



Carryl MacLeod
Project Manager, Marketing Business Unit

October 30, 2017

RECEIVED

By Alameda County Environmental Health 10:14 am, Nov 07, 2017

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

Dear Mr. Detterman:

Attached for your review is the *Additional Soil Vapor Assessment Work Plan* for the former Chevron-branded service station 91723, located at 9757 San Leandro Street in Oakland, California. This report work plan was prepared by Stantec Consulting Services Inc. (Stantec), upon whose assistance and advice I have relied. I have read and acknowledge the content, recommendations, and/or conclusions contained in the attached report submitted on my behalf to Alameda County Environmental Health's FTP server and the State Water Resources Control Board's GeoTracker™ Website.

If you should have any further questions, please do not hesitate to contact me or the Stantec project manager, Eva Hey, at (925) 296-2101, or eva.hey@stantec.com.

Sincerely,

Carryl MacLeod
Project Manager



Stantec Consulting Services Inc.
15575 Los Gatos Blvd., Building C
Los Gatos, CA 95032
tel (916) 669-5939; fax (916) 861-0430

October 30, 2017

Attention: Mr. Mark Detterman, P.G., C.E.G.

Alameda County Department of Environmental Health
1131 Harbor Bay Parkway
Alameda, CA 94502

Subject: Additional Soil Vapor Assessment Work Plan
Former Chevron-branded Service Station 91723
9757 San Leandro Street
Oakland, California
Stantec Job #: 211602332

Dear Mr. Detterman,

Stantec Consulting Services Inc. (Stantec), on behalf of Chevron Environmental Management Company (CEMC) is pleased to submit this Additional Soil Vapor Assessment Work Plan for former Chevron-branded service station 91723, which was located at 9757 San Leandro Street, Oakland, Alameda County, California (Site - shown on **Figures 1 and 2**). This work plan was prepared at the request of Alameda County Department of Environmental Health (ACDEH) in correspondence dated October 18, 2017 (**Attachment A**).

Several soil, groundwater, and soil vapor investigations have been conducted at the Site since at least 1987. Please refer to Stantec's *Site Investigation Report*, dated October 26, 2015 (Stantec, 2015a), for a complete summary of previous investigations conducted at the Site. For reference select figures and table summarizing the assessment data from the Site are provided in Attachment B.

PURPOSE AND SCOPE OF WORK

Previous soil vapor sampling at the Site has identified hydrocarbon and methane impacts to shallow soil vapor, depths less than 6 feet below ground surface (bgs). Evaluation of hydrocarbons and methane in soil vapor potentially associated with Site shallow soil and groundwater impacts have been evaluated since 1997. However, following recent additional soil vapor assessment activities conducted in July 2015, elevated hydrocarbons and methane in shallow soil vapor, above the California Regional Water Quality Control Board – San Francisco Bay Region (RWQCB) Tier 1 Environmental Screening Levels (ESLs) or for methane, Lower Explosive Limits (LEL), have prompted further vapor assessment. Stantec conducted additional methane monitoring on February 29, 2016, using two different hand-held methane detectors at monitoring wells MW-2, MW-5, MW-6, and MW-8, vapor wells VP-2, VP-3, and VP-4, and four utility vaults and two manholes located near the Site. Methane monitoring could not be completed at vapor well VP-5, because there was surface water in the well box due to recent rainfall. With the exception of wells MW-5

Design with community in mind



October 30, 2017

Mr. Mark Detterman, P.G., C.E.G.

Page 2 of 11

Reference: Additional Soil Vapor Assessment Work Plan

and VP-3, readings were collected from the well box or vault and from the well casing or soil vapor probe for the remaining monitoring and vapor wells. All locations and the associated methane data are shown on **Attachment B, Figure 1**. During this monitoring event, the only methane detected was at soil vapor probes VP-1 at 0.4% and VP-4 at 6%. This indicates that although high methane levels are detected in the soil vapor probes (indicative of biodegradation in the subsurface), methane is not accumulating in the wells or utility vaults; therefore, there is no imminent risk to human health associated with the methane vapors." (Stantec, *Low-Threat Closure Policy Evaluation and Request for Closure*, June 10, 2016).

Stantec is proposing to perform shallow soil vapor sampling to profile impacts in the upper 6 feet vadose zone at the Site. The proposed boring locations are presented on **Figures 3 and 4** and the sampling plan is presented in **Table 1**. A total of 11 temporary soil vapor probes, five contingent temporary vapor probes, one 3-foot bgs permanent probe (VP-2S), one temporary parking lot sub-pavement vapor sampling point (PSS-2), and three 13-foot bgs soil borings (SB-35, SB-36, and SB-37) are proposed for completion (**Figure 4**). The soil borings are recommended to further define the lateral and vertical extent of petroleum hydrocarbon impacts.

The primary objective of the assessment is to characterize on-Site soil vapor including what, if any, conditions are present indicating that bio-attention (aerobic or anaerobic) may be occurring below the parking lot pavement, at 3 feet bgs and at 5 to 6 feet bgs. The soil vapor data combined with vertical pressure data will also be used to determine if a soil gas pressure gradient exists at 3 and 5 feet bgs and will be interpreted in relation to possible methane hazards. The initial temporary soil vapor field data will be used to determine if additional contingent temporary vapor probes will be advanced. The general scope of work proposed by Stantec includes the following:

- Prepare a site-specific Health and Safety Plan (HASP).
- Locate subsurface utilities both on and offsite within the assessment area. This will include location of utilities present under a portion of the warehouse concrete slab, assuming access is granted by the property owner.
- Conduct a surface sweep of the onsite pavement for the presence of methane on a 20-foot by 20-foot search grid.
- Advance and collect soil vapor samples from 11 temporary soil vapor probes (TVP-1 through TVP-11) from individual borings advanced to depths of 3 and 5 feet bgs.
- Collect pressure readings from each 3-foot and 5-foot deep temporary probe and analyze the soil vapor samples using a mobile on-site laboratory.
- If the concentration of BTEX or Naphthalene exceed the Low-Threat Underground Storage Tank (UST) Case Closure Policy (LTCP) Scenario 4 (commercial) vapor intrusion criteria or exceed methane criteria detailed below, advance and sample 1 to 5 additional contingent temporary vapor probes based on the lateral distribution of soil vapor data.



October 30, 2017

Mr. Mark Detterman, P.G., C.E.G.

Page 3 of 11

Reference: Additional Soil Vapor Assessment Work Plan

- Install one 3.5-foot deep permanent vapor probe (VP-2S) and potentially install one temporary parking lot sub-pavement vapor point (PSS-2) if pavement is intact in the area (**Figure 4**).
- Collect pressure readings and a soil vapor samples from the shallow permanent vapor probe and the temporary parking lot sub-pavement vapor point. Analyze both samples using an onsite mobile lab for fixed gases and analyze the VP2S sample for VOCs, and TPH-GRO.
- Collect soil samples at 3 and 6 feet bgs by select soil vapor probes as outlined in **Table 1**.
- Advance and sample 3 soil borings and collect soil samples between 2 and 13 feet bgs.
- Compile the sample results and pressure readings in Tables and present on Figures for review during a proposed November 28th, 2017 meeting with ACDEH.
- Following the meeting and path forward recommendations, the assessment results report will be prepared and submitted per the agreed upon date.

The location of the 11 temporary soil vapor probes are shown on **Figure 4**. The location of additional probes requested by ACEHD are shown in an orange color. Based on the distribution of current vapor probes located along San Leandro Street, some of the probes appear too close together to provide meaningful data within the source area. As shown on the **Figure 2 in Attachment B**, the concentration of total petroleum hydrocarbon as gasoline range organics (TPH-GRO) in the five vapor probes (VP-1 through VP-5) ranged from 53,000,000 to 94,000,000 micrograms per cubic meter ($\mu\text{g}/\text{M}^3$). Based on the elevated TPH-GRO concentrations, collection of vapor samples from the proposed vapor point TVP-10 will not provide meaningful data. Proposed vapor points TVP-1 and TVP-9 as well as TVP-7 and TVP-11 are located close to each other, so the value of the data from the two pairs of sample points will be limited.

Stantec recommends the proposed scope of work and adjusting the location of the three proposed vapor points as follows:

- Remove TVP-10 as collecting data from this location will not provide meaningful data.
- Move TVP-1 25 feet west of its current location between TVP-2, TVP-9, and MW-8.
- Move TVP-11 25 feet southwest of its current location between VP-4, TVP-1 and TVP-6.

Halogenated Volatile Organic Compound (HVOC) Evaluation

The ACDEH letter dated October 18, 2017 requested analyses of samples collected during the assessment for HVOCs. The table inserted below summarizes the 1,1-Dichloroethene (1,1-DCE) concentrations in groundwater samples collected from the Site wells in the late 1980s and in August 2015. The data has also been included in **Attachment B, Table 8** and location of the wells are shown on **Figure 2 in Attachment B**. 1,1-DCE concentrations are present in wells MW-1 and MW-7 that are located northwest of the former Shell Station and in well MW-9 between 1987 to 1989. During the same period the onsite wells MW-5 and MW-8, located in source area, and wells



Reference: Additional Soil Vapor Assessment Work Plan

MW-2, MW-4, MW-6, and MW-10, located outside the source area did not contain concentrations of 1,1-DCE above the laboratory reporting limit. The groundwater sample collected from MW-9 in August 2015 contained 1,1-DCE while wells MW-2, MW-5, MW-6, and MW-8 did not. The groundwater samples clearly demonstrate the source of 1,1-DCE is not related to a release on the Former Chevron Site. Consequently, Stantec does not recommend analyses of samples collected during the upcoming assessment for HVOCs.

Well Number	1,1-DCE (ug/L) 1987-1989	1,1-DCE (ug/L) 2015
MW-1	61	Not Sampled
MW-7	25	Not Sampled
MW-9	3	0.7
MW-2	<0.2	<0.5
MW-4	<0.2	Not Sampled
MW-5	<1	<0.5
MW-6	<1	<0.5
MW-8	<1	<0.5
MW-10	< 1	Not Sampled

PROPOSED SCOPE OF WORK

Permitting and Notifications

A schedule of field activities will be communicated to the property owner and tenant a minimum of 48 hours prior to field activities to minimize potential disruptions to normal Site activities.

Stantec will obtain all necessary permits from ACDEH, including drilling permits. As required by law, Underground Service Alert (USA) - North will be notified at least 48 hours prior to any intrusive activities. In addition to notifying USA - North, Stantec will retain the service of a private utility locating contractor to conduct a full utility location survey on the property. The goal of utility survey work will be to generate a scale map presenting the location, depth, and diameter (if practical) with the survey area. Specific attention will be placed on determining if underground utilities are located near the proposed boring locations.

Health and Safety Plan

Stantec will generate a Site-specific health and safety plan (HASP) as required by the State of California General Industry Safety Order 5192 and Title 29 of the Code of Federal Regulations, Section 1910.120. The HASP will outline potential hazards to Stantec personnel and subcontractors during the field activities described herein. Job loss analyses (JLAs) for tasks to be performed by



October 30, 2017
Mr. Mark Detterman, P.G., C.E.G.
Page 5 of 11

Reference: Additional Soil Vapor Assessment Work Plan

Stantec personnel (e.g., driving, oversight of vapor probe advancement, sample collection, etc.) will be included. The HASP will also include required personal protective equipment to be worn by all Stantec field personnel for each task. In addition, Stantec will produce a Journey Management Plan (JMP) in an attempt to prevent motor vehicle incidents while driving to and from the Site. A copy of Stantec's HASP and JMP will be available on Site during all field activities.

Surface Methane

Stantec will conduct a near surface methane and petroleum hydrocarbon survey on a 20-foot by 20-foot grid onsite. A Land Tech GEM 2000+ landfill gas monitor or equivalent instrument will be used to monitor the methane concentrations at one to two-inches above grade along each 20 foot transect. The 5 transects will run northwest to southeast parallel to San Leandro Street and 8 transects will run southwest to northeast. The total transect distance is approximately 1,400 feet.

All measurements will be recorded on the Stantec field sampling log, including the field meter readings recorded at minimum rate of one per 5 linear feet of transect. Calibration logs for the two meters will be included with field notes. The locations will be measured and plotted on a scale map for inclusion in the future assessment report and the transects will be plotted on a scaled map as part of the field data package. The surface data will likely not be completed by the planned November 28th face to face meeting with the ACDEH and the property owners.

Temporary Soil Vapor Probes.

The scope of work proposed by Stantec includes the advancement and sampling of eleven temporary soil vapor probes (TVP-1 through TVP-11) for analysis of fixed gases and VOCs. A Site plan showing the proposed temporary soil vapor probe locations is included as **Figures 3 and 4**.

Contingent temporary soil vapor probes will be advanced northwest and southwest of the initial vapor probes if any of the following conditions are met:

- Soil vapor concentrations exceed the LTCP soil gas (commercial) values, or
- Methane is detected at a concentration greater than or equal to 0.5% with a pressure differential between the pressure reading in the 3-foot deep soil probe and atmospheric air of 2,000 inches of water column (700,000 pascals) ^[1].

[1]. Evaluation of Biogenic Methane, A Guidance Prepared for the Evaluation of Biogenic Methane in Constructed Fills and Dairy Sites. CalEPA DTSC, March 28, 2012.



October 30, 2017

Mr. Mark Detterman, P.G., C.E.G.

Page 6 of 11

Reference: Additional Soil Vapor Assessment Work Plan

Temporary Soil Vapor Probe Advancement and Sampling

To advance each temporary soil vapor probe, a hardened steel soil vapor probe of approximately 1 inch outer diameter (OD) equipped with a hardened steel tip will be driven to the target depth using either an electric roto-hammer or a Geoprobe direct push rig. Inert 1/8 inch OD Nylaflow tubing runs down the center of the drive rod and is connected to a sampling port just above the tip. This internal sample tubing design eliminates any contact between the soil vapor sample and the steel rod. Once at the target depth, the probe rod will be slightly retracted (approximately 1/4 inch) exposing a port at the tip to collect a sample. The rods will remain in place for 2-hour prior to collection of a vapor samples. Vapor samples will be collected from individual bore holes at target depths of 3 and 6 feet bgs following purging of three dead air volumes at each depth.

Permanent 3.5-foot Soil Vapor Probe Installation and Sampling

VP-2S will be installed to a depth of 3.5 feet bgs adjacent to the existing 6-feet deep vapor probe VP-2. The probe will be installed following the TEG SOP included in **Attachment C**. The probe will be sampled approximately 2 hours after installation and the sample will be analyzed by the onsite mobile laboratory. Following sampling, a 5-inch diameter well box will be installed over the probe to allow resampling in the future. The data from VP-2S will be used to further understand the vertical distribution of methane and gasoline range petroleum hydrocarbons at the Site.

Surface Seal and Leak Check

Prior to sample collection, the temporary soil vapor probe rods will be sealed at the ground surface with modeling clay. Since such small sample volumes will be withdrawn, the chances of leakage from the surface are small despite the shallow sampling depths. Nevertheless, 1,1-difluoroethane will be used as a tracer to determine if there is a leak from the surface. A towel with the compound on it will be placed at the base of the probe rod where it contacts the ground. If 1,1-difluoroethane is detected above concentrations indicative of a leak, a second bore will be advanced for sample collection.

Temporary Sub-Pavement Vapor Point Installation and Sampling

To further evaluate the vertical profile of methane the site, a sub-pavement vapor point will be installed adjacent to the exiting fixed vapor probe VP-2. The location adjacent to VP-2 was selected the second highest TPH-GRO concentration of 70,000,000 $\mu\text{g}/\text{m}^3$ reported in VP-2. A roto-hammer will be used to drive a 1/4 inch diameter hole through the concrete. A 1/8-inch diameter Nylaflow tubing with a valve will be inserted into the hole and sealed at the surface using modeling clay. Static pressure will be measured immediately following the protocols presented



October 30, 2017
Mr. Mark Detterman, P.G., C.E.G.
Page 7 of 11

Reference: Additional Soil Vapor Assessment Work Plan

below. Following purging to remove dead air (approximately 10 cc), CH₄, O₂, and CO₂ will be measured using the Landek GEM 2000 Plus (or equivalent instrument).

Measuring Pressure

Prior to soil vapor sample collection, soil vapor pressures will be measured at each probe in accordance with American Society for Testing and Materials (ASTM) E2993-16. The vapor pressures will be measured using a magnehelic gauge capable of measuring a minimum of 100-inches of water column [in. H₂O]. Initial pressure measurements will be collected shortly after the rods are retracted and prior to purging and sampling the vapor point. Since the probes for each depth interval will be installed in different boreholes, differential pressure between the two probe depths will also be measured.

Barometric pressure readings will be collected at each probe and at regular (30-minute) intervals throughout the sampling duration on the site.

Laboratory Analyses

Shallow soil vapor probe samples will be analyzed by the on-Site mobile laboratory for the following analyses:

- Fixed gases (carbon dioxide, oxygen, methane, and helium) by ASTM Method D-1946 or TO 5; and
- TPH-GRO, BTEX compounds, and naphthalene by United States Environmental Protection Agency (US EPA) Method 8260 modified by the mobile laboratory for soil vapor analysis.

The mobile lab's US EPA 8260 method reporting limit is 100 µg/m³ for the target compounds selected for analysis, which is below the LTCP no bioattenuation zone soil gas (commercial) values.

Additional vapor samples will be collected in a sorbent tube and transported under chain-of-custody to Air Toxics laboratory and analyzed for naphthalene using EPA method TO-17.

Soil Boring Advancement, Sample Collection, and Analyses

To further evaluate the vertical and lateral distribution of petroleum hydrocarbons in soil, borings will be advanced adjacent to the temporary vapor probes to allow collection of soil samples at 3 feet and 6 feet bgs. Borings will not be installed adjacent to the borings advanced in August 2015. See **Figure 4** and **Table 1** for details on which borings will be sampled. In addition, three soil borings shown on **Figures 3, 4, and 5**, will be advanced to a depth of 12.5 feet bgs to allow collection of soil samples at 2.5, 5, 7.5, 10, and 12.5 feet.



October 30, 2017
Mr. Mark Dettnerman, P.G., C.E.G.
Page 8 of 11

Reference: Additional Soil Vapor Assessment Work Plan

Soil cores from intervals advanced with the direct-push drill rig will be collected using a dual-tube sampler. Stantec field personnel will log soil cores for lithological content using the Unified Soil Classification System (USCS) as a guide and for relative moisture content, composition, first-encountered groundwater, PID readings, and other notable field observations. Portions of each soil core will be placed in a Ziploc® bag and field-screened using a PID to evaluate the presence of volatile organic compounds (VOCs) that may collect in the headspace of the bag.

Each soil sample collected will be sealed with Teflon® sheets, capped with plastic end caps, labeled with identifying information, and stored in an ice-filled cooler for preservation. The samples will be transported and submitted under chain-of-custody protocol to Eurofins Lancaster Laboratories, Inc. (Lancaster), a State of California-certified analytical laboratory, and analyzed for the following constituents of concern:

- Total petroleum hydrocarbons as gasoline range organics (TPH-GRO) and total petroleum hydrocarbons as diesel range organics (TPH-DRO by United States Environmental Protection Agency (US EPA) Method 8015B; and
- Benzene, toluene, ethylbenzene, and total xylenes (BTEX compounds) and naphthalene by US EPA Method 8260B (SW-846).

Waste Management

Investigation-derived waste (e.g., soil cuttings, decontamination water, etc.) generated during the proposed field activities will be placed in Department of Transportation-approved 55-gallon drums. The drums will be properly labeled and stored on Site pending receipt of analytical results and profile evaluation by GHD. The recent waste profile from the 2015 assessment will likely be used for waste generated during this event. GHD will arrange removal and disposal of all waste.

Data Verification

Upon receipt of final laboratory reports, Stantec will perform a EPA Stage 2 data validation, which will include:

- Verifying that batch quality control (QC) samples were analyzed at the proper frequency and that results were within specifications;
- Verifying that reporting units and quantitation limits are correct;
- Evaluating whether corrective action (reanalysis of QC or project samples) is needed and, if so, is performed and documented;



October 30, 2017
Mr. Mark Detterman, P.G., C.E.G.
Page 9 of 11

Reference: Additional Soil Vapor Assessment Work Plan

- Verifying that the project and QC sample results were properly reported and flagged where required; and
- Preparing batch narratives that adequately identify and discuss any problems encountered.

REPORT PREPARATION

The assessment results will be summarized in tables and presented on Figures for review during the proposed November 28th, 2017 meeting with ACDEH at their office. The results will be reviewed during the meeting and a plan developed with locations of potential permanent vapor probes will be selected if necessary. The initial assessment results and the additional data collected from the permanent vapor probes will be compiled in an assessment report to be submitted by January 29, 2018.

SCHEDULE OF ACTIVITIES

Stantec will begin scheduling the proposed activities following approval of this work plan by ACDEH. Stantec has currently scheduled TEG to perform the week of November 6, 2017. The utility location work is tentatively scheduled for November 1, 2017. Stantec will work to complete field work to meet the ACDEH scheduled presented in their October 18, 2017 letter (**Attachment A**). Stantec will provide notification to the ACDEH in the event rain delays execution of proposed vapor assessment at the Site.



October 30, 2017
Mr. Mark Detterman, P.G., C.E.G.
Page 10 of 11

Reference: Additional Soil Vapor Assessment Work Plan

LIMITATIONS

This document entitled Additional Soil Vapor Assessment Work Plan was prepared by Stantec Consulting Services Inc. ("Stantec") for the account of Chevron Environmental Management Company (the "Client"). Any reliance on this document by any third party is strictly prohibited. The material in it reflects Stantec's professional judgment in light of the scope, schedule and other limitations stated in the document and in the contract between Stantec and the Client. The opinions in the document are based on conditions and information existing at the time the document was published and do not take into account any subsequent changes. In preparing the document, Stantec did not verify information supplied to it by others. Any use which a third party makes of this document is the responsibility of such third party. Such third party agrees that Stantec shall not be responsible for costs or damages of any kind, if any, suffered by it or any other third party as a result of decisions made or actions taken based on this document.

Prepared by:

Eva Hey
Project Manager

Patrick H. Vaughan, M.S., C.E.M.
Principal-Facility Assessment

Jaff Auchterlonie, P.G.
Principal Geologist



Attachments:

- Figure 1 - Site Location Map
- Figure 2 - Site Plan Showing Utility Locations
- Figure 3 - Site Plan with Proposed Boring Locations
- Figure 4 - Detailed Site Plan showing Proposed Soil Boring Locations
- Figure 5 - Site Plan Showing Soil Analytical Results and Proposed Soil Boring Locations

- Attachment A - ACDEH Correspondence dated October 18, 2017
- Attachment B - Supporting Figures and Tables
- Attachment C - TEG SOP for Soil Vapor Sampling Point Installation and Soil Vapor Sampling



October 30, 2017
Mr. Mark Dettnerman, P.G., C.E.G.
Page 11 of 11

Reference: Additional Soil Vapor Assessment Work Plan

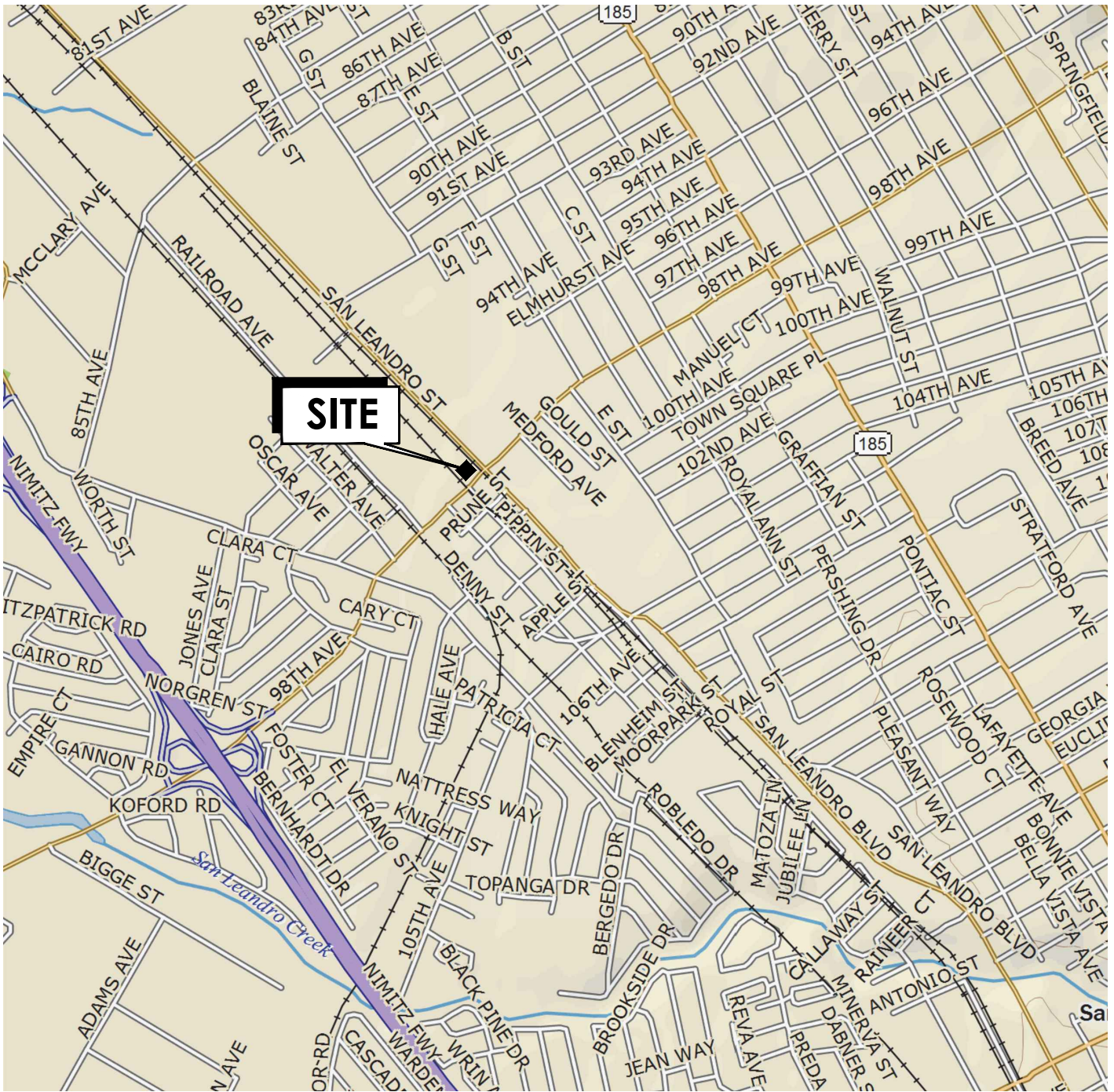
c. Ms. Carryl MacLeod, Chevron Environmental Management Company, 6001 Bollinger Canyon Road, San Ramon, CA 94583 – Electronic Copy

Hothem Trust c/o Mr. Jan Greben, Greben & Associates, 125 East De La Guerra Street, Suite 203, Santa Barbara, CA 93101 – Electronic Copy

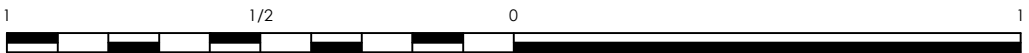
Ms. Jean Kida, Gerber Products, 12 Vreeland Road, Florham Park, NJ 07932

Francis Meynard, Pacific American Group, 104 Caledonia Street, Sausalito, CA 94965 – Electronic Copy

FIGURES



CALIFORNIA



SCALE IN MILES



SCALE IN FEET

REFERENCE: USGS 7.5 MINUTE QUADRANGLE;
SAN LEANDRO, CALIFORNIA; 2012



15575 Los Gatos Blvd, Building C
Los Gatos, CA 95032
Phone: (408)356-6124 Fax: (408)356-6138

FOR:
FORMER CHEVRON-BRANDED
SERVICE STATION 91723
9757 SAN LEANDRO STREET
OAKLAND, CALIFORNIA

SITE LOCATION MAP

FIGURE:

1

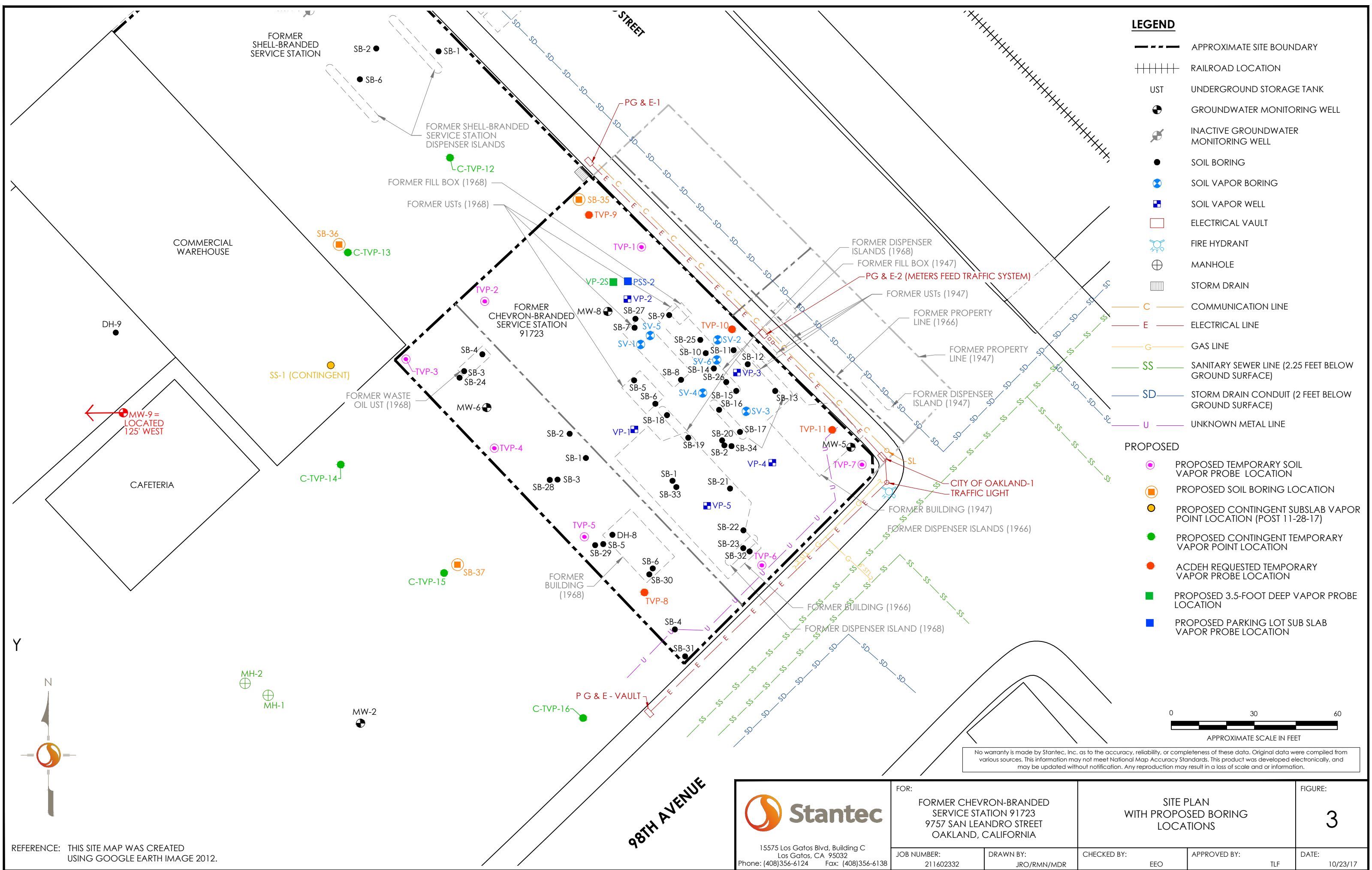
JOB NUMBER:
211602332

DRAWN BY:
JRO

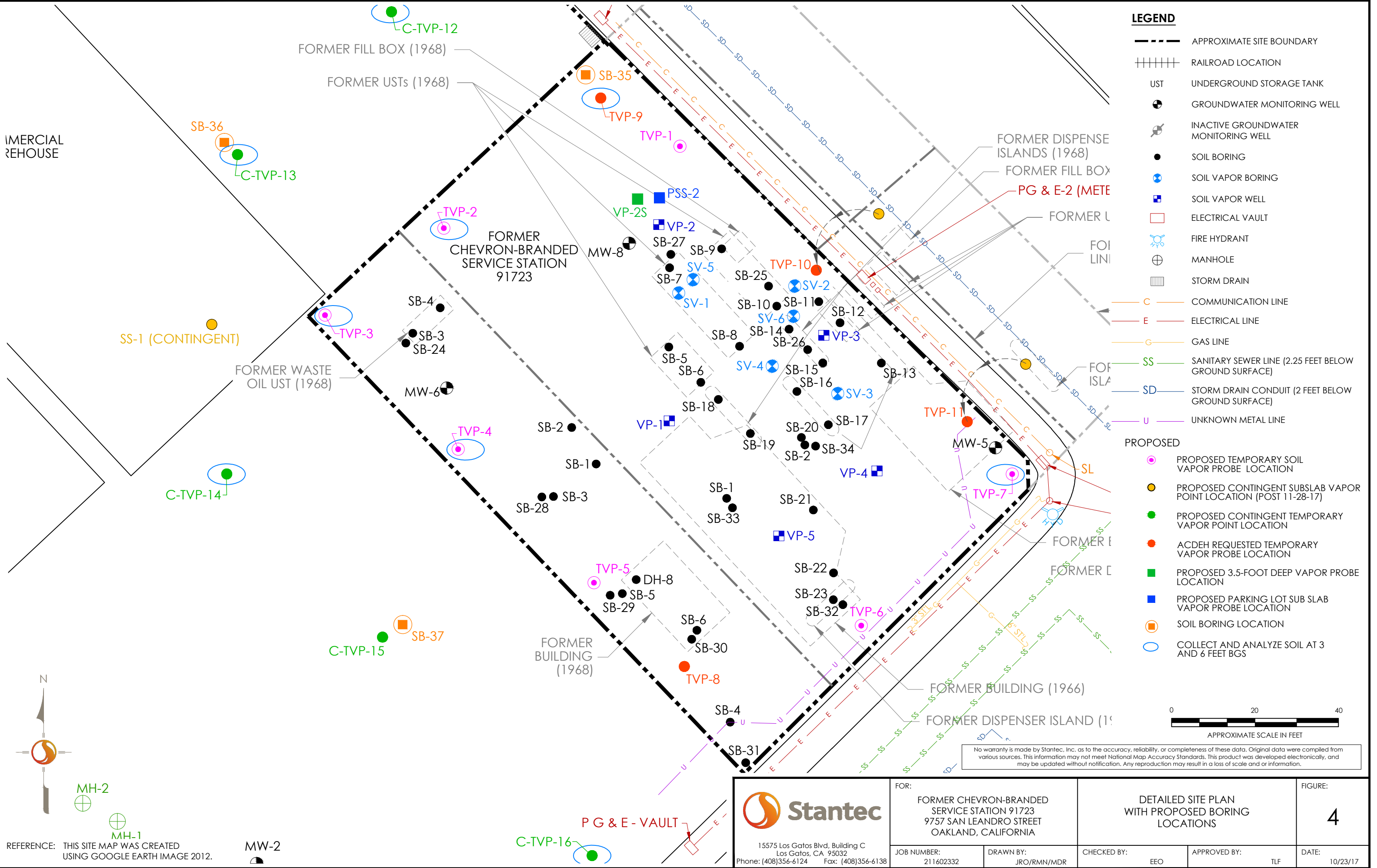
CHECKED BY:
EEO

APPROVED BY:
TLF

DATE:
05/24/16



<p>15575 Los Gatos Blvd, Building C Los Gatos, CA 95032 Phone: (408)356-6124 Fax: (408)356-6138</p>	<p>FOR: FORMER CHEVRON-BRANDED SERVICE STATION 91723 9757 SAN LEANDRO STREET OAKLAND, CALIFORNIA</p>	<p>SITE PLAN WITH PROPOSED BORING LOCATIONS</p>		<p>FIGURE: 3</p>
	<p>JOB NUMBER: 211602332</p>	<p>DRAWN BY: JRO/RMN/MDR</p>	<p>CHECKED BY: EEO</p>	<p>APPROVED BY: TLF</p>



LEGEND

- APPROXIMATE SITE BOUNDARY
- RAILROAD LOCATION
- UST UNDERGROUND STORAGE TANK
- GROUNDWATER MONITORING WELL
- INACTIVE GROUNDWATER MONITORING WELL
- SOIL BORING (STANTEC, 2015)
- PROPOSED SOIL BORING LOCATION

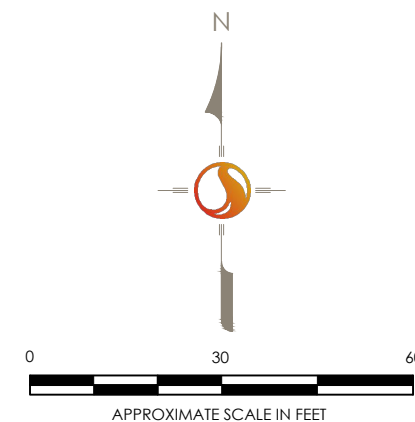
ANALYTES

SAMPLE ID DATE SAMPLED	MEASUREMENT OF SAMPLE DEPTH SAMPLED (ft bgs)						
	2.5	5	7.5	10	12.5	15	20
TPH-GRO	TOTAL PETROLEUM HYDROCARBONS AS GASOLINE RANGE ORGANICS						
TPH-DRO	TOTAL PETROLEUM HYDROCARBONS AS DIESEL RANGE ORGANICS						
TPH-ORO	TOTAL PETROLEUM HYDROCARBONS AS OIL RANGE ORGANICS						
NAPH	NAPHTHALENE						

mg/kg = MILLIGRAMS PER KILOGRAM
ft = FEET
bgs = BELOW GROUND SURFACE

BOLD = TEXT DENOTES CONCENTRATIONS EXCEEDING METHOD DETECTION LIMITS (MDLS).

BLUE = TEXT DENOTES CONCENTRATIONS EXCEEDING REGIONAL WATER QUALITY CONTROL BOARD (RWQCB) ENVIRONMENTAL SCREENING LEVELS (ESLs).



SB-27
07/29/15

	2.5	5	7.5	10	12.5	15	20
TPH-GRO	57	20	78	540	390	20	<0.5
TPH-DRO	65	11	170	110	33	8	<4.0
TPH-ORO	130	7.1	230	15	<4.0	<4.0	<4.0
BENZENE	<0.027	0.009	<0.025	0.089	<0.025	<0.026	<0.0005
ETHYLBENZENE	<0.053	0.002	<0.05	0.59	<0.053	<0.001	<0.001
NAPH	<0.053	0.002	<0.05	1.1	0.23	<0.053	<0.001

SB-25
07/29/15

	2.5	5	7.5	10	12.5	15	20
TPH-GRO	23	0.8	1.7	140	450	5.1	<0.5
TPH-DRO	190	<4.0	<4.0	21	73	<4.0	<3.9
TPH-ORO	490	<4.0	<4.0	15	69	<4.0	<3.9
BENZENE	<0.0005	<0.0005	<0.0005	0.32	0.76	0.01	0.001
ETHYLBENZENE	<0.0009	<0.001	<0.001	0.096	0.86	<0.001	<0.001
NAPH	<0.0009	<0.001	<0.001	0.69	0.4	<0.001	<0.001

SB-26
07/30/15

	2.5	5	7.5	10	12.5	15	20
TPH-GRO	1,300	530	210	530	650	26	<0.5
TPH-DRO	160	53	150	220	560	76	<4.0
TPH-ORO	<4.0	<4.0	160	270	770	93	<4.0
BENZENE	1.4	0.26	0.049	2.7	0.2	0.007	<0.0005
ETHYLBENZENE	21	5.1	0.069	0.36	0.078	0.003	<0.001
NAPH	12	3.5	0.097	1.7	0.11	<0.001	<0.001

SB-24
07/29/15

	2.5	5	7.5	10	12.5	15	20
TPH-GRO	<0.5	<0.5	<0.5	11	9.5	<0.5	<0.5
TPH-DRO	<4.0	<3.9	<3.9	<4.0	<3.9	<4.0	<3.9
TPH-ORO	<4.0	<3.9	<3.9	<4.0	<3.9	<4.0	<3.9
BENZENE	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
ETHYLBENZENE	<0.001	<0.001	<0.001	<0.001	0.02	<0.0009	<0.001
NAPH	<0.001	<0.001	<0.001	<0.001	0.014	<0.0009	<0.001

SB-28
07/28/15

	2.5	5	7.5	10	12.5	15	20
TPH-GRO	<0.5	<0.5	<0.5	21	46	<0.5	<0.5
TPH-DRO	<4.0	<4.0	<4.0	9.3	38	<4.0	<4.0
TPH-ORO	<4.0	<4.0	<4.0	7.7	37	<4.0	<4.0
BENZENE	<0.0005	<0.0005	<0.0005	0.002	<0.025	<0.0005	0.0009
ETHYLBENZENE	<0.001	<0.001	<0.001	0.003	0.32	<0.001	<0.0009
NAPH	<0.001	<0.001	<0.001	<0.001	0.13	<0.001	<0.0009

SB-29
07/28/15

	2.5	5	7.5	10	12.5	15	20
TPH-GRO	<0.5	<0.5	<0.5	5.1	220	<0.5	<0.5
TPH-DRO	<4.0	<4.0	<4.0	4.8	17	<4.0	<4.0
TPH-ORO	4.2	<4.0	<4.0	<4.0	19	<4.0	<4.0
BENZENE	<0.0005	<0.0005	<0.0005	<0.0005	<0.024	<0.0005	<0.0005
ETHYLBENZENE	<0.001	<0.001	<0.001	<0.0009	<0.049	<0.001	<0.0009
NAPH	<0.001	<0.001	<0.001	<0.0009	<0.049	<0.001	<0.0009

SB-30
07/27/15

	2.5	5	7.5	10	12.5	15	20
TPH-GRO	0.7	<0.5	7.0	120	0.7	<0.5	<0.5
TPH-DRO	<4.0	<4.0	16	55	<4.0	<4.0	<4.0
TPH-ORO	<4.0	<4.0	20	65	<4.0	<4.0	<4.0
BENZENE	<0.0005	<0.0005	<0.0005	<0.026	<0.0005	<0.0005	<0.0005
ETHYLBENZENE	<0.001	<0.001	<0.001	<0.051	<0.001	<0.001	<0.001
NAPH	<0.001	<0.001	<0.001	<0.051	<0.001	<0.001	<0.001

SB-31
07/27/15

	2.5	5	7.5	10	12.5	15	20
TPH-GRO	<0.5	<0.5	<0.5	7.1	49	<0.5	<0.5
TPH-DRO	<4.0	<4.0	<4.0	17	10	<4.0	<3.9
TPH-ORO	<4.0	<4.0	<4.0	27	11	<4.0	<3.9
BENZENE	<0.0005	<0.0005	<0.0005	<0.0005	<0.023	<0.0005	<0.0005
ETHYLBENZENE	<0.0009	<0.0009	<0.0009	<0.001	<0.046	<0.001	<0.0009
NAPH	<0.0009	<0.0009	<0.0009	<0.001	<0.046	<0.001	<0.0009

REFERENCE: THIS SITE MAP WAS CREATED USING GOOGLE EARTH IMAGE 2012.

<p>15575 Los Gatos Blvd, Building C Los Gatos, CA 95032 Phone: (408)356-6124 Fax: (408)356-6138</p>	FOR: FORMER CHEVRON-BRANDED SERVICE STATION 91723 9757 SAN LEANDRO STREET OAKLAND, CALIFORNIA	SITE PLAN SHOWING SOIL ANALYTICAL RESULTS AND PROPOSED SOIL BORINGS		FIGURE: 5
	JOB NUMBER: 211602332	DRAWN BY: JRO/MDR	CHECKED BY: DO	APPROVED BY: TLF

TABLES

TABLE 1
Proposed Sample Plan
Former Chevron Branded Service Station 91723
9757 San Leandro Street
Oakland, California

Sample Depth Feet bgs	Proposed Vapor Probe and Soil Boring Sample Interval																					
	TVP-1	TVP-2	TVP-3	TVP-4	TPV-5	TPV-6	TVP-7	TVP-8	TVP-9	TVP-10	TVP-11	VP-2S	PSS-2	C-TVP-12	C-TVP13	C-TVP-14	C-TVP-15	C-TVP-16	SB-35	SB-36	SB-37	
1																						
2																						
3																				1	1	x
3.5	1	1	1	1	nc	nc	1	nc	nc	1	1			1	nc	1	1	1				
4																				x	x	x
5																				1	1	1
6	1	1	1	1	nc	nc	1	nc	nc	1	1			1	nc	1	1	1		x	x	x
7																				x	x	x
7.5																				1	1	1
8																				x	x	x
9																				x	x	x
10																				1	1	1
11																				x	x	x
12																				x	x	x
12.5																				1	1	1
Total Soil Samples	2	2	2	2	0	0	2	0	0	2	2	0	0	2	0	2	2	2	5	5	4	
Total Temp soil Vapor Samples	2	2	2	2	2	2	2	2	2	2	2	1	1	2	2	2	2	2	0	0	0	
36	Soil samples will be analyzed for BTEX, and Naphthalene via EPA Method 8260B. Soil Samples will be analyzed for TPH-GRO and TPH-DRO by EPA Method 8015 modified.																					
34	Mobile Lab- Soil Vapor samples will be analyzed for TPH-GRO, and BTEX, and Naphthalene via EPA Method 8260. Offsite Lab- Soil Vapor samples will be analyzed for Naphthalene via EPA TO 17 Mobile Lab- Soil Vapor samples will be analyzed for Oxygen, carbon dioxide, nitrogen, methane, and helium using ASTM method D1946 EPA.																					
<u>Explanation</u> bgs = Depth in feet Below Grade Surface X = Soil sample collected for lithologic description and hydrocarbon screening Continuous Soil Sample Interval TPH-GRO = Total Petroleum Hydrocarbons Gasoline Range Organics Note: For Method TO-15 TPHg is referenced to a gasoline standard of molecular weight = 100. TPH-DRO = Total Petroleum Hydrocarbons Diesel Range Organics TPH-ORO = Total Petroleum Hydrocarbons Oil Range Organics BTEX = benzene, toluene, ethyl benzene, total xylenes C-TPV = Contingent Temporary Soil Vapor Probes Conditions in the field may also determine which soil samples are analyzed. ns = no sample will be collected. Adjacent data is available. Soil samples will not be retained for analyses based on the following reasons TPV-5, TPV-6, and TPV-8 are located adjacent soil borings SB-29, SB-30, and SB-32 with current soil data from July 2015. Analyses of additional soil samples in the same area is recommended. TVP-9 is located adjacent to proposed soil boring SB-35, so analyses of additional soil samples in the same area is not recommended.																						

ATTACHMENT A

ACDEH Correspondence dated
August 24, 2017

ALAMEDA COUNTY
HEALTH CARE SERVICES
AGENCY

REBECCA GEBHART, Interim Director



DEPARTMENT OF ENVIRONMENTAL HEALTH
LOCAL OVERSIGHT PROGRAM (LOP)
For Hazardous Materials Releases
1131 HARBOR BAY PARKWAY
ALAMEDA, CA 94502
(510) 567-6700
FAX (510) 337-9335

October 18, 2017

Ms. Carryl MacLeod
Chevron Environmental Management Company
6101 Bollinger Canyon Road
San Ramon, CA 94583
(Sent via electronic mail to:
CMacleod@chevron.com)

9401 San Leandro LP
104 Caledonia Street
Sausalito, CA 94965

Linda Hothem Trust
c/o Mr. Jan Greban
Greben & Associates
1332 Anacapa Street
Suite 110
Santa Barbara, CA 93101
(Sent via electronic mail to:
Jan@grebenlaw.com)

Mr. Francis Meynard
Pacific American Group
104 Caledonia Street
Sausalito, CA 94965
(Sent via electronic mail to:
FMeynard@pacamgroup.com)

Ms. Gene Kida
Gerber Products
12 Vreeland Road
Fiorham Park, NJ 07932

Subject: Request for Soil Vapor Plume Delineation; Fuel Leak Case No. RO0000412 and Geotracker Global ID T0600101789, Chevron #9-1723; 9757 San Leandro Street, Oakland, CA 94603

Dear Ladies and Gentlemen:

Thank you for attending the teleconference call held on October 16, 2017, to discuss the subject site. The call discussed the 12 figures generated by Stantec Consulting Services, Inc. (Stantec) as a result of the August 22, 2017 meeting. The figures depicted Total Petroleum Hydrocarbons as gasoline (TPHg), benzene, ethylbenzene, and naphthalene concentrations in soil in the 0 to 5 and 5 to 10 foot depth zones, contoured the soil data in the 5 to 10 foot depth interval, correlated TPHg, benzene, ethylbenzene, and naphthalene concentrations in soil at 5 to 10 feet to vapor concentrations for each constituent, and correlated soil vapor concentrations of each constituent to groundwater concentrations, and on the last figure, Figure 12, proposed seven temporary soil vapor sampling locations to delineate the soil vapor plume.

Based on ACDEH staff review of the referenced documents, please submit a brief work plan incorporating the technical comments below to ACDEH for review and approval. The work plan can reference previously submitted and approved protocols for soil and soil vapor sampling. ACDEH requests the analytical data be tabulated and emailed to ACDEH, and the property owner, council, and consultant for discussion via a teleconference call on November 28, 2017, prior to the submittal of an investigation report and updated Site Conceptual Model (SCM).

We request that you address the following technical comments, perform the proposed work, and send us the reports 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. **Detailed Figure Review Comments** – As discussed in the October 16, 2017 meeting, the review of the 12 figures by ACDEH resulted in a number of questions which need to be resolved and discussed in the Site Investigation Report requested below. The questions include the following:
 - a. **Discussion of Rational to Exclude Analytical Data from Contouring** – A series of soil bores with analytical data was excluded from the contouring effort, and if included, modify the understanding of soil contamination at the site, especially along the western property line of the two parcels comprising the

site. Rational must be provided in the updated SCM requested below to exclude analytical data from contouring.

- b. **Limited Naphthalene Contour Data Set** – The naphthalene soil analytical data is very limited, may not be representative of the site as a whole, and indicate the collection of additional naphthalene soil analytical data is warranted. Please collect at a minimum data from the soil vapor probe locations. ACDEH understands from the teleconference call on Oct. 16, 2017, Chevron is proposing to install probes at two depths, and thus naphthalene analytical data must be collected from both intervals.
- c. **Inferred Contours** – Multiple, separated, contours have been included in a number of the contour maps for soil and groundwater data and imply small isolated plumes, rather than a potentially larger plume, sourced from a more widely spread contamination. See for example Figures 2, 4, 6, and 9. A comparison of Figure 9, depicting the extent of groundwater TPHg contamination in groundwater relative to soil vapor, to Figure 5 contained in the *First Semi-Annual 2017 Groundwater Monitoring Report*, dated April 28, 2017 (Stantec), is misleading, and the isolated plumes are likely not representative of the site as a whole. Please revise the figures to be more representative of groundwater conditions.
- d. **Lack of a LTCP Bioattenuation Zone** – The subject site does not have a bioattenuation zone as defined by the Low Threat Closure Policy (LTCP) as concentrations of petroleum hydrocarbons greater than 100 milligrams per kilogram (mg/kg) are present in the 0 to 5 foot depth interval. It appears that contouring the 0 to 5 foot depth data is equally as useful for the installation of soil vapor probes to a depth of 5 to 5.5 feet below grade surface (bgs). Please revise the figures to also include the 0 to 5 foot depth interval data, in addition to the 5 to 10 foot depth on one figure for each contaminant.
- e. **Mapped Infrastructure Locations** – Please include historic station infrastructure (i.e. USTs, piping, islands, etc.) on all maps, unless the maps become too cluttered. In this case, please separate the details on an identically scaled map.
- f. **Proposed Soil Vapor Bore Locations** – Seven temporary vapor point locations were proposed on Figure 12 based on the data analysis contained in the preceding eleven figures. In general the locations appear reasonable; however, as discussed in the teleconference ACDEH requests the addition of a minimum of four additional locations. These locations are contained in the attached figure, and have been modified slightly to reflect teleconference call discussions. Initially, temporary, exploration-style, soil vapor probes are acceptable for the purpose of determining the lateral extent of the vapor plume; however, as noted in the teleconference call, ACDEH is requesting the identification of semi-permanent vapor probe locations based on the initial analytical result review (see below) for the purpose of determining temporal variations in vapor concentrations. As discussed in the teleconference call, ACDEH also requests that semi-permanent vapor probes be installed in offsite locations in San Leandro Street to evaluate whether multiple underground storage tanks (USTs) and other fueling infrastructure, have been removed, and presence of residual contamination offsite beneath San Leandro Street.
- g. **Real-Time Step-Out Vapor Probe Locations** – The presence of a mobile laboratory allows for a contingency to step-out in real-time to define the lateral extent of the soil vapor plume. The ability to quickly contract an onsite laboratory remained an issue at the end of the call; however, ACDEH is in agreement that an onsite laboratory is appropriate, and will expedite delineation of the vapor plume.

If a mobile laboratory cannot be contracted by the compliance dates listed below, ACDEH requests analysis of soil vapor samples on an expedited time and quick remobilization (within a week) to install step-out vapor probes. This iterative process should be completed until the extent of the vapor plume is defined.

- 2. **Soil Samples** – ACDEH requests that soil samples are collected from each soil vapor probe in order to understand contaminant distribution within the depth of the soil vapor probes (0 to 5, and 5 to 10, if probes greater than 5 feet are proposed to be installed). Please base sample collection on Photoionization Detector (PID) readings, staining, odor, or other indications of contamination. Please bias the samples to worst case samples.

3. **Analytical Suite** – Please analyze soil samples for TPHg, TPH as diesel (TPHd), benzene, toluene, ethylbenzene, total xylenes (BTEX), methyl tert butyl ether (MTBE), and naphthalene. Please analyze soil vapor by TO-15 and TO-17 (naphthalene). Please additionally include analysis for Halogenated Volatile Organic Compounds (HVOCs) due to the historic presence of HVOCs in groundwater at the site.
4. **Vapor Pressure Readings** – During the meeting the installation of a second bore adjacent to the proposed vapor probe locations was briefly discussed for the purpose of the collection of soil vapor at greater depths as well as pressure readings and other data. Please ensure the paired borings are installed at a sufficient distance from each other to prevent break through and cross communication.
5. **Permanent Vapor Probes** – The location of semi-permanent soil vapor probe locations will be dependent on the entire tabulated data set, and discussed in a teleconference call on the date identified below.
6. **Groundwater Monitoring** – Please continue semi-annual groundwater monitoring at the subject site. Additionally incorporate naphthalene into the analytical suite, and submit reports by the dates identified below.
7. **Industrial Water Supply Well** – Please include the previously requested evaluation of the screen interval of abandoned industrial water supply well P-2 and existing well screens monitoring shallow groundwater contamination associated with the subject site in a final report, whose submittal date has not yet been identified. Include a cross-section depicting the screen intervals in the SCM and report.
8. **Evaluation of Integrity of Pavement Surface** – Please include in a work plan the protocols for conducting a sweep of the asphalt or concrete surface at the site with FROG, or other, instrumentation on a grid sampling pattern in order to determine the presence of methane gas or other contaminants of concern at the surface.

SUBMITTAL ACKNOWLEDGEMENT STATEMENT

Please note that ACDEH has updated Attachment 1 with regard to report submittals to ACDEH. ACDEH will now be requiring a Submittal Acknowledgement Statement, replacing the Perjury Statement, as a cover letter signed by the Responsible Party (RP). The language for the Submittal Acknowledgement Statement is as follows:

I have read and acknowledge the content, recommendations and/or conclusions contained in the attached document or report submitted on my behalf to ACDEH's FTP server and the SWRCB's Geotracker Website.

Please make this change to your submittals to ACDEH.

TECHNICAL REPORT REQUEST

Please upload technical reports to the ACDEH 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 schedule:

- **October 27, 2017 – Second 2017 Semi-Annual Groundwater Monitoring Report**
File to be named: RO412_GWM_R_yyyy-mm-dd
- **October 30, 2017 – Soil Vapor Work Plan**
File to be named: RO412_WP_R_yyyy-mm-dd
- **Results Meeting; November 28, 2017; 1:00 to 3:00 PM** – Please distribute tabulated data, figures, and any other appropriate data, for review to stakeholders prior to a teleconference call to discuss the results of the initial soil gas sampling (Additional step-out vapor locations, semi-permanent vapor probe locations, etc.). ACDEH requests that all tables be tabulated showing any non-detectable concentrations as <x, rather than ND to facilitate an understanding of the reporting level with respect to Environmental Screening Levels (ESLs).
- **Installation of Step-Out / Semi-Permanent Vapor Locations; December 15, 2017**

Ladies and Gentlemen
RO000412
October 18, 2017, Page 4

- **January 29, 2018 – Site Investigation Report and SCM**
File to be named: RO412_SWI_R_yyyy-mm-
- **April 6, 2018 – First 2018 Semi-Annual Groundwater Monitoring Report**
File to be named: RO412_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>. Additionally, if your email address does not appear on the cover page of this notification, ACDEH is requesting you provide your email address so that we can correspond with you quickly and efficiently regarding your case.

If you have any questions, please call me at 510-567-6876 or send me an email at mark.detterman@acgov.org.

Sincerely,



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

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

Attachment 2 - Modified Figure 12

cc: Travis Flora, Stantec Consulting Services, Inc., 15575 Los Gatos Blvd, Los Gatos, CA 95032; (Sent via electronic mail to: travis.flora@stantec.com)

Michael Balster, Chevron Corporation, 6001 Bollinger Canyon Road (T-3068), San Ramon, CA 94583; (Sent via electronic mail to: michael.balster@chevron.com)

Peter Krasnoff, West Environmental Services & Technology, Inc, 711 Grand Avenue, Suite 220, San Rafael, CA 94901; (Sent via electronic mail to: peterk@westenvironmental.com)

Dilan Roe, ACDEH, (Sent via electronic mail to: dilan.roe@acgov.org)

Paresh Khatri, ACDEH; (Sent via electronic mail to: paresh.khatri@acgov.org)

Mark Detterman, ACDEH, (Sent via electronic mail to: mark.detterman@acgov.org)

Electronic File; GeoTracker

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

Alameda County Department of Environmental Health's (ACDEH) Environmental Cleanup Oversight Programs, Local Oversight Program (LOP) and Site Cleanup Program (SCP) 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 File Transfer Protocol (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 SCP 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 (http://www.waterboards.ca.gov/water_issues/programs/ust/electronic_submittal/) for more information on these requirements.

ACKNOWLEDGEMENT STATEMENT

All work plans, technical reports, or technical documents submitted to ACDEH must be accompanied by a cover letter from the responsible party that states, at a minimum, the following: "I have read and acknowledge the content, recommendations and/or conclusions contained in the attached document or report submitted on my behalf to ACDEH's FTP server and the SWRCB's GeoTracker website." 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 6731, 6735, and 7835) 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 licensed 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 case meet this requirement. Additional information is available on the Board of Professional Engineers, Land Surveyors, and Geologists website at: <http://www.bpelsg.ca.gov/laws/index.shtml>.

UNDERGROUND STORAGE TANK CLEANUP FUND

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

AGENCY OVERSIGHT

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

Alameda County Environmental Cleanup Oversight Programs (LOP and SCP)	REVISION DATE: December 1, 2016
	ISSUE DATE: July 5, 2005
	PREVIOUS REVISIONS: October 31, 2005; December 16, 2005; March 27, 2009; July 8, 2010, July 25, 2010; May 15, 2014, November 29, 2016
SECTION: Miscellaneous Administrative Topics & Procedures	SUBJECT: Electronic Report Upload (ftp) Instructions


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

REQUIREMENTS

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

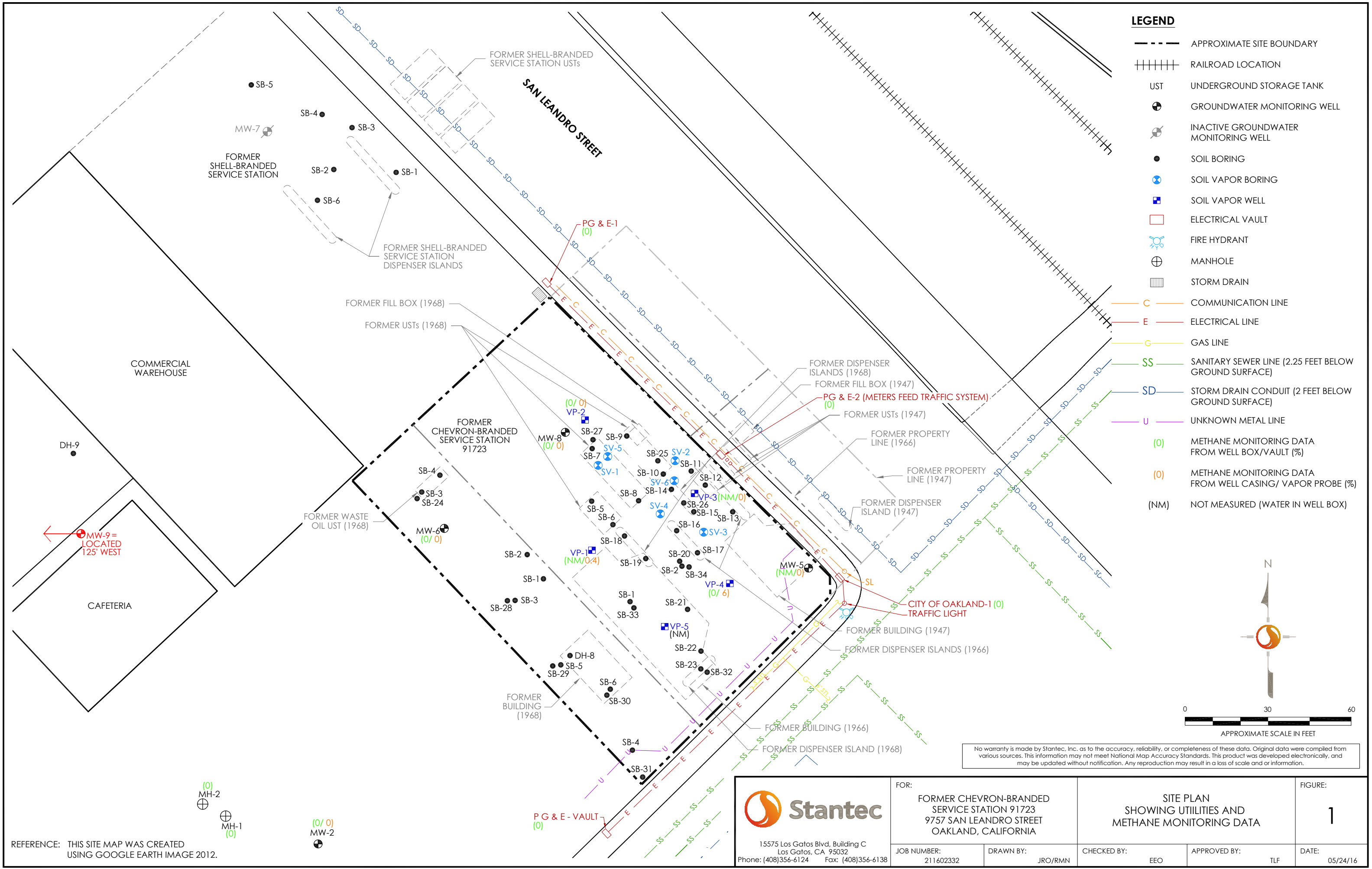
RO#_Report Name_Year-Month-Date (e.g., RO#5555_WorkPlan_2005-06-14)

Submission Instructions

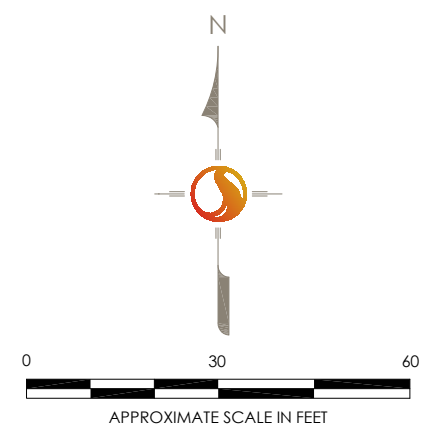
- 1) Obtain User Name and Password
 - a) Contact the Alameda County Environmental Health Department to obtain a User Name and Password to upload files to the ftp site.
 - i) Send an e-mail to deh.loptoxic@acgov.org.
 - b) In the subject line of your request, be sure to include "**ftp PASSWORD REQUEST**" and in the body of your request, include the **Contact Information, Site Addresses, and the Case Numbers (RO# available in Geotracker) you will be posting for.**
- 2) Upload Files to the ftp Site
 - a) Open File Explorer using the Windows  key + E keyboard shortcut.
 - i) Note: Netscape, Safari, and Firefox browsers will not open the FTP site as they are NOT being supported at this time.
 - b) On the address bar, type in `ftp://alcoftp1.acgov.org`.
 - c) Enter your User Name and Password. (Note: Both are Case Sensitive)
 - d) Click Log On.
 - e) Open "My Computer" on your computer and navigate to the file(s) you wish to upload to the ftp site.
 - f) 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.

ATTACHMENT B

Supporting Figures and Tables



- LEGEND**
- APPROXIMATE SITE BOUNDARY
 - ++++ RAILROAD LOCATION
 - UST UNDERGROUND STORAGE TANK
 - ⊕ GROUNDWATER MONITORING WELL
 - ⊖ INACTIVE GROUNDWATER MONITORING WELL
 - SOIL BORING
 - ⊗ SOIL VAPOR BORING
 - ⊕ SOIL VAPOR WELL
 - ELECTRICAL VAULT
 - ⊕ FIRE HYDRANT
 - ⊕ MANHOLE
 - ▨ STORM DRAIN
 - C COMMUNICATION LINE
 - E ELECTRICAL LINE
 - G GAS LINE
 - SS SANITARY SEWER LINE (2.25 FEET BELOW GROUND SURFACE)
 - SD STORM DRAIN CONDUIT (2 FEET BELOW GROUND SURFACE)
 - U UNKNOWN METAL LINE
 - (0) METHANE MONITORING DATA FROM WELL BOX/VAULT (%)
 - (0) METHANE MONITORING DATA FROM WELL CASING/ VAPOR PROBE (%)
 - (NM) NOT MEASURED (WATER IN WELL BOX)




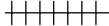








No warranty is made by Stantec, Inc. as to the accuracy, reliability, or completeness of these data. Original data were compiled from various sources. This information may not meet National Map Accuracy Standards. This product was developed electronically, and may be updated without notification. Any reproduction may result in a loss of scale and/or information.

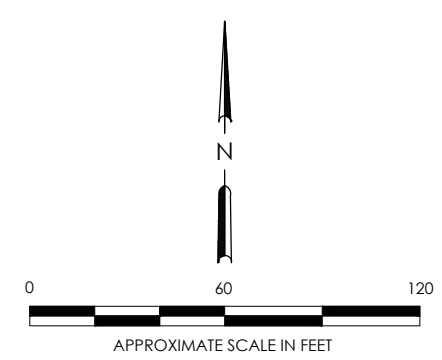
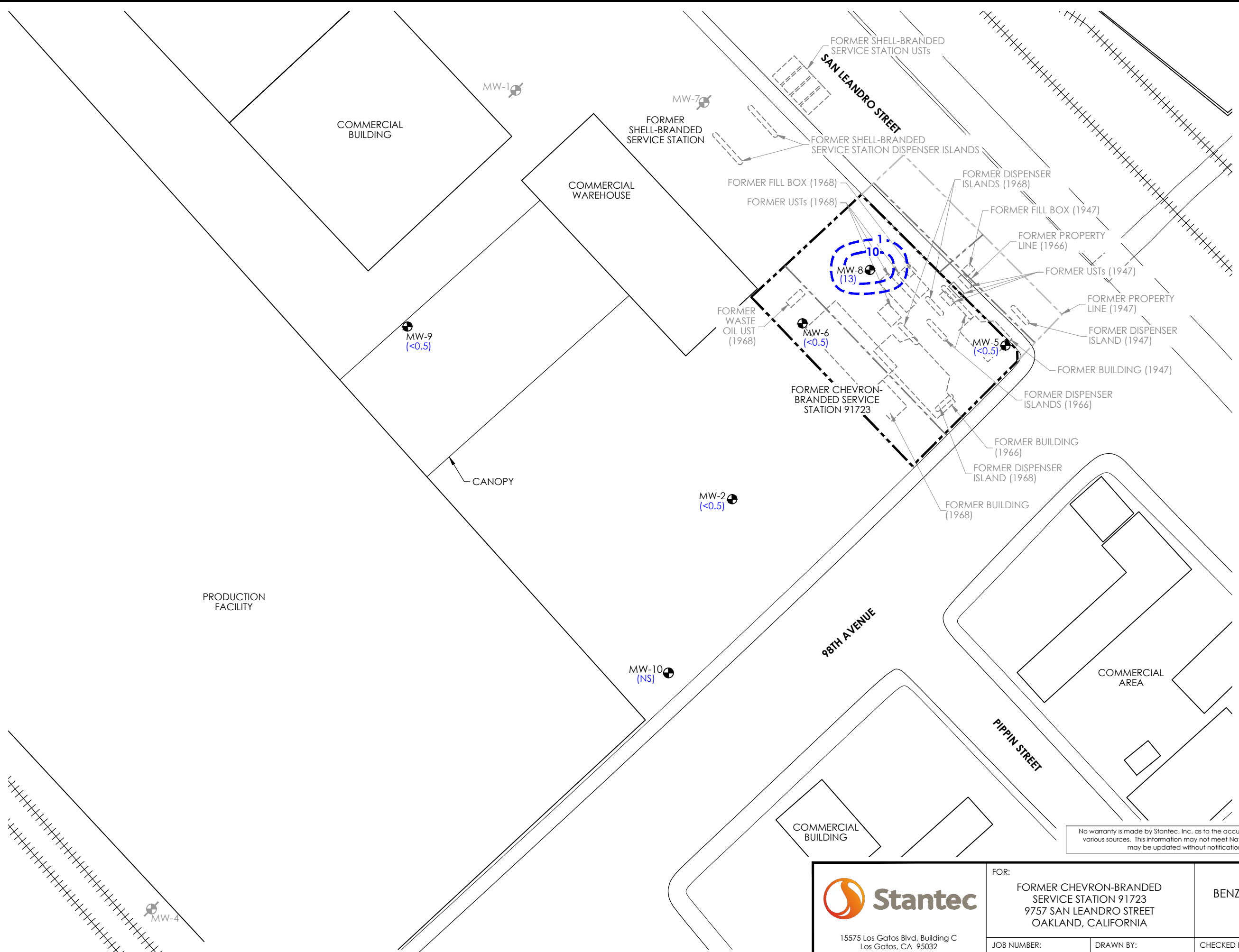
REFERENCE: THIS SITE MAP WAS CREATED USING GOOGLE EARTH IMAGE 2012.

- (0) MH-2
- ⊕ MH-1 (0)
- (0/0) MW-2
- ⊕

<p>15575 Los Gatos Blvd, Building C Los Gatos, CA 95032 Phone: (408)356-6124 Fax: (408)356-6138</p>	<p>FOR: FORMER CHEVRON-BRANDED SERVICE STATION 91723 9757 SAN LEANDRO STREET OAKLAND, CALIFORNIA</p>	<p>SITE PLAN SHOWING UTILITIES AND METHANE MONITORING DATA</p>		<p>FIGURE: 1</p>
	<p>JOB NUMBER: 211602332</p>	<p>DRAWN BY: JRO/RMN</p>	<p>CHECKED BY: EEO</p>	<p>APPROVED BY: TLF</p>

LEGEND

-  APPROXIMATE SITE BOUNDARY
-  RAILROAD LOCATION
-  UST
-  UNDERGROUND STORAGE TANK
-  GROUNDWATER MONITORING WELL
-  ABANDONED/ DESTROYED GROUNDWATER MONITORING WELL
-  (13) BENZENE CONCENTRATION (µg/L)
-  (NS) NOT SAMPLED
-  INFERRED BENZENE CONTOUR
-  (µg/L) MICROGRAMS PER LITER



No warranty is made by Stantec, Inc. as to the accuracy, reliability, or completeness of these data. Original data were compiled from various sources. This information may not meet National Map Accuracy Standards. This product was developed electronically, and may be updated without notification. Any reproduction may result in a loss of scale and/or information.


 15575 Los Gatos Blvd, Building C Los Gatos, CA 95032 Phone: (408) 356-6124 Fax: (408) 356-6138	FOR: FORMER CHEVRON-BRANDED SERVICE STATION 91723 9757 SAN LEANDRO STREET OAKLAND, CALIFORNIA		BENZENE ISOCONCENTRATION MAP - THIRD QUARTER 2017		FIGURE: 2
	JOB NUMBER: 211602332	DRAWN BY: JRO	CHECKED BY: EEO/MRK	APPROVED BY: JA	DATE: 10/16/17

Table 1
Soil Analytical Results
9757 San Leandro Street
Oakland, California

Sample ID	Depth Interval (feet bgs)	Date Collected	US EPA Method 8015B			US EPA METHOD 8260B				
			TPH-ORO (mg/kg)	TPH-DRO w/ silica gel (mg/kg)	TPH-GRO (mg/kg)	Benzene (mg/kg)	Toluene (mg/kg)	Ethylbenzene (mg/kg)	Total Xylenes ⁽¹⁾ (mg/kg)	Naphthalene (mg/kg)
SB-24	2.5	7/29/2015	<4.0	<4.0	<0.5	<0.0005	<0.001	<0.001	<0.001	<0.001
	5	7/29/2015	<3.9	<3.9	<0.5	<0.0005	<0.001	<0.001	<0.001	<0.001
	7.5	7/29/2015	<3.9	<3.9	<0.5	<0.0005	<0.001	<0.001	<0.001	<0.001
	10	7/29/2015	<4.0	<4.0	11	<0.0005	<0.001	<0.001	<0.001	<0.001
	12.5	7/29/2015	<3.9	<3.9	9.5	<0.0005	<0.001	0.02	0.002	0.014
	15	7/29/2015	<4.0	<4.0	<0.5	<0.0005	<0.0009	<0.0009	<0.0009	<0.0009
	20	7/29/2015	<3.9	<3.9	<0.5	<0.0005	<0.001	<0.001	<0.001	<0.001
SB-25	2.5	7/29/2015	490	190	23	<0.0005	<0.0009	<0.0009	<0.0009	<0.0009
	5	7/29/2015	<4.0	<4.0	0.8	<0.0005	<0.001	<0.001	<0.001	<0.001
	7.5	7/29/2015	<4.0	<4.0	1.7	<0.0005	<0.001	<0.001	<0.001	<0.001
	10	7/29/2015	15	21	140	0.32	<0.049	0.096	<0.049	0.69
	12.5	7/29/2015	69	73	450	0.76	<0.091	0.86	1.2	0.4
	15	7/29/2015	<4.0	<4.0	5.1	0.01	<0.001	<0.001	0.003	<0.001
	20	7/29/2015	<3.9	<3.9	<0.5	0.001	<0.001	<0.001	0.002	<0.001
SB-26	2.5	7/30/2015	<4.0	160	1,300	1.4	0.68	21	49	12
	5	7/30/2015	<4.0	53	530	0.26	<0.047	5.1	3.7	3.5
	7.5	7/30/2015	160	150	210	0.049	<0.05	0.069	<0.05	0.097
	10	7/30/2015	270	220	530	2.7	<0.047	0.36	0.089	1.7
	12.5	7/30/2015	770	560	650	0.2	<0.046	0.078	0.11	0.11
	15	7/30/2015	93	76	26	0.007	0.001	0.003	0.005	<0.001
	20	7/30/2015	<4.0	<4.0	<0.5	<0.0005	<0.001	<0.001	<0.001	<0.001
SB-27	2.5	7/29/2015	130	65	57	<0.027	<0.053	<0.053	<0.053	<0.053
	5	7/29/2015	7.1	11	20	0.009	<0.001	0.002	<0.001	0.002
	7.5	7/29/2015	230	170	78	<0.025	<0.05	<0.05	<0.05	<0.05
	10	7/29/2015	15	110	540	0.089	<0.053	0.59	<0.053	1.1
	12.5	7/29/2015	<4.0	33	390	<0.025	<0.049	0.3	0.082	0.23
	15	7/29/2015	<4.0	8	20	<0.026	<0.053	<0.053	<0.053	<0.053
	20	7/29/2015	<4.0	<4.0	<0.5	<0.0005	<0.001	<0.001	<0.001	<0.001
SB-28	2.5	7/28/2015	<4.0	<4.0	<0.5	<0.0005	<0.001	<0.001	<0.001	<0.001
	5	7/28/2015	<4.0	<4.0	<0.5	<0.0005	<0.001	<0.001	<0.001	<0.001
	7.5	7/28/2015	<4.0	<4.0	<0.5	<0.0005	<0.001	<0.001	<0.001	<0.001
	10	7/28/2015	7.7	9.3	21	0.002	<0.001	0.003	<0.001	<0.001
	12.5	7/28/2015	37	38	46	<0.025	<0.05	0.32	0.38	0.13
	15	7/28/2015	<4.0	<4.0	<0.5	<0.0005	<0.001	<0.001	<0.001	<0.001
	20	7/28/2015	<4.0	<4.0	<0.5	0.0009	<0.001	<0.001	<0.001	<0.001
SB-29	2.5	7/28/2015	4.2	<4.0	<0.5	<0.0005	<0.001	<0.001	<0.001	<0.001
	5	7/28/2015	<4.0	<4.0	<0.5	<0.0005	<0.001	<0.001	<0.001	<0.001
	7.5	7/28/2015	<4.0	<4.0	<0.5	<0.0005	<0.001	<0.001	<0.001	<0.001
	10	7/28/2015	<4.0	4.8	5.1	<0.0005	<0.0009	<0.0009	<0.0009	<0.0009
	12.5	7/28/2015	19	17	220	<0.024	<0.049	<0.049	<0.049	<0.049
	15	7/28/2015	<4.0	<4.0	<0.5	<0.0005	<0.001	<0.001	<0.001	<0.001
	20	7/28/2015	<4.0	<4.0	<0.5	<0.0005	<0.0009	<0.0009	<0.0009	<0.0009
SB-30	2.5	7/27/2015	<4.0	<4.0	0.7	<0.0005	<0.001	<0.001	<0.001	<0.001
	5	7/27/2015	<4.0	<4.0	<0.5	<0.0005	<0.001	<0.001	<0.001	<0.001
	7.5	7/27/2015	20	16	7.0	<0.0005	<0.001	<0.001	<0.001	<0.001
	10	7/27/2015	65	55	120	<0.026	<0.051	<0.051	<0.051	<0.051
	12.5	7/27/2015	<4.0	<4.0	0.7	<0.0005	<0.001	<0.001	<0.001	<0.001
	15	7/27/2015	<4.0	<4.0	<0.5	<0.0005	<0.001	<0.001	<0.001	<0.001
	20	7/27/2015	<4.0	<4.0	<0.5	<0.0005	<0.001	<0.001	<0.001	<0.001

Table 1
Soil Analytical Results
 9757 San Leandro Street
 Oakland, California

Sample ID	Depth Interval (feet bgs)	Date Collected	US EPA Method 8015B			US EPA METHOD 8260B				
			TPH-ORO (mg/kg)	TPH-DRO w/ silica gel (mg/kg)	TPH-GRO (mg/kg)	Benzene (mg/kg)	Toluene (mg/kg)	Ethylbenzene (mg/kg)	Total Xylenes ⁽¹⁾ (mg/kg)	Naphthalene (mg/kg)
SB-31	2.5	7/27/2015	<4.0	<4.0	<0.5	<0.0005	<0.0009	<0.0009	<0.0009	<0.0009
	5	7/27/2015	<4.0	<4.0	<0.5	<0.0005	<0.0009	<0.0009	<0.0009	<0.0009
	7.5	7/27/2015	<4.0	<4.0	<0.5	<0.0005	<0.0009	<0.0009	<0.0009	<0.0009
	10	7/27/2015	27	17	7.1	<0.0005	<0.001	<0.001	<0.001	<0.001
	12.5	7/27/2015	11	10	49	<0.023	<0.046	<0.046	<0.046	<0.046
	15	7/27/2015	<4.0	<4.0	<0.5	<0.0005	<0.001	<0.001	<0.001	<0.001
	20	7/27/2015	<3.9	<3.9	<0.5	<0.0005	<0.0009	<0.0009	<0.0009	<0.0009
SB-32	2.5	7/28/2015	<4.0	<4.0	<0.5	<0.0005	<0.001	<0.001	<0.001	<0.001
	5	7/28/2015	<4.0	<4.0	<0.5	<0.0005	<0.001	<0.001	<0.001	<0.001
	7.5	7/28/2015	120	81	18	<0.0005	<0.001	<0.001	<0.001	<0.001
	10	7/28/2015	360	190	47	<0.0005	<0.001	<0.001	0.011	<0.001
	12.5	7/28/2015	1,200	620	110	<0.026	<0.052	<0.052	0.13	<0.052
	15	7/28/2015	1,300	670	110	<0.0005	<0.0009	<0.0009	0.01	<0.0009
	20	7/28/2015	170	77	5.3	<0.0005	<0.0009	<0.0009	<0.0009	<0.0009
SB-33	2.5	7/28/2015	<3.9	<3.9	0.7	<0.0005	<0.001	<0.001	<0.001	<0.001
	5	7/28/2015	<4.0	<4.0	<0.5	<0.0005	<0.001	<0.001	<0.001	<0.001
	7.5	7/28/2015	140	63	19	<0.0005	<0.0009	<0.0009	<0.0009	<0.0009
	10	7/28/2015	<4.0	<4.0	40	0.062	<0.051	0.068	<0.051	<0.051
	12.5	7/28/2015	130	78	58	<0.025	<0.05	<0.05	<0.05	<0.05
	15	7/28/2015	<4.0	<4.0	<0.5	<0.0005	<0.001	<0.001	<0.001	<0.001
	20	7/28/2015	<4.0	<4.0	<0.5	<0.0005	<0.001	<0.001	<0.001	<0.001
SB-34	2.5	7/30/2015	<4.0	<4.0	0.8	<0.0005	<0.001	<0.001	<0.001	<0.001
	5	7/30/2015	<4.0	<4.0	<0.5	<0.0005	<0.001	<0.001	<0.001	<0.001
	7.5	7/30/2015	<4.0	<4.0	<0.5	<0.0005	<0.001	<0.001	<0.001	<0.001
	10	7/30/2015	<4.0	6.4	43	0.04	<0.051	<0.051	<0.051	<0.051
	12.5	7/30/2015	<4.0	13	55	<0.026	<0.052	<0.052	<0.052	<0.052
	15	7/30/2015	<4.0	<4.0	3.2	0.0007	<0.001	<0.001	<0.001	<0.001
	20	7/30/2015	<4.0	6.1	<0.5	<0.0005	<0.001	<0.001	<0.001	<0.001
ESLs⁽²⁾			100	240	100	0.044	2.9	1.4	2.3	0.023

Notes:

(1) Total xylenes is the sum of ortho-, meta-, and para-xylenes.

(2) California Regional Water Quality Control Board, San Francisco Bay Region, "Update to Environmental Screening Levels." February 22, 2016. Tier 1 ESLs.

Bold font denotes detected value. **Bold/blue** font denotes detected value equal to or above RWQCB ESLs.

Abbreviations:

< = compound was not detected at or above the detection limit shown.

bgs = below ground surface

ESLs = Environmental Screening Levels

mg/kg = milligrams per kilogram

US EPA = United States Environmental Protection Agency

TPH-DRO = total petroleum hydrocarbons as Diesel range organics (C₁₀-C₂₈ reported as total purgeable petroleum hydrocarbons)

TPH-GRO = total petroleum hydrocarbons as gasoline range organics (C₆-C₁₂ reported as total purgeable petroleum hydrocarbons)

TPH-ORO = total petroleum hydrocarbons as oil range organics (C₁₈-C₄₀ reported as total purgeable petroleum hydrocarbons)

Table 2
Historical Soil Analytical Data
9757 San Leandro Street
Oakland, CA

Consultant	Sample ID	Depth (feet bgs)	Date Collected	TPH-DRO (mg/kg)	TPH-GRO (mg/kg)	Benzene (mg/kg)	Toluene (mg/kg)	Ethylbenzene (mg/kg)	Total Xylenes (mg/kg)	MtBE (mg/kg)	MO (mg/kg)	TOG (mg/kg)
Beta Associates	MW-1	3	4/18/1987	--	--	<0.010	<0.010	<0.010	<0.020	--	<10.0	--
	MW-2	3	4/18/1987	--	--	<0.010	<0.010	<0.010	<0.020	--	--	--
	DH-3	2.5	4/18/1987	--	--	<0.010	<0.010	<0.010	<0.020	--	--	--
	MW-4	10.5	4/18/1987	<1.0	--	<0.010	<0.010	--	<0.010	--	<10.0	--
	DH-5	5	4/18/1987	<1.0	--	<0.010	<0.010	<0.010	<0.020	--	<10.0	--
	DH-6	10.5	4/18/1987	<1.0	--	<0.010	<0.010	--	<0.010	--	<10.0	--
	DH-7	3.5	4/18/1987	--	<1	<0.010	<0.010	--	<0.010	--	--	--
	DH-8	10	4/18/1987	<1	1,017	1.063	9.997	--	108.092	--	240	--
	DH-9	1	4/18/1987	--	--	<0.010	<0.010	<0.010	<0.020	--	230	--
	DH-10	1	4/18/1987	--	--	--	--	--	--	--	--	--
	DH-11	1	4/18/1987	--	--	<0.010	<0.010	--	<0.010	--	380	--
GTI	MW-5	5	5/18/1988	--	<1	<0.0005	<0.0005	<0.0005	<0.0005	--	--	--
		10		--	160	<0.0005	<0.0005	3	7	--	--	--
		15		--	<1	<0.0005	<0.0005	<0.0005	<0.0005	--	--	--
	MW-6	5	5/18/1988	--	<1	<0.0005	<0.005	<0.005	<0.005	--	--	--
		10		--	310	<0.0005	2	4	18	--	--	--
	MW-7	5	5/18/1988	--	<1	<0.0005	<0.005	<0.005	<0.005	--	--	--
		10		--	<1	<0.0005	<0.005	<0.005	<0.005	--	--	--
	MW-8	5	5/19/1988	--	2	<0.0005	<0.005	<0.005	<0.005	--	--	--
10		--		5	<0.0005	<0.005	<0.005	<0.005	--	--	--	

Table 2
Historical Soil Analytical Data
9757 San Leandro Street
Oakland, CA

Consultant	Sample ID	Depth (feet bgs)	Date Collected	TPH-DRO (mg/kg)	TPH-GRO (mg/kg)	Benzene (mg/kg)	Toluene (mg/kg)	Ethylbenzene (mg/kg)	Total Xylenes (mg/kg)	MtBE (mg/kg)	MO (mg/kg)	TOG (mg/kg)
HLA	SB-1	6.5	8/3/1989	--	<10	<0.005	0.03	<0.005	<0.005	--	--	--
		10.5		--	400	1.9	1.4	4.1	11	--	--	--
	SB-2	6.5	8/3/1989	--	<10	<0.005	<0.005	<0.005	<0.005	--	--	--
		9.5		--	34	0.14	0.2	0.27	0.43	--	--	--
		16		--	140	0.67	0.79	1.3	4.9	--	--	--
	SB-3	6.5	8/3/1989	--	<10	<0.005	<0.005	<0.005	<0.005	--	--	--
		9.5		--	130	0.9	<0.100	1.5	3.4	--	--	--
		15.5		--	<10	<0.005	<0.005	<0.005	<0.005	--	--	--
	SB-4	5.5	8/3/1989	--	<10	<0.005	<0.005	<0.005	<0.005	--	--	--
		10.5		--	300	3.3	0.42	8.2	12	--	--	--
		15.5		--	<10	<0.005	<0.005	<0.005	<0.005	--	--	--
	SB-5	5.5	8/3/1989	--	<10	0.047	<0.005	<0.005	<0.005	--	--	--
		10.5		--	470	1.9	0.58	7.2	22	--	--	--
		15.5		--	<10	<0.005	<0.005	<0.005	<0.005	--	--	--
	SB-6	5.5	10/5/1989	--	<10	0.018	0.023	0.008	0.027	--	--	--
		10.5		--	270	2.0	0.9	1.6	3.8	--	--	--
		15.5		--	<10	0.033	0.034	0.0055	0.026	--	--	--
	MW-9	6.5	8/4/1989	--	<10	<0.005	<0.005	<0.005	<0.005	--	--	--
		12.5		--	<10	<0.005	<0.005	<0.005	<0.005	--	--	--
	MW-10	6.5	8/4/1989	--	<10	<0.005	<0.005	<0.005	<0.005	--	--	--
12.5		--		<10	<0.005	<0.005	<0.005	<0.005	--	--	--	

Table 2
Historical Soil Analytical Data
 9757 San Leandro Street
 Oakland, CA

Consultant	Sample ID	Depth (feet bgs)	Date Collected	TPH-DRO (mg/kg)	TPH-GRO (mg/kg)	Benzene (mg/kg)	Toluene (mg/kg)	Ethylbenzene (mg/kg)	Total Xylenes (mg/kg)	MtBE (mg/kg)	MO (mg/kg)	TOG (mg/kg)	
GTI	SB-1	5	4/2/1996	--	--	--	--	--	--	--	--	--	
		10		--	400	1.4	0.44	8.9	28	--	--	78	
		15		--	--	--	--	--	--	--	--	--	
	SB-2	5	4/1/1996	--	--	--	--	--	--	--	--	--	
		10		--	51	0.18	0.12	0.79	0.59	--	--	24	
	SB-3	5	4/1/1996	--	--	--	--	--	--	--	--	--	--
		10		--	190	0.54	0.66	2.3	3.3	--	--	35	
		15		--	--	--	--	--	--	--	--	--	
	SB-4	5	4/1/1996	--	--	--	--	--	--	--	--	--	--
		10		--	170 ¹	0.59	0.52	0.14	1.1	--	--	940	
		15		--	20 ¹	0.091	0.036	0.029	0.23	--	--	--	
	SB-5	5	4/1/1996	--	--	--	--	--	--	--	--	--	--
		10		--	300	2.4	1.4	10	4.2	--	--	--	
		15		--	--	--	--	--	--	--	--	--	
	SB-6	5	4/4/1996	--	--	--	--	--	--	--	--	--	--
		10		--	330 ¹	0.57	<0.0050	0.42	2.3	--	--	--	
		15		--	--	--	--	--	--	--	--	--	
	SB-7	5	4/1/1996	--	880	2.2	0.58	7.7	7.9	--	--	--	
		10		--	500	1.3	1.6	7.0	27	--	--	--	
		15		--	--	--	--	--	--	--	--	--	
	SB-8	5	4/4/1996	--	110 ¹	1.6	<0.0050	<0.0050	0.79	--	--	--	
		10		--	240 ¹	4.6	1.1	0.76	2.1	--	--	--	
		15		--	2.1 ²	0.0054	<0.0050	<0.0050	0.042	--	--	--	
	SB-9	5	4/1/1996	--	67	0.60	0.16	0.14	0.82	--	--	--	
		10		--	--	--	--	--	--	--	--	--	
		15		--	610	3.8	7.4	17	69	--	--	--	
	SB-10	5	4/4/1996	--	450	3.7	8.9	9.9	53	--	--	--	
		10		--	1,300	99	40	150	210	--	--	--	
		15		--	<1.0	0.010	0.0051	<0.0050	0.016	--	--	--	

Table 2
Historical Soil Analytical Data
 9757 San Leandro Street
 Oakland, CA

Consultant	Sample ID	Depth (feet bgs)	Date Collected	TPH-DRO (mg/kg)	TPH-GRO (mg/kg)	Benzene (mg/kg)	Toluene (mg/kg)	Ethylbenzene (mg/kg)	Total Xylenes (mg/kg)	MtBE (mg/kg)	MO (mg/kg)	TOG (mg/kg)
GTI	SB-11	5	4/4/1996	--	7.5 ¹	0.012	0.040	0.019	0.056	--	--	--
		10		--	550	1.5	<0.0050	9.7	3.2	--	--	--
		15		--	--	--	--	--	--	--	--	--
	SB-12	5	4/3/1996	--	<1.0	<0.0050	<0.0050	<0.0050	<0.0050	--	--	--
		10		--	750	1.1	4.1	19	85	--	--	--
		15		--	--	--	--	--	--	--	--	--
	SB-13	5	4/3/1996	--	--	--	--	--	--	--	--	--
		10		--	340	1.6	0.81	7.4	24	--	--	--
	SB-14	5	4/4/1996	--	17 ¹	0.066	0.050	0.097	0.067	--	--	--
		10		--	820	5.0	28	16	82	--	--	--
	SB-15	5	4/3/1996	--	2.1 ¹	0.011	0.0060	<0.0050	0.15	--	--	--
		10		--	1,800	17	68	53	260	--	--	--
	SB-16	5	4/3/1996	--	1.9	0.15	<0.0050	0.0069	0.026	--	--	--
		10		--	760	6.2	1.8	28	76	--	--	--
	SB-17	5	4/3/1996	--	--	--	--	--	--	--	--	--
		10		--	1,600	4.3	15	38	150	--	--	--
	SB-18	5	4/4/1996	--	--	--	--	--	--	--	--	--
		10		--	480	5.9	4.5	2.0	5.4	--	--	--
	SB-19	5	4/3/1996	--	--	--	--	--	--	--	--	--
		10		--	220	2.3	<0.0050	1.1	1.5	--	--	--
	SB-20	5	4/3/1996	--	--	--	--	--	--	--	--	--
		10		--	510	3.8	1.5	17	39	--	--	--
	SB-21	5	4/2/1996	--	<1.0	<0.0050	<0.0050	<0.0050	<0.0050	--	--	--
SB-22	5	4/2/1996	--	3.1 ¹	0.027	0.0091	0.020	0.015	--	--	--	
	10		--	110	0.72	0.47	4.7	0.39	--	--	--	
SB-23	5	4/2/1996	--	--	--	--	--	--	--	--	--	
	10		--	140	3.4	2.9	0.86	4.6	--	--	--	

Table 2
Historical Soil Analytical Data
 9757 San Leandro Street
 Oakland, CA

Consultant	Sample ID	Depth (feet bgs)	Date Collected	TPH-DRO (mg/kg)	TPH-GRO (mg/kg)	Benzene (mg/kg)	Toluene (mg/kg)	Ethylbenzene (mg/kg)	Total Xylenes (mg/kg)	MtBE (mg/kg)	MO (mg/kg)	TOG (mg/kg)
CRA	VP-1	5	6/24/2010	--	<1.0	<0.0005	<0.001	<0.001	<0.001	--	--	--
	VP-2	6	6/24/2010	--	230	<0.047	<0.094	<0.094	<0.094	--	--	--
	VP-3	6	6/24/2010	--	100	0.14	<0.047	0.52	0.14	--	--	--
	VP-4	6	6/24/2010	--	100	0.033	<0.050	<0.050	0.074	--	--	--
	VP-5	5	6/24/2010	--	<1.0	<0.0005	<0.001	<0.001	<0.001	--	--	--
ESLs ⁽¹⁾				240	100	0.044	2.9	1.4	2.3	0.023	100	100

Notes:

(1) California Regional Water Quality Control Board, San Francisco Bay Region, "Update to Environmental Screening Levels." February 22, 2016. Tier 1 ESLs.

Bold text denotes detected concentrations.

Detected concentrations above ESLs are noted in **blue/bold** text

Abbreviations:

feet bgs = feet below ground surface

mg/kg = milligrams per kilogram

ND = not detected

-- = not analyzed

NS = no standard

TPH-DRO = total petroleum hydrocarbons as diesel range organics

TPH-GRO = total petroleum hydrocarbons as gasoline range organics

MtBE = methyl tertiary-butyl ether

MO = motor oil

TOG = total oil and grease

1 = Laboratory report indicates gasoline and unidentified hydrocarbons >C8

2 = Unidentified hydrocarbons >C8

Table 3
Soil Analytical Results
Polyaromatic Hydrocarbons (PAH)
9757 San Leandro Street
Oakland, California

			US EPA Method 8270C-SIM															
Sample ID	Depth Interval (feet bgs)	Date Collected	Acenaphthene (mg/kg)	Acenaphthylene (mg/kg)	Anthracene (mg/kg)	Benzo[a] anthracene (mg/kg)	Benzo[b] fluoranthene (mg/kg)	Benzo[k] fluoranthene (mg/kg)	Benzo[a] pyrene (mg/kg)	Benzo[g,h,i] perylene (mg/kg)	Chrysene (mg/kg)	Dibenz [a,h] anthracene (mg/kg)	Fluoranthene (mg/kg)	Fluorene (mg/kg)	Indeno[1,2,3-cd] pyrene (mg/kg)	Naphthalene (mg/kg)	Phenanthrene (mg/kg)	Pyrene (mg/kg)
SB-24	2.5	7/29/2015	0.00077	0.00067	0.00051	0.0010	0.0085	0.0012	<0.00066	0.0010	0.0076	<0.00066	0.0047	0.00095	0.0011	0.0031	0.0039	0.0019
	5	7/29/2015	<0.00067	<0.00033	<0.00033	<0.00067	0.0011	<0.00067	<0.00067	<0.00067	0.00046	<0.00067	<0.00067	<0.00067	<0.00067	<0.00067	<0.00067	<0.00067
	7.5	7/29/2015	<0.00066	<0.00033	<0.00033	<0.00066	<0.00066	<0.00066	<0.00066	<0.00066	<0.00033	<0.00066	<0.00066	<0.00066	<0.00066	<0.00066	<0.00066	<0.00066
	10	7/29/2015	0.0021	0.0015	0.0011	0.00094	<0.00066	<0.00066	<0.00066	0.00073	0.00080	<0.00066	0.0020	0.0037	<0.00066	0.0065	0.0078	0.0019
	12.5	7/29/2015	<0.00066	<0.00033	0.00056	<0.00066	<0.00066	<0.00066	<0.00066	<0.00066	0.00043	<0.00066	0.00085	<0.00066	<0.00066	0.0023	0.0012	0.0011
	15	7/29/2015	<0.00066	<0.00033	<0.00033	<0.00066	<0.00066	<0.00066	<0.00066	<0.00066	<0.00033	<0.00066	<0.00066	<0.00066	<0.00066	0.0011	<0.00066	<0.00066
	20	7/29/2015	<0.00066	<0.00033	<0.00033	<0.00066	<0.00066	<0.00066	<0.00066	<0.00066	<0.00033	<0.00066	<0.00066	<0.00066	<0.00066	0.0020	<0.00066	<0.00066
ESLs ⁽¹⁾			16	13	2.8	0.7	0.7	2.6	0.07	2.5	3.8	0.07	60	8.9	0.7	0.023	11	85

Notes:
Highlighted columns represent the seven carcinogenic PAHs as identified by the US EPA and used for evaluation of Direct Contact and Outdoor Air Exposure Criteria in the LTCF for a Commercial/Industrial property.
Bold font denotes detected value. **Bold/blue** font denotes detected value equal to or above RWQCB ESLs.

(1) California Regional Water Quality Control Board, San Francisco Bay Region, "Update to Environmental Screening Levels." February 22, 2016. Tier 1 ESLs.

Abbreviations:
bgs = below ground surface
ESLs = Environmental Screening Levels
mg/kg = milligrams per kilogram
US EPA = United States Environmental Protection Agency
< = compound was not detected at or above the detection limit shown.

Table 4
Soil Analytical Results - Metals
 9757 San Leandro Street
 Oakland, California

			US EPA Method 6010B				
Sample ID	Depth Interval (feet bgs)	Date Collected	Cadmium (mg/kg)	Chromium (mg/kg)	Lead (mg/kg)	Nickel (mg/kg)	Zinc (mg/kg)
SB-24	2.5	7/29/2015	0.173	49.2	9.0	51.7	53
	5	7/29/2015	0.0608	50.4	7.99	47.5	51.1
	7.5	7/29/2015	0.101	38.9	6.57	43.6	39.1
	10	7/29/2015	0.138	56.7	8.46	62.7	59.4
	12.5	7/29/2015	<0.0422	60.9	7.29	47.8	55.8
	15	7/29/2015	<0.0422	43.7	5.74	32.6	35.4
	20	7/29/2015	0.128	43.6	6.96	48.6	44.3
ESLs ⁽¹⁾			0.00006	NE	80	150	23000

Notes:

Bold font denotes detected value. **Bold/blue** font denotes detected value equal to or above RWQCB ESLs.

(1) California Regional Water Quality Control Board, San Francisco Bay Region, "Update to Environmental Screening Levels." February 22, 2016. Tier 1 ESLs.

Abbreviations:

bgs = below ground surface

ESLs = Environmental Screening Levels

mg/kg = milligrams per kilogram

US EPA = United States Environmental Protection Agency

NE = ESL not established

Table 5
Grab Groundwater Analytical Results
 9757 San Leandro Street
 Oakland, California

Sample ID	Date Collected	US EPA Method 8015B		US EPA METHOD 8260						
		TPH-ORO w/ silica gel (µg/L)	TPH-DRO w/ silica gel (µg/L)	TPH-GRO (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Total Xylenes ⁽¹⁾ (µg/L)	MtBE (µg/L)	Naphthalene (µg/L)
SB-24	7/30/2015	92	78	300	<0.5	<0.5	12	0.8	<0.5	2
SB-25	7/29/2015	410	1,100	14,000	430	36	350	980	<3	110
SB-26	7/30/2015	1,800	420	1,400	25	2	22	7	<0.5	10
SB-27	7/29/2015	710	750	4,400	30	5	11	10	0.9	4
SB-28	7/28/2015	<49	610	4,100	2	0.6	110	76	<0.5	42
SB-29	7/28/2015	<47	180	200	<0.5	<0.5	<0.5	<0.5	<0.5	<1
SB-30	7/27/2015	<48	250	620	<0.5	<0.5	<0.5	<0.5	<0.5	<1
SB-31	7/27/2015	<48	320	1,000	<0.5	<0.5	<0.5	<0.5	<0.5	<1
SB-32	7/28/2015	7,600	4,300	240	<0.5	0.7	<0.5	2	0.9	1
SB-33	7/28/2015	<48	210	960	3	<0.5	24	0.7	<0.5	17
SB-34	7/30/2015	73	150	1,100	3	1	42	6	<0.5	8
ESLs⁽²⁾		NE⁽³⁾	100	100	1.0	40	13	20	5.0	0.12

Notes:

(1) Total xylenes is the sum of ortho-, meta-, and para-xylenes.

(2) California Regional Water Quality Control Board, San Francisco Bay Region, "Update to Environmental Screening Levels." February 22, 2016. Tier 1 ESLs.

(3) Per California Regional Water Quality Control Board, San Francisco Bay Region, "Update to Environmental Screening Levels." February 22, 2016. Tier 1 ESLs, TPH motor oil is not soluble. TPH motor oil detections in water most likely are petroleum degradates or less likely NAPL. If the detections are degradates, add TPH motor oil and TPH diesel results and compare to TPH diesel criterion.

Bold font denotes detected value. **Blue** font denotes detected value equal to or above RWQCB ESLs .

Abbreviations:

bgs = below ground surface

ESLs = Environmental Screening Levels

(µg/L) = micrograms per liter

TPH-DRO = total petroleum hydrocarbons as Diesel range organics (C₁₀-C₂₈ reported as total purgeable petroleum hydrocarbons)

TPH-GRO = total petroleum hydrocarbons as gasoline range organics (C₆-C₁₂ reported as total purgeable petroleum hydrocarbons)

TPH-ORO = total petroleum hydrocarbons as oil range organics (C₁₈-C₄₀ reported as total purgeable petroleum hydrocarbons)

MtBE = methyl tertiary-butyl ether

NE = ESL not established

US EPA = United States Environmental Protection Agency

< = compound was not detected at or above the detection limit shown.

Table 6
Historical Grab Groundwater Analytical Data
 9757 San Leandro Street
 Oakland, CA

Consultant	Sample ID	Date Collected	TPH-GRO (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Total Xylenes (µg/L)
Fluor Daniel	SB-11	4/4/1996	5,100	210	97	180	400
	SB-19	4/3/1996	2,300¹	170	30	21	34
	SB-22	4/2/1996	19,000²	400	<0.50	110	77
ESLs ⁽¹⁾			100	1.0	40	13	20

Notes:

(1) California Regional Water Quality Control Board, San Francisco Bay Region, "Update to Environmental Screening Levels." February 22, 2016. Tier 1 ESLs.

Bold text denotes detected concentrations.

Detected concentrations above ESLs are noted in **blue/bold** text.

Abbreviations:

µg/L = micrograms per liter

< = not detected

TPH-GRO = total petroleum hydrocarbons as gasoline range organics.

1 = Laboratory report indicates gasoline and unidentified hydrocarbons <C7

2 = Laboratory report indicates gasoline and unidentified hydrocarbons >C8

Table 7
Groundwater Monitoring Data and Analytical Results
Former Chevron-Branded Service Station 91723
9757 San Leandro Street, Oakland, California

WELL ID/ DATE	TOC (ff.)	DTW (ff.)	GWE (msl)	TPH-DRO (µg/L)	TPH-GRO (µg/L)	B (µg/L)	T (µg/L)	E (µg/L)	X (µg/L)	MtBE (µg/L)	TDS (µg/L)
Groundwater ESL or SMCL (TDS only)				100	100	1	40	13	20	5	500,000
MW-2											
09/23/11	21.31	9.78	11.53	--	180	<0.5	<0.5	0.6	0.6	0.6	--
12/29/11	21.31	9.73	11.58	--	100	<0.5	<0.5	0.7	0.9	<0.5	--
03/30/12	21.31	8.02	13.29	--	180	<0.5	<0.5	2	4	<0.5	--
06/12/12	21.31	9.58	11.73	--	99	<0.5	<0.5	<0.5	<0.5	<0.5	--
09/27/12	21.31	9.81	11.50	--	93	<0.5	<0.5	<0.5	<0.5	<0.5	--
03/13/13	21.31	9.52	11.79	--	110	<0.5	<0.5	<0.5	<0.5	<0.5	--
09/17/13	21.31	9.96	11.35	--	94	<0.5	<0.5	<0.5	<0.5	<0.5	--
03/21/14	21.31	9.35	11.96	--	<22	<0.5	<0.5	<0.5	<0.5	--	--
09/11/14	21.31	9.93	11.38	--	99	<0.5	<0.5	<0.5	<0.5	--	--
03/10/15	21.31	9.30	12.01	--	<22	<0.5	<0.5	<0.5	<0.5	--	--
08/24/15	21.31	9.97	11.34	--	<22	<0.5	<0.5	<0.5	<0.5	--	--
03/11/16	21.31	6.28	15.03	<50	25	<0.5	<0.5	<0.5	<0.5	--	480,000
MW-5											
09/23/11	21.84	9.85	11.99	--	190	<0.5	<0.5	<0.5	<0.5	<0.5	--
12/29/11	21.84	9.91	11.93	--	180	<0.5	<0.5	<0.5	<0.5	<0.5	--
03/30/12	21.84	7.92	13.92	--	190	<0.5	<0.5	<0.5	<0.5	<0.5	--
06/12/12	21.84	9.65	12.19	--	260	<0.5	<0.5	<0.5	<0.5	<0.5	--
09/27/12	21.84	9.83	12.01	--	230	<0.5	<0.5	<0.5	<0.5	<0.5	--
03/13/13	21.84	9.55	12.29	--	200	<0.5	<0.5	<0.5	<0.5	<0.5	--
09/17/13	21.84	9.93	11.91	--	140	<0.5	<0.5	<0.5	<0.5	<0.5	--
03/21/14	21.84	9.41	12.43	--	100	<0.5	<0.5	<0.5	<0.5	--	--
09/11/14	21.84	9.94	11.90	--	150	<0.5	<0.5	<0.5	<0.5	--	--
03/10/15	21.84	9.36	12.48	--	120	<0.5	<0.5	<0.5	<0.5	--	--
08/24/15	21.84	10.04	11.80	--	260	<0.5	<0.5	<0.5	<0.5	--	--
03/11/16	21.84	6.27	15.57	<50	230	<0.5	<0.5	<0.5	<0.5	--	469,000
MW-6											
09/23/11	21.71	9.99	11.72	--	<22	<0.5	<0.5	<0.5	<0.5	0.7	--
12/29/11	21.71	9.93	11.78	--	<22	<0.5	<0.5	<0.5	<0.5	0.6	--
03/30/12	21.71	8.00	13.71	--	<22	<0.5	<0.5	<0.5	<0.5	<0.5	--
06/12/12	21.71	9.76	11.95	--	66	<0.5	<0.5	<0.5	<0.5	<0.5	--
09/27/12	21.71	9.93	11.78	--	27	<0.5	<0.5	<0.5	<0.5	<0.5	--
03/13/13	21.71	9.70	12.01	--	<22	<0.5	<0.5	<0.5	<0.5	<0.5	--
09/17/13	21.71	10.06	11.65	--	34	<0.5	<0.5	<0.5	<0.5	<0.5	--

Table 7
Groundwater Monitoring Data and Analytical Results
Former Chevron-Branded Service Station 91723
9757 San Leandro Street, Oakland, California

WELL ID/ DATE	TOC (ff.)	DTW (ff.)	GWE (msl)	TPH-DRO (µg/L)	TPH-GRO (µg/L)	B (µg/L)	T (µg/L)	E (µg/L)	X (µg/L)	MtBE (µg/L)	TDS (µg/L)
Groundwater ESL or SMCL (TDS only)				100	100	1	40	13	20	5	500,000
MW-6 (cont)											
03/21/14	21.71	9.38	12.33	--	<22	<0.5	<0.5	<0.5	<0.5	--	--
09/11/14	21.71	10.07	11.64	--	52	<0.5	<0.5	<0.5	<0.5	--	--
03/10/15	21.71	9.47	12.24	--	28	<0.5	<0.5	<0.5	<0.5	--	--
08/24/15	21.71	10.15	11.56	--	<22	<0.5	<0.5	<0.5	<0.5	--	--
03/11/16	21.71	6.39	15.32	<50	31	<0.5	<0.5	<0.5	<0.5	--	487,000
MW-8											
09/23/11	21.84	10.15	11.69	--	1,900	55	2	10	8	<0.5	--
12/29/11	21.84	10.10	11.74	--	1,300	31	1	5	5	<0.5	--
03/30/12	21.84	8.12	13.72	--	2,200	65	3	20	14	<0.5	--
06/12/12	21.84	9.90	11.94	--	2,300	49	2	14	14	<0.5	--
09/27/12	21.84	10.12	11.72	--	1,900	43	2	10	8	<0.5	--
03/13/13	21.84	9.86	11.98	--	1,400	31	1	7	5	<0.5	--
09/17/13	21.84	10.34	11.50	--	2,100	60	2	11	9	<0.5	--
03/21/14	21.84	9.49	12.35	--	270	2	<0.5	<0.5	0.6	--	--
09/11/14	21.84	10.22	11.62	--	3,000	44	2	13	8	--	--
03/10/15	21.84	9.61	12.23	--	1,500	36	1	5	6	--	--
08/24/15	21.84	10.33	11.51	--	2,700	39	2	5	7	--	--
03/11/16	21.84	6.48	15.36	210	1,500	27	1	4	5	--	465,000
MW-9											
09/23/11	20.55	9.30	11.25	--	<22	<0.5	<0.5	<0.5	<0.5	<0.5	--
12/29/11	20.55	9.51	11.04	--	<22	<0.5	<0.5	<0.5	<0.5	<0.5	--
03/30/12	20.55	7.52	13.03	--	<22	<0.5	<0.5	<0.5	<0.5	<0.5	--
06/12/12	20.55	9.14	11.41	--	<22	<0.5	<0.5	<0.5	<0.5	<0.5	--
09/27/12	20.55	9.24	11.31	--	<22	<0.5	<0.5	<0.5	<0.5	<0.5	--
03/13/13	20.55	9.07	11.48	--	<22	<0.5	<0.5	<0.5	<0.5	<0.5	--
09/17/13	20.55	9.51	11.04	--	<22	<0.5	<0.5	<0.5	<0.5	<0.5	--
03/21/14	20.55	8.87	11.68	--	<22	<0.5	<0.5	<0.5	<0.5	--	--
09/11/14	20.55	9.43	11.12	--	<22	<0.5	<0.5	<0.5	<0.5	--	--
03/10/15	20.55	8.10	12.45	--	<22	<0.5	<0.5	<0.5	<0.5	--	--
08/24/15	20.55	9.53	11.02	--	<22	<0.5	<0.5	<0.5	<0.5	--	--
03/11/16	20.55	5.80	14.75	<50	<22	<0.5	<0.5	<0.5	<0.5	--	489,000

Table 7
Groundwater Monitoring Data and Analytical Results
Former Chevron-Branded Service Station 91723
9757 San Leandro Street, Oakland, California

WELL ID/ DATE	TOC (ff.)	DTW (ff.)	GWE (msl)	TPH-DRO (µg/L)	TPH-GRO (µg/L)	B (µg/L)	T (µg/L)	E (µg/L)	X (µg/L)	MtBE (µg/L)	TDS (µg/L)
Groundwater ESL or SMCL (TDS only)				100	100	1	40	13	20	5	500,000

TRIP BLANK

QA

09/23/11	--	--	--	--	<22	<0.5	<0.5	<0.5	<0.5	<0.5	--
12/29/11	--	--	--	--	<22	<0.5	<0.5	<0.5	<0.5	<0.5	--
03/30/12	--	--	--	--	<22	<0.5	<0.5	<0.5	<0.5	<0.5	--
06/12/12	--	--	--	--	<22	<0.5	<0.5	<0.5	<0.5	<0.5	--
09/27/12	--	--	--	--	<22	<0.5	<0.5	<0.5	<0.5	<0.5	--
03/13/13	--	--	--	--	<22	<0.5	<0.5	<0.5	<0.5	<0.5	--
09/17/13	--	--	--	--	<22	<0.5	<0.5	<0.5	<0.5	<0.5	--
03/21/14	--	--	--	--	<22	<0.5	<0.5	<0.5	<0.5	--	--
09/11/14	--	--	--	--	<22	<0.5	<0.5	<0.5	<0.5	--	--
03/10/15	--	--	--	--	<22	<0.5	<0.5	<0.5	<0.5	--	--
08/24/15	--	--	--	--	<22	<0.5	<0.5	<0.5	<0.5	--	--
03/11/16	--	--	--	--	<22	<0.5	<0.5	<0.5	<0.5	--	--

Table 7
Groundwater Monitoring Data and Analytical Results
Former Chevron-Branded Service Station 91723
9757 San Leandro Street, Oakland, California

EXPLANATIONS:

Current groundwater monitoring data provided by Gettler-Ryan Inc. Current laboratory analytical results provided by Eurofins Lancaster Laboratories.

TOC = Top of Casing (ft.) = Feet	TPH-GRO = Total Petroleum Hydrocarbons as Gasoline Range Organics TPH-DRO = Total Petroleum Hydrocarbons as Diesel Range Organics	MtBE = Methyl tertiary-butyl ether TDS = total dissolved solids
DTW = Depth to Water	B = Benzene	(µg/L) = Micrograms per liter
GWE = Groundwater Elevation (msl) = Mean Sea Level	T = Toluene E = Ethylbenzene X = Xylenes	-- = Not Measured/Not Analyzed QA = Quality Assurance/Trip Blank

ESL = California Regional Water Quality Control Board - San Francisco Bay Region Environmental Screening Level.
Update to Environmental Screening Levels. February 22, 2016. Tier 1 ESLs.

SMCL = Secondary Maximum Contaminant Level for public water supplies, California Code of Regulation, Title 22, Division 4, Environmental Health, Chapter 15, Domestic Water Quality and Monitoring Regulations, Article 6, Secondary Water Standards.

Bold font denotes detected value. **Bold/blue** font denotes detected value above ESLs or SMCL (TDS only).

¹ With silica gel cleanup. Laboratory report indicates the reverse surrogate, capric acid, is present at <1%.

Table 8
Groundwater Analytical Results - Halogenated Volatile Organic Compounds
Former Chevron-Branded Service Station 91723
9757 San Leandro Street, Oakland, California

WELL ID/ DATE	1,1-DCA (µg/L)	1,1-DCE (µg/L)	cis -1,2-DCE (µg/L)
Groundwater ESL	5	3.2	6
MW-1			
04/18/87	9.5	61	ND
06/03/88	8	<5	ND
08/08/89	9	47	ND
MW-2			
04/18/87	<0.5	<0.2	ND
06/03/88	<5	<5	ND
08/08/89	<1	<1	ND
03/10/15	<0.5	<0.5	<0.5
MW-4			
04/18/87	<0.5	<0.2	ND
06/03/88	<5	<5	ND
08/08/89	<1	<1	ND
MW-5			
06/03/88	<5	<5	ND
08/08/89	<1	<1	ND
03/10/15	<0.5	<0.5	<0.5
MW-6			
06/03/88	<5	<5	ND
08/08/89	<1	<1	ND
03/10/15	<0.5	<0.5	<0.5
MW-7			
06/03/88	5	25	ND
08/08/89	8	39	ND
MW-8			
06/03/88	<5	<5	ND
08/08/89	<1	<1	ND
03/10/15	<0.5	<0.5	<0.5
MW-9			
08/08/89	<1	3	ND
03/10/15	1	0.7	0.6

Table 8
Groundwater Analytical Results - Halogenated Volatile Organic Compounds
 Former Chevron-Branded Service Station 91723
 9757 San Leandro Street, Oakland, California

WELL ID/ DATE	1,1-DCA (µg/L)	1,1-DCE (µg/L)	cis -1,2-DCE (µg/L)
Groundwater ESL	5	3.2	6
MW-10			
08/08/89	<1	<1	ND

EXPLANATIONS:

1,1-DCA = 1,1-Dichloroethane
 1,1-DCE = 1,1-Dichloroethene
 cis -1,2-DCE = cis -1,2-Dichloroethene

(µg/L) = Micrograms per liter

ND = not detected above laboratory reporting limit.

ESL = California Regional Water Quality Control Board - San Francisco Bay Region
 Environmental Screening Level. "Update to Environmental Screening Levels."

February 22, 2016. Tier 1 ESLs. **Bold**
 font denotes detected value.

Bold/blue font denotes detected value above ESLs.

Table 9
Vapor Analytical Results
 9757 San Leandro Street
 Oakland, California

			US EPA Method TO-15 Full Scan									
Sample ID	Vapor Probe Depth (feet bgs)	Date Collected	TPH-GRO ($\mu\text{g}/\text{m}^3$)	Benzene ($\mu\text{g}/\text{m}^3$)	Toluene ($\mu\text{g}/\text{m}^3$)	Ethylbenzene ($\mu\text{g}/\text{m}^3$)	Total Xylenes ⁽¹⁾ ($\mu\text{g}/\text{m}^3$)	Naphthalene ($\mu\text{g}/\text{m}^3$)	Carbon Dioxide (%)	Oxygen (%)	Methane (%)	Helium (%)
VP-1	6	7/31/2015	65,000,000	<4,100	<4,900	<5,600	<5,600	<27,000	29	1.6	13	<0.13
VP-2	6	7/31/2015	70,000,000	4,800	<4,600	<5,300	<5,300	<26,000	22	1.3	29	<0.12
VP-3	6	7/31/2015	94,000,000	120,000	<5,400	22,000	<5,400	<26,000	22	1	42	<0.12
VP-4	6	7/31/2015	61,000,000	7,600	<4,300	<4,900	<5,000	<24,000	27	0.94	40	<0.11
VP-5	6	7/31/2015	53,000,000	<3,600	<4,200	<4,900	<4,900	<23,000	28	0.78	25	<0.11
DUP	6	7/31/2015	70,000,000	4,200	<4,800	<5,500	<5,500	<27,000	30	1	13	<0.13
ESLs⁽²⁾			50,000	48	160,000	560	52,000	41	NA	NA	NA	NA

Notes:

(1) Total xylenes is the sum of ortho-, meta-, and para-xylenes.

(2) California Regional Water Quality Control Board, San Francisco Bay Region, "Update to Environmental Screening Levels." February 22, 2016. Tier 1 ESLs.

Bold font denotes detected value. **Bold/blue** font denotes detected value equal to or above RWQCB ESLs.

Abbreviations:

< = compound was not detected at or above the detection limit shown.

US EPA = United States Environmental Protection Agency

bgs = below ground surface

ESLs = Environmental Screening Levels

($\mu\text{g}/\text{m}^3$) = micrograms per cubic meter

TPH-GRO = total petroleum hydrocarbons as gasoline range organics (C₄-C₁₂ reported as total purgeable petroleum hydrocarbons)

Table 10
Historical Soil Vapor Sample Analytical Results
Former Chevron-branded Service Station 91723
9757 San Leandro Street
Oakland, California

Boring/ Sample ID	Sample Depth (feet bgs)	Sample Date	TPH-GRO ($\mu\text{g}/\text{m}^3$)	Benzene ($\mu\text{g}/\text{m}^3$)	Toluene ($\mu\text{g}/\text{m}^3$)	Ethylbenzene ($\mu\text{g}/\text{m}^3$)	Total Xylenes ⁽¹⁾ ($\mu\text{g}/\text{m}^3$)	Oxygen (%)	Carbon dioxide (%)	Helium (%)
SV-1	3	10/06/97	--	307	19	26.9	83.3	--	--	--
SV-1	5	10/06/97	--	1,309	17.3	1,129	122.8	--	--	--
SV-2	3	10/06/97	--	3,098	45	825	2,135	--	--	--
SV-2	5	10/06/97	--	1,341	22.6	521	1,241	--	--	--
SV-2	8	10/06/97	--	9,899	4,520	12,588	53,818	--	--	--
SV-3	3	10/06/97	--	15.6	21.1	27.8	126.7	--	--	--
SV-3	5	10/06/97	--	11.5	7.9	11.7	52.9	--	--	--
SV-4	3	10/06/97	--	5.7	18.1	26.0	136.3	--	--	--
SV-4	5	10/06/97	--	6.4	38	26.0	131.1	--	--	--
SV-5 ⁽²⁾	5	10/06/97	--	319,338	5,650	19,967	5,208	--	--	--
SV-6 ⁽³⁾	5	10/06/97	--	1,852	452	2,127	13,802	--	--	--
VP-1	5.25-5.75	06/29/10	26,000,000	3,700	<3,200	<3,600	<3,600	6.2	15	<0.13
VP-2	5.25-5.75	06/29/10	89,000,000	11,000	<2,500	<2,900	<2,900	0.84	21	<0.13
VP-3	5.25-5.75	06/29/10	88,000,000	540,000	1,700	26,000	3,700	2.9	14	<0.13
VP-4	5.25-5.75	06/29/10	53,000,000	22,000	<2,900	<3,400	<3,400	2.4	13	<0.12
VP-5	5.25-5.75	06/29/10	37,000,000	4,100	<2,700	<3,100	<3,100	2.3	18	<0.14
ESLs⁽⁴⁾			50,000	48	160,000	560	52,000	NS	NS	NS

Notes:

(1) Total xylenes is the sum of m,p-xylene and o-xylene. If either m,p-xylene and o-xylene was non-detect, the detected value was used.

If both were non-detect, the highest detection limit was used.

(2) This sample was collected to verify results from boring SV-1.

(3) This sample was collected to verify results from boring SV-2.

(4) California Regional Water Quality Control Board, San Francisco Bay Region.

"Update to Environmental Screening Levels." February 22, 2016. Tier 1 ESLs.

Bold text denotes detected concentrations. **Bold/blue** text denotes detected concentrations above ESLs.

Abbreviations:

bgs = below ground surface

TPH-GRO = total petroleum hydrocarbons as gasoline range organics

$\mu\text{g}/\text{m}^3$ = micrograms per cubic meter

-- = not measured/not analyzed

NS = no standard

ESL = Environmental Screening Level

Table 11
Well Receptor Details

Former Chevron-branded Service Station 91723
9757 San Leandro Street
Oakland, California

Map ID	State Well ID	Well Owner ID	Well Address	Distance from Site ⁽¹⁾ (feet)	Direction from Site ⁽¹⁾	Use	Installation Date
1	2S3W22P2	P2	801 98th Ave.	100	SW (Down-gradient)	Industrial; Closed-in-place	04/09/48
2	2S3W22K	--	98th Ave. and San Leandro St.	195	NE (Up-gradient)	Industrial	01/11/67
3	2S3W22P3	P3	801 98th Ave.	220	W-NW (Cross-Gradient)	Industrial; Destroyed	--
4	2S3W22K8	--	930 98th Ave.	435	NE (Up-gradient)	Industrial	01/91
5	2S3W22L3	--	921 98th Ave.	590	N (Cross-gradient)	Industrial	09/18/54
6	2S3W22Q1	--	9957 Medford Ave.	765	ESE (Cross-gradient)	Industrial	07/27/56
7	2S3W22J1,J2	--	9957 Medford Ave.	765	ESE (Cross-gradient)	Industrial	46

Notes:

(1) Approximate distance and direction determined from well location address and/or drawings on boring logs, where available, and Google Earth® images.

Abbreviations:

-- = information not available
bgs = below ground surface

ATTACHMENT C

TEG SOP for Soil Vapor Sampling Point Installation and Soil Vapor Sampling



Soil Vapor Sampling Point Installation

Utilizing Probe Rods and Post Run Fittings

TEG's hydraulically or manually driven soil vapor probes are constructed of either 1.0, 1.25, or 1.5 inch outside diameter steel probe rods and equipped with a hardened drop-off steel tip. The probe rods are nominally 4 feet long and threaded together to reach multiple depths. The probe rod is driven into the subsurface with TEG's *Strataprobe*[™] direct-push system, or by an electric rotary hammer. Once the probe rod is installed to the desired depth, an inert 1/8 inch nylaflo tube, fitted with a threaded, stainless steel post run fitting equipped with an O-ring, is inserted down the center of the probe rod and connected to a sampling port just above the drop-off tip. This internal, disposable sample tubing design eliminates any contact between the probe rod and the soil vapor sample. The probe is retracted slightly to expose the vapor sampling port. The probe rod is sealed at the surface with granular and hydrated bentonite and allowed to equilibrate for a minimum of 2 hours before sampling. After a sample is obtained the tubing is removed and the probe rod advanced to the next sampling depth or removed. This design prevents clogging of the sampling port and cross-contamination from soils during insertion.



Soil Vapor Sampling Point Installation

Temporary Soil Vapor Implant

A temporary soil vapor sampling point implant can be installed in an open hole created by a direct push probe rod inserted to the required depth, or in some cases by hand augering. For same day sampling, an inert, plastic sparge implant tip is typically installed in the middle of a one foot sand pack with 1/8 or 1/4 inch diameter Nylaflow tubing running from the tip to the surface. Teflon tubing can also be used if needed. Dry bentonite is placed in the hole above the sand pack, followed by hydrated bentonite to the surface, to complete the vapor point installation and seal the sand pack zone from other zones and ambient air. If the implants are to be installed for a longer period of time for later sampling or to allow for resampling, a stainless steel sparge implant tip is recommended instead of plastic. The vapor implant is allowed to equilibrate, before sampling, for a minimum of 2 hours for sampling points installed by direct push, or 48 hours for points installed by hand augering.



Soil Vapor Sampling Procedures

Soil Vapor Sampling

Soil vapor is withdrawn from the tubing that runs from the sampling tip to the surface using a 50 cubic centimeter (cc) glass syringe connected via an on-off valve. The sampling point, including the tubing, and the filter material (sand pack, etc.), if applicable, is nominally purged of three internal dead volumes. A sample of in-situ soil vapor is then withdrawn and immediately transferred to the mobile lab for analysis within minutes of collection. The use of small calibrated syringes allows for careful monitoring of purge and sample volumes. This procedure ensures adequate sample flow is obtained without excessive pumping of air or introduction of surface air into the sample.

For off-site analysis, samples are collected in canisters, or in Tedlar bags when allowed. Samples collected in Tedlar bags for VOC analysis are either analyzed on the same day or transferred to a canister.

Use of Tracer Compound to Ensure Probe Seal Integrity

A tracer compound, typically 1,1 difluoroethane (1,1 DFA), iso-propanol (IPA), or hexane is used to test for leaks around the sampling point installation at the ground surface and in the sampling system. The tracer compound is placed under a shroud covering the sample point during sample collection. If the tracer compound is detected, the sampling point is inspected for vacuum integrity, and if necessary, the sample point is reinstalled and another sample is collected.

Sample Flow Rate

Sample collection is timed so that the flow rate does not exceed 200 milliliters per minute. If the mobile lab is on site, this is accomplished by withdrawing the plunger on the syringe at a constant rate of 3 milliliters per second. The collector notes the collection time on a log sheet, and also records any resistance to sample flow that is felt on the syringe during collection. If Summa canisters are used to collect the soil vapor, a flow controller attached to the Summa canister is utilized to maintain a flow rate of 200 milliliters per minute or less.