CLIENT NAME	Chevron Environmental Management Company	BORING/WELL NAME	C-13
JOB/SITE NAME	90076	DRILLING STARTED	23-Feb-16
LOCATION	4265 Foothill Boulevard, Oakland, California	DRILLING COMPLETED	23-Feb-16

Continued from Previous Page

PID (ppm)	BLOW COUNTS	SAMPLE ID	EXTENT DEPTH (fbg)	U.S.C.S.	GRAPHIC LOG	LITHOLOGIC DESCRIPTION	CONTACT DEPTH (fbg)	WELL DIAGRAM
1.6		C-13 @ 20'		ML				
4.4		C-13 @ 25'	25				25.0	<p>← Bentonite Seal</p> <p>Bottom of Boring @ 25 fbg</p>

WELL LOG (PID) \\SFO-S1\SHARED\CHEVRON\3119--\311977 9-0076 OAKLAND\311977-BORING LOGS\311977-BORING LOGS.GPJ DEFAULT.GDT 5/4/16



Conestoga Rovers & Associates
5900 Hollis Street Suite A
Emeryville, CA 94608
Telephone: 510-420-0700
Fax:

BORING / WELL LOG

CLIENT NAME	Chevron Environmental Management Company	BORING/WELL NAME	B1
JOB/SITE NAME	90076	DRILLING STARTED	05-Feb-15
LOCATION	4265 Foothill Boulevard, Oakland, California	DRILLING COMPLETED	06-Feb-15
PROJECT NUMBER	311977	WELL DEVELOPMENT DATE (YIELD)	NA
DRILLER	Gregg Drilling and Testing, Inc., C-57 #485165	GROUND SURFACE ELEVATION	NA
DRILLING METHOD	Direct push	TOP OF CASING ELEVATION	NA
BORING DIAMETER	3"	SCREENED INTERVALS	NA
LOGGED BY	O. Yan	DEPTH TO WATER (First Encountered)	11.00 fbg
REVIEWED BY	N. Lee, PG# 8684	DEPTH TO WATER (Static)	NA
REMARKS	Hand augered to 8 fbg		

PID (ppm)	BLOW COUNTS	SAMPLE ID	EXTENT	DEPTH (fbg)	U.S.C.S.	GRAPHIC LOG	LITHOLOGIC DESCRIPTION	CONTACT DEPTH (fbg)	WELL DIAGRAM
3.7		B1 @ 3'		5			Asphalt FILL: Sandy silt; grayish black; dry; low plasticity.	0.5	
0.1		B1 @ 8'		10	CL		CLAY with sand: Gray brown; dry; fine sand, trace fine trace gravel; low to medium plasticity.	5.5	
45.2		B1 @ 10'		15	ML		SILT with sand: Reddish brown; dry; fine to medium sand, fine gravels; low plasticity. @ 11 fbg: Moist @ 12.5 fbg: Greenish discoloration	9.0	
99.8		B1 @ 14'		20	ML		Sandy SILT: Brown; dry; fine to coarse sand, fine rounded to subrounded gravels; low plasticity.	14.5	
4.3		B1 @ 20'		25	CL		CLAY: Brown; dry; fine sand; low to medium plasticity.	20.0	
219.3		B1 @ 25'		30	ML		Sandy SILT: Light brown, reddish oxidation; dry; fine sand; low plasticity.	23.0	
				30	ML		SILT: Brown, greenish discoloration; dry; fine sand; low to medium plasticity.	26.0	
				30	SM		Silty SAND: Brown; moist; fine sand.	28.0	
1703		B1 @ 30'		30				30.0	
									Bottom of Boring @ 30 fbg

WELL LOG (PID) \\SFO-S1\SHARED\CHEVRON\3119--311977 9-0076 OAKLAND\311977-BORING LOGS.GPJ DEFAULT.GDT 3/18/15



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BORING / WELL LOG

CLIENT NAME	Chevron Environmental Management Company	BORING/WELL NAME	B2
JOB/SITE NAME	90076	DRILLING STARTED	06-Feb-15
LOCATION	4265 Foothill Boulevard, Oakland, California	DRILLING COMPLETED	06-Feb-15
PROJECT NUMBER	311977	WELL DEVELOPMENT DATE (YIELD)	NA
DRILLER	Gregg Drilling and Testing, Inc., C-57 #485165	GROUND SURFACE ELEVATION	NA
DRILLING METHOD	Direct push	TOP OF CASING ELEVATION	NA
BORING DIAMETER	3"	SCREENED INTERVALS	NA
LOGGED BY	O. Yan	DEPTH TO WATER (First Encountered)	28.00 fbg
REVIEWED BY	N. Lee, PG# 8684	DEPTH TO WATER (Static)	NA
REMARKS	Hand augered to 8 fbg		

PID (ppm)	BLOW COUNTS	SAMPLE ID	EXTENT	DEPTH (fbg)	U.S.C.S.	GRAPHIC LOG	LITHOLOGIC DESCRIPTION	CONTACT DEPTH (fbg)	WELL DIAGRAM
0.1		B2 @ 3'		5			Aphalt FILL: Sandy silt; black; dry; low plasticity.	0.5	 Concrete Portland Type I/II
0.5		B2 @ 8'		10	ML		SILT with sand: Dark gray; dry; fine sand, fine angular gravel, medium plasticity.	5.0	
1.6		B2 @ 10'		15	ML		Sandy SILT: Grayish brown; dry; fine sand; low plasticity.	9.5	
140		B2 @ 15'		20	ML		Sandy SILT with gravel: Brown; dry; fine to coarse sand, fine gravels; low plasticity.	14.5	
1.0		B2 @ 20'		25	CL		CLAY with sand: Brown; dry; trace fine sand; low to medium plasticity.	19.0	
				28.0	ML		Sandy SILT: Grayish brown; dry; fine sand; low plasticity.	22.5	
6.0		B2 @ 25'		30	ML		SILT with sand: Brown, greenish discoloration; dry; fine sand; low to medium plasticity.	25.0	
				30.0	SM		Silty SAND: Brown; moist; fine sand.	28.0	
210		B2 @ 30'						30.0	
									Bottom of Boring @ 30 fbg

WELL LOG (PID) \\SFO-S1\SHARED\CHEVRON\3119--\311977 9-0076 OAKLAND\311977-BORING LOGS\GPJ DEFAULT.GDT 3/18/15



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BORING / WELL LOG

CLIENT NAME	Chevron Environmental Management Company	BORING/WELL NAME	B3
JOB/SITE NAME	90076	DRILLING STARTED	05-Feb-15
LOCATION	4265 Foothill Boulevard, Oakland, California	DRILLING COMPLETED	05-Feb-15
PROJECT NUMBER	311977	WELL DEVELOPMENT DATE (YIELD)	NA
DRILLER	Gregg Drilling and Testing, Inc., C-57 #485165	GROUND SURFACE ELEVATION	NA
DRILLING METHOD	Direct push	TOP OF CASING ELEVATION	NA
BORING DIAMETER	3"	SCREENED INTERVALS	NA
LOGGED BY	O. Yan	DEPTH TO WATER (First Encountered)	22.00 fbg
REVIEWED BY	N. Lee, PG# 8684	DEPTH TO WATER (Static)	NA
REMARKS	Hand augered to 8 fbg		

PID (ppm)	BLOW COUNTS	SAMPLE ID	EXTENT	DEPTH (fbg)	U.S.C.S.	GRAPHIC LOG	LITHOLOGIC DESCRIPTION	CONTACT DEPTH (fbg)	WELL DIAGRAM
							Aphalt	0.5	
							FILL: Clay with trace gravel; black; dry; medium plasticity.	3.0	
1.6		B3 @ 3'			ML		SILT with sand: Dark gray; dry; fine sand, fine angular gravel; medium plasticity.	4.0	
				5	SM		Silty SAND with gravel: Dark gray; dry.	4.5	
					ML		SILT with sand: Dark gray; dry; fine sand, low plasticity.	5.5	
					CL		CLAY with sand: Greyish brown; dry; fine sand; fine gravels; low to medium plasticity.	7.5	
43.4		B3 @ 8'			ML		SILT with sand: Grayish brown; dry; fine sand; low plasticity.	8.0	
					SM		Silty SAND with gravel: Brown, greenish discoloration; dry; fine sand.	9.5	
1083		B3 @ 10'		10	ML		SILT: Reddish brown, green discoloration; dry; fine sand; low plasticity.	11.5	
					SM		Silty SAND with gravel: Brown; dry; fine sand; fine gravel; non plastic.	14.0	
					ML		SILT with gravel: Grayish brown; dry; fine sand; medium gravel; low plasticity.	18.0	
287		B3 @ 15'		15	ML		SILT with sand: Brown; dry; fine sand; low plasticity.	22.0	
					ML		SILT: Reddish brown; moist; fine sand; medium plasticity.	29.0	
39.3		B3 @ 20'		20	ML		Silty SAND: Reddish brown; moist; fine, loose sand.	30.0	
0.0		B3 @ 25'		25	ML				
3.4		B3 @ 30'		30	SM				Bottom of Boring @ 30 fbg

WELL LOG (PID) \\SFO-S1\SHARED\CHEVRON\3119--\311977 9-0076 OAKLAND\311977-BORING LOGS.GPJ DEFAULT.GDT 3/18/15



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BORING / WELL LOG

CLIENT NAME	Chevron Environmental Management Company	BORING/WELL NAME	B4
JOB/SITE NAME	90076	DRILLING STARTED	05-Feb-15
LOCATION	4265 Foothill Boulevard, Oakland, California	DRILLING COMPLETED	05-Feb-15
PROJECT NUMBER	311977	WELL DEVELOPMENT DATE (YIELD)	NA
DRILLER	Gregg Drilling and Testing, Inc., C-57 #485165	GROUND SURFACE ELEVATION	NA
DRILLING METHOD	Direct push	TOP OF CASING ELEVATION	NA
BORING DIAMETER	3"	SCREENED INTERVALS	NA
LOGGED BY	O. Yan	DEPTH TO WATER (First Encountered)	26.00 fbg
REVIEWED BY	N. Lee, PG# 8684	DEPTH TO WATER (Static)	NA
REMARKS	Hand augered to 8 fbg		

PID (ppm)	BLOW COUNTS	SAMPLE ID	EXTENT	DEPTH (fbg)	U.S.C.S.	GRAPHIC LOG	LITHOLOGIC DESCRIPTION	CONTACT DEPTH (fbg)	WELL DIAGRAM
0.1		B4 @ 3'					Aphalt FILL: Sand; black; moist; low plasticity.	0.5	<p>Concrete</p> <p>Portland Type I/II</p>
				5	ML		Sandy SILT: Brown, green discoloration; dry; fine to coarse sand; low plasticity.	4.0	
4.1		B4 @ 8'					SILT with sand: Brown; dry; low plasticity.	7.5	
131.8		B4 @ 10'		10	ML			12.0	
					SM		Silty SAND: Brown, greenish discoloration; dry; fine sand.	14.5	
90.1		B4 @ 15'		15	ML		Sandy SILT: Brown; dry; fine to medium sand, fine gravels; low plasticity.	17.0	
							SILT with sand: Brown; dry; low plasticity.	22.0	
575		B4 @ 20'		20	ML			22.0	
					CL		CLAY: Brown; dry; medium plasticity.	26.0	
12.3		B4 @ 25'		25				26.0	
					SM		Silty SAND: Brownish gray; moist; fine sand; low plasticity.	30.0	<p>Bottom of Boring @ 30 fbg</p>
9.5		B4 @ 30'		30					

WELL LOG (PID) \\SFO-S1\SHARED\CHEVRON\3119--\311977 9-0076 OAKLAND\311977-BORING LOGS.GPJ DEFAULT.GDT 3/18/15



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BORING / WELL LOG

CLIENT NAME	Chevron Environmental Management Company	BORING/WELL NAME	B5
JOB/SITE NAME	90076	DRILLING STARTED	04-Feb-15
LOCATION	4265 Foothill Boulevard, Oakland, California	DRILLING COMPLETED	04-Feb-15
PROJECT NUMBER	311977	WELL DEVELOPMENT DATE (YIELD)	NA
DRILLER	Gregg Drilling and Testing, Inc., C-57 #485165	GROUND SURFACE ELEVATION	NA
DRILLING METHOD	Direct push	TOP OF CASING ELEVATION	NA
BORING DIAMETER	3"	SCREENED INTERVALS	NA
LOGGED BY	O. Yan	DEPTH TO WATER (First Encountered)	16.00 fbg
REVIEWED BY	N. Lee, PG# 8684	DEPTH TO WATER (Static)	NA
REMARKS	Hand augered to 8 fbg		

PID (ppm)	BLOW COUNTS	SAMPLE ID	EXTENT	DEPTH (fbg)	U.S.C.S.	GRAPHIC LOG	LITHOLOGIC DESCRIPTION	CONTACT DEPTH (fbg)	WELL DIAGRAM
							Asphalt	0.5	
0.1		B5 @ 3'			ML		<u>SILT with sand:</u> Brown; moist; fine sand; medium plasticity.		
				5	CL		<u>CLAY:</u> Dark gray; dry; fine sand, trace gravel; low to medium plasticity.	4.0	
0.0		B5 @ 8'			GM		<u>Silty GRAVEL with sand:</u> Brown; dry; fine to coarse sand, fine subangular to rounded gravels.	7.0	
0.0		B5 @ 10'		10	ML		<u>SILT with sand:</u> Brown, black mottling, green discoloration; dry; fine sand; low plasticity.	9.0	
								12.0	
2,700		B5 @ 15'		15	SM		<u>Silty SAND:</u> Brown; moist; fine to coarse sand, fine gravels, subrounded to rounded.		
								16.5	Portland Type I/II
					ML		<u>SILT with sand:</u> Brown; moist; fine sand; low plasticity.		
384		B5 @ 20'		20	ML		<u>Sandy SILT:</u> Brown; moist; fine to medium sand; low plasticity.	20.0	
					ML			23.0	
81		B5 @ 25'		25	ML		<u>SILT with sand:</u> Brown, oxidation staining; dry; low plasticity.		
								29.0	
3.3		B5 @ 30'		30	SM		<u>Silty SAND:</u> Brown; moist; fine sand.	30.0	
									Bottom of Boring @ 30 fbg

WELL LOG (PID) \\SFO-S1\SHARED\CHEVRON\3119--311977 9-0076 OAKLAND\311977-BORING LOGS\311977-BORING LOGS.GPJ DEFAULT.GDT 3/18/15



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BORING / WELL LOG

CLIENT NAME	Chevron Environmental Management Company	BORING/WELL NAME	B6
JOB/SITE NAME	90076	DRILLING STARTED	06-Feb-15
LOCATION	4265 Foothill Boulevard, Oakland, California	DRILLING COMPLETED	06-Feb-15
PROJECT NUMBER	311977	WELL DEVELOPMENT DATE (YIELD)	NA
DRILLER	Gregg Drilling and Testing, Inc., C-57 #485165	GROUND SURFACE ELEVATION	NA
DRILLING METHOD	Direct push	TOP OF CASING ELEVATION	NA
BORING DIAMETER	3"	SCREENED INTERVALS	NA
LOGGED BY	O. Yan	DEPTH TO WATER (First Encountered)	22.50 fbg
REVIEWED BY	N. Lee, PG# 8684	DEPTH TO WATER (Static)	NA
REMARKS	Hand augered to 8 fbg		



PID (ppm)	BLOW COUNTS	SAMPLE ID	EXTENT	DEPTH (fbg)	U.S.C.S.	GRAPHIC LOG	LITHOLOGIC DESCRIPTION	CONTACT DEPTH (fbg)	WELL DIAGRAM
0.1		B6 @ 3'		5			Asphalt <u>FILL:</u> Silt with sand; black.	0.5	 Concrete Portland Type I/II
5.5		B6 @ 8'		10	ML		<u>SILT with sand:</u> Dark gray; dry; fine sand; medium plasticity.	5.0	
657		B6 @ 10'		13	SM		<u>Silty SAND:</u> Light brown, greenish discoloration; dry; fine to medium sand.	10.0	
				14	ML		<u>SILT with sand:</u> Light brown; dry; fine sand; low to medium plasticity.	13.0	
3,667		B6 @ 15'		15	ML		<u>Sandy SILT:</u> Grayish brown; dry; fine to medium sand; low plasticity.	14.5	
				20	ML				
1,588		B6 @ 20'		20	CL		<u>CLAY with sand:</u> Grayish brown; dry; fine sand; low to medium plasticity.	20.5	
				22	SM		<u>Silty SAND:</u> Brownish gray; moist; fine sand; trace fine gravel.	22.5	
1,888		B6 @ 25'		25	ML		<u>SILT with sand:</u> Brown; moist; fine sand; low to medium plasticity.	24.5	
				27	CL		<u>CLAY with sand:</u> Brownish gray; moist; fine sand; low plasticity.	27.5	
97.8		B6 @ 30'		30	ML		<u>Sandy SILT:</u> Brownish gray; moist; fine sand; low plasticity.	29.0	Bottom of Boring @ 30 fbg
								30.0	

WELL LOG (PID) \\SFO-S1\SHARED\CHEVRON\3119--311977 9-0076 OAKLAND\311977-BORING LOGS\311977-BORING LOGS.GPJ DEFAULT.GDT 3/18/15



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BORING / WELL LOG

CLIENT NAME	Chevron Environmental Management Company	BORING/WELL NAME	B7
JOB/SITE NAME	90076	DRILLING STARTED	23-Feb-16
LOCATION	4265 Foothill Boulevard, Oakland, California	DRILLING COMPLETED	23-Feb-16
PROJECT NUMBER	311977	WELL DEVELOPMENT DATE (YIELD)	NA
DRILLER	Vapor Tech Servies C-57, #916085	GROUND SURFACE ELEVATION	NA
DRILLING METHOD	Hand auger	TOP OF CASING ELEVATION	NA
BORING DIAMETER	3"	SCREENED INTERVALS	NA
LOGGED BY	B. Yifru	DEPTH TO WATER (First Encountered)	6.00 fbg 
REVIEWED BY	N. Lee, PG# 8486	DEPTH TO WATER (Static)	NA 
REMARKS			

WELL LOG (PID) \\SFO-S1\SHARED\CHEVRON\3119--\311977 9-0076 OAKLAND\311977-BORING LOGS.GPJ DEFAULT.GDT 5/4/16									
PID (ppm)	BLOW COUNTS	SAMPLE ID	EXTENT	DEPTH (fbg)	U.S.C.S.	GRAPHIC LOG	LITHOLOGIC DESCRIPTION	CONTACT DEPTH (fbg)	WELL DIAGRAM
0		B6 @ 5'		0.3			Concrete	0.3	
							<u>Sandy SILT</u> : Dark brown; moist; fine sand; no plasticity.		
				5	ML		@ 4.5 fbg: color change to light brown.	5.0	
							<u>Gravelly SILT</u> : Brown; moist; low plasticity.		
					ML		@ 6 fbg: wet @ 6.5 fbg: Greenish motling.		
57.5		B6 @ 10'		7.5			<u>Poorly Graded SAND with Silt</u> : Greenish gray; wet.	7.5	
				8.5	SP		<u>Sandy SILT</u> : Greenish gray; wet; low plasticity.	8.5	
				10	ML			10.0	
									Bottom of Boring @ 10 fbg

WELL LOG (PID) \\SFO-S1\SHARED\CHEVRON\3119--\311977 9-0076 OAKLAND\311977-BORING LOGS\GPJ DEFAULT.GDT 5/4/16



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BORING / WELL LOG

CLIENT NAME	Chevron Environmental Management Company	BORING/WELL NAME	C-10
JOB/SITE NAME	9-0076	DRILLING STARTED	08-Aug-03
LOCATION	4265 Foothill Boulevard, Oakland CA	DRILLING COMPLETED	08-Aug-03

Continued from Previous Page

PID (ppm)	BLOW COUNTS	SAMPLE ID	EXTENT DEPTH (fbg)	U.S.C.S.	GRAPHIC LOG	LITHOLOGIC DESCRIPTION	CONTACT DEPTH (fbg)	WELL DIAGRAM
				SC		permeability.	20.5	<p>2"-diam., 0.010" Slotted Schedule 40 PVC</p>
0	NA	C-10@ 25'	25	SC		Clayey Sandy SILT: Light Brown; dry; 40% silt, 35% clay, 20% sand, 5% gravel; high plasticity, low permeability.	24.0	
							25.5	
0	NA	C-10@ 30'	30	CL		Silty CLAY: Light Brown; dry; 65% clay, 35% silt; high plasticity, low permeability.	28.5	
							30.0	Bottom of Boring @ 30 fbg



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BORING / WELL LOG

CLIENT NAME	Chevron Environmental Management Company	BORING/WELL NAME	VP-1
JOB/SITE NAME	9-0076	DRILLING STARTED	21-Nov-05
LOCATION	4265 Foothill Boulevard, Oakland CA	DRILLING COMPLETED	22-Nov-05
PROJECT NUMBER	31J-1977	WELL DEVELOPMENT DATE (YIELD)	NA
DRILLER	Cambria	GROUND SURFACE ELEVATION	NA
DRILLING METHOD	Hand Auger	TOP OF CASING ELEVATION	NA
BORING DIAMETER	3"	SCREENED INTERVALS	NA
LOGGED BY	C. Evans	DEPTH TO WATER (First Encountered)	5.00 fbg (21-Nov-05)
REVIEWED BY	B. Foss PG #7445	DEPTH TO WATER (Static)	NA
REMARKS	Vapor Probe Installed		

PID (ppm)	BLOW COUNTS	SAMPLE ID	EXTENT	DEPTH (fbg)	U.S.C.S.	GRAPHIC LOG	LITHOLOGIC DESCRIPTION	CONTACT DEPTH (fbg)	WELL DIAGRAM
							Asphalt	1.0	Portland Type I/II
					ML		Clayey SILT with Sand and Gravel Dark Brown/Black; dry; stiff; 40% silt, 35% clay, 15% sand fine grained sand, 10% gravel; moderate plasticity; low estimated permeability. No odor @2-feet: Change in the following parameters: 85% silt, 10% clay, 5% fine grained sand.	5.0	Bentonite Seal
					GW		Sandy SILT : Light Brown/Tan. 75% Silt, 20% coarse grained sand, 5% clay, damp, medium plasticity, low estimated permeability. Sandy GRAVEL with Fines : Light Brown; wet; 70% gravel, 20% sand; 10% silt, low plasticity; high estimated permeability.	7.5	Monterey Sand #2/16 Bentonite Seal
		VP-1 @ 7							Bottom of Boring @ 7.5 fbg

WELL LOG (PID) I:\CHEVRON\3119--\311977-1\311977-4\9-0076-1\9-0076.GPJ DEFAULT.GDT 2/10/09



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BORING / WELL LOG

CLIENT NAME	Chevron Environmental Management Company	BORING/WELL NAME	VP-2
JOB/SITE NAME	9-0076	DRILLING STARTED	21-Nov-05
LOCATION	4265 Foothill Boulevard, Oakland CA	DRILLING COMPLETED	22-Nov-05
PROJECT NUMBER	31J-1977	WELL DEVELOPMENT DATE (YIELD)	NA
DRILLER	Cambria	GROUND SURFACE ELEVATION	NA
DRILLING METHOD	Hand Auger	TOP OF CASING ELEVATION	NA
BORING DIAMETER	3"	SCREENED INTERVALS	NA
LOGGED BY	C. Evans	DEPTH TO WATER (First Encountered)	6.50 fbg (21-Nov-05)
REVIEWED BY	B. Foss PG #7445	DEPTH TO WATER (Static)	NA
REMARKS	Vapor Probe Installed		

PID (ppm)	BLOW COUNTS	SAMPLE ID	EXTENT	DEPTH (fbg)	U.S.C.S.	GRAPHIC LOG	LITHOLOGIC DESCRIPTION	CONTACT DEPTH (fbg)	WELL DIAGRAM
							Asphalt	1.0	Portland Type I/II
							<u>Clayey SILT with Well Graded Sand</u> Light Brown; 55% Silt, 25% clay, 20% sand.		
					SM		@ 4-feet: 75% Silt, 20% coarse grained sand, 5% clay; no odor.	5.0	Bentonite Seal
							<u>Sandy GRAVEL</u> Light Brown; damp, 80% sub-angular gravel, 20% well graded sand.		Monterey Sand #2/16
		VP-2 @ 6.5					@ 6.5-feet: Wet	7.0	
							<u>Clayey SILT with Sand</u> Light Brown; 45% silt, 40% clay, 10% well graded sand, 5% gravel. Stiff, wet, slight odor.	8.0	Bentonite Seal
							<u>Clayey Sandy GRAVEL with Silt</u> Light Brown; 40% gravel, 30% clay, 20% sand, 10% silt.		
				10				10.0	Bottom of Boring @ 10 fbg

WELL LOG (PID) I:\CHEVRON\3119--\311977-1\311977-4\9-0076-19-0076.GPJ DEFAULT.GDT 2/10/09



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BORING / WELL LOG

CLIENT NAME	Chevron Environmental Management Company	BORING/WELL NAME	VP-3
JOB/SITE NAME	9-0076	DRILLING STARTED	21-Nov-05
LOCATION	4265 Foothill Boulevard, Oakland CA	DRILLING COMPLETED	22-Nov-05
PROJECT NUMBER	31J-1977	WELL DEVELOPMENT DATE (YIELD)	NA
DRILLER	Cambria	GROUND SURFACE ELEVATION	NA
DRILLING METHOD	Hand Auger	TOP OF CASING ELEVATION	NA
BORING DIAMETER	3"	SCREENED INTERVALS	NA
LOGGED BY	C. Evans	DEPTH TO WATER (First Encountered)	5.60 fbg (21-Nov-05)
REVIEWED BY	B. Foss PG #7445	DEPTH TO WATER (Static)	NA
REMARKS	Vapor Probe Installed		

PID (ppm)	BLOW COUNTS	SAMPLE ID	EXTENT	DEPTH (fbg)	U.S.C.S.	GRAPHIC LOG	LITHOLOGIC DESCRIPTION	CONTACT DEPTH (fbg)	WELL DIAGRAM
							Asphalt	1.0	
							<u>Clayey Sandy SILT</u> : Dark Brown; 55% Silt, 25% clay, 20% sand, soft, dry.		
					ML		<u>Sandy SILT with Clay</u> Dark Brown; 75% silt, 20% coarse grained sand, 5% clay, damp.	4.5	
				5			<u>Sandy GRAVEL</u> : Light Brown; 75% gravel, 25% well graded sand, wet, no odor.		
					GW		@5.6-feet: Wet.		
		VP-3 @ 6						6.5	
									Bottom of Boring @ 6.5 fbg

WELL LOG (PID) I:\CHEVRON\3119--\311977-1\311977-4\9-0076-19-0076.GPJ DEFAULT.GDT 2/10/09



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BORING / WELL LOG

CLIENT NAME	Chevron Environmental Management Company	BORING/WELL NAME	VP-4
JOB/SITE NAME	90076	DRILLING STARTED	05-Feb-15
LOCATION	4265 Foothill Boulevard, Oakland, California	DRILLING COMPLETED	05-Feb-15
PROJECT NUMBER	311977	WELL DEVELOPMENT DATE (YIELD)	NA
DRILLER	Gregg Drilling and Testing, Inc., C-57 #485165	GROUND SURFACE ELEVATION	NA
DRILLING METHOD	Hand auger	TOP OF CASING ELEVATION	NA
BORING DIAMETER	3"	SCREENED INTERVALS	NA
LOGGED BY	O. Yan	DEPTH TO WATER (First Encountered)	NA
REVIEWED BY	N. Lee, PG# 8684	DEPTH TO WATER (Static)	NA
REMARKS	Water encountered at approximately 6.5 fbg.		

PID (ppm)	BLOW COUNTS	SAMPLE ID	EXTENT	DEPTH (fbg)	U.S.C.S.	GRAPHIC LOG	LITHOLOGIC DESCRIPTION	CONTACT DEPTH (fbg)	WELL DIAGRAM
							Asphalt	0.5	Concrete
							<u>SILT:</u> Black; dry; fine sand; low plasticity.		
					ML				Hydrated Bentonite Seal
0.0		VP-4 @ 3'					<u>Sandy SILT:</u> Brown; moist; fine to medium sand; low plasticity.	3.0	
					ML				
				5			<u>Silty SAND with gravel:</u> Brown; moist; fine to coarse sand, fine gravel.	5.0	Dry Granulated Bentonite
0.0		VP-4 @ 6'			SM				Monterey Sand #2/12
									Permeable Stainless Steel Filter
								6.0	Bottom of Boring @ 6 fbg

WELL LOG (PID) \\SFO-S1\SHARED\CHEVRON\3119--311977 9-0076 OAKLAND\311977-BORING LOGS\GPJ DEFAULT.GDT 3/18/15



Conestoga Rovers & Associates
5900 Hollis Street Suite A
Emeryville, CA 94608
Telephone: 510-420-0700
Fax:

BORING / WELL LOG

CLIENT NAME	Chevron Environmental Management Company	BORING/WELL NAME	VP-5
JOB/SITE NAME	90076	DRILLING STARTED	04-Feb-15
LOCATION	4265 Foothill Boulevard, Oakland, California	DRILLING COMPLETED	04-Feb-15
PROJECT NUMBER	311977	WELL DEVELOPMENT DATE (YIELD)	NA
DRILLER	Gregg Drilling and Testing, Inc., C-57 #485165	GROUND SURFACE ELEVATION	NA
DRILLING METHOD	Hand auger	TOP OF CASING ELEVATION	NA
BORING DIAMETER	3"	SCREENED INTERVALS	NA
LOGGED BY	O. Yan	DEPTH TO WATER (First Encountered)	NA
REVIEWED BY	N. Lee, PG# 8684	DEPTH TO WATER (Static)	NA
REMARKS	Water not encountered.		

PID (ppm)	BLOW COUNTS	SAMPLE ID	EXTENT	DEPTH (fbg)	U.S.C.S.	GRAPHIC LOG	LITHOLOGIC DESCRIPTION	CONTACT DEPTH (fbg)	WELL DIAGRAM
							Asphalt	0.5	Concrete
					SM		SAND with silt: Dark brown, black; dry; fine to medium sand; medium plasticity.		
0.9		VP-5 @ 3'					CLAY: Black; dry; trace fine sand; medium plasticity.	3.0	Hydrated Bentonite Seal
				5	CL				Dry Granular Bentonite
0.8		VP-5 @ 6'						6.0	Monterey Sand #2/12
									Permeable Stainless Steel Filter
									Bottom of Boring @ 6 fbg

WELL LOG (PID) \\SFO-S1\SHARED\CHEVRON\3119--311977 9-0076 OAKLAND\311977-BORING LOGS\GPJ DEFAULT.GDT 3/18/15



Conestoga Rovers & Associates
5900 Hollis Street Suite A
Emeryville, CA 94608
Telephone: 510-420-0700
Fax:

BORING / WELL LOG

CLIENT NAME	Chevron Environmental Management Company	BORING/WELL NAME	VP-6
JOB/SITE NAME	90076	DRILLING STARTED	04-Feb-15
LOCATION	4265 Foothill Boulevard, Oakland, California	DRILLING COMPLETED	04-Feb-15
PROJECT NUMBER	311977	WELL DEVELOPMENT DATE (YIELD)	NA
DRILLER	Gregg Drilling and Testing, Inc., C-57 #485165	GROUND SURFACE ELEVATION	NA
DRILLING METHOD	Hand auger	TOP OF CASING ELEVATION	NA
BORING DIAMETER	3"	SCREENED INTERVALS	NA
LOGGED BY	O. Yan	DEPTH TO WATER (First Encountered)	NA
REVIEWED BY	N. Lee, PG# 8684	DEPTH TO WATER (Static)	NA
REMARKS	Water not encountered.		

PID (ppm)	BLOW COUNTS	SAMPLE ID	EXTENT	DEPTH (fbg)	U.S.C.S.	GRAPHIC LOG	LITHOLOGIC DESCRIPTION	CONTACT DEPTH (fbg)	WELL DIAGRAM
							Asphalt	0.5	Concrete
					ML		<u>SILT with sand:</u> Black; dry; fine sand; low plasticity.	2.0	
					CL		<u>CLAY:</u> Black; dry; trace fine sand; medium plasticity.		Hydrated Bentonite Seal
0.1		VP-6 @ 3'							
				5					
0.1		VP-6 @ 6'							Dry Granular Bentonite
									Monterey Sand #2/12
									Permeable Stainless Steel Filter
								6.0	Bottom of Boring @ 6 fbg

WELL LOG (PID) \\SFO-S1\SHARED\CHEVRON\3119--311977 9-0076 OAKLAND\311977-BORING LOGS\GPJ DEFAULT.GDT 3/18/15

Appendix D

Permits

Alameda County Public Works Agency - Water Resources Well Permit



399 Elmhurst Street
Hayward, CA 94544-1395
Telephone: (510)670-6633 Fax:(510)782-1939

Application Approved on: 01/14/2016 By jamesy

Permit Numbers: W2016-0022 to W2016-0023
Permits Valid from 02/23/2016 to 02/23/2016

Application Id: 1452209473870
Site Location: 4265 Foothill Boulevard
Project Start Date: 02/23/2016
Assigned Inspector: Contact Lindsay Furuyama at (925) 956-2311 or Lfuruyama@groundzonees.com

City of Project Site:Oakland

Completion Date:02/23/2016

Applicant: GHD Services Inc. - Charley McLean
2300 Clayton Road, Suite 920, Concord, CA 94596
Phone: 925-849-1017
Property Owner: Josephine Le
4265 Foothill Boulevard, Oakland, CA 94601
Phone: --
Client: Chevron Environmental Management Company
6001 Bollinger Canyon Road, San Ramon, CA 94583
Phone: --

Receipt Number: WR2016-0014 Total Due: \$662.00
Payer Name : GHD Services Inc. Total Amount Paid: \$662.00
Paid By: CHECK PAID IN FULL

Works Requesting Permits:

Borehole(s) for Investigation-Environmental/Monitorinig Study - 1 Boreholes
Driller: Vapor Tech Services - Lic #: 916085 - Method: Hand

Work Total: \$265.00

Specifications

Permit Number	Issued Dt	Expire Dt	# Boreholes	Hole Diam	Max Depth
W2016-0022	01/14/2016	05/23/2016	1	4.00 in.	10.00 ft

Specific Work Permit Conditions

1. Backfill bore hole by tremie with cement grout or cement grout/sand mixture. Upper two-three feet replaced in kind or with compacted cuttings. All cuttings remaining or unused shall be containerized and hauled off site. The containers shall be clearly labeled to the ownership of the container and labeled hazardous or non-hazardous.
2. Boreholes shall not be left open for a period of more than 24 hours. All boreholes left open more than 24 hours will need approval from Alameda County Public Works Agency, Water Resources Section. All boreholes shall be backfilled according to permit destruction requirements and all concrete material and asphalt material shall be to Caltrans Spec or County/City Codes. No borehole(s) shall be left in a manner to act as a conduit at any time.
3. Permittee shall assume entire responsibility for all activities and uses under this permit and shall indemnify, defend and save the Alameda County Public Works Agency, its officers, agents, and employees free and harmless from any and all expense, cost, liability in connection with or resulting from the exercise of this Permit including, but not limited to, properly damage, personal injury and wrongful death.
4. Applicant shall contact assigned inspector listed on the top of the permit at least five (5) working days prior to starting, once the permit has been approved. Confirm the scheduled date(s) at least 24 hours prior to drilling.
5. Copy of approved drilling permit must be on site at all times. Failure to present or show proof of the approved permit application on site shall result in a fine of \$500.00.
6. Electronic Reporting Regulations (Chapter 30, Division 3 of Title 23 & Division 3 of Title 27, CCR) require electronic submission of any report or data required by a regulatory agency from a cleanup site. Submission dates are set by a

Alameda County Public Works Agency - Water Resources Well Permit

Regional Water Board or by a regulatory agency. Once a report/data is successfully uploaded, as required, you have met the reporting requirement (i.e. the compliance measure for electronic submittals is the actual upload itself). The upload date should be on or prior to the regulatory due date.

7. NOTE:

Under California laws, the owner/operator are responsible for reporting the contamination to the governmental regulatory agencies under Section 25295(a). The owner/operator is liable for civil penalties under Section 25299(a)(4) and criminal penalties under Section 25299(d) for failure to report a leak. The owner/operator is liable for civil penalties under Section 25299(b)(4) for knowing failure to ensure compliance with the law by the operator. These penalty provisions do not apply to a potential buyer.

8. Prior to any drilling activities onto any public right-of-ways, it shall be the applicants responsibilities to contact and coordinate a Underground Service Alert (USA), obtain encroachment permit(s), excavation permit(s) or any other permits required for that City or to the County and follow all City or County Ordinances. It shall also be the applicants responsibilities to provide to the Cities or to Alameda County a Traffic Safety Plan for any lane closures or detours planned. No work shall begin until all the permits and requirements have been approved or obtained.

9. Permit is valid only for the purpose specified herein. No changes in construction procedures, as described on this permit application. Boreholes shall not be converted to monitoring wells, without a permit application process.

Well Construction-Monitoring-Monitoring - 1 Wells

Driller: Vapor Tech Services - Lic #: 916085 - Method: hstem

Work Total: \$397.00

Specifications

Permit #	Issued Date	Expire Date	Owner Well Id	Hole Diam.	Casing Diam.	Seal Depth	Max. Depth
W2016-0023	01/14/2016	05/23/2016	C-13	8.00 in.	2.00 in.	6.00 ft	25.00 ft

Specific Work Permit Conditions

1. Permittee shall assume entire responsibility for all activities and uses under this permit and shall indemnify, defend and save the Alameda County Public Works Agency, its officers, agents, and employees free and harmless from any and all expense, cost, liability in connection with or resulting from the exercise of this Permit including, but not limited to, properly damage, personal injury and wrongful death.

2. Permittee, permittee's contractors, consultants or agents shall be responsible to assure that all material or waters generated during drilling, boring destruction, and/or other activities associated with this Permit will be safely handled, properly managed, and disposed of according to all applicable federal, state, and local statutes regulating such. In no case shall these materials and/or waters be allowed to enter, or potentially enter, on or off-site storm sewers, dry wells, or waterways or be allowed to move off the property where work is being completed.

3. Prior to any drilling activities, it shall be the applicant's responsibility to contact and coordinate an Underground Service Alert (USA), obtain encroachment permit(s), excavation permit(s) or any other permits or agreements required for that Federal, State, County or City, and follow all City or County Ordinances. No work shall begin until all the permits and requirements have been approved or obtained. It shall also be the applicants responsibilities to provide to the Cities or to Alameda County an Traffic Safety Plan for any lane closures or detours planned. No work shall begin until all the permits and requirements have been approved or obtained.

4. Compliance with the well-sealing specifications shall not exempt the well-sealing contractor from complying with

Alameda County Public Works Agency - Water Resources Well Permit

appropriate State reporting-requirements related to well construction or destruction (Sections 13750 through 13755 (Division 7, Chapter 10, Article 3) of the California Water Code). Contractor must complete State DWR Form 188 and mail original to the Alameda County Public Works Agency, Water Resources Section, within 60 days. Include permit number and site map.

5. Applicant shall submit the copies of the approved encroachment permit to this office within 10 days.
 6. Applicant shall contact assigned inspector listed on the top of the permit at least five (5) working days prior to starting, once the permit has been approved. Confirm the scheduled date(s) at least 24 hours prior to drilling.
 7. Wells shall have a Christy box or similar structure with a locking cap or cover. Well(s) shall be kept locked at all times. Well(s) that become damaged by traffic or construction shall be repaired in a timely manner or destroyed immediately (through permit process). No well(s) shall be left in a manner to act as a conduit at any time.
 8. Minimum surface seal thickness is two inches of cement grout placed by tremie.
 9. Minimum seal (Neat Cement seal) depth for monitoring wells is 5 feet below ground surface(BGS) or the maximum depth practicable or 20 feet.
 10. Copy of approved drilling permit must be on site at all times. Failure to present or show proof of the approved permit application on site shall result in a fine of \$500.00.
 11. Electronic Reporting Regulations (Chapter 30, Division 3 of Title 23 & Division 3 of Title 27, CCR) require electronic submission of any report or data required by a regulatory agency from a cleanup site. Submission dates are set by a Regional Water Board or by a regulatory agency. Once a report/data is successfully uploaded, as required, you have met the reporting requirement (i.e. the compliance measure for electronic submittals is the actual upload itself). The upload date should be on or prior to the regulatory due date.
-

City of Oakland

Planning and Building Department

250 Frank H. Ogawa Plaza
510-238-4774

844 Accela Permit	0.00	0.00
Permit Number: X1600099		
Fee		
Application Fee	70.00	70.00
Fee		
Excavation - Private Party Type	309.00	309.00
Fee		
Technology Enhancement Fee	19.90	19.90
Fee		
Records Management Fee	36.01	36.01
844 Accela Permit		
Permit Number: OB1600063	0.00	0.00
Fee		
Application Fee	70.00	70.00
Fee		
Short Term Permits	170.00	170.00
Fee		
Technology Enhancement Fee	12.60	12.60
Fee		
Records Management Fee	22.80	22.80

Payer Name: CONESTOGA-ROVERS &
ASSOCIATES INC.

SubTotal:	710.31
Total:	710.31
Check	
Number : 11922	710.31

1/14/2016 10:54
#0586001 /77/24

Thank You

Permits for which no major inspection has been approved within 180 days shall expire by limitation. No refund more than 180 days after expiration or final.



CITY OF OAKLAND

250 FRANK H. OGAWA PLAZA ▪ 2ND FLOOR ▪ OAKLAND, CA 94612

Planning and Building Department
www.oaklandnet.com

PH: 510-238-3891
FAX: 510-238-2263
TDD: 510-238-3254

Permit No: OB1600063 Obstruction

Filed Date: 1/14/2016

Job Site: 4265 FOOTHILL BLVD

Schedule Inspection by calling: 510-238-3444

Parcel No: 035 235200801

District:

Project Description: Soil boring(s) ON SIDEWALK along HIGH ST between FOOTHILL BLVD and BOND ST.
BLOCK 125' of SIDEWALK per TSD-16-0008. NO IMPACT ON TRAFFIC ALLOWED.
NOTE: disregard start/end dates shown below. They are listed only for invoicing purposes.
Actual dates (Friday - 1/15/16 AND Tuesday - 2/23/16) are either non-consecutive or do not include weekend(s). NO WEEKEND WORK.

Comply with all terms, conditions and restrictions stated in the Traffic Control Plan. Any/all changes need prior written approval. Provide original Traffic Control Plan at each renewal.

Contact: 925 849-1017

Related Permits: X1600099

	<u>Name</u>	<u>Applicant</u>	<u>Address</u>	<u>Phone</u>	<u>License #</u>
Owner:	LE LOI V ETAL		4265 FOOTHILL BLVD OAKLAND, CA		
Contractor- Employee:	C MCLEAN	X	2316 TRIPALDI WAY HAYWARD, CA	(415) 378-0415	
Contractor:	VAPOR TECH SERVICES		2316 TRIPALDI WAY HAYWARD, CA	(415) 378-0415	916085

PERMIT DETAILS: Building/Public Use/Activity/Obstructions

Work Information

Start Date: 01/15/2016	Obstruction Permit Type:	Short Term (Max 14 Days)
End Date: 01/16/2016	Number of Meters (Metered Area):	
	Length Of Obstruction (Unmetered Area):	125

TOTAL FEES TO BE PAID AT FILING: \$275.40

Application Fee	\$70.00	Records Management Fee	\$22.80	Short Term Permits	\$170.00
Technology Enhancement Fee	\$12.60				

Plans Checked By _____ Date _____

Permit Issued By BG Date 1/14/16

Finalized By _____ Date _____

Permits for which no major inspection has been approved within 180 days shall expire by limitation. No refund more than 180 days after expiration or final.



Permit No: OB1600063

Parcel No: 035 235200801

Job Site: 4265 FOOTHILL BLVD

Page 2 of 2

LICENSED CONTRACTOR'S DECLARATION

I hereby affirm under penalty of perjury that I am licensed under provisions of Chapter 9 (commencing with Section 7000) of Division 3 of the Business and Professions Code, and my license is in full force and effect.

CONSTRUCTION LENDING AGENCY DECLARATION

I hereby affirm under penalty of perjury that there is a construction lending agency for the performance of the work for which this permit is issued (Section 8172, Civil Code).

Lender's Name _____

Branch Designation _____

Lender's Address _____

WORKERS' COMPENSATION DECLARATION

WARNING: FAILURE TO SECURE WORKERS' COMPENSATION COVERAGE IS UNLAWFUL, AND SHALL SUBJECT AN EMPLOYER TO CRIMINAL PENALTIES AND CIVIL FINES UP TO ONE HUNDRED THOUSAND DOLLARS (\$100,000), IN ADDITION TO THE COST OF COMPENSATION, DAMAGES AS PROVIDED FOR IN SECTION 3706 OF THE LABOR CODE, INTEREST, AND ATTORNEY'S FEES.

I hereby affirm under penalty of perjury one of the following declarations:

☐ I have and will maintain a certificate of consent to self-insure for workers' compensation, issued by the Director of Industrial Relations as provided for by Section 3700 of the Labor Code, for the performance of the work for which this permit is issued.

☐ I have and will maintain workers' compensation insurance, as required by Section 3700 of the Labor Code, for the performance of the work for which this permit is issued.

☐ I certify that, in the performance of the work for which this permit is issued, I shall not employ any person in any manner so as to become subject to the workers' compensation laws of California, and agree that, if I should become subject to the workers' compensation provisions of Section 3700 of the Labor Code, I shall forthwith comply with those provisions.

RRP ACKNOWLEDGMENT

EPA's Lead Renovation, Repair and Painting Rule (RRP Rule) requires that firms performing renovation, repair, and painting projects that disturb lead-based paint in homes, child care facilities and pre-schools built before 1978 have their firm certified by EPA or use certified renovators who are trained by EPA-approved training providers and follow lead-safe work practices. As the contractor preparing to do work on a Pre-1978

building, I have read the explanation of the RRP Rule and will ensure that any paint disturbing work will be done by or supervised by an RRP certified individual(s). Failure to follow this rule may result in enforcement action by the EPA. For additional information on complying with lead safety requirements, contact the Alameda County Healthy Homes Department at (510) 567-8280 or 1-800-253-2372 or visit <http://www.achhd.org>.

HAZARDOUS MATERIALS DECLARATION

I hereby affirm that the intended occupancy ☐ WILL ☐ WILL NOT use, handle or store any hazardous, or acutely hazardous, materials. (Checking "WILL" acknowledges that Sections 25505, 25533, and 25534 of the Health and Safety Code, as well as filing instructions were made available to you).

I HEREBY CERTIFY THE FOLLOWING: That I have read this document; that the above information is correct; and that I have truthfully affirmed all applicable declarations contained in this document. I agree to comply with all city and county ordinances and state laws relating to building construction, and hereby authorize representatives of this city to enter upon the above-mentioned property for inspection purposes.

I hereby agree to save, defend, indemnify and keep harmless the City of Oakland and its officials, officers, employees, representatives, agents, and volunteers from all actions, claims, demands, litigation, or proceedings, including those for attorneys' fees, against the City in consequence of the granting of this permit or from the use or occupancy of the public right-of-way, public easement, or any sidewalk, street or sub-sidewalk or otherwise by virtue thereof, and will in all things strictly comply with the conditions under which this permit is granted. I further certify that I am the owner of the property involved in this permit or that I am fully authorized by the owner to access the property and perform the work authorized by this permit.

Name _____

Signature _____

☐ Contractor, or ☐ Contractor's Agent

Date _____

NOTICE: No activities related to the approved work, including storage/use of materials, is allowed within the public right-of-way without an encroachment permit. Dust control measures shall be used throughout all phases of construction.

Permits for which no major inspection has been approved within 180 days shall expire by limitation. No refund more than 180 days after expiration or final.



CITY OF OAKLAND

250 FRANK H. OGAWA PLAZA • 2ND FLOOR • OAKLAND, CA 94612

Planning and Building Department
www.oaklandnet.com

FIELD COPY

PH: 510-238-3891

FAX: 510-238-2263

TDD: 510-238-3254

Permit No: X1600099 OPW - Excavation

Filed Date: 1/14/2016

Job Site: 4265 FOOTHILL BLVD

Schedule Inspection by calling: 510-238-3444

Parcel No: 035 235200801

District:

Project Description: Soil boring(s) along HIGH ST between FOOTHILL BLVD and BOND ST.
Obstruction permit needed for impact on 125' of SIDEWALK per TSD-16-0008.
If working within 25' feet of a monument you must comply with State Law 8771, contact the
Inspector prior to starting excavation: minimum \$5,800.00 fine for non-compliance.
Call PWA INSPECTION prior to start: 510-238-3651, 4th FLOOR.

Related Permits:

	<u>Name</u>	<u>Applicant</u>	<u>Address</u>	<u>Phone</u>	<u>License #</u>
Owner:	LE LOI V ETAL		4265 FOOTHILL BLVD OAKLAND, CA		
Contractor- Employee:	C MCLEAN	X	2316 TRIPALDI WAY HAYWARD, CA	(415) 378-0415	
Contractor:	VAPOR TECH SERVICES		2316 TRIPALDI WAY HAYWARD, CA	(415) 378-0415	916085

PERMIT DETAILS: Building/Public Infrastructure/Excavation/NA

General Information

Excavation Type: Private Party

Special Paving Detail Required:

Tree Removal Involved:

Date Street Last Resurfaced:

Holiday Restriction (Nov 1 - Jan 1):

Worker's Compensation Company Name:

Limited Operation Area (7AM-9AM) And (4PM-6PM):

Worker's Compensation Policy #:

Key Dates

Approximate Start Date:

Approximate End Date:

TOTAL FEES TO BE PAID AT FILING: \$434.91

Application Fee	\$70.00	Excavation - Private Party Type	\$309.00	Records Management Fee	\$36.01
Technology Enhancement Fee	\$19.90				

Plans Checked By _____ Date _____

Permit Issued By BG Date 1/14/16

Finalized By _____ Date _____



Permit No: X1600099

Parcel No: 035 235200801

Job Site: 4265 FOOTHILL BLVD

Page 2 of 2

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Branch Designation _____

Lender's Address _____

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I hereby affirm under penalty of perjury one of the following declarations:

☐ I have and will maintain a certificate of consent to self-insure for workers' compensation, issued by the Director of Industrial Relations as provided for by Section 3700 of the Labor Code, for the performance of the work for which this permit is issued.

☐ I have and will maintain workers' compensation insurance, as required by Section 3700 of the Labor Code, for the performance of the work for which this permit is issued.

☐ I certify that, in the performance of the work for which this permit is issued, I shall not employ any person in any manner so as to become subject to the workers' compensation laws of California, and agree that, if I should become subject to the workers' compensation provisions of Section 3700 of the Labor Code, I shall forthwith comply with those provisions.

RRP ACKNOWLEDGMENT

EPA's Lead Renovation, Repair and Painting Rule (RRP Rule) requires that firms performing renovation, repair, and painting projects that disturb lead-based paint in homes, child care facilities and pre-schools built before 1978 have their firm certified by EPA or use certified renovators who are trained by EPA-approved training providers and follow lead-safe work practices. As the contractor preparing to do work on a Pre-1978

building, I have read the explanation of the RRP Rule and will ensure that any paint disturbing work will be done by or supervised by an RRP certified individual(s). Failure to follow this rule may result in enforcement action by the EPA. For additional information on complying with lead safety requirements, contact the Alameda County Healthy Homes Department at (510) 567-8280 or 1-800-253-2372 or visit <http://www.achhd.org>.

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I hereby affirm that the intended occupancy ☐ WILL ☐ WILL NOT use, handle or store any hazardous, or acutely hazardous, materials. (Checking "WILL" acknowledges that Sections 25505, 25533, and 25534 of the Health and Safety Code, as well as filing instructions were made available to you).

I HEREBY CERTIFY THE FOLLOWING: That I have read this document; that the above information is correct; and that I have truthfully affirmed all applicable declarations contained in this document. I agree to comply with all city and county ordinances and state laws relating to building construction, and hereby authorize representatives of this city to enter upon the above-mentioned property for inspection purposes.

I hereby agree to save, defend, indemnify and keep harmless the City of Oakland and its officials, officers, employees, representatives, agents, and volunteers from all actions, claims, demands, litigation, or proceedings, including those for attorneys' fees, against the City in consequence of the granting of this permit or from the use or occupancy of the public right-of-way, public easement, or any sidewalk, street or sub-sidewalk or otherwise by virtue thereof, and will in all things strictly comply with the conditions under which this permit is granted. I further certify that I am the owner of the property involved in this permit or that I am fully authorized by the owner to access the property and perform the work authorized by this permit.

Name _____

Signature _____

☐ Contractor, or ☐ Contractor's Agent

Date _____

NOTICE: No activities related to the approved work, including storage/use of materials, is allowed within the public right-of-way without an encroachment permit. Dust control measures shall be used throughout all phases of construction.

18° 01'E \$

CITY OF OAKLAN



PUBLIC WORKS DEPARTMENT • 250 FRANK H. OGAWA PLAZA • SUITE 4344 • OAKLAND, CALIFORNIA 94612-2033

Transportation Services Division

OFFICE: (510) 238-3467

FAX: (510) 238-7415

TDD: (510) 839-6451

Walk-in

OPW Receipt #: _____

Customer No.

From: Jwatson

Date: 1/12/2016

Re: Traffic Engineering Analysis Fee

Permit Application #	Utility Co. Job #	Work Location	Contractor Name	Charge To Credit Card #	No. of Hours
walk-in	16-0008	High Street /Foothill Blvd	Charley Mclean		1
Total Hours					1
Permit Review Fee (\$/hour)					\$169.00
Total					\$169.00

Cost Center No.	W045
Organization No.	30265
Account No.	45119
Fund No.	2415
Project No.	A167560

APPROVED BY:
Joe Wang

Date: _____

APPLICATION FOR TRAFFIC CONTROL PLAN

Public Works Agency
Transportation Services Division

Transportation Services Fee: \$160/hour
(Check or Money Order Only)

Check the box that apply:

- ☒ New Application (Utility, Excavation)
☐ Renewal Application
☐ New Development w/ Mgmt Plan
☐ City of Oakland Project

Please Read the Following Statements Below:

1. Processing time for a Traffic Control Application is a minimum of 10 business days.
2. Traffic Control review is scheduled only on Tuesdays and Thursdays from 8:30am thru 11:30am by appointment only.
3. A scheduled appointment by phone or email with a TSD staff member is necessary to discuss any and all traffic control application and plans.
4. Please call ahead to confirm that the traffic control application is ready for pickup @ 510-238-3467.
5. Businesses and residences adjacent to the work area must be provided 72 hour advance notice.
6. A completed traffic control application may be faxed to (510) 238-7415.
7. Incomplete traffic control applications will not be processed and returned to applicant immediately.
8. The initial approval for a traffic control plan is 1 month, the renewal submittal may be approved up to 3 months.
9. The traffic control provision dates cannot be changed or extended if work has already commenced.
10. After receiving TSD approval of the traffic control application, contractor shall proceed to the Permit Center to obtain an obstruction permit.

Contact Person: Charley McLean Phone: 925-849-1017
Name of Company: GHD Services Inc. (GHD) Fax: 925-849-1040
Address of Company: 2300 Clayton Rd, Suite 920, Concord, California 94520
Describe type of work to be performed: geophysical survey (1 day), soil boring (1 day)

Location of work: High Street Between Foothill Blvd And Bond St
Work date (s): 1/15/16, 2/23/16 ☒ Mon-Fri ☐ Sat-Sun Work Hours: 8am to 5pm

Please Follow these Steps in Order to Complete a Traffic Control Plan:

- A. Drawing Area: The full width of all streets adjacent to the site MUST be included in the drawing. Include the entire block in which your work is located for every street that is adjacent to your site.
- B. Include Street Names, Direction of Traffic on the Street, and North Arrow
- C. Show Existing Number of Lanes in all Directions (with any pavement arrows)
- D. Check the Box(es) that Apply: All checked items MUST be shown on the drawing

<input type="checkbox"/> Lane Closure	<input type="checkbox"/> Use of Median	<input checked="" type="checkbox"/> Sidewalk Closure
<input type="checkbox"/> Street Closures (must provide detour plan)	<input type="checkbox"/> Use Parking Lane	(must provide pedestrian walk way)
- E. Show All Dimensions of street widths (curb to curb), lane widths, sidewalk widths, and work area dimension.
(Note: Traffic Control Application / Plans missing the above information will not be accepted or processed.)
- F. Show the Name and Locations of all advanced warning devices, flaggers, delineators, warning and construction signs to be used.

RENEWAL PROCESS: Resubmit a completed Traffic Control Application with the old approved plan (with the necessary modifications / changes to the plans).

FOR HELP in preparing a traffic control plan, see Temporary Traffic Control Pocket Reference Guide 2007, Work Area Traffic Control Handbook 2006, or the California Manual on Uniform Traffic Control (MUTCD) 2003, Chapter 6.
http://www.dot.ca.gov/hq/traffops/elanetech/mutcdapp/ca_mutcd.htm
For City website: <http://www.oaklandpw.com/Page548.aspx>

* Name the streets that are the boundaries of your work area.

SPECIAL PROVISION 7-10.1 TRAFFIC REQUIREMENTS

Project Name: _____
Project Number: TSD-16-0008
Reviewed By: J. Watson
Date: 1/12/2016
Permit good from 1/15/2016
and 2/23/2016

ADD NEW SUBSECTION TO READ:
SP 7-10.1.4 Vehicular Traffic

Attention is directed to Section 7-10. Public Convenience and Safety, of the City of Oakland Standard Specification for Public Works Construction, 2006 Edition (Include this paragraph for p-jobs, excavation permits or obstruction permits).

The Contractor shall conduct its work in such a manner as to provide public convenience and safety and according to the provisions in this subsection. The provisions shall not be modified or altered without written approval from the Engineer.

Standard traffic control devices shall be placed at the construction zone according to the latest edition of the Work Area Traffic Control Handbook or Manual on Uniform Traffic Control Devices (MUTCD), Chapter 6 - "Traffic Controls for Construction and Maintenance Work Zone," or as directed by the Engineer.

All trenches and excavations in any public street or roadway shall be back filled and opened to traffic, or covered with suitable steel plates securely placed and opened to traffic at all times except during actual construction operations unless otherwise permitted by the Engineer.

Each section of work shall be completed or temporarily paved and open to traffic in not more than 5 days after commencing work unless otherwise permitted in writing by the Engineer.

Where construction encroaches into the sidewalk area, a minimum of 5 ½ feet of unobstructed sidewalk shall be maintained at all times for pedestrian use. Pedestrian barricades, shelter, and detour signs per Caltrans standards may be required.

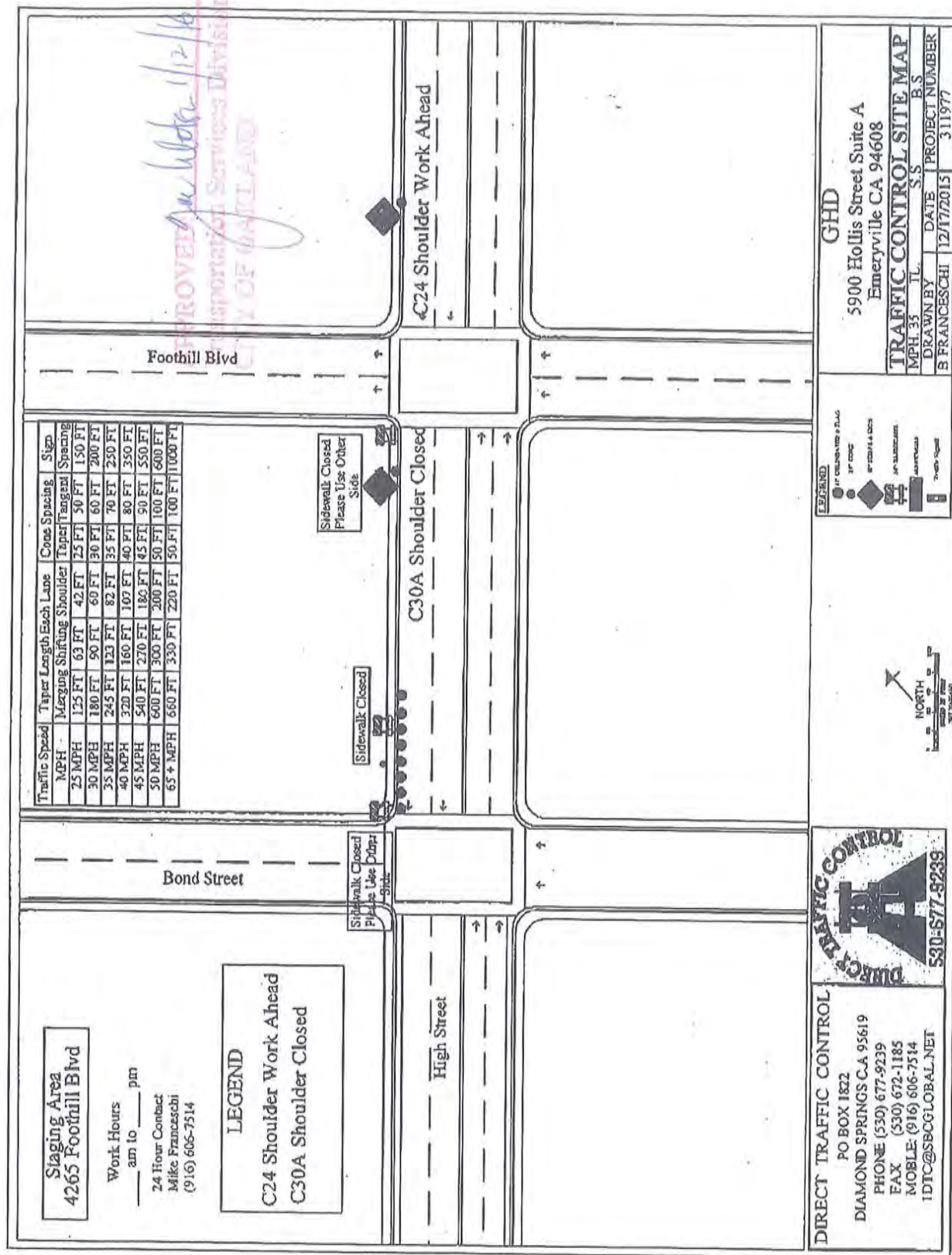
The contractor shall conduct its operation in such a manner as to leave the following traffic lanes unobstructed and in a condition satisfactory for vehicular travel during the Obstruction Period. At all times traffic lanes will be restricted and reopened to travel. Emergency access shall be provided at all times.

Street Name Limits	Obstruction Period	North Bound	South Bound	East Bound	West Bound
High Street Bond Street and Foothill	Mon. - Fri. 9AM - 4PM	Sidewalk closure	N/A	N/A	N/A

The Contractor Shall Also include all check item:

- ☐ Design a construction traffic control plan and submit (2) copies to the Engineer for approval prior to starting any work.
- ☒ Replace all signs, pavement markings, and traffic detector loops damaged or removed due to construction within 3 days of completion of work or the final pavement lift.
- ☒ Provide advance notice to Oakland Police at (510) 777-3333 (24-hrs) and Oakland Fire at (510) 238-3331 (2-rhs) when a single lane of traffic or less is provided on any street.
- ☒ Provide 72-hour advance notice to AC Transit at (510) 891-4909 when affecting a bus stop.
- ☐ For Caltrans roadways, ramps, or maintained facilities, the Contractor shall obtain appropriate permits and notify the Traffic Management Center 24 hours in advance of any work.
- ☒ Flagger control is required. Certified Flagger is required.
- ☐ Pedestrian walkway by K-rail, Canopy or Plywood is required. (See detour plan)
- ☒ Pedestrian traffic shall be maintained and guided through the project at all times.
- ☒ Provide advance notice to Business and Residence within 72-hours.
- ☒ Allow all traffic movement at intersection.

Nothing specified herein shall prohibit emergency work and/or repair necessary to ensure public health and safety.



Appendix E

Standard Field Procedures

Attachment E STANDARD FIELD PROCEDURES FOR HAND AUGER BORING AND SAMPLING

This document presents standard field procedures for drilling and sampling soil borings using a hand auger. These procedures are designed to comply with Federal, State and local regulatory guidelines. Specific field procedures are summarized below.

Objectives

Soil samples are collected to characterize subsurface lithology, assess whether the soils exhibit obvious hydrocarbon or other compound vapor odor or staining, estimate ground water depth and quality, and to submit samples for chemical analysis.

Soil Classification/Logging

All soil samples are classified according to the Unified Soil Classification System by a trained geologist or engineer working under the supervision of a California Professional Geologist (PG) or a Certified Engineering Geologist (CEG). The following soil properties are noted for each soil sample:

- Principal and secondary grain size category (i.e. sand, silt, clay, or gravel)
- Approximate percentage of each grain size category
- Color
- Approximate water or product saturation percentage
- Observed odor and/or discoloration
- Other significant observations (i.e. cementation, presence of marker horizons, mineralogy)
- Estimated permeability

Soil Boring and Sampling

Hand-auger borings are typically drilled using a hand-held bucket auger to remove soil to the desired sampling depth. Samples are collected using lined split-barrel or equivalent samplers driven into undisturbed sediments beyond the bottom of the augered hole. The vertical location of each soil sample is determined using a tape measure. All sample depths use the ground surface immediately adjacent to the boring as a datum. The horizontal location of each boring is measured in the field from an onsite permanent reference using a measuring wheel or tape measure.

Augering and sampling equipment is steam-cleaned prior to drilling and between borings to prevent cross-contamination. Sampling equipment is washed between samples with trisodium phosphate or an equivalent EPA-approved detergent.

Sample Storage, Handling, and Transport

Sampling tubes chosen for analysis are trimmed of excess soil and capped with Teflon tape and plastic end caps. Soil samples are labeled and stored at or below 4oC on either crushed or dry ice, depending upon local regulations. Samples are transported under chain-of-custody to a State-certified analytic laboratory.

Field Screening

One of the remaining tubes is partially emptied leaving about one-third of the soil in the tube. The tube is capped with plastic end caps and set aside to allow hydrocarbons to volatilize from the soil. After ten to fifteen minutes, a portable photoionization detector (PID) measures volatile hydrocarbon vapor concentrations in the tube headspace, extracting the vapor through a slit in the cap. PID measurements are used along with the field observations, odors, stratigraphy and ground water depth to select soil samples for analysis.

Water Sampling

Water samples, if they are collected from the boring, are collected from the open borehole using bailers. The ground water samples are decanted into the appropriate containers supplied by the analytic laboratory. Samples are labeled, placed in protective foam sleeves, stored on crushed ice at or below 4°C, and transported under chain-of-custody to the laboratory.

Duplicates and Blanks

Blind duplicate water samples are collected usually collected only for monitoring well sampling programs, at a rate of one blind sample for every 10 wells sampled. Laboratory-supplied trip blanks accompany samples collected for all sampling programs to check for cross-contamination caused by sample handling and transport. These trip blanks are analyzed if the internal laboratory QA/QC blanks contain the suspected field contaminants. An equipment blank may also be analyzed if non-dedicated sampling equipment is used.

Grouting

The borings are filled to the ground surface with cement grout poured or pumped through a tremie pipe.

Waste Handling and Disposal

Soil cuttings from drilling activities are usually stockpiled onsite on top of and covered by plastic sheeting. At least four individual soil samples are collected from the stockpiles for later compositing at the analytic laboratory. The composite sample is analyzed for the same constituents analyzed in the borehole samples. Soil cuttings are transported by licensed waste haulers and disposed in secure, licensed facilities based on the composite analytic results.

Ground water removed during sampling and/or rinsate generated during decontamination procedures are stored onsite in sealed 55-gallon drums. Each drum is labeled with the drum number, date of generation, suspected contents, generator identification and consultant contact. Disposal of the water is based on the analytic results for the well samples. The water is either pumped out using a vacuum truck for transport to a licensed waste treatment/disposal facility or the individual drums are picked up and transported to the waste facility where the drum contents are removed and appropriately disposed.

Attachment E STANDARD FIELD PROCEDURES FOR SOIL BORING AND MONITORING WELL INSTALLATION

This document presents standard field methods for drilling and sampling soil borings and installing, developing, and sampling groundwater monitoring wells. These procedures are designed to comply with Federal, State and local regulatory guidelines. Specific field procedures are summarized below.

SOIL BORINGS

Objectives

Soil samples are collected to characterize subsurface lithology, assess whether the soils exhibit obvious hydrocarbon or other compound vapor or staining, and to collect samples for analysis at a State-certified laboratory. All borings are logged using the ASTM D2488-06 Unified Soil Classification System by a trained geologist working under the supervision of a California Professional Geologist (PG).

Soil Boring and Sampling

Prior to drilling, the first 8 feet of the boring are cleared using an air or water knife and vacuum extraction or hand auger. This minimizes the potential for impacting utilities. Soil borings are typically drilled using hollow-stem augers or direct-push technologies such as the Geoprobe®. Soil samples are collected at least every five ft to characterize the subsurface sediments and for possible chemical analysis. Additional soil samples are collected near the water table and at lithologic changes. Samples are collected using lined split-barrel or equivalent samplers driven into undisturbed sediments at the bottom of the borehole.

Drilling and sampling equipment is steam-cleaned prior to drilling and between borings to prevent cross-contamination. Sampling equipment is washed between samples with trisodium phosphate or an equivalent EPA-approved detergent.

Sample Analysis

Sampling tubes chosen for analysis are trimmed of excess soil and capped with Teflon tape and plastic end caps. Soil samples are labeled and stored at or below 4° C on either crushed or dry ice, depending upon local regulations. Samples are transported under chain-of-custody to a State-certified analytic laboratory.

Field Screening

One of the remaining tubes is partially emptied leaving about one-third of the soil in the tube. The tube is capped with plastic end caps and set aside to allow hydrocarbons to volatilize from the soil. After ten to fifteen minutes, a portable volatile vapor analyzer measures volatile hydrocarbon vapor concentrations in the tube headspace, extracting the vapor through a slit in the cap. Volatile vapor analyzer measurements are used along with the field observations, odors, stratigraphy and groundwater depth to select soil samples for analysis.

Water Sampling

Water samples, if they are collected from the boring, are either collected using a driven Hydropunch® type sampler or are collected from the open borehole using bailers. The groundwater samples are decanted into the appropriate containers supplied by the analytic laboratory. Samples are labeled, placed in

protective foam sleeves, stored on crushed ice at or below 4°C, and transported under chain-of-custody to the laboratory. Laboratory-supplied trip blanks accompany the samples and are analyzed to check for cross-contamination. An equipment blank may be analyzed if non-dedicated sampling equipment is used.

Grouting

If the borings are not completed as wells, the borings are filled to the ground surface with cement grout poured or pumped through a tremie pipe.

MONITORING WELL INSTALLATION, DEVELOPMENT AND SAMPLING

Well Construction and Surveying

Groundwater monitoring wells are installed to monitor groundwater quality and determine the groundwater elevation, flow direction and gradient. Well depths and screen lengths are based on groundwater depth, occurrence of hydrocarbons or other compounds in the borehole, stratigraphy and State and local regulatory guidelines. Well screens typically extend 10 to 15 feet below and 5 feet above the static water level at the time of drilling. However, the well screen will generally not extend into or through a clay layer that is at least three feet thick.

Well casing and screen are flush-threaded, Schedule 40 PVC. Screen slot size varies according to the sediments screened, but slots are generally 0.010 or 0.020 inches wide. A rinsed and graded sand occupies the annular space between the boring and the well screen to about one to two feet above the well screen. A two feet thick hydrated bentonite seal separates the sand from the overlying sanitary surface seal composed of Portland type I, II cement.

Well-heads are secured by locking well-caps inside traffic-rated vaults finished flush with the ground surface. A stovepipe may be installed between the well-head and the vault cap for additional security.

The well top-of-casing elevation is surveyed with respect to mean sea level and the well is surveyed for horizontal location with respect to an onsite or nearby offsite landmark.

Well Development

Wells are generally developed using a combination of groundwater surging and extraction. Surging agitates the groundwater and dislodges fine sediments from the sand pack. After about ten minutes of surging, groundwater is extracted from the well using bailing, pumping and/or reverse air-lifting through an eductor pipe to remove the sediments from the well. Surging and extraction continue until at least ten well-casing volumes of groundwater are extracted and the sediment volume in the groundwater is negligible. This process usually occurs prior to installing the sanitary surface seal to ensure sand pack stabilization. If development occurs after surface seal installation, then development occurs 24 to 72 hours after seal installation to ensure that the Portland cement has set up correctly.

All equipment is steam-cleaned prior to use and air used for air-lifting is filtered to prevent oil entrained in the compressed air from entering the well. Wells that are developed using air-lift evacuation are not sampled until at least 24 hours after they are developed.

Groundwater Sampling

Depending on local regulatory guidelines, three to four well-casing volumes of groundwater are purged prior to sampling. Purging continues until groundwater pH, conductivity, and temperature have stabilized.

Groundwater samples are collected using bailers or pumps and are decanted into the appropriate containers supplied by the analytic laboratory. Samples are labeled, placed in protective foam sleeves, stored on crushed ice at or below 4°C, and transported under chain-of-custody to the laboratory. Laboratory-supplied trip blanks accompany the samples and are analyzed to check for cross-contamination. An equipment blank may be analyzed if non-dedicated sampling equipment is used.

Waste Handling and Disposal

Soil cuttings from drilling activities are usually stockpiled onsite and covered by plastic sheeting. At least three individual soil samples are collected from the stockpiles and composited at the analytic laboratory. The composite sample is analyzed for the same constituents analyzed in the borehole samples in addition to any analytes required by the receiving disposal facility. Soil cuttings are transported by licensed waste haulers and disposed in secure, licensed facilities based on the composite analytic results.

Groundwater removed during development and sampling is typically stored onsite in sealed 55-gallon drums. Each drum is labeled with the drum number, date of generation, suspected contents, generator identification and consultant contact. Upon receipt of analytic results, the water is either pumped out using a vacuum truck for transport to a licensed waste treatment/disposal facility or the individual drums are picked up and transported to the waste facility where the drum contents are removed and appropriately disposed.

Attachment E STANDARD FIELD PROCEDURES FOR SOIL VAPOR PROBE INSTALLATION AND SAMPLING

This document presents GHD Services, Inc.'s (GHD's) standard field procedures for soil vapor probe installation and sampling. These procedures are designed to comply with Federal, State, and local regulatory guidelines. Specific field procedures are summarized below.

Objectives

Soil vapor samples are collected and analyzed to assess whether vapor-phase subsurface contaminants pose a threat to human health or the environment.

Shallow Soil Vapor Probe Installation

The shallow soil vapor probe method for soil vapor sampling utilizes a hand auger or drill rig to advance a boring for the installation of a soil vapor sampling probe. Soil vapor probes facilitate the collection of in-situ vapor samples. Once the boring is advanced to the final depth, #2/12 filter pack is poured through a tremie pipe to fill the bottom 6 inches of the boring. A permeable, stainless-steel probe tip is connected to ¼-inch outside diameter Teflon tubing via a push-to-connect fitting. The probe tip is then placed approximately 6 inches from the bottom of the boring and covered by 6 inches of #2/16 filter sand. A 12 inch layer of dry granular bentonite is placed on top of the filter pack. Pre-hydrated granular bentonite is then poured to fill the borehole. The tube is labeled, capped, and placed within a traditional well box finished flush to grade. Soil vapor samples will be collected no sooner than 48 hours after installation of the soil vapor probe to allow adequate time for representative soil vapors to accumulate. Soil vapor sample collection will not be scheduled until after a minimum of three consecutive precipitation-free days and irrigation onsite has ceased.

Purging

At least three purge volumes of vapor are removed from the soil vapor probe prior to sampling. The purge volume is defined as the amount of air within the probe and tubing. Purging is performed using the vacuum of a dedicated Summa canister, a flow regulator set to the same flow rate used for sampling, and vacuum gauges. Immediately after purging, soil vapor samples will be collected using the appropriate size Summa canister with attached flow regulator and sediment filter.

Sampling Soil Vapor Probes

Samples collected using a SUMMA™ canister will have the SUMMA™ canister connected to the sampling tube of each vapor probe. Prior to collecting soil vapor samples, the initial vacuum of the canisters is measured and recorded on the chain-of-custody. The vacuum of the SUMMA™ canister is used to draw the soil vapor through the flow controller until a negative pressure of approximately 5 inches of mercury is observed on the vacuum gauge and recorded on the chain-of-custody. The flow controllers should be set to 100-200 milliliters per minute. Field duplicates should be collected for every day of sampling and/or for every 10 samples collected.

In accordance with the Department of Toxic Substances Control (DTSC) *Advisory – Active Soil Gas Investigation* guidance document, dated April 2012, leak testing is necessary during sampling. Helium is recommended, although shaving cream is acceptable. Helium is pumped into a shroud that contains the entire sampling apparatus and the soil vapor probe well vault. A helium meter is used to quantify the percentage helium in the shroud during sampling.

Samples collected for TO-17 analysis will be collected using a TO-17 Sorbent Tubes connected to the sampling tube of each vapor probe. A 60 cc syringe will be used to draw the sample into the sorbent tubes. Field duplicates should be collected for each day of sampling and/or for every 10 samples collected.

A leak test will be performed prior to connecting the sampling equipment to the vapor tubing. The test is performed by inserting the sorbent tube into the tube holder on the syringe assembly, turning the valve into the 'off' position, pulling the plunger of the syringe. If the plunger does not move or immediately returns to the starting position, the system is leak tight and is ready for sampling.

Vapor Sample Storage, Handling, and Transport

Samples are stored and transported under chain-of-custody to a state-certified analytic laboratory. Samples should never be cooled due to the possibility of condensation within the canister.

Soil Vapor Probe Destruction

The soil vapor probes will be preserved until they are no longer needed for risk evaluation purposes. At that time, they will be destroyed by extracting the tubing, hand augering to remove the sand and bentonite, and backfilling the boring with neat cement. The boring will be patched with asphalt or concrete, as appropriate.

Appendix F

Well Development Data and Groundwater Monitoring Sheets

WELL GAUGING DATA

Project # 160303-GR2 Date 3/03/2016 Client Chevron

Site 4265 Foothill Blvd. - Oakland, CA

[illegible]

WELL DEVELOPMENT DATA SHEET

Project #: <u>160303-GR2</u>	Client: <u>Chevron</u>
Developer: <u>GR</u>	Date Developed: <u>3/03/2016</u>
Well I.D. <u>C-13</u>	Well Diameter: (circle one) <u>(2)</u> 3 4 6
Total Well Depth: Before <u>18.94</u> After <u>18.94</u>	Depth to Water: Before <u>15.53</u> After <u>Dewatered</u>
Reason not developed:	If Free Product, thickness:
Additional Notations:	

Volume Conversion Factor (VCF):
 $\{12 \times (d^2/4) \times \pi\} / 231$
 where
 12 = in / foot
 d = diameter (in.)
 $\pi = 3.1416$
 231 = in 3/gal

Well dia.	VCF
2" =	0.16
3" =	0.37
4" =	0.65
6" =	1.47
10" =	4.08
12" =	6.87

<u>0.5</u>	X	<u>10</u>	=	<u>5.0</u>	gallons
1 Case Volume		Specified Volumes			

Purging Device: ☒ Bailer ☐ Electric Submersible
 ☐ Suction Pump ☒ Positive Air Displacement

Type of Installed Pump _____
 Other equipment used 2" surge block

TIME	TEMP (F)	pH	Cond. (mS or μ S)	TURBIDITY (NTUs)	VOLUME REMOVED:	NOTATIONS:
1300						Begin swabbing well for ~ 15 min
1318						Begin purge w/ Middleburg pump -
1320	68.2	7.32	3449	>1000	0.5	Agitate bottom w/ pump -
1322	68.2	7.84	3423	>1000	1.0	lt. brown w/ odor
1326					1.4	on hard bottom
1330						Well dewatering @
1332						TD = 18.94
1335						Resume purge w/ disp. bailer
1332	68.1	7.53	3263	>1000	1.5	
1335					1.8	Well dewatered @
1400						TD = 18.94
1400						Regauged DTW = 18.10
1420						Regauged DTW = 18.06
1425						Resume purge w/ disp. bailer
1427	68.2	7.68	3321	>1000	2.0	
1429					2.1	Well dewatered @
						TD = 18.94
Did Well Dewater? <u>Yes</u>		If yes, note above.		Gallons Actually Evacuated:		<u>2.1</u>

Page 1 of 1

Job Number 160703 - 6122 Technician GR

[illegible]

NOTES:

SOURCE RECORD **BILL OF LADING**
FOR PURGEWATER RECOVERED FROM
GROUNDWATER WELLS AT CHEVRON FACILITIES IN
THE STATE OF CALIFORNIA. THE PURGE- WATER
WHICH HAS BEEN RECOVERED FROM GROUND-
WATER WELLS IS COLLECTED BY THE CONTRACTOR
AND HAULED TO THEIR FACILITY IN SAN JOSE,
CALIFORNIA FOR TEMPORARILY HOLDING PENDING
TRANSPORT BY OTHERS TO FINAL DESTINATION.

The contractor performing this work is BLAINE TECH SERVICES, INC. (BLAINE TECH), 1680 Rogers Ave. San Jose CA (408) 573-0555). BLAINE TECH. is authorized by Chevron Environmental Management Company (CHEVRON EMC) to recover, collect, apportion into loads, and haul the purgewater that is drawn from wells at the CHEVRON EMC facility indicated below and to deliver that purgewater to BLAINE TECH for temporarily holding. Transport routing of the purgewater may be direct from one CHEVRON EMC facility to BLAINE TECH; from one CHEVRON EMC facility to BLAINE TECH via another CHEVRON EMC facility; or any combination thereof. The well purgewater is and remains the property of CHEVRON EMC.

This Source Record **BILL OF LADING** was initiated to cover the recovery of Non-Hazardous Well Purgewater from wells at the Chevron facility described below:

9-0076
CHEVRON # Grey Robert
Chevron Engineer
4265 Foothill Blvd. - Oakland, CA
street number street name city state

WELL I.D.	GALS.	WELL I.D.	GALS.
C-13	2.1		
/		/	
/		/	
/		/	
/		/	
/		/	
/		/	
/		/	
/		/	
added equip.		any other	
rinse water	0.9	adjustments	
TOTAL GALS. RECOVERED 3.0		loaded onto BTS vehicle # 93	
BTS event #	time	date	
160303- G122	1450	3 103 14	
Transporter signature <u>[Signature]</u>			

REC'D AT		time	date
			/ /
Unloaded/received by signature _____			

TEST EQUIPMENT CALIBRATION LOG

[illegible]

BLAINE

TECH SERVICES

March 24, 2016

Chevron Environmental Management Company
Mark Horne
6101 Bollinger Canyon Rd.
San Ramon, CA 94583

First Quarter 2016 Monitoring at
Chevron Service Station 90076
4265 Foothill Blvd.
Oakland, CA

Monitoring performed on March 8, 2016

Blaine Tech Services, Inc. Groundwater Monitoring Event 160308-BW1

This submission covers the routine monitoring of groundwater wells conducted on March 8, 2016 at this location. Ten monitoring wells were measured for depth to groundwater (DTW). Ten monitoring wells were sampled. All sampling activities were performed in accordance with local, state and federal guidelines.

Water levels measurements were collected using an electronic slope indicator. All sampled wells were purged of three case volumes, depending on well recovery, or until water temperature, pH and conductivity stabilized. Purging was accomplished using electric submersible pumps, positive air displacement pumps, or stainless steel, Teflon, or disposable bailers. Subsequent sample collection and sample handling was performed in accordance with EPA protocols. Alternately, where applicable, wells were sampled utilizing no-purge methodology. All reused equipment was decontaminated in an integrated stainless steel sink with de-ionized water supplied Hotsy pressure washer and Liquinox or equivalent.

First Quarter Groundwater Monitoring at Chevron 90076, 4265 Foothill Blvd., Oakland, CA

SAN JOSE

SACRAMENTO

LOS ANGELES

SAN DIEGO

1660 ROGERS AVENUE

SAN JOSE, CA 95112-1105

(408) 573-0555

FAX (408) 573-7771

LIC. 746684

www.blainetech.com

Samples were delivered under chain-of-custody to Lancaster Laboratories of Lancaster, Pennsylvania, for analysis. Monitoring well purgewater and equipment rinsate water was collected and transported under bill-of-lading to Blaine Tech of San Jose, California.

Enclosed documentation from this event includes copies of the Well Gauging Sheet, Well Monitoring Data Sheets, and Chain-of-Custody.

Blaine Tech Services, Inc.'s activities at this site consisted of objective data and sample collection only. No interpretation of analytical results, defining of hydrogeologic conditions or formulation of recommendations was performed.

Please call if you have any questions.

Sincerely,



Dustin Becker
Blaine Tech Services, Inc.
Senior Project Manager

attachments: SOP
Well Gauging Sheet
Individual Well Monitoring Data Sheets
Wellhead Inspection Form
Bill of Lading
Calibration Log

cc: GHD
Attn: Nathan Lee
2300 Clayton Rd., Suite 920
Concord, CA 94520

First Quarter Groundwater Monitoring at Chevron 90076, 7265 Foothill Blvd., Oakland, CA

SAN JOSE

SACRAMENTO

LOS ANGELES

SAN DIEGO

1680 ROGERS AVENUE

SAN JOSE, CA 95112-1105

(408) 573-0555

FAX (408) 573-7771

LIC. 746684

www.blainetech.com

BLAINE TECH SERVICES, INC. METHODS AND PROCEDURES FOR THE ROUTINE MONITORING OF GROUNDWATER WELLS AT CHEVRON SITES

Blaine Tech Services, Inc. performs environmental sampling and documentation as an independent third party. We specialize in groundwater monitoring assignments and intentionally limit the scope of our services to those centered on the generation of objective information.

To avoid conflicts of interest, Blaine Tech Services, Inc. personnel do not evaluate or interpret the information we collect. As a state licensed contractor (C-57 well drilling –water – 746684) performing strictly technical services, we do not make any professional recommendations and perform no consulting of any kind.

SAMPLING PROCEDURES OVERVIEW

SAFETY

All groundwater monitoring assignments performed for Chevron comply with Chevron's safety guidelines, 29 CFR 1910.120 and SB-198 Injury and Illness Prevention Program (IIPP). All Field Technicians receive the full 40-hour 29CFR 1910.120 OSHA SARA HAZWOPER course, medical clearance and on-the-job training prior to commencing any work on any Chevron site.

INSPECTION AND GAUGING

Wells are inspected prior to evacuation and sampling. The condition of the wellhead is checked and noted according to a wellhead inspection checklist.

Standard measurements include the depth to water (DTW) and the total well depth (TD) obtained with industry standard electronic water level indicators that are graduated in increments of hundredths of a foot.

The water in each well is inspected for the presence of immiscibles. When free product is suspected, its presence is confirmed using an electronic interface probe (e.g. GeoTech). No samples are collected from a well containing product.

TRADITIONAL PURGING & SAMPLING

Evacuation

Depth to water measurements are collected by our personnel prior to purging and minimum purge volumes are calculated anew for each well based on the height of the water column and the diameter of the well. Expected purge volumes are never less than three case volumes and are set at no less than four case volumes in some jurisdictions.

Well purging devices are selected on the basis of the well diameter and the total volume to be evacuated. In most cases the well will be purged using an electric submersible pump (i.e. Grundfos) suspended near (but not touching) the bottom of the well.

Parameter Stabilization

Well purging completion standards include minimum purge volumes, but additionally require stabilization of specific groundwater parameters prior to sample collection. Typical groundwater parameters used to measure stability are electrical conductivity, pH, and temperature. Instrument readings are obtained at regular intervals during the evacuation process (no less than once per case volume).

Stabilization standards for routine quarterly monitoring of fuel sites include the following: Temperature is considered to have stabilized when successive readings do not fluctuate more than ± 1 degree Celsius. Electrical conductivity is considered stable when successive readings are within 10%. pH is considered to be stable when successive readings remain constant or vary no more than 0.2 of a pH unit.

Sample Collection

All samples are collected using disposable bailers.

Sample Containers

Sample material is decanted directly from the sampling bailer into sample containers provided by the laboratory that will analyze the samples. The transfer of sample material from the bailer to the sample container conforms to specifications contained in the USEPA T.E.G.D. The type of sample container, material of construction, method of closure and filling requirements are specific to the intended analysis. Chemicals needed to preserve the sample material are commonly placed inside the sample containers by the laboratory or glassware vendor prior to delivery of the bottle to our personnel. The laboratory sets the number of replicate containers.

Dewatered Wells

Normal evacuation removes no less than three case volumes of water from the well. However, less water may be removed in cases where the well dewateres and does not immediately recharge.

Measuring Recharge

Upon completion of well purging, a depth to water measurement is collected and notated to ensure that the well has recharged to within 80% of its static, pre-purge level prior to sampling.

Wells that do not immediately show 80% recharge or dewatered wells will be allowed approximately 2 hours to recharge prior to sampling or will be sampled at site departure. All wells requiring off-site traffic control in the public right-of-way, the 80% recharge rule may be disregarded in the interests of Health and Safety. The sample may be collected as soon as there is sufficient water. The water level at time of sampling will be noted.

Dissolved Oxygen Measurements

Dissolved Oxygen readings are taken pre- and/or post-purge using YSI meters (e.g. YSI Model 550) or HACH field test kits.

The YSI meters are able to collect accurate in-situ readings. The probe allows downhole measurements to be taken from wells with diameters as small as two inches. The probe and reel is decontaminated between wells as described above. The meter is calibrated

as per the instructions in the operating manual. The probe is lowered into the water column and the reading is allowed to stabilize prior to collection.

Oxidation Reduction Potential Measurements (ORP)

All readings are obtained with either Corning or Myron-L meters (e.g. Corning ORP-65 or a Myron-L Ultrameter). The meter is cleaned between wells as described above. The meter is calibrated at the start of each day according to the instruction manual.

LOW FLOW SAMPLING USING SAMPLE-PRO BLADDER PUMP

Calibration

Calibrate YSI Flow Cell as per manufacturer's specifications. Thoroughly rinse probe and cup between parameters. Calibration order as follows:

1. pH (use 3-point calibration of 7, 4, 10)
2. Specific Conductance
3. Temperature

Purging & Sampling Collection

1. Insert new bladder into Sample-Pro pump housing.
2. Remove dedicated PE tubing from the well or start with new PE tubing cut to the required length.
3. Attach the PE tubing to the Sample-Pro Bladder Pump.
4. Gently lower the Sample-Pro Bladder Pump, and PE tubing into the well, placing the Sample-Pro Bladder Pump intake at the specified screened interval. Take care to minimize disturbance to the water column.
5. Direct effluent line into YSI 556 Flow Cell.
6. Set Sample-Pro Bladder Pump speed at 100 - 500 ml/min.
7. Collect water quality parameter measurements for temperature, pH, conductivity, turbidity, DO and ORP every 3-5 minutes.
8. Monitor drawdown during purging with electronic water level meter. Record water level with each parameter measurement. **MAXIMUM DRAWDOWN IS 0.33 FEET.**
9. Collect parameter measurements until stability is achieved. Stability is defined as three consecutive measurements where:

Temp	± 1 ° Celsius
pH	± 0.1
Conductivity	± 3%

10. Sample may be collected once one system has been removed and stability readings have been achieved after the system volume has been removed.
11. Disconnect effluent line from YSI 556 Flow Cell.
12. Sample through effluent line while maintaining constant flow rate.
13. Remove Sample-Pro Bladder Pump, and PE tubing from well.
14. Detach and reinstall dedicated PE tubing in well.

PURGEWATER CONTAINMENT

All non-hazardous purgewater evacuated from each groundwater monitoring well is captured and contained in on-board storage tanks on the Sampling Vehicle and/or special water hauling trailers. Effluent from the decontamination of reusable apparatus (sounders, electric pumps and hoses etc.), consisting of groundwater combined with deionized water and non-phosphate soap, is also captured and pumped into effluent tanks.

Non-hazardous purgewater is transported under standard Bill of Lading or Non-Hazardous Waste Manifest to a Blaine Tech Services, Inc. facility before being transported to a Chevron approved disposal facility

TRIP BLANKS

Trip Blanks, if requested, are taken to the site and kept inside the sample cooler for the duration of the event. They are turned over to the laboratory for analysis with the samples from that site.

DUPLICATES

Duplicates, if requested, may be collected at a site.

SAMPLE STORAGE

All sample containers are promptly placed in food grade ice chests for storage in the field and transport (direct or via our facility) to the designated analytical laboratory. These ice chests contain quantities of restaurant grade ice as a refrigerant material. The samples are maintained in either an ice chest or a refrigerator until relinquished into the custody of the laboratory or laboratory courier.

DOCUMENTATION CONVENTIONS

A label must be affixed to all sample containers. In most cases these labels are generated by our office personnel and are partially preprinted. Labels can also be hand written by our field personnel. The site is identified with the store number and site address, as is the particular groundwater well from which the sample is drawn (e.g. MW-1, MW-2, S-1 etc.). The time and date of sample collection along with the initials of the person who collects the sample are handwritten onto the label. Field documentation is contemporaneous.

DECONTAMINATION

All equipment is brought to the site in clean and serviceable condition and is cleaned after use in each well and before subsequent use in any other well. Equipment such as hose reels, pumps and bailers is decontaminated before leaving the site.

The primary decontamination device is a commercial steam cleaner. The steam cleaner is de-tuned to function as a hot pressure washer that is then operated with high quality deionized water that is produced at our facility and stored onboard our sampling vehicle. Cleaning is facilitated by the use of proprietary fixtures and devices included in the patented workstation (U.S. Patent 5,535,775) that is incorporated in each sampling vehicle.

Any sensitive equipment or parts (i.e. Dissolved Oxygen sensor membrane, water level

indicator, etc.) that cannot be washed using the high pressure water, will be sprayed with a non-phosphate soap and deionized water solution and rinsed with deionized water.

FERROUS IRON MEASUREMENTS

All field measurements are collected at time of sampling with a HACH test kit.

WELL GAUGING DATA

Project # 160308-BW1 Date 3/8/16 Client Chevron

Site 4265 Foothill Blvd. Oakland

Well ID	Time	Well Size (in.)	Sheen / Odor	Depth to Immiscible Liquid (ft.)	Thickness of Immiscible Liquid (ft.)	Volume of Immiscibles Removed (ml)	Depth to water (ft.)	Depth to well bottom (ft.)	Survey Point: TOB or TOC	Notes
C-1	0852	3					9.92	37.94		
C-2	0856	3					11.91	36.31		
C-3	0848	3					19.65	39.16		
C-4	0900	3					9.22	36.40		
C-5	0904	2					18.98	44.13		
C-6	0840	2					20.54	53.58		
C-7	* Unable to Access @ Client Request - No Access Agreement									
C-8	0830	2					25.23	55.99		
C-9	* Unable to Access @ Client Request - No Access Agreement									
C-10	0844	2					7.22	29.83		
C-11	0835	2					13.00	19.62		
C-13	0908	2					12.21	18.98		

CHEVRON WELL MONITORING DATA SHEET

Project #: 160308-BW1	Station #: 9-0076
Sampler: BW	Date: 3/8/16
Weather: Clear	Ambient Air Temperature: 60°F
Well I.D.: C-1	Well Diameter: 2 (3) 4 6 8
Total Well Depth: 4.92 37.94	Depth to Water: 9.92 31.94
Depth to Free Product: —	Thickness of Free Product (feet): —
Referenced to: <u>PVC</u> Grade	D.O. Meter (if req'd): YSI HACH
DTW with 80% Recharge [(Height of Water Column x 0.20) + DTW]: 15.52	

Purge Method: Bailer Waterra Sampling Method: Bailer
 Disposable Bailer Peristaltic ☒ Disposable Bailer
 Positive Air Displacement Extraction Pump Extraction Port
☒ Electric Submersible Other _____ Dedicated Tubing
 Other: _____

10.4 (Gals.) X 3 = 31.2 Gals.
 1 Case Volume Specified Volumes Calculated Volume

Well Diameter	Multiplier	Well Diameter	Multiplier
1"	0.04	4"	0.65
2"	0.16	6"	1.47
3"	0.37	Other	radius ² * 0.163

Time	Temp (°F)	pH	Cond. (mS or μ S)	Turbidity (NTUs)	Gals. Removed	Observations
1155	66.2	6.88	819	69	10.4	ODOR
* Dewatered @ 15.0 gallons						
1435	67.1	6.90	907	14	—	

Did well dewater? Yes No Gallons actually evacuated: 15.0

Sampling Date: 3/8/16 Sampling Time: 1435 Depth to Water: 10.12

Sample I.D.: C-1 Laboratory: Lancaster Other _____

Analyzed for: TPH-G BTEX MTBE OXYS Other: See COC

Duplicate I.D.: Analyzed for: TPH-G BTEX MTBE OXYS Other:

D.O. (if req'd):	Pre-purge:	mg/L	Post-purge:	mg/L
O.R.P. (if req'd):	Pre-purge:	mV	Post-purge:	mV

CHEVRON WELL MONITORING DATA SHEET

Project #: 160308- BW1	Station #: 9-0076
Sampler: BW	Date: 3/8/16
Weather: Clear	Ambient Air Temperature: 60°F
Well I.D.: C-2	Well Diameter: 2 (3) 4 6 8
Total Well Depth: 36.31	Depth to Water: 11.91
Depth to Free Product: —	Thickness of Free Product (feet): —
Referenced to: PVC Grade	D.O. Meter (if req'd): YSI HACH
DTW with 80% Recharge [(Height of Water Column x 0.20) + DTW]: 16.79	

Purge Method:

☐ Bailer
☐ Disposable Bailer
☐ Positive Air Displacement
☒ Electric Submersible

☐ Waterra
☐ Peristaltic
☐ Extraction Pump
☐ Other

Sampling Method:

☐ Bailer
☒ Disposable Bailer
☐ Extraction Port
☐ Dedicated Tubing
☐ Other

9.1 (Gals.) X	3	=	27.3	Gals.
1 Case Volume	Specified Volumes		Calculated Volume	

Well Diameter	Multiplier	Well Diameter	Multiplier
1"	0.04	4"	0.65
2"	0.16	6"	1.47
3"	0.37	Other	radius ² * 0.163

Time	Temp (°F)	pH	Cond. (mS or μS)	Turbidity (NTUs)	Gals. Removed	Observations
1225	64.1	6.90	826	128	9.1	ODOR/SHEEN
	* Dewatered @ 10.0 gallons					
1450	65.2	6.97	903	24	—	ODOR/SHEEN

Did well dewater? ☒ Yes ☐ No Gallons actually evacuated: 10.0

Sampling Date: 3/8/16 Sampling Time: 1450 Depth to Water: 12.36

Sample I.D.: C-2 Laboratory: Lancaster Other: —

Analyzed for: TPH-G BTEX MTBE OXYS Other: See LOC

Duplicate I.D.: Analyzed for: TPH-G BTEX MTBE OXYS Other: —

D.O. (if req'd):	Pre-purge:	mg/L	Post-purge:	mg/L
O.R.P. (if req'd):	Pre-purge:	mV	Post-purge:	mV

CHEVRON WELL MONITORING DATA SHEET

Project #: 160308-BW1	Station #: 9-0076
Sampler: BW	Date: 3/8/16
Weather: Clear	Ambient Air Temperature: 60°F
Well I.D.: C-3	Well Diameter: 2 ③ 4 6 8
Total Well Depth: 39.16	Depth to Water: 19.65
Depth to Free Product: —	Thickness of Free Product (feet): —
Referenced to: PVC Grade	D.O. Meter (if req'd): YSI HACH
DTW with 80% Recharge [(Height of Water Column x 0.20) + DTW]: 23.55	

Purge Method:

☐ Bailer
☐ Disposable Bailer
☐ Positive Air Displacement
☒ Electric Submersible

☐ Waterra
☐ Peristaltic
☐ Extraction Pump
☐ Other

Sampling Method:

☐ Bailer
☒ Disposable Bailer
☐ Extraction Port
☐ Dedicated Tubing

Other:

7.2 (Gals.) X	3	=	21.6	Gals.
1 Case Volume	Specified Volumes		Calculated Volume	

Well Diameter	Multiplier	Well Diameter	Multiplier
1"	0.04	4"	0.65
2"	0.16	6"	1.47
3"	0.37	Other	radius ² * 0.163

Time	Temp (°F)	pH	Cond. (mS or µS)	Turbidity (NTUs)	Gals. Removed	Observations
1130	67.0	7.02	716	20	7.2	
1133	67.8	6.79	913	19	14.4	
	* Dewatered @		16.0 gallons			
1420	67.2	6.88	917	10	—	

Did well dewater? ☒ Yes ☐ No Gallons actually evacuated: 16.0

Sampling Date: 3/8/16 Sampling Time: 1420 Depth to Water: 20.12

Sample I.D.: C-3 Laboratory: Lancaster Other: —

Analyzed for: TPH-G BTEX MTBE OXYS Other: See COC

Duplicate I.D.: Analyzed for: TPH-G BTEX MTBE OXYS Other:

D.O. (if req'd):	Pre-purge:	mg/L	Post-purge:	mg/L
O.R.P. (if req'd):	Pre-purge:	mV	Post-purge:	mV

CHEVRON WELL MONITORING DATA SHEET

Project #: 160308-BW1	Station #: 9-0076
Sampler: BW	Date: 3/8/16
Weather: Overcast	Ambient Air Temperature: 60°F
Well I.D.: C-4	Well Diameter: 2 (3) 4 6 8
Total Well Depth: 36.40	Depth to Water: 9.22
Depth to Free Product: —	Thickness of Free Product (feet): —
Referenced to: (PVC) Grade 2 ft. 18	D.O. Meter (if req'd): YSI HACH
DTW with 80% Recharge [(Height of Water Column x 0.20) + DTW]: 14.66	

Purge Method:

Bailer
 Disposable Bailer /
 Positive Air Displacement
 Electric Submersible

Waterra
 Peristaltic
 Extraction Pump
 Other _____

Sampling Method:

Bailer
 Disposable Bailer
 Extraction Port
 Dedicated Tubing

Other: _____

10.1	(Gals.) X	3	=	30.3	Gals.
1 Case Volume	Specified Volumes	Calculated Volume			

Well Diameter	Multiplier	Well Diameter	Multiplier
1"	0.04	4"	0.65
2"	0.16	6"	1.47
3"	0.37	Other	radius ² * 0.163

Time	Temp (°F)	pH	Cond. (mS or μ S)	Turbidity (NTUs)	Gals. Removed	Observations
1250	65.1	7.04	865	30	10.1	
						* Dewatered @ 15.0 gallons
1510	66.2	6.98	936	14	—	

Did well dewater? (Yes) No Gallons actually evacuated: 15.0

Sampling Date: 3/8/16 Sampling Time: 1510 Depth to Water: 11.88

Sample I.D.: C-4 Laboratory: Lancaster Other: _____

Analyzed for: TPH-G BTEX MTBE OXYS Other: See COC

Duplicate I.D.: Analyzed for: TPH-G BTEX MTBE OXYS Other: _____

D.O. (if req'd):	Pre-purge:	mg/L	Post-purge:	mg/L
O.R.P. (if req'd):	Pre-purge:	mV	Post-purge:	mV

CHEVRON WELL MONITORING DATA SHEET

Project #: 160308-BW1	Station #: 9-0076
Sampler: BW	Date: 3/8/16
Weather: Overcast	Ambient Air Temperature: 60°F
Well I.D.: C-5	Well Diameter: (2) 3 4 6 8
Total Well Depth: 44.13	Depth to Water: 18.98
Depth to Free Product: —	Thickness of Free Product (feet): —
Referenced to: (PVC) Grade	D.O. Meter (if req'd): YSI HACH
DTW with 80% Recharge [(Height of Water Column x 0.20) + DTW]: 24.01	

Purge Method:

☐ Bailer
☐ Disposable Bailer
☐ Positive Air Displacement
☒ Electric Submersible

☐ Waterra
☐ Peristaltic
☐ Extraction Pump
☐ Other _____

Sampling Method:

☐ Bailer
☒ Disposable Bailer
☐ Extraction Port
☐ Dedicated Tubing
 Other: _____

4.0	(Gals.) X	3	=	12.0	Gals.
1 Case Volume		Specified Volumes		Calculated Volume	

Well Diameter	Multiplier	Well Diameter	Multiplier
1"	0.04	4"	0.65
2"	0.16	6"	1.47
3"	0.37	Other	radius ² * 0.163

Time	Temp (°F)	pH	Cond. (mS or μ S)	Turbidity (NTUs)	Gals. Removed	Observations
1315	64.0	7.08	743	319	4.0	cloudy
1317	65.5	6.97	713	127	8.0	cloudy
1319	66.0	6.95	709	115	12.0	cloudy

Did well dewater? Yes ☒ No ☐ Gallons actually evacuated: 12.0

Sampling Date: 3/8/16 Sampling Time: 1320 Depth to Water: 19.04

Sample I.D.: C-5 Laboratory: Lancaster Other: _____

Analyzed for: TPH-G BTEX MTBE OXYS Other: See COC

Duplicate I.D.: Analyzed for: TPH-G BTEX MTBE OXYS Other: _____

D.O. (if req'd):	Pre-purge:	mg/L	Post-purge:	mg/L
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O.R.P. (if req'd):	Pre-purge:	mV	Post-purge:	mV
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CHEVRON WELL MONITORING DATA SHEET

Project #: 160308-BW1	Station #: 9-0076
Sampler: BW	Date: 3/8/16
Weather: Clear	Ambient Air Temperature: 60°F
Well I.D.: C-6	Well Diameter: (2) 3 4 6 8
Total Well Depth: 53.58	Depth to Water: 20.54
Depth to Free Product: —	Thickness of Free Product (feet): —
Referenced to: PVC Grade	D.O. Meter (if req'd): YSI HACH
DTW with 80% Recharge [(Height of Water Column x 0.20) + DTW]: ^{33.04} 27.15	

Purge Method:

- ☐ Bailer
☐ Disposable Bailer
☐ Positive Air Displacement
☒ Electric Submersible
- ☐ Waterra
☐ Peristaltic
☐ Extraction Pump
☐ Other:

Sampling Method:

- ☐ Bailer
☒ Disposable Bailer
☐ Extraction Port
☐ Dedicated Tubing

Other: _____

5.3 (Gals.) X	3	=	15.9	Gals.
1 Case Volume	Specified Volumes		Calculated Volume	

Well Diameter	Multiplier	Well Diameter	Multiplier
1"	0.04	4"	0.65
2"	0.16	6"	1.47
3"	0.37	Other	radius ² * 0.163

Time	Temp (°F)	pH	Cond. (mS or μS)	Turbidity (NTUs)	Gals. Removed	Observations
0950	66.7	6.93	750	58	5.3	
						* Dewatered @ 7.0 gallons
1340	67.1	6.96	781	20	—	

Did well dewater? ☒ Yes ☐ No Gallons actually evacuated: 7.0

Sampling Date: 3/8/16 Sampling Time: 1340 Depth to Water: 21.06

Sample I.D.: C-6 Laboratory: Lancaster Other: _____

Analyzed for: TPH-G BTEX MTBE OXYS Other: See COC

Duplicate I.D.: Analyzed for: TPH-G BTEX MTBE OXYS Other: _____

D.O. (if req'd):	Pre-purge:	mg/L	Post-purge:	mg/L
O.R.P. (if req'd):	Pre-purge:	mV	Post-purge:	mV

CHEVRON WELL MONITORING DATA SHEET

Project #: 160308 - BW1	Station #: 9-0076
Sampler: BW	Date: 3/8/16
Weather: Overcast	Ambient Air Temperature: 60° F
Well I.D.: C-7	Well Diameter: 2 3 4 6 8 _____
Total Well Depth:	Depth to Water:
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: PVC Grade	D.O. Meter (if req'd): YSI HACH
DTW with 80% Recharge [(Height of Water Column x 0.20) + DTW]:	

Purge Method:

☒ Bailer
☐ Disposable Bailer
☐ Positive Air Displacement
☐ Electric Submersible
☐ Waterra
☐ Peristaltic
☐ Extraction Pump
☐ Other _____

Sampling Method:

☒ Bailer
☐ Disposable Bailer
☐ Extraction Port
☐ Dedicated Tubing
☐ Other: _____

_____ (Gals.) X _____	=	_____ Gals.
1 Case Volume	Specified Volumes	Calculated Volume

Well Diameter	Multiplier	Well Diameter	Multiplier
1"	0.04	4"	0.65
2"	0.16	6"	1.47
3"	0.37	Other	radius ² * 0.163

Time	Temp (°F)	pH	Cond. (mS or µS)	Turbidity (NTUs)	Gals. Removed	Observations
* Unable to Access per Client - No Access Agreement						
* No Sample Collected						

Did well dewater? Yes ☒ No ☐ Gallons actually evacuated: _____

Sampling Date: _____ Sampling Time: _____ Depth to Water: _____

Sample I.D.: _____ Laboratory: Lancaster Other: _____

Analyzed for: TPH-G BTEX MTBE OXYS Other: _____

Duplicate I.D.: _____ Analyzed for: TPH-G BTEX MTBE OXYS Other: _____

D.O. (if req'd):	Pre-purge:	mg/L	Post-purge:	mg/L
O.R.P. (if req'd):	Pre-purge:	mV	Post-purge:	mV

CHEVRON WELL MONITORING DATA SHEET

Project #: 160308-BW1	Station #: 9-0076
Sampler: BW	Date: 3/8/16
Weather: Clear	Ambient Air Temperature: 60°F
Well I.D.: C-8	Well Diameter: (2) 3 4 6 8
Total Well Depth: 55.99	Depth to Water: 25.23
Depth to Free Product: -	Thickness of Free Product (feet): -
Referenced to: PVC Grade 36.76	D.O. Meter (if req'd): YSI HACH
DTW with 80% Recharge [(Height of Water Column x 0.20) + DTW]: 31.38	

Purge Method:

☐ Bailer
☐ Disposable Bailer
☐ Positive Air Displacement
☒ Electric Submersible

Sampling Method:

☐ Bailer
☒ Disposable Bailer
☐ Extraction Port
☐ Dedicated Tubing

Other: _____

4.9 (Gals.) X	3	=	14.7	Gals.
1 Case Volume	Specified Volumes		Calculated Volume	

Well Diameter	Multiplier	Well Diameter	Multiplier
1"	0.04	4"	0.65
2"	0.16	6"	1.47
3"	0.37	Other	radius ² * 0.163

Time	Temp (°F)	pH	Cond. (mS or μS)	Turbidity (NTUs)	Gals. Removed	Observations
1004	67.4	6.93	1214	163	5.0	
1006	67.1	6.85	1274	121	10.0	
1008	66.9	6.90	1298	124	15.0	

Did well dewater? Yes ☒ No ☐ Gallons actually evacuated: 15.0

Sampling Date: 3/8/16 Sampling Time: 1010 Depth to Water: 25.64

Sample I.D.: C-8 Laboratory: Lancaster Other: _____

Analyzed for: TPH-G BTEX MTBE OXYS Other: See COC

Duplicate I.D.: Analyzed for: TPH-G BTEX MTBE OXYS Other: _____

D.O. (if req'd):	Pre-purge:	mg/L	Post-purge:	mg/L
O.R.P. (if req'd):	Pre-purge:	mV	Post-purge:	mV

CHEVRON WELL MONITORING DATA SHEET

Project #: 1160308-BW1	Station #: 9-0076
Sampler: BW	Date: 3/8/16
Weather: Overcast	Ambient Air Temperature: 60°F
Well I.D.: C-9	Well Diameter: 2 3 4 6 8 ____
Total Well Depth:	Depth to Water:
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: PVC Grade	D.O. Meter (if req'd): YSI HACH
DTW with 80% Recharge [(Height of Water Column x 0.20) + DTW]:	

Purge Method:

☐ Bailer
☐ Disposable Bailer
☐ Positive Air Displacement
☐ Electric Submersible
☐ Waterra
☐ Peristaltic
☐ Extraction Pump
☐ Other:

Sampling Method:

☐ Bailer
☐ Disposable Bailer
☐ Extraction Port
☐ Dedicated Tubing
☐ Other:

(Gals.) X	=	Gals.
I Case Volume	Specified Volumes	Calculated Volume

Well Diameter	Multiplier	Well Diameter	Multiplier
1"	0.04	4"	0.65
2"	0.16	6"	1.47
3"	0.37	Other	radius ² * 0.163

Time	Temp (°F)	pH	Cond. (mS or µS)	Turbidity (NTUs)	Gals. Removed	Observations
* Unable to Access per Client - No Access Agreement						
* No Sample Collected						

Did well dewater? Yes No Gallons actually evacuated:

Sampling Date:	Sampling Time:	Depth to Water:
Sample I.D.:	Laboratory:	Lancaster Other:
Analyzed for: TPH-G BTEX MTBE OXYS Other:		
Duplicate I.D.:	Analyzed for: TPH-G BTEX MTBE OXYS Other:	
D.O. (if req'd):	Pre-purge: mg/L	Post-purge: mg/L
O.R.P. (if req'd):	Pre-purge: mV	Post-purge: mV

CHEVRON WELL MONITORING DATA SHEET

Project #: 160308-BW1	Station #: 9-0076
Sampler: BW	Date: 3/8/16
Weather: Clear	Ambient Air Temperature: 60°F
Well I.D.: C-10	Well Diameter: (2) 3 4 6 8
Total Well Depth: 29.83	Depth to Water: 7.22
Depth to Free Product: —	Thickness of Free Product (feet): —
Referenced to: (PVC) Grade	D.O. Meter (if req'd): YSI HACH
DTW with 80% Recharge [(Height of Water Column x 0.20) + DTW]: 11.74	

Purge Method:

☐ Bailer
☐ Disposable Bailer
☐ Positive Air Displacement
☒ Electric Submersible

☐ Waterra
☐ Peristaltic
☐ Extraction Pump
☐ Other:

Sampling Method:

☐ Bailer
☒ Disposable Bailer
☐ Extraction Port
☐ Dedicated Tubing

Other: _____

3.6 (Gals.)	X	3	=	10.8	Gals.
1 Case Volume		Specified Volumes		Calculated Volume	

Well Diameter	Multiplier	Well Diameter	Multiplier
1"	0.04	4"	0.65
2"	0.16	6"	1.47
3"	0.37	Other	radius ² * 0.163

Time	Temp (°F)	pH	Cond. (mS or μS)	Turbidity (NTUs)	Gals. Removed	Observations
1100	68.7	7.57	596	87	3.6	
1102	69.0	7.28	620	96	7.2	
1104	69.4	7.19	623	102	11.0	

Did well dewater? Yes ☒ No ☐ Gallons actually evacuated: 11.0

Sampling Date: 3/8/16 Sampling Time: 1110 Depth to Water: 8.12

Sample I.D.: C-10 Laboratory: Lancaster Other: _____

Analyzed for: TPH-G BTEX MTBE OXYS Other: See COC

Duplicate I.D.: Analyzed for: TPH-G BTEX MTBE OXYS Other: _____

D.O. (if req'd):	Pre-purge:	mg/L	Post-purge:	mg/L
O.R.P. (if req'd):	Pre-purge:	mV	Post-purge:	mV

CHEVRON WELL MONITORING DATA SHEET

Project #: 160308-BW1	Station #: 9-0076
Sampler: BW	Date: 3/8/16
Weather: Clear	Ambient Air Temperature: 58°F
Well I.D.: C-11	Well Diameter: (2) 3 4 6 8
Total Well Depth: 19.62	Depth to Water: 13.00
Depth to Free Product: -	Thickness of Free Product (feet): -
Referenced to: (PVC) Grade	D.O. Meter (if req'd): YSI HACH
DTW with 80% Recharge [(Height of Water Column x 0.20) + DTW]: 14.32	

Purge Method:

☐ Bailer
☒ Disposable Bailer
☐ Positive Air Displacement
☐ Electric Submersible
☐ Waterra
☐ Peristaltic
☐ Extraction Pump
☐ Other

Sampling Method:

☐ Bailer
☒ Disposable Bailer
☐ Extraction Port
☐ Dedicated Tubing
☐ Other

1.1	(Gals.) X	3	=	3.3	Gals.
1 Case Volume		Specified Volumes		Calculated Volume	

Well Diameter	Multiplier	Well Diameter	Multiplier
1"	0.04	4"	0.65
2"	0.16	6"	1.47
3"	0.37	Other	radius ² * 0.163

Time	Temp (°F)	pH	Cond. (mS or μ S)	Turbidity (NTUs)	Gals. Removed	Observations
0915	65.4	6.75	895	71000	1.1	
0917	66.0	6.72	901	71000	2.2	
0919	66.2	6.70	906	71000	3.3	Wait for 80% DTW 15.39

Did well dewater? Yes ☒ No ☐ Gallons actually evacuated: 3.3

Sampling Date: 3/8/16 Sampling Time: 0930 Depth to Water: 14.20

Sample I.D.: C-11 Laboratory: Lancaster Other

Analyzed for: TPH-G BTEX MTBE OXYS Other: See COC

Duplicate I.D.: Analyzed for: TPH-G BTEX MTBE OXYS Other:

D.O. (if req'd):	Pre-purge:	mg/L	Post-purge:	mg/L
O.R.P. (if req'd):	Pre-purge:	mV	Post-purge:	mV

CHEVRON WELL MONITORING DATA SHEET

Project #: 160308-BW1	Station #: 9-0076
Sampler: BW	Date: 3/8/16
Weather: Clear	Ambient Air Temperature: 60°F
Well I.D.: C-13	Well Diameter: (2) 3 4 6 8
Total Well Depth: 18.98	Depth to Water: 12.21
Depth to Free Product: -	Thickness of Free Product (feet): -
Referenced to: (PVC) Grade 6.77	D.O. Meter (if req'd): YSI HACH
DTW with 80% Recharge [(Height of Water Column x 0.20) + DTW]: 13.56	

Purge Method:

- ☒ Bailer
☒ Disposable Bailer
☐ Positive Air Displacement
☐ Electric Submersible
☐ Waterra
☐ Peristaltic
☐ Extraction Pump
☐ Other

Sampling Method:

- ☒ Bailer
☒ Disposable Bailer
☐ Extraction Port
☐ Dedicated Tubing
 Other:

1.1 (Gals.) X	3	=	3.3	Gals.
1 Case Volume	Specified Volumes		Calculated Volume	

Well Diameter	Multiplier	Well Diameter	Multiplier
1"	0.04	4"	0.65
2"	0.16	6"	1.47
3"	0.37	Other	radius ² * 0.163

Time	Temp (°F)	pH	Cond. (mS or μS)	Turbidity (NTUs)	Gals. Removed	Observations
1030	66.7	7.31	1617	71000	1.1	
1032	67.8	7.31	2049	71000	2.2	
1036	67.8	7.36	2096	71000	3.3	not 80%

Did well dewater? Yes ☒ No ☐ Gallons actually evacuated: 3.3

Sampling Date: 3/8/16 Sampling Time: 1400 Depth to Water: 16.92 (site departure)

Sample I.D.: C-13 Laboratory: Lancaster Other

Analyzed for: TPH-G BTEX MTBE OXYS Other: See COC

Duplicate I.D.: Analyzed for: TPH-G BTEX MTBE OXYS Other:

D.O. (if req'd):	Pre-purge:	mg/L	Post-purge:	mg/L
O.R.P. (if req'd):	Pre-purge:	mV	Post-purge:	mV

CHAIN OF CUSTODY FORM

Chevron Environmental Management Company ■ 6111 Bollinger Canyon Rd. ■ San Ramon, CA 94583

COC 1 of 2

Chevron Site Number: 90076 Chevron Site Global ID: T0600100339 Chevron Site Address: 4265 Foothill Blvd., Oakland, CA Chevron PM: Dave Patten Mark Horne Chevron PM Phone No.: (925) 790-3964 <input checked="" type="checkbox"/> Retail and Terminal Business Unit (RTBU) Job <input checked="" type="checkbox"/> Construction/Retail Job				Chevron Consultant: GHD Address: 2300 Clayton Rd., Site 920, Concord, CA Consultant Contact: Nathan Lee Consultant Phone No. 925-849-1003 Consultant Project No. 160308-BW1 Sampling Company: Blaine Tech Services Sampled By (Print): Brian Weeks Sampler Signature:				ANALYSES REQUIRED												
Charge Code: NWR TB-0098247-0-OML NWR TB 00SITE NUMBER-0- WBS (WBS ELEMENTS: SITE ASSESSMENT: A1L REMEDIATION IMPLEMENTATION: R5L SITE MONITORING: OML OPERATION MAINTENANCE & MONITORING: M1L THIS IS A LEGAL DOCUMENT. ALL FIELDS MUST BE FILLED OUT CORRECTLY AND COMPLETELY.				Lancaster Laboratories		Other Lab	Temp. Blank Check Time Temp.		H H EPA 8260B/GC/MS TPH-G <input type="checkbox"/> BTEX <input type="checkbox"/> MTBE <input type="checkbox"/> OXYGENATES <input type="checkbox"/> HVOC <input type="checkbox"/> EPA 8015B GRO <input type="checkbox"/> DRO <input type="checkbox"/> ORO <input type="checkbox"/> HC SCREEN <input type="checkbox"/> EPA 8021B BTEX <input type="checkbox"/> MTBE <input type="checkbox"/> EPA 6010 Ca, Fe, K, Mg, Mn, Na EPA 8010/7000 TITILE 22 METALS <input type="checkbox"/> TLCC <input type="checkbox"/> STLC <input type="checkbox"/> EPA 150.1 PH <input type="checkbox"/> SM2510B SPECIFIC CONDUCTIVITY EPA 418.1 TRPH <input type="checkbox"/> EPA 8260 ETHANOL EPA 8015 TPH-O <input type="checkbox"/>											
				2425 New Holland Pike, Lancaster, PA 17601 Phone No: (717)656-2300			0800 4°C 1000 4°C 1200 4°C 1400 4°C 1600 4°C		Preservation Codes H = HCL T = Thiosulfate N = HNO ₃ B = NaOH S = H ₂ SO ₄ O = Other Special Instructions Must meet lowest detection limits possible for 8260 compounds.											
SAMPLE ID				Sample Time	# of Containers	Container Type	Notes/Comments													
Field Point Name	Matrix	Top Depth	Date (yymmdd)																	
C-1	WG		160308	1435	6	VOA														
C-2	WG			1450	6	VOA														
C-3	WG			1420	6	VOA														
C-4	WG			1510	6	VOA														
C-5	WG			1320	6	VOA														
C-6	WG			1340	6	VOA														
C-8	WG			1010	6	VOA														
C-10	WG			1110	6	VOA														
C-11	WG			0930	6	VOA														
C-13	WG			1400	6	VOA														
Relinquished By Company Date/Time: 3/8/16 @ 1645				Relinquished To Company Date/Time: 3/8/16 @ 1645				Turnaround Time: Standard <input checked="" type="checkbox"/> 24 Hours <input type="checkbox"/> 48 hours <input type="checkbox"/> 72 Hours <input type="checkbox"/> Other <input type="checkbox"/>												
Relinquished By _____ Company _____ Date/Time _____				Relinquished To _____ Company _____ Date/Time _____				Sample Integrity: (Check by lab on arrival) Intact: _____ On Ice: _____ Temp: _____												
Relinquished By _____ Company _____ Date/Time _____				Relinquished To _____ Company _____ Date/Time _____				COC # _____												

Chevron Environmental Management Company ■ 6111 Bollinger Canyon Rd. ■ San Ramon, CA 94583

COC 2 of 2

[illegible]

WELLHEAD INSPECTION CHECKLIST

Page 1 of 1

Client Chevron Date 3/8/16
 Site Address 4265 Foothill Blvd. Oakland
 Job Number 160308-BW1 Technician BW

Well ID	Well Inspected - No Corrective Action Required	WELL IS SECURABLE BY DESIGN (12" or less)	WELL IS CLEARLY MARKED WITH THE WORDS "MONITORING WELL" (12" or less)	Water Bailed From Wellbox	Wellbox Components Cleaned	Cap Replaced	Lock Replaced	Other Action Taken (explain below)	Well Not Inspected (explain below)	Repair Order Submitted
C-1								X		
C-2								X		
C-3								X		
C-4								X		
C-5								X		
C-6								x		
C-7	*Unable to access @ Client - No Access Agreement									
C-8								X		
C-9	*Unable to Access @ Client - No Access Agreement									
C-10	X	X	X							
C-11	X	X	X							
C-13	X	X	X							

NOTES: C-6, C-8 : Christy Box C-1: Christy Box
 C-2: Vault missing 2 1/2 Bolts, C-3: 1 1/2 Tabs Shipped, C-4: 2 1/2 Tabs Shipped
 C-5: 2 1/2 Tabs Shipped,
 C-2: Slip Cap 3", no lock

SOURCE RECORD BILL OF LADING
 FOR PURGEWATER RECOVERED FROM
 GROUNDWATER WELLS AT CHEVRON FACILITIES IN
 THE STATE OF CALIFORNIA. THE PURGE- WATER
 WHICH HAS BEEN RECOVERED FROM GROUND-
 WATER WELLS IS COLLECTED BY THE CONTRACTOR
 AND HAULED TO THEIR FACILITY IN SAN JOSE,
 CALIFORNIA FOR TEMPORARILY HOLDING PENDING
 TRANSPORT BY OTHERS TO FINAL DESTINATION.

The contractor performing this work is BLAINE TECH SERVICES, INC. (BLAINE TECH), 1680 Rogers Ave. San Jose CA (408) 573-0555. BLAINE TECH. is authorized by Chevron Environmental Management Company (CHEVRON EMC) to recover, collect, apportion into loads, and haul the purgewater that is drawn from wells at the CHEVRON EMC facility indicated below and to deliver that purgewater to BLAINE TECH for temporarily holding. Transport routing of the purgewater may be direct from one CHEVRON EMC facility to BLAINE TECH; from one CHEVRON EMC facility to BLAINE TECH via another CHEVRON EMC facility; or any combination thereof. The well purgewater is and remains the property of CHEVRON EMC.

This **Source Record BILL OF LADING** was initiated to cover the recovery of Non-Hazardous Well Purgewater from wells at the Chevron facility described below:

9-0076 Mark Horne
 CHEVRON # Chevron Engineer

4765 Foothill Blvd Oakland CA
 street number street name city state

WELL I.D.	GALS.	WELL I.D.	GALS.
C-1	15	C-11	4
C-2	10	C-13	4
C-3	16		
C-4	15		
C-5	12		
C-6	7		
C-8	15		
C-10	11		
added equip.		any other	
rinse water	5	adjustments	
TOTAL GALS.		loaded onto	
RECOVERED	114	BTS vehicle #	94
BTS event #	160308-BL01	time	1530
date	3/8/16	date	3/8/16
Transporter signature			

REC'D AT	BTS-SS	time	1630
date	3/8/16	date	3/8/16
Unloaded/received by			
signature			

TEST EQUIPMENT CALIBRATION LOG

[illegible]

Appendix G

Analytical Laboratory Reports



Air Toxics

3/11/2016

Mr. Belew Yifru

GHD

5900 Hollis Street

Suite A

Emeryville CA 94608

Project Name: CHEVRON 90076

Project #: 311977

Workorder #: 1602576

Dear Mr. Belew Yifru

The following report includes the data for the above referenced project for sample(s) received on 2/29/2016 at Air Toxics Ltd.

The data and associated QC analyzed by Modified TO-17 VI are compliant with the project requirements or laboratory criteria with the exception of the deviations noted in the attached case narrative.

Thank you for choosing Eurofins Air Toxics Inc. for your air analysis needs. Eurofins Air Toxics Inc. is committed to providing accurate data of the highest quality. Please feel free to the Project Manager: Kyle Vagadori at 916-985-1000 if you have any questions regarding the data in this report.

Regards,

Kyle Vagadori

Project Manager

A Eurofins Lancaster Laboratories Company

Eurofins Air Toxics, Inc.

180 Blue Ravine Road, Suite B
Folsom, CA 95630

T | 916-985-1000
F | 916-985-1020
www.airtoxics.com

WORK ORDER #: 1602576

Work Order Summary

CLIENT:	Mr. Belew Yifru GHD 5900 Hollis Street Suite A Emeryville, CA 94608	BILL TO:	Accounts Payable Chevron U.S.A. Inc. 6001 Bollinger Canyon Road L4310 San Ramon, CA 94583
PHONE:	510-420-0700	P.O. #	NWENV00900760
FAX:	510-420-9170	PROJECT #	311977 CHEVRON 90076
DATE RECEIVED:	02/29/2016	CONTACT:	Kyle Vagadori
DATE COMPLETED:	03/11/2016		

<u>FRACTION #</u>	<u>NAME</u>	<u>TEST</u>
01A	VP-5	Modified TO-17 VI
02A	VP-6	Modified TO-17 VI
03A	VP-6 DUP	Modified TO-17 VI
04A	Lab Blank	Modified TO-17 VI
05A	CCV	Modified TO-17 VI
06A	LCS	Modified TO-17 VI
06AA	LCSD	Modified TO-17 VI

CERTIFIED BY:



Technical Director

DATE: 03/11/16

Certification numbers: AZ Licensure AZ0775, NJ NELAP - CA016, NY NELAP - 11291,
TX NELAP - T104704343-14-7, UT NELAP CA009332014-5, VA NELAP - 460197, WA NELAP - C935
Name of Accreditation Body: NELAP/ORELAP (Oregon Environmental Laboratory Accreditation Program)
Accreditation number: CA300005, Effective date: 10/18/2014, Expiration date: 10/17/2015.

Eurofins Air Toxics Inc.. certifies that the test results contained in this report meet all requirements of the NELAC standards

This report shall not be reproduced, except in full, without the written approval of Eurofins Air Toxics, Inc.

180 BLUE RAVINE ROAD, SUITE B FOLSOM, CA - 9563
(916) 985-1000 . (800) 985-5955 . FAX (916) 985-1020

LABORATORY NARRATIVE
Modified EPA Method TO-17 (VI Tubes)
GHD
Workorder# 1602576

Three TO-17 VI Tube samples were received on February 29, 2016. The laboratory performed the analysis via modified EPA Method TO-17 using GC/MS in the full scan mode. TO-17 'VI' sorbent tubes are thermally desorbed onto a secondary trap. The trap is thermally desorbed to elute the components into the GC/MS system for compound separation and detection.

A modification that may be applied to EPA Method TO-17 at the client's discretion is the requirement to transport sorbent tubes at 4 deg C. Laboratory studies demonstrate a high level of stability for VOCs on the TO-17 'VI' tube at room temperature for periods of up to 14 days. Tubes can be shipped to and from the field site at ambient conditions as long as the 14-day sample hold time is upheld. Trip blanks and field surrogate spikes are used as additional control measures to monitor recovery and background contribution during tube transport.

Since the TO-17 VI application significantly extends the scope of target compounds addressed in EPA Method TO-15 and TO-17, the laboratory has implemented several method modifications outlined in the table below. Specific project requirements may over-ride the laboratory modifications.

<i>Requirement</i>	<i>TO-17</i>	<i>ATL Modifications</i>
Initial Calibration	%RSD \leq 30% with 2 allowed out up to 40%	VOC list: %RSD \leq 30% with 2 allowed out up to 40% SVOC list: %RSD \leq 30% with 2 allowed out up to 40%
Daily Calibration	%D for each target compound within \pm 30%.	Fluorene, Phenanthrene, Anthracene, Fluoranthene, and Pyrene within \pm 40%D
Audit Accuracy	70-130%	Second source recovery limits for Fluorene, Phenanthrene, Anthracene, Fluoranthene, and Pyrene = 60-140%.
Distributed Volume Pairs	Collection of distributed volume pairs required for monitoring ambient air to insure high quality.	If site is well-characterized or performance previously verified, single tube sampling may be appropriate. Distributed pairs may be impractical for soil gas collection due to configuration and volume constraints.
Analytical Precision	\leq 20% RPD	\leq 30% RPD for Fluorene, Phenanthrene, Anthracene, Fluoranthene, and Pyrene.

Receiving Notes

The ice/coolant included in the sample shipment melted during transit, therefore the temperature at receipt was greater than 6 °C. Analysis proceeded.

The TO-17 VI tube for sample VP-6 was received with the cap loose on one side of the tube. Due to exposure to the environment, reported analyte concentrations are considered to be estimated.

Analytical Notes

A sampling volume of 0.200 L was used to convert ng to ug/m³ for the associated Lab Blank.

Definition of Data Qualifying Flags

Eight qualifiers may have been used on the data analysis sheets and indicates as follows:

B - Compound present in blank (subtraction not performed).

J - Estimated value.

E - Exceeds instrument calibration range.

S - Saturated peak.

Q - Exceeds quality control limits.

U - Compound analyzed for but not detected above the reporting limit, LOD, or MDL value. See data page for project specific U-flag definition.

UJ- Non-detected compound associated with low bias in the CCV

N - The identification is based on presumptive evidence.

File extensions may have been used on the data analysis sheets and indicates as follows:

a-File was requantified

b-File was quantified by a second column and detector

r1-File was requantified for the purpose of reissue



Air Toxics

Summary of Detected Compounds EPA METHOD TO-17

Client Sample ID: VP-5

Lab ID#: 1602576-01A

No Detections Were Found.

Client Sample ID: VP-6

Lab ID#: 1602576-02A

No Detections Were Found.

Client Sample ID: VP-6 DUP

Lab ID#: 1602576-03A

No Detections Were Found.



Air Toxics

Client Sample ID: VP-5

Lab ID#: 1602576-01A

EPA METHOD TO-17

File Name:	18030307	Date of Extraction: NA	Date of Collection: 2/24/16 2:14:00 PM
Dil. Factor:	1.00	Date of Analysis: 3/3/16 03:34 PM	

Compound	Rpt. Limit (ng)	Rpt. Limit (ug/m3)	Amount (ng)	Amount (ug/m3)
Naphthalene	1.0	5.0	Not Detected	Not Detected

Air Sample Volume(L): 0.200
Container Type: TO-17 VI Tube

Surrogates	%Recovery	Method Limits
Naphthalene-d8	75	50-150



Air Toxics

Client Sample ID: VP-6

Lab ID#: 1602576-02A

EPA METHOD TO-17

File Name:	18030308	Date of Extraction: NA	Date of Collection: 2/24/16 1:11:00 PM
Dil. Factor:	1.00	Date of Analysis: 3/3/16 04:45 PM	

Compound	Rpt. Limit (ng)	Rpt. Limit (ug/m3)	Amount (ng)	Amount (ug/m3)
Naphthalene	1.0	5.0	Not Detected	Not Detected

Air Sample Volume(L): 0.200
Container Type: TO-17 VI Tube

Surrogates	%Recovery	Method Limits
Naphthalene-d8	79	50-150



Air Toxics

Client Sample ID: VP-6 DUP

Lab ID#: 1602576-03A

EPA METHOD TO-17

File Name:	18030309	Date of Extraction: NA	Date of Collection: 2/24/16 1:11:00 PM
Dil. Factor:	1.00	Date of Analysis: 3/3/16 05:57 PM	

Compound	Rpt. Limit (ng)	Rpt. Limit (ug/m3)	Amount (ng)	Amount (ug/m3)
Naphthalene	1.0	5.0	Not Detected	Not Detected

Air Sample Volume(L): 0.200
Container Type: TO-17 VI Tube

Surrogates	%Recovery	Method Limits
Naphthalene-d8	81	50-150



Air Toxics

Client Sample ID: Lab Blank

Lab ID#: 1602576-04A

EPA METHOD TO-17

File Name:	18030306	Date of Extraction: NA	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 3/3/16 02:13 PM	

Compound	Rpt. Limit (ng)	Rpt. Limit (ug/m3)	Amount (ng)	Amount (ug/m3)
Naphthalene	1.0	5.0	Not Detected	Not Detected

Air Sample Volume(L): 0.200

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
Naphthalene-d8	81	50-150



Air Toxics

Client Sample ID: CCV

Lab ID#: 1602576-05A

EPA METHOD TO-17

File Name:	18030302	Date of Extraction: NA	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 3/3/16 10:27 AM	

Compound	%Recovery
Naphthalene	79

Air Sample Volume(L): 1.00

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
Naphthalene-d8	86	50-150



Air Toxics

Client Sample ID: LCS

Lab ID#: 1602576-06A

EPA METHOD TO-17

File Name:	18030303	Date of Extraction: NA	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 3/3/16 11:27 AM	

Compound	%Recovery	Method Limits
Naphthalene	87	70-130

Air Sample Volume(L): 1.00

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
Naphthalene-d8	85	50-150



Air Toxics

Client Sample ID: LCSD

Lab ID#: 1602576-06AA

EPA METHOD TO-17

File Name:	18030304	Date of Extraction: NA	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 3/3/16 12:16 PM	

Compound	%Recovery	Method Limits
Naphthalene	87	70-130

Air Sample Volume(L): 1.00

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
Naphthalene-d8	85	50-150

TO-17 SAMPLE COLLECTION

Air Toxics LTD.

CHAIN-OF-CUSTODY RECORD

Sample Transportation Notice

Relinquishing signature on this document indicates that sample is being shipped in compliance with all applicable local, State, Federal, national, and international laws, regulations and ordinances of any kind. Air Toxics Limited assumes no liability with respect to the collection, handling or shipping of these samples. Relinquishing signature also indicates agreement to hold harmless, defend, and indemnify Air Toxics Limited against any claim, demand, or action, of any kind, related to the collection, handling, or shipping of samples. D.O.T. Hotline (800) 467-4922.

180 BLUE RAVINE ROAD, SUITE B
FOLSOM, CA 95630
(916) 985-1000 FAX (916) 985-1020

Page 1 of 1

Project Manager NATHAN LEE
Collected by: (Print and Sign) BELEVYIFRU
Company GHD Email NATHAN.LEE@GHD.COM
Address 2300 CLAYTON RD #920 City CONCORD State CA Zip 94520
Phone 925 849 1003 Fax _____

Project Info:

P.O. # _____

Project # 311977Project Name CHEVRON 90076

Turn Around Time:

☒ Normal☐ Rush

specify _____

Reporting Units:

☐ ppmv☐ ppbv☐ µg/m3☐ mg/m3

Lab I.D.	Field Sample I.D. (Location)	Engraved or Stamped Tube #	Date of Collection (mm/dd/yy)	Start Time (hr:min)	End Time (hr:min)	Pre-Test Flow Rate	Post-Test Flow Rate	Volume	Indoor/Outdoor		Indoor Air	Outdoor Air	Soil Vapor	Other
01A	VP-5	G0147211	2/24/16	14:14	14:15			200ml	% RH	Temp	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
02A	VP-6	G0143655	2/24/16	13:11	13:12			200ml			<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
03A	VP-6 DUP	G0145589	2/24/16	13:11	13:12			200ml			<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
											<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
											<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
											<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
											<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
											<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
											<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
											<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Relinquished by: (signature) _____ Date/Time 1530Received by: (signature) _____ Date/Time 15:30

Notes:

Relinquished by: (signature) _____ Date/Time 2/24/2016Received by: (signature) SECURE LOCATION Date/Time 2/24/2016Relinquished by: (signature) _____ Date/Time 12:24Received by: (signature) FOR [signature] Date/Time 2-29-16Relinquished by: (signature) _____ Date/Time 2/29/16Received by: (signature) _____ Date/Time 12:24

Relinquished by: (signature) _____ Date/Time _____

Received by: (signature) _____ Date/Time _____

Relinquished by: (signature) _____ Date/Time _____

Received by: (signature) _____ Date/Time _____

Lab Use Only	Shipper Name	Air Bill #	Temp (°C)	Condition	Custody Seals Intact?	Work Order #
	<u>FAIR 012</u>		<u>12.0°C</u>	<u>CDR</u>	Yes No <u>None</u>	<u>1602576</u>



Air Toxics

3/11/2016

Mr. Belew Yifru

GHD

5900 Hollis Street

Suite A

Emeryville CA 94608

Project Name: CHEVRON 90076

Project #: 311977

Workorder #: 1602578A

Dear Mr. Belew Yifru

The following report includes the data for the above referenced project for sample(s) received on 2/29/2016 at Air Toxics Ltd.

The data and associated QC analyzed by TO-15 are compliant with the project requirements or laboratory criteria with the exception of the deviations noted in the attached case narrative.

Thank you for choosing Eurofins Air Toxics Inc. for your air analysis needs. Eurofins Air Toxics Inc. is committed to providing accurate data of the highest quality. Please feel free the Project Manager: Kyle Vagadori at 916-985-1000 if you have any questions regarding the data in this report.

Regards,

Kyle Vagadori

Project Manager

A Eurofins Lancaster Laboratories Company

Eurofins Air Toxics, Inc.

180 Blue Ravine Road, Suite B
Folsom, CA 95630

T | 916-985-1000
F | 916-985-1020
www.airtoxics.com



Air Toxics

WORK ORDER #: 1602578A

Work Order Summary

CLIENT:	Mr. Belew Yifru GHD 5900 Hollis Street Suite A Emeryville, CA 94608	BILL TO:	Accounts Payable Chevron U.S.A. Inc. 6001 Bollinger Canyon Road L4310 San Ramon, CA 94583
PHONE:	510-420-0700	P.O. #	NWENV00900760
FAX:	510-420-9170	PROJECT #	311977 CHEVRON 90076
DATE RECEIVED:	02/29/2016	CONTACT:	Kyle Vagadori
DATE COMPLETED:	03/11/2016		

<u>FRACTION #</u>	<u>NAME</u>	<u>TEST</u>	<u>RECEIPT VAC./PRES.</u>	<u>FINAL PRESSURE</u>
01A	VP-5	TO-15	6.9 "Hg	14.8 psi
02A	VP-6	TO-15	8.4 "Hg	14.9 psi
03A	VP-6-DUP	TO-15	8.2 "Hg	14.9 psi
04A	Lab Blank	TO-15	NA	NA
05A	CCV	TO-15	NA	NA
06A	LCS	TO-15	NA	NA
06AA	LCSD	TO-15	NA	NA

CERTIFIED BY:

Technical Director

DATE: 03/11/16

Certification numbers: AZ Licensure AZ0775, NJ NELAP - CA016, NY NELAP - 11291,
TX NELAP - T104704343-14-7, UT NELAP CA009332014-5, VA NELAP - 460197, WA NELAP - C935
Name of Accreditation Body: NELAP/ORELAP (Oregon Environmental Laboratory Accreditation Program)

Accreditation number: CA300005, Effective date: 10/18/2014, Expiration date: 10/17/2015.

Eurofins Air Toxics Inc., certifies that the test results contained in this report meet all requirements of the NELAC standards

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180 BLUE RAVINE ROAD, SUITE B FOLSOM, CA - 9563

(916) 985-1000 . (800) 985-5955 . FAX (916) 985-1020

LABORATORY NARRATIVE
EPA Method TO-15
GHD
Workorder# 1602578A

Three 1 Liter Summa Canister (100% Certified) samples were received on February 29, 2016. The laboratory performed analysis via EPA Method TO-15 using GC/MS in the full scan mode.

This workorder was independently validated prior to submittal using 'USEPA National Functional Guidelines' as generally applied to the analysis of volatile organic compounds in air. A rules-based, logic driven, independent validation engine was employed to assess completeness, evaluate pass/fail of relevant project quality control requirements and verification of all quantified amounts.

Receiving Notes

There were no receiving discrepancies.

Analytical Notes

Dilution was performed on sample VP-5 due to the presence of high level non-target species.

A single point calibration for TPH referenced to Gasoline was performed for each daily analytical batch. Recovery is reported as 100% in the associated results for each CCV.

Definition of Data Qualifying Flags

Eight qualifiers may have been used on the data analysis sheets and indicates as follows:

B - Compound present in laboratory blank greater than reporting limit (background subtraction not performed).

J - Estimated value.

E - Exceeds instrument calibration range.

S - Saturated peak.

Q - Exceeds quality control limits.

U - Compound analyzed for but not detected above the reporting limit, LOD, or MDL value. See data page for project specific U-flag definition.

UJ- Non-detected compound associated with low bias in the CCV

N - The identification is based on presumptive evidence.

File extensions may have been used on the data analysis sheets and indicates as follows:

a-File was requantified

b-File was quantified by a second column and detector

r1-File was requantified for the purpose of reissue



Air Toxics

Summary of Detected Compounds
EPA METHOD TO-15 GC/MS FULL SCAN

Client Sample ID: VP-5

Lab ID#: 1602578A-01A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Benzene	8.7	17	28	54
Methyl tert-butyl ether	8.7	510	31	1800
TPH ref. to Gasoline (MW=100)	870	21000	3600	86000

Client Sample ID: VP-6

Lab ID#: 1602578A-02A

No Detections Were Found.

Client Sample ID: VP-6-DUP

Lab ID#: 1602578A-03A

No Detections Were Found.



Air Toxics

Client Sample ID: VP-5

Lab ID#: 1602578A-01A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	3030720	Date of Collection: 2/24/16 2:01:00 PM
Dil. Factor:	17.4	Date of Analysis: 3/7/16 11:45 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Benzene	8.7	17	28	54
Ethyl Benzene	8.7	Not Detected	38	Not Detected
Toluene	8.7	Not Detected	33	Not Detected
m,p-Xylene	8.7	Not Detected	38	Not Detected
o-Xylene	8.7	Not Detected	38	Not Detected
Methyl tert-butyl ether	8.7	510	31	1800
Naphthalene	17	Not Detected	91	Not Detected
TPH ref. to Gasoline (MW=100)	870	21000	3600	86000

Container Type: 1 Liter Summa Canister (100% Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	106	70-130
Toluene-d8	103	70-130
4-Bromofluorobenzene	104	70-130



Air Toxics

Client Sample ID: VP-6-DUP

Lab ID#: 1602578A-03A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	3030717	Date of Collection: 2/24/16 12:35:00 PM
Dil. Factor:	2.77	Date of Analysis: 3/7/16 10:29 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Benzene	1.4	Not Detected	4.4	Not Detected
Ethyl Benzene	1.4	Not Detected	6.0	Not Detected
Toluene	1.4	Not Detected	5.2	Not Detected
m,p-Xylene	1.4	Not Detected	6.0	Not Detected
o-Xylene	1.4	Not Detected	6.0	Not Detected
Methyl tert-butyl ether	1.4	Not Detected	5.0	Not Detected
Naphthalene	2.8	Not Detected	14	Not Detected
TPH ref. to Gasoline (MW=100)	140	Not Detected	570	Not Detected

Container Type: 1 Liter Summa Canister (100% Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	118	70-130
Toluene-d8	110	70-130
4-Bromofluorobenzene	100	70-130



Air Toxics

Client Sample ID: Lab Blank

Lab ID#: 1602578A-04A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	3030707	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 3/7/16 01:10 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Benzene	0.50	Not Detected	1.6	Not Detected
Ethyl Benzene	0.50	Not Detected	2.2	Not Detected
Toluene	0.50	Not Detected	1.9	Not Detected
m,p-Xylene	0.50	Not Detected	2.2	Not Detected
o-Xylene	0.50	Not Detected	2.2	Not Detected
Methyl tert-butyl ether	0.50	Not Detected	1.8	Not Detected
Naphthalene	1.0	Not Detected	5.2	Not Detected
TPH ref. to Gasoline (MW=100)	50	Not Detected	200	Not Detected

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	103	70-130
Toluene-d8	105	70-130
4-Bromofluorobenzene	103	70-130



Air Toxics

Client Sample ID: CCV

Lab ID#: 1602578A-05A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	3030702	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 3/7/16 10:11 AM

Compound	%Recovery
Benzene	99
Ethyl Benzene	94
Toluene	96
m,p-Xylene	96
o-Xylene	95
Methyl tert-butyl ether	102
Naphthalene	78
TPH ref. to Gasoline (MW=100)	100

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	105	70-130
Toluene-d8	106	70-130
4-Bromofluorobenzene	102	70-130



Air Toxics

Client Sample ID: LCS

Lab ID#: 1602578A-06A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	3030703	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 3/7/16 10:36 AM

Compound	%Recovery	Method Limits
Benzene	100	70-130
Ethyl Benzene	96	70-130
Toluene	97	70-130
m,p-Xylene	98	70-130
o-Xylene	99	70-130
Methyl tert-butyl ether	99	70-130
Naphthalene	100	60-140
TPH ref. to Gasoline (MW=100)	Not Spiked	

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	102	70-130
Toluene-d8	106	70-130
4-Bromofluorobenzene	103	70-130



Air Toxics

Client Sample ID: LCSD

Lab ID#: 1602578A-06AA

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	3030704	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 3/7/16 11:00 AM

Compound	%Recovery	Method Limits
Benzene	97	70-130
Ethyl Benzene	96	70-130
Toluene	95	70-130
m,p-Xylene	96	70-130
o-Xylene	98	70-130
Methyl tert-butyl ether	103	70-130
Naphthalene	103	60-140
TPH ref. to Gasoline (MW=100)	Not Spiked	

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	106	70-130
Toluene-d8	104	70-130
4-Bromofluorobenzene	102	70-130



CHAIN-OF-CUSTODY RECORD

Sample Transportation Notice

Relinquishing signature on this document indicates that sample is being shipped in compliance with all applicable local, State, Federal, national, and international laws, regulations and ordinances of any kind. Air Toxics Limited assumes no liability with respect to the collection, handling or shipping of these samples. Relinquishing signature also indicates agreement to hold harmless, defend, and indemnify Air Toxics Limited against any claim, demand, or action, of any kind, related to the collection, handling, or shipping of samples. D.O.T. Hotline (800) 467-4922

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FOLSOM, CA 95630-4719
(916) 985-1000 FAX (916) 985-1020

Page 1 of 1

Project Manager NATHAN LEE

Collected by: (Print and Sign) BELEW VIFRO

Company QHD Email NATHAN.LEE@QHD.COM

Address 2300 CLAYTON RD City CONCORD State CA Zip 94520

Phone 925 849 1003 Fax _____

Project Info:

P.O. # _____

Project # 311977

Project Name CHEVRON 90076

Turn Around Time:

☒ Normal

☐ Rush

specify _____

Lab Use Only

Pressurized by: _____

Date: _____

Pressurization Gas: _____

N₂ He

Lab I.D.	Field Sample I.D. (Location)	Can #	Date of Collection	Time of Collection	Analyses Requested	Canister Pressure/Vacuum			
						Initial	Final	Receipt	Final (psi)
01A	VP-5	33735	2/24/16	1401	ALL SAMPLES	-30	-5		
02A	VP-6	34637	2/24/16	12:35	TPH _g , BTEX, MTBE	-29.5	-7		
03A	VP-6-DUP	37813	2/24/16	12:35	AND NAPHTHALENE	-30	-7		
					BY TO-15				
					APH(Sp) AROMATICS				
					C8-C12 BY TO-15				
					APH(Sp) ALIPHATICS				
					C5-C12 BY TO-15				
					O ₂ , CO ₂ , N ₂ , CH ₄				
					AND HELIUM BY				
					ASTM D-1946				

Relinquished by: (signature) [Signature] Date/Time 15:30 2/24/2016

Received by: (signature) [Signature] Date/Time 15:30 2/24/2016

Notes:

Relinquished by: (signature) [Signature] Date/Time 2/29/16 12:24p

Received by: (signature) [Signature] Date/Time 2-29-16 12:24

Relinquished by: (signature) _____ Date/Time _____

Received by: (signature) _____ Date/Time _____

Lab Use Only	Shipper Name	Air Bill #	Temp (°C)	Condition	Custody Seals Intact?	Work Order #
	<u>GAL D10</u>		<u>NA</u>	<u>Good</u>	Yes No <u>None</u>	<u>1602570</u>



Air Toxics

3/11/2016
Mr. Belew Yifru
GHD
5900 Hollis Street
Suite A
Emeryville CA 94608

Project Name: CHEVRON 90076
Project #: 311977
Workorder #: 1602578B

Dear Mr. Belew Yifru

The following report includes the data for the above referenced project for sample(s) received on 2/29/2016 at Air Toxics Ltd.

The data and associated QC analyzed by Modified TO-15 APH are compliant with the project requirements or laboratory criteria with the exception of the deviations noted in the attached case narrative.

Thank you for choosing Eurofins Air Toxics Inc. for your air analysis needs. Eurofins Air Toxics Inc. is committed to providing accurate data of the highest quality. Please feel free the Project Manager: Kyle Vagadori at 916-985-1000 if you have any questions regarding the data in this report.

Regards,

Kyle Vagadori
Project Manager

A Eurofins Lancaster Laboratories Company

Eurofins Air Toxics, Inc.

180 Blue Ravine Road, Suite B
Folsom, CA 95630

T | 916-985-1000
F | 916-985-1020
www.airtoxics.com

WORK ORDER #: 1602578B

Work Order Summary

CLIENT:	Mr. Belew Yifru GHD 5900 Hollis Street Suite A Emeryville, CA 94608	BILL TO:	Accounts Payable Chevron U.S.A. Inc. 6001 Bollinger Canyon Road L4310 San Ramon, CA 94583
PHONE:	510-420-0700	P.O. #	NWENV00900760
FAX:	510-420-9170	PROJECT #	311977 CHEVRON 90076
DATE RECEIVED:	02/29/2016	CONTACT:	Kyle Vagadori
DATE COMPLETED:	03/11/2016		

<u>FRACTION #</u>	<u>NAME</u>	<u>TEST</u>	<u>RECEIPT VAC./PRES.</u>	<u>FINAL PRESSURE</u>
01A	VP-5	Modified TO-15 APH	6.9 "Hg	14.8 psi
01B	VP-5	Modified TO-15 APH	6.9 "Hg	14.8 psi
02A	VP-6	Modified TO-15 APH	8.4 "Hg	14.9 psi
02B	VP-6	Modified TO-15 APH	8.4 "Hg	14.9 psi
03A	VP-6-DUP	Modified TO-15 APH	8.2 "Hg	14.9 psi
03B	VP-6-DUP	Modified TO-15 APH	8.2 "Hg	14.9 psi
04A	Lab Blank	Modified TO-15 APH	NA	NA
04B	Lab Blank	Modified TO-15 APH	NA	NA
05A	CCV	Modified TO-15 APH	NA	NA
05B	CCV	Modified TO-15 APH	NA	NA

CERTIFIED BY:



Technical Director

DATE: 03/11/16

Certification numbers: AZ Licensure AZ0775, NJ NELAP - CA016, NY NELAP - 11291,
TX NELAP - T104704343-14-7, UT NELAP CA009332014-5, VA NELAP - 460197, WA NELAP - C935
Name of Accreditation Body: NELAP/ORELAP (Oregon Environmental Laboratory Accreditation Program)
Accreditation number: CA300005, Effective date: 10/18/2014, Expiration date: 10/17/2015.

Eurofins Air Toxics Inc.. certifies that the test results contained in this report meet all requirements of the NELAC standards

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LABORATORY NARRATIVE
Modified TO-15 & VPH Fractions
GHD
Workorder# 1602578B

Three 1 Liter Summa Canister (100% Certified) samples were received on February 29, 2016. The laboratory performed analysis via EPA Method TO-15 and Air Toxics VPH (Volatile Petroleum Hydrocarbon) methods for the Determination of VPH Fractions using GC/MS in the full scan mode. The method involves concentrating up to 0.5 liters of air. The concentrated aliquot is then flash vaporized and swept through a water management system to remove water vapor. Following dehumidification, the sample passes directly into the GC/MS for analysis. This method is designed to measure gaseous phase aliphatic and aromatic compounds in ambient air and soil gas collected in stainless steel Summa canisters. Air Toxics VPH method is a hybrid of EPA TO-15, MADEP APH and WSDE VPH methods. Chromatographic peaks were identified via mass spectrum as either aliphatic or aromatic petroleum hydrocarbons and included in the appropriate range as defined by the method. The volatile Aliphatic hydrocarbons are collectively quantified within the C5 to C6 range, C6 to C8 range, C8 to C10 range and the C10 to C12 range. Additionally, the volatile Aromatic hydrocarbons are collectively quantified within the C8 to C10 range and the C10 to C12 range. The Aromatic ranges refer to the equivalent carbon (EC) ranges.

Aliphatic data is calculated from the Total Ion chromatogram which has been reprocessed in a duplicate file differentiated from the original by the addition of an alphanumeric extension. The Aromatic calculation also uses the information contained in the associated Extracted Ion file.

Receiving Notes

There were no receiving discrepancies.

Analytical Notes

Dilution was performed on sample VP-5 due to matrix interference.

The C6-C8 Aliphatic Hydrocarbon result in sample VP-5 is reported as biased high due to an unknown hydrocarbon coeluting with surrogate 1,2-Dichloroethane-d4. Since there was no resolution between the unknown and the surrogate, the peak area originating from 1,2-Dichloroethane-d4 could not be discounted and thus was unavoidably included in the calculation for this analytical fraction. The unknown hydrocarbon was classified and reported in the C6-C8 Aliphatic range.

Definition of Data Qualifying Flags

Eight qualifiers may have been used on the data analysis sheets and indicates as follows:

B - Compound present in laboratory blank greater than reporting limit (background subtraction not performed).

J - Estimated value.

E - Exceeds instrument calibration range.

S - Saturated peak.

Q - Exceeds quality control limits.

U - Compound analyzed for but not detected above the reporting limit.

UJ- Non-detected compound associated with low bias in the CCV

N - The identification is based on presumptive evidence.

File extensions may have been used on the data analysis sheets and indicates as follows:

a-File was requantified

b-File was quantified by a second column and detector

r1-File was requantified for the purpose of reissue



Air Toxics

Summary of Detected Compounds
MODIFIED METHOD TO-15 GC/MS FULL SCAN

Client Sample ID: VP-5

Lab ID#: 1602578B-01A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
C5-C6 Aliphatic Hydrocarbons (ref. to Pentane + Hexane)	170	9300	560	30000
>C6-C8 Aliphatic Hydrocarbons (ref. to Heptane)	170	17000	710	69000
>C8-C10 Aliphatic Hydrocarbons (ref. to Decane)	170	380	1000	2200

Client Sample ID: VP-5

Lab ID#: 1602578B-01B

No Detections Were Found.

Client Sample ID: VP-6

Lab ID#: 1602578B-02A

No Detections Were Found.

Client Sample ID: VP-6

Lab ID#: 1602578B-02B

No Detections Were Found.

Client Sample ID: VP-6-DUP

Lab ID#: 1602578B-03A

No Detections Were Found.

Client Sample ID: VP-6-DUP

Lab ID#: 1602578B-03B

No Detections Were Found.



Air Toxics

Client Sample ID: VP-5

Lab ID#: 1602578B-01A

MODIFIED METHOD TO-15 GC/MS FULL SCAN

File Name:	3030720a	Date of Collection:	2/24/16 2:01:00 PM
Dil. Factor:	17.4	Date of Analysis:	3/7/16 11:45 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
C5-C6 Aliphatic Hydrocarbons (ref. to Pentane + Hexane)	170	9300	560	30000
>C6-C8 Aliphatic Hydrocarbons (ref. to Heptane)	170	17000	710	69000
>C8-C10 Aliphatic Hydrocarbons (ref. to Decane)	170	380	1000	2200
>C10-C12 Aliphatic Hydrocarbons (ref. to Dodecane)	170	Not Detected	1200	Not Detected

Container Type: 1 Liter Summa Canister (100% Certified)



Air Toxics

Client Sample ID: VP-5

Lab ID#: 1602578B-01B

MODIFIED METHOD TO-15 GC/MS FULL SCAN

File Name:	3030720c	Date of Collection:	2/24/16 2:01:00 PM
Dil. Factor:	17.4	Date of Analysis:	3/7/16 11:45 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
>C8-C10 Aromatic Hydrocarbons	170	Not Detected	860	Not Detected
>C10-C12 Aromatic Hydrocarbons	170	Not Detected	960	Not Detected

Container Type: 1 Liter Summa Canister (100% Certified)



Air Toxics

Client Sample ID: VP-6

Lab ID#: 1602578B-02A

MODIFIED METHOD TO-15 GC/MS FULL SCAN

File Name:	3030716a	Date of Collection:	2/24/16 12:35:00 PM
Dil. Factor:	2.80	Date of Analysis:	3/7/16 10:02 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
C5-C6 Aliphatic Hydrocarbons (ref. to Pentane + Hexane)	28	Not Detected	91	Not Detected
>C6-C8 Aliphatic Hydrocarbons (ref. to Heptane)	28	Not Detected	110	Not Detected
>C8-C10 Aliphatic Hydrocarbons (ref. to Decane)	28	Not Detected	160	Not Detected
>C10-C12 Aliphatic Hydrocarbons (ref. to Dodecane)	28	Not Detected	200	Not Detected

Container Type: 1 Liter Summa Canister (100% Certified)



Air Toxics

Client Sample ID: VP-6

Lab ID#: 1602578B-02B

MODIFIED METHOD TO-15 GC/MS FULL SCAN

File Name:	3030716c	Date of Collection:	2/24/16 12:35:00 PM
Dil. Factor:	2.80	Date of Analysis:	3/7/16 10:02 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
>C8-C10 Aromatic Hydrocarbons	28	Not Detected	140	Not Detected
>C10-C12 Aromatic Hydrocarbons	28	Not Detected	150	Not Detected

Container Type: 1 Liter Summa Canister (100% Certified)



Air Toxics

Client Sample ID: VP-6-DUP

Lab ID#: 1602578B-03A

MODIFIED METHOD TO-15 GC/MS FULL SCAN

File Name:	3030717a	Date of Collection:	2/24/16 12:35:00 PM
Dil. Factor:	2.77	Date of Analysis:	3/7/16 10:29 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
C5-C6 Aliphatic Hydrocarbons (ref. to Pentane + Hexane)	28	Not Detected	90	Not Detected
>C6-C8 Aliphatic Hydrocarbons (ref. to Heptane)	28	Not Detected	110	Not Detected
>C8-C10 Aliphatic Hydrocarbons (ref. to Decane)	28	Not Detected	160	Not Detected
>C10-C12 Aliphatic Hydrocarbons (ref. to Dodecane)	28	Not Detected	190	Not Detected

Container Type: 1 Liter Summa Canister (100% Certified)



Air Toxics

Client Sample ID: VP-6-DUP

Lab ID#: 1602578B-03B

MODIFIED METHOD TO-15 GC/MS FULL SCAN

File Name:	3030717c	Date of Collection:	2/24/16 12:35:00 PM
Dil. Factor:	2.77	Date of Analysis:	3/7/16 10:29 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
>C8-C10 Aromatic Hydrocarbons	28	Not Detected	140	Not Detected
>C10-C12 Aromatic Hydrocarbons	28	Not Detected	150	Not Detected

Container Type: 1 Liter Summa Canister (100% Certified)



Air Toxics

Client Sample ID: Lab Blank

Lab ID#: 1602578B-04A

MODIFIED METHOD TO-15 GC/MS FULL SCAN

File Name:	3030707a	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 3/7/16 01:10 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
C5-C6 Aliphatic Hydrocarbons (ref. to Pentane + Hexane)	10	Not Detected	32	Not Detected
>C6-C8 Aliphatic Hydrocarbons (ref. to Heptane)	10	Not Detected	41	Not Detected
>C8-C10 Aliphatic Hydrocarbons (ref. to Decane)	10	Not Detected	58	Not Detected
>C10-C12 Aliphatic Hydrocarbons (ref. to Dodecane)	10	Not Detected	70	Not Detected

Container Type: NA - Not Applicable



Air Toxics

Client Sample ID: Lab Blank

Lab ID#: 1602578B-04B

MODIFIED METHOD TO-15 GC/MS FULL SCAN

File Name:	3030707c	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 3/7/16 01:10 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
>C8-C10 Aromatic Hydrocarbons	10	Not Detected	49	Not Detected
>C10-C12 Aromatic Hydrocarbons	10	Not Detected	55	Not Detected

Container Type: NA - Not Applicable



Air Toxics

Client Sample ID: CCV

Lab ID#: 1602578B-05A

MODIFIED METHOD TO-15 GC/MS FULL SCAN

File Name:	3030705a	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 3/7/16 11:45 AM

Compound	%Recovery
C5-C6 Aliphatic Hydrocarbons (ref. to Pentane + Hexane)	110
>C6-C8 Aliphatic Hydrocarbons (ref. to Heptane)	98
>C8-C10 Aliphatic Hydrocarbons (ref. to Decane)	114
>C10-C12 Aliphatic Hydrocarbons (ref. to Dodecane)	79

Container Type: NA - Not Applicable



Air Toxics

Client Sample ID: CCV

Lab ID#: 1602578B-05B

MODIFIED METHOD TO-15 GC/MS FULL SCAN

File Name:	3030705c	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 3/7/16 11:45 AM

Compound	%Recovery
>C8-C10 Aromatic Hydrocarbons	106
>C10-C12 Aromatic Hydrocarbons	102

Container Type: NA - Not Applicable



CHAIN-OF-CUSTODY RECORD

Sample Transportation Notice

Relinquishing signature on this document indicates that sample is being shipped in compliance with all applicable local, State, Federal, national, and international laws, regulations and ordinances of any kind. Air Toxics Limited assumes no liability with respect to the collection, handling or shipping of these samples. Relinquishing signature also indicates agreement to hold harmless, defend, and indemnify Air Toxics Limited against any claim, demand, or action, of any kind, related to the collection, handling, or shipping of samples. D.O.T. Hotline (800) 467-4922

180 BLUE RAVINE ROAD, SUITE B
FOLSOM, CA 95630-4719
(916) 985-1000 FAX (916) 985-1020

Page 1 of 1

Project Manager NATHAN LEE

Collected by: (Print and Sign) BELEW VIFRU

Company GHD Email NATHAN.LEE@GHD.COM

Address 2300 CLAYTON RD City CONCORD State CA Zip 94520

Phone 925 849 1003 Fax _____

Project Info:

P.O. # _____

Project # 311977

Project Name CHEVRON 90076

Turn Around Time:

☒ Normal

☐ Rush

specify _____

Lab Use Only

Pressurized by: _____

Date: _____

Pressurization Gas: _____

N₂ He

Lab I.D.	Field Sample I.D. (Location)	Can #	Date of Collection	Time of Collection	Analyses Requested	Canister Pressure/Vacuum			
						Initial	Final	Receipt	Final (psi)
01A	VP-5	33735	2/24/16	1401	ALL SAMPLES	-30	-5		
02A	VP-6	34637	2/24/16	12:35	TPH _g , BTEX, MTBE	-29.5	-7		
03A	VP-6-DUP	37813	2/24/16	12:35	AND NAPHTHALENE	-30	-7		
					BY TO-15				
					APH(S _p) AROMATICS				
					C8-C12 BY TO-15				
					APH(S _p) ALIPHATICS				
					C5-C12 BY TO-15				
					O ₂ , CO ₂ , N ₂ , CH ₄				
					AND HELIUM BY				
					ASTM D-1946				

Relinquished by: (signature) [Signature] Date/Time 15:30 2/24/2016

Received by: (signature) [Signature] Date/Time 15:30 2/24/2016

Notes:

Relinquished by: (signature) [Signature] Date/Time 2/29/16 12:24p

Received by: (signature) [Signature] Date/Time 2-29-16 12:24

Relinquished by: (signature) _____ Date/Time _____

Received by: (signature) _____ Date/Time _____

Lab Use Only	Shipper Name	Air Bill #	Temp (°C)	Condition	Custody Seals Intact?	Work Order #
	<u>GATE D10</u>		<u>NA</u>	<u>Good</u>	Yes No <u>None</u>	<u>1602578</u>

3/11/2016

Mr. Belew Yifru

GHD

5900 Hollis Street

Suite A

Emeryville CA 94608

Project Name: CHEVRON 90076

Project #: 311977

Workorder #: 1602578C

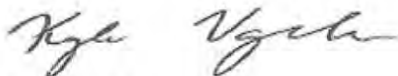
Dear Mr. Belew Yifru

The following report includes the data for the above referenced project for sample(s) received on 2/29/2016 at Air Toxics Ltd.

The data and associated QC analyzed by Modified ASTM D-1946 are compliant with the project requirements or laboratory criteria with the exception of the deviations noted in the attached case narrative.

Thank you for choosing Eurofins Air Toxics Inc. for your air analysis needs. Eurofins Air Toxics Inc. is committed to providing accurate data of the highest quality. Please feel free the Project Manager: Kyle Vagadori at 916-985-1000 if you have any questions regarding the data in this report.

Regards,



Kyle Vagadori

Project Manager

WORK ORDER #: 1602578C

Work Order Summary

CLIENT:	Mr. Belew Yifru GHD 5900 Hollis Street Suite A Emeryville, CA 94608	BILL TO:	Accounts Payable Chevron U.S.A. Inc. 6001 Bollinger Canyon Road L4310 San Ramon, CA 94583
PHONE:	510-420-0700	P.O. #	NWENV00900760
FAX:	510-420-9170	PROJECT #	311977 CHEVRON 90076
DATE RECEIVED:	02/29/2016	CONTACT:	Kyle Vagadori
DATE COMPLETED:	03/11/2016		

<u>FRACTION #</u>	<u>NAME</u>	<u>TEST</u>	<u>RECEIPT VAC./PRES.</u>	<u>FINAL PRESSURE</u>
01A	VP-5	Modified ASTM D-1946	6.9 "Hg	14.8 psi
02A	VP-6	Modified ASTM D-1946	8.4 "Hg	14.9 psi
03A	VP-6-DUP	Modified ASTM D-1946	8.2 "Hg	14.9 psi
04A	Lab Blank	Modified ASTM D-1946	NA	NA
04B	Lab Blank	Modified ASTM D-1946	NA	NA
05A	LCS	Modified ASTM D-1946	NA	NA
05AA	LCSD	Modified ASTM D-1946	NA	NA

CERTIFIED BY:



Technical Director

DATE: 03/11/16

Certification numbers: AZ Licensure AZ0775, NJ NELAP - CA016, NY NELAP - 11291,
TX NELAP - T104704343-14-7, UT NELAP CA009332014-5, VA NELAP - 460197, WA NELAP - C935
Name of Accreditation Body: NELAP/ORELAP (Oregon Environmental Laboratory Accreditation Program)
Accreditation number: CA300005, Effective date: 10/18/2014, Expiration date: 10/17/2015.

Eurofins Air Toxics Inc., certifies that the test results contained in this report meet all requirements of the NELAC standards

This report shall not be reproduced, except in full, without the written approval of Eurofins Air Toxics, Inc.

180 BLUE RAVINE ROAD, SUITE B FOLSOM, CA - 9563
(916) 985-1000 . (800) 985-5955 . FAX (916) 985-1020

LABORATORY NARRATIVE
Modified ASTM D-1946
GHD
Workorder# 1602578C

Three 1 Liter Summa Canister (100% Certified) samples were received on February 29, 2016. The laboratory performed analysis via Modified ASTM Method D-1946 for Methane and fixed gases in air using GC/FID or GC/TCD. The method involves direct injection of 1.0 mL of sample.

On the analytical column employed for this analysis, Oxygen coelutes with Argon. The corresponding peak is quantitated as Oxygen.

Since Nitrogen is used to pressurize samples, the reported Nitrogen values are calculated by adding all the sample components and subtracting from 100%.

Method modifications taken to run these samples are summarized in the table below. Specific project requirements may over-ride the ATL modifications.

<i>Requirement</i>	<i>ASTM D-1946</i>	<i>ATL Modifications</i>
Calibration	A single point calibration is performed using a reference standard closely matching the composition of the unknown.	A minimum of 5-point calibration curve is performed. Quantitation is based on average Response Factor.
Reference Standard	The composition of any reference standard must be known to within 0.01 mol % for any component.	The standards used by ATL are blended to a $\geq 95\%$ accuracy.
Sample Injection Volume	Components whose concentrations are in excess of 5 % should not be analyzed by using sample volumes greater than 0.5 mL.	The sample container is connected directly to a fixed volume sample loop of 1.0 mL on the GC. Linear range is defined by the calibration curve. Bags are loaded by vacuum.
Normalization	Normalize the mole percent values by multiplying each value by 100 and dividing by the sum of the original values. The sum of the original values should not differ from 100% by more than 1.0%.	Results are not normalized. The sum of the reported values can differ from 100% by as much as 15%, either due to analytical variability or an unusual sample matrix.
Precision	Precision requirements established at each concentration level.	Duplicates should agree within 25% RPD for detections $> 5 \times$ the RL.

Receiving Notes

There were no receiving discrepancies.

Analytical Notes

There were no analytical discrepancies.

Definition of Data Qualifying Flags

Seven qualifiers may have been used on the data analysis sheets and indicate as follows:

B - Compound present in laboratory blank greater than reporting limit.

J - Estimated value.

E - Exceeds instrument calibration range.

S - Saturated peak.

Q - Exceeds quality control limits.

U - Compound analyzed for but not detected above the detection limit.

M - Reported value may be biased due to apparent matrix interferences.

File extensions may have been used on the data analysis sheets and indicates as follows:

a-File was requantified

b-File was quantified by a second column and detector

r1-File was requantified for the purpose of reissue

Summary of Detected Compounds
NATURAL GAS ANALYSIS BY MODIFIED ASTM D-1946

Client Sample ID: VP-5

Lab ID#: 1602578C-01A

Compound	Rpt. Limit (%)	Amount (%)
Oxygen	0.26	1.5
Nitrogen	0.26	76
Carbon Dioxide	0.026	17
Methane	0.00026	5.2

Client Sample ID: VP-6

Lab ID#: 1602578C-02A

Compound	Rpt. Limit (%)	Amount (%)
Oxygen	0.28	13
Nitrogen	0.28	81
Carbon Dioxide	0.028	6.2

Client Sample ID: VP-6-DUP

Lab ID#: 1602578C-03A

Compound	Rpt. Limit (%)	Amount (%)
Oxygen	0.28	13
Nitrogen	0.28	81
Carbon Dioxide	0.028	6.1



Air Toxics

Client Sample ID: VP-5

Lab ID#: 1602578C-01A

NATURAL GAS ANALYSIS BY MODIFIED ASTM D-1946

File Name:	10030708	Date of Collection: 2/24/16 2:01:00 PM
Dil. Factor:	2.61	Date of Analysis: 3/7/16 07:37 PM

Compound	Rpt. Limit (%)	Amount (%)
Oxygen	0.26	1.5
Nitrogen	0.26	76
Carbon Dioxide	0.026	17
Methane	0.00026	5.2
Helium	0.13	Not Detected

Container Type: 1 Liter Summa Canister (100% Certified)



Air Toxics

Client Sample ID: VP-6

Lab ID#: 1602578C-02A

NATURAL GAS ANALYSIS BY MODIFIED ASTM D-1946

File Name:	10030709	Date of Collection: 2/24/16 12:35:00 PM
Dil. Factor:	2.79	Date of Analysis: 3/7/16 08:01 PM

Compound	Rpt. Limit (%)	Amount (%)
Oxygen	0.28	13
Nitrogen	0.28	81
Carbon Dioxide	0.028	6.2
Methane	0.00028	Not Detected
Helium	0.14	Not Detected

Container Type: 1 Liter Summa Canister (100% Certified)



Air Toxics

Client Sample ID: VP-6-DUP

Lab ID#: 1602578C-03A

NATURAL GAS ANALYSIS BY MODIFIED ASTM D-1946

File Name:	10030710	Date of Collection: 2/24/16 12:35:00 PM
Dil. Factor:	2.77	Date of Analysis: 3/7/16 08:32 PM

Compound	Rpt. Limit (%)	Amount (%)
Oxygen	0.28	13
Nitrogen	0.28	81
Carbon Dioxide	0.028	6.1
Methane	0.00028	Not Detected
Helium	0.14	Not Detected

Container Type: 1 Liter Summa Canister (100% Certified)



Air Toxics

Client Sample ID: Lab Blank

Lab ID#: 1602578C-04A

NATURAL GAS ANALYSIS BY MODIFIED ASTM D-1946

File Name:	10030704	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 3/7/16 11:57 AM

Compound	Rpt. Limit (%)	Amount (%)
Oxygen	0.10	Not Detected
Nitrogen	0.10	Not Detected
Carbon Dioxide	0.010	Not Detected
Methane	0.00010	Not Detected

Container Type: NA - Not Applicable



Air Toxics

Client Sample ID: Lab Blank

Lab ID#: 1602578C-04B

NATURAL GAS ANALYSIS BY MODIFIED ASTM D-1946

File Name:	10030703c	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 3/7/16 11:34 AM

Compound	Rpt. Limit (%)	Amount (%)
Helium	0.050	Not Detected

Container Type: NA - Not Applicable



Air Toxics

Client Sample ID: LCS

Lab ID#: 1602578C-05A

NATURAL GAS ANALYSIS BY MODIFIED ASTM D-1946

File Name:	10030702	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 3/7/16 11:10 AM

Compound	%Recovery	Method Limits
Oxygen	97	85-115
Nitrogen	91	85-115
Carbon Dioxide	98	85-115
Methane	100	85-115
Helium	101	85-115

Container Type: NA - Not Applicable



Air Toxics

Client Sample ID: LCSD

Lab ID#: 1602578C-05AA

NATURAL GAS ANALYSIS BY MODIFIED ASTM D-1946

File Name:	10030711	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 3/7/16 09:08 PM

Compound	%Recovery	Method Limits
Oxygen	99	85-115
Nitrogen	92	85-115
Carbon Dioxide	100	85-115
Methane	98	85-115
Helium	102	85-115

Container Type: NA - Not Applicable



CHAIN-OF-CUSTODY RECORD

Sample Transportation Notice

Relinquishing signature on this document indicates that sample is being shipped in compliance with all applicable local, State, Federal, national, and international laws, regulations and ordinances of any kind. Air Toxics Limited assumes no liability with respect to the collection, handling or shipping of these samples. Relinquishing signature also indicates agreement to hold harmless, defend, and indemnify Air Toxics Limited against any claim, demand, or action, of any kind, related to the collection, handling, or shipping of samples. D.O.T. Hotline (800) 467-4922

180 BLUE RAVINE ROAD, SUITE B
FOLSOM, CA 95630-4719
(916) 985-1000 FAX (916) 985-1020

Page 1 of 1

Project Manager NATHAN LEE

Collected by: (Print and Sign) BELEW VIFRO

Company QHD

Email NATHAN.LEE@QHD.COM

Address 2300 CLAYTON RD #920 City CONCORD State CA Zip 94520

Phone 925 849 1003 Fax _____

Project Info:

P.O. # _____

Project # 311977

Project Name CHEVRON 90076

Turn Around Time:

☒ Normal

☐ Rush

specify _____

Lab Use Only

Pressurized by: _____

Date: _____

Pressurization Gas: _____

N₂ He

Lab I.D.	Field Sample I.D. (Location)	Can #	Date of Collection	Time of Collection	Analyses Requested	Canister Pressure/Vacuum			
						Initial	Final	Receipt	Final (psi)
01A	VP-5	33735	2/24/16	1401	ALL SAMPLES	-30	-5		
02A	VP-6	34637	2/24/16	12:35	TPH _g , BTEX, MTBE	-29.5	-7		
03A	VP-6-DUP	37813	2/24/16	12:35	AND NAPHTHALENE	-30	-7		
					BY TO-15				
					APH (SP) AROMATICS				
					C8-C12 BY TO-15				
					APH (SP) ALIPHATICS				
					C5-C12 BY TO-15				
					O ₂ , CO ₂ , N ₂ , CH ₄				
					AND HELIUM BY				
					ASTM D-1946				

Relinquished by: (signature) [Signature] Date/Time 15:30 2/24/2016

Received by: (signature) [Signature] Date/Time 15:30 2/24/2016

Notes:

Relinquished by: (signature) [Signature] Date/Time 2/29/16 12:24p

Received by: (signature) [Signature] Date/Time 2-29-16 12:24

Relinquished by: (signature) _____ Date/Time _____

Received by: (signature) _____ Date/Time _____

Lab Use Only	Shipper Name	Air Bill #	Temp (°C)	Condition	Custody Seals Intact?			Work Order #
	<u>QHD</u>		<u>NA</u>	<u>Good</u>	Yes	No	<u>None</u>	<u>1602578</u>

ANALYTICAL RESULTS

Prepared by:

Eurofins Lancaster Laboratories Environmental
2425 New Holland Pike
Lancaster, PA 17601

Prepared for:

ChevronTexaco
6001 Bollinger Canyon Rd L4310
San Ramon CA 94583

Report Date: March 09, 2016

Project: 90076

Submittal Date: 02/26/2016

Group Number: 1635198

PO Number: 0015195461

Release Number: HORNE

State of Sample Origin: CA

Client Sample DescriptionC-13-S-3-160223 Grab Soil
C-13-S-5-160223 Grab Soil
C-13-S-10-160223 Grab Soil
C-13-S-15-160223 Grab Soil
C-13-S-20-160223 Grab Soil
C-13-S-25-160223 Grab Soil
B-7-S-5-160223 Grab Soil
B-7-S-10-160223 Grab SoilLancaster Labs (LL) #8260260
8260261
8260262
8260263
8260264
8260265
8260266
8260267

The specific methodologies used in obtaining the enclosed analytical results are indicated on the Laboratory Sample Analysis Record.

Regulatory agencies do not accredit laboratories for all methods, analytes, and matrices. Our scopes of accreditation can be viewed at <http://www.eurofinsus.com/environment-testing/laboratories/eurofins-lancaster-laboratories-environmental/resources/certifications/>.

Electronic Copy To CRA
Electronic Copy To ChevronAttn: Nathan Lee
Attn: GHD EDD

Respectfully Submitted,



Amek Carter
Specialist

(717) 556-7252



Lancaster Laboratories
Environmental

Analysis Report

2425 New Holland Pike, Lancaster, PA 17601 • 717-656-2300 • Fax: 717-656-2681 • www.LancasterLabs.com

Sample Description: C-13-S-3-160223 Grab Soil
Facility# 90076 CRAW
4265 Foothill Blvd-Oakland T0600100339

LL Sample # SW 8260260
LL Group # 1635198
Account # 10880

Project Name: 90076

Collected: 02/23/2016 09:45 by BY

ChevronTexaco

6001 Bollinger Canyon Rd L4310
San Ramon CA 94583

Submitted: 02/26/2016 09:30

Reported: 03/09/2016 10:56

FO133

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
GC/MS	Volatiles	SW-846 8260B	mg/kg	mg/kg	mg/kg	
10237	Benzene	71-43-2	N.D.	0.0005	0.005	1.07
10237	Ethylbenzene	100-41-4	N.D.	0.001	0.005	1.07
10237	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.0005	0.005	1.07
10237	Naphthalene	91-20-3	N.D.	0.001	0.005	1.07
10237	Toluene	108-88-3	N.D.	0.001	0.005	1.07
10237	Xylene (Total)	1330-20-7	N.D.	0.001	0.005	1.07
GC	Volatiles	SW-846 8015B modified	mg/kg	mg/kg	mg/kg	
01725	TPH-GRO N. CA soil C6-C12	n.a.	N.D.	4.9	9.7	243.19
Reporting limits were raised due to sample foaming.						

General Sample Comments

CA ELAP Lab Certification No. 2792

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10237	VOCs 8260 BTEX/MTBE/Naph Soil	SW-846 8260B	1	B160621AA	03/02/2016 15:31	Linda C Pape	1.07
00374	GC/MS - Bulk Soil Prep	SW-846 5035A Modified	1	201605840241	02/27/2016 12:53	Mitchell R Washel	n.a.
00374	GC/MS - Bulk Soil Prep	SW-846 5035A Modified	2	201605840241	02/27/2016 12:53	Mitchell R Washel	n.a.
06646	GC/MS HL Bulk Sample Prep	SW-846 5035A Modified	1	201605840241	02/27/2016 12:50	Mitchell R Washel	n.a.
01725	TPH-GRO N. CA soil C6-C12	SW-846 8015B modified	1	16061A31A	03/02/2016 13:56	Marie D Beamenderfer	243.19
01150	GC - Bulk Soil Prep	SW-846 5035A Modified	1	201605840241	02/27/2016 12:51	Mitchell R Washel	n.a.

*=This limit was used in the evaluation of the final result



Lancaster Laboratories
Environmental

Analysis Report

2425 New Holland Pike, Lancaster, PA 17601 • 717-656-2300 • Fax: 717-656-2681 • www.LancasterLabs.com

Sample Description: C-13-S-5-160223 Grab Soil
Facility# 90076 CRAW
4265 Foothill Blvd-Oakland T0600100339

LL Sample # SW 8260261
LL Group # 1635198
Account # 10880

Project Name: 90076

Collected: 02/23/2016 09:50 by BY

ChevronTexaco

6001 Bollinger Canyon Rd L4310
San Ramon CA 94583

Submitted: 02/26/2016 09:30

Reported: 03/09/2016 10:56

FO135

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
GC/MS	Volatiles	SW-846 8260B	mg/kg	mg/kg	mg/kg	
10237	Benzene	71-43-2	N.D.	0.0005	0.005	1.02
10237	Ethylbenzene	100-41-4	N.D.	0.001	0.005	1.02
10237	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.0005	0.005	1.02
10237	Naphthalene	91-20-3	N.D.	0.001	0.005	1.02
10237	Toluene	108-88-3	N.D.	0.001	0.005	1.02
10237	Xylene (Total)	1330-20-7	N.D.	0.001	0.005	1.02
GC	Volatiles	SW-846 8015B modified	mg/kg	mg/kg	mg/kg	
01725	TPH-GRO N. CA soil C6-C12	n.a.	N.D.	0.5	1.0	26.12

General Sample Comments

CA ELAP Lab Certification No. 2792

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10237	VOCs 8260 BTEX/MTBE/Naph Soil	SW-846 8260B	1	B160613AA	03/01/2016 22:22	Sara E Johnson	1.02
00374	GC/MS - Bulk Soil Prep	SW-846 5035A Modified	1	201605840241	02/27/2016 12:53	Mitchell R Washel	n.a.
00374	GC/MS - Bulk Soil Prep	SW-846 5035A Modified	2	201605840241	02/27/2016 12:53	Mitchell R Washel	n.a.
06646	GC/MS HL Bulk Sample Prep	SW-846 5035A Modified	1	201605840241	02/27/2016 12:47	Mitchell R Washel	n.a.
01725	TPH-GRO N. CA soil C6-C12	SW-846 8015B modified	1	16061A31A	03/02/2016 23:15	Marie D Beamenderfer	26.12
01150	GC - Bulk Soil Prep	SW-846 5035A Modified	1	201605840241	02/27/2016 12:48	Mitchell R Washel	n.a.

*=This limit was used in the evaluation of the final result



Lancaster Laboratories
Environmental

Analysis Report

2425 New Holland Pike, Lancaster, PA 17601 • 717-656-2300 • Fax: 717-656-2681 • www.LancasterLabs.com

Sample Description: C-13-S-10-160223 Grab Soil
Facility# 90076 CRAW
4265 Foothill Blvd-Oakland T0600100339

LL Sample # SW 8260262
LL Group # 1635198
Account # 10880

Project Name: 90076

Collected: 02/23/2016 10:00 by BY

ChevronTexaco

6001 Bollinger Canyon Rd L4310
San Ramon CA 94583

Submitted: 02/26/2016 09:30

Reported: 03/09/2016 10:56

01310

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
GC/MS	Volatiles	SW-846 8260B	mg/kg	mg/kg	mg/kg	
10237	Benzene	71-43-2	N.D.	0.0005	0.005	1.02
10237	Ethylbenzene	100-41-4	N.D.	0.001	0.005	1.02
10237	Methyl Tertiary Butyl Ether	1634-04-4	0.001 J	0.0005	0.005	1.02
10237	Naphthalene	91-20-3	N.D.	0.001	0.005	1.02
10237	Toluene	108-88-3	N.D.	0.001	0.005	1.02
10237	Xylene (Total)	1330-20-7	N.D.	0.001	0.005	1.02
GC	Volatiles	SW-846 8015B modified	mg/kg	mg/kg	mg/kg	
01725	TPH-GRO N. CA soil C6-C12	n.a.	N.D.	0.5	1.0	26.23

General Sample Comments

CA ELAP Lab Certification No. 2792

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10237	VOCs 8260 BTEX/MTBE/Naph Soil	SW-846 8260B	1	B160613AA	03/01/2016 22:44	Sara E Johnson	1.02
00374	GC/MS - Bulk Soil Prep	SW-846 5035A Modified	1	201605840241	02/27/2016 12:53	Mitchell R Washel	n.a.
00374	GC/MS - Bulk Soil Prep	SW-846 5035A Modified	2	201605840241	02/27/2016 12:53	Mitchell R Washel	n.a.
06646	GC/MS HL Bulk Sample Prep	SW-846 5035A Modified	1	201605840241	02/27/2016 12:44	Mitchell R Washel	n.a.
01725	TPH-GRO N. CA soil C6-C12	SW-846 8015B modified	1	16061A31A	03/02/2016 23:51	Marie D Beamenderfer	26.23
01150	GC - Bulk Soil Prep	SW-846 5035A Modified	1	201605840241	02/27/2016 12:45	Mitchell R Washel	n.a.

*=This limit was used in the evaluation of the final result



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Analysis Report

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Sample Description: C-13-S-15-160223 Grab Soil
Facility# 90076 CRAW
4265 Foothill Blvd-Oakland T0600100339

LL Sample # SW 8260263
LL Group # 1635198
Account # 10880

Project Name: 90076

Collected: 02/23/2016 10:05 by BY

ChevronTexaco

6001 Bollinger Canyon Rd L4310

San Ramon CA 94583

Submitted: 02/26/2016 09:30

Reported: 03/09/2016 10:56

01315

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
GC/MS	Volatiles	SW-846 8260B	mg/kg	mg/kg	mg/kg	
10237	Benzene	71-43-2	N.D.	0.0005	0.005	0.96
10237	Ethylbenzene	100-41-4	N.D.	0.001	0.005	0.96
10237	Methyl Tertiary Butyl Ether	1634-04-4	0.0005 J	0.0005	0.005	0.96
10237	Naphthalene	91-20-3	N.D.	0.001	0.005	0.96
10237	Toluene	108-88-3	N.D.	0.001	0.005	0.96
10237	Xylene (Total)	1330-20-7	N.D.	0.001	0.005	0.96
GC	Volatiles	SW-846 8015B modified	mg/kg	mg/kg	mg/kg	
01725	TPH-GRO N. CA soil C6-C12	n.a.	N.D.	0.5	1.1	26.26

General Sample Comments

CA ELAP Lab Certification No. 2792

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10237	VOCs 8260 BTEX/MTBE/Naph Soil	SW-846 8260B	1	B160613AA	03/01/2016 23:07	Sara E Johnson	0.96
00374	GC/MS - Bulk Soil Prep	SW-846 5035A Modified	1	201605840241	02/27/2016 12:53	Mitchell R Washel	n.a.
00374	GC/MS - Bulk Soil Prep	SW-846 5035A Modified	2	201605840241	02/27/2016 12:53	Mitchell R Washel	n.a.
06646	GC/MS HL Bulk Sample Prep	SW-846 5035A Modified	1	201605840241	02/27/2016 12:42	Mitchell R Washel	n.a.
01725	TPH-GRO N. CA soil C6-C12	SW-846 8015B modified	1	16061A31A	03/03/2016 00:33	Marie D Beamenderfer	26.26
01150	GC - Bulk Soil Prep	SW-846 5035A Modified	1	201605840241	02/27/2016 12:42	Mitchell R Washel	n.a.

*=This limit was used in the evaluation of the final result

Sample Description: C-13-S-20-160223 Grab Soil
Facility# 90076 CRAW
4265 Foothill Blvd-Oakland T0600100339

LL Sample # SW 8260264
LL Group # 1635198
Account # 10880

Project Name: 90076

Collected: 02/23/2016 10:15 by BY

ChevronTexaco

6001 Bollinger Canyon Rd L4310
San Ramon CA 94583

Submitted: 02/26/2016 09:30

Reported: 03/09/2016 10:56

O1320

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
GC/MS	Volatiles	SW-846 8260B	mg/kg	mg/kg	mg/kg	
10237	Benzene	71-43-2	N.D.	0.0005	0.005	0.98
10237	Ethylbenzene	100-41-4	N.D.	0.001	0.005	0.98
10237	Methyl Tertiary Butyl Ether	1634-04-4	0.13	0.0005	0.005	0.98
10237	Naphthalene	91-20-3	N.D.	0.001	0.005	0.98
10237	Toluene	108-88-3	N.D.	0.001	0.005	0.98
10237	Xylene (Total)	1330-20-7	N.D.	0.001	0.005	0.98
GC	Volatiles	SW-846 8015B modified	mg/kg	mg/kg	mg/kg	
01725	TPH-GRO N. CA soil C6-C12	n.a.	N.D.	0.5	1.0	25.46

General Sample Comments

CA ELAP Lab Certification No. 2792

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10237	VOCs 8260 BTEX/MTBE/Naph Soil	SW-846 8260B	1	B160613AA	03/01/2016 23:29	Sara E Johnson	0.98
00374	GC/MS - Bulk Soil Prep	SW-846 5035A Modified	1	201605840241	02/27/2016 12:53	Mitchell R Washel	n.a.
00374	GC/MS - Bulk Soil Prep	SW-846 5035A Modified	2	201605840241	02/27/2016 12:53	Mitchell R Washel	n.a.
06646	GC/MS HL Bulk Sample Prep	SW-846 5035A Modified	1	201605840241	02/27/2016 12:39	Mitchell R Washel	n.a.
01725	TPH-GRO N. CA soil C6-C12	SW-846 8015B modified	1	16062A31A	03/03/2016 21:08	Jeremy C Giffin	25.46
01150	GC - Bulk Soil Prep	SW-846 5035A Modified	1	201605840241	02/27/2016 12:39	Mitchell R Washel	n.a.

*=This limit was used in the evaluation of the final result

Sample Description: C-13-S-25-160223 Grab Soil
Facility# 90076 CRAW
4265 Foothill Blvd-Oakland T0600100339

LL Sample # SW 8260265
LL Group # 1635198
Account # 10880

Project Name: 90076

Collected: 02/23/2016 10:45 by BY

ChevronTexaco

6001 Bollinger Canyon Rd L4310
San Ramon CA 94583

Submitted: 02/26/2016 09:30

Reported: 03/09/2016 10:56

O1325

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
GC/MS	Volatiles	SW-846 8260B	mg/kg	mg/kg	mg/kg	
10237	Benzene	71-43-2	N.D.	0.0005	0.005	1.07
10237	Ethylbenzene	100-41-4	N.D.	0.001	0.005	1.07
10237	Methyl Tertiary Butyl Ether	1634-04-4	0.51	0.028	0.28	55.07
10237	Naphthalene	91-20-3	N.D.	0.001	0.005	1.07
10237	Toluene	108-88-3	N.D.	0.001	0.005	1.07
10237	Xylene (Total)	1330-20-7	N.D.	0.001	0.005	1.07
GC	Volatiles	SW-846 8015B modified	mg/kg	mg/kg	mg/kg	
01725	TPH-GRO N. CA soil C6-C12	n.a.	N.D.	0.5	1.1	27.2

General Sample Comments

CA ELAP Lab Certification No. 2792

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10237	VOCs 8260 BTEX/MTBE/Naph Soil	SW-846 8260B	1	B160613AA	03/02/2016 00:15	Sara E Johnson	1.07
10237	VOCs 8260 BTEX/MTBE/Naph Soil	SW-846 8260B	1	Q160631AA	03/03/2016 14:28	Anita M Dale	55.07
00374	GC/MS - Bulk Soil Prep	SW-846 5035A Modified	1	201605840241	02/27/2016 12:53	Mitchell R Washel	n.a.
00374	GC/MS - Bulk Soil Prep	SW-846 5035A Modified	2	201605840241	02/27/2016 12:53	Mitchell R Washel	n.a.
06646	GC/MS HL Bulk Sample Prep	SW-846 5035A Modified	1	201605840241	02/27/2016 12:33	Mitchell R Washel	n.a.
01725	TPH-GRO N. CA soil C6-C12	SW-846 8015B modified	1	16062A31A	03/03/2016 21:44	Jeremy C Giffin	27.2
01150	GC - Bulk Soil Prep	SW-846 5035A Modified	1	201605840241	02/27/2016 12:34	Mitchell R Washel	n.a.

*=This limit was used in the evaluation of the final result



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Analysis Report

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Sample Description: B-7-S-5-160223 Grab Soil
Facility# 90076 CRAW
4265 Foothill Blvd-Oakland T0600100339

LL Sample # SW 8260266
LL Group # 1635198
Account # 10880

Project Name: 90076

Collected: 02/23/2016 14:15 by BY

ChevronTexaco

6001 Bollinger Canyon Rd L4310
San Ramon CA 94583

Submitted: 02/26/2016 09:30

Reported: 03/09/2016 10:56

FOB75

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
GC/MS	Volatiles	SW-846 8260B	mg/kg	mg/kg	mg/kg	
10237	Benzene	71-43-2	N.D.	0.025	0.25	50.4
10237	Ethylbenzene	100-41-4	0.71	0.050	0.25	50.4
10237	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.025	0.25	50.4
10237	Naphthalene	91-20-3	1.2	0.050	0.25	50.4
10237	Toluene	108-88-3	N.D.	0.050	0.25	50.4
10237	Xylene (Total)	1330-20-7	1.0	0.050	0.25	50.4
GC	Volatiles	SW-846 8015B modified	mg/kg	mg/kg	mg/kg	
01725	TPH-GRO N. CA soil C6-C12	n.a.	320	110	220	5393.74

General Sample Comments

CA ELAP Lab Certification No. 2792

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10237	VOCs 8260 BTEX/MTBE/Naph Soil	SW-846 8260B	1	Q160601AA	02/29/2016 17:30	Angela D Sneeringer	50.4
00374	GC/MS - Bulk Soil Prep	SW-846 5035A Modified	1	201605840241	02/27/2016 12:53	Mitchell R Washel	n.a.
00374	GC/MS - Bulk Soil Prep	SW-846 5035A Modified	2	201605840241	02/27/2016 12:53	Mitchell R Washel	n.a.
00374	GC/MS - Bulk Soil Prep	SW-846 5035A Modified	3	201605840241	02/27/2016 12:53	Mitchell R Washel	n.a.
00374	GC/MS - Bulk Soil Prep	SW-846 5035A Modified	4	201605840241	02/27/2016 12:53	Mitchell R Washel	n.a.
06646	GC/MS HL Bulk Sample Prep	SW-846 5035A Modified	1	201605840241	02/27/2016 12:31	Mitchell R Washel	n.a.
06646	GC/MS HL Bulk Sample Prep	SW-846 5035A Modified	2	201605840241	02/27/2016 12:23	Mitchell R Washel	n.a.
06646	GC/MS HL Bulk Sample Prep	SW-846 5035A Modified	3	201605840241	02/27/2016 12:24	Mitchell R Washel	n.a.
01725	TPH-GRO N. CA soil C6-C12	SW-846 8015B modified	1	16062A31A	03/03/2016 19:20	Jeremy C Giffin	5393.74
01150	GC - Bulk Soil Prep	SW-846 5035A Modified	1	201605840241	02/27/2016 12:32	Mitchell R Washel	n.a.
01150	GC - Bulk Soil Prep	SW-846 5035A Modified	2	201605840241	02/27/2016 12:26	Mitchell R Washel	n.a.
01150	GC - Bulk Soil Prep	SW-846 5035A Modified	3	201605840241	02/27/2016 12:27	Mitchell R Washel	n.a.

*=This limit was used in the evaluation of the final result

Sample Description: B-7-S-5-160223 Grab Soil
Facility# 90076 CRAW
4265 Foothill Blvd-Oakland T0600100339

LL Sample # SW 8260266
LL Group # 1635198
Account # 10880

Project Name: 90076

Collected: 02/23/2016 14:15 by BY

ChevronTexaco

6001 Bollinger Canyon Rd L4310
San Ramon CA 94583

Submitted: 02/26/2016 09:30

Reported: 03/09/2016 10:56

FOB75

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
01150	GC - Bulk Soil Prep	SW-846 5035A Modified	4	201605840241	02/27/2016 12:27	Mitchell R Washel	n.a.
01150	GC - Bulk Soil Prep	SW-846 5035A Modified	5	201605840241	02/27/2016 12:29	Mitchell R Washel	n.a.

*=This limit was used in the evaluation of the final result



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Analysis Report

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Sample Description: B-7-S-10-160223 Grab Soil
Facility# 90076 CRAW
4265 Foothill Blvd-Oakland T0600100339

LL Sample # SW 8260267
LL Group # 1635198
Account # 10880

Project Name: 90076

Collected: 02/23/2016 14:40 by BY

ChevronTexaco

6001 Bollinger Canyon Rd L4310
San Ramon CA 94583

Submitted: 02/26/2016 09:30

Reported: 03/09/2016 10:56

FO710

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
GC/MS	Volatiles	SW-846 8260B	mg/kg	mg/kg	mg/kg	
10237	Benzene	71-43-2	N.D.	0.0005	0.005	1
10237	Ethylbenzene	100-41-4	N.D.	0.001	0.005	1
10237	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.0005	0.005	1
10237	Naphthalene	91-20-3	N.D.	0.001	0.005	1
10237	Toluene	108-88-3	N.D.	0.001	0.005	1
10237	Xylene (Total)	1330-20-7	N.D.	0.001	0.005	1
GC	Volatiles	SW-846 8015B modified	mg/kg	mg/kg	mg/kg	
01725	TPH-GRO N. CA soil C6-C12	n.a.	N.D.	0.5	1.0	25.69

General Sample Comments

CA ELAP Lab Certification No. 2792

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10237	VOCs 8260 BTEX/MTBE/Naph Soil	SW-846 8260B	1	B160613AA	03/01/2016 23:52	Sara E Johnson	1
00374	GC/MS - Bulk Soil Prep	SW-846 5035A Modified	1	201605840241	02/27/2016 12:53	Mitchell R Washel	n.a.
00374	GC/MS - Bulk Soil Prep	SW-846 5035A Modified	2	201605840241	02/27/2016 12:53	Mitchell R Washel	n.a.
06646	GC/MS HL Bulk Sample Prep	SW-846 5035A Modified	1	201605840241	02/27/2016 12:23	Mitchell R Washel	n.a.
01725	TPH-GRO N. CA soil C6-C12	SW-846 8015B modified	1	16062A31A	03/03/2016 22:19	Jeremy C Giffin	25.69
01150	GC - Bulk Soil Prep	SW-846 5035A Modified	1	201605840241	02/27/2016 12:24	Mitchell R Washel	n.a.

*=This limit was used in the evaluation of the final result

Quality Control Summary

Client Name: ChevronTexaco
Reported: 03/09/2016 10:56

Group Number: 1635198

Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD was performed, unless otherwise specified in the method.

All Inorganic Initial Calibration and Continuing Calibration Blanks met acceptable method criteria unless otherwise noted on the Analysis Report.

Method Blank

Analysis Name	Result	MDL**	LOQ
	mg/kg	mg/kg	mg/kg
Batch number: B160613AA	Sample number(s): 8260261-8260265, 8260267		
Benzene	N.D.	0.0005	0.005
Ethylbenzene	N.D.	0.001	0.005
Methyl Tertiary Butyl Ether	N.D.	0.0005	0.005
Naphthalene	N.D.	0.001	0.005
Toluene	N.D.	0.001	0.005
Xylene (Total)	N.D.	0.001	0.005
Batch number: B160621AA	Sample number(s): 8260260		
Benzene	N.D.	0.0005	0.005
Ethylbenzene	N.D.	0.001	0.005
Methyl Tertiary Butyl Ether	N.D.	0.0005	0.005
Naphthalene	N.D.	0.001	0.005
Toluene	N.D.	0.001	0.005
Xylene (Total)	N.D.	0.001	0.005
Batch number: Q160601AA	Sample number(s): 8260266		
Benzene	N.D.	0.025	0.25
Ethylbenzene	N.D.	0.050	0.25
Methyl Tertiary Butyl Ether	N.D.	0.025	0.25
Naphthalene	N.D.	0.050	0.25
Toluene	N.D.	0.050	0.25
Xylene (Total)	N.D.	0.050	0.25
Batch number: Q160631AA	Sample number(s): 8260265		
Methyl Tertiary Butyl Ether	N.D.	0.025	0.25
Batch number: 16061A31A	Sample number(s): 8260260-8260263		
TPH-GRO N. CA soil C6-C12	N.D.	0.5	1.0
Batch number: 16062A31A	Sample number(s): 8260264-8260267		
TPH-GRO N. CA soil C6-C12	N.D.	0.5	1.0

LCS/LCSD

Analysis Name	LCS Spike	LCS	LCSD Spike	LCSD	LCS	LCSD	LCS/LCSD	RPD	RPD
	Added	Conc	Added	Conc	%REC	%REC	Limits		Max
	mg/kg	mg/kg	mg/kg	mg/kg					
Batch number: B160613AA	Sample number(s): 8260261-8260265, 8260267								
Benzene	0.0200	0.0212	0.0200	0.0191	106	96	80-120	11	30
Ethylbenzene	0.0200	0.0216	0.0200	0.0194	108	97	80-120	11	30
Methyl Tertiary Butyl Ether	0.0200	0.0201	0.0200	0.0188	101	94	72-120	7	30
Naphthalene	0.0200	0.0198	0.0200	0.0185	99	93	53-120	7	30
Toluene	0.0200	0.0213	0.0200	0.0191	107	95	80-120	11	30

*- Outside of specification

**This limit was used in the evaluation of the final result for the blank

(1) The result for one or both determinations was less than five times the LOQ.

(2) The unspiked result was more than four times the spike added.

P##### is indicative of a Background or Unspiked sample that is batch matrix QC and was not performed using a sample from this submission group.

Quality Control Summary

Client Name: ChevronTexaco
Reported: 03/09/2016 10:56

Group Number: 1635198

Analysis Name	LCS Spike Added mg/kg	LCS Conc mg/kg	LCSD Spike Added mg/kg	LCSD Conc mg/kg	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Xylene (Total)	0.0600	0.0638	0.0600	0.0579	106	96	80-120	10	30
Batch number: B160621AA	Sample number(s): 8260260								
Benzene	0.0200	0.0176	0.0200	0.0203	88	102	80-120	14	30
Ethylbenzene	0.0200	0.0176	0.0200	0.0205	88	103	80-120	15	30
Methyl Tertiary Butyl Ether	0.0200	0.0170	0.0200	0.0186	85	93	72-120	9	30
Naphthalene	0.0200	0.0170	0.0200	0.0186	85	93	53-120	9	30
Toluene	0.0200	0.0178	0.0200	0.0203	89	101	80-120	13	30
Xylene (Total)	0.0600	0.0533	0.0600	0.0608	89	101	80-120	13	30
Batch number: Q160601AA	Sample number(s): 8260266								
Benzene	1.00	0.894	1.00	1.00	89	100	80-120	12	30
Ethylbenzene	1.00	0.862	1.00	0.970	86	97	80-120	12	30
Methyl Tertiary Butyl Ether	1.00	0.947	1.00	1.07	95	107	72-120	12	30
Naphthalene	1.00	0.802	1.00	0.919	80	92	53-120	14	30
Toluene	1.00	0.868	1.00	0.981	87	98	80-120	12	30
Xylene (Total)	3.00	2.57	3.00	2.91	86	97	80-120	12	30
Batch number: Q160631AA	Sample number(s): 8260265								
Methyl Tertiary Butyl Ether	1.00	1.03	1.00	1.00	103	100	72-120	3	30
	mg/kg	mg/kg	mg/kg	mg/kg					
Batch number: 16061A31A	Sample number(s): 8260260-8260263								
TPH-GRO N. CA soil C6-C12	11	9.27	11	9.28	84	84	63-120	0	30
Batch number: 16062A31A	Sample number(s): 8260264-8260267								
TPH-GRO N. CA soil C6-C12	11	10.39	11	8.45	94	77	63-120	21	30

Surrogate Quality Control

Surrogate recoveries which are outside of the QC window are confirmed unless attributed to dilution or otherwise noted on the Analysis Report.

Analysis Name: VOCs 8260 BTEX/MTBE/Naph Soil
Batch number: B160613AA

	D	12-D	- 4	T - 8	4-B
8260261	105	101		101	99
8260262	103	94		101	99
8260263	101	96		103	101
8260264	103	96		103	100
8260265	101	94		101	98
8260267	104	95		100	98
Blank	104	100		100	100
LCS	103	98		103	102
LCSD	103	101		102	102
Limits:	50-141	54-135		52-141	50-131

Analysis Name: VOCs 8260 BTEX/MTBE/Naph Soil
Batch number: B160621AA

*- Outside of specification

** - This limit was used in the evaluation of the final result for the blank

(1) The result for one or both determinations was less than five times the LOQ.

(2) The unspiked result was more than four times the spike added.

P##### is indicative of a Background or Unspiked sample that is batch matrix QC and was not performed using a sample from this submission group.

Quality Control Summary

Client Name: ChevronTexaco
Reported: 03/09/2016 10:56

Group Number: 1635198

	D	12-D	- 4	T - 8	4-B
8260260	103	101		102	98
Blank	100	99		102	98
LCS	103	102		103	101
LCSD	101	100		103	100
Limits:	50-141	54-135		52-141	50-131

Analysis Name: VOCs 8260 BTEX/MTBE/Naph Soil
Batch number: Q160601AA

	D	12-D	- 4	T - 8	4-B
8260266	82	84		80	85
Blank	96	100		94	95
LCS	89	92		88	95
LCSD	116	109		112	127
Limits:	50-141	54-135		52-141	50-131

Analysis Name: TPH-GRO N. CA soil C6-C12
Batch number: 16061A31A

	T	-F
8260260	90	
8260261	82	
8260262	86	
8260263	85	
Blank	99	
LCS	107	
LCSD	114	
Limits:	50-142	

Analysis Name: TPH-GRO N. CA soil C6-C12
Batch number: 16062A31A

	T	-F
8260264	84	
8260265	85	
8260266	292*	
8260267	89	
Blank	96	
LCS	109	
LCSD	100	
Limits:	50-142	

*- Outside of specification

**--This limit was used in the evaluation of the final result for the blank

(1) The result for one or both determinations was less than five times the LOQ.

(2) The unspiked result was more than four times the spike added.

P##### is indicative of a Background or Unspiked sample that is batch matrix QC and was not performed using a sample from this submission group.

Acct. # 10880

For Eurofins Lancaster Laboratories Environmental use only

Group # 1635198 Sample # 8260260-67

Instructions on reverse side correspond with circled numbers.

Eurofins Lancaster Laboratories Environmental, LLC • 2425 New Holland Pike, Lancaster, PA 17601 • 717-656-2300

The white copy should accompany samples to Eurofins Lancaster Laboratories Environmental. The yellow copy should be retained by the client.



Lancaster Laboratories
Environmental

Sample Administration Receipt Documentation Log

Doc Log ID: 137586

Group Number(s): 1635198

Client: CA Office

Delivery and Receipt Information

Delivery Method:	<u>BASC</u>	Arrival Timestamp:	<u>02/26/2016 9:30</u>
Number of Packages:	<u>4</u>	Number of Projects:	<u>2</u>
State/Province of Origin:	<u>CA</u>		

Arrival Condition Summary

Shipping Container Sealed:	Yes	Sample IDs on COC match Containers:	Yes
Custody Seal Present:	Yes	Sample Date/Times match COC:	Yes
Custody Seal Intact:	Yes	VOA Vial Headspace \geq 6mm:	N/A
Samples Chilled:	Yes	Total Trip Blank Qty:	0
Paperwork Enclosed:	Yes	Air Quality Samples Present:	No
Samples Intact:	Yes		
Missing Samples:	No		
Extra Samples:	No		
Discrepancy in Container Qty on COC:	No		

Unpacked by Timothy Cubberley (6520) at 11:05 on 02/26/2016

Samples Chilled Details

Thermometer Types: DT = Digital (Temp. Bottle) IR = Infrared (Surface Temp) All Temperatures in °C.

Cooler #	Thermometer ID	Corrected Temp	Therm. Type	Ice Type	Ice Present?	Ice Container	Elevated Temp?
1	DT131	1.1	DT	Wet	Y	Bagged	N
2	DT131	0.8	DT	Wet	Y	Bagged	N
3	DT131	1.5	DT	Wet	Y	Bagged	N
4	DT131	1.9	DT	Wet	Y	Bagged	N

Explanation of Symbols and Abbreviations

The following defines common symbols and abbreviations used in reporting technical data:

RL	Reporting Limit	BMQL	Below Minimum Quantitation Level
N.D.	none detected	MPN	Most Probable Number
TNTC	Too Numerous To Count	CP Units	cobalt-chloroplatinate units
IU	International Units	NTU	nephelometric turbidity units
umhos/cm	micromhos/cm	ng	nanogram(s)
C	degrees Celsius	F	degrees Fahrenheit
meq	milliequivalents	lb.	pound(s)
g	gram(s)	kg	kilogram(s)
µg	microgram(s)	mg	milligram(s)
mL	milliliter(s)	L	liter(s)
m3	cubic meter(s)	µL	microliter(s)
		pg/L	picogram/liter
<	less than		
>	greater than		
ppm	parts per million - One ppm is equivalent to one milligram per kilogram (mg/kg) or one gram per million grams. For aqueous liquids, ppm is usually taken to be equivalent to milligrams per liter (mg/l), because one liter of water has a weight very close to a kilogram. For gases or vapors, one ppm is equivalent to one microliter per liter of gas.		
ppb	parts per billion		
Dry weight basis	Results printed under this heading have been adjusted for moisture content. This increases the analyte weight concentration to approximate the value present in a similar sample without moisture. All other results are reported on an as-received basis.		

Laboratory Data Qualifiers:

- B - Analyte detected in the blank
- C - Result confirmed by reanalysis
- E - Concentration exceeds the calibration range
- J (or G, I, X) - estimated value \geq the Method Detection Limit (MDL or DL) and $<$ the Limit of Quantitation (LOQ or RL)
- P - Concentration difference between the primary and confirmation column $>40\%$. The lower result is reported.
- U - Analyte was not detected at the value indicated
- V - Concentration difference between the primary and confirmation column $>100\%$. The reporting limit is raised due to this disparity and evident interference...

Additional Organic and Inorganic CLP qualifiers may be used with Form 1 reports as defined by the CLP methods. Qualifiers specific to Dioxin/Furans and PCB Congeners are detailed on the individual Analysis Report.

Analytical test results meet all requirements of the associated regulatory program (i.e., NELAC (TNI), DoD, and ISO 17025) unless otherwise noted under the individual analysis.

Measurement uncertainty values, as applicable, are available upon request.

Tests results relate only to the sample tested. Clients should be aware that a critical step in a chemical or microbiological analysis is the collection of the sample. Unless the sample analyzed is truly representative of the bulk of material involved, the test results will be meaningless. If you have questions regarding the proper techniques of collecting samples, please contact us. We cannot be held responsible for sample integrity, however, unless sampling has been performed by a member of our staff.

This report shall not be reproduced except in full, without the written approval of the laboratory.

Times are local to the area of activity. Parameters listed in the 40 CFR Part 136 Table II as "analyze immediately" are not performed within 15 minutes.

WARRANTY AND LIMITS OF LIABILITY - In accepting analytical work, we warrant the accuracy of test results for the sample as submitted. THE FOREGOING EXPRESS WARRANTY IS EXCLUSIVE AND IS GIVEN IN LIEU OF ALL OTHER WARRANTIES, EXPRESSED OR IMPLIED. WE DISCLAIM ANY OTHER WARRANTIES, EXPRESSED OR IMPLIED, INCLUDING A WARRANTY OF FITNESS FOR PARTICULAR PURPOSE AND WARRANTY OF MERCHANTABILITY. IN NO EVENT SHALL EUROFINS LANCASTER LABORATORIES ENVIRONMENTAL, LLC BE LIABLE FOR INDIRECT, SPECIAL, CONSEQUENTIAL, OR INCIDENTAL DAMAGES INCLUDING, BUT NOT LIMITED TO, DAMAGES FOR LOSS OF PROFIT OR GOODWILL REGARDLESS OF (A) THE NEGLIGENCE (EITHER SOLE OR CONCURRENT) OF EUROFINS LANCASTER LABORATORIES ENVIRONMENTAL AND (B) WHETHER EUROFINS LANCASTER LABORATORIES ENVIRONMENTAL HAS BEEN INFORMED OF THE POSSIBILITY OF SUCH DAMAGES. We accept no legal responsibility for the purposes for which the client uses the test results. No purchase order or other order for work shall be accepted by Eurofins Lancaster Laboratories Environmental which includes any conditions that vary from the Standard Terms and Conditions, and Eurofins Lancaster Laboratories Environmental hereby objects to any conflicting terms contained in any acceptance or order submitted by client.

ANALYTICAL RESULTS

Prepared by:

Eurofins Lancaster Laboratories Environmental
2425 New Holland Pike
Lancaster, PA 17601

Prepared for:

Chevron
6001 Bollinger Canyon Rd L4310
San Ramon CA 94583

Report Date: March 23, 2016

Project: 90076

Submittal Date: 03/12/2016

Group Number: 1640133

PO Number: 0015195461

Release Number: HORNE

State of Sample Origin: CA

<u>Client Sample Description</u>	<u>Lancaster Labs (LL) #</u>
C-1-W-160308 NA Water	8283742
C-2-W-160308 NA Water	8283743
C-3-W-160308 NA Water	8283744
C-4-W-160308 NA Water	8283745
C-5-W-160308 NA Water	8283746
C-6-W-160308 NA Water	8283747
C-8-W-160308 NA Water	8283748
C-10-W-160308 NA Water	8283749
C-11-W-160308 NA Water	8283750
C-13-W-160308 NA Water	8283751
QA-T-160308 NA Water	8283752

The specific methodologies used in obtaining the enclosed analytical results are indicated on the Laboratory Sample Analysis Record.

Regulatory agencies do not accredit laboratories for all methods, analytes, and matrices. Our scopes of accreditation can be viewed at <http://www.eurofinsus.com/environment-testing/laboratories/eurofins-lancaster-laboratories-environmental/resources/certifications/>.

Electronic Copy To CRA
Electronic Copy To Chevron
Electronic Copy To Blaine Tech Services, Inc.
Electronic Copy To Chevron

Attn: Nathan Lee
Attn: Anna Avina
Attn: Dustin Becker
Attn: Report Contact

Respectfully Submitted,



Amek Carter
Specialist

(717) 556-7252



Lancaster Laboratories
Environmental

Analysis Report

2425 New Holland Pike, Lancaster, PA 17601 • 717-656-2300 • Fax: 717-656-2681 • www.LancasterLabs.com

Sample Description: C-1-W-160308 NA Water
Facility #90076 BTST
4265 Foothill-Oakland T0600100339

LL Sample # WW 8283742
LL Group # 1640133
Account # 10991

Project Name: 90076

Collected: 03/08/2016 14:35 by BW

Chevron

6001 Bollinger Canyon Rd L4310
San Ramon CA 94583

Submitted: 03/12/2016 09:10

Reported: 03/23/2016 21:37

FBOC1

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit*	Limit of Quantitation	Dilution Factor
GC/MS	Volatiles	SW-846 8260B	ug/l	ug/l	ug/l	
10945	Benzene	71-43-2	180	5	10	10
10945	Ethanol	64-17-5	N.D.	50	250	1
10945	Ethylbenzene	100-41-4	1	0.5	1	1
10945	Methyl Tertiary Butyl Ether	1634-04-4	29	0.5	1	1
10945	Toluene	108-88-3	4	0.5	1	1
10945	Xylene (Total)	1330-20-7	2	0.5	1	1
GC	Volatiles	SW-846 8015B	ug/l	ug/l	ug/l	
01728	TPH-GRO N. CA water C6-C12	n.a.	1,300	50	100	1

General Sample Comments

CA ELAP Lab Certification No. 2792

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	BTEX/MTBE/ETOH Water	SW-846 8260B	1	F160755AA	03/16/2016 04:47	Hu Yang	1
10945	BTEX/MTBE/ETOH Water	SW-846 8260B	1	F160761AA	03/17/2016 03:41	Hu Yang	10
01163	GC/MS VOA Water Prep	SW-846 5030B	1	F160755AA	03/16/2016 04:47	Hu Yang	1
01163	GC/MS VOA Water Prep	SW-846 5030B	2	F160761AA	03/17/2016 03:41	Hu Yang	10
01728	TPH-GRO N. CA water C6-C12	SW-846 8015B	1	16077C20A	03/18/2016 19:57	Jeremy C Giffin	1
01146	GC VOA Water Prep	SW-846 5030B	1	16077C20A	03/18/2016 19:57	Jeremy C Giffin	1

*=This limit was used in the evaluation of the final result



Lancaster Laboratories
Environmental

Analysis Report

2425 New Holland Pike, Lancaster, PA 17601 • 717-656-2300 • Fax: 717-656-2681 • www.LancasterLabs.com

Sample Description: C-2-W-160308 NA Water
Facility #90076 BTST
4265 Foothill-Oakland T0600100339

LL Sample # WW 8283743
LL Group # 1640133
Account # 10991

Project Name: 90076

Collected: 03/08/2016 14:50 by BW

Chevron

6001 Bollinger Canyon Rd L4310
San Ramon CA 94583

Submitted: 03/12/2016 09:10

Reported: 03/23/2016 21:37

FBOC2

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit*	Limit of Quantitation	Dilution Factor
GC/MS	Volatiles	SW-846 8260B	ug/l	ug/l	ug/l	
10945	Benzene	71-43-2	540	3	5	5
10945	Ethanol	64-17-5	N.D.	250	1,300	5
10945	Ethylbenzene	100-41-4	140	3	5	5
10945	Methyl Tertiary Butyl Ether	1634-04-4	37	3	5	5
10945	Toluene	108-88-3	27	3	5	5
10945	Xylene (Total)	1330-20-7	140	3	5	5
GC	Volatiles	SW-846 8015B	ug/l	ug/l	ug/l	
01728	TPH-GRO N. CA water C6-C12	n.a.	9,700	250	500	5

General Sample Comments

CA ELAP Lab Certification No. 2792

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	BTEX/MTBE/ETOH Water	SW-846 8260B	1	F160755AA	03/16/2016 05:30	Hu Yang	5
01163	GC/MS VOA Water Prep	SW-846 5030B	1	F160755AA	03/16/2016 05:30	Hu Yang	5
01728	TPH-GRO N. CA water C6-C12	SW-846 8015B	1	16077C20A	03/19/2016 03:19	Jeremy C Giffin	5
01146	GC VOA Water Prep	SW-846 5030B	1	16077C20A	03/19/2016 03:19	Jeremy C Giffin	5

*=This limit was used in the evaluation of the final result



Lancaster Laboratories
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Analysis Report

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Sample Description: C-3-W-160308 NA Water
Facility #90076 BTST
4265 Foothill-Oakland T0600100339

LL Sample # WW 8283744
LL Group # 1640133
Account # 10991

Project Name: 90076

Collected: 03/08/2016 14:20 by BW

Chevron

6001 Bollinger Canyon Rd L4310
San Ramon CA 94583

Submitted: 03/12/2016 09:10

Reported: 03/23/2016 21:37

FBOC3

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit*	Limit of Quantitation	Dilution Factor
GC/MS	Volatiles	SW-846 8260B	ug/l	ug/l	ug/l	
10945	Benzene	71-43-2	N.D.	0.5	1	1
10945	Ethanol	64-17-5	N.D.	50	250	1
10945	Ethylbenzene	100-41-4	N.D.	0.5	1	1
10945	Methyl Tertiary Butyl Ether	1634-04-4	290	0.5	1	1
10945	Toluene	108-88-3	N.D.	0.5	1	1
10945	Xylene (Total)	1330-20-7	N.D.	0.5	1	1
GC	Volatiles	SW-846 8015B	ug/l	ug/l	ug/l	
01728	TPH-GRO N. CA water C6-C12	n.a.	55 J	50	100	1

General Sample Comments

CA ELAP Lab Certification No. 2792

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	BTEX/MTBE/ETOH Water	SW-846 8260B	1	F160761AA	03/17/2016 00:46	Hu Yang	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	F160761AA	03/17/2016 00:46	Hu Yang	1
01728	TPH-GRO N. CA water C6-C12	SW-846 8015B	1	16077C20A	03/18/2016 20:25	Jeremy C Giffin	1
01146	GC VOA Water Prep	SW-846 5030B	1	16077C20A	03/18/2016 20:25	Jeremy C Giffin	1

*=This limit was used in the evaluation of the final result



Lancaster Laboratories
Environmental

Analysis Report

2425 New Holland Pike, Lancaster, PA 17601 • 717-656-2300 • Fax: 717-656-2681 • www.LancasterLabs.com

Sample Description: C-4-W-160308 NA Water
Facility #90076 BTST
4265 Foothill-Oakland T0600100339

LL Sample # WW 8283745
LL Group # 1640133
Account # 10991

Project Name: 90076

Collected: 03/08/2016 15:10 by BW

Chevron

6001 Bollinger Canyon Rd L4310
San Ramon CA 94583

Submitted: 03/12/2016 09:10

Reported: 03/23/2016 21:37

FBOC4

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit*	Limit of Quantitation	Dilution Factor
GC/MS	Volatiles	SW-846 8260B	ug/l	ug/l	ug/l	
10945	Benzene	71-43-2	910	5	10	10
10945	Ethanol	64-17-5	N.D.	500	2,500	10
10945	Ethylbenzene	100-41-4	15	5	10	10
10945	Methyl Tertiary Butyl Ether	1634-04-4	9 J	5	10	10
10945	Toluene	108-88-3	19	5	10	10
10945	Xylene (Total)	1330-20-7	38	5	10	10
GC	Volatiles	SW-846 8015B	ug/l	ug/l	ug/l	
01728	TPH-GRO N. CA water C6-C12	n.a.	6,300	250	500	5

General Sample Comments

CA ELAP Lab Certification No. 2792

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	BTEX/MTBE/ETOH Water	SW-846 8260B	1	F160761AA	03/17/2016 04:03	Hu Yang	10
01163	GC/MS VOA Water Prep	SW-846 5030B	1	F160761AA	03/17/2016 04:03	Hu Yang	10
01728	TPH-GRO N. CA water C6-C12	SW-846 8015B	1	16077C20A	03/19/2016 03:46	Jeremy C Giffin	5
01146	GC VOA Water Prep	SW-846 5030B	1	16077C20A	03/19/2016 03:46	Jeremy C Giffin	5

*=This limit was used in the evaluation of the final result



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Analysis Report

2425 New Holland Pike, Lancaster, PA 17601 • 717-656-2300 • Fax: 717-656-2681 • www.LancasterLabs.com

Sample Description: C-5-W-160308 NA Water
Facility #90076 BTST
4265 Foothill-Oakland T0600100339

LL Sample # WW 8283746
LL Group # 1640133
Account # 10991

Project Name: 90076

Collected: 03/08/2016 13:20 by BW

Chevron

6001 Bollinger Canyon Rd L4310
San Ramon CA 94583

Submitted: 03/12/2016 09:10

Reported: 03/23/2016 21:37

FBOC5

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit*	Limit of Quantitation	Dilution Factor
GC/MS Volatiles						
		SW-846 8260B	ug/l	ug/l	ug/l	
10945	Benzene	71-43-2	3	0.5	1	1
10945	Ethanol	64-17-5	N.D.	50	250	1
10945	Ethylbenzene	100-41-4	0.7 J	0.5	1	1
10945	Methyl Tertiary Butyl Ether	1634-04-4	6	0.5	1	1
10945	Toluene	108-88-3	N.D.	0.5	1	1
10945	Xylene (Total)	1330-20-7	N.D.	0.5	1	1
GC Volatiles						
		SW-846 8015B	ug/l	ug/l	ug/l	
01728	TPH-GRO N. CA water C6-C12	n.a.	81 J	50	100	1

General Sample Comments

CA ELAP Lab Certification No. 2792

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	BTEX/MTBE/ETOH Water	SW-846 8260B	1	F160761AA	03/17/2016 01:07	Hu Yang	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	F160761AA	03/17/2016 01:07	Hu Yang	1
01728	TPH-GRO N. CA water C6-C12	SW-846 8015B	1	16077C20A	03/18/2016 20:53	Jeremy C Giffin	1
01146	GC VOA Water Prep	SW-846 5030B	1	16077C20A	03/18/2016 20:53	Jeremy C Giffin	1

*=This limit was used in the evaluation of the final result



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Analysis Report

2425 New Holland Pike, Lancaster, PA 17601 • 717-656-2300 • Fax: 717-656-2681 • www.LancasterLabs.com

Sample Description: C-6-W-160308 NA Water
Facility #90076 BTST
4265 Foothill-Oakland T0600100339

LL Sample # WW 8283747
LL Group # 1640133
Account # 10991

Project Name: 90076

Collected: 03/08/2016 13:40 by BW

Chevron

6001 Bollinger Canyon Rd L4310
San Ramon CA 94583

Submitted: 03/12/2016 09:10

Reported: 03/23/2016 21:37

FBOC6

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit*	Limit of Quantitation	Dilution Factor
GC/MS	Volatiles	SW-846 8260B	ug/l	ug/l	ug/l	
10945	Benzene	71-43-2	N.D.	0.5	1	1
10945	Ethanol	64-17-5	N.D.	50	250	1
10945	Ethylbenzene	100-41-4	N.D.	0.5	1	1
10945	Methyl Tertiary Butyl Ether	1634-04-4	3	0.5	1	1
10945	Toluene	108-88-3	N.D.	0.5	1	1
10945	Xylenes (Total)	1330-20-7	N.D.	0.5	1	1
GC	Volatiles	SW-846 8015B	ug/l	ug/l	ug/l	
01728	TPH-GRO N. CA water C6-C12	n.a.	180	50	100	1

General Sample Comments

CA ELAP Lab Certification No. 2792

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	BTEX/MTBE/ETOH Water	SW-846 8260B	1	F160761AA	03/17/2016 01:29	Hu Yang	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	F160761AA	03/17/2016 01:29	Hu Yang	1
01728	TPH-GRO N. CA water C6-C12	SW-846 8015B	1	16077C20A	03/18/2016 21:48	Jeremy C Giffin	1
01146	GC VOA Water Prep	SW-846 5030B	1	16077C20A	03/18/2016 21:48	Jeremy C Giffin	1

*=This limit was used in the evaluation of the final result



Lancaster Laboratories
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Analysis Report

2425 New Holland Pike, Lancaster, PA 17601 • 717-656-2300 • Fax: 717-656-2681 • www.LancasterLabs.com

Sample Description: C-8-W-160308 NA Water
Facility #90076 BTST
4265 Foothill-Oakland T0600100339

LL Sample # WW 8283748
LL Group # 1640133
Account # 10991

Project Name: 90076

Collected: 03/08/2016 10:10 by BW

Chevron

6001 Bollinger Canyon Rd L4310
San Ramon CA 94583

Submitted: 03/12/2016 09:10

Reported: 03/23/2016 21:37

FBOC8

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit*	Limit of Quantitation	Dilution Factor
GC/MS	Volatiles	SW-846 8260B	ug/l	ug/l	ug/l	
10945	Benzene	71-43-2	N.D.	0.5	1	1
10945	Ethanol	64-17-5	N.D.	50	250	1
10945	Ethylbenzene	100-41-4	N.D.	0.5	1	1
10945	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.5	1	1
10945	Toluene	108-88-3	N.D.	0.5	1	1
10945	Xylene (Total)	1330-20-7	N.D.	0.5	1	1
GC	Volatiles	SW-846 8015B	ug/l	ug/l	ug/l	
01728	TPH-GRO N. CA water C6-C12	n.a.	N.D.	50	100	1

General Sample Comments

CA ELAP Lab Certification No. 2792

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	BTEX/MTBE/ETOH Water	SW-846 8260B	1	F160761AA	03/17/2016 01:51	Hu Yang	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	F160761AA	03/17/2016 01:51	Hu Yang	1
01728	TPH-GRO N. CA water C6-C12	SW-846 8015B	1	16077C20A	03/18/2016 22:16	Jeremy C Giffin	1
01146	GC VOA Water Prep	SW-846 5030B	1	16077C20A	03/18/2016 22:16	Jeremy C Giffin	1

*=This limit was used in the evaluation of the final result

Sample Description: C-10-W-160308 NA Water
Facility #90076 BTST
4265 Foothill-Oakland T0600100339

LL Sample # WW 8283749
LL Group # 1640133
Account # 10991

Project Name: 90076

Collected: 03/08/2016 11:10 by BW

Chevron

6001 Bollinger Canyon Rd L4310
San Ramon CA 94583

Submitted: 03/12/2016 09:10

Reported: 03/23/2016 21:37

FBO10

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit*	Limit of Quantitation	Dilution Factor
GC/MS	Volatiles	SW-846 8260B	ug/l	ug/l	ug/l	
10945	Benzene	71-43-2	N.D.	0.5	1	1
10945	Ethanol	64-17-5	N.D.	50	250	1
10945	Ethylbenzene	100-41-4	N.D.	0.5	1	1
10945	Methyl Tertiary Butyl Ether	1634-04-4	0.7 J	0.5	1	1
10945	Toluene	108-88-3	N.D.	0.5	1	1
10945	Xylene (Total)	1330-20-7	N.D.	0.5	1	1
GC Volatiles	SW-846 8015B	ug/l	ug/l	ug/l		
01728	TPH-GRO N. CA water C6-C12	n.a.	N.D.	50	100	1

General Sample Comments

CA ELAP Lab Certification No. 2792

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	BTEX/MTBE/ETOH Water	SW-846 8260B	1	F160761AA	03/17/2016 02:13	Hu Yang	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	F160761AA	03/17/2016 02:13	Hu Yang	1
01728	TPH-GRO N. CA water C6-C12	SW-846 8015B	1	16077C20A	03/18/2016 22:43	Jeremy C Giffin	1
01146	GC VOA Water Prep	SW-846 5030B	1	16077C20A	03/18/2016 22:43	Jeremy C Giffin	1

*=This limit was used in the evaluation of the final result

Sample Description: C-11-W-160308 NA Water
Facility #90076 BTST
4265 Foothill-Oakland T0600100339

LL Sample # WW 8283750
LL Group # 1640133
Account # 10991

Project Name: 90076

Collected: 03/08/2016 09:30 by BW

Chevron

6001 Bollinger Canyon Rd L4310
San Ramon CA 94583

Submitted: 03/12/2016 09:10

Reported: 03/23/2016 21:37

FBO11

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit*	Limit of Quantitation	Dilution Factor
GC/MS	Volatiles	SW-846 8260B	ug/l	ug/l	ug/l	
10945	Benzene	71-43-2	27	0.5	1	1
10945	Ethanol	64-17-5	N.D.	50	250	1
10945	Ethylbenzene	100-41-4	2	0.5	1	1
10945	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.5	1	1
10945	Toluene	108-88-3	1	0.5	1	1
10945	Xylene (Total)	1330-20-7	N.D.	0.5	1	1
GC Volatiles	SW-846 8015B		ug/l	ug/l	ug/l	
01728	TPH-GRO N. CA water C6-C12	n.a.	280	50	100	1

General Sample Comments

CA ELAP Lab Certification No. 2792

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	BTEX/MTBE/ETOH Water	SW-846 8260B	1	F160761AA	03/17/2016 02:35	Hu Yang	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	F160761AA	03/17/2016 02:35	Hu Yang	1
01728	TPH-GRO N. CA water C6-C12	SW-846 8015B	1	16077C20A	03/18/2016 23:11	Jeremy C Giffin	1
01146	GC VOA Water Prep	SW-846 5030B	1	16077C20A	03/18/2016 23:11	Jeremy C Giffin	1

*=This limit was used in the evaluation of the final result

Sample Description: C-13-W-160308 NA Water
Facility #90076 BTST
4265 Foothill-Oakland T0600100339

LL Sample # WW 8283751
LL Group # 1640133
Account # 10991

Project Name: 90076

Collected: 03/08/2016 14:00 by BW

Chevron

6001 Bollinger Canyon Rd L4310
San Ramon CA 94583

Submitted: 03/12/2016 09:10

Reported: 03/23/2016 21:37

FBO13

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit*	Limit of Quantitation	Dilution Factor
GC/MS	Volatiles	SW-846 8260B	ug/l	ug/l	ug/l	
10945	Benzene	71-43-2	N.D.	0.5	1	1
10945	Ethanol	64-17-5	N.D.	50	250	1
10945	Ethylbenzene	100-41-4	N.D.	0.5	1	1
10945	Methyl Tertiary Butyl Ether	1634-04-4	31	0.5	1	1
10945	Toluene	108-88-3	6	0.5	1	1
10945	Xylene (Total)	1330-20-7	1	0.5	1	1
GC	Volatiles	SW-846 8015B	ug/l	ug/l	ug/l	
01728	TPH-GRO N. CA water C6-Cl2	n.a.	N.D.	50	100	1

General Sample Comments

CA ELAP Lab Certification No. 2792

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	BTEX/MTBE/ETOH Water	SW-846 8260B	1	F160761AA	03/17/2016 02:57	Hu Yang	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	F160761AA	03/17/2016 02:57	Hu Yang	1
01728	TPH-GRO N. CA water C6-Cl2	SW-846 8015B	1	16077C20A	03/18/2016 23:38	Jeremy C Giffin	1
01146	GC VOA Water Prep	SW-846 5030B	1	16077C20A	03/18/2016 23:38	Jeremy C Giffin	1

*=This limit was used in the evaluation of the final result



Lancaster Laboratories
Environmental

Analysis Report

2425 New Holland Pike, Lancaster, PA 17601 • 717-656-2300 • Fax: 717-656-2681 • www.LancasterLabs.com

Sample Description: QA-T-160308 NA Water
Facility #90076 BTST
4265 Foothill-Oakland T0600100339

LL Sample # WW 8283752
LL Group # 1640133
Account # 10991

Project Name: 90076

Collected: 03/08/2016 08:00

Chevron

6001 Bollinger Canyon Rd L4310
San Ramon CA 94583

Submitted: 03/12/2016 09:10

Reported: 03/23/2016 21:37

FBOQA

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit*	Limit of Quantitation	Dilution Factor
GC/MS	Volatiles	SW-846 8260B	ug/l	ug/l	ug/l	
10945	Benzene	71-43-2	N.D.	0.5	1	1
10945	Ethylbenzene	100-41-4	N.D.	0.5	1	1
10945	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.5	1	1
10945	Toluene	108-88-3	N.D.	0.5	1	1
10945	Xylene (Total)	1330-20-7	N.D.	0.5	1	1
GC	Volatiles	SW-846 8015B	ug/l	ug/l	ug/l	
01728	TPH-GRO N. CA water C6-C12	n.a.	N.D.	50	100	1

General Sample Comments

CA ELAP Lab Certification No. 2792

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	BTEX/MTBE	SW-846 8260B	1	F160761AA	03/16/2016 21:51	Hu Yang	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	F160761AA	03/16/2016 21:51	Hu Yang	1
01728	TPH-GRO N. CA water C6-C12	SW-846 8015B	1	16077C20A	03/18/2016 19:02	Jeremy C Giffin	1
01146	GC VOA Water Prep	SW-846 5030B	1	16077C20A	03/18/2016 19:02	Jeremy C Giffin	1

*=This limit was used in the evaluation of the final result

Quality Control Summary

Client Name: Chevron
Reported: 03/23/2016 21:37

Group Number: 1640133

Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD was performed, unless otherwise specified in the method.

All Inorganic Initial Calibration and Continuing Calibration Blanks met acceptable method criteria unless otherwise noted on the Analysis Report.

Method Blank

Analysis Name	Result	MDL**	LOQ
	ug/l	ug/l	ug/l
Batch number: F160755AA	Sample number(s): 8283742-8283743		
Benzene	N.D.	0.5	1
Ethanol	N.D.	50	250
Ethylbenzene	N.D.	0.5	1
Methyl Tertiary Butyl Ether	N.D.	0.5	1
Toluene	N.D.	0.5	1
Xylene (Total)	N.D.	0.5	1
Batch number: F160761AA	Sample number(s): 8283742,8283744-8283752		
Benzene	N.D.	0.5	1
Ethanol	N.D.	50	250
Ethylbenzene	N.D.	0.5	1
Methyl Tertiary Butyl Ether	N.D.	0.5	1
Toluene	N.D.	0.5	1
Xylene (Total)	N.D.	0.5	3
Batch number: 16077C20A	Sample number(s): 8283742-8283752		
TPH-GRO N. CA water C6-C12	N.D.	50	100

LCS/LCSD

Analysis Name	LCS Spike Added	LCS Conc	LCSD Spike Added	LCSD Conc	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
	ug/l	ug/l	ug/l	ug/l					
Batch number: F160755AA	Sample number(s): 8283742-8283743								
Benzene	20	17.76			89		78-120		
Ethanol	500	411.4			82		47-155		
Ethylbenzene	20	17.86			89		78-120		
Methyl Tertiary Butyl Ether	20	16.49			82		75-120		
Toluene	20	18.27			91		80-120		
Xylene (Total)	60	53.97			90		80-120		
Batch number: F160761AA	Sample number(s): 8283742,8283744-8283752								
Benzene	20	18.73	20	17.79	94	89	78-120	5	30
Ethanol	500	468.36	500	466.87	94	93	47-155	0	30
Ethylbenzene	20	18.18	20	17.57	91	88	78-120	3	30
Methyl Tertiary Butyl Ether	20	17.31	20	17.02	87	85	75-120	2	30
Toluene	20	18.42	20	18.16	92	91	80-120	1	30
Xylene (Total)	60	54.45	60	53.11	91	89	80-120	2	30
	ug/l	ug/l	ug/l	ug/l					
Batch number: 16077C20A	Sample number(s): 8283742-8283752								

*- Outside of specification

** - This limit was used in the evaluation of the final result for the blank

(1) The result for one or both determinations was less than five times the LOQ.

(2) The unspiked result was more than four times the spike added.

P##### is indicative of a Background or Unspiked sample that is batch matrix QC and was not performed using a sample from this submission group.

Quality Control Summary

Client Name: Chevron
Reported: 03/23/2016 21:37

Group Number: 1640133

Analysis Name	LCS Spike Added ug/l	LCS Conc ug/l	LCSD Spike Added ug/l	LCSD Conc ug/l	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
TPH-GRO N. CA water C6-C12	1100	999.73	1100	1013.96	91	92	77-120	1	30

MS/MSD

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike

Analysis Name	Unspiked Conc ug/l	MS Spike Added ug/l	MS Conc ug/l	MSD Spike Added ug/l	MSD Conc ug/l	MS %Rec	MSD %Rec	MS/MSD Limits	RPD	RPD Max
Batch number: F160755AA	Sample number(s): 8283742-8283743 UNSPK: P282944									
Benzene	N.D.	20	17.5	20	17.37	87	87	78-120	1	30
Ethanol	N.D.	500	406.72	500	439.12	81	88	47-155	8	30
Ethylbenzene	N.D.	20	17.71	20	17.39	89	87	78-120	2	30
Methyl Tertiary Butyl Ether	N.D.	20	15.44	20	15.43	77	77	75-120	0	30
Toluene	N.D.	20	17.93	20	17.55	90	88	80-120	2	30
Xylene (Total)	N.D.	60	53.54	60	52.29	89	87	80-120	2	30

Surrogate Quality Control

Surrogate recoveries which are outside of the QC window are confirmed unless attributed to dilution or otherwise noted on the Analysis Report.

Analysis Name: BTEX/MTBE/ETOH Water
Batch number: F160755AA

	D	12-D	- 4	T	- 8	4-B
8283742	91	97		98		93
8283743	92	97		97		95
Blank	93	98		97		89
LCS	90	96		98		93
MS	93	102		100		94
MSD	90	100		97		94
Limits:	80-116	77-113		80-113		78-113

Analysis Name: BTEX/MTBE/ETOH Water
Batch number: F160761AA

	D	12-D	- 4	T	- 8	4-B
8283744	93	99		97		90
8283745	93	98		97		90
8283746	94	96		98		92
8283747	91	96		98		91
8283748	94	102		96		91
8283749	93	98		96		88
8283750	93	99		97		91
8283751	96	99		95		91
8283752	93	97		97		89
Blank	92	96		96		89
LCS	93	96		97		93
LCSD	92	99		97		94

*- Outside of specification

** - This limit was used in the evaluation of the final result for the blank

(1) The result for one or both determinations was less than five times the LOQ.

(2) The unspiked result was more than four times the spike added.

P##### is indicative of a Background or Unspiked sample that is batch matrix QC and was not performed using a sample from this submission group.

Quality Control Summary

Client Name: Chevron
Reported: 03/23/2016 21:37

Group Number: 1640133

Limits: 80-116 77-113 80-113 78-113

Analysis Name: TPH-GRO N. CA water C6-C12

Batch number: 16077C20A

	T	-F
8283742	102	
8283743	97	
8283744	77	
8283745	86	
8283746	89	
8283747	84	
8283748	75	
8283749	91	
8283750	81	
8283751	90	
8283752	90	
Blank	91	
LCS	98	
LCSD	86	

Limits: 63-135

*- Outside of specification

** - This limit was used in the evaluation of the final result for the blank

(1) The result for one or both determinations was less than five times the LOQ.

(2) The unspiked result was more than four times the spike added.

P##### is indicative of a Background or Unspiked sample that is batch matrix QC and was not performed using a sample from this submission group.

Chevron Environmental Management Company ■ 6111 Bollinger Canyon Rd. ■ San Ramon, CA 94583

COC 1 of 2

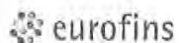
SHIPPED VIA UPS

Chevron Environmental Management Company ■ 6111 Bollinger Canyon Rd. ■ San Ramon, CA 94583

COC 2 of 2

[illegible]

Slipped VV+ WPS



Lancaster Laboratories
Environmental

Sample Administration Receipt Documentation Log

Doc Log ID: 139258

Group Number(s): 1640133

Client: Chevron

Delivery and Receipt Information

Delivery Method:	<u>UPS</u>	Arrival Timestamp:	<u>03/12/2016 9:10</u>
Number of Packages:	<u>1</u>	Number of Projects:	<u>1</u>
State/Province of Origin:	<u>CA</u>		

Arrival Condition Summary

Shipping Container Sealed:	Yes	Sample IDs on COC match Containers:	Yes
Custody Seal Present:	Yes	Sample Date/Times match COC:	Yes
Custody Seal Intact:	Yes	VOA Vial Headspace \geq 6mm:	No
Samples Chilled:	Yes	Total Trip Blank Qty:	2
Paperwork Enclosed:	Yes	Trip Blank Type:	HCI
Samples Intact:	Yes	Air Quality Samples Present:	No
Missing Samples:	No		
Extra Samples:	No		
Discrepancy in Container Qty on COC:	No		

Unpacked by Krista Abel (3058) at 09:41 on 03/12/2016

Samples Chilled Details

Thermometer Types: DT = Digital (Temp. Bottle) IR = Infrared (Surface Temp) All Temperatures in °C.

Cooler #	Thermometer ID	Corrected Temp	Therm. Type	Ice Type	Ice Present?	Ice Container	Elevated Temp?
1	DT131	3.5	DT	Wet	Y	Bagged	N

Explanation of Symbols and Abbreviations

The following defines common symbols and abbreviations used in reporting technical data:

RL	Reporting Limit	BMQL	Below Minimum Quantitation Level
N.D.	none detected	MPN	Most Probable Number
TNTC	Too Numerous To Count	CP Units	cobalt-chloroplatinate units
IU	International Units	NTU	nephelometric turbidity units
umhos/cm	micromhos/cm	ng	nanogram(s)
C	degrees Celsius	F	degrees Fahrenheit
meq	milliequivalents	lb.	pound(s)
g	gram(s)	kg	kilogram(s)
µg	microgram(s)	mg	milligram(s)
mL	milliliter(s)	L	liter(s)
m³	cubic meter(s)	µL	microliter(s)
		pg/L	picogram/liter
<	less than		
>	greater than		
ppm	parts per million - One ppm is equivalent to one milligram per kilogram (mg/kg) or one gram per million grams. For aqueous liquids, ppm is usually taken to be equivalent to milligrams per liter (mg/l), because one liter of water has a weight very close to a kilogram. For gases or vapors, one ppm is equivalent to one microliter per liter of gas.		
ppb	parts per billion		
Dry weight basis	Results printed under this heading have been adjusted for moisture content. This increases the analyte weight concentration to approximate the value present in a similar sample without moisture. All other results are reported on an as-received basis.		

Laboratory Data Qualifiers:

- B - Analyte detected in the blank
- C - Result confirmed by reanalysis
- E - Concentration exceeds the calibration range
- J (or G, I, X) - estimated value \geq the Method Detection Limit (MDL or DL) and $<$ the Limit of Quantitation (LOQ or RL)
- P - Concentration difference between the primary and confirmation column $>40\%$. The lower result is reported.
- U - Analyte was not detected at the value indicated
- V - Concentration difference between the primary and confirmation column $>100\%$. The reporting limit is raised due to this disparity and evident interference...

Additional Organic and Inorganic CLP qualifiers may be used with Form 1 reports as defined by the CLP methods. Qualifiers specific to Dioxin/Furans and PCB Congeners are detailed on the individual Analysis Report.

Analytical test results meet all requirements of the associated regulatory program (i.e., NELAC (TNI), DoD, and ISO 17025) unless otherwise noted under the individual analysis.

Measurement uncertainty values, as applicable, are available upon request.

Tests results relate only to the sample tested. Clients should be aware that a critical step in a chemical or microbiological analysis is the collection of the sample. Unless the sample analyzed is truly representative of the bulk of material involved, the test results will be meaningless. If you have questions regarding the proper techniques of collecting samples, please contact us. We cannot be held responsible for sample integrity, however, unless sampling has been performed by a member of our staff.

This report shall not be reproduced except in full, without the written approval of the laboratory.

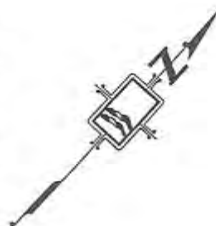
Times are local to the area of activity. Parameters listed in the 40 CFR Part 136 Table II as "analyze immediately" are not performed within 15 minutes.

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Appendix H

Well Survey Data

DESC.	NORTHING	EASTING	LATITUDE	LONGITUDE	EL. P.V.	EL. RIM
C-1	2109146.1	6066919.3	37.7748960	-122.2122443	40.69	41.44
C-2	2109012.1	6066799.7	37.7745271	-122.2123036	40.05	41.22
C-3	2109034.7	6066745.6	37.7745947	-122.2124969	40.66	41.81
C-4	2108950.9	6066779.1	37.7745795	-122.2123715	35.69	35.56
C-5	2109035.9	6066697.3	37.7745983	-122.2125962	41.11	41.53
C-6	2108897.0	6066696.7	37.7741784	-122.2126486	37.94	38.52
C-7	2108807.1	6066745.4	37.7739615	-122.2124750	N/A	38.04
C-8	2108749.3	6066598.6	37.7735520	-122.2129605	37.82	37.72
C-9	2108700.9	6066677.3	37.7736464	-122.2127039	N/A	36.98
C-10	2109063.5	6066878.7	37.7745722	-122.2120301	40.96	41.26
C-11	2108808.1	6066772.0	37.7739656	-122.2123831	36.79	37.43
C-13	2109115.2	6066753.3	37.7748080	-122.2124668	42.02	42.47
VP-1	2109003.6	6066742.6				
VP-2	2108985.4	6066751.0				
VP-3	2108970.7	6066765.1				
VP-4	2108978.4	6066750.1				
VP-5	2109095.8	6066731.4				
VP-6	2109145.1	6066748.5				



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Phone: 916-372-8124
Fax: 916-372-8538
Email: matt@morrrowsurveying.com
www.morrrowsurveying.com

DATE: March, 2015
DATE SURVEYED: 2-25-15,
2-29-16 SF
SCALE: 1"=40'
SHEET 1 OF 1
FIELD BOOK: DRAWING NO. :
0857-184
DRAWN BY: MM

BASIS OF COORDINATES & ELEVATIONS:

COORDINATES ARE CALIFORNIA STATE PLANE ZONE 3
COORDINATES FROM GPS OBSERVATIONS USING CSDS
VIRTUAL SURVEY NETWORK.

COORDINATE DATUM IS NAD 83.

REFERENCE GEOID IS GEOID03.

VERTICAL DATUM IS NAVD 88 FROM GPS OBSERVATIONS.

Monitoring Well Exhibit

Prepared for:
GHD

PROJECT

4265 Foothill Blvd.
City of Oakland Alameda County
California

Appendix I

Trend Graphs and Degradation Calculations

TABLE 1: SUMMARY OF DEGRADATION CALCULATIONS
Chevron Service Station 9-0076, 4265 Foothill Boulevard, Oakland, CA

Well	Analyte	Maximum Concentration (µg/L)	Current Concentration (µg/L)	WQO (µg/L)	Half Life (years)	Date to Reach WQO	Years to Reach WQO
C-1	TPHg	20,000	1,300	100	10.45	May 2028	12
	Benzene	2,500	180	1	1.66	Jan 2014	Near WQO
	MTBE	2,500	29	5	1.72	Jul 2016	0
C-2	TPHg	1,100,000	9,700	100	6.31	Feb 2050	34
	Benzene	30,000	540	1	4.13	May 2046	30
	MTBE	5,200	37	5	2.32	May 2019	3
C-3	TPHg	560	55	100	31.56	WQO met	WQO met
	Benzene	36	<0.5	1	5.29	WQO met	WQO met
	MTBE	400	290	5	Fluctuating	Fluctuating	Fluctuating
C-4	TPHg	48,000	6,300	100	14.79	Dec 2089	74
	Benzene	14,000	910	1	14.25	Feb 2139	123
	MTBE	4,600	9	5	3.45	Nov 2019	3
C-5	TPHg	110	81	100	3.49	May 2011	WQO met
	Benzene	10	3	1	0.74	Dec 2014	WQO met
	MTBE	34	6	5	1.33	Apr 2015	1
C-6	TPHg	11,000	180	100	3.87	Jan 2013	WQO met
	Benzene	3,200	< 0.5	1	1.59	Jun 2010	WQO met
	MTBE	220	3	5	2.86	Oct 2009	WQO met
C-7	TPHg	46,000	1,300	100	2.78	Apr 2020	4
	Benzene	12,000	15	1	3.36	Apr 2024	8
	MTBE	190	8	5	13.10	Jan 2014	Near WQO

Notes and Abbreviations:

TPHg =Total Petroleum Hydrocarbons as Gasoline

MTBE =Methyl Tertiary Butyl Ether

WQO =Water quality objective

µg/L =Micrograms per liter

<X =Not detected above laboratory reporting limit of X

All trends begin at the highest detectable concentration

Predicted Time to Reach Water Quality Objectives in Well C-1

Chevron Service Station 9-0076, 4265 Foothill Boulevard, Oakland, CA

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

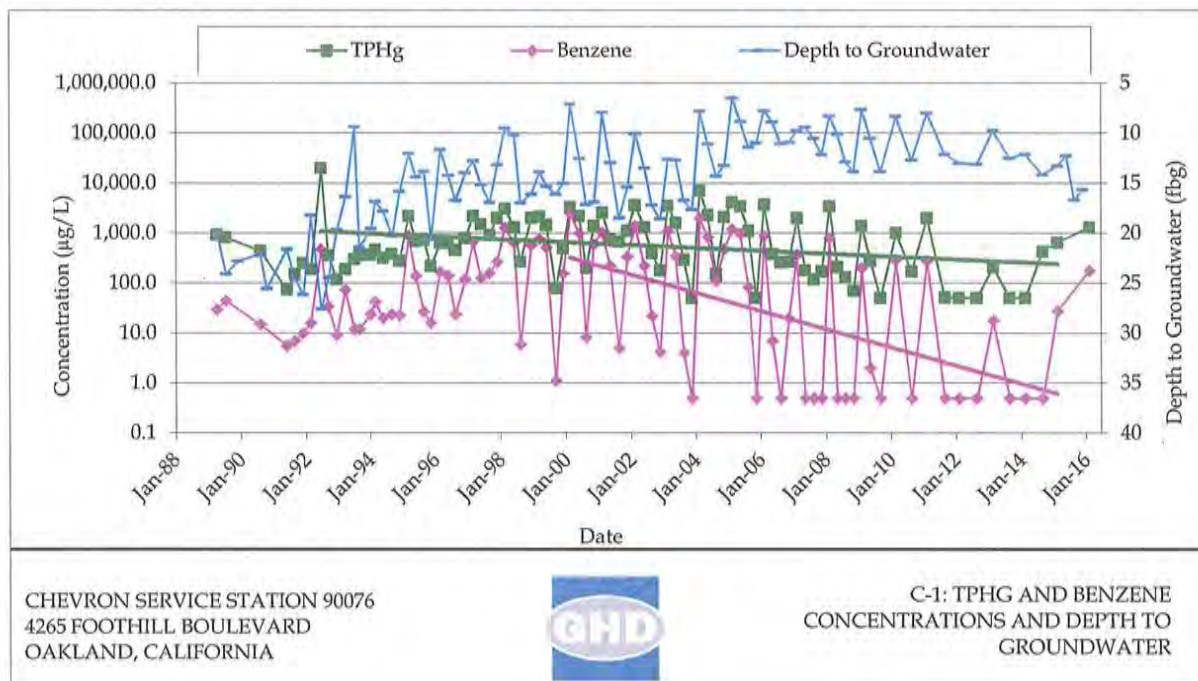
where: y = concentration in $\mu\text{g/L}$ a = decay constant
 b = concentration at time (x) x = time (x) in days

Given	Constituent	Total Petroleum Hydrocarbons as Gasoline (TPHg)		Benzene	
Water Quality Objective (WQO):	y	100		1	
Constant:	b	5.00E+05		4.96E+20	
Constant:	a	-1.82E-04		-1.14E-03	
Starting date for current trend:		7/14/1992		3/9/2000	

Calculate

Attenuation Half Life (years): $(-\ln(2)/a)/365.25$ 10.45 1.66

Estimated Date to Reach WQO: $(x = \ln(y/b) / a)$ May 2028 Jan 2014



Predicted Time to Reach Water Quality Objectives in Well C-1

Chevron Service Station 9-0076, 4265 Foothill Boulevard, Oakland, CA

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

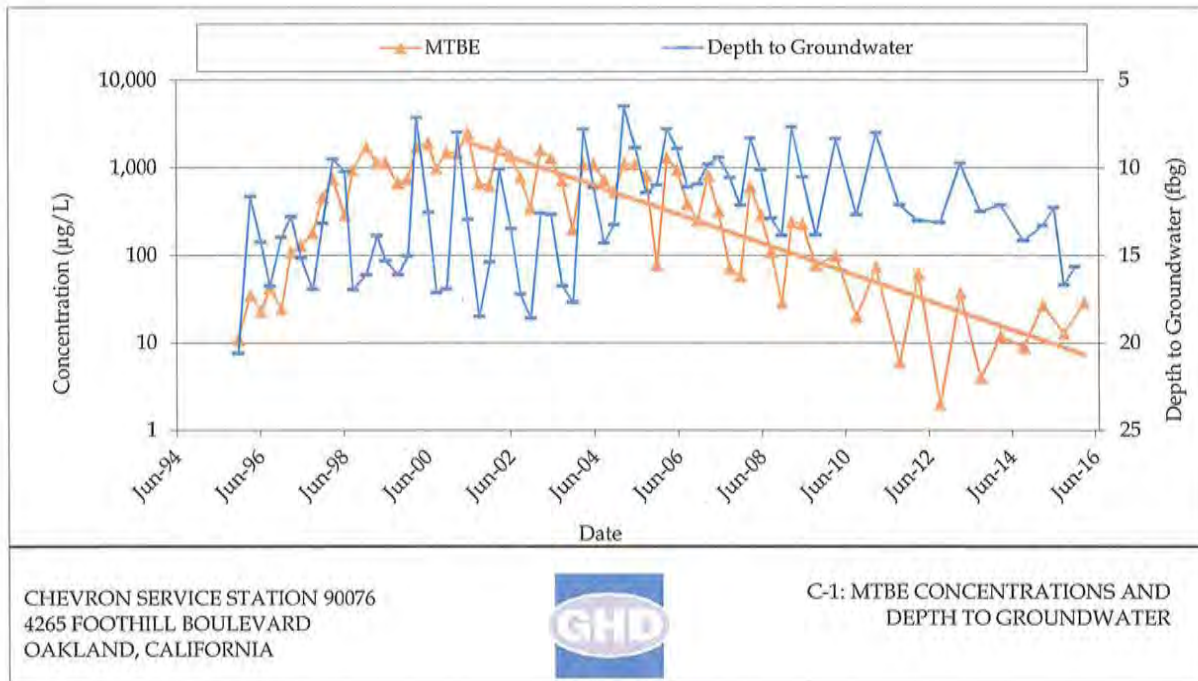
where: y = concentration in $\mu\text{g/L}$ a = decay constant
 b = concentration at time (x) x = time (x) in days

Given	Constituent	Methyl Tertiary Butyl Ether
Water Quality Objective (WQO):	y	5
Constant:	b	$1.18\text{E}+21$
Constant:	a	$-1.10\text{E}-03$
Starting date for current trend:		6/7/2001

Calculate

Attenuation Half Life (years): $(-\ln(2)/a)/365.25$ 1.72

Estimated Date to Reach WQO: $(x = \ln(y/b) / a)$ Jul 2016



Predicted Time to Reach Water Quality Objectives in Well C-2

Chevron Service Station 9-0076, 4265 Foothill Boulevard, Oakland, CA

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

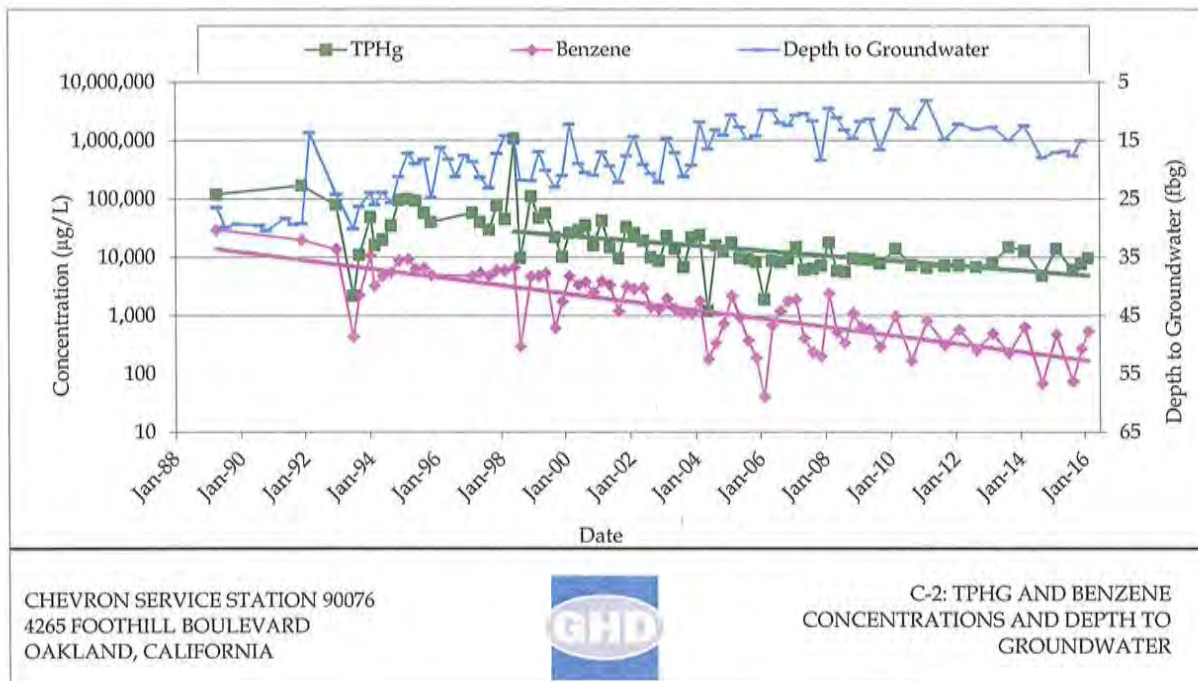
where: y = concentration in $\mu\text{g/L}$ a = decay constant
 b = concentration at time (x) x = time (x) in days

	Constituent	Total Petroleum Hydrocarbons as Gasoline (TPHg)	Benzene
Given			
Water Quality Objective (WQO):	y	100	1
Constant:	b	1.46E+09	4.77E+10
Constant:	a	-3.01E-04	-4.60E-04
Starting date for current trend:		4/28/1989	4/28/1989

Calculate

Attenuation Half Life (years): $(-\ln(2)/a)/365.25$ 6.31 4.13

Estimated Date to Reach WQO: $(x = \ln(y/b) / a)$ Feb 2050 May 2046



Predicted Time to Reach Water Quality Objectives in Well C-2

Chevron Service Station 9-0076, 4265 Foothill Boulevard, Oakland, CA

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

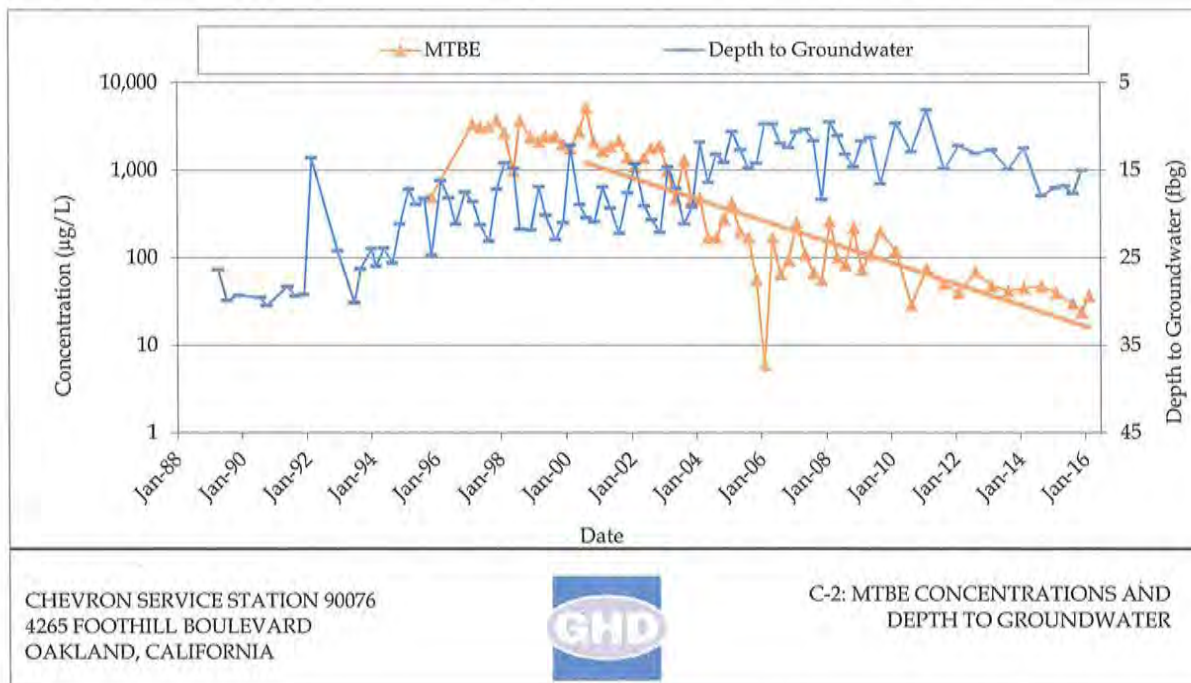
where: y = concentration in $\mu\text{g/L}$ a = decay constant
 b = concentration at time (x) x = time (x) in days

Given	Constituent	Methyl Tertiary Butyl Ether
Water Quality Objective (WQO):	y	5
Constant:	b	1.60E+16
Constant:	a	-8.19E-04
Starting date for current trend:		9/5/2000

Calculate

Attenuation Half Life (years): $(-\ln(2)/a)/365.25$ 2.32

Estimated Date to Reach WQO: $(x = \ln(y/b) / a)$ May 2019



Predicted Time to Reach Water Quality Objectives in Well C-3

Chevron Service Station 9-0076, 4265 Foothill Boulevard, Oakland, CA

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

where: y = concentration in $\mu\text{g/L}$
 b = concentration at time (x)

a = decay constant
 x = time (x) in days

Given	Constituent	Total Petroleum Hydrocarbons as Gasoline (TPHg)	Benzene
Water Quality Objective (WQO):	y	100	1
Constant:	b	6.49E+02	9.04E+05
Constant:	a	-6.01E-05	-3.58E-04
Starting date for current trend:		9/20/1995	12/19/1996

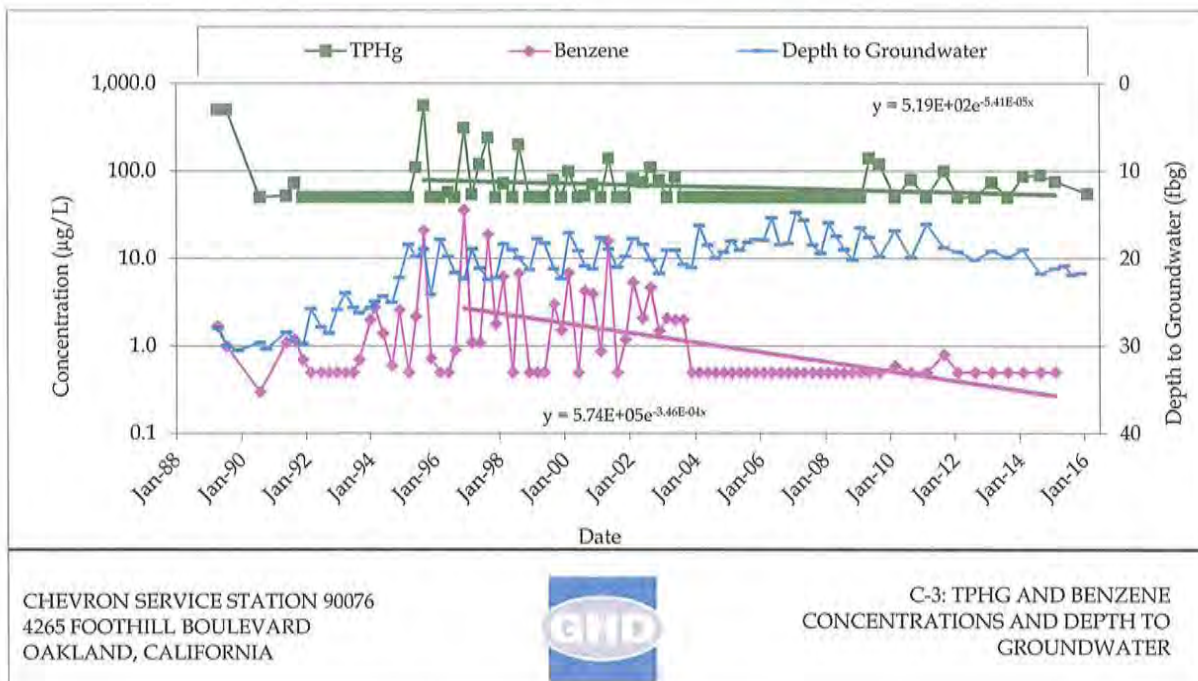
Calculate

Attenuation Half Life (years): $(-\ln(2)/a)/365.25$

31.56	5.29
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Estimated Date to Reach WQO: $(x = \ln(y/b) / a)$

WQO met	WQO met
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Predicted Time to Reach Water Quality Objectives in Well C-3

Chevron Service Station 9-0076, 4265 Foothill Boulevard, Oakland, CA

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

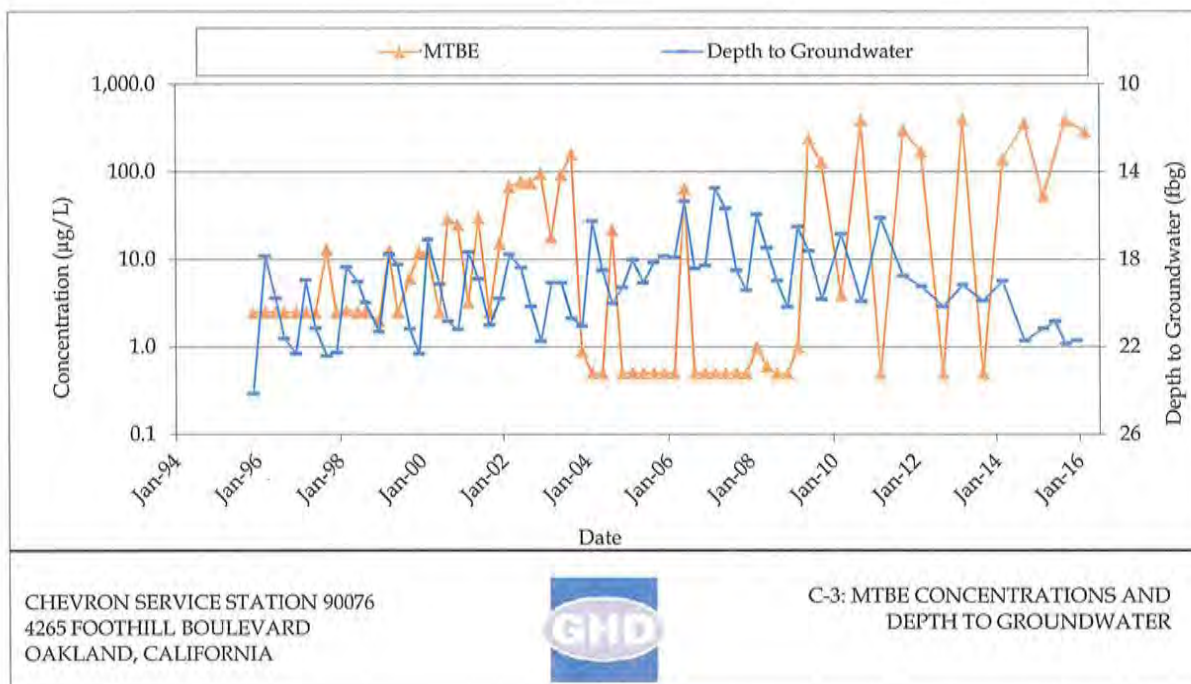
where: y = concentration in $\mu\text{g/L}$ a = decay constant
 b = concentration at time (x) x = time (x) in days

Given	Constituent	Methyl Tertiary Butyl Ether
Water Quality Objective (WQO):	y	5
Constant:	b	9.37E-52
Constant:	a	2.92E-03
Starting date for current trend:		

Calculate

Attenuation Half Life (years): $(-\ln(2)/a)/365.25$ Fluctuating

Estimated Date to Reach WQO: $(x = \ln(y/b) / a)$ Fluctuating



Predicted Time to Reach Water Quality Objectives in Well C-4

Chevron Service Station 9-0076, 4265 Foothill Boulevard, Oakland, CA

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

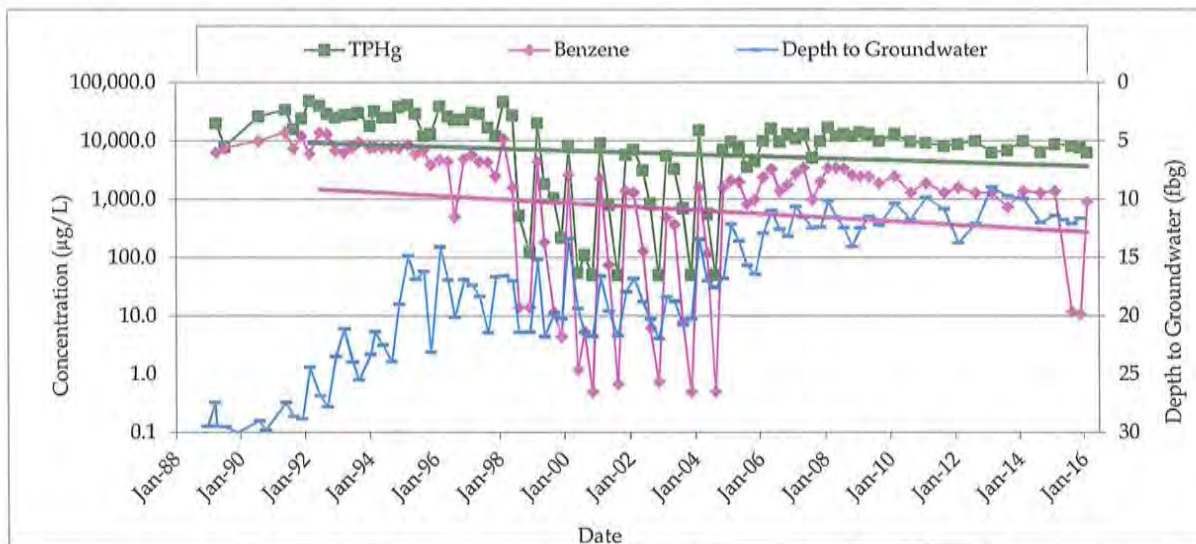
where: y = concentration in $\mu\text{g/L}$ a = decay constant
 b = concentration at time (x) x = time (x) in days

Given	Constituent	Total Petroleum Hydrocarbons as Gasoline (TPHg)		Benzene	
Water Quality Objective (WQO):	y	100		1	
Constant:	b	7.34E+05		1.13E+05	
Constant:	a	-1.28E-04		-1.33E-04	
Starting date for current trend:		3/18/1992		7/14/1992	

Calculate

Attenuation Half Life (years): $(-\ln(2)/a)/365.25$ 14.79 14.25

Estimated Date to Reach WQO: $(x = \ln(y/b) / a)$ Dec 2089 Feb 2139



CHEVRON SERVICE STATION 90076
 4265 FOOTHILL BOULEVARD
 OAKLAND, CALIFORNIA



C-4: TPHG AND BENZENE
 CONCENTRATIONS AND DEPTH TO
 GROUNDWATER

Predicted Time to Reach Water Quality Objectives in Well C-4

Chevron Service Station 9-0076, 4265 Foothill Boulevard, Oakland, CA

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

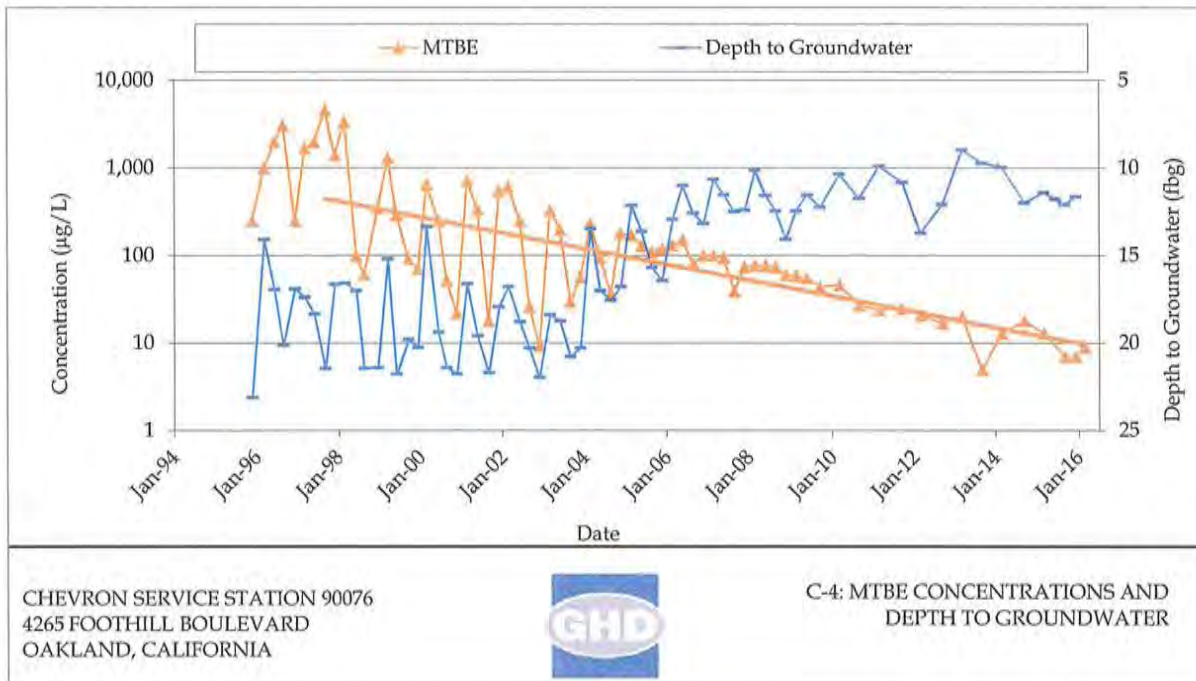
where: y = concentration in $\mu\text{g/L}$ a = decay constant
 b = concentration at time (x) x = time (x) in days

Given	Constituent	Methyl Tertiary Butyl Ether
Water Quality Objective (WQO):	y	5
Constant:	b	1.46E+11
Constant:	a	-5.50E-04
Starting date for current trend:		9/17/1997

Calculate

Attenuation Half Life (years): $(-\ln(2)/a)/365.25$ 3.45

Estimated Date to Reach WQO: $(x = \ln(y/b) / a)$ Nov 2019



Predicted Time to Reach Water Quality Objectives in Well C-5

Chevron Service Station 9-0076, 4265 Foothill Boulevard, Oakland, CA

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

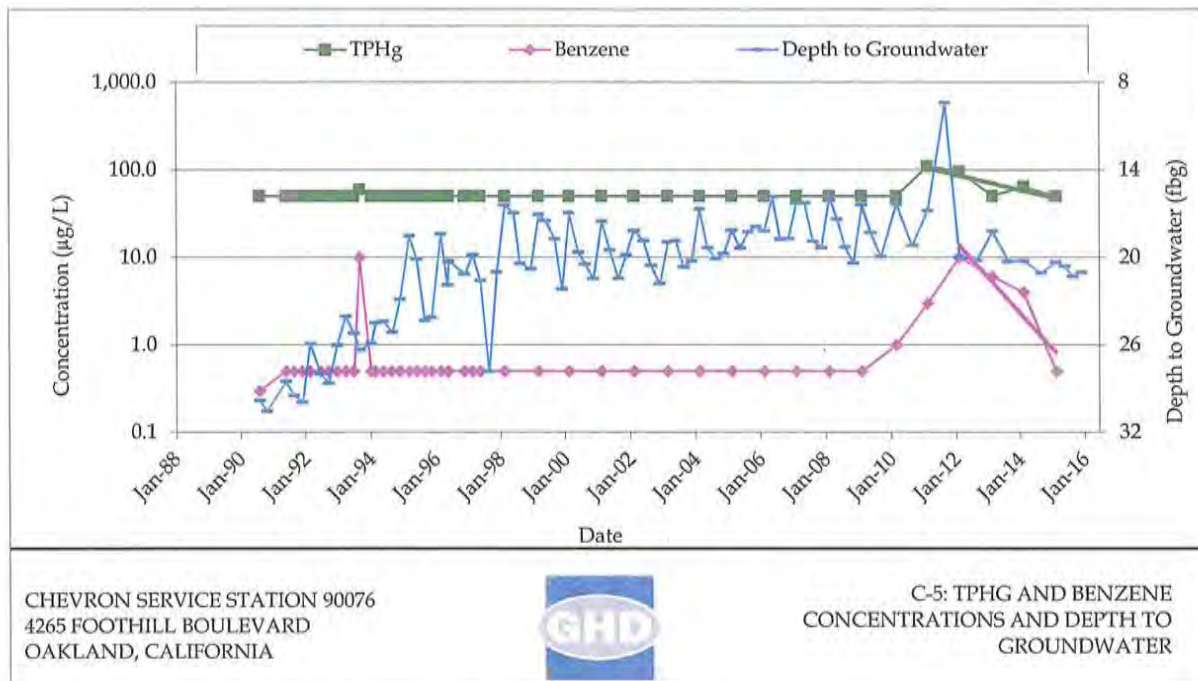
where: y = concentration in $\mu\text{g/L}$ a = decay constant
 b = concentration at time (x) x = time (x) in days

Given	Constituent	Total Petroleum Hydrocarbons as Gasoline (TPHg)		Benzene	
		Gasoline (TPHg)		Benzene	
Water Quality Objective (WQO):	y	100		1	
Constant:	b	4.11E+11		6.83E+46	
Constant:	a	-5.44E-04		-2.57E-03	
Starting date for current trend:		3/8/2011		3/18/2012	

Calculate

Attenuation Half Life (years): $(-\ln(2)/a)/365.25$ 3.49 0.74

Estimated Date to Reach WQO: $(x = \ln(y/b) / a)$ May 2011 Dec 2014



Predicted Time to Reach Water Quality Objectives in Well C-5

Chevron Service Station 9-0076, 4265 Foothill Boulevard, Oakland, CA

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

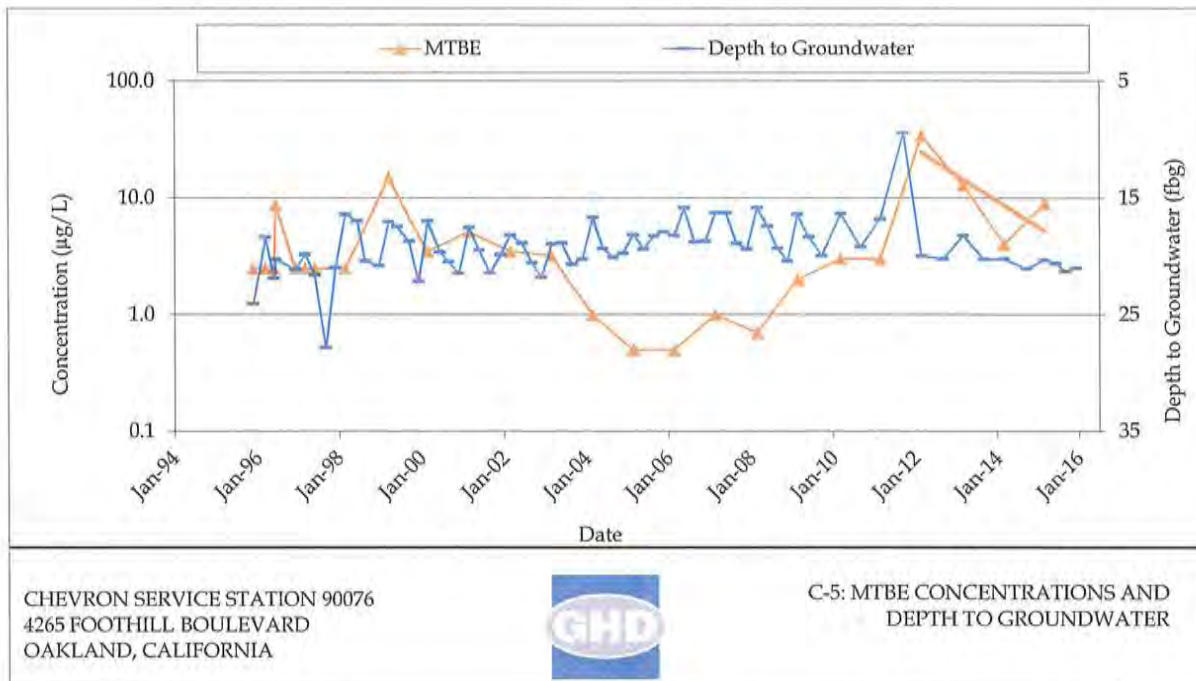
where: y = concentration in $\mu\text{g/L}$ a = decay constant
 b = concentration at time (x) x = time (x) in days

Given	Constituent	Methyl Tertiary Butyl Ether
Water Quality Objective (WQO):	y	5
Constant:	b	4.92E+26
Constant:	a	-1.42E-03
Starting date for current trend:		3/8/2012

Calculate

Attenuation Half Life (years): $(-\ln(2)/a)/365.25$ 1.33

Estimated Date to Reach WQO: $(x = \ln(y/b) / a)$ Apr 2015



Predicted Time to Reach Water Quality Objectives in Well C-6

Chevron Service Station 9-0076, 4265 Foothill Boulevard, Oakland, CA

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

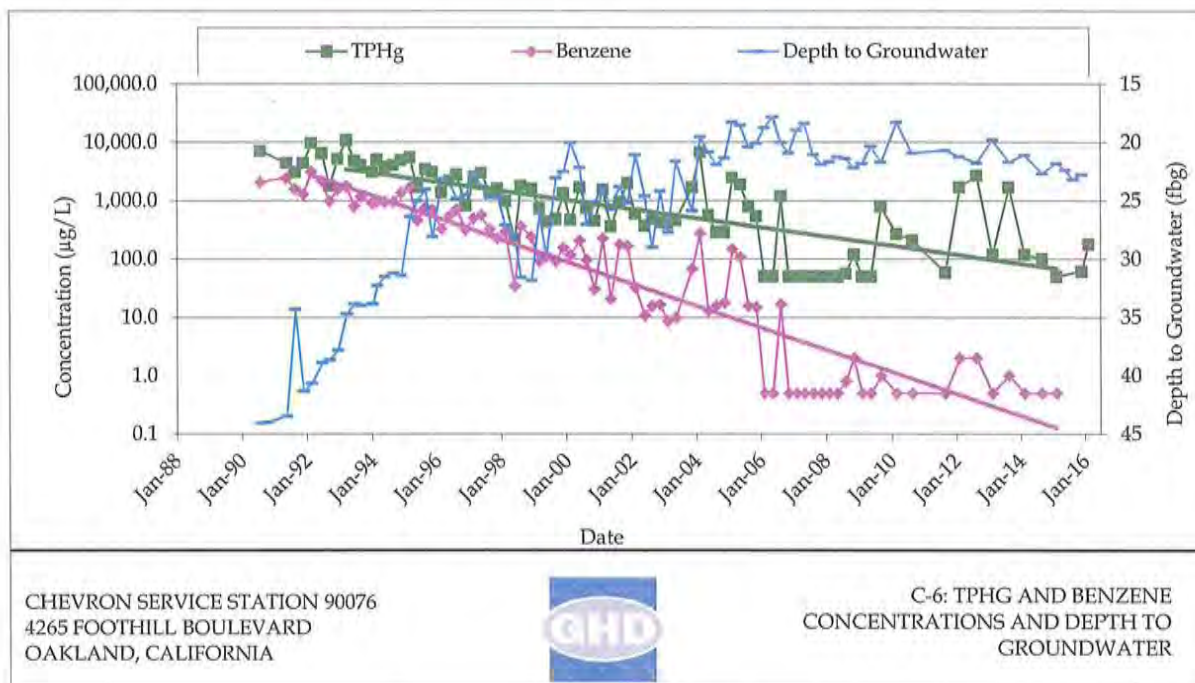
where: y = concentration in $\mu\text{g/L}$ a = decay constant
 b = concentration at time (x) x = time (x) in days

	Constituent	Total Petroleum Hydrocarbons as Gasoline (TPHg)	Benzene
Given			
Water Quality Objective (WQO):	y	100	1
Constant:	b	6.32E+10	7.33E+20
Constant:	a	-4.91E-04	-1.19E-03
Starting date for current trend:		4/14/1993	3/18/1992

Calculate

Attenuation Half Life (years): $(-\ln(2)/a)/365.25$ 3.87 1.59

Estimated Date to Reach WQO: $(x = \ln(y/b) / a)$ Jan 2013 Jun 2010



Predicted Time to Reach Water Quality Objectives in Well C-6

Chevron Service Station 9-0076, 4265 Foothill Boulevard, Oakland, CA

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

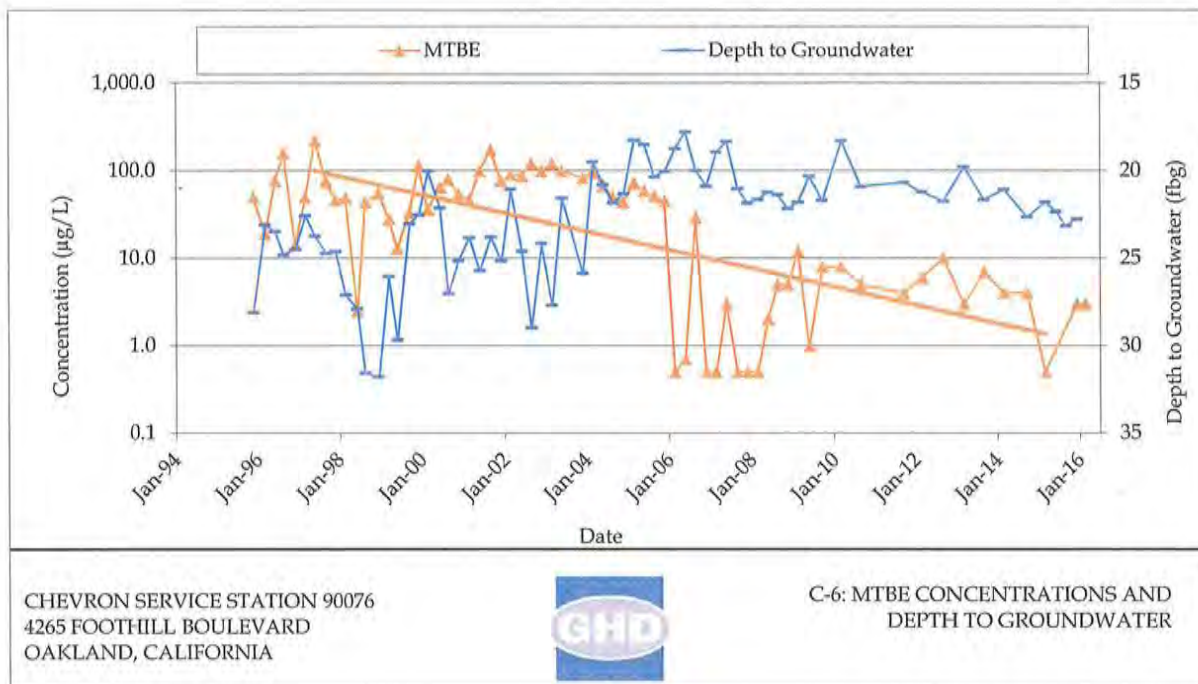
where: y = concentration in $\mu\text{g/L}$ a = decay constant
 b = concentration at time (x) x = time (x) in days

Given	Constituent	Methyl Tertiary Butyl Ether
Water Quality Objective (WQO):	y	5
Constant:	b	1.74E+12
Constant:	a	-6.62E-04
Starting date for current trend:		9/6/1996

Calculate

Attenuation Half Life (years): $(-\ln(2)/a)/365.25$ 2.86

Estimated Date to Reach WQO: $(x = \ln(y/b) / a)$ Oct 2009



Predicted Time to Reach Water Quality Objectives in Well C-7

Chevron Service Station 9-0076, 4265 Foothill Boulevard, Oakland, CA

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

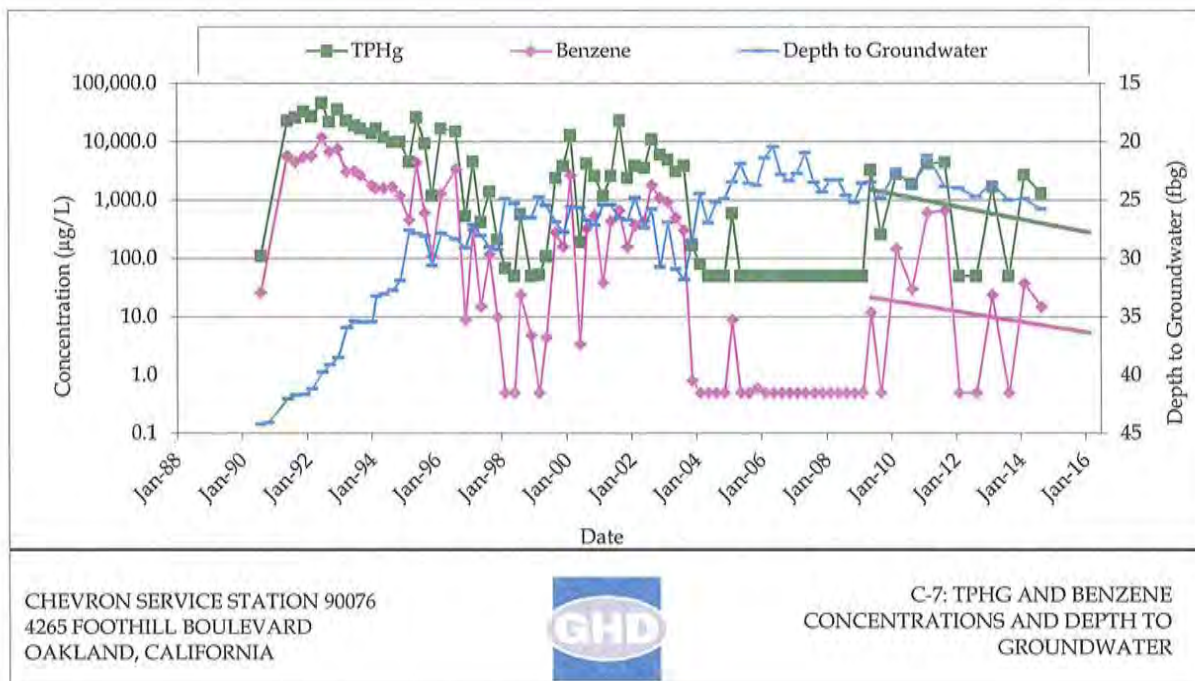
where: y = concentration in $\mu\text{g/L}$ a = decay constant
 b = concentration at time (x) x = time (x) in days

Given	Constituent	Total Petroleum Hydrocarbons as Gasoline (TPHg)		Benzene	
Water Quality Objective (WQO):	y	100		1	
Constant:	b	1.07E+15		1.40E+11	
Constant:	a	-6.83E-04		-5.65E-04	
Starting date for current trend:		9/30/2009		9/30/2009	

Calculate

Attenuation Half Life (years): $(-\ln(2)/a)/365.25$ 2.78 3.36

Estimated Date to Reach WQO: $(x = \ln(y/b) / a)$ Apr 2020 Apr 2024



Predicted Time to Reach Water Quality Objectives in Well C-7

Chevron Service Station 9-0076, 4265 Foothill Boulevard, Oakland, CA

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

where: y = concentration in $\mu\text{g/L}$ a = decay constant
 b = concentration at time (x) x = time (x) in days

Given	Constituent	Methyl Tertiary Butyl Ether
Water Quality Objective (WQO):	y	5
Constant:	b	2.09E+03
Constant:	a	-1.45E-04
Starting date for current trend:		9/13/2001

Calculate

Attenuation Half Life (years): $(-\ln(2)/a)/365.25$ 13.10

Estimated Date to Reach WQO: $(x = \ln(y/b) / a)$ Jan 2014

