

ALAMEDA COUNTY
HEALTH CARE SERVICES
AGENCY
ALEX BRISCOE, Agency Director



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

July 13, 2010

Mr. Denis Brown (Sent via E-mail to: denis.l.brown@shell.com)

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

Subject: Case Closure for Fuel Leak Case No. RO0002441 and Geotracker Global ID T0600140495,
Shell #13-5683, 9750 Golf Links Road, Oakland, CA 94605

Dear Mr. Brown:

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>).

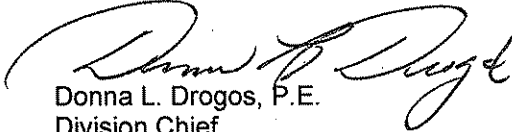
SITE INVESTIGATION AND CLEANUP SUMMARY

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

- Total Petroleum Hydrocarbons as gasoline remain in soil at concentrations up to 3,200 ppm.
- Total Petroleum Hydrocarbons as gasoline remain in groundwater at concentrations up to 520 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 commercial land use 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)

Closure Unit (w/enc)
State Water Resources Control Board
UST Cleanup Fund
P.O. Box 944212
Sacramento, CA 94244-2120

Peter Schaefer (w/o enc)
Conestoga-Rovers & Associates
5900 Hollis Street, Suite A
Emeryville, CA 94608
(Sent via E-mail to: pschaefer@croworld.com)

Donna Drogos, ACEH (Sent via E-mail to: donna.drogos@acgov.org)
Jerry Wickham, ACEH (w/o enc)

Geotracker (w/enc)
File (w/orig enc)



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REMEDIAL ACTION COMPLETION CERTIFICATION

July 13, 2010

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

Subject: Case Closure for Fuel Leak Case No. RO0002441 and Geotracker Global ID T0600140495,
Shell #13-5683, 9750 Golf Links Road, Oakland, CA 94605

Dear Mr. Brown:

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 25296.10 of the Health and Safety Code and with corrective action regulations adopted pursuant to Section 25299.3 of the Health and Safety Code and that no further action related to the petroleum release(s) at the site is required.

This notice is issued pursuant to subdivision (h) of Section 25296.10 of the Health and Safety Code. Please contact our office if you have any questions regarding this matter.

Sincerely,


Ariu Levi
Director
Alameda County Environmental Health

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

I. AGENCY INFORMATION

Date: February 10, 2010

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 #13-5683		
Site Facility Address: 9750 Golf Links Road, Oakland, CA 94605		
RB Case No.: ---	StID No.: ---	LOP Case No.: RO0002441
URF Filing Dates: 02/20/1998	Geotracker ID: T0600140495	APN: 43A-4754-14-3

Responsible Parties	Addresses	Phone Numbers
Denis Brown Shell Oil Products US	20945 S. Wilmington Avenue, Carson, CA 90810	(707) 865-0251

Tank I.D. No	Size in Gallons	Contents	Closed In Place/Removed?	Date
1	550	Waste Oil	Removed	3/7/1995
---	---	---	---	---
---	---	---	---	---
---	---	---	---	---
Piping			Dispensers and piping replaced	4/23/2004

III. RELEASE AND SITE CHARACTERIZATION INFORMATION

Cause and Type of Release: A soil sample collected from below dispenser #4 during piping and dispenser replacement in February 1998 contained 7,800 ppm total petroleum hydrocarbons as gasoline (TPHg) and 37 ppm benzene. Based on the detection in the soil sample, an Underground Storage Tank Unauthorized Release form was filed on February 20, 1998. The volume and source of the release is unknown.		
Site characterization complete? Yes	Date Approved By Oversight Agency: -----	
Monitoring wells installed? Yes	Number: 4	Proper screened interval? Yes
Highest GW Depth Below Ground Surface: 4.86	Lowest Depth:11.49	Flow Direction: West Northwest
Most Sensitive Current Use: Potential drinking water source.		

Summary of Production Wells in Vicinity: No water supply wells are located within ½ mile of the site.	
Are drinking water wells affected? No	Aquifer Name: East Bay Plain
Is surface water affected? No	Nearest SW Name: Arroyo Viejo Creek is approximately 80 feet southwest of site.
Off-Site Beneficial Use Impacts (Addresses/Locations): None	
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
Tank	550-gallon waste oil UST	Transported by Erickson, Inc. to their facility in Richmond, CA for recycling	3/7/1995
Piping	Not reported	Not reported	4/3/2004
Free Product	----	----	----
Soil	42.89 tons	Transported by Manley Trucking Company of Sacramento, CA to Forward Landfill in Manteca, CA for disposal	5/19/1995
Soil	5.62 tons	Transported by Manley Trucking Company of Sacramento, CA to TPS Technologies, Inc. in Adelanto, CA for treatment	3/19/1998
Soil	41 tons	Transported by Manley Trucking Company of Sacramento, CA to Allied Waste Industries' Forward Landfill in Manteca, CA for disposal	5/5/2004
Groundwater	----	----	----

MAXIMUM DOCUMENTED CONTAMINANT CONCENTRATIONS BEFORE AND AFTER CLEANUP
 (Please see Attachments 2 – 5 for additional information on contaminant locations and concentrations)

Contaminant	Vadose Zone Soil (ppm)		Groundwater (ppb)	
	Before	After	Before	After
TPH (Gas)	14,000(1)	3,200(2)	13,000(3)	520(4)
TPH (Diesel)	3,900(5)	3,900(5)	Not analyzed	Not analyzed
TPH (Motor Oil)	Not analyzed	Not analyzed	Not analyzed	Not analyzed
Benzene	100(1)	<0.1(2)	45(6)	0.82(7)
Toluene	440(1)	1.1(2)	2.31(8)	<1.0(7)
Ethylbenzene	130(1)	0.97(9)	130(10)	<1.0(4)
Xylenes	1,000(1)	160(2)	70(3)	<1.0(4)
Heavy Metals (Cd, Cr, Pb, Ni, Zn)	Not analyzed	Not analyzed	Not analyzed	Not analyzed
MTBE	140(11)	0.060(12)	11,800(13)	4.5(14)
Other (8240/8270)	Not analyzed	Not analyzed	Not analyzed	Not analyzed

Footnotes:

- (1) Soil sample SB-1-13' collected at 13 feet bgs on July 6, 1998.
- (2) Soil sample P-1-5 collected at 5 feet bgs on April 23, 2004.
- (3) Groundwater sample from well S-1 on March 23, 2005.
- (4) Groundwater sample from well S-1 on November 10, 2009.
- (5) Soil sample WO1 collected at 7 feet bgs on March 8, 1995.
- (6) Groundwater sample from well S-5 on June 16, 2005.
- (7) Groundwater sample from well S-5 on November 10, 2009.
- (8) Groundwater sample from well S-5 on December 15, 2005.
- (9) Soil sample P-2-5 collected at 5 feet bgs on April 23, 2004.
- (10) Groundwater sample from well S-1 on June 16, 2005.
- (11) MTBE = 140 ppm in sample D-1-4.5 collected at 4.5 feet bgs on April 15, 2004; no other fuel oxygenates analyzed in soil samples collected prior to 2005.
- (12) MTBE in =0.63; TBA = 0.44 ppm; DIPE, TAME, and ETBE <0.01 ppm in soil samples collected in 2005; EDB and EDC not analyzed.
- (13) MTBE = 11,800 ppb in grab groundwater sample from boring SB-2-W on August 25, 1999; TBA = 1,600 ppb; DIPE, TAME, ETBE, EDB, and EDC <2.0 ppb.
- (14) MTBE = 4.5 ppb in groundwater sample from well S-1 on November 10, 2009; TBA = 34 ppb; DIPE, TAME, ETBE, EDB, and EDC <2.0 ppb.

Site History and Description of Corrective Actions:

The site is an active Shell-branded service station that is bordered to the northwest by an on-ramp to I-580, to the southwest by Golf Links Road, to the southeast by Mountain Boulevard, and to the northeast by a former service station. Surrounding land use is mixed commercial and residential. This case closure addresses releases of gasoline detected during dispenser upgrade activities in 1998. A previous release from a former waste oil tank was evaluated under ACEH case RO0002889, which was closed on June 18, 1996.

Previous Case RO2889

On March 7, 1995, a 550-gallon, single-walled, steel waste oil UST was removed. Soil samples collected from the bottom of the excavation at a depth of 7 feet below ground surface (bgs) contained up to 12,000 ppm total oil and grease (TOG), 190 ppm total petroleum hydrocarbons as gasoline (TPHg), and 3,900 ppm total petroleum hydrocarbons as diesel (TPHd). After over excavation, confirmation soil samples from a depth of 11 feet bgs contained up to 62 ppm TOG and TPHg and TPHd were not detected. On December 15, 1995, one soil boring (B-1) was advanced to a depth of 48 feet bgs in the vicinity of the former waste oil UST. Soil samples from the boring contained up to 2.8 ppm TPHd at 30.5 feet bgs and 56 ppm TOG at 40.5 feet bgs. Groundwater was not encountered in the soil boring. Case RO0002889, which addressed the release from the waste oil tank was closed on June 18, 1996.

Current Case RO2441

Soil samples collected beneath one dispenser (D-4) at a depth of 4 feet bgs during station upgrade activities on February 4, 1998, contained up to 7,800 ppm TPHg and 37 ppm benzene. Because no field indications of hydrocarbons were observed, no soil samples were collected beneath the other dispensers.

On July 6 and 31, 1998, one soil boring (SB-1) was installed to a depth of 30 feet bgs in the vicinity of dispenser sample D-4. Up to 14,000 ppm TPHg, 100 ppm benzene, and 23 ppm methyl tertiary-butyl ether (MTBE) were reported in soil samples from boring SB-1. No groundwater samples were collected.

On August 25, 1999, five soil borings (SB-1b and SB-2 though SB-5) were advanced to depths ranging from 16 to 30 feet bgs. Up to 243 ppm TPHg and 2.23 ppm MTBE were detected in soil samples from the boring. No benzene was reported in any of the soil samples analyzed. Grab water samples collected from borings SB-2 and SB-3 contained up to 256 ppb TPHg, 2.42 ppb benzene, and 11,800 ppb MTBE.

During upgrades of the dispensers and piping at this site in April 2004, eight soil samples were collected from depths between 4.5 to 5 feet bgs. Up to 3,200 ppm TPHg and 0.060 ppm MTBE were detected in soil.

On June 14, 2004 one pilot soil boring (PH-1) was advanced to a depth of 68.5 feet bgs in the vicinity of northwestern dispenser sample D-3. No TPHg, benzene, toluene, ethylbenzene, xylenes, or MTBE were detected in the soil samples collected from boring PH-1.

In January and February, 2005, four groundwater monitoring wells (S-1, S-2, S-4, and S-5) were installed at the site. TPHg was reported in two soil samples at a maximum concentration of 21 ppm. Benzene was not detected in any soil samples. MTBE was reported in six of the 15 soil samples, at a maximum concentration of 0.63 ppm. All of the soil samples with reportable concentrations of constituents of concern were collected below groundwater.

The Arroyo Viejo Creek is located both above-ground and below ground in culverts in the area of the site. From south to southeast of the site, the Arroyo Viejo Creek is aboveground and flowing to the west. It flows underground at a culvert inlet approximately 80 feet southwest of the site, and flows beneath Golf Links Road. Ultimately, the Arroyo Viejo Creek daylights again approximately 500 feet to the northwest, near Encina Avenue and Golf Links Road.

Quarterly groundwater monitoring began at the site in March 2005. Depths to water have ranged from 4.86 to 11.49 feet below the top of well casings. During the November 2009 sample event, well S-1 contained 520 ppb TPHg, 4.5 ppb MTBE, and 34 ppb TBA. Well S-5 contained 230 ppb TPHg, 0.82 ppb benzene, 26 ppb MTBE, and 210 ppb TBA. No constituents of concern were detected in wells S-2 and S-4.

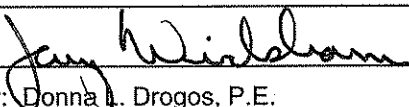
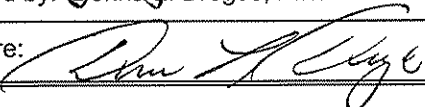
IV. CLOSURE

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: - Case closure for this fuel leak site is granted for the current commercial land use only. If a change in land use to any residential or other conservative land use scenario is proposed at this site, Alameda County Environmental Health (ACEH) must be notified as required by Government Code Section 65850.2.2. ACEH will re-evaluate the case upon receipt of approved development/construction plans.</p> <p>Excavation or construction activities in areas of residual contamination require planning and implementation of appropriate health and safety procedures by the responsible party (or current property owner/developer) prior to and during excavation and construction activities.</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: 4
List Enforcement Actions Taken: None		
List Enforcement Actions Rescinded: ---		

V. ADDITIONAL COMMENTS, DATA, ETC.

<p>Considerations and/or Variances:</p> <p>No soil vapor sampling was conducted for the site. Based on the apparent absence of benzene and minimal concentrations of toluene, ethylbenzene, and xylenes in vadose zone soil samples, and the minimal BTEX concentrations in groundwater samples, soil vapor sampling does not appear to be necessary.</p> <p>The upstream portion of Arroyo Viejo Creek enters a drainage culvert approximately 80 feet southwest of the site. The drainage culvert containing Arroyo Viejo Creek extends beneath Golf Links Road to the southwestern corner of the site and then turns to continue in a northwest direction from the site. It is possible that fill material surrounding the drainage culvert could act as a preferential pathway for groundwater contamination from the site. The slope of the drainage culvert as well as the apparent direction of groundwater flow is to the west northwest from the site. The drainage culvert extends northwest beneath highway I-580 and discharges at the surface on the opposite side of I-580 approximately 500 feet northwest of the site. Based on the low concentrations of petroleum hydrocarbons currently detected in groundwater from monitoring wells at the site and the distance from the site to the point of downgradient surface discharge, the potential for Arroyo Viejo Creek to be a receptor for the site appears to be low.</p> <p>Conclusion:</p> <p>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 based upon the information available in our files to date. No further investigation or cleanup for the fuel leak case is necessary unless a change in land use to any residential or other conservative land use scenario occurs at the site. ACEH staff recommend closure for this site.</p>
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VI. LOCAL AGENCY REPRESENTATIVE DATA


Prepared by: Jerry Wickham	Title: Senior Hazardous Materials Specialist
Signature: 	Date: 02/25/10
Approved by: Donna J. Drogos, P.E.	Title: Chief
Signature: 	Date: 02/25/10

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
Date Submitted to Regional Board: 2/25/10	

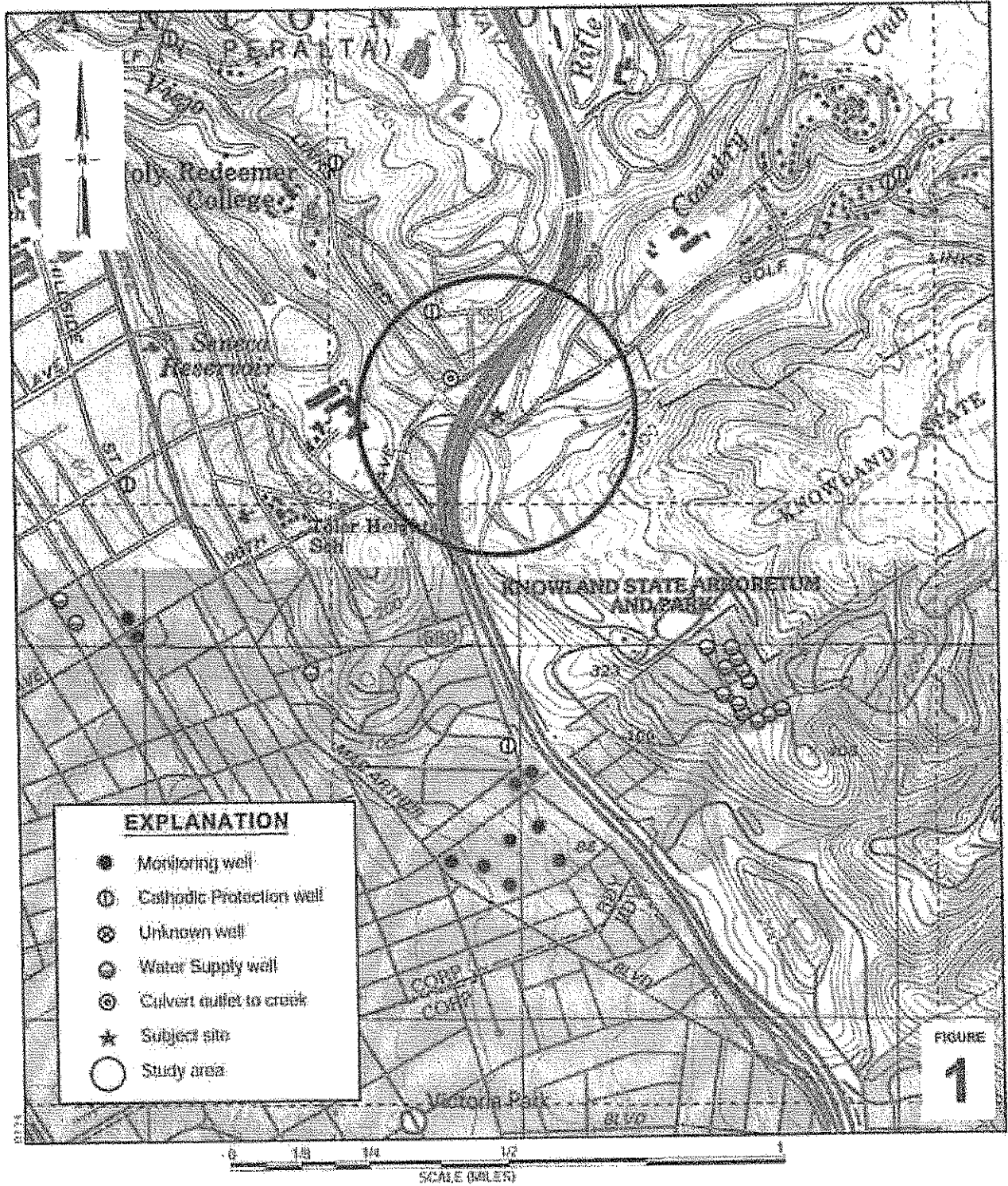
VIII. MONITORING WELL DECOMMISSIONING

Date Requested by ACEH: 03/24/10	Date of Well Decommissioning Report: 07/09/10	
All Monitoring Wells Decommissioned: Yes	Number Decommissioned: 4	Number Retained: 0
Reason Wells Retained: ---		
Additional requirements for submittal of groundwater data from retained wells: ---		
ACEH Concurrence - Signature: 	Date: 07/13/10	

Attachments:

1. Vicinity Map (1 pp)
2. Site Plan, Cross Sections, and Storm Drain Location Map (4 pp)
3. Soil and Groundwater Chemical Concentration Maps and Graphs (6 pp)
4. Soil Analytical Data (7 pp)
5. Groundwater Analytical Data (6 pp)
6. Boring Logs (10 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.



Shell-branded Service Station
 9750 Golf Links Road
 Oakland, California













C A M B R I A

**Site Vicinity/
 Area Well Survey Map**
 (1/4-Mile Radius)

ATTACHMENT 1

EXPLANATION

-  Monitoring well
-  Attempted monitoring well
-  Soil boring
-  Soil sample
-  Storm drain line
-  Former storm drain line
-  Sanitary sewer line
-  Water line
-  Electrical line
-  Flow direction where applicable

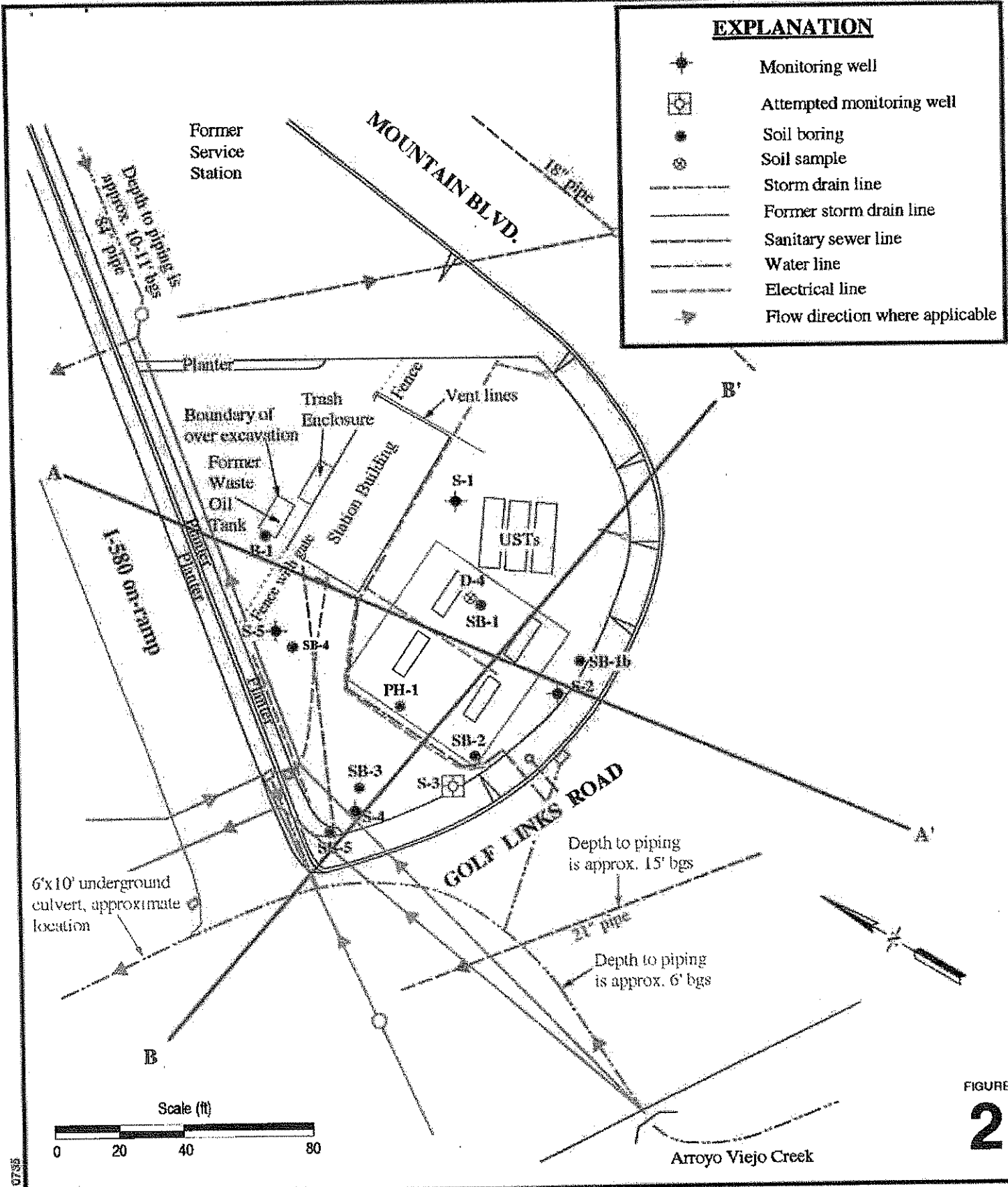


FIGURE
2

Site Plan

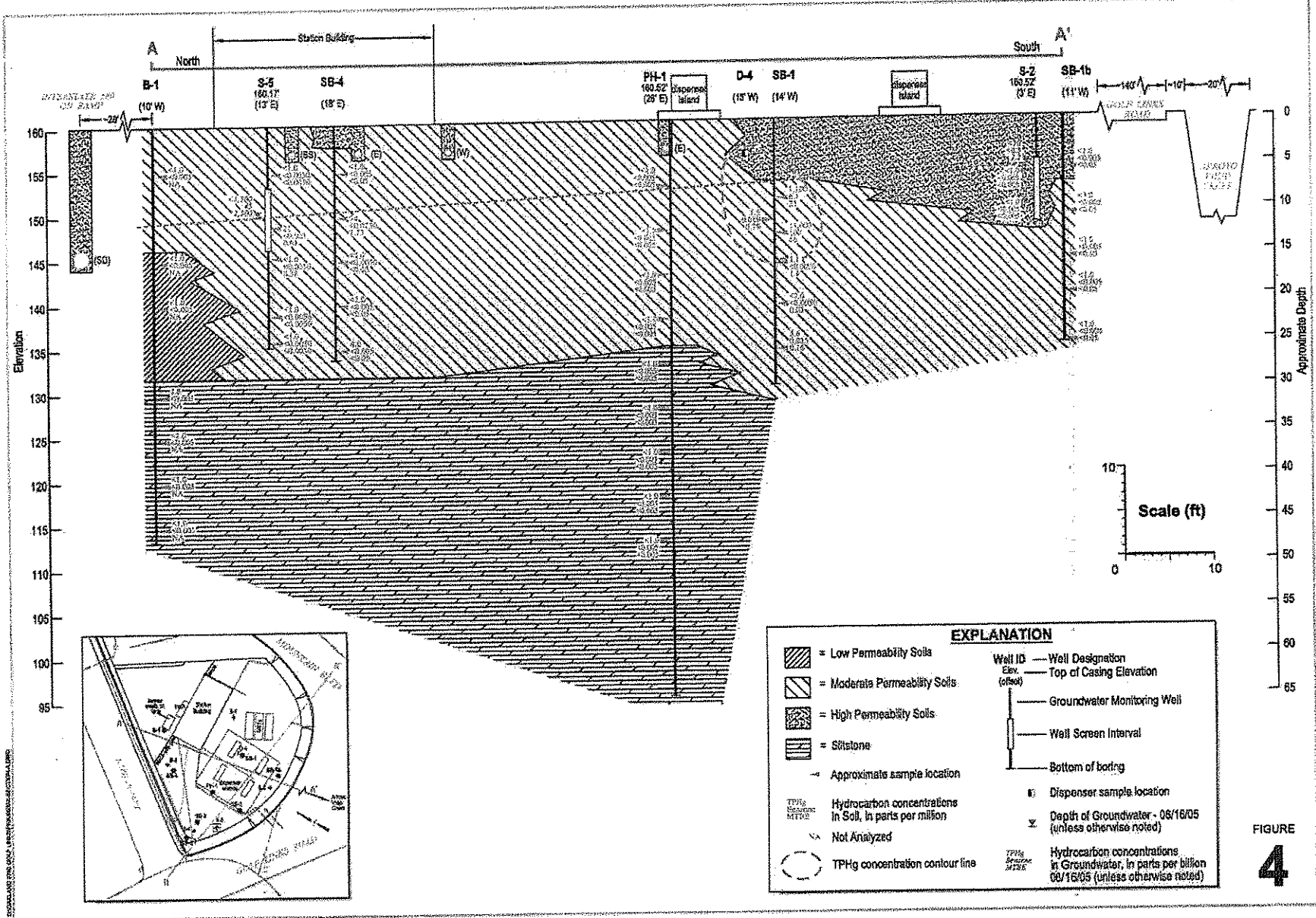
Shell-branded Service Station
 9750 Golf Links Road
 Oakland, California

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ATTACHMENT 2

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060724



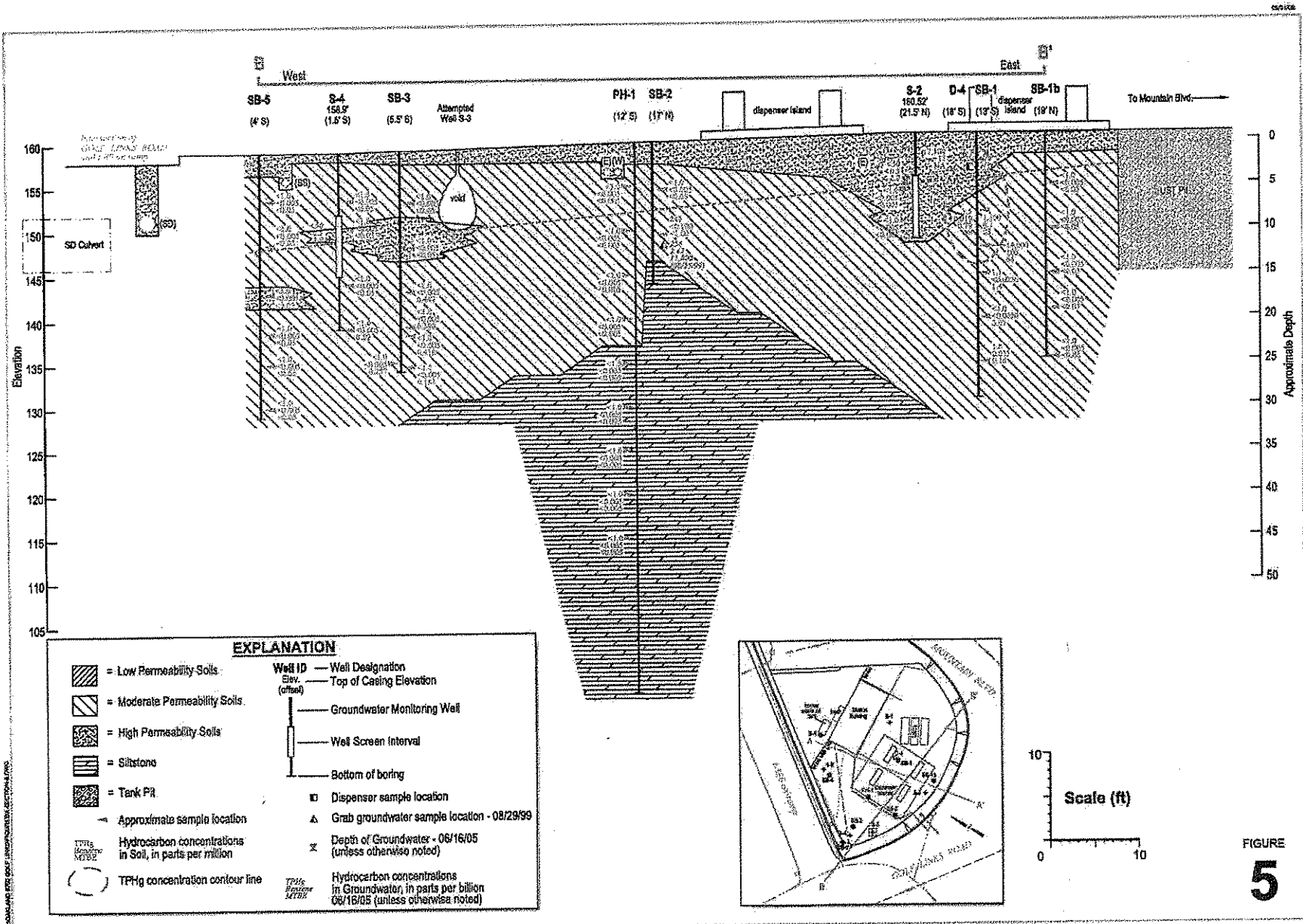
Geologic Cross Section A-A'



Shell-branded Service Station

9750 Golf Links Road
Oakland, California

FIGURE 4

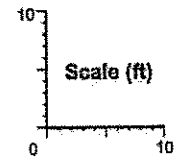


Geologic Cross Section B-B'



Shell-branded Service Station
 9750 Golf Links Road
 Oakland, California

FIGURE 5



EXPLANATION

	= Low Permeability Soils	Well ID	— Well Designation
	= Moderate Permeability Soils	Elv.	— Top of Casing Elevation
	= High Permeability Soils	(offset)	— Groundwater Monitoring Well
	= Siltstone		— Well Screen Interval
	= Tank P.I.		— Bottom of boring
	△ Approximate sample location		□ Dispenser sample location
	○ Hydrocarbon concentrations in Soil, in parts per million		△ Grab groundwater sample location - 08/29/99
	○ TPH concentration contour line		x Depth of Groundwater - 06/16/05 (unless otherwise noted)
			○ Hydrocarbon concentrations in Groundwater in parts per billion 06/16/05 (unless otherwise noted)

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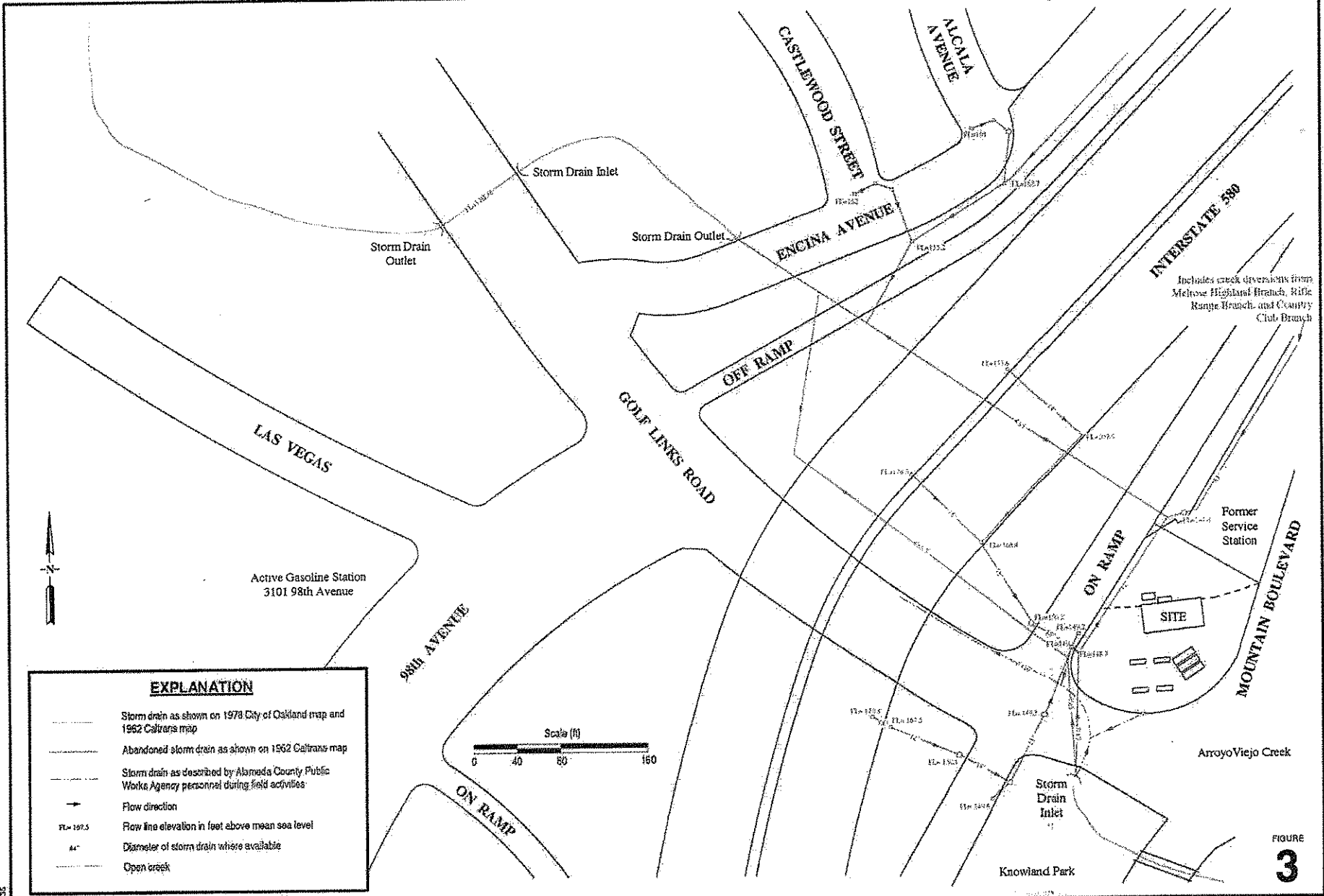


FIGURE 3

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EXPLANATION

- S-1 ◆ Monitoring well location
- S-3 ☒ Attempted monitoring well location
- SB-1 ⊙ Soil boring location (1999)
- SB-1 ⊙ Soil boring location (1998)
- B-1 ⊙ Soil boring location (1995)
- D-1 ☒ Soil sample location (2004)
- D4 • Soil sample location (1998)
- ESW ⊙ Soil sample location (1995)

- Storm drain line (STM)
- Former storm drain line
- Sanitary sewer line (SAN)
- Electrical line (E)
- Water line (W)
- ▶ Flow direction
- fbg Feet below grade
- Groundwater flow direction and gradient
- XX.XX Groundwater elevation contour, in feet above mean sea level (msl)

Well	ELEV	Benzene	MTBE
S-1	152.39	ND	0.6
S-2	153.98	ND	1.4
S-3	149.39	0.62	26
S-4	147.20	ND	8.5

Notes:
ND = Not detected

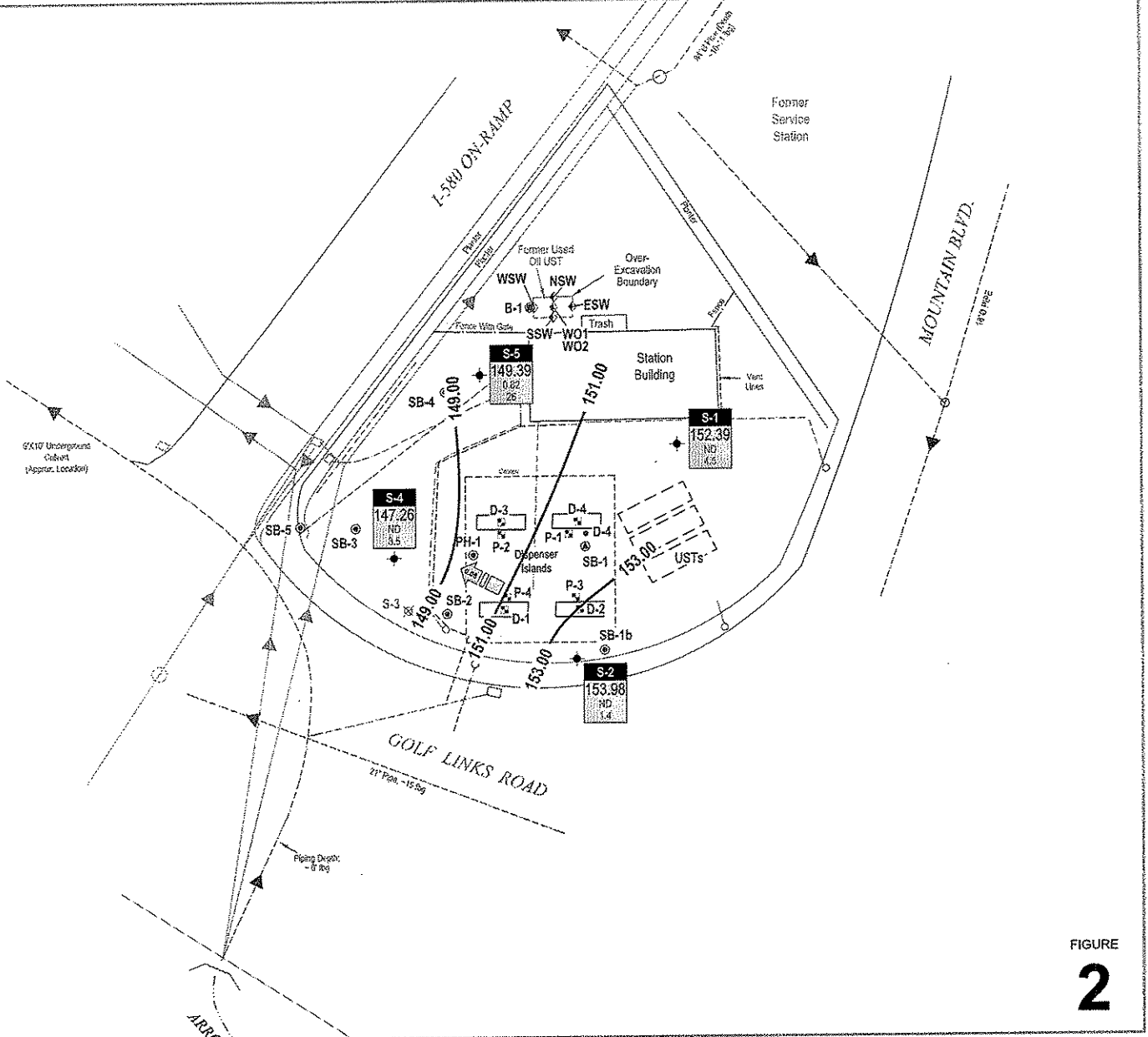


FIGURE
2

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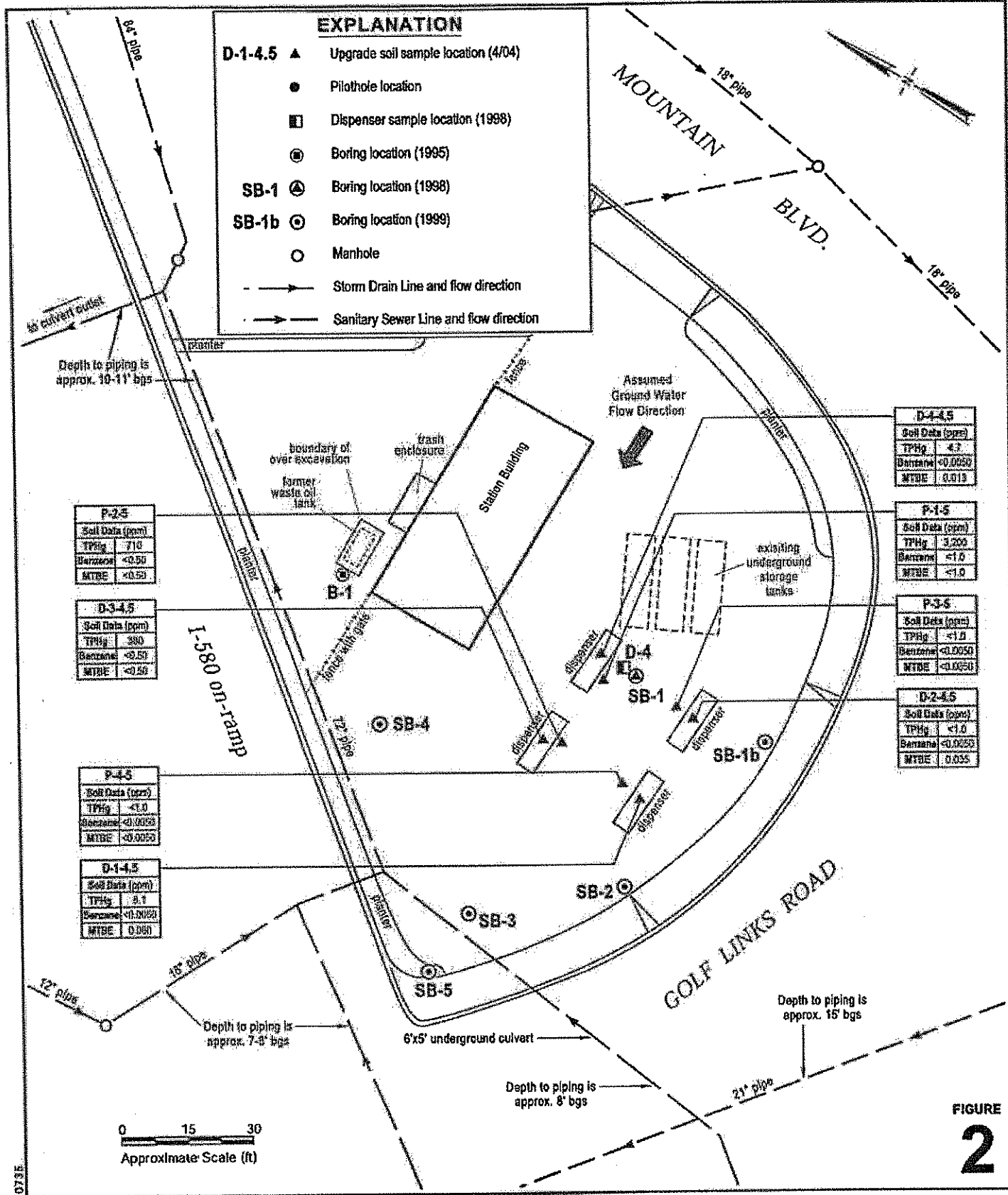


FIGURE 2

Shell-branded Service Station





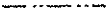
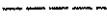
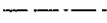


9750 Golf Links Road
Oakland, California

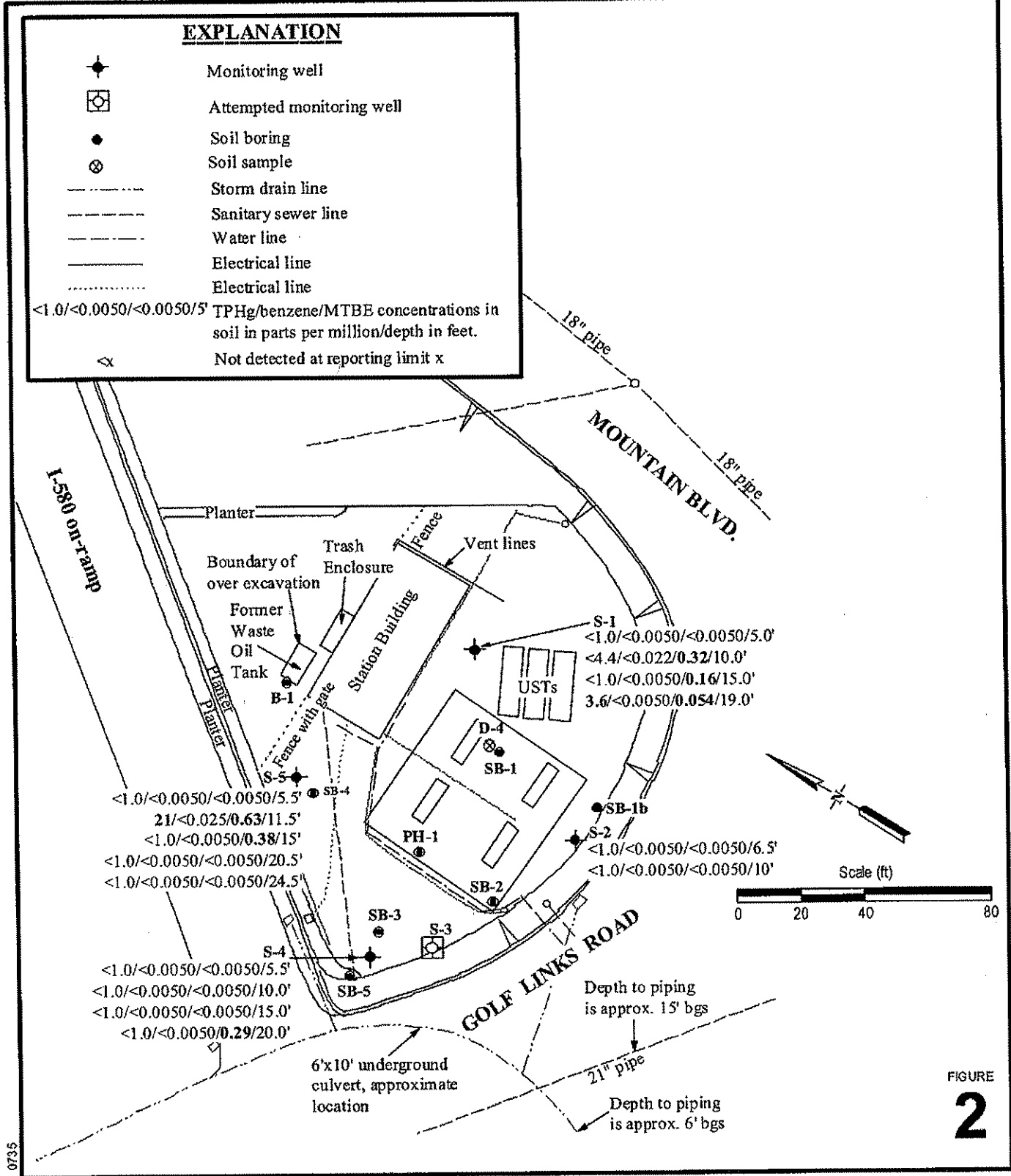


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Site Map

EXPLANATION

-  Monitoring well
 -  Attempted monitoring well
 -  Soil boring
 -  Soil sample
 -  Storm drain line
 -  Sanitary sewer line
 -  Water line
 -  Electrical line
 -  Electrical line
- <1.0/<0.0050/<0.0050/5' TPHg/benzene/MTBE concentrations in soil in parts per million/depth in feet.
- x Not detected at reporting limit x



Shell-branded Service Station
 9750 Golf Links Road
 Oakland, California



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Soil Chemical Concentration Map

FIGURE
2

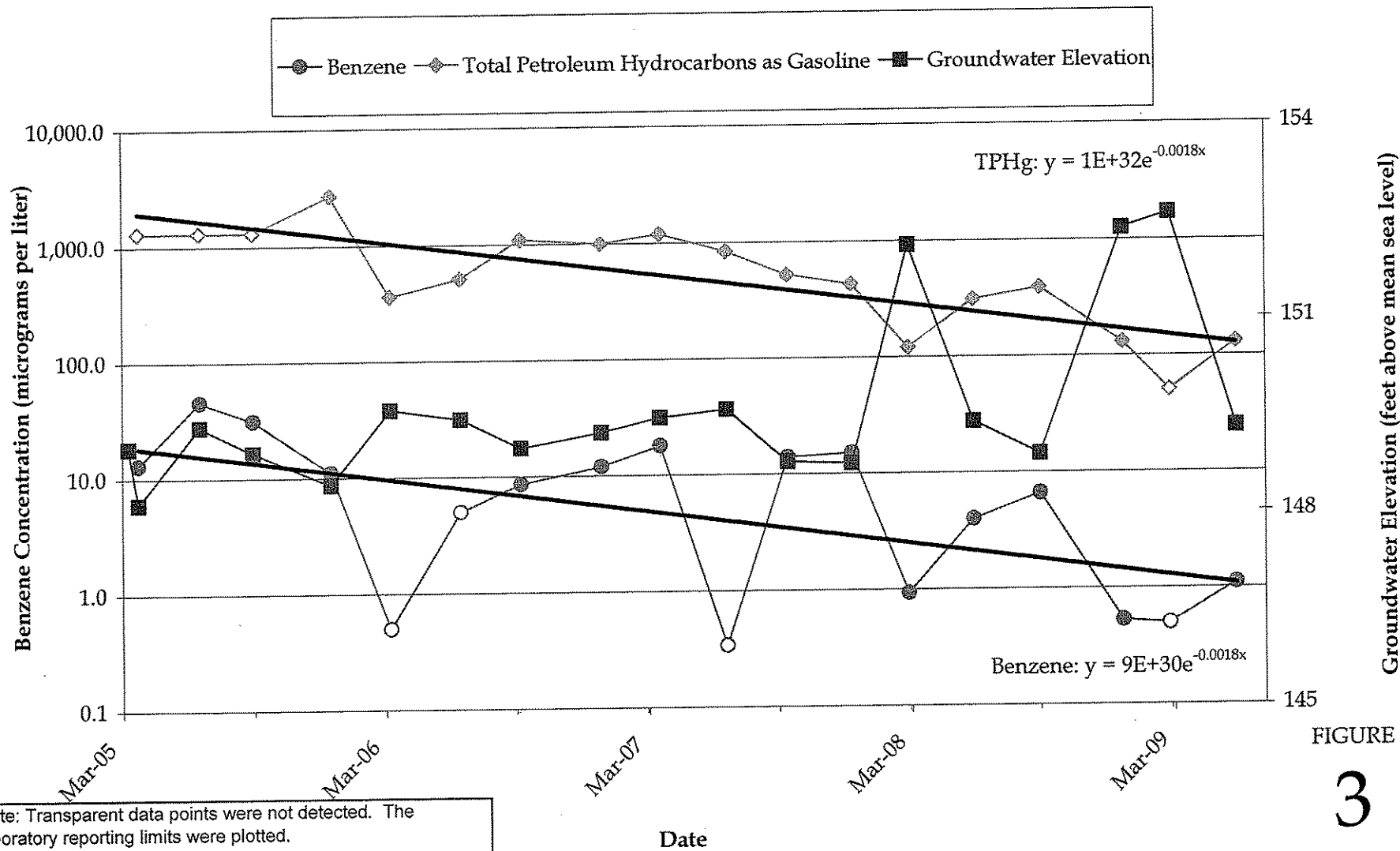


FIGURE
3

Shell-branded Service Station
9750 Golf Links Road
Oakland, California



S-5: TPHg and Benzene
Concentrations and
Groundwater Elevation versus
Time

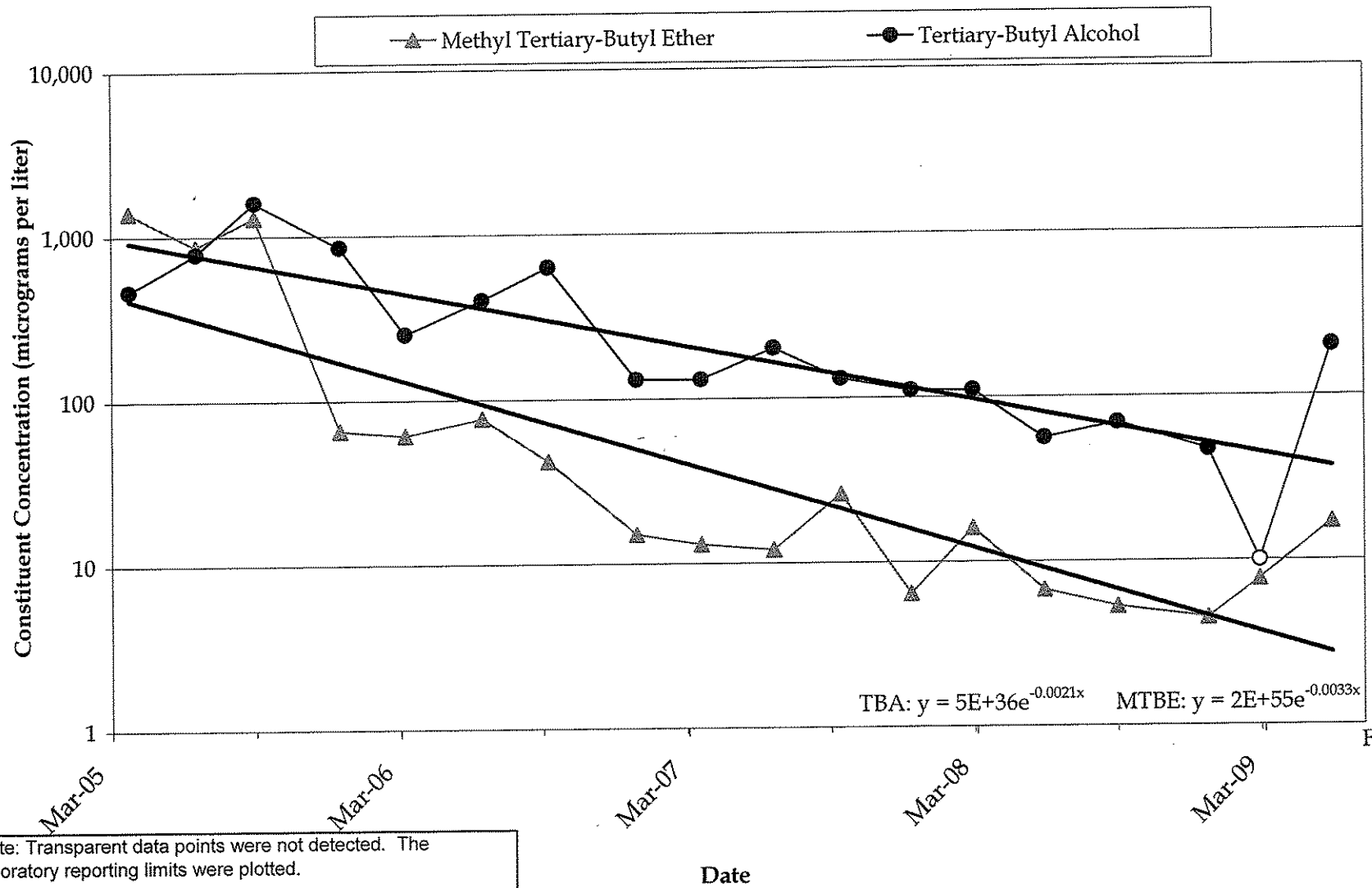


FIGURE
4

Shell-branded Service Station
 9750 Golf Links Road
 Oakland, California



S-1: MTBE and TBA
 Concentrations versus Time

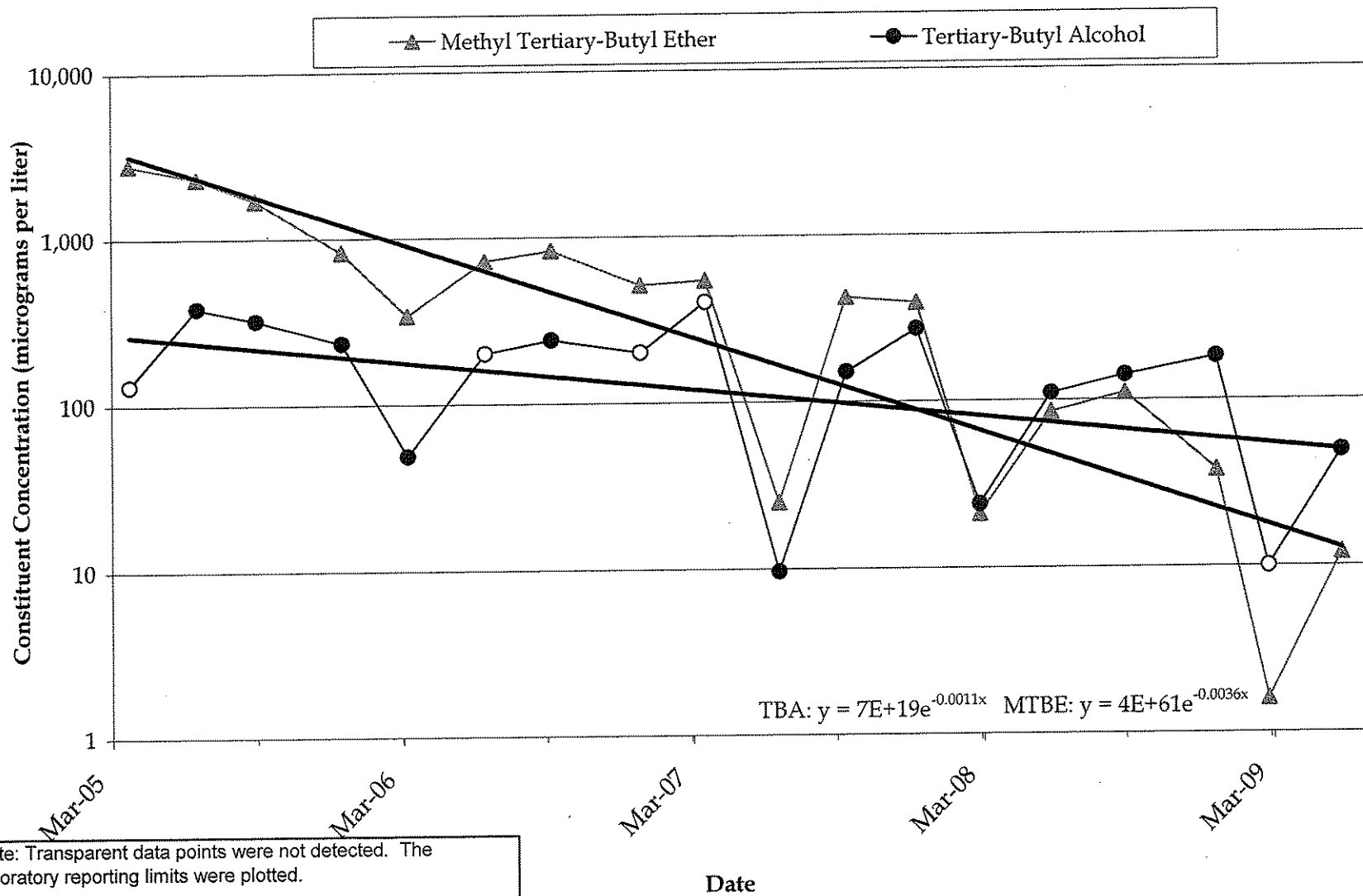


FIGURE
5

S-5: MTBE and TBA
Concentrations versus Time

Shell-branded Service Station
 9750 Golf Links Road
 Oakland, California



Table 2. Soil Analytical Data, Shell-branded Service Station, 9750 Golf Links Road, Oakland, California

Sample ID	Depth (feet)	Date	TPHg (mg/kg)	TPHd (mg/kg)	Benzene (mg/kg)	Toluene (mg/kg)	Ethylbenzene (mg/kg)	Xylenes (mg/kg)	MTBE (mg/kg)	TBA (mg/kg)	DIPE (mg/kg)	ETBE (mg/kg)	TAME (mg/kg)	TOG (mg/kg)
S-1-5.0'	5.0	23-Feb-05	<1.0	NA	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.010	<0.010	<0.0050	<0.0050	NA
S-1-10.0'	10.0	23-Feb-05	<4.4	NA	<0.022	<0.022	<0.022	<0.022	0.32	0.14	<0.044	<0.022	<0.022	NA
S-1-15.0'	15.0	23-Feb-05	<1.0	NA	<0.0050	<0.0050	<0.0050	<0.0050	0.16	0.014	<0.010	<0.0050	<0.0050	NA
S-1-19.0'	19.0	23-Feb-05	3.6	NA	<0.0050	<0.0050	<0.0050	<0.0050	0.054	0.014	<0.010	<0.0050	<0.0050	NA
S-2-6.5'	6.5	18-Jan-05	<1.0	NA	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.010	<0.010	<0.0050	<0.0050	NA
S-2-10'	10	18-Jan-05	<1.0	NA	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.010	<0.010	<0.0050	<0.0050	NA
S-4-5.5'	5.5	23-Feb-05	<1.0	NA	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.010	<0.010	<0.0050	<0.0050	NA
S-4-10.0'	10.0	23-Feb-05	<1.0	NA	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.010	<0.010	<0.0050	<0.0050	NA
S-4-15.0'	15.0	23-Feb-05	<1.0	NA	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.010	<0.010	<0.0050	<0.0050	NA
S-4-20.0'	20.0	23-Feb-05	<1.0	NA	<0.0050	<0.0050	<0.0050	<0.0050	0.29	0.029	<0.010	<0.0050	<0.0050	NA
S-5-5.5'	5.5	18-Jan-05	<1.0	NA	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.010	<0.010	<0.0050	<0.0050	NA
S-5-11.5'	11.5	18-Jan-05	21	NA	<0.025	<0.025	<0.025	<0.025	0.63	0.40	<0.050	<0.025	<0.025	NA
S-5-15'	15	18-Jan-05	<1.0	NA	<0.0050	<0.0050	<0.0050	<0.0050	0.38	0.40	<0.010	<0.0050	<0.0050	NA
S-5-20.5'	20.5	18-Jan-05	<1.0	NA	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.010	<0.010	<0.0050	<0.0050	NA
S-5-24.5'	24.5	18-Jan-05	<1.0	NA	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.010	<0.010	<0.0050	<0.0050	NA
PH-1-5.5'	5.5	07-Jun-04	<1.0	NA	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	NA	NA	NA	NA	NA
PH-1-10.5'	10.5	07-Jun-04	<1.0	NA	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	NA	NA	NA	NA	NA
PH-1-15.5'	15.5	07-Jun-04	<1.0	NA	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	NA	NA	NA	NA	NA
PH-1-19.5'	19.5	07-Jun-04	<1.0	NA	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	NA	NA	NA	NA	NA
PH-1-24.5'	24.5	07-Jun-04	<1.0	NA	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	NA	NA	NA	NA	NA
PH-1-29.5'	29.5	07-Jun-04	<1.0	NA	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	NA	NA	NA	NA	NA
PH-1-34.5'	34.5	07-Jun-04	<1.0	NA	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	NA	NA	NA	NA	NA
PH-1-40.5'	40.5	07-Jun-04	<1.0	NA	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	NA	NA	NA	NA	NA
PH-1-45.5'	45.5	07-Jun-04	<1.0	NA	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	NA	NA	NA	NA	NA
SB-1b-6.0-6.5	6.0	25-Aug-99	<1.0	NA	<0.005	<0.005	<0.005	<0.005	<0.05	NA	NA	NA	NA	NA
SB-1b-11.0-11.5	11.0	25-Aug-99	<1.0	NA	<0.005	<0.005	<0.005	<0.005	<0.05	NA	NA	NA	NA	NA
SB-1b-16.0-16.5	16.0	25-Aug-99	<1.0	NA	<0.005	<0.005	<0.005	<0.005	<0.05	NA	NA	NA	NA	NA

Table 2. Soil Analytical Data, Shell-branded Service Station, 9750 Golf Links Road, Oakland, California

SB-1b-20.0-21.0	20.0	25-Aug-99	<1.0	NA	<0.005	<0.005	<0.005	<0.005	<0.05	NA	NA	NA	NA	NA
SB-1b-25.5-26.0	25.5	25-Aug-99	<1.0	NA	<0.005	<0.005	<0.005	<0.005	<0.05	NA	NA	NA	NA	NA
SB-2-5.5-6.0	5.5	25-Aug-99	<1.0	NA	<0.005	<0.005	<0.005	<0.005	<0.05	NA	NA	NA	NA	NA
SB-2-10.5-11.0	10.5	25-Aug-99	243	NA	<0.100	0.248	0.664	1.08	<1.00	NA	NA	NA	NA	NA
SB-3-6.0-6.5	6.0	25-Aug-99	<1.0	NA	<0.005	<0.005	<0.005	<0.005	<0.05	NA	NA	NA	NA	NA
SB-3-11.0-11.5	11.0	25-Aug-99	<1.0	NA	<0.005	<0.005	<0.005	<0.005	<0.05	NA	NA	NA	NA	NA
SB-3-16.0-16.5	16.0	25-Aug-99	<1.0	NA	<0.005	<0.005	<0.005	<0.005	0.449	NA	NA	NA	NA	NA
SB-3-20-21.5	20.0	25-Aug-99	<1.0	NA	<0.005	<0.005	<0.005	<0.005	0.380	NA	NA	NA	NA	NA
SB-3-21.0-21.5	21.0	25-Aug-99	<1.0	NA	<0.005	<0.005	<0.005	<0.005	0.418	NA	NA	NA	NA	NA
SB-3-24-24.5	24.0	25-Aug-99	<1.0	NA	<0.005	<0.005	<0.005	<0.005	0.257	NA	NA	NA	NA	NA
SB-3-24.5-25.5	24.5	25-Aug-99	<1.0	NA	<0.005	0.00520	<0.005	0.00830	0.161	NA	NA	NA	NA	NA
SB-4-5.5-6.0	5.5	25-Aug-99	<1.0	NA	<0.005	<0.005	<0.005	<0.005	<0.05	NA	NA	NA	NA	NA
SB-4-10.5-11.0	10.5	25-Aug-99	74.0	NA	<0.0250	0.0565	0.159	0.0915	2.60 (2.23)	NA	NA	NA	NA	NA
SB-4-15.5-16.0	15.5	25-Aug-99	<1.0	NA	<0.005	<0.005	<0.005	<0.005	<0.05	NA	NA	NA	NA	NA
SB-4-20.5-21.0	20.5	25-Aug-99	<1.0	NA	<0.005	<0.005	<0.005	0.00550	<0.05	NA	NA	NA	NA	NA
SB-4-25.5-26.0	25.5	25-Aug-99	<1.0	NA	<0.005	<0.005	<0.005	<0.005	<0.05	NA	NA	NA	NA	NA
SB-5-5.5-6.0	5.5	25-Aug-99	<1.0	NA	<0.005	<0.005	<0.005	<0.005	<0.05	NA	NA	NA	NA	NA
SB-5-10.5-11.0	10.5	25-Aug-99	<1.0	NA	<0.005	<0.005	<0.005	<0.005	<0.05	NA	NA	NA	NA	NA
SB-5-16.0-16.5	16.0	25-Aug-99	<1.0	NA	<0.005	<0.005	<0.005	0.0107	0.0726	NA	NA	NA	NA	NA
SB-5-20.5-21.0	20.5	25-Aug-99	<1.0	NA	<0.005	0.00930	<0.005	0.0193	<0.05	NA	NA	NA	NA	NA
SB-5-24.0-24.5	24.0	25-Aug-99	<1.0	NA	<0.005	0.0241	0.00890	0.0473	<0.05	NA	NA	NA	NA	NA
SB-5-29.0-29.5	29.0	25-Aug-99	<1.0	NA	<0.005	0.0144	0.00590	0.0323	<0.05	NA	NA	NA	NA	NA
SB-1-9.0'	9.0	06-Jul-98	1,100	NA	6.1	40	143	98	91 (23)	NA	NA	NA	NA	NA
SB-1-11.5'	11.5	06-Jul-98	3.5	NA	0.019	0.34	0.076	0.55	0.79	NA	NA	NA	NA	NA
SB-1-13.0'	13.0	06-Jul-98	14,000	NA	100	530	190	1,200	66	NA	NA	NA	NA	NA

Table 2. Soil Analytical Data, Shell-branded Service Station, 9750 Golf Links Road, Oakland, California

SB-1-16.0'	16.0	31-Jul-98	1.1	NA	<0.0050	0.029	0.013	0.091	1.4	NA	NA	NA	NA	NA
SB-1-21.0'	21.0	31-Jul-98	<1.0	NA	<0.0050	<0.0050	<0.0050	<0.0050	0.03	NA	NA	NA	NA	NA
SB-1-26.0'	26.0	31-Jul-98	5.6	NA	0.035	0.25	0.062	0.28	0.16	NA	NA	NA	NA	NA
B1-5.5	5.5	15-Dec-95	<1.0	<1.0	<0.005	<0.005	<0.005	<0.005	NA	NA	NA	NA	NA	<50
B1-15.5	15.5	15-Dec-95	<1.0	<1.0	<0.005	<0.005	<0.005	<0.005	NA	NA	NA	NA	NA	<50
B1-20.5	20.5	15-Dec-95	<1.0	<1.0	<0.005	<0.005	<0.005	<0.005	NA	NA	NA	NA	NA	<50
B1-30.5	30.5	15-Dec-95	<1.0	2.8	<0.005	<0.005	<0.005	<0.005	NA	NA	NA	NA	NA	<50
B1-35.5	35.5	15-Dec-95	<1.0	<1.0	<0.005	<0.005	<0.005	<0.005	NA	NA	NA	NA	NA	<50
B1-40.5	40.5	15-Dec-95	<1.0	<1.0	<0.005	<0.005	<0.005	<0.005	NA	NA	NA	NA	NA	56
B1-45.5	45.5	15-Dec-95	<1.0	<1.0	<0.005	<0.005	<0.005	<0.005	NA	NA	NA	NA	NA	<50
WO1	7.0	08-Mar-95	190	3,900	<0.25	0.43	1.0	2.2	NA	NA	NA	NA	NA	12,000
WO2	11.0	08-Mar-95	<1.0	<1.0	<0.005	0.072	<0.005	<0.005	NA	NA	NA	NA	NA	62
NSW	7.5	08-Mar-95	<1.0	<1.0	<0.005	0.10	<0.005	<0.005	NA	NA	NA	NA	NA	<50
SSW	7.0	08-Mar-95	<1.0	<1.0	<0.005	0.19	<0.005	<0.005	NA	NA	NA	NA	NA	<50
ESW	7.0	08-Mar-95	<1.0	<1.0	<0.005	0.18	<0.005	<0.005	NA	NA	NA	NA	NA	<50
WSW	7.8	08-Mar-95	<1.0	<1.0	<0.005	0.083	<0.005	<0.005	NA	NA	NA	NA	NA	<50

Table 2. Soil Analytical Data, Shell-branded Service Station, 9750 Golf Links Road, Oakland, California**Abbreviations and Notes:**

mg/kg = Milligrams per kilogram

<x = Not detected at reporting limit x

TPHg = Total petroleum hydrocarbons as gasoline (Pre-2004: by EPA Method 8015; 2004 = EPA Method 8260B)

TPHd = Total petroleum hydrocarbons as diesel by modified EPA Method 8015

B = Benzene (Pre-2004: By EPA Method 8020, 2004: by EPA Method 8260B)

T = Toluene (Pre-2004: By EPA Method 8020, 2004: by EPA Method 8260B)

E = Ethylbenzene (Pre-2004: By EPA Method 8020, 2004: by EPA Method 8260B)

X = Xylenes (Pre-2004: By EPA Method 8020 2004: by EPA Method 8260B)

MTBE = Methyl tertiary butyl ether (Pre-2004: by EPA Method 8020, results in parenthesis by method 8260, 2004: by EPA Method 8260B)

DIFE = Di-isopropyl ether by EPA Method 8260B

ETBE = Ethyl tertiary butyl ether by EPA Method 8260B

TAME = Tertiary amyl methyl ether by EPA Method 8260B

TBA = Tertiary butyl alcohol by EPA Method 8260B

TOG = Total oil and grease by APHA Standard Method 5520E&F

Samples collected on 03/03/95 by Weiss Associates and analyzed by Sequoia Analytical, Redwood City, California; all other by Cambria.

CAMBRIA

Table 1. Dispenser Sample Analytic Data - Shell Service Station - WIC #204-5508-2808, 9750 Golf Links Road, Oakland, California

Sample ID	Depth (feet)	TPHg	MTBE	Benzene	Toluene	Ethylbenzene	Xylenes
		(Concentrations reported in milligrams per kilogram)					
February 4, 1998 Samples:							
D-4	2.0	4,000	65	<1.2	230	68	600
D-4	4.0	7,800	140	37	440	130	1,000

Abbreviations and Notes:

TPHg = Total petroleum hydrocarbons as gasoline by modified EPA Method 8015.

MTBE = Methyl tert-butyl ether by EPA Method 8020.

Benzene, ethylbenzene, toluene, xylenes by EPA Method 8020.

mg/kg = Milligrams per kilogram

<x = Below detection limit of x mg/kg

CAMBRIA

Table 1. Soil Analytical Results, Shell-branded Service Station, 9750 Golf Links Road, Oakland, California

Sample	Depth (fbg)	Date Sampled	TPHg (mg/kg)	Benzene (mg/kg)	Toluene (mg/kg)	Ethylbenzene (mg/kg)	Xylenes (mg/kg)	MTBE (mg/kg)
D-1-4.5	4.5	4/15/2004	6.1	<0.0050	<0.0050	<0.0050	<0.0050	0.060
D-2-4.5	4.5	4/15/2004	<1.0	<0.0050	<0.0050	0.021	0.010	0.035
D-3-4.5	4.5	4/15/2004	380	<0.50	<0.50	<0.50	<0.50	<0.50
D-4-4.5	4.5	4/15/2004	4.7	<0.0050	<0.0050	<0.0050	<0.0050	0.013
P-1-5	5	4/23/2004	3200	<1.0	1.1	<1.0	160	<1.0
P-2-5	5	4/23/2004	710	<0.50	<0.50	0.97	1.8	<0.50
P-3-5	5	4/23/2004	<1.0	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050
P-4-5	5	4/23/2004	<1.0	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050

Abbreviations and Notes:

fbg = Feet below grade

mg/kg = milligrams per kilogram (parts per million)

<x = Not detected at detection limit x

TPHg = Total petroleum hydrocarbons as gasoline analyzed by EPA Method 88260b

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

MTBE = methyl tertiary butyl ether analyzed by EPA Method 8260B

CAMBRIA

Table 1. Well/Boring Data, Shell-branded Service Station, 9750 Golf Links Rd. Oakland, California

Name	Type	Date Installed	TOC Elev (ft)	Total Depth (fbg)	Soil Sample Interval (ft)	First Encountered GW Depth (fbg)	Elev (ft)	Screen Diam. (in)	Screen Depth (fbg) Top	Screen Depth (fbg) Bottom	Comments
S-1	HSA Well	2/23/2005	160.54	19	C	8	152.54	4	7	18	
S-2	HSA Well	1/18/2005	160.23	12	C	6	154.23	4	5	12	
S-3	HSA Well	2/23/2005	NA	8	C	NA	NA	-	-	8	First attempt-abandoned line; second attempt-void; not installed.
S-4	HSA Well	2/23/2005	158.23	20	C	10	148.23	4	7	14	
S-5	HSA Well	1/18/2005	159.69	25	C	11	148.69	4	7	14	
B-1	HSA Boring	15-Dec-95	-	47	S	-	-	-	-	-	
SB-1	HSA Boring	31-Jul-98	-	30	S	-	-	-	-	-	
SB-1b	HSA Boring	25-Aug-99	-	26.5	S	-	-	-	-	-	
SB-2	HSA Boring	25-Aug-99	-	16	S	-	-	-	-	-	
SB-3	HSA Boring	25-Aug-99	-	25	S	-	-	-	-	-	
SB-4	HSA Boring	25-Aug-99	-	26.5	S	-	-	-	-	-	
SB-5	HSA Boring	25-Aug-99	-	30	S	-	-	-	-	-	
PH-1	MR Boring	04-Jun-04	-	62.5	C	-	-	-	-	-	

Abbreviations and Notes:

ft msl - Feet referenced to mean sea level

fbg = Feet below grade

ft = Feet

in = Inches

GW = Groundwater

TOC = Top of well casing

Elev = Elevation referenced to mean sea level

Diam = Diameter

C = Continuous

MR = Mud Rotary

WELL CONCENTRATIONS
Shell-branded Service Station
9750 Golf Links Road
Oakland, CA

Well ID	Date	TPPH (ug/L)	B (ug/L)	T (ug/L)	E (ug/L)	X (ug/L)	MTBE 8260 (ug/L)	DIPE (ug/L)	ETBE (ug/L)	TAME (ug/L)	TBA (ug/L)	1,2- DCA (ug/L)	EDB (ug/L)	Ethanol (ug/L)	Methanol (ug/L)	TOC (MSL)	Depth to Water (ft.)	GW Elevation (MSL)
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S-1	03/09/2005	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	160.54	7.65	152.89
S-1	03/23/2005	13,000	<13	<13	89	70	1,400	<50	<50	<50	460	<13	<13	<1,300	<500	160.54	7.62	152.92
S-1	06/16/2005	9,500	<5.0	<5.0	130	66	860	<20	<20	<20	780	<5.0	<5.0	<500	2,800	160.54	7.91	152.63
S-1	08/02/2005	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<500	160.54	8.44	152.10
S-1	08/29/2005	1,300 a	<5.0	<5.0	<5.0	<10	1,300	<20	<20	<20	1,600	<5.0	<5.0	<500	<500	160.54	8.88	151.66
S-1	12/15/2005	3,710	<0.500	<0.500	8.28	<0.500	65.4	<0.500	<0.500	<0.500	847	<0.500	<0.500	<50.0	<10,000	160.54	8.55	151.99
S-1	03/08/2006	2,400 h	1.3	<0.50	6.9	3.8	61 f	<0.50	<0.50 i	<0.50 i	250	<0.50 i	<0.50	<100	<250 d	160.54	7.25	153.29
S-1	06/14/2006	1,300	1.5	<1.0	2.3	<1.0	77	NA	NA	<1.0	400	NA	NA	NA	NA	160.54	8.29	152.25
S-1	09/06/2006	700 k	<1.0 k	<1.0 k	1.7 k	<1.0 k	42 k	<1.0 k	<1.0 k	<1.0 k	630 k	NA	NA	NA	<400 j	160.54	8.92	151.62
S-1	12/27/2006	1,500	<0.50	<0.50	2.2	0.60	15	NA	NA	<0.50	130	NA	NA	NA	NA	160.54	7.40	153.14
S-1	03/19/2007	2,300	<0.50	<0.50	1.4	0.81	13	NA	NA	<0.50	130	NA	NA	NA	NA	160.54	7.91	152.63
S-1	06/19/2007	1,900 l,m	0.20 n	<1.0	0.86 n	0.19 n	12	NA	NA	<2.0	200	NA	NA	NA	NA	160.54	8.30	152.24
S-1	09/12/2007	720 l,m	0.19 n	<1.0	<1.0	<1.0	26	<2.0	<2.0	<2.0	130	NA	NA	NA	<100 i	160.54	8.80	151.74
S-1	12/10/2007	1,100 l	<0.50	<1.0	0.33 n	0.22 n	6.4	NA	NA	<2.0	110	NA	NA	NA	NA	160.54	8.07	152.47
S-1	02/27/2008	2,800 l,m	<0.50	<1.0	<1.0	<1.0	16	NA	NA	<2.0	110	NA	NA	NA	NA	160.54	7.58	152.96
S-1	05/28/2008	680	<0.50	<1.0	<1.0	<1.0	6.7	NA	NA	<2.0	56	NA	NA	NA	NA	160.54	8.60	151.94
S-1	08/29/2008	110	<0.50	<1.0	<1.0	<1.0	5.3	<2.0	<2.0	<2.0	69	NA	NA	NA	<100 i	160.54	11.04	149.50
S-1	12/22/2008	1,100	<0.50	<1.0	<1.0	<1.0	4.5	NA	NA	<2.0	47	NA	NA	NA	NA	160.54	7.51	153.03
S-1	02/25/2009	630	<0.50	<1.0	<1.0	<1.0	7.7	NA	NA	<2.0	<10	NA	NA	NA	NA	160.54	6.90	153.64
S-1	05/28/2009	570	<0.50	<1.0	<1.0	<1.0	17	NA	NA	<2.0	200	NA	NA	NA	NA	160.54	8.10	152.44
S-1	11/10/2009	520	<0.50	<1.0	<1.0	<1.0	4.5	<2.0	<2.0	<2.0	34	NA	NA	NA	<100 i	160.54	8.15	152.39

S-2	03/09/2005	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	160.23	5.64	154.59
S-2	03/23/2005	<50	<0.50	<0.50	<0.50	<1.0	5.3	<2.0	<2.0	<2.0	<5.0	<0.50	<0.50	<50	<500	160.23	5.20	155.03
S-2	06/16/2005	<50	<0.50	<0.50	<0.50	<1.0	2.2	<2.0	<2.0	<2.0	<5.0	<0.50	<0.50	<50	<500	160.23	5.94	154.29
S-2	08/29/2005	<50	<0.50	<0.50	<0.50	<1.0	2.7	<2.0	<2.0	<2.0	<5.0	<0.50	<0.50	<50	<500	160.23	6.56	153.67
S-2	12/15/2005	<50.0	<0.500	<0.500 c	<0.500	<0.500	17.9	<0.500	<0.500	<0.500	58.4	<0.500	<0.500	<50.0	<10,000	160.03 b	5.77	154.26
S-2	03/08/2006	<50 f	<0.50	<0.50	<0.50	<0.50	2.5 f	<0.50	<0.50 i	<0.50 i	20	<0.50 i	<0.50	<100	<100	160.03 b	5.10	154.93
S-2	06/14/2006	<50	<0.50	<0.50	<0.50	<0.50	2.8	NA	NA	<0.50	<20	NA	NA	NA	NA	160.03 b	6.00	154.03

WELL CONCENTRATIONS
Shell-branded Service Station
9750 Golf Links Road
Oakland, CA

Well ID	Date	TPPH (ug/L)	B (ug/L)	T (ug/L)	E (ug/L)	X (ug/L)	MTBE 8260 (ug/L)	DIPE (ug/L)	ETBE (ug/L)	TAME (ug/L)	TBA (ug/L)	1,2- DCA (ug/L)	EDB (ug/L)	Ethanol (ug/L)	Methanol (ug/L)	TOC (MSL)	Depth to Water (ft.)	GW Elevation (MSL)
S-2	09/06/2006	<50 k	<0.50 k	<0.50 k	<0.50 k	<0.50 k	4.9 k	<0.50 k	<0.50 k	<0.50 k	<20 k	NA	NA	NA	<100	160.03 b	6.49	153.54
S-2	12/27/2006	<50	<0.50	<0.50	<0.50	<0.50	2.0	NA	NA	<0.50	<20	NA	NA	NA	NA	160.03 b	5.50	154.53
S-2	03/19/2007	<50	<0.50	<0.50	<0.50	<0.50	2.3	NA	NA	<0.50	<20	NA	NA	NA	NA	160.03 b	5.70	154.33
S-2	06/19/2007	<50 l	<0.50	<1.0	<1.0	<1.0	1.1	NA	NA	<2.0	<10	NA	NA	NA	NA	160.03 b	6.19	153.84
S-2	09/12/2007	<50 l	<0.50	<1.0	<1.0	<1.0	2.7	<2.0	<2.0	<2.0	<10	NA	NA	NA	<100 l	160.03 b	6.57	153.46
S-2	12/10/2007	<50 l	<0.50	<1.0	<1.0	<1.0	3.3	NA	NA	<2.0	<10	NA	NA	NA	NA	160.03 b	5.70	154.33
S-2	02/27/2008	<50 l	<0.50	<1.0	<1.0	<1.0	<1.0	NA	NA	<2.0	<10	NA	NA	NA	NA	160.03 b	5.48	154.55
S-2	05/28/2008	<50	<0.50	<1.0	<1.0	<1.0	<1.0	NA	NA	<2.0	<10	NA	NA	NA	NA	160.03 b	6.30	153.73
S-2	08/29/2008	<50	<0.50	<1.0	<1.0	<1.0	3.4	<2.0	<2.0	<2.0	<10	NA	NA	NA	<100 l	160.03 b	8.58	151.45
S-2	12/22/2008	<50	<0.50	<1.0	<1.0	<1.0	1.4	NA	NA	<2.0	<10	NA	NA	NA	NA	160.03 b	5.41	154.62
S-2	02/25/2009	<50	<0.50	<1.0	<1.0	<1.0	<1.0	NA	NA	<2.0	<10	NA	NA	NA	NA	160.03 b	4.86	155.17
S-2	05/28/2009	<50	<0.50	<1.0	<1.0	<1.0	<1.0	NA	NA	<2.0	<10	NA	NA	NA	NA	160.03 b	5.96	154.07
S-2	11/10/2009	<50	<0.50	<1.0	<1.0	<1.0	1.4	<2.0	<2.0	<2.0	<10	NA	NA	NA	<100 l	160.03 b	6.05	153.98
S-4	03/09/2005	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	158.23	9.83	148.40
S-4	03/23/2005	<100	<1.0	<1.0	<1.0	<2.0	260	<4.0	<4.0	<4.0	<10	<1.0	<1.0	<100	<500	158.23	9.55	148.68
S-4	06/16/2005	<50	<0.50	<0.50	<0.50	<1.0	8.0	<2.0	<2.0	<2.0	<5.0	<0.50	<0.50	<50	<500	158.23	10.25	147.98
S-4	08/29/2005	<50	<0.50	<0.50	<0.50	<1.0	71	<2.0	<2.0	<2.0	5.6	<0.50	<0.50	<50	<500	158.23	10.60	147.63
S-4	12/15/2005	345	<0.500	<0.500 c	<0.500	<0.500	296	<0.500	<0.500	<0.500	<10.0	<0.500	<0.500	<50.0	<10,000	158.23	10.38	147.85
S-4	03/08/2006	73 g	<0.50	<0.50	<0.50	<0.50	0.72 f	<0.50	<0.50 i	<0.50 i	<20	<0.50 i	<0.50	<100	<100	158.23	9.60	148.63
S-4	06/14/2006	<50	<0.50	<0.50	<0.50	0.51	0.50	NA	NA	<0.50	<20	NA	NA	NA	NA	158.23	10.30	147.93
S-4	09/06/2006	<50 k	<0.50 k	<0.50 k	<0.50 k	<0.50 k	3.6 k	<0.50 k	<0.50 k	<0.50 k	<20 k	NA	NA	NA	<100	158.23	10.57	147.66
S-4	12/27/2006	<50	<0.50	<0.50	<0.50	<0.50	4.7	NA	NA	<0.50	<20	NA	NA	NA	NA	158.23	10.40	147.83
S-4	03/19/2007	<50	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	<0.50	<20	NA	NA	NA	NA	158.23	10.43	147.80
S-4	06/19/2007	93 l,m	<0.50	<1.0	<1.0	<1.0	8.4	NA	NA	<2.0	<10	NA	NA	NA	NA	158.23	10.52	147.71
S-4	09/12/2007	<50 l	<0.50	<1.0	<1.0	<1.0	3.7	<2.0	<2.0	<2.0	<10	NA	NA	NA	<100 l	158.23	10.71	147.52
S-4	12/10/2007	<50 l	<0.50	<1.0	<1.0	<1.0	1.7	NA	NA	<2.0	<10	NA	NA	NA	NA	158.23	10.66	147.57
S-4	02/27/2008	<50 l	<0.50	<1.0	<1.0	<1.0	<1.0	NA	NA	<2.0	<10	NA	NA	NA	NA	158.23	10.12	148.11
S-4	05/28/2008	<50	<0.50	<1.0	<1.0	<1.0	<1.0	NA	NA	<2.0	<10	NA	NA	NA	NA	158.23	10.99	147.24

WELL CONCENTRATIONS
Shell-branded Service Station
9750 Golf Links Road
Oakland, CA

Well ID	Date	TPPH (ug/L)	B (ug/L)	T (ug/L)	E (ug/L)	X (ug/L)	MTBE 8260 (ug/L)	DIPE (ug/L)	ETBE (ug/L)	TAME (ug/L)	TBA (ug/L)	1,2- DCA (ug/L)	EDB (ug/L)	Ethanol (ug/L)	Methanol (ug/L)	TOC (MSL)	Depth to Water (ft.)	GW Elevation (MSL)
S-4	08/29/2008	<50	<0.50	<1.0	<1.0	<1.0	5.4	<2.0	<2.0	<2.0	<10	NA	NA	NA	<100 l	158.23	11.13	147.10
S-4	12/22/2008	<50	<0.50	<1.0	<1.0	<1.0	4.3	NA	NA	<2.0	<10	NA	NA	NA	NA	158.23	10.38	147.85
S-4	02/25/2009	<50	<0.50	<1.0	<1.0	<1.0	<1.0	NA	NA	<2.0	<10	NA	NA	NA	NA	158.23	9.73	148.50
S-4	05/28/2009	<50	<0.50	<1.0	<1.0	<1.0	<1.0	NA	NA	<2.0	<10	NA	NA	NA	NA	158.23	10.82	147.41
S-4	11/10/2009	<50	<0.50	<1.0	<1.0	<1.0	3.5	<2.0	<2.0	<2.0	<10	NA	NA	NA	<100 l	158.23	10.97	147.26
S-5	03/09/2005	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	159.69	10.62	149.07
S-5	03/23/2005	<1,300	13	<13	26	60	2,800	<50	<50	<50	<130	<13	<13	<1,300	<500	159.69	11.49	148.20
S-5	06/16/2005	<1,300	45	<13	53	<25	2,300	<50	<50	<50	380	<13	<13	<1,300	<500	159.69	10.30	149.39
S-5	08/29/2005	<1,300	31	<13	60	<25	1,700	<50	<50	<50	320	<13	<13	<1,300	<500	159.69	10.70	148.99
S-5	12/15/2005	2,700	11.1	2.31 c	80.2	6.62	823	<0.500	<0.500	<0.500	233	<0.500	<0.500	<50.0	<10,000	159.69	11.20	148.49
S-5	03/08/2006	360 g	<0.50	<0.50	<0.50	<0.50	340 e	<0.50	<0.50 i	1.2 i	49	<0.50 i	<0.50	<100	<250 d	159.69	10.05	149.64
S-5	06/14/2006	510	<5.0	<5.0	<5.0	<5.0	720	NA	NA	<5.0	<200	NA	NA	NA	NA	159.69	10.20	149.49
S-5	09/06/2006	1,100 k	8.6 k	<5.0 k	35 k	<5.0 k	830 k	<5.0 k	<5.0 k	<5.0 k	240 k	NA	NA	NA	<200 j	159.69	10.65	149.04
S-5	12/27/2006	1,000	12	<5.0	38	6.2	510.0	NA	NA	<5.0	<200	NA	NA	NA	NA	159.69	10.42	149.27
S-5	03/19/2007	1,200	18	<10	31	<10	540	NA	NA	<10	<400	NA	NA	NA	NA	159.69	10.20	149.49
S-5	06/19/2007	840 l	0.34 n	<1.0	0.78 n	<1.0	25	NA	NA	<2.0	9.6 n	NA	NA	NA	NA	159.69	10.08	149.61
S-5	09/12/2007	520 l	14	0.46 n	4.7	<1.0	420	<2.0	<2.0	1.1 n	150	NA	NA	NA	<100 l	159.69	10.90	148.79
S-5	12/10/2007	430 l	15	<5.0	9.2	<5.0	390	NA	NA	<10	270	NA	NA	NA	NA	159.69	10.93	148.76
S-5	02/27/2008	120 l	0.93	<1.0	4.6	<1.0	21	NA	NA	<2.0	24	NA	NA	NA	NA	159.69	7.55	152.14
S-5	05/28/2008	310	4.0	1.0	7.4	1.0	85	NA	NA	<2.0	110	NA	NA	NA	NA	159.69	10.30	149.39
S-5	08/29/2008	390	6.6	<1.0	3.2	<1.0	110	<2.0	<2.0	<2.0	140	NA	NA	NA	<100 l	159.69	10.80	148.89
S-5	12/22/2008	130	0.53	<1.0	<1.0	<1.0	38	NA	NA	<2.0	180	NA	NA	NA	NA	159.69	7.31	152.38
S-5	02/25/2009	<50	<0.50	<1.0	<1.0	<1.0	1.6	NA	NA	<2.0	<10	NA	NA	NA	NA	159.69	7.08	152.61
S-5	05/28/2009	130	1.1	<1.0	<1.0	<1.0	12	NA	NA	<2.0	49	NA	NA	NA	NA	159.69	10.39	149.30
S-5	11/10/2009	230	0.82	<1.0	<1.0	<1.0	26	<2.0	<2.0	<2.0	210	NA	NA	NA	<100 l	159.69	10.30	149.39

WELL CONCENTRATIONS
Shell-branded Service Station
9750 Golf Links Road
Oakland, CA

Well ID	Date	TPPH (ug/L)	B (ug/L)	T (ug/L)	E (ug/L)	X (ug/L)	MTBE 8260 (ug/L)	DIPE (ug/L)	ETBE (ug/L)	TAME (ug/L)	TBA (ug/L)	1,2- DCA (ug/L)	EDB (ug/L)	Ethanol (ug/L)	Methanol (ug/L)	TOC (MSL)	Depth to Water (ft.)	GW Elevation (MSL)
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Abbreviations:

TPPH = Total petroleum hydrocarbons as gasoline by EPA Method 8260B.

BTEX = Benzene, toluene, ethylbenzene, xylenes by EPA Method 8260B.

MTBE = Methyl tertiary butyl ether

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

ETBE = Ethyl tertiary butyl ether, analyzed by EPA Method 8260

TAME = Tertiary amyl methyl ether, analyzed by EPA Method 8260

TBA = Tertiary butyl alcohol, analyzed by EPA Method 8260

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

EDB = Ethylene dibromide, analyzed by EPA Method 8260B

TOC = Top of Casing Elevation

GW = Groundwater

ug/L = Parts per billion

MSL = Mean sea level

ft. = Feet

<n = Below detection limit

NA = Not applicable

WELL CONCENTRATIONS
Shell-branded Service Station
9750 Golf Links Road
Oakland, CA

Well ID	Date	TPPH (ug/L)	B (ug/L)	T (ug/L)	E (ug/L)	X (ug/L)	MTBE 8260 (ug/L)	DIPE (ug/L)	ETBE (ug/L)	TAME (ug/L)	TBA (ug/L)	1,2- DCA (ug/L)	EDB (ug/L)	Ethanol (ug/L)	Methanol (ug/L)	TOC (MSL)	Depth to Water (ft.)	GW Elevation (MSL)
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Notes:

- a = Quantity of unknown hydrocarbon(s) in sample based on gasoline.
 - b = Top of casing altered -0.20 ft. due to wellhead maintenance on September 27, 2005.
 - c = Analyte was detected in the associated Method Blank.
 - d = The reporting limit for this analyte has been raised to account for interference from coeluting organic compounds present in the sample.
 - e = Sample was originally analyzed within the EPA recommended hold time. Re-analysis for dilution was performed past the recommended hold time.
 - f = Sample was originally analyzed within the EPA recommended hold time. Re-analysis for confirmation was performed past the recommended hold time.
 - g = Result for this hydrocarbon is elevated due to the presence of single analyte peak(s) in the quantitation range.
 - h = Concentration indicated for this analyte is an estimated value above the calibration range of the instrument.
 - i = Result was reported with a possible high bias due to the continuing calibration verification falling outside acceptance criteria.
 - j = The reporting limit for this analyte has been raised to account for matrix interference.
 - k = There was insufficient preservative to reduce the sample pH to less than 2. The sample was analyzed within 14 days of sampling but beyond the 7 days recommended for Benzene, Toluene, and Ethylbenzene.
 - l = Analyzed by EPA Method 8015B (M).
 - m = 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 upon the specified standard.
 - n = Analyte was detected at a concentration below the reporting limit and above the laboratory method detection limit. Reported value is estimated. Ethanol and Methanol analyzed by EPA Method 8260B.
- Site surveyed March 23, 2005 by Virgil Chavez Land Surveying of Vallejo, CA.

CAMBRIA

Table 2. Water Sample Analytic Data - Shell-branded Service Station - Incident # 98995744, 9750 Golf Links Road, Oakland, California

Sample ID	Depth (feet)	TPHg ←	MTBE	Benzene (Concentrations reported in milligrams per kilogram)	Toluene →	Ethylbenzene	Xylenes →
August 25, 1999 Samples:							
SB-2-W	12.0	256	11800	2.42	<0.500	1.07	0.697
SB-3-W	20	<50.0	4680 (5250)	<0.500	<0.500	<0.500	<0.500

Abbreviations and Notes:

TPHg = Total petroleum hydrocarbons as gasoline by modified EPA Method 8015.

MTBE = Methyl tertiary butyl ether by EPA Method 8020; results in parentheses indicate confirmation analysis by EPA Method 8260

Benzene, ethylbenzene, toluene, xylenes by EPA Method 8020.

mg/kg = Milligrams per kilogram

<x = Below detection limit of x mg/kg



Cambria Environmental Technology, Inc.
 270 Perkins Street
 Sonoma, California 95476
 Telephone: (707) 935-4850
 Fax: (707) 935-6649

BORING/WELL LOG

CLIENT NAME	Shell Oil Products US	BORING/WELL NAME	S-1
JOB/SITE NAME	Shell-branded Service Station	DRILLING STARTED	23-Feb-05
LOCATION	9750 Golf Links Road, Oakland, California	DRILLING COMPLETED	23-Feb-05
PROJECT NUMBER	0735	WELL DEVELOPMENT DATE (YIELD)	09-Mar-05 (64 gallons)
DRILLER	Gregg Drilling	GROUND SURFACE ELEVATION	161.01 ft above msl
DRILLING METHOD	Hollow-stem auger	TOP OF CASING ELEVATION	160.54 ft above msl
BORING DIAMETER	10"	SCREENED INTERVAL	7 to 18 fbg
LOGGED BY	J. Gerbrandt	DEPTH TO WATER (First Encountered)	8.0 ft (23-Feb-05) ▼
REVIEWED BY	A. Friel, PG 6452	DEPTH TO WATER (Static)	7.7 ft (09-Mar-05) ▼

REMARKS

PID (ppm)	BLOW COUNTS	SAMPLE ID	EXTENT DEPTH (fbg)	U.S.C.S.	GRAPHIC LOG	SOIL DESCRIPTION	CONTACT DEPTH (fbg)	WELL DIAGRAM
						ASPHALT	0.5	
						GRAVEL with Sand (GW) ; dark brown (7.5YR 3/2); moist; 5% silt, 25% fine to medium sand, 70% fine to coarse gravel.	1.0	
						SAND (SP) ; brown (10YR 4/3); dry; 100% fine sand.		
0.0		S-1-5.5'	5	SP				Portland Type I/II
								Bentonite Seal
								Monterey Sand #2/12
0.2						@ 8' - dark yellowish brown (10YR 4/4); wet; 95% fine sand, 5% fine gravel.		
14.2						@ 9' - very dark greenish gray (10Y 3/1); 100% fine sand.	10.0	
0.0		S-1-10.0'	10	SM		Silty SAND (SM) ; brown (7.5YR 4/3); wet; 10% clay, 25% silt, 55% fine to coarse sand; 10% fine gravel.		
0.0								
123.8						SAND (SP) ; dark yellowish brown (10YR 4/4); wet; 100% fine sand.	12.0	
10.1								
						Silty SAND (SM) ; very dark greenish gray (10Y 3/1); wet; 10% clay, 25% silt, 55% fine to coarse sand; 10% fine gravel.	13.0	
0.8		S-1-15.0'	15	SM		@ 14' - brown (7.5YR 4/3)		
64.2						SAND (SP) ; dark yellowish brown (10YR 4/3); wet; 100% fine sand.	16.0	
5.6		S-1-19.0'	19	ML		Sandy SILT (ML) ; dark yellowish brown (10YR 4/3); wet; 30% clay, 30% silt, 30% fine to coarse sand, 10% fine gravel.	18.0	
								4"-diam., 0.020" Slotted Schedule 40 PVC
								Bentonite Seal Bottom of Boring @ 19 ft

WELL LOG (PID): H0A0E7E-1101N10A03750.GPJ DEFANUET.GDT 4800



Cambria Environmental Technology, Inc.
 270 Perkins Street
 Sonoma, California 95476
 Telephone: (707) 935-4850
 Fax: (707) 935-6649

BORING/WELL LOG

CLIENT NAME	Shell Oil Products US	BORING/WELL NAME	S-2
JOB/SITE NAME	Shell-branded Service Station	DRILLING STARTED	18-Jan-05
LOCATION	9750 Golf Links Road, Oakland, California	DRILLING COMPLETED	18-Jan-05
PROJECT NUMBER	0735	WELL DEVELOPMENT DATE (YIELD)	09-Mar-05 (41 gallons)
DRILLER	Gregg Drilling	GROUND SURFACE ELEVATION	160.52 ft above msl
DRILLING METHOD	Hollow-stem auger	TOP OF CASING ELEVATION	160.23 ft above msl
BORING DIAMETER	10"	SCREENED INTERVAL	5 to 12 ftg
LOGGED BY	S. Lewis	DEPTH TO WATER (First Encountered)	8.0 ft (19-Jan-05) ∇
REVIEWED BY	A. Friel, PG 6452	DEPTH TO WATER (Static)	5.6 ft (09-Mar-05) ∇
REMARKS			

PID (ppm)	BLOW COUNTS	SAMPLE ID	EXTENT DEPTH (ftg)	U.S.C.S.	GRAPHIC LOG	SOIL DESCRIPTION	CONTACT DEPTH (ftg)	WELL DIAGRAM
0.0	000 004 000 000 000	S-2-6.5'	0.4	SP		ASPHALT SAND (SP) ; brown (10YR 4/3); dry 100% fine sand. @ 5.5' - moist. @ 6' - very loose, wet. @ 7.5' - loose. @ 10.5' - medium dense.	0.4	 Portland Type I/II Bentonite Seal Monterey Sand #2/12 4"-diam., 0.020" Slotted Schedule 40 PVC Bottom of Boring @ 12 ft

WELL LOG (PID) 1:0A6E74-1:0A7M04:09750-0735 DEFAULT.GDT -45105



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 270 Perkins Street
 Sonoma, California 95476
 Telephone: (707) 935-4850
 Fax: (707) 935-6649

BORING/WELL LOG

CLIENT NAME	Shell Oil Products US	BORING/WELL NAME	S-4
JOB/SITE NAME	Shell-branded Service Station	DRILLING STARTED	23-Feb-05
LOCATION	9750 Golf Links Road, Oakland, California	DRILLING COMPLETED	23-Feb-05
PROJECT NUMBER	0735	WELL DEVELOPMENT DATE (YIELD)	09-Mar-05 (13 gallons)
DRILLER	Gregg Drilling	GROUND SURFACE ELEVATION	158.90 ft above msl
DRILLING METHOD	Hollow-stem auger	TOP OF CASING ELEVATION	158.23 ft above msl
BORING DIAMETER	10"	SCREENED INTERVAL	7 to 14 fbg
LOGGED BY	J. Gerbrandt	DEPTH TO WATER (First Encountered)	10.0 ft (23-Feb-05)
REVIEWED BY	A. Friel, PG 6452	DEPTH TO WATER (Static)	9.8 ft (09-Mar-05)

REMARKS

PID (ppm)	BLOW COUNTS	SAMPLE ID	EXTENT DEPTH (fbg)	U.S.C.S. GRAPHIC LOG	SOIL DESCRIPTION	CONTACT DEPTH (fbg)	WELL DIAGRAM
			0.5	GW	ASPHALT	0.5	
			1.0	SM	GRAVEL with Sand (GW); dark brown (7.5YR 3/2); moist; 5% silt, 25% fine to medium sand; 70% fine to coarse gravel.	1.0	Portland Type III
			3.5	GM	Silty SAND (SM); dark brown (10YR 3/3); moist; 20% clay, 20% silt, 55% fine to medium sand, 5% fine to coarse gravel.	3.5	Bentonite Seal
0.0		S-4-5.5'	5.5	GM	Silty GRAVEL with Sand (GM); dark brown (10YR 3/3); moist; 5% clay, 20% silt, 35% fine to medium sand, 40% fine to coarse gravel and cobbles.	5.5	Monterey Sand #2/12
			8.5	SM	Silty SAND with Gravel (SM); dark brown (10YR 3/3); dry; 10% clay, 15% silt, 55% fine to coarse sand, 20% fine to coarse gravel.	8.5	
0.0		S-4-10.0'	10.0	SW SM	SAND with Silt and Gravel (SW-SM); dark yellowish brown (10YR 4/3); dry; 5% clay, 5% silt, 70% fine to coarse sand, 20% fine gravel.	10.0	4" diam., 0.020" Slotted Schedule 40 PVC
			13.0	SM	Silty SAND (SM); dark yellowish brown (10YR 4/3); wet; 10% clay, 20% silt, 65% fine to coarse sand, 5% fine sand.	13.0	
0.0		S-4-15.0'	15.0	ML	Sandy SILT (ML); dark yellowish brown (10YR 4/3); moist; 25% clay, 30% silt, 40% fine to coarse sand, 5% fine gravel; dark greenish gray (5GY 4/1) mottling.	15.0	Bentonite Seal
6.2		S-4-20.0'	20.0		@ 19' - brown (7.5YR 4/4); 35% clay, 40% silt, 20% fine to coarse sand, 5% fine gravel; greenish gray (5GY 5/1) mottling.	20.0	Bottom of Boring @ 20 ft

WELL LOG (PID): H040E76-12HWIT0AK0720.CPJ DEFAULT.CDT 48005



Cambria Environmental Technology, Inc.
 270 Perkins Street
 Sonoma, California 95476
 Telephone: (707) 935-4850
 Fax: (707) 935-6649

BORING/WELL LOG

CLIENT NAME	Shell Oil Products US	BORING/WELL NAME	S-5
JOB/SITE NAME	Shell-branded Service Station	DRILLING STARTED	18-Jan-05
LOCATION	9750 Golf Links Road, Oakland, California	DRILLING COMPLETED	18-Jan-05
PROJECT NUMBER	0735	WELL DEVELOPMENT DATE (YIELD)	09-Mar-05 (5.2 gallons)
DRILLER	Gregg Drilling	GROUND SURFACE ELEVATION	160.17 ft above msl
DRILLING METHOD	Hollow-stem auger	TOP OF CASING ELEVATION	159.69 ft above msl
BORING DIAMETER	10"	SCREENED INTERVAL	7 to 14 fbg
LOGGED BY	S. Lewis	DEPTH TO WATER (First Encountered)	11.0 ft (19-Jan-05)
REVIEWED BY	A. Friel, PG 6452	DEPTH TO WATER (Static)	10.6 ft (09-Mar-05)
REMARKS			

PID (ppm)	BLOW COUNTS	SAMPLE ID	EXTENT DEPTH (fbg)	U.S.C.S.	GRAPHIC LOG	SOIL DESCRIPTION	CONTACT DEPTH (fbg)	WELL DIAGRAM
			0.4			ASPHALT	0.4	
			2.5	SM		Silty SAND with Gravel (SM) ; brown (10YR 4/3); 30% silt, 55% fine to coarse sand; 15% fine to coarse gravel.	2.5	
			5	ML		SILT (ML) ; very dark grayish brown (10YR 3/2); moist; 30% clay, 65% silt, 5% fine to coarse sand; medium plasticity.	5	
0.0	12 12 10 13 14 5 5	S-5-5 .5'	5			@ 5' - SILT with Gravel (ML) ; very dark grayish brown (10YR 3/2); moist; 25% clay, 60% silt, 15% fine gravel; low plasticity. @ 6' - very stiff.	7.5	
			10	SM		Silty SAND (SM) ; brown (10YR 4/3); medium dense; moist; 15% clay, 25% silt, 60% fine to coarse sand; 5% fine gravel. @ 9.5' - dark greenish gray (5GY 4/1).	10	
70.6	13 23 24 15 26 26	S-5-1 1.5'	10			@ 11' - moist to wet.	13.5	
			15			@ 12' - Silty SAND with GRAVEL (SM) ; dark greenish gray (5GY 4/1); dense; moist to wet; 20% silt, 50% fine to coarse sand, 30% fine to coarse gravel.	15	
8.2	19 26 30 24 27 37 25 30	S-5-1 5'	15			SILT (ML) ; dark greenish gray (5GY 4/1); hard; moist; 30% clay, 70% silt; low plasticity. (decomposed rock)	15	
			20	ML		@ 18' - SILT with Sand (ML) ; dark greenish gray (5GY 4/1); hard; moist; 30% clay, 45% silt, 25% fine to medium sand; low plasticity. (decomposed rock)	20	
3.0	9 15 7	S-5-2 0.5'	20				20	
			25			SILT with Sand (ML) ; dark greenish gray (5GY 4/1); dense; moist; 20% clay, 30% silt, 50% fine sand.	25.0	
3.3	10 15 10	S-5-2 4.5'	25				25.0	

WELL LOG (PLOT) HEADERS-AS-INTRO-ANSTED.CPL - DEFAULT.GDT - JWS



Cambria Environmental Technology, Inc.
 270 Perkins Street
 Sonoma, CA 95476
 Telephone: (707) 935-4850
 Fax: (707) 935-6649

BORING/WELL LOG

CLIENT NAME	Equiva Services LLC	BORING/WELL NAME	SB-1b
JOB/SITE NAME	OAK9750	DRILLING STARTED	25-Aug-99
LOCATION	9750 Golf Links Road, Oakland	DRILLING COMPLETED	25-Aug-99
PROJECT NUMBER	241-0735	WELL DEVELOPMENT DATE (YIELD)	NA
DRILLER	Gregg Drilling	GROUND SURFACE ELEVATION	NA
DRILLING METHOD	Hollow-stem auger, Rhino	TOP OF CASING ELEVATION	NA
BORING DIAMETER	5.25"	SCREENED INTERVAL	NA
LOGGED BY	M. Gaffney	DEPTH TO WATER (First Encountered)	NA
REVIEWED BY	A. Le May, RG	DEPTH TO WATER (Static)	NA
REMARKS			

PID (ppm)	BLOW COUNTS	SAMPLE ID	EXTENT DEPTH (ft bgs)	U.S.C.S.	GRAPHIC LOG	LITHOLOGIC DESCRIPTION	CONTACT DEPTH (ft bgs)	WELL DIAGRAM
						ASPHALT FILL: (FILL); brown; stiff; dry; 60% sand, 40% gravel; high estimated permeability.	0.5	<p>Portland Type I/II</p> <p>Bottom of Boring @ 26 ft</p>
						Gravelly SAND; (SW); brownish orange; stiff; dry; 10% silt, 60% sand, 30% gravel; high estimated permeability.	2.5	
	N/A	SB-1	-6.0-6.5	SW			5	
	N/A	SB-1	-11.0-11.5			Silty SAND; (SM); brownish orange; stiff; dry; 30% silt, 60% sand, 10% gravel; medium estimated permeability.	7.5	
	N/A	SB-1	-16.0-16.5	SM		@ 15.0'- reddish brown; 25% silt, 70% sand, 5% gravel; high estimated permeability.	15	
	N/A	SB-1	-20.5-21.0			@ 20.0'- orange brown; 20% silt, 80% sand.	20	
	N/A	SB-1	-25.5-26.0			@ 24.5'- brown gray with green spots; 5% clay, 15% silt, 80% sand.	25	
							26.5	

WELL LOG SONOMA (PID). C:\OAK7\CG-1\GINT24\OAK9750.GPJ, DEFAULT.GDT, 4/11/00



Cambria Environmental Technology, Inc.
 270 Perkins Street
 Sonoma, CA 95476
 Telephone: (707) 935-4850
 Fax: (707) 935-6649

BORING/WELL LOG

CLIENT NAME	Equiva Services LLC	BORING/WELL NAME	SB-2
JOB/SITE NAME	OAK9750	DRILLING STARTED	25-Aug-99
LOCATION	9750 Golf Links Road, Oakland	DRILLING COMPLETED	25-Aug-99
PROJECT NUMBER	241-0735	WELL DEVELOPMENT DATE (YIELD)	NA
DRILLER	Gregg Drilling	GROUND SURFACE ELEVATION	NA
DRILLING METHOD	Hollow-stem auger, Rhino	TOP OF CASING ELEVATION	NA
BORING DIAMETER	5.25"	SCREENED INTERVAL	NA
LOGGED BY	M. Gaffney	DEPTH TO WATER (First Encountered)	12.0 ft (25-Aug-99)
REVIEWED BY	A. Le May, RG	DEPTH TO WATER (Static)	NA
REMARKS			

PID (ppm)	BLOW COUNTS	SAMPLE ID	EXTENT DEPTH (ft bgs)	U.S.C.S.	GRAPHIC LOG	LITHOLOGIC DESCRIPTION	CONTACT DEPTH (ft bgs)	WELL DIAGRAM
243	N/A N/A	SB-2 -5.5-6.0	5	SM		ASPHALT FILL; (FILL); gray green; stiff; dry; 10% clay, 40% sand, 50% gravel; medium plasticity; low estimated permeability.	0.5	
<1.0	N/A N/A	SB-2 -10.5-11.0	10	SM		Silty SAND ; (SM); gray green; stiff; dry; 10% clay, 40% silt, 50% sand; low estimated permeability.	2.5	
						Silty SAND ; (SM); brownish orange; stiff; dry; 30% silt, 60% sand, 10% gravel; medium estimated permeability.	7.5	
						Chert; (Bedrock); green to white; wet.	13.5	
			15				16.0	Bottom of Boring @ 16 ft

WELL LOG SONOMA (PID) G:\OAT\IC9-1\GINT240\OAK9750.GPJ DEFAULT.GDT 4/11/00



Cambria Environmental Technology, Inc.
 270 Perkins Street
 Sonoma, CA 95476
 Telephone: (707) 935-4850
 Fax: (707) 935-6649

BORING/WELL LOG

CLIENT NAME	Equiva Services LLC	BORING/WELL NAME	SB-3
JOB/SITE NAME	OAK9750	DRILLING STARTED	25-Aug-99
LOCATION	9750 Golf Links Road, Oakland	DRILLING COMPLETED	25-Aug-99
PROJECT NUMBER	241-0735	WELL DEVELOPMENT DATE (YIELD)	NA
DRILLER	Gregg Drilling	GROUND SURFACE ELEVATION	NA
DRILLING METHOD	Hollow-stem auger, Rhino	TOP OF CASING ELEVATION	NA
BORING DIAMETER	5.25"	SCREENED INTERVAL	NA
LOGGED BY	M. Gaffney	DEPTH TO WATER (First Encountered)	20.0 ft (25-Aug-99)
REVIEWED BY	A. Le May, RG	DEPTH TO WATER (Static)	NA
REMARKS			

PID (ppm)	BLOW COUNTS	SAMPLE ID	EXTENT	DEPTH (ft bgs)	U.S.C.S.	GRAPHIC LOG	LITHOLOGIC DESCRIPTION	CONTACT DEPTH (ft bgs)	WELL DIAGRAM
				0.5			ASPHALT	0.5	
				1.5			FILL; (FILL); brown; stiff; dry; 60% sand, 40% gravel; high estimated permeability.	1.5	
				5	SM		Silty SAND; (SM); brown; stiff; dry; 20% silt, 75% sand, 5% gravel; high estimated permeability.	7.5	
N/A		SB-3 -6.0-6.5		7.5			Silty Gravelly SAND; (SP); brown; stiff; dry; 20% silt, 55% sand, 25% gravel; high estimated permeability.	7.5	
				10	SP			12.5	
N/A		SB-3 -11.0-11.5		12.5			Silty SAND; (SM); brown gray; stiff; dry; 20% silt, 75% sand, 5% gravel; high estimated permeability.	12.5	
				15				15	
N/A		SB-3 -16.0-16.5		20	SM		@ 20.0' -green; moist.	20	
N/A		SB-3 -20.5-21.0		21.0				25.0	
N/A		SB-3 -21.0-21.5		25.0			@ 25.0' -green gray; wet.	25.0	
				25				Bottom of Boring @ 25 ft	
				24.5					
				25.0					

WELL LOG SONOMA (PID) G:\OAT\CS-1\GINT\240\OAK9750.GPJ DEFAULT.GDT 4/11/00



Cambria Environmental Technology, Inc.
 270 Perkins Street
 Sonoma, CA 95476
 Telephone: (707) 935-4850
 Fax: (707) 935-6649

BORING/WELL LOG

CLIENT NAME	Equiva Services LLC	BORING/WELL NAME	SB-4
JOB/SITE NAME	OAK9750	DRILLING STARTED	25-Aug-99
LOCATION	9750 Golf Links Road, Oakland	DRILLING COMPLETED	25-Aug-99
PROJECT NUMBER	241-0735	WELL DEVELOPMENT DATE (YIELD)	NA
DRILLER	Gregg Drilling	GROUND SURFACE ELEVATION	NA
DRILLING METHOD	Hollow-stem auger, Rhino	TOP OF CASING ELEVATION	NA
BORING DIAMETER	5.25"	SCREENED INTERVAL	NA
LOGGED BY	M. Gaffney	DEPTH TO WATER (First Encountered)	NA
REVIEWED BY	A. Le May, RG	DEPTH TO WATER (Static)	NA

REMARKS

PID (ppm)	BLOW COUNTS	SAMPLE ID	EXTENT DEPTH (ft bgs)	U.S.C.S.	GRAPHIC LOG	LITHOLOGIC DESCRIPTION	CONTACT DEPTH (ft bgs)	WELL DIAGRAM
						ASPHALT FILL ; (FILL); brown; stiff; dry; 60% sand, 40% gravel; high estimated permeability.	0.5	
							2.5	
						Silty SAND ; (SM); brown; stiff; dry; 25% silt, 75% sand; medium estimated permeability.		
N/A	N/A	SB-4 -5.5-6.0	5					
N/A	N/A	SB-4 -10.5-11.0	10			@ 10.0' -gray green; moist; 25% silt, 70% sand, 5% gravel; medium estimated permeability.		
N/A	N/A	SB-4 -15.5-16.0	15	SM		@ 15.0' -dark brown with white spots; dry; 20% silt, 80% sand; medium estimated permeability.		Portland Type I/II
N/A	N/A	SB-4 -20.5-21.0	20			@ 20.0' -gray brown with black spots; 25% silt, 75% sand; medium estimated permeability.		
N/A	N/A	SB-4 -25.5-26.0	25				26.5	Bottom of Boring @ 25 ft

WELL LOG SONOMA (PID) G:\OAT\109-1\GINT240\OAK9750.GPJ DEFAULT.GOT 4/11/00



Cambria Environmental Technology, Inc.
 270 Perkins Street
 Sonoma, CA 95476
 Telephone: (707) 935-4850
 Fax: (707) 935-6649

BORING/WELL LOG

CLIENT NAME	Equiva Services LLC	BORING/WELL NAME	SB-5
JOB/SITE NAME	OAK9750	DRILLING STARTED	25-Aug-99
LOCATION	9750 Golf Links Road, Oakland	DRILLING COMPLETED	25-Aug-99
PROJECT NUMBER	241-0735	WELL DEVELOPMENT DATE (YIELD)	NA
DRILLER	Gregg Drilling	GROUND SURFACE ELEVATION	NA
DRILLING METHOD	Hollow-stem auger, Rhino	TOP OF CASING ELEVATION	NA
BORING DIAMETER	5.25"	SCREENED INTERVAL	NA
LOGGED BY	M. Gaffney	DEPTH TO WATER (First Encountered)	NA
REVIEWED BY	A. Le May, RG	DEPTH TO WATER (Static)	NA
REMARKS			

PID (ppm)	BLOW COUNTS	SAMPLE ID	EXTENT	DEPTH (ft bgs)	U.S.C.S.	GRAPHIC LOG	LITHOLOGIC DESCRIPTION	CONTACT DEPTH (ft bgs)	WELL DIAGRAM
				0.5			TOP SOIL FILL; (FILL); brown; stiff; dry; 60% sand, 40% gravel; high estimated permeability.	0.5	
	NA NA	SB-5 -5.5-6.0		5	SM		Silty SAND; (SM); brown; stiff; moist; 5% clay, 20% silt, 75% sand; medium plasticity; medium estimated permeability. @ 5.0' -organic matter present.	2.5	
	NA NA	SB-5 -10.6-11.0		10			@ 10.0' -brown orange with red spots; dry.		
	NA NA	SB-5 -16.0-16.5		15	SW		Gravelly SAND; (SW); light brown; dry; 10% silt, 75% sand, 15% gravel.	15.0	
	NA NA	SB-5 -20.5-21.0		20			@ 20.0' -gray; moist; 10% silt, 90% sand; low plasticity; high estimated permeability.	17.5	
	NA NA	SB-5 -24.0-24.5		25	SM		@ 25.0' -dark gray; dry; 10% silt, 90% sand.		
	NA NA	SB-5 -29.0-29.5		30				30.0	Bottom of Boring @ 30 ft

WELL LOG SONOMA (PID) G:\OAT\1CB-1\GINT\240\OAK9750.GPJ DEFAULT.GST 4/11/00



Cambria Environmental Technology, Inc.
 1144 - 65th St.
 Oakland, CA 94608
 Telephone: (510) 420-0700
 Fax: (510) 420-9170

BORING/WELL LOG

CLIENT NAME	<u>Equilon Enterprises LLC</u>	BORING/WELL NAME	<u>SB-1</u>
JOB/SITE NAME	<u>OAK9750</u>	DRILLING STARTED	<u>06-Jul-98</u>
LOCATION	<u>9750 Golf Links Road, Oakland</u>	DRILLING COMPLETED	<u>31-Jul-98</u>
PROJECT NUMBER	<u>240-0735</u>	WELL DEVELOPMENT DATE (YIELD)	<u>NA</u>
DRILLER	<u>Gregg Drilling</u>	GROUND SURFACE ELEVATION	<u>NA</u>
DRILLING METHOD	<u>Geoprobe/Hollow stem auger</u>	TOP OF CASING ELEVATION	<u>NA</u>
BORING DIAMETER	<u>2" and 8"</u>	SCREENED INTERVAL	<u>NA</u>
LOGGED BY	<u>M. Feineman</u>	DEPTH TO WATER (First Encountered)	<u>12.00 ft (31-Jul-98)</u>
REVIEWED BY	<u>D. Lunquist, PE</u>	DEPTH TO WATER (Static)	<u> </u>
REMARKS	<u>8 ft south of northwestern dispenser.</u>		

PID (ppm)	BLOW COUNTS	RECOVERY	SAMPLE ID	EXTENT DEPTH (ft bgs)	U.S.C.S.	GRAPHIC LOG	LITHOLOGIC DESCRIPTION	CONTACT DEPTH (ft bgs)	WELL DIAGRAM
				0.5		[Cross-hatch pattern]	CONCRETE SILT: (FILL); brown; stiff; damp; 10% clay, 90% silt; medium plasticity; moderate to low estimated permeability.	0.5	Hand auger 0-5 ft.
				1.5		[Cross-hatch pattern]	Gravelly SILT: (FILL); grey to brown; stiff; soft; 60% silt, 40% gravel; low plasticity; high estimated permeability.	1.5	
				5.0			stiff.	4.0	GeoProbe 5-16 ft.
				8.0			No recovery.	5.0	
1786				10	ML	[Vertical lines]	SILT: (ML); dark brown; stiff; damp; 10% clay, 90% silt; trace amounts of gravel; medium plasticity; moderate to low estimated permeability.	8.0	Water encountered @ 12 ft.
989.3 1786				12.0			7/31/98	12.0	
				15	SM	[Vertical lines]	Silty SAND: (SM); dark grey; loose; wet; 20% silt, 80% sand; high estimated permeability.	15.0	Refusal @ 16 ft. Hollow-stem auger 16-30 ft.
1288				20			SILT: (ML); dark brown; very stiff; dry; 10% clay, 90% silt; trace amounts of gravel; medium plasticity; moderate to low estimated permeability.	15.0	
0.0				25	ML	[Vertical lines]		15.0	Portland Type III
0.0				30				30.0	
				30				30.0	Bottom of Boring @ 30 ft

WELL LOG (PID) S:\CORS\98\CHEM\240\9750\GPRL_DEFAULT.GDT 11/04/98