



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

December 27, 2012

Denis Brown  
Shell Oil Products US  
20945 S. Wilmington Ave.  
Carson, CA 90810-1039

Mr. Richard Burge  
Burge-Pacific Enterprises, Inc.  
490 Grand Avenue, Suite 200  
Oakland, CA 94610

Subject: Case Closure for Fuel Leak Case No. RO0000505 and GeoTracker Global ID T0600102237, 7-Eleven #20009, 2350 Harrison Street, Oakland, CA 94612

Dear Mr. Brown and Mr. Burge:

This letter transmits the enclosed underground storage tank (UST) case closure letter in accordance with Chapter 6.75 (Article 4, Section 25299.37[h]). The State Water Resources Control Board adopted this letter on February 20, 1997. As of March 1, 1997, the Alameda County Environmental Health (ACEH) is required to use this case closure letter for all UST leak sites. We are also transmitting to you the enclosed case closure summary. These documents confirm the completion of the investigation and cleanup of the reported release at the subject site. The subject fuel leak case is closed. This case closure letter and the case closure summary can also be viewed on the State Water Resources Control Board's Geotracker website (<http://geotracker.swrcb.ca.gov>) and the Alameda County Environmental Health website (<http://www.acgov.org/aceh/index.htm>).

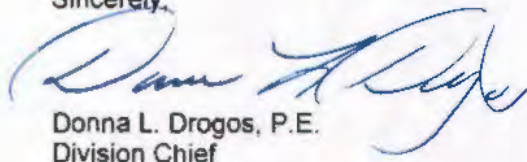
#### SITE INVESTIGATION AND CLEANUP SUMMARY

Please be advised that the following conditions exist at the site:

- Total Petroleum hydrocarbons as diesel remains in soil at concentrations up to 22,000 ppm.
- Total Petroleum hydrocarbons as gasoline remains in groundwater at concentrations up to 3,500 ppb.
- As described in section IV of the attached Case Closure Summary, the case was closed with Site Management Requirements that limit future land use to the current commercial land use as a convenience store and the existing building only.

If you have any questions, please call Jerry Wickham at (510) 567-6791. Thank you.

Sincerely,



Donna L. Drogos, P.E.  
Division Chief

Enclosures:

1. Remedial Action Completion Certification
2. Case Closure Summary

cc:

Leroy Griffin (w/enc)  
Oakland Fire Department  
250 Frank H. Ogawa Plaza, Ste. 3341  
Oakland, CA 94612-2032  
(Sent via E-mail to: [lgriffin@oaklandnet.com](mailto:lgriffin@oaklandnet.com))

Closure Unit  
State Water Resources Control Board  
UST Cleanup Fund  
P.O. Box 944212  
Sacramento, CA 94244-2120  
(uploaded to GeoTracker)

Peter Schaefer  
Conestoga-Rovers & Associates  
5900 Hollis Street, Suite A  
Emeryville, CA 94608 2032  
(Sent via E-mail to: [pschaefer@croworld.com](mailto:pschaefer@croworld.com))

Donna Drogos, ACEH (Sent via E-mail to: [donna.drogos@acgov.org](mailto:donna.drogos@acgov.org))  
Jerry Wickham, ACEH (Sent via E-mail to: [jerry.wickham@acgov.org](mailto:jerry.wickham@acgov.org))

GeoTracker (w/enc)  
eFile (w/orig enc)

ALAMEDA COUNTY  
HEALTH CARE SERVICES  
AGENCY

ALEX BRISCOE, Director



DEPARTMENT OF ENVIRONMENTAL HEALTH  
OFFICE OF THE DIRECTOR  
1131 HARBOR BAY PARKWAY  
ALAMEDA, CA 94502  
(510) 567-6777  
FAX (510) 337-9135

REMEDIAL ACTION COMPLETION CERTIFICATION

December 27, 2012

Denis Brown  
Shell Oil Products US  
20945 S. Wilmington Ave.  
Carson, CA 90810-1039

Mr. Richard Burge  
Burge-Pacific Enterprises, Inc.  
490 Grand Avenue, Suite 200  
Oakland, CA 94610

Subject: Case Closure for Fuel Leak Case No. RO0000505 and GeoTracker Global ID T0600102237, 7-Eleven #20009, 2350 Harrison Street, Oakland, CA 94612

Dear Mr. Brown and Mr. Burge:

This letter confirms the completion of a site investigation and remedial action for the underground storage tanks formerly located at the above-described location. Thank you for your cooperation throughout this investigation. Your willingness and promptness in responding to our inquiries concerning the former underground storage tank(s) are greatly appreciated.

Based on information in the above-referenced file and with the provision that the information provided to this agency was accurate and representative of site conditions, this agency finds that the site investigation and corrective action carried out at your underground storage tank(s) site is in compliance with the requirements of subdivisions (a) and (b) of Section 25299.37 of the Health and Safety Code and with corrective action regulations adopted pursuant to Section 25299.77 of the Health and Safety Code and that no further action related to the petroleum release(s) at the site is required.

Claims for reimbursement of corrective action costs submitted to the Underground Storage Tank Cleanup Fund more than 365 days after the date of this letter or issuance or activation of the Fund's Letter of Commitment, whichever occurs later, will not be reimbursed unless one of the following exceptions applies:

- Claims are submitted pursuant to Section 25299.57, subdivision (k) (reopened UST case); or
- Submission within the timeframe was beyond the claimant's reasonable control, ongoing work is required for closure that will result in the submission of claims beyond that time period, or that under the circumstances of the case, it would be unreasonable or inequitable to impose the 365-day time period.

This notice is issued pursuant to subdivision (h) of Section 25299.37 of the Health and Safety Code. Please contact our office if you have any questions regarding this matter.

Sincerely,

  
Ariu Levi  
Director

**CASE CLOSURE SUMMARY**  
**LEAKING UNDERGROUND FUEL STORAGE TANK - LOCAL OVERSIGHT PROGRAM**

**I. AGENCY INFORMATION**

Date: July 19, 2012

Agency Name: Alameda County Environmental Health	Address: 1131 Harbor Bay Parkway
City/State/Zip: Alameda, CA 94502-6577	Phone: (510) 567-6791
Responsible Staff Person: Jerry Wickham	Title: Senior Hazardous Materials Specialist

**II. CASE INFORMATION**

Site Facility Name: Shell / 7-Eleven #20009		
Site Facility Address: 2350 Harrison Street, Oakland, CA 94612		
RB Case No.: 01-2428	Local Case No.: STiD 4596	LOP Case No.: RO0000505
URF Filing Date: 7/1/2008	Geotracker ID: T0600102237	APN: 10-768-1
Responsible Parties	Addresses	Phone Numbers
Richard Burge	Burge Pacific Enterprises 490 Grand Avenue, Suite #20 Oakland, CA 94610-5057	---
Denis Brown	Shell Oil Products, US 20945 S. Wilmington Avenue Carson, CA 90810-1039	(707) 865-0251

Tank I.D. No	Size in Gallons	Contents	Closed In Place/Removed?	Date
---	10,000	Gasoline	Removed	March 1977
---	8,000	Gasoline	Removed	March 1977
---	5,000	Gasoline	Removed	March 1977
---	550	Waste Oil	Removed	March 1977
Piping			Removed	March 1977

### III. RELEASE AND SITE CHARACTERIZATION INFORMATION

Cause and Type of Release: Unknown. Petroleum hydrocarbons in the gasoline and diesel range were detected in soil and groundwater in the area of the former USTs. Petroleum hydrocarbons in the motor oil, kerosene, and hydraulic oil range were detected outside the area of the former USTs. The source of the heavier hydrocarbons is not known.		
Site characterization complete? Yes	Date Approved By Oversight Agency: -----	
Monitoring wells installed? Yes	Number: 6	Proper screened interval? Yes
Highest GW Depth Below Ground Surface: 3.13 fbgs	Lowest Depth: 10.92 fbgs	Flow Direction: Variable on site; regional flow is to the south towards Lake Merritt.
Most Sensitive Current Use: Potential drinking water source.		

Summary of Production Wells in Vicinity: Four water supply wells or unknown wells are located within 2,000 feet of the site. The nearest water supply wells are two domestic and irrigation wells located approximately 1,300 feet southwest of the site. Based on the distance from the site, the domestic and irrigation wells are not expected to be receptors for the site. A third unknown well is located approximately 1,350 feet south of the site and a fourth unknown water supply is located approximately 1,900 feet northwest of the site. Based on the distance from the site, the unknown wells are not expected to be receptors for the site.	
Are drinking water wells affected? No	Aquifer Name: East Bay Plain
Is surface water affected? No	Nearest SW Name: Glen Echo Creek flows underground along Harrison Street and surfaces 280 feet south of the site.
Off-Site Beneficial Use Impacts (Addresses/Locations): None identified.	
Reports on file? Yes	Where are reports filed? Alameda County Environmental Health and City of Oakland Fire Department

TREATMENT AND DISPOSAL OF AFFECTED MATERIAL			
Material	Amount (Include Units)	Action (Treatment or Disposal w/Destination)	Date
Tanks	1-10,000-gallon 1-8,000-gallon 1-5,000-gallon 1-550-gallon	Not Reported	March 1977
Piping	Not Reported	Not Reported	March 1977
Free Product	----	----	----
Soil	----	----	----
Groundwater	----	----	----

**MAXIMUM DOCUMENTED CONTAMINANT CONCENTRATIONS BEFORE AND AFTER CLEANUP**  
 (Please see Attachments 1 through 6 for additional information on contaminant locations and concentrations)

Contaminant	Soil (ppm)		Water (ppb)	
	Before	After	Before	After
TPH (Gas)	2,700	2,700	8,000(1)	3,500(1)
TPH (Diesel)	22,000	22,000	3,000(2)	728(2)
TPH (Motor Oil)	23,000	23,000	< 250	<250
Oil and Grease	8,600	8,600	4,400(3)	< 3,880(3)
Benzene	2.4	2.4	270(4)	160(4)
Toluene	0.0063	0.0063	25(5)	2.77(5)
Ethylbenzene	0.0082	0.0082	78(6)	53.9(6)
Xylenes	0.0485	0.0485	19.1(5)	3.2(5)
Heavy Metals (Cd, Cr, Pb, Ni, Zn)	10.8(7)	10.8(7)	Not Analyzed	Not Analyzed
MTBE	<0.005(8)	<0.0005(8)	<5(9)	<2(10)
Other (8240/8270)	0.2(11)	0.2(11)	Not Analyzed	Not Analyzed

- 1) The maximum concentration before cleanup is from a groundwater sample from well S-6 on 09/17/2008; the maximum concentration after cleanup is from a groundwater sample collected from well S-1 during the most recent groundwater monitoring event on 12/15/2011.
- (2) The maximum concentration before cleanup is from a groundwater sample from well S-6 on 09/17/2008; the maximum concentration after cleanup is from a groundwater sample collected from well S-2 during the most recent groundwater monitoring event on 12/15/2011.
- (3) The maximum concentration before cleanup is from a groundwater sample from well S-4 on 12/11/2008; the maximum concentration after cleanup is from a groundwater sample collected from well S-4 during the most recent groundwater monitoring event on 12/15/2011.
- (4) The maximum concentration before cleanup is from a groundwater sample from well S-1 on 02/25/2009; the maximum concentration after cleanup is from a groundwater sample collected from well S-1 during the most recent groundwater monitoring event on 12/15/2011.
- (5) The maximum concentration before cleanup is from a groundwater sample from well S-6 on 06/11/2008; the maximum concentration after cleanup is from a groundwater sample collected from well S-1 during the most recent groundwater monitoring event on 12/15/2011.
- (6) The maximum concentration before cleanup is from a groundwater sample from well S-1 on 09/17/2008; the maximum concentration after cleanup is from a groundwater sample collected from well S-1 during the most recent groundwater monitoring event on 12/15/2011.
- (7) Total lead = 10.8 ppm; Cadmium <0.005 ppm; Chromium = 33 ppm; Nickel = 51.5 ppm; and Zinc = 38.6 ppm.
- (8) MTBE <0.005 ppm; TBA<0.05 ppm; DIPE, TAME, ETBE<0.01 ppm; EDB and EDC<0.005 ppm.
- (9) MTBE <5.0 ppb; TBA = 190 ppb; DIPE = 22 ppb; ETBE and TAME <2.0 ppb; EDC <0.5 ppb; and EDB <1.0 ppb.
- (10) MTBE <2.0 ppb; TBA = 130 ppb; DIPE = 22 ppb; ETBE and TAME <4.0 ppb; EDC <1.0 ppb; and EDB <2.0 ppb.
- (11) Napthalene = 0.2 ppm; 1-methylnapthalene = 1.4 ppm; PCBs <0.05 ppm.

#### Site History and Description of Corrective Actions:

The site is a small triangular commercial property located at the intersection of Harrison Street and Bay Place in Oakland, CA. The site was previously a Shell gas station and auto repair facility equipped with three underground storage tanks (USTs), one 550-gallon waste oil tank UST, three dispenser islands, a drive-on hoist, and a station building. The USTs were removed from the center of the property in March 1977, but no records are available that document their removal. Three dispenser islands existed to the west, north, and east of the former USTs. Currently, the site is occupied by a 7-Eleven convenience store and the surrounding area is predominantly a mix of commercial and residential use.

During a light pole installation at the site, petroleum impacted soil was observed. Composite stockpile soil samples were collected on November 2, 1992 from the soil generated during the light pole work and analyzed for Total Petroleum Hydrocarbons as gasoline (TPHg), Benzene, Toluene, Ethylbenzene, and Xylenes (BTEX), lubricating oil, and other heavier petroleum hydrocarbons. The soil sample collected from Soil Pile 1 contained the highest concentrations of 3,200 parts per million (ppm) lubricating oil and 35 ppm Oil and grease (O&G).

On March 4, 1993, four soil borings (#1 through #4) were advanced at locations across the site. One soil sample from each boring was analyzed for TPHg, TPHd, BTEX, O&G, Total Petroleum Hydrocarbons as kerosene (TPHk), Total Petroleum Hydrocarbons as mineral spirits (TPHms), and lubricating oil. The maximum concentrations of 7,900 ppm TPHmo and 620 ppm TPHg were detected in the soil sample from boring #4, in the east portion of the site.

Six monitoring wells (S-1 through S-6) were installed throughout the site on June 2 through 5, 2008. Soil samples were collected from each boring between 5.5 and 15.5 fbg, along with one groundwater sample. Groundwater was first encountered at the site between 8.2 and 19 fbg. The soil samples indicated that the highest concentration of petroleum hydrocarbons occurred in shallow soils between 7 and 10 fbg. Shallow soils in the southeast portion of the site contained up to 2,300 ppm TPHg, 22,000 ppm TPHd, and 8,600 ppm O&G. Shallow soils near the western-most dispenser contained up to 2,700 ppm TPHg and 270 ppm TPHd. Groundwater samples collected from the former UST area and southeast corner of the site contained TPHg concentrations of 6,500 parts per billion (ppb) and 1,300 ppb, respectively.

To investigate the potential for the petroleum plume to extend off-site, two grab groundwater samples (HP-1 and HP-2) were collected down gradient along Harrison Street on May 19 through 21, 2009. The grab groundwater sample collected furthest from the site (HP-2) contained 715,000 ppb O&G, 14,000 ppb TPHg, and 58,000 ppb TPHd, while the closer groundwater sample (HP-1) contained 111,000 ppb O&G, 11,000 ppb TPHg and 36,000 ppb TPHd. The grab groundwater samples indicated the potential for an offsite plume of heavier hydrocarbons. In addition to the off-site samples, four soil borings (B-1 through B-4) were advanced in the former waste oil tank area. The shallow soil sample collected from boring B-1 at 5.5 fbg contained the highest concentration of O&G at 3,000 ppm. TPHg and TPHd were detected in all borings at maximum concentrations of 920 ppm and 700 ppm, respectively. Three soil vapor probes (SVP-1 through SVP-3) were also installed near the former USTs and waste oil UST and sampled on May 28, 2009. The vapor probes contained up to 530,000 micrograms per cubic meter ( $\mu\text{g}/\text{m}^3$ ) benzene.

On February 27, 2010, one soil vapor probe (SVP-2a) and two near sub-slab vapor probes (SVP-4 and SVP-5) were installed. Sampling of the vapor probes occurred on March 23, 2010. TPHg and benzene were detected in soil vapor near the former USTs at concentrations up to 75,000,000  $\mu\text{g}/\text{m}^3$  and 160,000  $\mu\text{g}/\text{m}^3$ , respectively. Soil vapor samples from the two near sub-slab probes did not contain TPHg, benzene, toluene, ethylbenzene, or xylenes (BTEX) at concentrations above the reporting limit.

Site History and Description of Corrective Actions (continued):

On June 25, 2010, six soil borings (B-5 through B-10) were advanced off-site to investigate contamination south of the site. The investigation revealed a large plume of petroleum hydrocarbons south of the site consisting of O&G, TPHd, and TPHg with the highest concentrations detected along Harrison Street approximately 175 feet southwest of the site. The plume does not contain BTEX or other VOCs at concentrations above reporting limits. Since the maximum concentrations within the plume were detected approximately 175 feet downgradient from the site and the types of petroleum hydrocarbons are not consistent with the dissolved phase hydrocarbons detected on site, the plume is most likely from an off-site source. In 2011, a review of historical aerial photos and Sanborn maps identified five potential sources for the off-site heavy petroleum hydrocarbon plume.

On March 30, 2011, soil vapor probes SVP-3 through SVP-5 were sampled. Soil vapor probes SVP-1, SVP-2, and SVP-2a could not be sampled due to water in the sampling tubing. Due to anomalous results of up to 190,000  $\mu\text{g}/\text{m}^3$  TPHg in near sub-slab vapor probes SVP-4 and SVP-5, the probes were re-sampled on June 8, 2011. The re-sampling of probes SVP-4 and SVP-5 indicated non-detectable concentrations of TPHg and 2.2  $\mu\text{g}/\text{m}^3$  benzene were present in the near sub-slab wells. Probe SVP-3, located less than five feet north of near sub-slab probe SVP-5, contained 26,000,000  $\mu\text{g}/\text{m}^3$  TPHg, 1,400  $\mu\text{g}/\text{m}^3$  benzene, and 1,700  $\mu\text{g}/\text{m}^3$  xylenes.

An air exchange rate test was performed on the existing convenience store building on December 19, 2011. The initial measurements of the air exchange rate indicated an overall average of 3.11 exchanges per hour. Due to a relatively low air exchange rate, the test was followed by system maintenance which increased the HVAC performance to an air exchange rate of 11.49 exchanges per hour. The minimum required air exchange rate was calculated to determine the potential for intrusion of benzene from soil vapor to indoor air to exceed the commercial indoor air Environmental Screening Level (ESL). Using site data and assumptions from EPA and RWQCB documents, the calculated necessary air exchange rate to prevent benzene vapor intrusion at concentrations exceeding the indoor air ESL is 2.3 exchanges per hour. The current air exchange rate is greater than the calculated minimum air exchange rate by a factor of 5.



**IV. CLOSURE**

Does completed corrective action protect existing beneficial uses per the Regional Board Basin Plan? Yes		
Does completed corrective action protect potential beneficial uses per the Regional Board Basin Plan? Yes		
Does corrective action protect public health for current land use? Alameda County Environmental Health staff does not make specific determinations concerning public health risk. However, based upon the information available in our files to date, it does not appear that the release would present a risk to human health based upon current land use and conditions.		
<p>Site Management Requirements:</p> <p>Case closure for this fuel leak site is granted for the current commercial land use as a convenience store and the existing building only. If a change in land use to any residential, commercial other than as a convenience store, or conservative land use, or if any re-development, or if additions to the site building occur, Alameda County Environmental Health (ACEH) must be notified as required by Government Code Section 65850.2.2. Due to the potential for vapor intrusion to indoor air for future buildings, ACEH will re-evaluate the case upon receipt of approved development/construction plans.</p> <p>This site is to be entered into the City of Oakland Permit Tracking System due to the residual contamination on site.</p>		
Should corrective action be reviewed if land use changes? Yes		
Was a deed restriction or deed notification filed? No		Date Recorded:
Monitoring Wells Decommissioned: No	Number Decommissioned: 0	Number Retained: 6
List Enforcement Actions Taken: ---		
List Enforcement Actions Rescinded: ---		

V. ADDITIONAL COMMENTS, DATA, ETC.

Considerations and/or Variances:

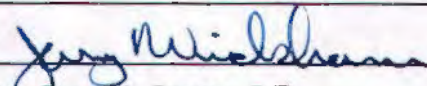
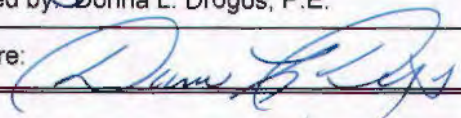
Elevated concentrations of TPH and benzene were detected in soil vapor at locations immediately north of the existing building beneath the parking lot. Based on results from shallow soil vapor sampling adjacent to the building and air exchange measurements inside the building, there does not appear to be a significant threat of vapor intrusion to indoor air for the existing building. Further evaluation would be required if construction of additional structures was planned in the area of the former USTs.

A plume of petroleum hydrocarbons consisting of O&G, TPHd, and TPHg at maximum groundwater concentrations of 715,000 ppb, 58,000 ppb, and 14,000 ppb extends more than 400 feet south of the site. The highest concentrations were detected along Harrison Street approximately 175 feet southwest of the site. The plume does not contain BTEX or other VOCs at concentrations above reporting limits. Since the maximum concentrations within the plume were detected approximately 175 feet downgradient from the site and the types of petroleum hydrocarbons are not consistent with the dissolved phase hydrocarbons detected on site, the plume is most likely from an off-site source.

Conclusion:

Alameda County Environmental Health staff believe that the levels of residual contamination do not pose a significant threat to water resources, public health and safety, and the environment under the current commercial land use and the existing building use as a convenience store. No further investigation or cleanup for the fuel leak case is necessary at this time. However, due to the potential for vapor intrusion and as specified in the Site Management Requirements, re-evaluation of this case may be required if land uses changes to any residential land use, commercial land use other than as a convenience store, or other conservative land use scenario; or construction or excavation activities take place or the building structure is otherwise modified. ACEH staff recommend closure for this site.

VI. LOCAL AGENCY REPRESENTATIVE DATA

Prepared by: Jerry Wickham, P.G.	Title: Senior Hazardous Materials Specialist
Signature: 	Date: 07/19/12
Approved by: Donna L. Drogos, P.E.	Title: Division Chief
Signature: 	Date: 07/19/12

This closure approval is based upon the available information and with the provision that the information provided to this agency was accurate and representative of site conditions.

**VII. REGIONAL BOARD NOTIFICATION**

Regional Board Staff Name: Cherie McCaulou	Title: Engineering Geologist
Notification Date: 07/24/12	

**VIII. MONITORING WELL DECOMMISSIONING**

Date Requested by ACEH: 08/23/12	Date of Well Decommissioning Report: 10/10/12	
All Monitoring Wells Decommissioned <input checked="" type="radio"/> Yes <input type="radio"/> No	Number Decommissioned: 12	Number Retained: 0
Reason Wells Retained: NA		
Additional requirements for submittal of groundwater data from retained wells: None		
ACEH Concurrence - Signature: <i>Jerry Weisblum</i>	Date: 12/27/12	

**Attachments:**

1. Site Vicinity Maps (2 pp)
2. Site Plans and Groundwater Contour Maps (4 pp)
3. Chemical Concentration Maps (5 pp)
4. Soil and Soil Vapor Analytical Data (13 pp)
5. Groundwater Analytical Data (5 pp)
6. Boring Logs (22 pp)

This document and the related CASE CLOSURE LETTER & REMEDIAL ACTION COMPLETION CERTIFICATE shall be retained by the lead agency as part of the official site file.

## Wickham, Jerry, Env. Health

---

**From:** MCcaulou, Cherie@Waterboards [CMccaoulou@waterboards.ca.gov]  
**Sent:** Wednesday, July 25, 2012 2:23 PM  
**To:** Wickham, Jerry, Env. Health  
**Subject:** RE: RO505 Pending case closure for RO505 at 2350 Harrison Street, Oakland

Jerry – Thank you for the notification of case closure for RO505 at 2350 Harrison Street, Oakland. We understand ACWD will proceed with case closure.

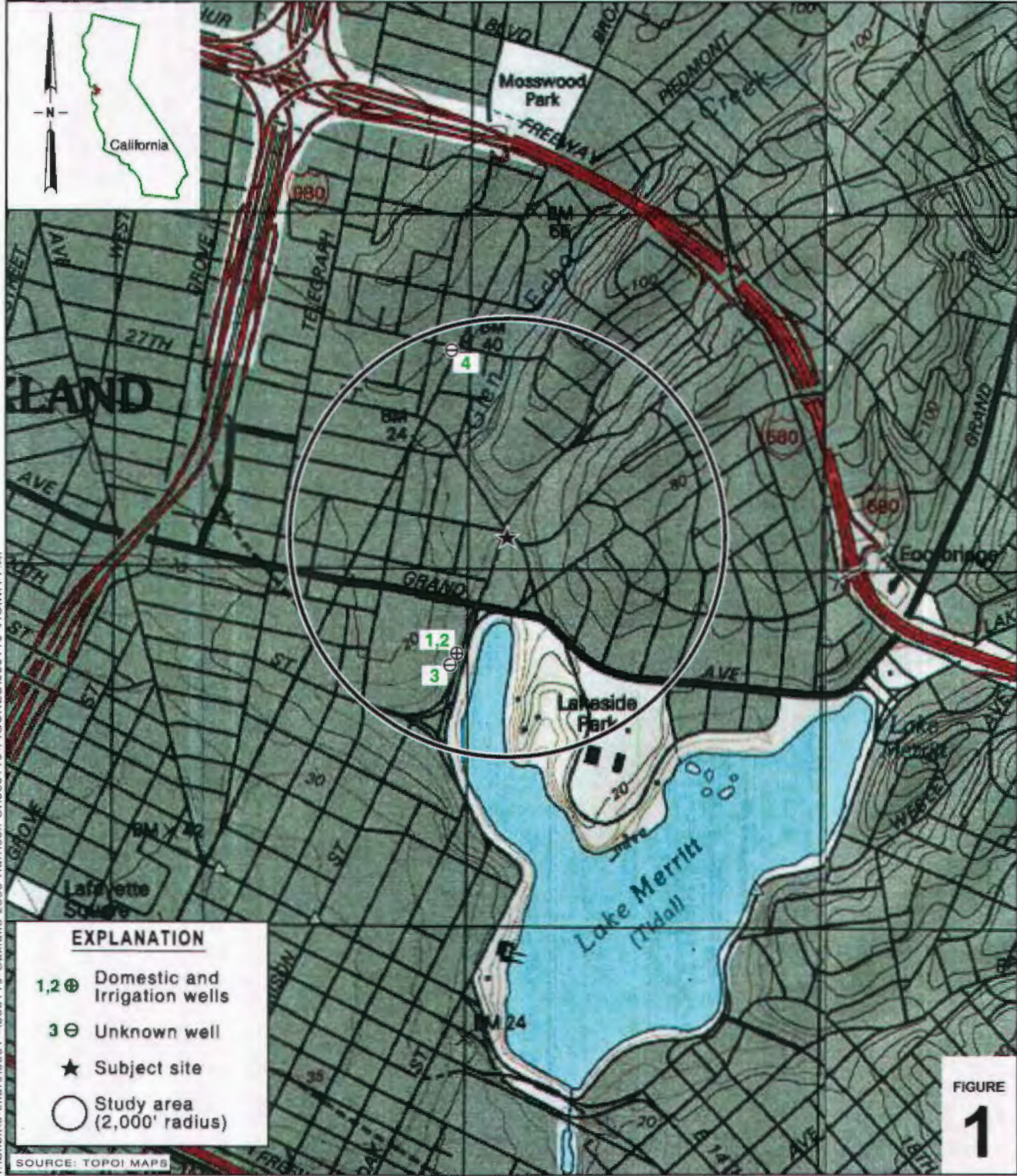
---

**From:** Jerry Env. Health Wickham [<mailto:jerry.wickham@acgov.org>]  
**Sent:** Tuesday, July 24, 2012 4:18 PM  
**To:** MCcaulou, Cherie@Waterboards  
**Subject:** RO505 Pending case closure for RO505 at 2350 Harrison Street, Oakland

Hi Cherie,

This email provides notification of pending closure for ACEH case RO505, 2350 Harrison Street, Oakland.

Jerry Wickham  
Alameda County Environmental Health  
1131 Harbor Bay Parkway  
Alameda, CA 94502-6577  
phone: 510-567-6791  
[jerry.wickham@acgov.org](mailto:jerry.wickham@acgov.org)



**EXPLANATION**

- 1,2 ⊕ Domestic and Irrigation wells
- 3 ⊕ Unknown well
- ★ Subject site
- Study area (2,000' radius)

FIGURE 1

I:\Shell6-ohara\0601-060119-Oakland 2350 Harrison St\060119-FIGURES\060119 VICINITY.A1

SOURCE: TOPOI MAPS

0 1/8 1/4 1/2 1  
SCALE : 1" = 1/4 MILE

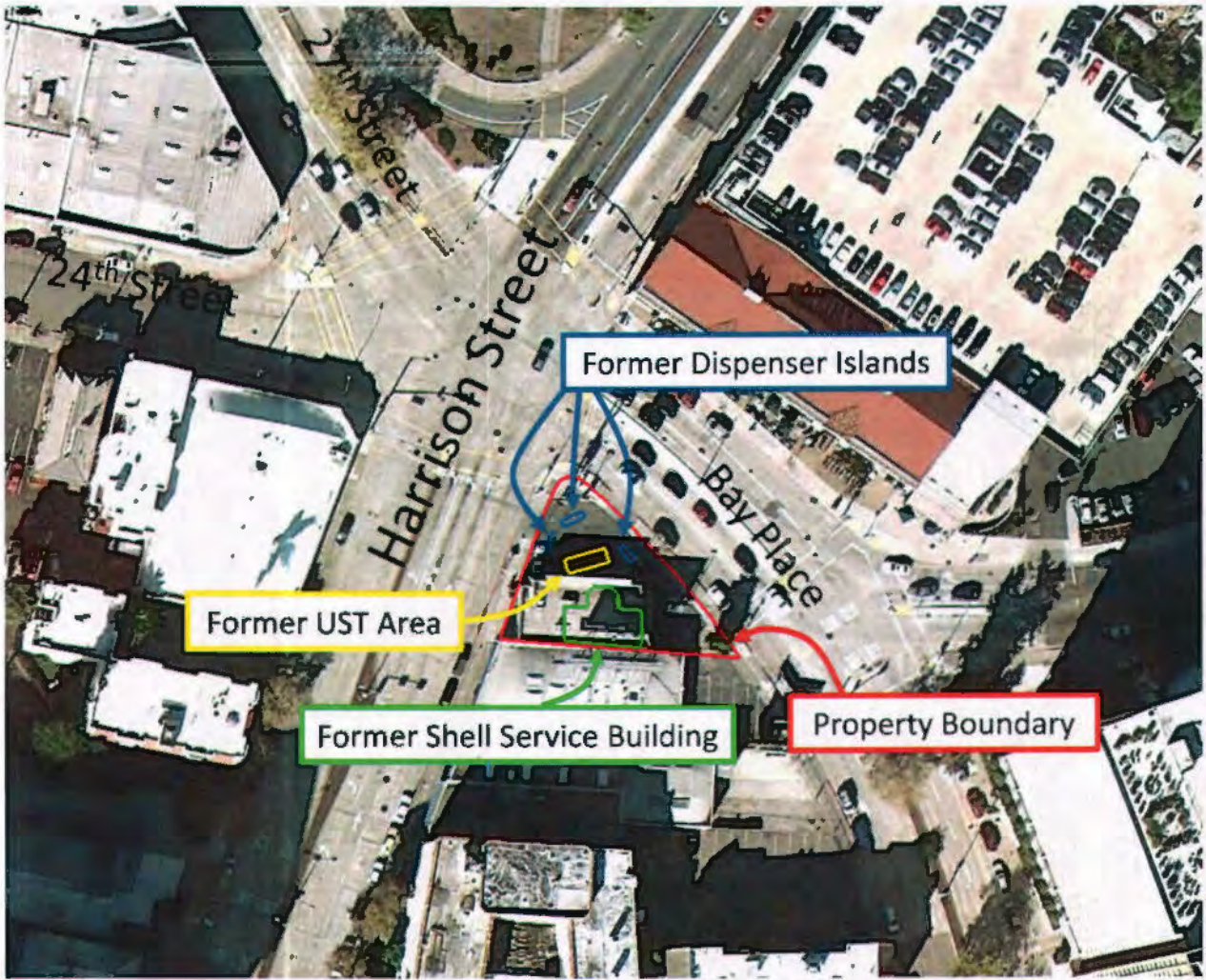
**Former Shell Service Station**  
2350 (2368) Harrison Street  
Oakland, California



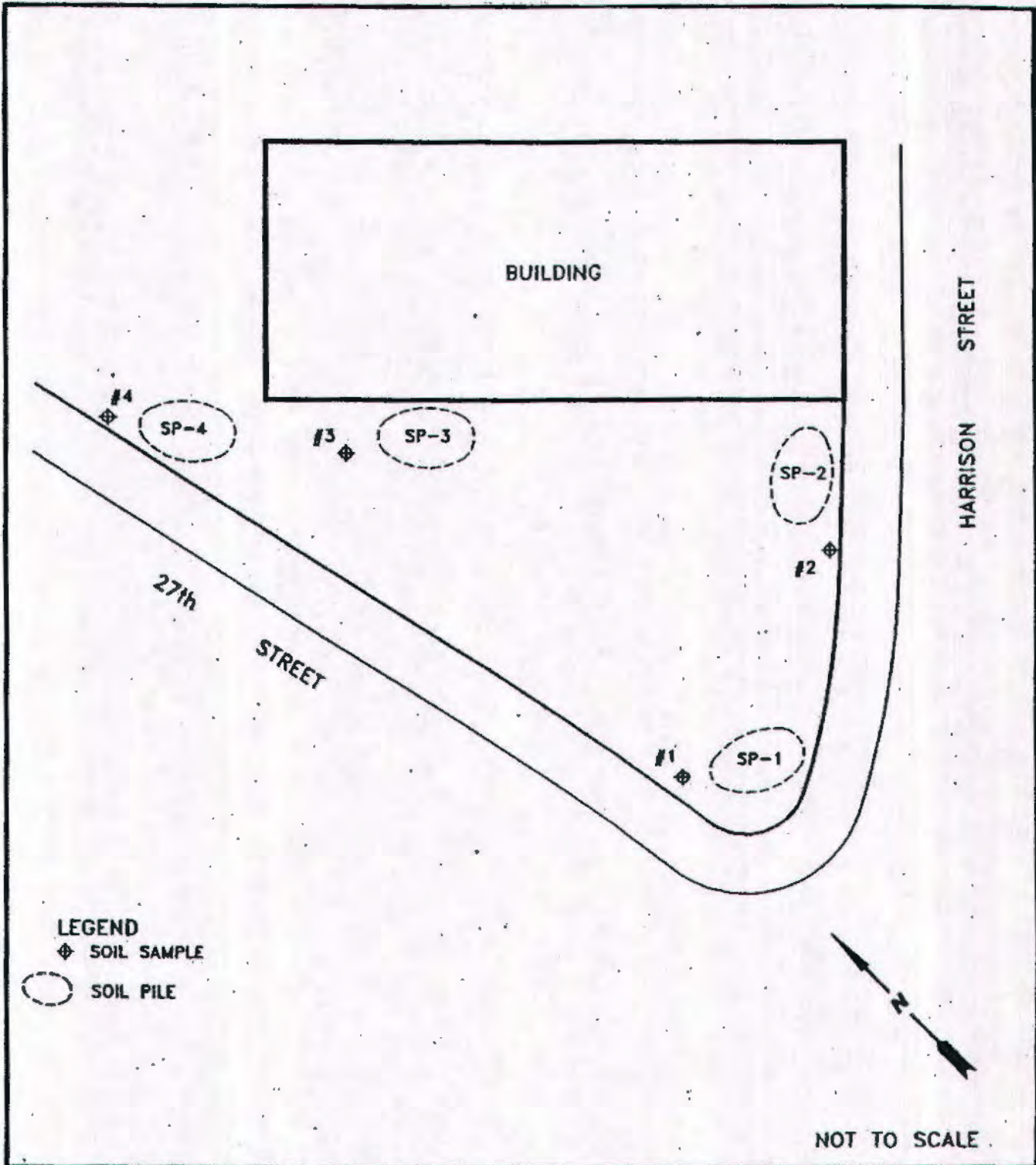
**CONESTOGA-ROVERS & ASSOCIATES**

Vicinity Map

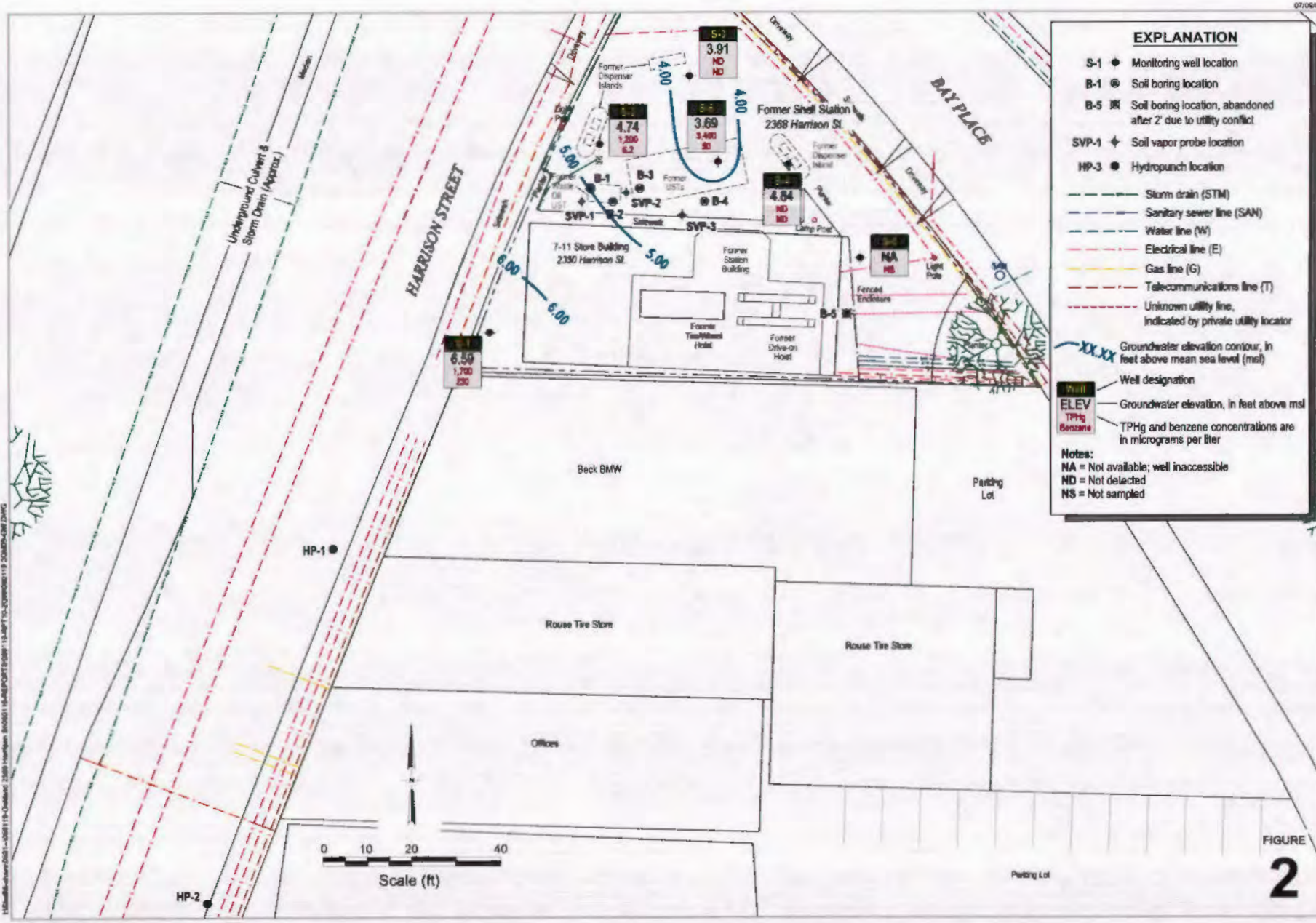
**ATTACHMENT 1**



Aerial View of Property (Google, 2012)



 <b>GROUNDWATER TECHNOLOGY</b>		4057 PORT CHICAGO HWY. CONCORD, CA 94520 (510) 671-2387		<b>SOIL SAMPLE LOCATION MAP</b>	
<b>CLIENT:</b> BURGE DEVELOPEMENT COMPANY			<b>LOCATION:</b> 2350 HARRISON STREET OAKLAND, CALIFORNIA		<b>REV. NO.:</b> 0
					<b>DATE:</b> 4/12/93
PM	PE/RG	DESIGNED SL	DETAILED CY	ACAD FILE: SSLM493	<b>ATTACHMENT 2</b>



**EXPLANATION**

- S-1 ● Monitoring well location
- B-1 ● Soil boring location
- B-3 ● Soil boring location, abandoned after 2' due to utility conflict
- SVP-1 ● Soil vapor probe location
- HP-3 ● Hydropunch location
- STM Storm drain (STM)
- SAN Sanitary sewer line (SAN)
- W Water line (W)
- E Electrical line (E)
- G Gas line (G)
- T Telecommunications line (T)
- Unknown utility line, Indicated by private utility locator

--- G.W.E. Groundwater elevation contour, in feet above mean sea level (msl)  
 Well designation  
 ELEV Groundwater elevation, in feet above msl  
 TPHg Benzene TPHg and benzene concentrations are in micrograms per liter

**Notes:**  
 NA = Not available; well inaccessible  
 ND = Not detected  
 NS = Not sampled

FIGURE  
**2**

Groundwater Contour and  
Chemical Concentration Map

Former Shell Service Station  
2350 (2368) Harrison Street  
Oakland, California

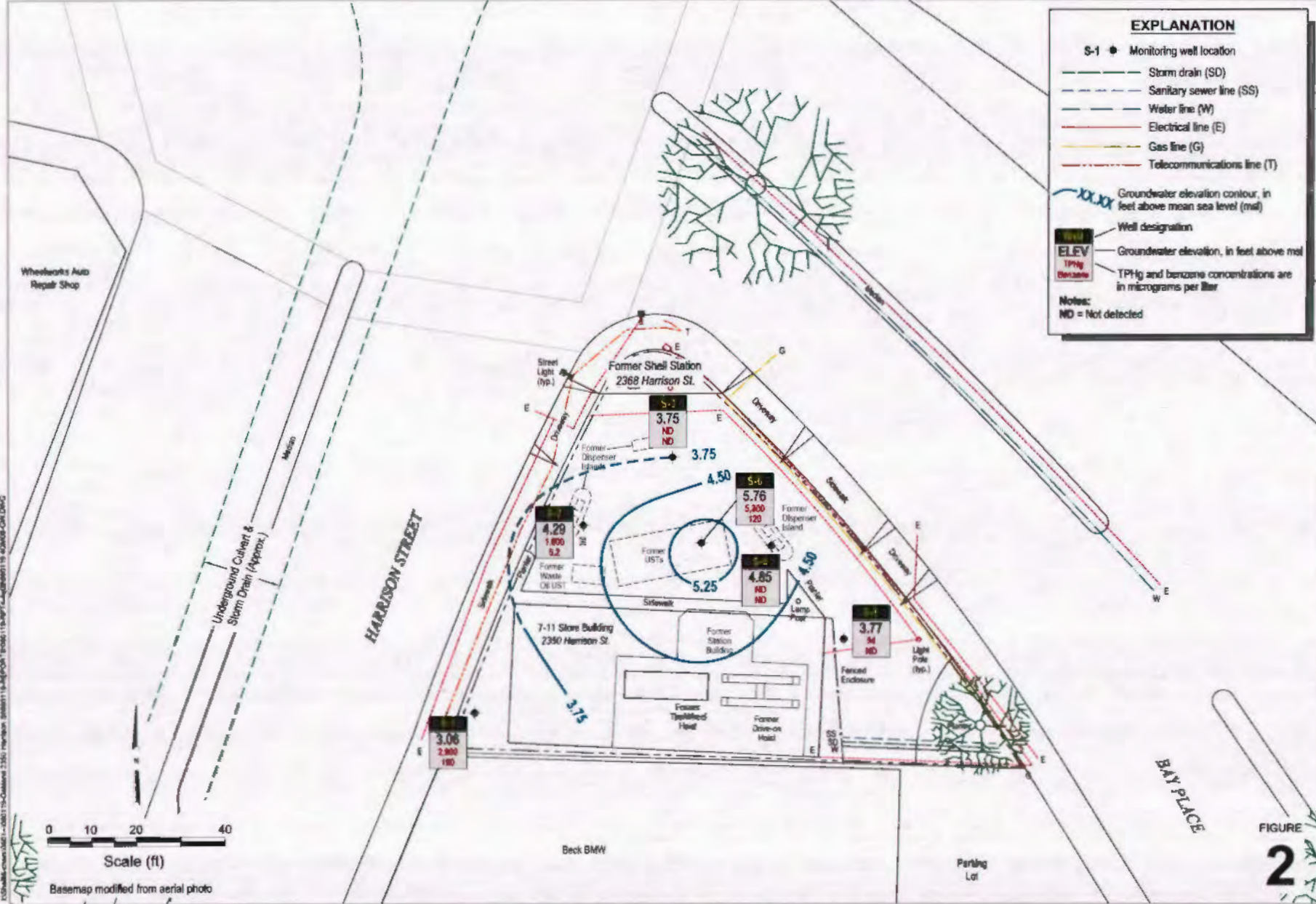
CONESTOGA-ROVERS  
& ASSOCIATES

May 26, 2009

H:\a\enviro\2009\11-06\001112-Delaware 2350 (shell) 2009\11-06\REPORT\010911-06-RTS-02\010911-06-RTS-02.DWG



02/08/09



Groundwater Contour and Chemical Concentration Map

December 11, 2008



CONESTOGA-ROVERS & ASSOCIATES

FIGURE

2

Former Shell Service Station

2350 (2368) Harrison Street  
Oakland, California

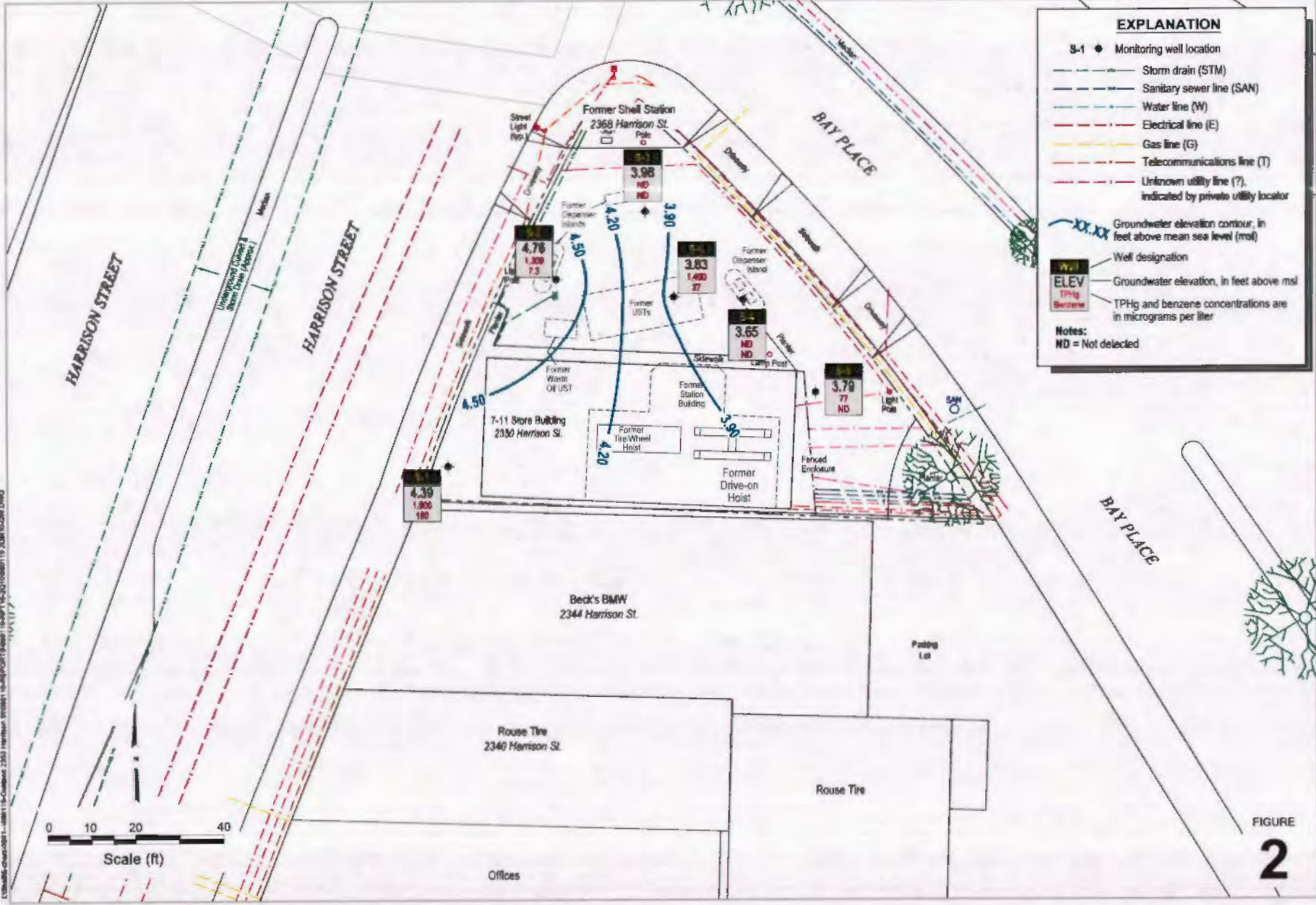
04/02/10

Groundwater Contour and  
Chemical Concentration Map

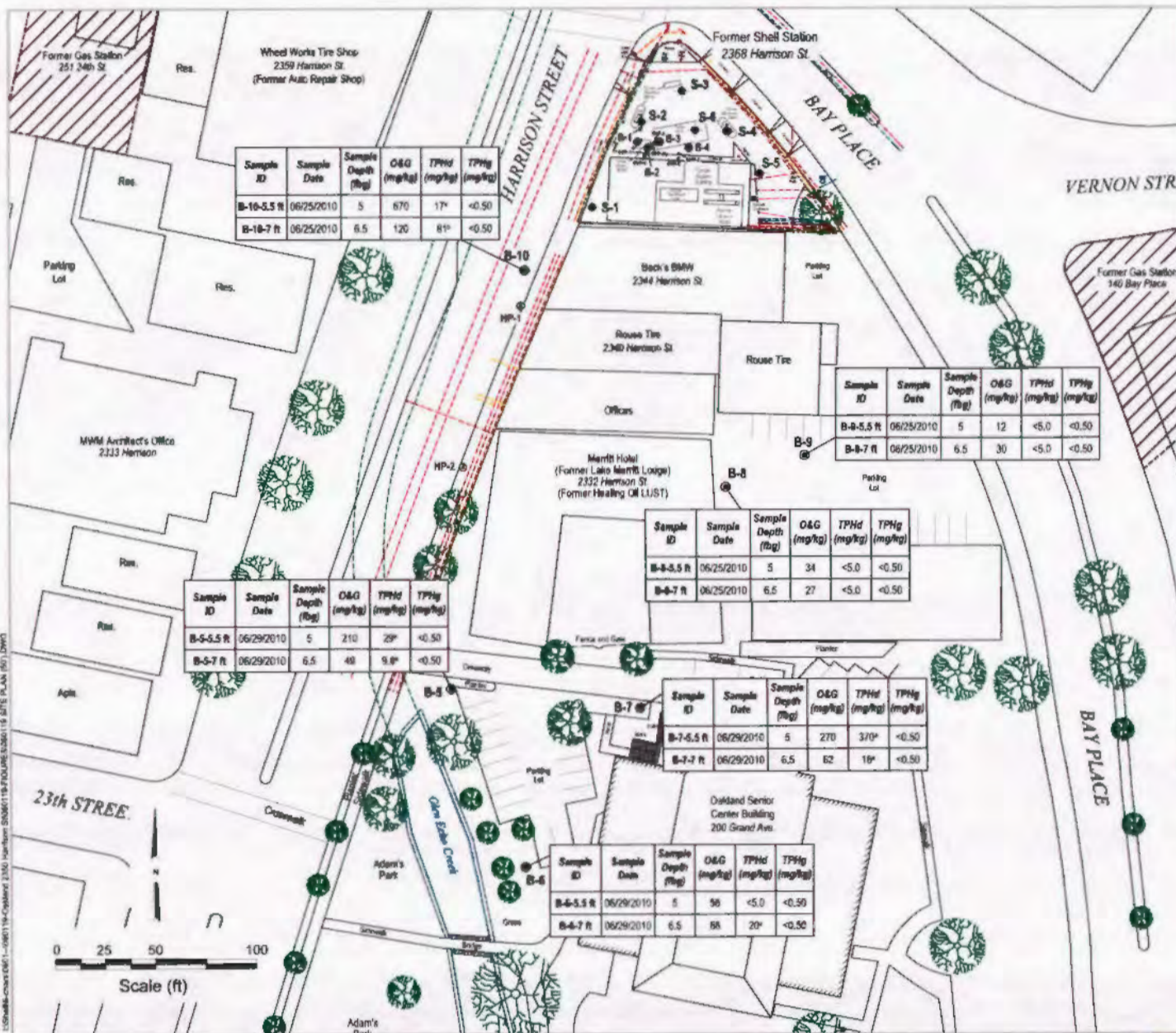
May 16, 2010

COMESTOGA-ROVERS  
& ASSOCIATES

Former Shell Service Station  
2350 (2368) Harrison Street  
Oakland, California



ES:\data\chem\0301-1081115-Cadillac 2350 Harrison St\GIS\PORT3\0301-1081115-2350 HARRISON.DWG

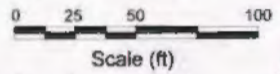


**EXPLANATION**

- SVP-4 [Symbol] Near sub-slab soil vapor probe
- B-5 [Symbol] Soil boring location (2010)
- HP-1 [Symbol] Hydropunch location (2009)
- B-1 [Symbol] Soil boring location (2009)
- [Symbol] Soil boring location, abandoned after 2' due to utility conflict
- SVP-1 [Symbol] Soil vapor probe location
- S-1 [Symbol] Monitoring well location
- [Symbol] Storm drain (STM)
- [Symbol] Sanitary sewer line (SAN)
- [Symbol] Water line (W)
- [Symbol] Electrical line (E)
- [Symbol] Gas line (G)
- [Symbol] Telecommunications line (T)
- [Symbol] Unknown utility line (?), Indicated by private utility locator

Sample ID	Sample Date	Sample Depth (ft)	O&G (mg/kg)	TPHd (mg/kg)	TPHg (mg/kg)
B-9-5.5 ft	06/29/2010	5	210	29*	<0.50
B-9-7 ft	06/29/2010	6.5	49	9.8*	<0.50

**Notes:**  
 Soil sample ID, date, depth in feet below grade (ftg), and concentrations in milligrams per kilogram (mg/kg)  
 O&G = Oil and grease as hexane extractable material  
 TPHd = Total petroleum hydrocarbons as diesel  
 TPHg = Total petroleum hydrocarbons as gasoline  
 a = The sample chromatographic pattern of the TPHd does not match the chromatographic pattern of the specified standard. Quantitation of the unknown hydrocarbon(s) in the sample was based upon the specified standard.  
 b = The sample chromatographic pattern for TPH matches the chromatographic pattern of the specified standard but heavier hydrocarbons are also present (or were detected).  
 <X = Not detected at reporting limit X



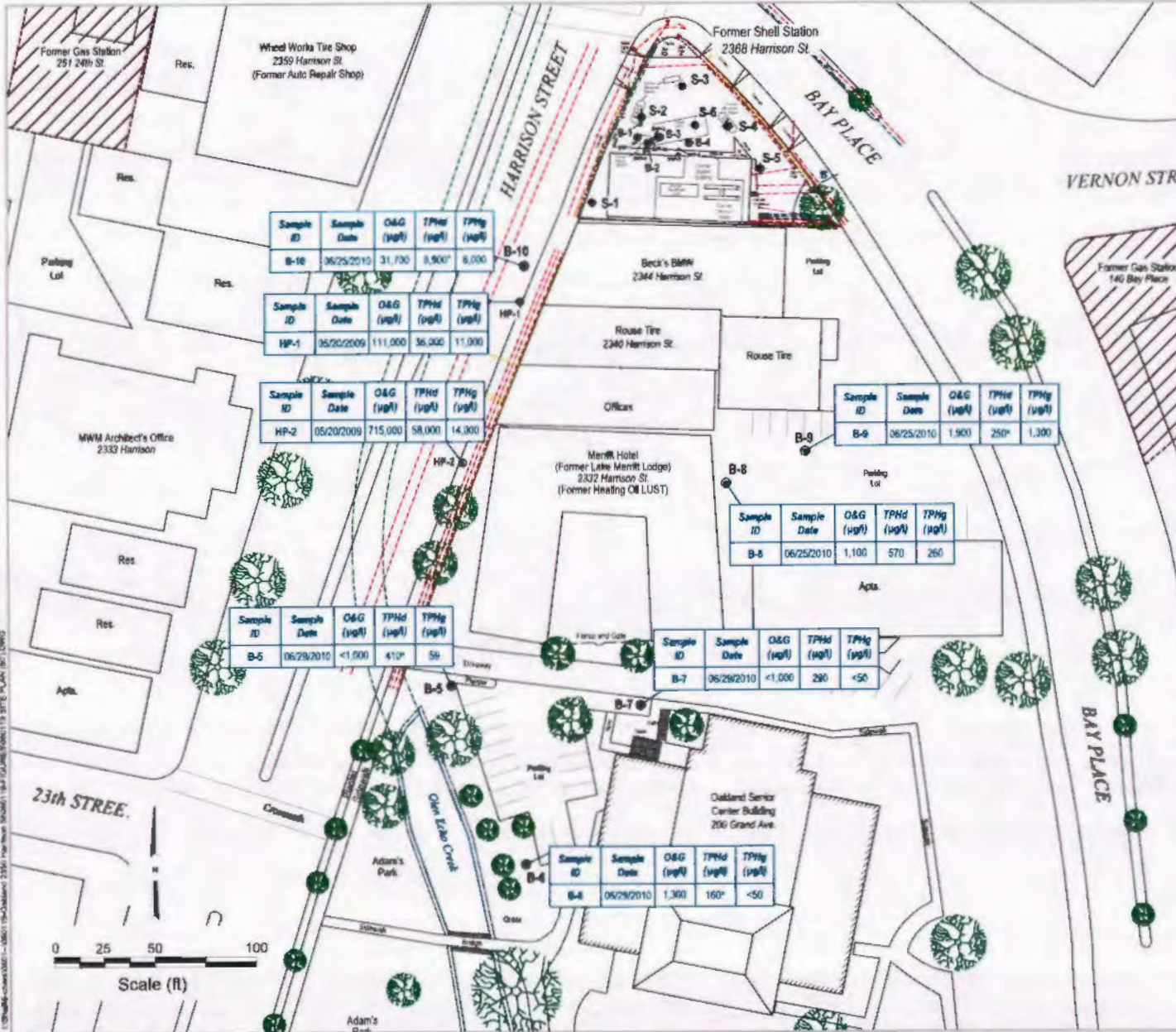
MONTECITO AVENUE

FIGURE 2

Soil Chemical Concentrations Map



Former Shell Service Station  
 2350 (2368) Harrison Street  
 Oakland, California



### EXPLANATION

- SVP-1 ■ Near sub-slab soil vapor probe
- B-5 ● Soil boring location (2010)
- HP-1 ⊕ Hydropunch location (2009)
- B-1 ● Soil boring location (2009)
- ⊗ Soil boring location, abandoned after 2' due to utility conflict
- SVP-1 ◆ Soil vapor probe location
- S-1 ● Monitoring well location
- Storm drain (STM)
- Sanitary sewer line (SAN)
- Water line (W)
- Electrical line (E)
- Gas line (G)
- Telecommunications line (T)
- Unknown utility line (?), indicated by private utility locator

Sample ID	Sample Date	O&G (µg/l)	TPHd (µg/l)	TPHg (µg/l)
B-5	06/29/2010	<1,000	410*	58

**Notes:**  
 Grab groundwater sample ID, date, and concentrations in micrograms per liter (µg/l)  
 O&G = Oil and grease as hexane extractable material  
 TPHd = Total petroleum hydrocarbons as diesel  
 TPHg = Total petroleum hydrocarbons as gasoline  
 \* = The sample chromatographic pattern for TPHd does not match the chromatographic pattern of the specified standard. Quantitation of the unknown hydrocarbon(s) in the sample was based upon the specified standard.  
 b = The sample chromatographic pattern for TPH matches the chromatographic pattern of the specified standard but heavier hydrocarbons are also present (or were detected).  
 <X = Not detected at reporting limit X

Sample ID	Sample Date	O&G (µg/l)	TPHd (µg/l)	TPHg (µg/l)
B-5	06/29/2010	<1,000	410*	58

Sample ID	Sample Date	O&G (µg/l)	TPHd (µg/l)	TPHg (µg/l)
B-5	06/25/2010	1,100	570	260

Sample ID	Sample Date	O&G (µg/l)	TPHd (µg/l)	TPHg (µg/l)
B-7	06/28/2010	<1,000	280	<50

Sample ID	Sample Date	O&G (µg/l)	TPHd (µg/l)	TPHg (µg/l)
B-4	06/28/2010	1,300	160*	<50

Sample ID	Sample Date	O&G (µg/l)	TPHd (µg/l)	TPHg (µg/l)
B-10	06/25/2010	31,700	8,900*	8,000

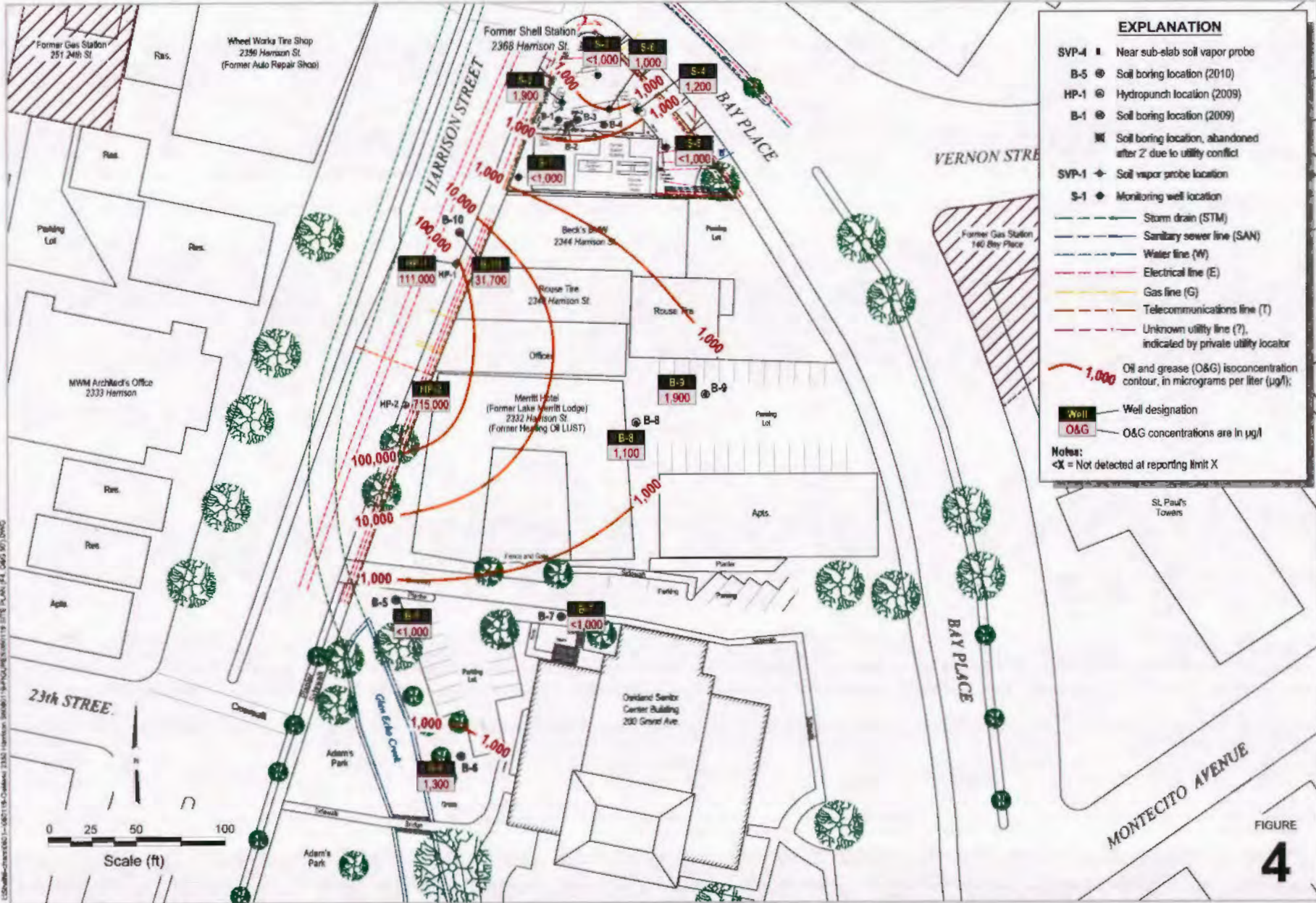
Sample ID	Sample Date	O&G (µg/l)	TPHd (µg/l)	TPHg (µg/l)
HP-1	05/20/2009	111,000	36,000	11,000

Sample ID	Sample Date	O&G (µg/l)	TPHd (µg/l)	TPHg (µg/l)
HP-2	05/20/2009	715,000	58,000	14,000

Sample ID	Sample Date	O&G (µg/l)	TPHd (µg/l)	TPHg (µg/l)
B-9	06/25/2010	1,900	250*	1,300



FIGURE 3



**EXPLANATION**

- SVP-4 ■ Near sub-slab soil vapor probe
- B-5 ● Soil boring location (2010)
- HP-1 ● Hypodermic location (2009)
- B-1 ● Soil boring location (2009)
- Soil boring location, abandoned after Z due to utility conflict
- SVP-1 ◆ Soil vapor probe location
- S-1 ● Monitoring well location
- Storm drain (STM)
- Sanitary sewer line (SAN)
- Water line (W)
- Electrical line (E)
- Gas line (G)
- Telecommunications line (T)
- Unknown utility line (?), indicated by private utility locator

Oil and grease (O&G) isoconcentration contour, in micrograms per liter (µg/l);

Well designation

O&G concentrations are in µg/l

**Notes:**  
 <X = Not detected at reporting limit X

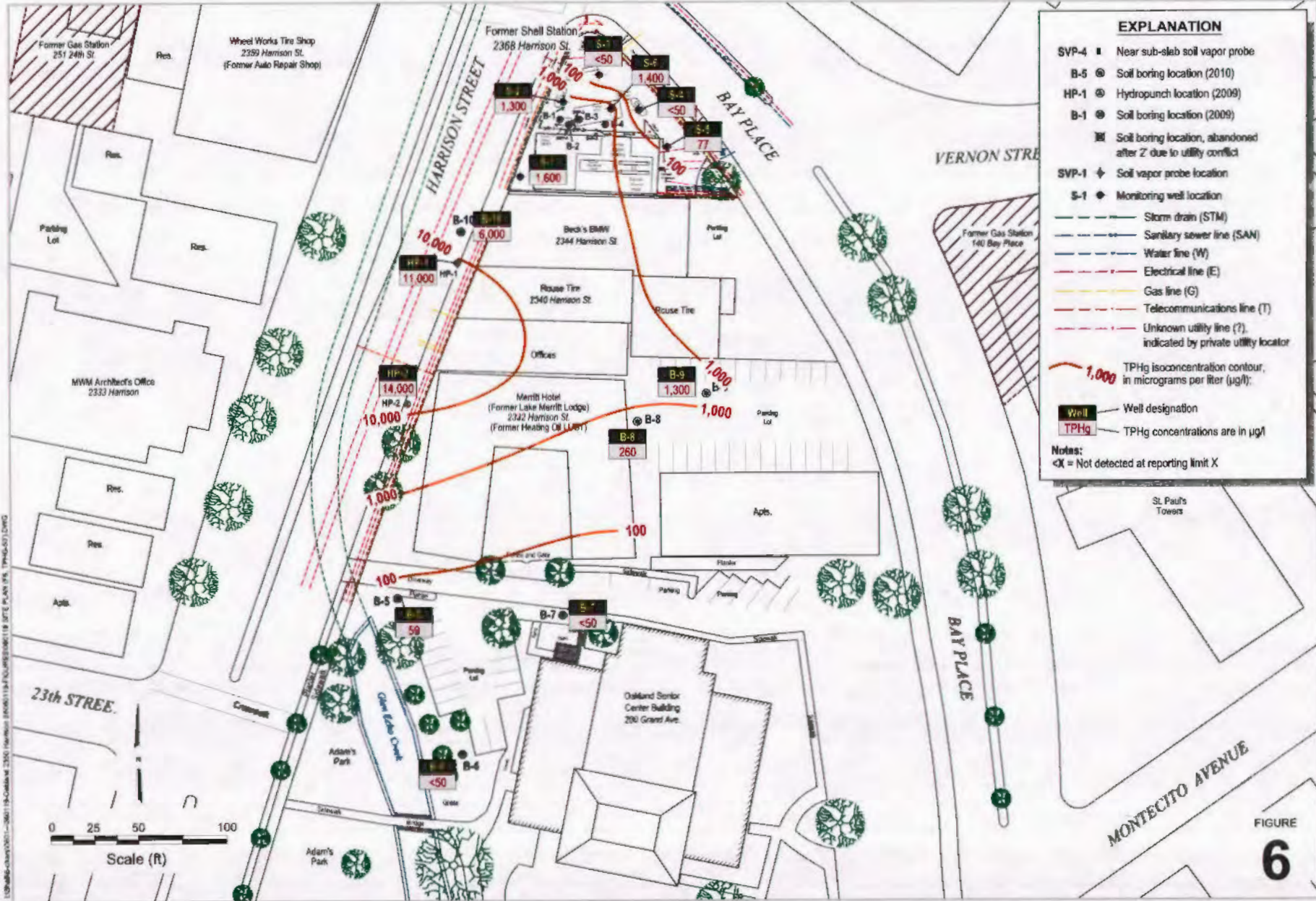
O&G in Groundwater Isoconcentration Contour Map



Former Shell Service Station  
2350 (2368) Harrison Street  
Oakland, California

FIGURE 4

09/23/10 10:00 AM 2350 Harrison Street, Oakland, CA 94612



TPHg in Groundwater Isoconcentration Contour Map



Former Shell Service Station  
2350 (2368) Harrison Street  
Oakland, California

FIGURE 6

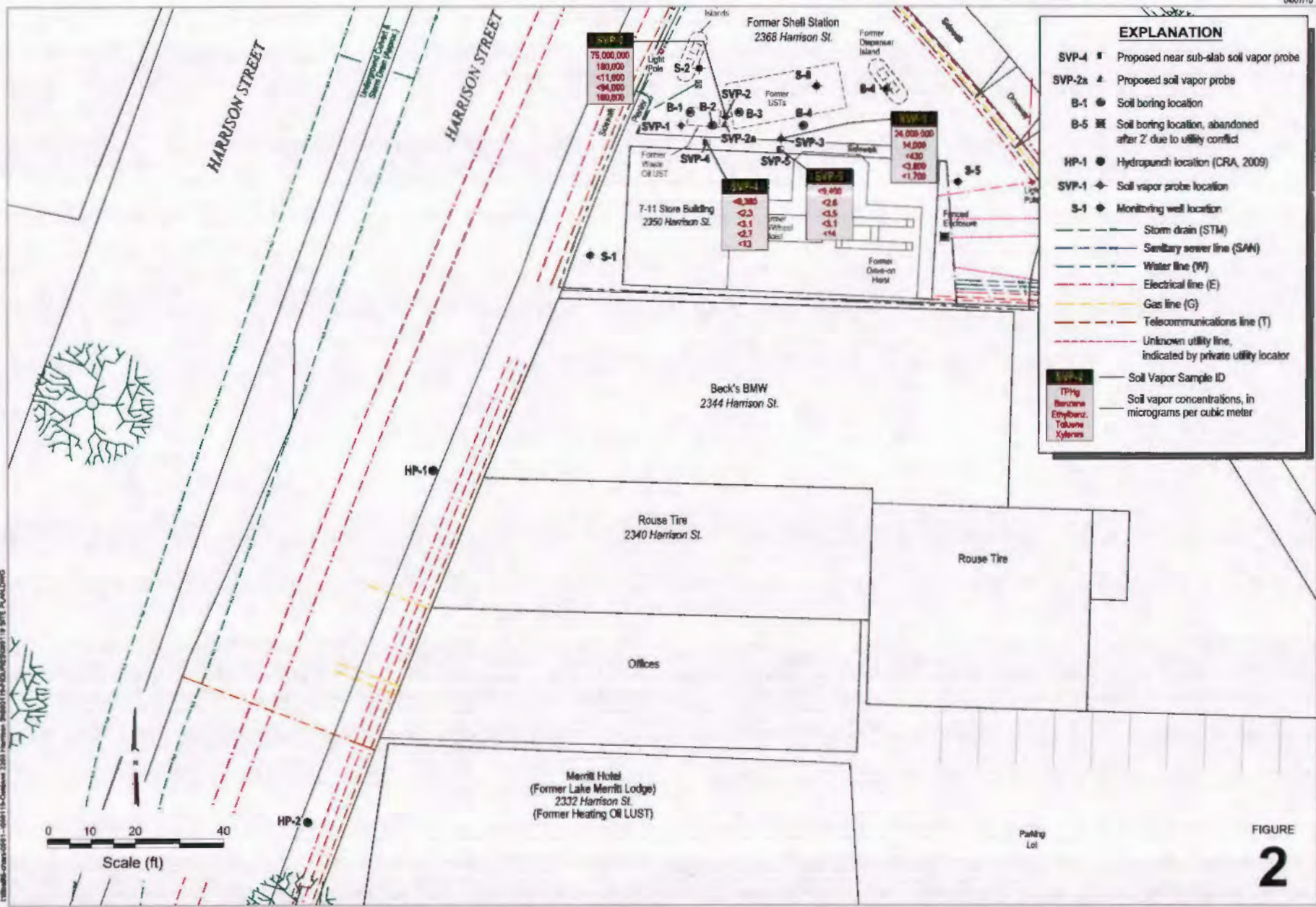


FIGURE 2

1204466-cra-001-00115-00000-2350-Harrison-ShellSiteSVPDataMap2010118 SITE PLAN.DWG

TABLE 1

HISTORICAL SOIL ANALYTICAL DATA  
FORMER SHELL SERVICE STATION  
2350 (2368) HARRISON STREET, OAKLAND, CALIFORNIA

Sample ID	Date	Depth (fbg)	O&G	TPHd	TPHg	TPHmo	TPHms	TPHk	Benzene	Toluene	Ethyl-benzene	Total Xylenes	Oxygenates	1,2-DCA	EDB	Cd	Cr	Pb	Ni	Zn	PCBs
#1	3/4/1993	UNK	10 <sup>f</sup>	<10 <sup>d</sup>	<10 <sup>d</sup>	<100 <sup>d</sup>	<10	<10	--	--	--	--	--	--	--	--	--	--	--	--	--
#2	3/4/1993	UNK	22 <sup>f</sup>	<10 <sup>d</sup>	220 <sup>d</sup>	<100 <sup>d</sup>	<10	<10	--	--	--	--	--	--	--	--	--	--	--	--	--
#3	3/4/1993	UNK	64 <sup>c</sup>	<10 <sup>d</sup>	110 <sup>d</sup>	<100 <sup>d</sup>	<10	<10	--	--	--	--	--	--	--	--	--	--	--	--	--
#4	3/4/1993	UNK	5,000 <sup>f</sup>	<100 <sup>d</sup>	620 <sup>d</sup>	7,900 <sup>d</sup>	<100	<100	--	--	--	--	--	--	--	--	--	--	--	--	--
S-1-5.5	6/5/2008	5.5	<10	21 <sup>a</sup>	5.4	26	--	--	<0.0050	<0.0050	<0.0050	<0.0050	ND	<0.0050	<0.0050	--	--	--	--	--	--
S-1-7.5	6/5/2008	7.5	130	120 <sup>b</sup>	860	99	--	--	<0.0050	<0.0050	<0.0050	0.0086	ND	<0.0050	<0.0050	--	--	--	--	--	--
S-2-5.5	6/5/2008	5.5	<10	13 <sup>a</sup>	<0.50	<25	--	--	<0.0050	<0.0050	<0.0050	<0.0050	ND	<0.0050	<0.0050	<0.500	28.9	5.40	27.2	21.7	<0.050
S-2-7.0	6/5/2008	7	26	270 <sup>b</sup>	2,700	<25	--	--	<0.50	<0.50	<0.50	<0.50	ND	<0.50	<0.50	<0.500	20.2	4.80	19.8	25.1	<0.050
S-2-10.0	6/5/2008	10	<10	150 <sup>b</sup>	1,900	<25	--	--	<1.2	<1.2	<1.2	<1.2	ND	<1.2	<1.2	<0.500	33.0	10.8	51.5	38.6	<0.050
S-2-15.5	6/5/2008	15.5	22	14 <sup>a</sup>	18	<25	--	--	<0.0050	<0.0050	0.0067	0.0063	ND	<0.0050	<0.0050	<0.500	28.2	5.98	30.1	25.7	<0.050
S-3-5	6/4/2008	5	<10	22 <sup>a</sup>	5.9	<25	--	--	<0.0050	<0.0050	<0.0050	<0.0050	ND	<0.0050	<0.0050	--	--	--	--	--	--
S-3-10	6/4/2008	10	<10	11 <sup>a</sup>	<0.50	<25	--	--	<0.0050	<0.0050	<0.0050	<0.0050	ND	<0.0050	<0.0050	--	--	--	--	--	--
S-4-5	6/4/2008	5	600	630 <sup>b</sup>	6.8	660	--	--	0.012	<0.0050	<0.0050	0.012	ND	<0.0050	<0.0050	--	--	--	--	--	--
S-4-10	6/4/2008	10	28	41 <sup>a</sup>	<0.50	54	--	--	<0.0050	<0.0050	<0.0050	<0.0050	ND	<0.0050	<0.0050	--	--	--	--	--	--
S-5-6.0	6/5/2008	6	8,600	22,000 <sup>b</sup>	2,300	23,000	--	--	0.016	0.0063	0.0082	0.0485	ND	<0.0050	<0.0050	--	--	--	--	--	--
S-5-9.0	6/5/2008	9	<10	42 <sup>a</sup>	<0.50	49	--	--	<0.0050	<0.0050	0.014	0.0094	ND	<0.0050	<0.0050	--	--	--	--	--	--
S-5-12.5	6/5/2008	12.5	<10	8.7 <sup>a</sup>	<0.50	<25	--	--	<0.0050	<0.0050	<0.0050	<0.0050	ND	<0.0050	<0.0050	--	--	--	--	--	--
S-5-15.5	6/5/2008	15.5	<10	25 <sup>a</sup>	<0.50	37	--	--	<0.0050	<0.0050	<0.0050	<0.0050	ND	<0.0050	<0.0050	--	--	--	--	--	--
S-6-6.0	6/5/2008	6	140	53 a	9.2	85	--	--	<0.0050	<0.0050	<0.0050	<0.0050	ND	<0.0050	<0.0050	--	--	--	--	--	--
S-6-7.5	6/5/2008	7.5	24	39 a	12	44	--	--	<0.0050	<0.0050	<0.0050	<0.0050	ND	<0.0050	<0.0050	--	--	--	--	--	--
B-1-5.5'	5/20/2009	5.5	3,000	700 <sup>b</sup>	100	--	--	--	<0.50	<0.50	<0.50	<0.50	ND	<0.50	<0.50	--	--	--	--	--	--
B-1-7'	5/20/2009	7	290	510 <sup>b</sup>	230	--	--	--	<10	<10	<10	<10	ND	<10	<10	--	--	--	--	--	--
B-1-10'	5/20/2009	10	<10	81 <sup>a</sup>	170	--	--	--	<0.50	<0.50	<0.50	<0.50	ND	<0.50	<0.50	--	--	--	--	--	--
B-1-13'	5/20/2009	13	11	89 <sup>a</sup>	160	--	--	--	<0.50	<0.50	<0.50	<0.50	ND	<0.50	<0.50	--	--	--	--	--	--
B-1-15'	5/20/2009	15	<10	100 <sup>b</sup>	180	--	--	--	<0.50	<0.50	<0.50	<0.50	ND	<0.50	<0.50	--	--	--	--	--	--



TABLE 1  
 HISTORICAL SOIL ANALYTICAL DATA  
 FORMER SHELL SERVICE STATION  
 2350 (2368) HARRISON STREET, OAKLAND, CALIFORNIA

Sample ID	Date	Depth (fbg)	O&G	TPHd	TPHg	TPHmo	TPHms	TPHk	Benzene	Toluene	Ethyl-benzene	Total Xylenes	Oxygenates	1,2-DCA	EDB	Cd	Cr	Pb	Ni	Zn	PCBs
B-2-5.5'	5/21/2009	5.5	40	<5.0	64	—	—	—	1.5	<0.50	<0.50	<0.50	ND	<0.50	<0.50	—	—	—	—	—	—
B-2-7'	5/21/2009	7	600	190*	2.8	—	—	—	<0.0050	<0.0050	<0.0050	<0.0050	ND	<0.0050	<0.0050	—	—	—	—	—	—
B-2-10'	5/21/2009	10	<10	39*	870	—	—	—	<2.0	<2.0	<2.0	<2.0	ND	<2.0	<2.0	—	—	—	—	—	—
B-2-15'	5/21/2009	15	24	5.2*	200	—	—	—	<0.50	<0.50	<0.50	<0.50	ND	<0.50	<0.50	—	—	—	—	—	—
B-3-5.5'	5/21/2009	5.5	38	6.4*	56	—	—	—	2.4	<0.50	0.87	<0.50	ND	<0.50	<0.50	—	—	—	—	—	—
B-3-10'	5/21/2009	10	230	44*	920	—	—	—	<2.5	<2.5	<2.5	<2.5	ND	<2.5	<2.5	—	—	—	—	—	—
B-3-15'	5/21/2009	15	<10	<5.0	2.1	—	—	—	<0.0050	<0.0050	<0.0050	<0.0050	ND	<0.0050	<0.0050	—	—	—	—	—	—
B-4-5.5'	5/20/2009	5.5	190	200*	—	230	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
B-4-10'	5/20/2009	10	68	170*	—	140	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
B-4-15'	5/20/2009	15	<10	10	—	<25	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
B-5-5.5 ft	6/29/2010	5	210	29*	<0.50	—	—	—	<0.0050	<0.0050	0.0059	0.057	ND	—	—	—	—	—	—	—	—
B-5-7 ft	6/29/2010	6.5	49	9.8*	<0.50	—	—	—	<0.0050	<0.0050	<0.0050	0.0074	ND	—	—	—	—	—	—	—	—
B-6-5.5 ft	6/29/2010	5	58	<5.0	<0.50	—	—	—	<0.0050	<0.0050	<0.0050	<0.0050	ND	—	—	—	—	—	—	—	—
B-6-7 ft	6/29/2010	6.5	88	20*	<0.50	—	—	—	<0.0050	<0.0050	<0.0050	<0.0050	ND	—	—	—	—	—	—	—	—
B-7-5.5 ft	6/29/2010	5	270	370*	<0.50	—	—	—	<0.0050	<0.0050	<0.0050	<0.0050	ND	—	—	—	—	—	—	—	—
B-7-7 ft	6/29/2010	6.5	62	18*	<0.50	—	—	—	<0.0050	<0.0050	<0.0050	<0.0050	ND	—	—	—	—	—	—	—	—
B-8-5.5 ft	6/25/2010	5	34	<5.0	<0.50	—	—	—	<0.0050	<0.0050	<0.0050	<0.0050	ND	—	—	—	—	—	—	—	—
B-8-7 ft	6/25/2010	6.5	27	<5.0	<0.50	—	—	—	<0.0050	<0.0050	<0.0050	<0.0050	ND	—	—	—	—	—	—	—	—
B-9-5.5 ft	6/25/2010	5	12	<5.0	<0.50	—	—	—	<0.0050	<0.0050	<0.0050	<0.0050	ND	—	—	—	—	—	—	—	—
B-9-7 ft	6/25/2010	6.5	30	<5.0	<0.50	—	—	—	<0.0050	<0.0050	<0.0050	<0.0050	ND	—	—	—	—	—	—	—	—
B-10-5.5 ft	6/25/2010	5	670	17*	<0.50	—	—	—	<0.0050	<0.0050	<0.0050	<0.0050	ND	—	—	—	—	—	—	—	—
B-10-7 ft	6/25/2010	6.5	120	81*	<0.50	—	—	—	<0.0050	<0.0050	<0.0050	<0.0050	ND	—	—	—	—	—	—	—	—

TABLE 1

HISTORICAL SOIL ANALYTICAL DATA  
FORMER SHELL SERVICE STATION  
2350 (2368) HARRISON STREET, OAKLAND, CALIFORNIA

Sample ID	Date	Depth (ftg)	O&G	TPHd	TPHg	TPHmo	TPHms	TPHk	Benzene	Toluene	Ethyl-benzene	Total Xylenes	Oxygenates	1,2-DCA	EDB	Cd	Cr	Pb	Ni	Zn	PCBs
Shallow Soil (<10 ftg) ESL			NA	180	180	NA	NA	NA	0.27	34	47	11	Varies	0.48	0.044	74	NA	750	150	600	0.74
Deep Soil (>10 ftg) ESL			NA	180	180	NA	NA	NA	24	93	47	11	Varies	1.8	1.0	39	5,000	750	260	5,000	6.3

**Notes:**

All results in milligrams per kilogram (mg/kg) unless otherwise indicated.

ftg = Feet below grade

O&G = Oil and grease as hexane extractable material analyzed by EPA Method 1664 A (Modified) unless otherwise indicated.

TPHd = Total petroleum hydrocarbons as diesel analyzed by EPA Method 8015B unless otherwise indicated.

TPHg = Total petroleum hydrocarbons as gasoline analyzed by EPA Method 8260B unless otherwise indicated.

TPHmo = Total petroleum hydrocarbons as motor oil analyzed by EPA Method 8015B Modified unless otherwise indicated.

TPHms = Total petroleum hydrocarbons as mineral spirits analyzed by gas chromatograph - flame ionization detector per Test Methods for Evaluating Solid Waste, SW-846, Revision O, United States Environmental Protection Agency, November 1986

TPHk = Total petroleum hydrocarbons as kerosene analyzed by gas chromatograph - flame ionization detector per Test Methods for Evaluating Solid Waste, SW-846, Revision O, United States Environmental Protection Agency, November 1986

Benzene, toluene, ethylbenzene, and xylenes analyzed by EPA Method 8260B.

Oxygenates = Methyl tertiary-butyl ether, di-isopropyl ether, ethyl tertiary-butyl ether, tertiary-amyl methyl ether, and tertiary-butanol analyzed by EPA Method 8260B

1,2-DCA = 1,2-Dichloroethane analyzed by EPA Method 8260B

EDB = 1,2-Dibromoethane analyzed by EPA Method 8260B

Cd = Cadmium analyzed by EPA Method 6010B

Cr = Chromium (total) analyzed by EPA Method 6010B

Pb = Lead analyzed by EPA Method 6010B

Ni = Nickel analyzed by EPA Method 6010B

Zn = Zinc analyzed by EPA Method 6010B

PCBs = Polychlorinated biphenyls analyzed by EPA Method 8082; see laboratory analytical report for a complete list of specific constituents

UNK = Unknown

<x = Not detected at reporting limit x

-- = Not analyzed

ND = Not detected; see laboratory analytical report for constituent-specific reporting limits

ESL = Environmental screening level

NA = No applicable environmental screening level

a = The sample chromatographic pattern for TPH does not match the chromatographic pattern of the specified standard. Quantitation of the unknown hydrocarbon(s) in the sample was based on the specified standard.

TABLE 1

HISTORICAL SOIL ANALYTICAL DATA  
 FORMER SHELL SERVICE STATION  
 2350 (2368) HARRISON STREET, OAKLAND, CALIFORNIA

Sample ID	Date	Depth (ftg)	O&G	TPHd	TPHg	TPHmo	TPHms	TPHk	Benzene	Toluene	Ethyl-benzene	Total Xylenes	Oxygenates	1,2-DCA	EDB	Cd	Cr	Pb	Ni	Zn	PCBs
-----------	------	-------------	-----	------	------	-------	-------	------	---------	---------	---------------	---------------	------------	---------	-----	----	----	----	----	----	------

b = San Francisco Bay Regional Water Quality Control Board (RWQCB) commercial land use ESL for soil where groundwater is not a current or potential source of drinking water (Tables B and D of *Screening for Environmental Concerns at Sites With Contaminated Soil and Groundwater* California Regional Water Quality Control Board, Interim Final - November 2007 [Revised May 2008]).

c = O&G analyzed by EPA Method 3550 (modified)/EPA Method 413.2

d = Analyzed by gas chromatograph - flame ionization detector per Test Methods for Evaluating Solid Waste, SW-846, Revision O, United States Environmental Protection Agency, November 1986.

e = The sample chromatographic pattern for TPH matches the chromatographic pattern of the specified standard but heavier hydrocarbons are also present (or were detected).

Data in **BOLD** equals or exceeds applicable RWQCB ESL.

TABLE 2

HISTORICAL SOIL ANALYTICAL DATA - VOCS AND PAHS  
 FORMER SHELL SERVICE STATION  
 2350 (2368) HARRISON STREET, OAKLAND, CALIFORNIA

Sample ID	Date	Depth (fbg)	Acetone	n-Butylbenzene	sec-Butylbenzene	1,2-Dichloropropane	Isopropylbenzene	n-Propylbenzene	1,1,2,2-Tetrachloroethane	Naphthalene	1-Methylnaphthalene	2-Methylnaphthalene
S-2-5.5	6/5/2008	5.5	<0.12	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.020	<0.020	<0.020
S-2-7.0	6/5/2008	7.0	<12	2.7	2.3	<0.50	2.9	1.2	18	<0.020	1.4	0.036
S-2-10.0	6/5/2008	10.0	<31	2.5	1.9	<1.2	2.4	3.4	13	<0.020	0.048	0.063
S-2-15.5	6/5/2008	15.5	0.13	0.044	0.032	0.026	0.039	0.041	0.22	0.20 <sup>a</sup>	0.15	0.17
B-1-5.5'	5/20/2009	5.5	<12	<0.50	<0.50	<0.50	<0.50	0.68	<0.50	<5.0	—	—
B-1-7'	5/20/2009	7	<250	<10	<10	<10	<10	<10	<10	<100	—	—
B-1-10'	5/20/2009	10	<12	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<5.0	—	—
B-1-13'	5/20/2009	13	<12	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<5.0	—	—
B-1-15'	5/20/2009	15	<12	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<5.0	—	—
B-2-5.5'	5/21/2009	5.5	<12	<0.50	<0.50	<0.50	<0.50	0.57	<0.50	<5.0	—	—
B-2-7'	5/21/2009	7	<0.12	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.050	—	—
B-2-10'	5/21/2009	10	<50	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<20	—	—
B-2-15'	5/21/2009	15	<12	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<5.0	—	—
B-3-5.5'	5/21/2009	5.5	<12	<0.50	<0.50	<0.50	<0.50	0.75	<0.50	<5.0	—	—
B-3-10'	5/21/2009	10	<62	<2.5	<2.5	<2.5	<2.5	2.5	<2.5	<25	—	—
B-3-15'	5/21/2009	15	<0.12	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.050	—	—
B-5-5.5 ft	6/29/2010	5	—	—	—	—	—	—	—	<0.050 <sup>f</sup>	—	—
B-5-7 ft	6/29/2010	6.5	—	—	—	—	—	—	—	<0.050 <sup>f</sup>	—	—
B-6-5.5 ft	6/29/2010	5	—	—	—	—	—	—	—	<0.050 <sup>f</sup>	—	—

TABLE 2

HISTORICAL SOIL ANALYTICAL DATA - VOCs AND PAHS  
FORMER SHELL SERVICE STATION  
2350 (2368) HARRISON STREET, OAKLAND, CALIFORNIA

Sample ID	Date	Depth (fbg)	Acetone	n-Butyl-benzene	sec-Butyl-benzene	1,2-Dichloro-propane	Isopropyl-benzene	n-Propyl-benzene	1,1,2,2-Tetra-chloroethane	Naphthalene	1-Methyl-naphthalene	2-Methyl-naphthalene
B-6-7 ft	6/29/2010	6.5	—	—	—	—	—	—	—	<0.050 <sup>c</sup>	—	—
B-7-5.5 ft	6/29/2010	5	—	—	—	—	—	—	—	<0.050 <sup>c</sup>	—	—
B-7-7 ft	6/29/2010	6.5	—	—	—	—	—	—	—	<0.050 <sup>c</sup>	—	—
B-8-5.5 ft	6/25/2010	5	—	—	—	—	—	—	—	<0.050 <sup>c</sup>	—	—
B-8-7 ft	6/25/2010	6.5	—	—	—	—	—	—	—	<0.050 <sup>c</sup>	—	—
B-9-5.5 ft	6/25/2010	5	—	—	—	—	—	—	—	<0.050 <sup>c</sup>	—	—
B-9-7 ft	6/25/2010	6.5	—	—	—	—	—	—	—	<0.050 <sup>c</sup>	—	—
B-10-5.5 ft	6/25/2010	5	—	—	—	—	—	—	—	<0.050 <sup>c</sup>	—	—
B-10-7 ft	6/25/2010	6.5	—	—	—	—	—	—	—	<0.050 <sup>c</sup>	—	—
Shallow Soil (<10 fbg) ESL			0.5	NA	NA	1.0	NA	NA	0.6	2.8	NA	0.25
Deep Soil (>10 fbg) ESL			0.5	NA	NA	2.5	NA	NA	1.6	4.8	NA	0.25

Notes:

All results in milligrams per kilogram (mg/kg) unless otherwise indicated.

VOCs = Volatile organic compounds analyzed by EPA Method 8260B. All detected constituents tabulated; see laboratory analytical report for a complete list of specific constituents and results

PAHs = Polynuclear aromatic hydrocarbons analyzed by EPA Method 8270C. All detected constituents tabulated; see laboratory analytical report for a complete list of specific constituents and results.

fbg = Feet below grade

<x = Not detected at reporting limit x

TABLE 2

HISTORICAL SOIL ANALYTICAL DATA - VOCS AND PAHS  
 FORMER SHELL SERVICE STATION  
 2350 (2368) HARRISON STREET, OAKLAND, CALIFORNIA

Sample ID	Date	Depth (ftg)	Acetone	n-Butyl-benzene	sec-Butyl-benzene	1,2-Dichloro-propane	Isopropyl-benzene	n-Propyl-benzene	1,1,2,2-Tetra-chloroethane	Naphthalene	1-Methyl-naphthalene	2-Methyl-naphthalene
-----------	------	-------------	---------	-----------------	-------------------	----------------------	-------------------	------------------	----------------------------	-------------	----------------------	----------------------

— = Not analyzed

ESL = Environmental screening level

NA = No applicable environmental screening level

a = When analyzed by EPA Method 8260B, naphthalene was detected in this sample at 0.079 mg/kg.

b = San Francisco Bay Regional Water Quality Control Board (RWQCB) commercial land use ESL for soil where groundwater is not a current or potential source of drinking water (Tables B and D of *Screening for Environmental Concerns at Sites With Contaminated Soil and Groundwater*, California Regional Water Quality Control Board, Interim Final - November 2007 [Revised May 2008]).

c = Naphthalene analyzed by EPA Method 8260B.

Data in **BOLD** equals or exceeds applicable RWQCB ESL.

Client Number: 0201  
 Project ID: 2380 Harrison St., Oakland  
 Work Order Number: C3-03-0114

## Table 1 (Continued)

## ANALYTICAL RESULTS

Total Oil and Grease in Soil  
by Infrared SpectrometryEPA 3550<sup>1</sup> (Mod.)/EPA 413.2<sup>2</sup>(SM 5520 C<sup>3</sup>)

GTEL Sample Number		05	06		
Client Identification		#2	#1		
Date Sampled		03/04/93	03/04/93		
Date Prepared		03/15/93	03/15/93		
Date Analyzed		03/15/93	03/15/93		
Analyte	Detection Limit, mg/Kg	Concentration, mg/Kg			
Total Oil and Grease	5	22	10		
Detection Limit Multiplier		1	1		
Percent solids		80.4	75.2		

1. Test Methods for Evaluating Solid Waste, SW-846, 3rd edition, Rev. C, U.S. EPA, November, 1986.
2. Methods for Chemical Analysis of Water and Wastes, EPA 600/4-76-020, Revised March 1983, U.S. Environmental Protection Agency.
3. Standard Methods for the Examination of Water and Wastewater, 17th ed., 1985, American Public Health Association.

Client Number: 0201  
 Project ID: 2390 Harrison St., Oakland  
 Work Order Number: G3-03-0114

**Table 1 (Continued)**  
**ANALYTICAL RESULTS**  
 Hydrocarbons in Soil  
 Method: GC-FID<sup>a</sup>

GTEL Sample Number		05	06		
Client Identification		#2	#1		
Date Sampled		03/04/93	03/04/93		
Date Extracted		03/10/93	03/10/93		
Date Analyzed		03/17/93	3/17/93		
Analyte	Detection Limit, mg/Kg	Concentration, mg/Kg			
TPH as gasoline	10	220	<10		
TPH as mineral spirits	10	<10	<10		
TPH as kerosene	10	<10	<10		
TPH as diesel fuel	10	<10	<10		
TPH as lubricating oil	100	<100	<100		
Detection Limit Multiplier		1	1		
Percent solids		80.4	76.2		

a. "Test Methods for Evaluating Solid Waste, SW-846, 3rd edition, Rev. Q, U.S. EPA, November, 1988."



Client Number: 0201  
 Project ID: 2260 Harrison St., Oakland  
 Work Order Number: C3-03-0114

Table 1  
 ANALYTICAL RESULTS  
 Hydrocarbons in Soil  
 Method: GC-FID<sup>a</sup>

GTEL Sample Number		01	02	03	04
Client Identification		SP #3	SP #4	#4	#3
Date Sampled		03/04/93	03/04/93	03/04/93	03/04/93
Date Extracted		03/10/93	03/10/93	03/10/93	03/10/93
Date Analyzed		03/17/93	03/17/93	03/18/93	03/17/93
Analyte	Detection Limit, mg/Kg	Concentration, mg/Kg			
TPH as gasoline	10	540	140	520	110
TPH as mineral spirits	10	540	<10	<100	<10
TPH as kerosene	10	<10	<10	<100	<10
TPH as diesel fuel	10	<10	<10	<100	<10
TPH as lubricating oil	100	<100	670	7900	<100
Detection Limit Multiplier		1	1	25*	1
Percent solids		68.3	72.9	68.6	61.2

<sup>a</sup> Test Methods for Evaluating Solid Waste, SW-846, 3rd edition, Rev. O, U.S. EPA, November, 1986.  
 \* Detection limit raised due to high levels of target compound.

Client Number: 0201  
 Project ID: 2350 Harrison St., Oakland  
 Work Order Number: C3-03-0114

Table 1

## ANALYTICAL RESULTS

Total Oil and Grease in Soil  
by Infrared SpectrometryEPA 3550<sup>1</sup> (Mod.)/EPA 413.2<sup>2</sup>(SM 5520 C<sup>3</sup>)

GTEL Sample Number		01	02	03	04
Client Identification		SP #3	SP #4	#4	#3
Date Sampled		03/04/93	03/04/93	03/04/93	03/04/93
Date Prepared		03/15/93	03/15/93	03/15/93	03/15/93
Date Analyzed		03/15/93	03/15/93	03/15/93	03/15/93
Analyte	Detection Limit, mg/Kg	Concentration, mg/Kg			
Total Oil and Grease	5	41	440	5000	64
Detection Limit Multiplier		1	1	1	1
Percent solids		68.3	72.9	68.6	61.2

1. Test Methods for Evaluating Solid Waste, SW-846, 3rd edition, Rev. D, U.S. EPA, November, 1986.
2. Methods for Chemical Analysis of Water and Wastes, EPA 800/4-79-020, Revised March 1983, U.S. Environmental Protection Agency.
3. Standard Methods for the Examination of Water and Wastewater, 17th ed., 1989, American Public Health Association.

TABLE 1

HISTORICAL SOIL VAPOR ANALYTICAL DATA  
FORMER SHELL SERVICE STATION  
2350 (2368) HARRISON STREET, OAKLAND, CALIFORNIA

Sample ID	Date	Screened Interval (fbg)	TPHg	Acetone	Benzene	Carbon Disulfide	Chloroform	Dichloro-difluoro-methane	Ethylbenzene	4-Ethyltoluene	Toluene	Total Xylenes	1,3,5-Tri-methylbenzene	1,2,4-Tri-methylbenzene	Helium (%)	Oxygen & Argon (%)	Carbon Dioxide (%)	Methane (%)
SVP-1	5/28/2009	4.4-4.5	—	<3,000	52,000	<3,900	<1,500	<1,600	5,200	<1,500	5,000	6,500	<1,500	<3,100	0.195	—	—	—
SVP-2	5/28/2009	4.4-4.5	—	44,000	530,000	<30,000	<12,000	<12,000	14,000	<12,000	<42,000	11,000	<12,000	<24,000	<0.0177	—	—	—
SVP-2-DUP	5/28/2009	4.4-4.5	—	48,000	520,000	<31,000	<12,000	<12,000	12,000	<12,000	10,000	<43,000	<12,000	<24,000	0.165	—	—	—
SVP-2	3/23/2010	4.4-4.5	75,000,000	<590,000 <sup>a</sup>	160,000 <sup>a</sup>	<160,000 <sup>a</sup>	<12,000 <sup>a</sup>	<12,000 <sup>a</sup>	<11,000 <sup>a</sup>	25,000 <sup>a</sup>	<94,000 <sup>a</sup>	160,000 <sup>a</sup>	32,000 <sup>a</sup>	61,000 <sup>a</sup>	<0.0100	2.43	9.46	10.8
SVP-3	5/28/2009	4.4-4.5	—	<670	2,400	1,000	<340	<350	370	<350	550	1,400	<350	<690	0.266	—	—	—
SVP-3	3/23/2010	4.4-4.5	24,000,000	<24,000 <sup>a</sup>	1,400 <sup>a</sup>	<6,200 <sup>a</sup>	<490 <sup>a</sup>	<490 <sup>a</sup>	<430 <sup>a</sup>	<490 <sup>a</sup>	<3,800 <sup>a</sup>	<1,700 <sup>a</sup>	<490 <sup>a</sup>	<1,500 <sup>a</sup>	<0.0100	1.94	10.7	5.59
SVP-3	3/30/2011	4.4-4.5	26,000,000	<15,000 <sup>a</sup>	1,400 <sup>a</sup>	<3,900 <sup>a</sup>	<310 <sup>a</sup>	<310 <sup>a</sup>	<270 <sup>a</sup>	<310 <sup>a</sup>	<2,400 <sup>a</sup>	1,700 <sup>a</sup>	<310 <sup>a</sup>	<920 <sup>a</sup>	<0.0100	1.81	10.8	6.30
SVP-4 <sup>b</sup>	3/23/2010	NA	<8,300	27	<2.3	<9.0	7.2	<3.6 <sup>a</sup>	<3.1	<3.5	<2.7	<13	<3.5	<11	<0.0144	14.5	<0.720	<0.720
SVP-4 <sup>b</sup>	3/30/2011	NA	190,000	<1,200 <sup>a</sup>	950 <sup>a</sup>	<310 <sup>a</sup>	100 <sup>a</sup>	<25 <sup>a</sup>	<22 <sup>a</sup>	<25 <sup>a</sup>	<190 <sup>a</sup>	<87 <sup>a</sup>	<25 <sup>a</sup>	<74 <sup>a</sup>	<0.0100	19.6	0.654	<0.500
SVP-4 <sup>b</sup>	6/8/2011	NA	<7,000	<120 <sup>a</sup>	22 <sup>a</sup>	<31 <sup>a</sup>	19 <sup>a</sup>	2.6 <sup>a</sup>	3.9 <sup>a</sup>	<2.5 <sup>a</sup>	<19 <sup>a</sup>	17 <sup>a</sup>	<2.5 <sup>a</sup>	<7.4 <sup>a</sup>	<0.0100	19.8	1.01	<0.500
SVP-5 <sup>b</sup>	3/23/2010	NA	<9,400	<7.7	<2.6	<10	7.2	<4.0 <sup>a</sup>	<3.5	<4.0	<3.1	<14	<4.0	<12	<0.0163	12.0	1.20	<0.815
SVP-5 <sup>b</sup>	3/30/2011	NA	30,000	<120 <sup>a</sup>	26 <sup>a</sup>	<31 <sup>a</sup>	<2.4 <sup>a</sup>	<2.5 <sup>a</sup>	12 <sup>a</sup>	6.7 <sup>a</sup>	<19 <sup>a</sup>	22 <sup>a</sup>	6.3 <sup>a</sup>	17 <sup>a</sup>	0.0184	16.8	2.41	<0.500
SVP-5 <sup>b</sup>	6/8/2011	NA	<7,000	<120 <sup>a</sup>	20 <sup>a</sup>	<31 <sup>a</sup>	<2.4 <sup>a</sup>	2.6 <sup>a</sup>	5.4 <sup>a</sup>	<2.5 <sup>a</sup>	<19 <sup>a</sup>	24 <sup>a</sup>	<2.5 <sup>a</sup>	<7.4 <sup>a</sup>	<0.0100	18.2	1.95	<0.500
Trip Blank	5/28/2009	—	—	<4.8	<1.6	<6.2	<2.4	<2.5	<2.2	<2.5	<1.9	<8.7	<2.5	<4.9	<0.0100	—	—	—
SFAWQCB ESLs <sup>c</sup> Shallow Soil Gas Commercial			29,000	1,800,000	280	NA	1,500	NA	3,300	NA	180,000	58,000	NA	NA	NA	NA	NA	NA

**Notes:**

All results in micrograms per cubic meter ( $\mu\text{g}/\text{m}^3$ ) unless otherwise indicated.

fbg = Feet below grade

% v = Percentage by volume

Volatile organic compounds analyzed by EPA TO-15. All detected analytes tabulated; see laboratory report for a complete list of specific constituents and results.

TPHg = Total petroleum hydrocarbons as gasoline analyzed by EPA Method TO-3M

Helium analyzed by ASTM D-1946 (M)

Oxygen and argon, carbon dioxide, and methane analyzed by ASTM D-1946.

— = Not analyzed

NA = No applicable ESL

ESL = Environmental screening level

<sup>a</sup> = Laboratory method EPA TO-15 was modified to use Tedlar<sup>®</sup> bags instead of Summa canisters.

HISTORICAL SOIL VAPOR ANALYTICAL DATA  
FORMER SHELL SERVICE STATION  
2350 (2368) HARRISON STREET, OAKLAND, CALIFORNIA

b = Near sub-slab soil vapor probes

c = San Francisco Bay Regional Water Quality Control Board commercial land use ESL for soil gas for evaluation of potential vapor intrusion concerns (Table E of *Screening for Environmental Concerns at Sites With Contaminated Soil and Groundwater*, California Regional Water Quality Control Board, Interim Final - November 2007 [Revised May 2008]).

Results in bold equal or exceed applicable ESL.

TABLE 1

GROUNDWATER DATA  
FORMER SHELL SERVICE STATION  
2350 (2368) HARRISON STREET, OAKLAND, CALIFORNIA

Well ID	Date	Oil & Grease (µg/L)	TPHmo (µg/L)	TPHd (µg/L)	TPHg (µg/L)	B (µg/L)	T (µg/L)	E (µg/L)	X (µg/L)	MTBE (µg/L)	TBA (µg/L)	DIPE (µg/L)	ETBE (µg/L)	TAME (µg/L)	1,2-DCA (µg/L)	EDB (µg/L)	TOC (ft MSL)	Depth to Water (ft TOC)	GW Elevation (ft MSL)
S-1	06/09/2008	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	9.93	5.92	4.01
S-1	06/11/2008	2,500	<250	540 a	1,300	46	<5.0	14	<5.0	<5.0	130	34	<10	<10	<2.5	<5.0	9.93	7.45	2.48
S-1	09/17/2008	2,400	<250	550 a	3,100	180	2.7	78	8.6	<1.0	150	30	<2.0	<2.0	<0.50	<1.0	9.93	5.05	4.88
S-1	12/11/2008	<1,000	<250	570 a	2,900	190	3.0	57	6.1	<1.0	160	31	<2.0	<2.0	<0.50	<1.0	9.93	6.87	3.06
S-1	02/25/2009	1,000	<250	620 a	3,300	270	<5.0	69	6.8	<5.0	180	26	<10	<10	<2.5	<5.0	9.93	4.05	5.88
S-1	05/26/2009	<1,000	—	660 a	1,700	230	<5.0	51	5.3	<5.0	170	32	<10	<10	<2.5	<5.0	9.93	3.34	6.59
S-1	11/30/2009	<1,000	—	510 a	2,200	200	3.0	42	2.6	<2.0	150	25	<4.0	<4.0	<1.0	<2.0	9.93	3.72	6.21
S-1	05/18/2010	<1,000	—	710 a	1,600	180	3.0	34	2.3	<2.0	150	25	<4.0	<4.0	<1.0	<2.0	9.93	5.54	4.39
S-1	12/09/2010	<1,000	—	590 a	2,500	140	2.4	40	2.2	<2.0	130	22	<4.0	<4.0	<1.0	<2.0	9.93	3.62	6.31
S-1	06/24/2011	<4,900	—	660 b	3,000	140	2.4	45	2.8	—	—	—	—	—	—	—	9.93	3.13	6.80
S-1	12/15/2011	<3,920	—	631	3,500	160	2.77	53.9	3.20	—	—	—	—	—	—	—	9.93	3.80	6.13
S-2	06/09/2008	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	10.37	6.60	3.77
S-2	06/11/2008	1,300	<250	800 a	960	3.0	<5.0	<5.0	<5.0	<5.0	<50	20	<10	<10	<2.5	<5.0	10.37	6.80	3.57
S-2	09/17/2008	<1,000	<250	490 a	1,700	3.4	<1.0	8.3	1.1	<1.0	16	7.3	<2.0	<2.0	<0.50	<1.0	10.37	6.16	4.21
S-2	12/11/2008	<1,000	280	210	1,800	5.2	<1.0	6.9	1.2	<1.0	23	11	<2.0	<2.0	<0.50	<1.0	10.37	6.08	4.29
S-2	02/25/2009	<1,000	<250	590 a	2,100	7.7	2.6	3.8	2.0	<1.0	28	12	<2.0	<2.0	<0.50	<1.0	10.37	5.34	5.03
S-2	05/26/2009	<1,000	—	570 a	1,200	6.2	1.5	3.6	1.4	—	—	—	—	—	—	—	10.37	5.63	4.74
S-2	11/30/2009	<1,000	—	480 a	1,200	4.7	1.3	1.5	1.5	—	—	—	—	—	—	—	10.37	6.17	4.20
S-2	05/18/2010	1,900	—	740 a	1,300	7.3	2.3	1.1	1.9	—	—	—	—	—	—	—	10.37	5.61	4.76
S-2	12/09/2010	1,300	—	490 a	1,600	7.2	2.6	<1.0	2.5	—	—	—	—	—	—	—	10.37	6.33	4.04
S-2	06/24/2011	<4,900	—	420 b	1,500	9.9	2.1	0.80	3.0	—	—	—	—	—	—	—	10.37	6.16	4.21
S-2	12/15/2011	<3,880	—	728	1,300	5.73	1.76	0.580	2.86	—	—	—	—	—	—	—	10.37	7.00	3.37
S-3	06/09/2008	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	10.49	6.93	3.56
S-3	06/11/2008	2,800	<250	100 a	82	<0.50	<1.0	<1.0	<1.0	<1.0	<10	<2.0	<2.0	<2.0	<0.50	<1.0	10.49	7.45	3.04
S-3	09/17/2008	1,200	<250	<50	<50	<0.50	<1.0	<1.0	<1.0	<1.0	<10	<2.0	<2.0	<2.0	<0.50	<1.0	10.49	6.86	3.63
S-3	12/11/2008	<1,000	<250	92	<50	<0.50	<1.0	<1.0	<1.0	<1.0	<10	<2.0	<2.0	<2.0	<0.50	<1.0	10.49	6.74	3.75
S-3	02/25/2009	<1,000	<250	<50	<50	<0.50	<1.0	<1.0	<1.0	<1.0	<10	<2.0	<2.0	<2.0	<0.50	<1.0	10.49	6.01	4.48
S-3	05/26/2009	<1,000	—	<50	<50	<0.50	<1.0	<1.0	<1.0	—	—	—	—	—	—	—	10.49	6.58	3.91
S-3	11/30/2009	<1,000	—	<50	<50	<0.50	<1.0	<1.0	<1.0	—	—	—	—	—	—	—	10.49	6.72	3.77
S-3	05/18/2010	<1,000	—	<50	<50	<0.50	<1.0	<1.0	<1.0	—	—	—	—	—	—	—	10.49	6.51	3.98
S-3	12/09/2010	<1,000	—	<50	<50	<0.50	<1.0	<1.0	<1.0	—	—	—	—	—	—	—	10.49	6.53	3.96
S-3	06/24/2011	<4,900	—	140 b	<50	<0.50	<0.50	<0.50	<1.0	—	—	—	—	—	—	—	10.49	6.51	3.98
S-3	12/15/2011	<3,880	—	<47.2	<50	<0.500	<0.500	<0.500	<0.500	—	—	—	—	—	—	—	10.49	6.75	3.74

TABLE 1

GROUNDWATER DATA  
FORMER SHELL SERVICE STATION  
2350 (2368) HARRISON STREET, OAKLAND, CALIFORNIA

Well ID	Date	Oil & Grease (µg/L)	TPHmo (µg/L)	TPHd (µg/L)	TPHg (µg/L)	B (µg/L)	T (µg/L)	E (µg/L)	X (µg/L)	MTBE (µg/L)	TBA (µg/L)	DIPE (µg/L)	ETBE (µg/L)	TAME (µg/L)	1,2-DCA (µg/L)	EDB (µg/L)	TOC (ft MSL)	Depth to Water (ft TOC)	GW Elevation (ft MSL)
S-4	06/09/2008	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	10.56	7.11	3.45
S-4	06/11/2008	2,400	<250	56 a	<50	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<2.0	<2.0	<2.0	<0.50	<1.0	10.56	10.92	-0.36
S-4	09/17/2008	<1,000	<250	51	<50	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<2.0	<2.0	<2.0	<0.50	<1.0	10.56	6.43	4.13
S-4	12/11/2008	4,400	<250	140	<50	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<2.0	<2.0	<2.0	<0.50	<1.0	10.56	5.71	4.85
S-4	02/25/2009	<1,000	<250	<50	<50	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<2.0	<2.0	<2.0	<0.50	<1.0	10.56	5.71	4.85
S-4	05/26/2009	<1,000	—	80	<50	<0.50	<1.0	<1.0	<1.0	—	—	—	—	—	—	—	10.56	5.72	4.84
S-4	11/30/2009	<1,000	—	<50	<50	<0.50	<1.0	<1.0	<1.0	—	—	—	—	—	—	—	10.56	5.67	4.89
S-4	05/18/2010	1,200	—	<50	<50	<0.50	<1.0	<1.0	<1.0	—	—	—	—	—	—	—	10.56	6.91	3.65
S-4	12/09/2010	<1,000	—	<50	<50	<0.50	<1.0	<1.0	<1.0	—	—	—	—	—	—	—	10.56	5.41	5.15
S-4	06/24/2011	<4,900	—	56 b	<50	<0.50	<0.50	<0.50	<1.0	—	—	—	—	—	—	—	10.56	5.70	4.86
S-4	12/15/2011	<3,880	—	78.2	<50	<0.500	<0.500	<0.500	<0.500	—	—	—	—	—	—	—	10.56	5.50	5.06
S-5	06/09/2008	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	10.54	6.64	3.90
S-5	06/11/2008	1,700	<250	80 a	<50	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<2.0	<2.0	<2.0	<0.50	<1.0	10.54	6.67	3.87
S-5	09/17/2008	<1,000	<250	64 a	60	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<2.0	<2.0	<2.0	<0.50	<1.0	10.54	6.73	3.81
S-5	12/11/2008	<1,000	<250	63	54	<0.50	<1.0	<1.0	1.1	<1.0	<1.0	<2.0	<2.0	<2.0	<0.50	<1.0	10.54	6.77	3.77
S-5	02/25/2009	<1,000	<250	<50	100	<0.50	<1.0	1.1	1.1	<1.0	<1.0	<2.0	<2.0	<2.0	<0.50	<1.0	10.54	6.65	3.89
S-5	05/26/2009	Well inaccessible		—	—	—	—	—	—	—	—	—	—	—	—	—	10.54	—	—
S-5	11/30/2009	<1,000	—	77	120	<0.50	<1.0	<1.0	1.1	—	—	—	—	—	—	—	10.54	6.91	3.63
S-5	05/18/2010	<1,000	—	140 a	77	<0.50	<1.0	1.1	1.1	—	—	—	—	—	—	—	10.54	6.75	3.79
S-5	12/09/2010	<1,000	—	<50	79	<0.50	<1.0	<1.0	<1.0	—	—	—	—	—	—	—	10.54	6.71	3.83
S-5	06/24/2011	<4,900	—	410 b	<50	<0.50	<0.50	<0.50	<1.0	—	—	—	—	—	—	—	10.54	6.80	3.74
S-5	12/15/2011	<3,920	—	241	51	<0.500	<0.500	1.02	1.86	—	—	—	—	—	—	—	10.54	6.88	3.66
S-6	06/09/2008	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	10.56	6.98	3.58
S-6	06/11/2008	2,700	<250	2,900 a	6,500	180	25	3.9	19.1	<1.0	190	18	<2.0	<2.0	<0.50	<1.0	10.56	7.04	3.52
S-6	09/17/2008	1,200	260 a	3,000 a	8,000	160	16	3.3	14.4	<1.0	65	8.7	<2.0	<2.0	<0.50	<1.0	10.56	6.92	3.64
S-6	12/11/2008	1,200	<250	2,700 a	5,300	120	7.3	<5.0	5.1	<5.0	92	<10	<10	<10	<2.5	<5.0	10.56	4.80	5.76
S-6	02/25/2009	<1,000	<250	1,700 a	6,100	82	6.3	<5.0	<5.0	<5.0	88	<10	<10	<10	<2.5	<5.0	10.56	6.30	4.26
S-6	05/26/2009	<1,000	—	2,100 a	3,400	50	4.0	<1.0	4.6	<1.0	69	7.8	<2.0	<2.0	<0.50	<1.0	10.56	6.87	3.69
S-6	11/30/2009	<1,000	—	950 a	2,200	33	3.6	<1.0	2.1	<1.0	40	4.6	<2.0	<2.0	<0.50	<1.0	10.56	6.94	3.62
S-6	05/18/2010	1,000	—	820 a	1,400	27	5.6	<1.0	2.9	<1.0	62	6.0	<2.0	<2.0	<0.50	<1.0	10.56	6.73	3.83
S-6	12/09/2010	<1,000	—	440 a	1,300	28	4.8	<1.0	2.7	<1.0	34	4.9	<2.0	<2.0	<0.50	<1.0	10.56	6.71	3.85
S-6	06/24/2011	<4,900	—	410 b	860	4.8	1.2	<0.50	<1.0	—	—	—	—	—	—	—	10.56	7.09	3.47
S-6	12/15/2011	<3,880	—	459	720	19.9	3.11	<0.500	2.09	—	—	—	—	—	—	—	10.56	6.03	4.53

GROUNDWATER DATA  
FORMER SHELL SERVICE STATION  
2350 (2368) HARRISON STREET, OAKLAND, CALIFORNIA

Well ID	Date	Oil & Grease (µg/L)	TPHmo (µg/L)	TPHd (µg/L)	TPHg (µg/L)	B (µg/L)	T (µg/L)	E (µg/L)	X (µg/L)	MTBE (µg/L)	TBA (µg/L)	DIPE (µg/L)	ETBE (µg/L)	TAME (µg/L)	1,2-DCA (µg/L)	EDB (µg/L)	TOC (ft MSL)	Depth to Water (ft TOC)	GW Elevation (ft MSL)
---------	------	---------------------	--------------	-------------	-------------	----------	----------	----------	----------	-------------	------------	-------------	-------------	-------------	----------------	------------	--------------	-------------------------	-----------------------

Notes:

Oil & grease (as hexane extractable material) analyzed by EPA Method 1664A

TPHmo = Total petroleum hydrocarbons as motor oil analyzed by EPA Method 8015B (M) with silica gel cleanup

TPHd = Total petroleum hydrocarbons as diesel analyzed by modified EPA Method 8015 with silica gel cleanup unless otherwise noted

TPHg = Total petroleum hydrocarbons as gasoline analyzed by EPA Method 8260B

BTEX = Benzene, toluene, ethylbenzene, and total xylenes analyzed by EPA Method 8260B

MTBE = Methyl tertiary-butyl ether analyzed by EPA Method 8260B

TBA = Tertiary-butyl alcohol analyzed by EPA Method 8260B

DIPE = Di-isopropyl ether analyzed by EPA Method 8260B

ETBE = Ethyl tertiary-butyl ether analyzed by EPA Method 8260B

TAME = Tertiary-amyl methyl ether analyzed by EPA Method 8260B

1,2-DCA = 1,2-Dichloroethane analyzed by EPA Method 8260B

EDB = 1,2-Dibromoethane analyzed by EPA Method 8260B

TOC = Top of casing elevation, in feet relative to mean sea level

GW = Groundwater

µg/L = Micrograms per liter

ft = Feet

MSL = Mean sea level

<x = Not detected at reporting limit x

— = Not analyzed or available

a = The sample chromatographic pattern for TPH does not match the chromatographic pattern of the specific standard. Quantitation of the unknown hydrocarbon(s) in the sample was based upon the specific standard.

b = The sample extract was not subjected to silica gel treatment prior to analysis.

TABLE 3

HISTORICAL GRAB GROUNDWATER ANALYTICAL DATA  
FORMER SHELL SERVICE STATION  
2350 (2368) HARRISON STREET, OAKLAND, CALIFORNIA

Sample ID	Date	O&G	TPHg	TPHd	Benzene	Toluene	Ethyl- benzene	Total Xylenes	MTBE	TBA	DIPE	ETBE	TAME	Naphthalene
HP-1	5/20/2009	111,000	11,000	36,000	<5.0	<10	<10	<10	<10	<100	<20	<20	<20	—
HP-2	5/20/2009	715,000	14,000	58,000	<5.0	<10	<10	<10	<10	<100	<20	<20	<20	—
B-5	6/29/2010	<1,000	59	410 <sup>a</sup>	<0.50	<1.0	<1.0	<1.0	<1.0	<10	<2.0	<2.0	<2.0	<10
B-6	6/29/2010	1,300	<50	160 <sup>a</sup>	<0.50	<1.0	<1.0	<1.0	<1.0	<10	<2.0	<2.0	<2.0	<10
B-7	6/29/2010	<1,000	<50	290	<0.50	<1.0	<1.0	<1.0	<1.0	<10	<2.0	<2.0	<2.0	<10
B-8	6/25/2010	1,100	260	570	<0.50	<1.0	<1.0	<1.0	<1.0	<10	<2.0	<2.0	<2.0	<10
B-9	6/25/2010	1,900	1,300	250 <sup>a</sup>	<0.50	<1.0	<1.0	<1.0	<1.0	<10	<2.0	<2.0	<2.0	<10
B-10	6/25/2010	31,700	6,000	8,900 <sup>c</sup>	<2.5	<5.0	<5.0	<5.0	<5.0	<50	<10	<10	<10	<50
		NA	230	210	46	130	43	100	1,800	18,000	NA	NA	NA	17

Notes:

All results in micrograms per liter ( $\mu\text{g}/\text{l}$ ) unless otherwise indicated.

O&G = Oil and grease as hexane extractable material analyzed by EPA Method 1664 A (Modified)

TPHg = Total petroleum hydrocarbons as gasoline analyzed by EPA Method 8260B

TPHd = Total petroleum hydrocarbons as diesel analyzed by EPA Method 8015B

Benzene, toluene, ethylbenzene, and xylenes analyzed by EPA Method 8260B

MTBE = Methyl tertiary-butyl ether analyzed by EPA Method 8260B

TBA = Tertiary-butyl alcohol analyzed by EPA Method 8260B



TABLE 3

HISTORICAL GRAB GROUNDWATER ANALYTICAL DATA  
FORMER SHELL SERVICE STATION  
2350 (2368) HARRISON STREET, OAKLAND, CALIFORNIA

DIPE = Di-isopropyl ether analyzed by EPA Method 8260B  
ETBE = Ethyl tertiary-butyl ether analyzed by EPA Method 8260B  
TAME = Tertiary-amyl methyl ether analyzed by EPA Method 8260B  
Naphthalene analyzed by EPA Method 8260B  
<x = Not detected at reporting limit x  
— = Not analyzed  
ESL = Environmental screening level  
NA = No applicable ESL

a = The sample chromatographic pattern for TPH does not match the chromatographic pattern of the specified standard. Quantitation of the unknown hydrocarbon(s) in the sample was based on the specified standard.

b = San Francisco Bay Regional Water Quality Control Board (RWQCB) commercial land use ESL for groundwater where groundwater is not a current or potential source of drinking water (Tables B and D of *Screening for Environmental Concerns at Sites With Contaminated Soil and Groundwater*, California Regional Water Quality Control Board, Interim Final - November 2007 [Revised May 2008]).

c = The sample chromatographic pattern for TPH matches the chromatographic pattern of the specified standard but heavier hydrocarbons are also present (or were detected).

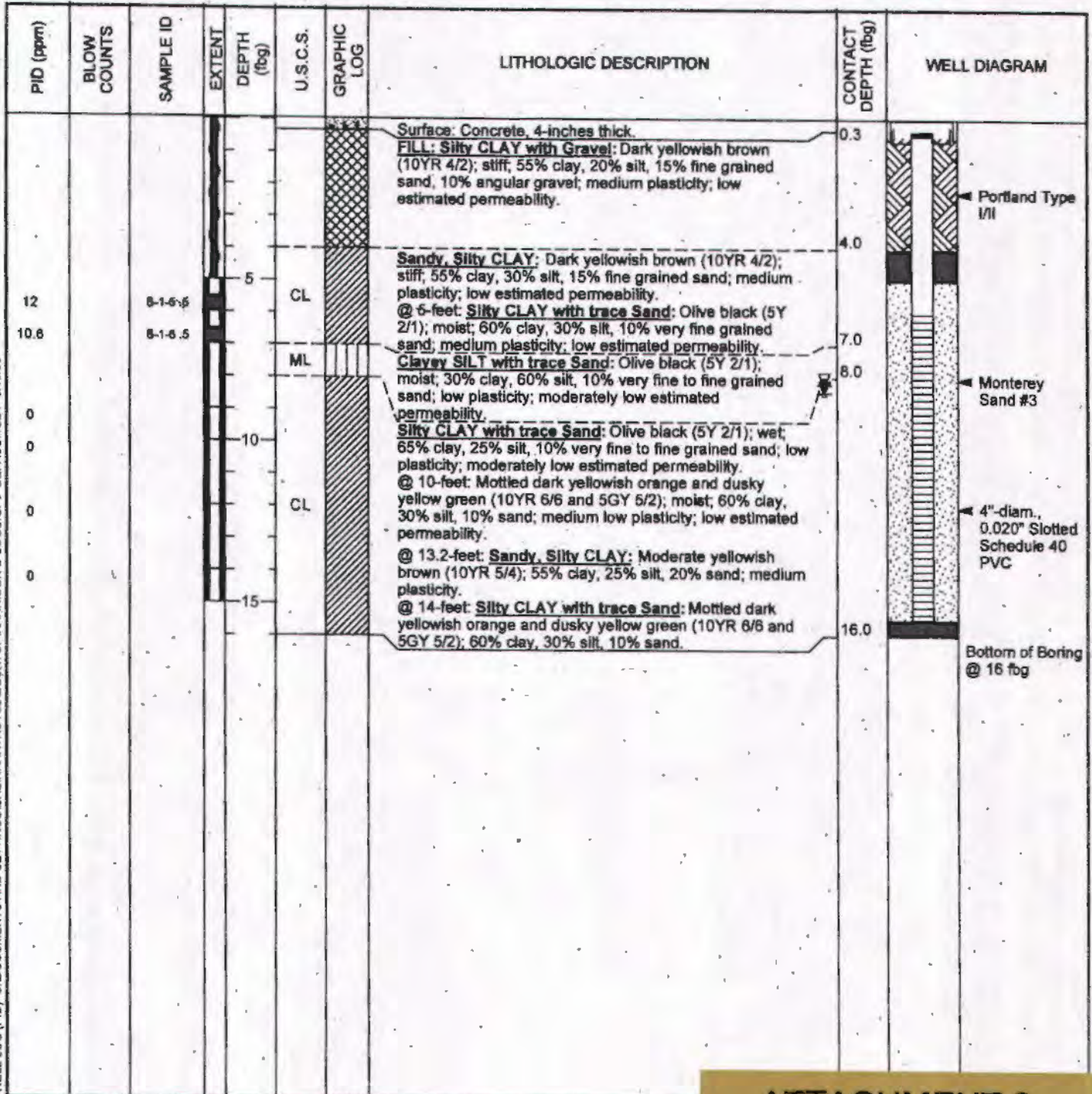
Data in **BOLD** equals or exceeds applicable RWQCB ESL.



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

# BORING/ WELL LOG

CLIENT NAME	Shell Oil Products US	BORING/WELL NAME	S-1
JOB/SITE NAME	Former Shell Service Station	DRILLING STARTED	03-Jun-08
LOCATION	2350 Harrison Street, Oakland, CA	DRILLING COMPLETED	05-Jun-08
PROJECT NUMBER	060119	WELL DEVELOPMENT DATE (YIELD)	NA
DRILLER	WDC Exploration	GROUND SURFACE ELEVATION	NA
DRILLING METHOD	DP/MSA	TOP OF CASING ELEVATION	NA
BORING DIAMETER	10-inch	SCREENED INTERVALS	6 to 15.5 fbg
LOGGED BY	E. Reinhart-Koylu/P. Schaefer	DEPTH TO WATER (First Encountered)	8.2 fbg (05-Jun-08) ▽
REVIEWED BY	P. Schaefer	DEPTH TO WATER (Static)	8.46 fbg (05-Jun-08) ▽
REMARKS	Cleared to 5 fbg using Water Knife		



WELL LOG (PID) C:\DOCUMENTS AND SETTINGS\REINHARTKOYL\UNDESKTOP\HARRISON B-LOGS.GPJ DEFAULT.GDT 6/19/08



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

# BORING/ WELL LOG

CLIENT NAME	Shell Oil Products US	BORING/WELL NAME	S-2
JOB/SITE NAME	Former Shell Service Station	DRILLING STARTED	02-Jun-08
LOCATION	2350 Harrison Street, Oakland, CA	DRILLING COMPLETED	05-Jun-08
PROJECT NUMBER	060119	WELL DEVELOPMENT DATE (YIELD)	NA
DRILLER	WDC Exploration	GROUND SURFACE ELEVATION	NA
DRILLING METHOD	DP/HSA	TOP OF CASING ELEVATION	NA
BORING DIAMETER	10-inch	SCREENED INTERVALS	6 to 15.5 fbg
LOGGED BY	E. Reinhart-Koylu/P. Schaefer	DEPTH TO WATER (First Encountered)	9.0 fbg (05-Jun-08) ▽
REVIEWED BY	P. Schaefer	DEPTH TO WATER (Static)	14.55 fbg (05-Jun-08) ▽
REMARKS	Cleared to 5 fbg using Water Knife		

PID (ppm)	BLOW COUNTS	SAMPLE ID	EXTENT	DEPTH (fbg)	U.S.C.S.	GRAPHIC LOG	LITHOLOGIC DESCRIPTION	CONTACT DEPTH (fbg)	WELL DIAGRAM
				0.5			Surface: Asphalt Top/Concrete, 6-inches thick. FILL: Sandy GRAVEL: 25% sand; 75% gravel (up to 3" diameter); high estimated permeability.	0.5	
				3.0			Silty CLAY: Dark gray (N3); stiff; moist; 65% clay, 35% silt; medium plasticity; very low estimated permeability.	3.0	Portland Type VI
1		S-2-5.5		5	CL		@ 5-feet: Dusky green (5G 3/2); moist; 70% clay, 30% silt; low estimated permeability.		
10.8		S-2-7.0							
				8.0				8.0	Monterey Sand #3
0		S-2-10.5		10	SM		Gravelly SAND with trace Silt: Dark greenish gray (5GY 4/1); slightly moist; 10% silt, 60% sand, 30% gravel; non-plastic; high estimated permeability. Silty CLAY with trace Sand: Mottled dark yellowish orange and dusky brown (10YR 6/6 and 5YR 2/2); moist; 60% clay, 30% silt, 10% very fine grained sand; medium plasticity; low estimated permeability. @ 11.5-feet: Black spots.	9.0	
				15	CL		@ 13-feet: Moderate yellowish brown (10YR 5/4) with black spots.		4"-diam., 0.020" Slotted Schedule 40 PVC
0		S-2-15.5		15.5				16.0	Bottom of Boring @ 16 fbg

WELL LOG (PID) C:\DOCUMENTS AND SETTINGS\REINHARTKOYL\DESKTOP\HARRISON B-LOGS.GPJ DEFAULT.GDT 6/19/08



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

# BORING/ WELL LOG

CLIENT NAME	Shell Oil Products US	BORING/WELL NAME	S-3
JOB/SITE NAME	Former Shell Service Station	DRILLING STARTED	03-Jun-08
LOCATION	2350 Harrison Street, Oakland, CA	DRILLING COMPLETED	05-Jun-08
PROJECT NUMBER	060119	WELL DEVELOPMENT DATE (YIELD)	NA
DRILLER	WDC Exploration	GROUND SURFACE ELEVATION	NA
DRILLING METHOD	DP/HSA	TOP OF CASING ELEVATION	NA
BORING DIAMETER	10-inch	SCREENED INTERVALS	6 to 21 fbg
LOGGED BY	E. Reinhart-Koylu	DEPTH TO WATER (First Encountered)	NA
REVIEWED BY	P. Schaefer	DEPTH TO WATER (Static)	7.87 fbg (05-Jun-08)
REMARKS	Cleared to 5 fbg using Water Knife		

PID (ppm)	BLOW COUNTS	SAMPLE ID	EXTENT DEPTH (fbg)	U.S.C.S.	GRAPHIC LOG	LITHOLOGIC DESCRIPTION	CONTACT DEPTH (fbg)	WELL DIAGRAM
						Surface: Asphalt Top/ Concrete, 4-inches thick. FILL: Sandy GRAVEL with cobbles: Moderate yellowish brown (10YR 5/4); 30% fine to coarse grained sand; 60% fine to coarse gravel, 10% cobbles. @ 2-feet: Fill contains red brick.	0.3	
3.8		S-3-5	5	CL		Silty, Sandy CLAY: Dark gray (N3); stiff; 65% clay, 20% silt, 15% fine grained sand; medium plasticity; low estimated permeability.	3.0	
				SM		Silty, Clayey SAND: Grayish black (N2); medium dense; moist; 20% clay, 30% silt, 50% fine grained sand; medium plasticity; moderate estimated permeability.	5.0	
1.4		S-3-10	10			@ 9-feet: Medium dark gray (N4).	10.0	
				CL		@ 12-feet: Silty CLAY with Sand: Dark yellowish orange (10YR 6/6); very stiff, slightly moist; 70% clay, 20% silt, 5% coarse grained sand; medium plasticity; low estimated permeability.		
1.8		S-3-15	15			@ 14-feet: Silty, Sandy CLAY: 55% clay, 20% silt, 25% fine to coarse grained sand.		
0		S-3-19.5 S-3-20	20			@ 19-feet: Silty, Sandy CLAY: Moderate yellowish brown (10YR 5/4); very stiff, dry; 60% clay, 20% silt, 20% fine grained sand; high plasticity; low estimated permeability.		
						@ 22-feet: Silty CLAY: Stiff, slightly moist; 75% clay, 25% silt.		
0		S-3-24.5	25				25.0	

WELL LOG (PID) C:\DOCUMENTS AND SETTINGS\REINHARTKOYL\DESKTOP\HARRISON B-LOGS.GPJ DEFAULT.GDT 6/19/08



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

# BORING/ WELL LOG

CLIENT NAME	Shell Oil Products US	BORING/WELL NAME	S-4
JOB/SITE NAME	Former Shell Service Station	DRILLING STARTED	02-Jun-08
LOCATION	2350 Harrison Street, Oakland, CA	DRILLING COMPLETED	04-Jun-08
PROJECT NUMBER	060119	WELL DEVELOPMENT DATE (YIELD)	NA
DRILLER	WDC Exploration	GROUND SURFACE ELEVATION	NA
DRILLING METHOD	DP/HSA	TOP OF CASING ELEVATION	NA
BORING DIAMETER	10-inch	SCREENED INTERVALS	6 to 21 fbg
LOGGED BY	E. Reinhart-Koylu	DEPTH TO WATER (First Encountered)	19.0 fbg (04-Jun-08) ▽
REVIEWED BY	P. Schaefer	DEPTH TO WATER (Static)	13.11 fbg (05-Jun-08) ▽
REMARKS	Cleared to 5 fbg using Water Knife		

WELL LOG (PID): C:\DOCUMENTS AND SETTINGS\REINHARTKOYL\DESKTOP\HARRISON B-LOGS.GPJ DEFAULT.GDT 6/19/08

PID (ppm)	BLOW COUNTS	SAMPLE ID	EXTENT DEPTH (fbg)	U.S.C.S.	GRAPHIC LOG	LITHOLOGIC DESCRIPTION	CONTACT DEPTH (fbg)	WELL DIAGRAM
41.5		S-4-6	5	SM		Surface: Asphalt Top/ Concrete, 6-Inches thick. FILL: <b>Sandy GRAVEL with cobbles</b> : Moderate yellowish brown (10YR 5/4); 5% silt, 25% fine to coarse grained sand, 60% fine to coarse gravel, 10% cobbles; non-plastic; high estimated permeability. @ 3-feet: FILL: <b>Silty CLAY with Sand</b> : Grayish black (N2); stiff; 70% clay, 20% silt, 10% fine grained sand; high plasticity; very low estimated permeability.	0.5	 Portland Type III  Monterey Sand #3  4"-diam., 0.020" Slotted Schedule 40 PVC  Bottom of Boring @ 21 fbg
0		S-4-10	10			<b>Silty SAND</b> : Grayish black (N2); loose; wet; 25% silt, 75% sand; non-plastic; moderate estimated permeability.  <b>Silty CLAY</b> : Grayish black (N2); soft; wet; 85% clay, 15% silt; high plasticity; low estimated permeability.	5.0	
0.1		S-4-15	15			@ 10-feet: <b>Silty, Sandy CLAY</b> : Olive gray (5Y 3/2); medium stiff; moist; 55% clay, 20% silt, 25% fine grained sand; high plasticity; moderate estimated permeability. @ 12-feet: Medium light gray (N6); 40% clay, 25% silt, 35% fine to medium grained sand. @ 13-feet: Angular coarse grained sand.	7.0	
0.2		S-4-19.5	19.5			@ 14-feet: <b>Silty CLAY</b> : Dark greenish gray (5GY 4/1); 65% clay, 35% silt; low estimated permeability. @ 15-feet: Mottled dark greenish gray and moderate yellowish brown (5GY 4/1 and 10YR 5/4); 75% clay, 25% silt.	19.0	
0		S-4-20	20			@ 17-feet: Moderate yellowish brown (10YR 5/4) with grayish brown (5YR 3/2) specks (~1 mm in size); stiff; slightly moist; 80% clay, 20% silt. @ 19-feet: Wet.	21.0	
0		S-4-20.5	20.5					



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

# BORING/ WELL LOG

CLIENT NAME	Shell Oil Products US	BORING/WELL NAME	S-5
JOB/SITE NAME	Former Shell Service Station	DRILLING STARTED	03-Jun-08
LOCATION	2350 Harrison Street, Oakland, CA	DRILLING COMPLETED	05-Jun-08
PROJECT NUMBER	060119	WELL DEVELOPMENT DATE (YIELD)	NA
DRILLER	WDC Exploration	GROUND SURFACE ELEVATION	NA
DRILLING METHOD	DP/HSA	TOP OF CASING ELEVATION	NA
BORING DIAMETER	10-inch	SCREENED INTERVALS	6 to 15.5 fbg
LOGGED BY	E. Reinhart-Koylu/P. Schaefer	DEPTH TO WATER (First Encountered)	9.2 fbg (05-Jun-08) ▼
REVIEWED BY	P. Schaefer	DEPTH TO WATER (Static)	10.50 fbg (05-Jun-08) ▼
REMARKS	Cleared to 5 fbg using Water Knife		

PID (ppm)	BLOW COUNTS	SAMPLE ID	EXTENT	DEPTH (fbg)	U.S.C.S.	GRAPHIC LOG	LITHOLOGIC DESCRIPTION	CONTACT DEPTH (fbg)	WELL DIAGRAM
				0.5			Surface: Asphalt.	0.5	<p>Portland Type I/II</p> <p>Monterey Sand #3</p> <p>4"-diam., 0.020" Slotted Schedule 40 PVC</p> <p>Bottom of Boring @ 16 fbg</p>
				2.0			FILL: Sandy GRAVEL: Moderate yellowish brown (10YR 5/4); 5% silt, 30% coarse grained sand, 65% coarse gravel; non-plastic; high estimated permeability.	2.0	
				5	CL		Silty, Sandy CLAY: Dark gray (N3); stiff, 60% clay, 20% silt, 15% sand, 5% gravel; medium plasticity; low estimated permeability.		
92		S-6-8		5	ML		Sandy SILT with trace Clay: Brownish black (5YR 2/1); moist; 5% clay, 70% silt, 25% very fine grained sand.	6.0	
86		S-6-9		10	CL		Silty CLAY with trace Sand: Brownish black (5YR 2/1); moist; 60% clay, 35% silt, 5% sand; moderate estimated permeability. @ 9-feet: Wet.	7.5	
1.5				10	CL		@ 10-feet: Olive gray (5Y 3/2); 60% clay, 30% silt, 10% sand.	9.2	
1.3		S-6-1 2.5		12.5	ML		Clayey SILT with Sand and trace Gravel: Olive gray (5Y 4/1); moist; 25% clay, 50% silt, 20% fine to coarse grained sand, 5% fine gravel.	13.0	
		S-6-1 5.5		15.5	CL		Silty CLAY: Olive gray (5Y 4/1); moist; 60% clay, 40% silt; moderate estimated permeability.	14.0	
				16.0				16.0	

WELL LOG (PID) C:\DOCUMENTS AND SETTINGS\EREINHART\K\UNDESKTOP\HARRISON B-LOGS.GPJ DEFAULT.GDT 6/19/08



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

# BORING/ WELL LOG

CLIENT NAME	Shell Oil Products US	BORING/WELL NAME	S-6
JOB/SITE NAME	Former Shell Service Station	DRILLING STARTED	05-Jun-08
LOCATION	2350 Harrison Street, Oakland, CA	DRILLING COMPLETED	05-Jun-08
PROJECT NUMBER	060119	WELL DEVELOPMENT DATE (YIELD)	NA
DRILLER	WDC Exploration	GROUND SURFACE ELEVATION	NA
DRILLING METHOD	DP/HSA	TOP OF CASING ELEVATION	NA
BORING DIAMETER	10-Inch	SCREENED INTERVALS	8 to 15.5 fbg
LOGGED BY	E. Reinhart-Koylu/P. Schaefer	DEPTH TO WATER (First Encountered)	8.8 fbg (05-Jun-08)
REVIEWED BY	P. Schaefer	DEPTH TO WATER (Static)	7.32 fbg (05-Jun-08)
REMARKS	Cleared to 5 fbg using Water Knife		

WELL LOG (PID) C:\DOCUMENTS AND SETTINGS\REINHARTKOYL\DESKTOP\HARRISON B LOGS.GPJ DEFAULT.GDT 6/19/08

PID (ppm)	BLOW COUNTS	SAMPLE ID	EXTENT	DEPTH (fbg)	U.S.C.S.	GRAPHIC LOG	LITHOLOGIC DESCRIPTION	CONTACT DEPTH (fbg)	WELL DIAGRAM
				0.5			Surface: Asphalt Top/ Concrete, 6-inches thick. FILL: Sandy GRAVEL with Cobbles: Moderate yellowish brown (10YR 5/4); stiff; 5% silt, 20% sand, 60% angular gravel, 15% cobbles; non-plastic; high estimated permeability.	0.5	<p>Portland Type I/II</p> <p>Monterey Sand #3</p> <p>4"-diam., 0.020" Slotted Schedule 40 PVC</p> <p>Bottom of Boring @ 16 fbg</p>
				3.0	CL		Silty, Sandy CLAY: Dark gray (N3); stiff; 65% clay, 20% silt, 15% fine grained sand; medium plasticity; low estimated permeability.	3.0	
1		S-6-6		5	SM		SAND with trace Silt; Greenish black (5GY 2/1); wet; 10% silt, 90% fine to medium grained sand.	7.32	
1		S-6-7.5		10	CL		Silty CLAY with trace Sand: Dark greenish gray (5GY 4/1); wet; 60% clay, 30% silt, 10% sand; medium plasticity; moderate estimated permeability.	10.0	
0				12	CL		⊗ 12-feet: Dark yellowish orange (10YR 8/6); moist; 70% clay, 20% silt, 10% sand.	15.0	
0				15				16.0	



Conestoga-Rovers & Associates  
 5900 Hollis Street, Suite A  
 Emeryville, CA 94608  
 Telephone: 510-420-0700  
 Fax: 510-420-9170

# BORING / WELL LOG

CLIENT NAME	Shell Oil Products US	BORING/WELL NAME	B-1
JOB/SITE NAME	Former Shell Service Station	DRILLING STARTED	19-May-09
LOCATION	2350 Harrison Street, Oakland, CA	DRILLING COMPLETED	20-May-09
PROJECT NUMBER	060119	WELL DEVELOPMENT DATE (YIELD)	NA
DRILLER	Gregg Drilling, C-57 #485165	GROUND SURFACE ELEVATION	NA
DRILLING METHOD	Direct push	TOP OF CASING ELEVATION	NA
BORING DIAMETER	2"	SCREENED INTERVALS	NA
LOGGED BY	E. Reinhart	DEPTH TO WATER (First Encountered)	NA
REVIEWED BY	P. Schaefer	DEPTH TO WATER (Static)	NA
REMARKS	Air knifed to 5 fbg		

WELL LOG (PID) I:\SHELL\B-CHARS\0601-060119-OAKLAND 2350 (2368) HARRISON ST\060119-GINT\060119-GPJ DEFAULT.GDT @1709

PID (ppm)	BLOW COUNTS	SAMPLE ID	EXTENT DEPTH (fbg)	U.S.C.S.	GRAPHIC LOG	LITHOLOGIC DESCRIPTION	CONTACT DEPTH (fbg)	WELL DIAGRAM
				ML		<b>ASPHALT</b> Sandy SILT with gravel (ML); dark yellowish brown (10YR 4/6); moist; 10% clay, 40% silt, 30% fine to coarse sand, 20% fine to coarse gravel; medium plasticity.	0.3	
				CL		<b>CLAY (CL)</b> ; black (2.5Y 2.5/1); moist; 95% clay, 5% silt; high plasticity.  @ 5' - very dark gray (2.5Y 3/1).	2.5	
255		B-1-5.8	5					
208		B-1-7'		ML		Sandy SILT (ML); very dark gray (2.5Y 3/1); wet; 10% clay, 55% silt, 35% fine to coarse sand; medium plasticity.	6.5	
140				CL		Sandy CLAY (CL); very dark gray (2.5Y 3/1); moist; 50% clay, 30% silt, 20% fine sand; medium plasticity.	8.5	
258		B-1-10'	10					
40				ML		Sandy SILT (ML); very dark gray (2.5Y 3/1); moist; 20% clay, 40% silt, 30% fine sand, 10% gravel; medium plasticity; red chert nodules.  @ 12' - strong brown (7.5YR 5/6); moist; 5% clay, 60% silt, 35% fine sand; low plasticity.	10.0	
274		B-1-13'						
118				ML		SILT (ML); strong brown (7.5YR 5/6); moist; 30% clay, 60% silt, 10% fine sand.	14.0	
8.6		B-1-15'	15					
							16.0	Bottom of Boring @ 16 fbg





Conestoga-Rovers & Associates  
 5900 Hollis Street, Suite A  
 Emeryville, CA 94608  
 Telephone: 510-420-0700  
 Fax: 510-420-9170

# BORING / WELL LOG

CLIENT NAME	Shell Oil Products US	BORING/WELL NAME	B-2
JOB/SITE NAME	Former Shell Service Station	DRILLING STARTED	21-May-09
LOCATION	2350 Harrison Street, Oakland, CA	DRILLING COMPLETED	21-May-09
PROJECT NUMBER	060119	WELL DEVELOPMENT DATE (YIELD)	NA
DRILLER	Gregg Drilling, C-57 #485165	GROUND SURFACE ELEVATION	NA
DRILLING METHOD	Direct push	TOP OF CASING ELEVATION	NA
BORING DIAMETER	2"	SCREENED INTERVALS	NA
LOGGED BY	E. Reinhart	DEPTH TO WATER (First Encountered)	NA
REVIEWED BY	P. Schaefer	DEPTH TO WATER (Static)	NA
REMARKS	Air knifed to 5 fbg		

WELL LOG (PID) I:\SHELL\B-CHARS\0601-060119-OAKLAND 2350 (2368) HARRISON ST\060119-GINT.GPJ DEFAULT.GDT 6/17/08

PID (ppm)	BLOW COUNTS	SAMPLE ID	EXTENT DEPTH (fbg)	U.S.C.S.	GRAPHIC LOG	LITHOLOGIC DESCRIPTION	CONTACT DEPTH (fbg)	WELL DIAGRAM
						<b>ASPHALT</b> Sandy SILT with gravel (ML); dark yellowish brown (10YR 4/6); moist; 10% clay, 40% silt, 30% fine to coarse sand, 20% fine to coarse gravel; medium plasticity.	0.3	
				ML		<b>CLAY (CL)</b> ; black (2.5Y 2.5/1); moist; 95% clay, 5% silt; high plasticity. @ 4' - very dark gray (2.5Y 3/1).	3.0	
50		B-2-5.5	5					
280		B-2-7'						
150							8.5	
630		B-2-10'	10	CL		<b>Sandy CLAY (CL)</b> ; dark grayish brown (2.5Y 4/2); moist; 50% clay, 30% silt, 15% fine sand, 5% gravel; medium plasticity; red chert.		← Portland Type III
56						@ 11' - yellowish brown (10YR 5/6); 65% clay, 30% silt, 5% fine sand; medium to high plasticity.	11.0	
82								
130		B-2-15'	15			@ 14' - yellowish brown (10YR 5/4); 80% clay, 20% silt.	15.0	
119						<b>Sandy CLAY (CL)</b> ; olive brown (2.5Y 4/3); moist; 50% clay, 25% silt, 25% fine sand; medium plasticity.	16.0	
								Bottom of Boring @ 16 fbg



Conestoga-Rovers & Associates  
 5900 Hollis Street, Suite A  
 Emeryville, CA 94608  
 Telephone: 510-420-0700  
 Fax: 510-420-9170

# BORING / WELL LOG

CLIENT NAME	Shell Oil Products US	BORING/WELL NAME	B-3
JOB/SITE NAME	Former Shell Service Station	DRILLING STARTED	21-May-09
LOCATION	2350 Harrison Street, Oakland, CA	DRILLING COMPLETED	21-May-09
PROJECT NUMBER	060119	WELL DEVELOPMENT DATE (YIELD)	NA
DRILLER	Gregg Drilling, C-57 #485165	GROUND SURFACE ELEVATION	NA
DRILLING METHOD	Direct push	TOP OF CASING ELEVATION	NA
BORING DIAMETER	2"	SCREENED INTERVALS	NA
LOGGED BY	E. Reinhart	DEPTH TO WATER (First Encountered)	NA
REVIEWED BY	P. Schaefer	DEPTH TO WATER (Static)	NA
REMARKS	Air knifed to 5 fbg		

PID (ppm)	BLOW COUNTS	SAMPLE ID	EXTENT DEPTH (fbg)	U.S.C.S.	GRAPHIC LOG	LITHOLOGIC DESCRIPTION	CONTACT DEPTH (fbg)	WELL DIAGRAM
						<b>ASPHALT</b> <b>CLAY (CL)</b> ; black (2.5Y 2.5/1); moist; 95% clay, 5% silt; high plasticity.	0.3	
277		B-3-5.5'	5	CL				
215								
207						<b>CLAY with sand (CL)</b> ; very dark gray (2.5Y 3/1); moist; 80% clay, 5% silt, 15% fine to medium sand; high plasticity.		← Portland Type III
213		B-3-10'	10					
177						<b>Clayey SAND (SC)</b> ; dark gray (2.5Y 4/1); moist; 25% clay, 25% silt, 50% fine to medium sand. @ 12' - olive brown (2.5Y 4/3).	11.0	
137				SC				
16								
8		B-3-15'	15	ML		<b>SILT with sand (ML)</b> ; yellowish brown (10YR 5/6); moist; 25% clay, 60% silt, 15% fine sand; medium plasticity.	14.0	
9							16.0	
								Bottom of Boring @ 16 fbg

WELL LOG (PID) 1\SHHELL16-CHARS0601-060119-OAKLAND 2350 (2366) HARRISON ST\060119-GINT.GPJ DEFAULT.GDT 8/17/09



Conestoga - Rovers & Associates  
 5900 Hollis Street, Suite A  
 Emeryville, CA, 94608  
 Telephone: 510-420-0700  
 Fax: 510-420-9170

# BORING / WELL LOG

CLIENT NAME	Shell Oil Products US	BORING/WELL NAME	B-4
JOB/SITE NAME	Former Shell Service Station	DRILLING STARTED	19-May-09
LOCATION	2350 Harrison Street, Oakland, CA	DRILLING COMPLETED	20-May-09
PROJECT NUMBER	060119	WELL DEVELOPMENT DATE (YIELD)	NA
DRILLER	Gregg Drilling, C-57 #485165	GROUND SURFACE ELEVATION	NA
DRILLING METHOD	Direct push	TOP OF CASING ELEVATION	NA
BORING DIAMETER	2"	SCREENED INTERVALS	NA
LOGGED BY	E. Reinhart	DEPTH TO WATER (First Encountered)	NA
REVIEWED BY	P. Schaefer	DEPTH TO WATER (Static)	NA
REMARKS	Air knifed to 5 fbg		

PID (ppm)	BLOW COUNTS	SAMPLE ID	EXTENT	DEPTH (fbg)	U.S.C.S.	GRAPHIC LOG	LITHOLOGIC DESCRIPTION	CONTACT DEPTH (fbg)	WELL DIAGRAM
				0.3			<b>ASPHALT</b> Sandy SILT with gravel (ML); dark yellowish brown (10YR 4/6); moist; 50% silt, 30% fine to coarse sand, 20% coarse gravel; low to medium plasticity.	0.3	
				3.0	ML		@ 2' - 60% silt, 30% fine to coarse sand, 10% coarse gravel.	3.0	
				5.0			Poorly graded SAND (SP); dark gray (2.5Y 4/1); moist; 5% silt, 95% fine to medium sand.	5.0	
628		B-4-5.5'		5.0	SP		very dark gray (10YR 3/1); wet.	5.0	
18				9.0				9.0	
28		B-4-10'		10.0	CL		CLAY (CL); very dark gray (2.5Y 3/1); moist; 95% clay, 5% silt; high plasticity.	10.0	
17.5				10.5			Poorly graded SAND (SP); dark gray (2.5Y 4/1); moist; 5% silt, 95% fine to medium sand.	10.5	
20				12.5	SP			12.5	
				14.0	CL		CLAY (CL); very dark gray (5Y 3/1); moist; 60% clay, 40% silt; high plasticity.	14.0	
50		B-4-15'		15.0			SILT with sand (ML); very dark gray (5Y 3/1); moist; 25% clay, 50% silt, 25% fine to medium sand; medium plasticity.	15.0	
11.2				16.0	ML		@ 15' - yellowish brown (10YR 5/6); 35% clay, 45% silt, 20% fine sand.	16.0	
									Bottom of Boring @ 16 fbg

WELL LOG (PID) [SHELL] [CHARS] [060119-OAKLAND 2350 (2398) HARRISON ST] [060119-GINT] [060119-GINT.GPJ DEFAULT.GDT 6/28/09]



Conestoga-Rovers & Associates  
 5900 Hollis Street, Suite A  
 Emeryville, CA 94608  
 Telephone: 510-420-0700  
 Fax: 510-420-9170

# BORING / WELL LOG

CLIENT NAME	Shell Oil Products US	BORING/WELL NAME	B-5
JOB/SITE NAME	Former Shell Service Station	DRILLING STARTED	28-Jun-10
LOCATION	2350 (2358) Harrison Street, Oakland, CA	DRILLING COMPLETED	29-Jun-10
PROJECT NUMBER	060119	WELL DEVELOPMENT DATE (YIELD)	NA
DRILLER	Gregg Drilling, C-57 #485165	GROUND SURFACE ELEVATION	NA
DRILLING METHOD	Direct push	TOP OF CASING ELEVATION	NA
BORING DIAMETER	2"	SCREENED INTERVALS	13-15 fbg
LOGGED BY	E. Swan	DEPTH TO WATER (First Encountered)	10 fbg (28-Jun-10)
REVIEWED BY	P. Schaefer	DEPTH TO WATER (Static)	NA
REMARKS	Air knifed to 5 fbg		

PID (ppm)	BLOW COUNTS	SAMPLE ID	EXTENT	DEPTH (fbg)	U.S.C.S.	GRAPHIC LOG	LITHOLOGIC DESCRIPTION	CONTACT DEPTH (fbg)	WELL DIAGRAM
				0.2			GRASS SILT with Sand (ML); dark brown (10YR 3/3); dry; 5% clay, 70% silt, 25% fine grained sand; low plasticity.		
2		B-5-5.5 ft		5	ML				
0		B-5-7 ft		7.5	SM		Silty SAND (SM); greenish black (10Y 2.5/1); moist; 20% silt, 80% fine grained sand; non-plastic.		Portland Type III
				10.0	CL		Sandy CLAY (CL); greenish black (10Y 2.5/1); wet; 70% clay, 30% fine to medium grained sand; low to medium plasticity.		
				12.5			@ 12.5' - CLAY with Sand (CL); 75% clay, 25% sand; medium plasticity.		
				13.5			@ 13.5' - 85% clay, 15% sand.		
				15.0					Bottom of Boring @ 15 fbg

WELL LOG (PID) I:\SHELL\8-CHARS\0601-060119-GINT.GPJ DEFAULT.GDT 9/22/10



Conestoga-Rovers & Associates  
 5900 Hollis Street, Suite A  
 Emeryville, CA 94608  
 Telephone: 510-420-0700  
 Fax: 510-420-9170

# BORING / WELL LOG

CLIENT NAME	Shell Oil Products US	BORING/WELL NAME	B-6
JOB/SITE NAME	Former Shell Service Station	DRILLING STARTED	28-Jun-10
LOCATION	2350 (2368) Harrison Street, Oakland, CA	DRILLING COMPLETED	29-Jun-10
PROJECT NUMBER	060119	WELL DEVELOPMENT DATE (YIELD)	NA
DRILLER	Gregg Drilling, C-57 #485165	GROUND SURFACE ELEVATION	NA
DRILLING METHOD	Direct push	TOP OF CASING ELEVATION	NA
BORING DIAMETER	2"	SCREENED INTERVALS	13-15 fbg
LOGGED BY	E. Swan	DEPTH TO WATER (First Encountered)	13 fbg (28-Jun-10)
REVIEWED BY	P. Schaefer	DEPTH TO WATER (Static)	NA
REMARKS	Air knifed to 5 fbg		

PID (ppm)	BLOW COUNTS	SAMPLE ID	EXTENT DEPTH (fbg)	U.S.C.S. GRAPHIC LOG	LITHOLOGIC DESCRIPTION	CONTACT DEPTH (fbg)	WELL DIAGRAM
			0.2	CL-N	<b>GRASS</b> <b>SILT (ML)</b> ; very dark grayish brown (2.5Y 3/2); moist; 30% clay, 60% silt, 10% fine grained sand; medium plasticity.	0.2	<p>Portland Type III</p> <p>Bottom of Boring @ 15 fbg</p>
0		B-6-5.5 ft	5	ML		6.0	
0		B-6-7 ft		CL	<b>CLAY (CL)</b> ; very dark gray (2.5Y 3/1); moist; 60% clay, 30% silt, 10% fine grained sand; medium plasticity.		
0			10	SM	<b>Silty SAND (SM)</b> ; very dark gray (2.5Y 3/1); moist; 40% silt, 60% fine grained sand; non-plastic.	11.0	
0			15		@ 13' - wet	15.0	

WELL LOG (PID) \SHELL\B-CHARS\0601-060119-1064AE2-1060119-GINT.GPJ DEFAULT.GDT 9/23/10



Conestoga-Rovers & Associates  
 5900 Hollis Street, Suite A  
 Emeryville, CA 94608  
 Telephone: 510-420-0700  
 Fax: 510-420-9170

# BORING / WELL LOG

CLIENT NAME	Shell Oil Products US	BORING/WELL NAME	B-7
JOB/SITE NAME	Former Shell Service Station	DRILLING STARTED	28-Jun-10
LOCATION	2350 (2368) Harrison Street, Oakland, CA	DRILLING COMPLETED	28-Jun-10
PROJECT NUMBER	060119	WELL DEVELOPMENT DATE (YIELD)	NA
DRILLER	Gregg Drilling, C-57 #485185	GROUND SURFACE ELEVATION	NA
DRILLING METHOD	Direct push	TOP OF CASING ELEVATION	NA
BORING DIAMETER	2"	SCREENED INTERVALS	12-15 fbg
LOGGED BY	E. Swan	DEPTH TO WATER (First Encountered)	10 fbg (28-Jun-10)
REVIEWED BY	P. Scheefer	DEPTH TO WATER (Static)	NA
REMARKS	Air knifed to 5 fbg		

PID (ppm)	BLOW COUNTS	SAMPLE ID	EXTENT	DEPTH (fbg)	U.S.C.S.	GRAPHIC LOG	LITHOLOGIC DESCRIPTION	CONTACT DEPTH (fbg)	WELL DIAGRAM
				0.4			<b>ASPHALT</b>	0.4	
				4.0	ML		<b>SILT with Sand (ML)</b> ; brown (10YR 5/3); dry; 5% clay, 80% silt, 15% fine grained sand; low plasticity.	4.0	
0		B-7-5.5R		5	CL		<b>CLAY (CL)</b> ; very dark gray (2.5Y 3/1); moist; 75% clay, 25% silt; high plasticity.	6.0	
0		B-7-7 R		6.0	SM		<b>Silty SAND (SM)</b> ; very dark gray (2.5Y 3/1); 15% silt, 85% fine to medium grained sand; non-plastic.	8.0	
				8.0	CL		<b>CLAY (CL)</b> ; very dark gray (2.5Y 3/1); moist; 75% clay, 25% silt; high plasticity.	10.0	
0				10			<b>Silty SAND (SM)</b> ; very dark gray (2.5Y 3/1); wet; 20% silt, 80% fine to medium grained sand; non-plastic.	10.0	
0				15	SM			15.0	Bottom of Boring @ 15 fbg

WELL LOG (PID) I:\SHELL\6-CHARS\0601-060119-1064AE2-1060119-GINT.GPJ.DEFAULT.GDT 9/22/10



Conestoga-Rovers & Associates  
 5900 Hollis Street, Suite A  
 Emeryville, CA 94608  
 Telephone: 510-420-0700  
 Fax: 510-420-9170

# BORING / WELL LOG

CLIENT NAME	Shell Oil Products US	BORING/WELL NAME	HP-2
JOB/SITE NAME	Former Shell Service Station	DRILLING STARTED	19-May-09
LOCATION	2350 Harrison Street, Oakland, CA	DRILLING COMPLETED	20-May-09
PROJECT NUMBER	060119	WELL DEVELOPMENT DATE (YIELD)	NA
DRILLER	Gregg Drilling, C-57 #485165	GROUND SURFACE ELEVATION	NA
DRILLING METHOD	Direct push	TOP OF CASING ELEVATION	NA
BORING DIAMETER	2"	SCREENED INTERVALS	NA
LOGGED BY	E. Reinhart	DEPTH TO WATER (First Encountered)	5.00 fbg
REVIEWED BY	P. Schaefer	DEPTH TO WATER (Static)	NA
REMARKS	Air knifed to 5 fbg		

PID (ppm)	BLOW COUNTS	SAMPLE ID	EXTENT DEPTH (fbg)	U.S.C.S.	GRAPHIC LOG	LITHOLOGIC DESCRIPTION	CONTACT DEPTH (fbg)	WELL DIAGRAM
			0			CONCRETE	0.5	
			5			Boring air-knifed to 5 fbg.; direct push to 10 fbg.; grab groundwater sample collected using hydropunch with screened interval of 6-10 fbg.; soil types not logged.		
			10					Bottom of Boring @ 10 fbg

WELL LOG (PID) \NHELLV6-CHARS0601-060119-OAKLAND 2350 (2368) HARRISON ST060119-GINT060119-GINT.GPJ DEFAULT.GDT 6/17/09



Conestoga-Rovers & Associates  
 5900 Hollis Street, Suite A  
 Emeryville, CA 94608  
 Telephone: 510-420-0700  
 Fax: 510-420-9170

# BORING / WELL LOG

CLIENT NAME	Shell Oil Products US	BORING/WELL NAME	HP-1
JOB/SITE NAME	Former Shell Service Station	DRILLING STARTED	19-May-09
LOCATION	2350 Harrison Street, Oakland, CA	DRILLING COMPLETED	20-May-09
PROJECT NUMBER	060119	WELL DEVELOPMENT DATE (YIELD)	NA
DRILLER	Gregg Drilling, C-57 #485165	GROUND SURFACE ELEVATION	NA
DRILLING METHOD	Direct push	TOP OF CASING ELEVATION	NA
BORING DIAMETER	2"	SCREENED INTERVALS	NA
LOGGED BY	E. Reinhart	DEPTH TO WATER (First Encountered)	4.50 fbg
REVIEWED BY	P. Schaefer	DEPTH TO WATER (Static)	NA
REMARKS	Air knifed to 5 fbg		

PID (ppm)	BLOW COUNTS	SAMPLE ID	EXTENT DEPTH (fbg)	U.S.C.S.	GRAPHIC LOG	LITHOLOGIC DESCRIPTION	CONTACT DEPTH (fbg)	WELL DIAGRAM
			0.8			CONCRETE	0.8	
			5			Boring air-knifed to 5 fbg.; direct-push to 10 fbg.; grab groundwater sample collected using hydropunch with a screened interval of 6-10 fbg.; soil types not logged.		
			10					Bottom of Boring @ 10 fbg

WELL LOG (PID) 1:8HELLIS-CHARS0001-060119-OAKLAND 2350 (2398) HARRISON ST060119-GINT060119-GINT.GPJ DEFAULT.GDT @17/09

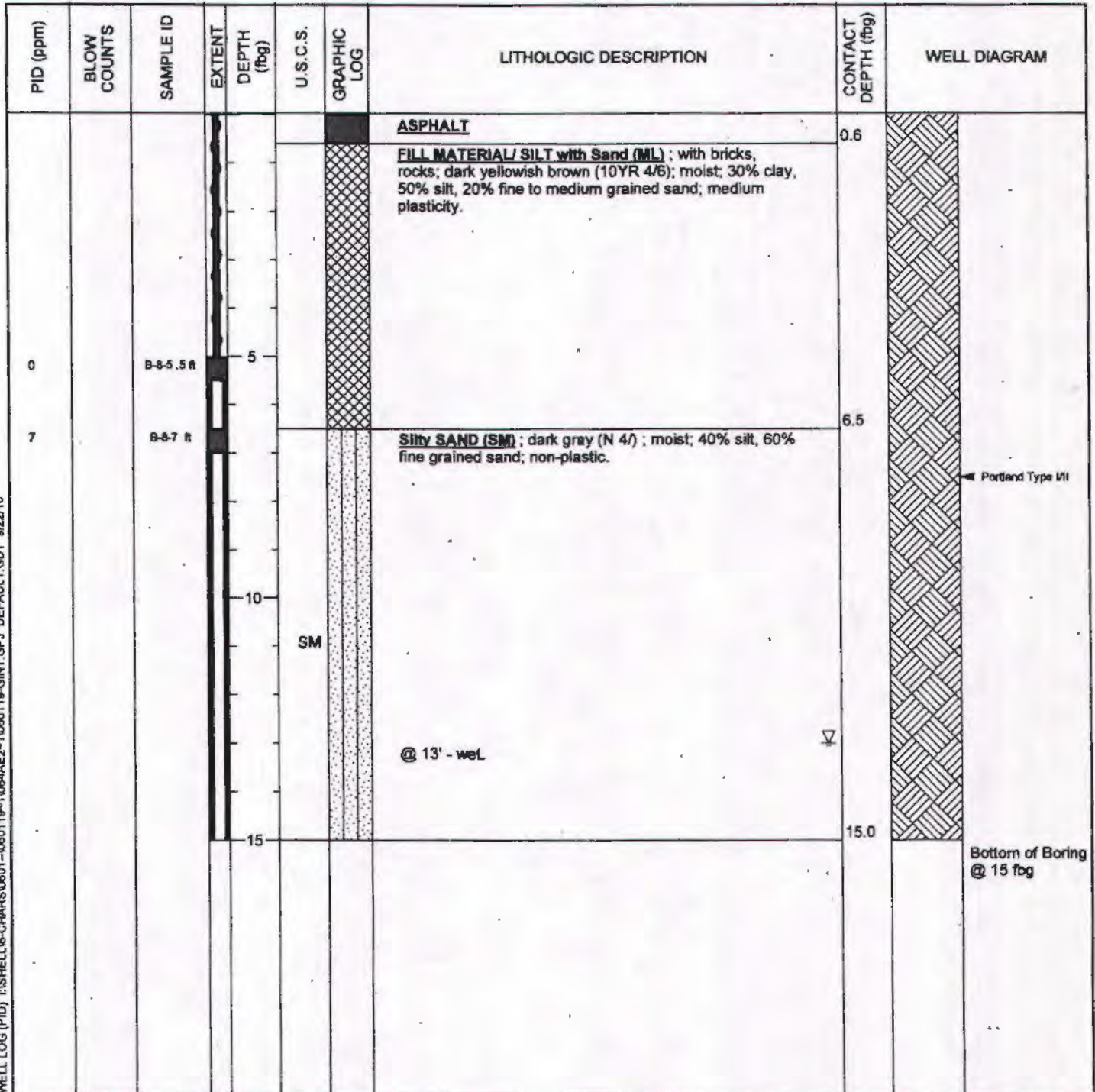




Conestoga-Rovers & Associates  
 5900 Hollis Street, Suite A  
 Emeryville, CA 94608  
 Telephone: 510-420-0700  
 Fax: 510-420-9170

# BORING / WELL LOG

CLIENT NAME	Shell Oil Products US	BORING/WELL NAME	B-6
JOB/SITE NAME	Former Shell Service Station	DRILLING STARTED	24-Jun-10
LOCATION	2350 (2368) Harrison Street, Oakland, CA	DRILLING COMPLETED	25-Jun-10
PROJECT NUMBER	060119	WELL DEVELOPMENT DATE (YIELD)	NA
DRILLER	Gregg Drilling, C-57 #485165	GROUND SURFACE ELEVATION	NA
DRILLING METHOD	Direct push	TOP OF CASING ELEVATION	NA
BORING DIAMETER	2"	SCREENED INTERVALS	13-15 fbg
LOGGED BY	E. Swan	DEPTH TO WATER (First Encountered)	13 fbg (24-Jun-10)
REVIEWED BY	P. Schaefer	DEPTH TO WATER (Static)	NA
REMARKS	Air knifed to 5 fbg		



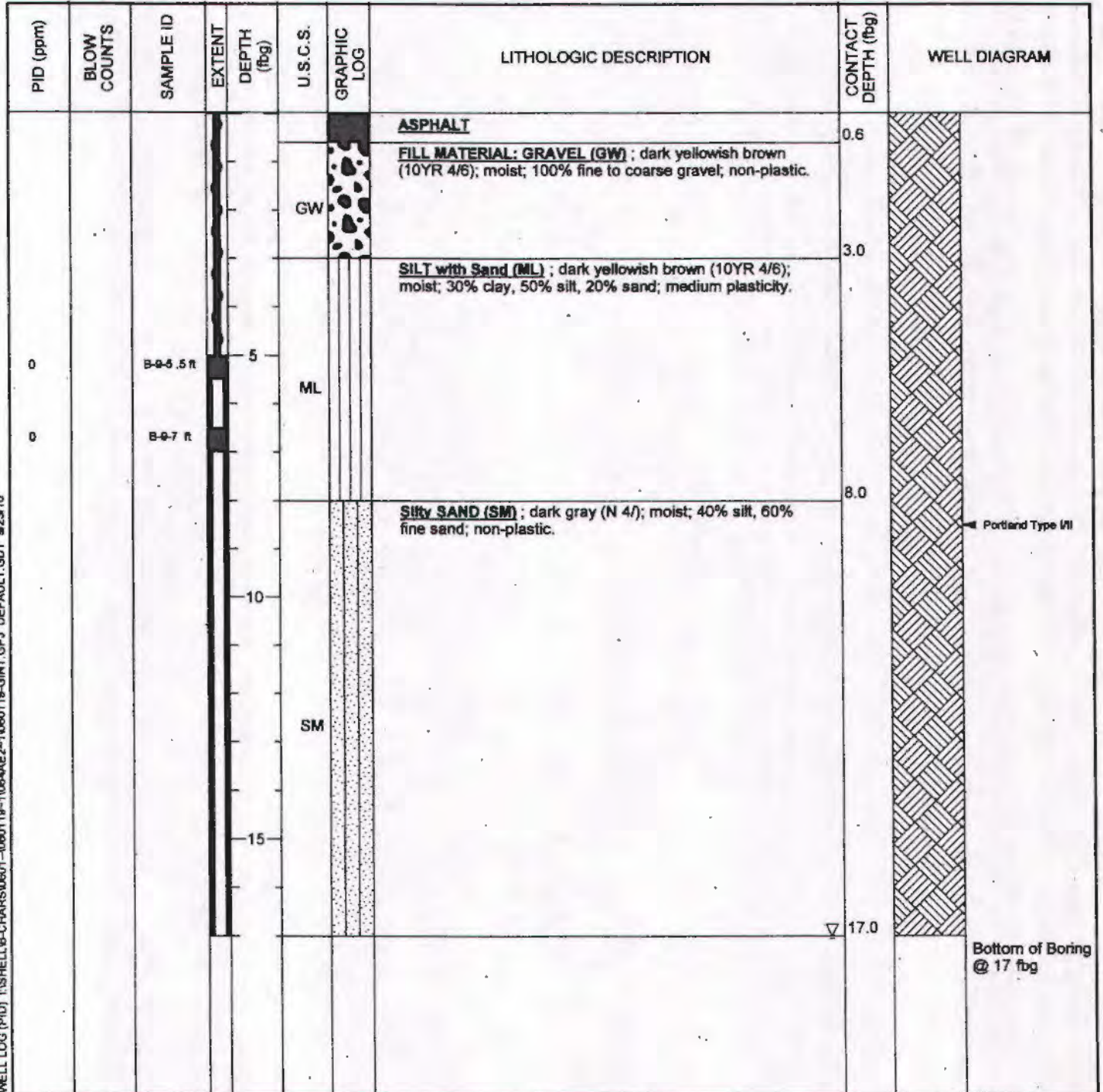
WELL LOG (PID) \SHELL\CHARS0601-060119-1064AE2-1060119-GINT.GPJ DEFAULT.GDT 9/22/10



Conestoga-Rovers & Associates  
 5900 Hollis Street, Suite A  
 Emeryville, CA 94608  
 Telephone: 510-420-0700  
 Fax: 510-420-9170

# BORING / WELL LOG

CLIENT NAME	Shell Oil Products US	BORING/WELL NAME	B-9
JOB/SITE NAME	Former Shell Service Station	DRILLING STARTED	24-Jun-10
LOCATION	2350 (2368) Harrison Street, Oakland, CA	DRILLING COMPLETED	25-Jun-10
PROJECT NUMBER	060119	WELL DEVELOPMENT DATE (YIELD)	NA
DRILLER	Gregg Drilling, C-57 #485165	GROUND SURFACE ELEVATION	NA
DRILLING METHOD	Direct push	TOP OF CASING ELEVATION	NA
BORING DIAMETER	2"	SCREENED INTERVALS	15-17 fbg
LOGGED BY	E. Swan	DEPTH TO WATER (First Encountered)	17 fbg
REVIEWED BY	P. Schaefer	DEPTH TO WATER (Static)	NA
REMARKS	Air knifed to 5 fbg		



WELL LOG (PID) I:\SHELL\B-CHARS\0601-1060119-1\06-4E2-1\060119-GINT.GPJ DEFAULT.GDT 9/23/10



Conestoga-Rovers & Associates  
 5900 Hollis Street, Suite A  
 Emeryville, CA 94608  
 Telephone: 510-420-0700  
 Fax: 510-420-9170

# BORING / WELL LOG

CLIENT NAME	Shell Oil Products US	BORING/WELL NAME	B-10
JOB/SITE NAME	Former Shell Service Station	DRILLING STARTED	24-Jun-10
LOCATION	2350 (2368) Harrison Street, Oakland, CA	DRILLING COMPLETED	25-Jun-10
PROJECT NUMBER	060119	WELL DEVELOPMENT DATE (YIELD)	NA
DRILLER	Gregg Drilling, C-57 #485185	GROUND SURFACE ELEVATION	NA
DRILLING METHOD	Direct push	TOP OF CASING ELEVATION	NA
BORING DIAMETER	2"	SCREENED INTERVALS	10-13 fbg
LOGGED BY	E. Swan	DEPTH TO WATER (First Encountered)	4 fbg (24-Jun-10)
REVIEWED BY	P. Schaefer	DEPTH TO WATER (Static)	NA
REMARKS	Air knifed to 5 fbg		

PID (ppm)	BLOW COUNTS	SAMPLE ID	EXTENT	DEPTH (fbg)	U.S.C.S.	GRAPHIC LOG	LITHOLOGIC DESCRIPTION	CONTACT DEPTH (fbg)	WELL DIAGRAM
							<b>CONCRETE</b>	0.8	
							<b>Silty SAND (SM)</b> ; very dark gray (2.5Y 3/1); moist; 5% clay, 30% silt, 65% fine grained sand; non-plastic.		
							@ 3' - black (N 2.5/).		
							@ 4' - wet.		
3		B-10-6.6 R		5	SM				
27		B-10-7 R							
							<b>SILT with Sand (ML)</b> ; black (N 2.5/); wet ; 25% clay, 60% silt, 15% fine sand; medium plasticity.	7.0	
				10	ML				
								13.0	
									Bottom of Boring @ 13 fbg

WELL LOG (PID) I:\SHELL\6-CHARS\0601-1060119-GINT.GPJ DEFAULT.GDT 9/23/10



Conestoga-Rovers & Associates  
 5900 Hollis Street, Suite A  
 Emeryville, CA 94608  
 Telephone: 510-420-0700  
 Fax: 510-420-9170

# BORING / WELL LOG

CLIENT NAME	Shell Oil Products US	BORING/WELL NAME	SVP-1
JOB/SITE NAME	Former Shell Service Station	DRILLING STARTED	18-May-09
LOCATION	2350 Harrison Street, Oakland, CA	DRILLING COMPLETED	18-May-09
PROJECT NUMBER	060119	WELL DEVELOPMENT DATE (YIELD)	NA
DRILLER	Gregg Drilling, C-57 #485185	GROUND SURFACE ELEVATION	NA
DRILLING METHOD	Air-knife	TOP OF CASING ELEVATION	NA
BORING DIAMETER	6"	SCREENED INTERVALS	4.42 to 4.5 fbg
LOGGED BY	E. Reinhart	DEPTH TO WATER (First Encountered)	NA $\nabla$
REVIEWED BY	P. Schaefer	DEPTH TO WATER (Static)	NA $\nabla$
REMARKS			

PID (ppm)	BLOW COUNTS	SAMPLE ID	EXTENT	DEPTH (fbg)	U.S.C.S.	GRAPHIC LOG	LITHOLOGIC DESCRIPTION	CONTACT DEPTH (fbg)	WELL DIAGRAM
27.4				0.3	ML		<b>ASPHALT</b> <b>Sandy SILT with gravel (ML)</b> ; dark yellowish brown (10YR 4/6); moist; 50% silt, 30% fine to coarse sand, 20% coarse gravel; low to medium plasticity; fill.  @ 2' - 60% silt, 30% fine to coarse sand, 10% coarse gravel.	0.3	<ul style="list-style-type: none"> <li>Flush-grade 5" well box</li> <li>1/4" teflon sample tubing</li> <li>Portland Type III</li> <li>Bentonite Seal</li> <li>Monterey Sand #2/12</li> <li>1/4" diam. HDPE screen</li> <li>Bottom of Boring @ 5 fbg</li> </ul>
				3.0	CL		<b>CLAY (CL)</b> ; black (2.5Y 2.5/1); moist; 95% clay, 5% silt; high plasticity.	3.0	
				5				5.0	

WELL LOG (PID) I:\SHELLUG-CHARS\0601-060119-0AKLAND\2350 (2368) HARRISON ST\060119-GINT.GPJ DEFAULT.GDT 6/17/09



Conestoga-Rovers & Associates  
 5900 Hollis Street, Suite A  
 Emeryville, CA 94608  
 Telephone: 510-420-0700  
 Fax: 510-420-9170

# BORING / WELL LOG

CLIENT NAME	Shell Oil Products US	BORING/WELL NAME	SVP-2
JOB/SITE NAME	Former Shell Service Station	DRILLING STARTED	21-May-09
LOCATION	2350 Harrison Street, Oakland, CA	DRILLING COMPLETED	21-May-09
PROJECT NUMBER	060119	WELL DEVELOPMENT DATE (YIELD)	NA
DRILLER	Gregg Drilling, C-57 #485165	GROUND SURFACE ELEVATION	NA
DRILLING METHOD	Air-knife	TOP OF CASING ELEVATION	NA
BORING DIAMETER	6"	SCREENED INTERVALS	4.42 to 4.5 fbg
LOGGED BY	E. Reinhart	DEPTH TO WATER (First Encountered)	NA
REVIEWED BY	P. Schaefer	DEPTH TO WATER (Static)	NA
REMARKS			

WELL LOG (PID) \\SHELL\6-CHARS\0601-060119-OAKLAND 2350 (2358) HARRISON ST\060119-GINT\060119-GINT.GPJ DEFAULT.GDT 6/17/09

PID (ppm)	BLOW COUNTS	SAMPLE ID	EXTENT	DEPTH (fbg)	U.S.C.S.	GRAPHIC LOG	LITHOLOGIC DESCRIPTION	CONTACT DEPTH (fbg)	WELL DIAGRAM
27.4					ML		<b>ASPHALT</b> Sandy SILT with gravel (ML); dark yellowish brown (10YR 4/6); moist; 50% silt, 30% fine to coarse sand, 20% coarse gravel; medium plasticity.	0.3	<ul style="list-style-type: none"> <li>Flush-grade 5" well box</li> <li>1 1/4" teflon sample tubing</li> <li>Portland Type I/II</li> <li>Bentonite Seal</li> <li>Monterey Sand</li> <li>#2/12</li> <li>1/4" diam. HDPE screen</li> <li>Bottom of Boring @ 5 fbg</li> </ul>
				5	CL		<b>CLAY (CL)</b> ; black (2.5Y 2.5/1); moist; 95% clay, 5% silt; high plasticity.	4.0	



Conestoga-Rovers & Associates  
 5900 Hollis Street, Suite A  
 Emeryville, CA 94608  
 Telephone: 510-420-0700  
 Fax: 510-420-9170

# BORING / WELL LOG

CLIENT NAME	Shell Oil Products US	BORING/WELL NAME	SVP-2a
JOB/SITE NAME	Former Shell Service Station	DRILLING STARTED	26-Feb-10
LOCATION	2350 (2368) Harrison Street, Oakland, CA	DRILLING COMPLETED	26-Feb-10
PROJECT NUMBER	060119	WELL DEVELOPMENT DATE (YIELD)	NA
DRILLER	Gregg Drilling, C-57 #485165	GROUND SURFACE ELEVATION	NA
DRILLING METHOD	Air-knife	TOP OF CASING ELEVATION	NA
BORING DIAMETER	3"	SCREENED INTERVALS	1.75 to 1.85 fbg
LOGGED BY	E. Swan	DEPTH TO WATER (First Encountered)	NA
REVIEWED BY	P. Schaefer	DEPTH TO WATER (Static)	NA
REMARKS	Air knifed to 2 fbg		

PID (ppm)	BLOW COUNTS	SAMPLE ID	EXTENT	DEPTH (fbg)	U.S.C.S.	GRAPHIC LOG	LITHOLOGIC DESCRIPTION	CONTACT DEPTH (fbg)	WELL DIAGRAM
					ML		<b>ASPHALT</b> <b>Sandy SILT with gravel (ML):</b> dark yellowish brown (10YR 4/6); moist; 50% silt, 30% fine to coarse sand, 20% coarse gravel; low to medium plasticity; fill.	0.3	<ul style="list-style-type: none"> <li>▲ Flush-grade 6" well box</li> <li>▲ Portland Type III</li> <li>▲ 1/4" OD Teflon Tubing</li> <li>▲ Bentonite Seal</li> <li>▲ Monterey Sand</li> <li>▲ Vapor Probe Screen</li> </ul> Bottom of Boring @ 2 fbg
								2.0	

WELL LOG (PID) I:\SHELL\6-CHARS\0601-060119-GINT.GPJ DEFAULT.GDT 4/7/10



Conestoga-Rovers & Associates  
 5900 Hollis Street, Suite A  
 Emeryville, CA 94608  
 Telephone: 510-420-0700  
 Fax: 510-420-9170

# BORING / WELL LOG

CLIENT NAME	Shell Oil Products US	BORING/WELL NAME	SVP-3
JOB/SITE NAME	Former Shell Service Station	DRILLING STARTED	19-May-09
LOCATION	2350 Harrison Street, Oakland, CA	DRILLING COMPLETED	19-May-09
PROJECT NUMBER	080119	WELL DEVELOPMENT DATE (YIELD)	NA
DRILLER	Gregg Drilling, C-57 #485185	GROUND SURFACE ELEVATION	NA
DRILLING METHOD	Air-knife	TOP OF CASING ELEVATION	NA
BORING DIAMETER	6"	SCREENED INTERVALS	4.42 to 4.5 fbg
LOGGED BY	E. Reinhart	DEPTH TO WATER (First Encountered)	NA
REVIEWED BY	P. Scheefer	DEPTH TO WATER (Static)	NA
REMARKS			

PID (ppm)	BLOW COUNTS	SAMPLE ID	EXTENT DEPTH (fbg)	U.S.C.S.	GRAPHIC LOG	LITHOLOGIC DESCRIPTION	CONTACT DEPTH (fbg)	WELL DIAGRAM
27.4			0.3	ML		<b>ASPHALT</b> <b>Sandy SILT with gravel (ML)</b> ; dark yellowish brown (10YR 4/6); moist; 50% silt, 30% fine to coarse sand, 20% coarse gravel; low to medium plasticity; fill.  @ 2' - 65% silt, 35% fine to coarse sand.	0.3	<ul style="list-style-type: none"> <li>Flush-grade 5" well box</li> <li>1/4" teflon sample tubing</li> <li>Portland Type I/II</li> <li>Bentonite Seal</li> <li>Monteney Sand</li> <li>#2/12 1/4" diam. HDPE screen</li> <li>Bottom of Boring @ 5 fbg</li> </ul>
			3.5	SW		<b>SAND (SW)</b> ; dark gray (2.5Y 4/1); moist; 5% silt; 95% fine to medium sand.	3.5	
			5				5.0	

WELL LOG (PID) I:\SHELL\6-CHARS\0801-080119-OAKLAND 2350 (2368) HARRISON ST\080119-GINT\080119-GINT.GPJ DEFAULT.GDT 8/17/09