CONESTOGA-ROVERS & ASSOCIATES
5900 Hollis Street, Suite A
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TRANSMITTAL

DATE: August 30, 2013 **REFERENCE NO.:** 240554

PROJECT NAME: 3420 San Pablo Avenue, Oakland

TO: Jerry Wickham
Alameda County Environmental Health
1131 Harbor Bay Parkway, Suite 250
Alameda, CA 94502-6577

Please find enclosed:
- ☐ Draft
- ☐ Originals
- ☐ Prints
- ☒ Final
- ☐ Other

Sent via:
- ☐ Mail
- ☐ Overnight Courier
- ☐ Same Day Courier
- ☒ Other GeoTracker and Alameda County FTP

QUANTITY	DESCRIPTION
1	Closure Request

- ☐ As Requested
- ☐ For Your Use
- ☒ For Review and Comment
- ☐
- ☐

COMMENTS:
If you have any questions regarding the contents of this document, please call the CRA project manager Peter Schaefer at (510) 420-3319 or the Shell program manager Perry Pineda at (425) 413-1164.

Copy to: Perry Pineda, Shell Oil Products US (electronic copy)
Shahriar Almasi, Portola Valley Shell (property owner), 965 Laurel Glen Drive, Palo Alto, CA 94304

Completed by: Peter Schaefer Signed: Peter Schaefer

Filing: **Correspondence File**

Shell Oil Products US
Soil and Groundwater Focus Delivery Group
20945 S. Wilmington Avenue
Carson, CA 90810
Tel (425) 413 1164
Fax (425) 413 0988
Email perry.pineda@shell.com
Internet http://www.shell.com

Mr. Jerry Wickham
Alameda County Environmental Health
1131 Harbor Bay Parkway, Suite 250
Alameda, California 94502-6577

Re: 3420 San Pablo Avenue
Oakland, California
SAP Code 139619
Incident No. 98995748
ACEH Case No. RO0000006

Dear Mr. Wickham:

The attached document is provided for your review and comment. Upon information and belief, I declare, under penalty of perjury, that the information contained in the attached document is true and correct.

As always, please feel free to contact me directly at (425) 413-1164 with any questions or concerns.

Sincerely,
Shell Oil Products US

Perry Pineda
Senior Environmental Program Manager

CLOSURE REQUEST

FORMER SHELL SERVICE STATION
3420 SAN PABLO AVENUE
OAKLAND, CALIFORNIA

SAP CODE	139619
INCIDENT NO.	98995748
AGENCY NO.	RO0000006

Prepared by:
Conestoga-Rovers & Associates

5900 Hollis Street, Suite A
Emeryville, California
U.S.A. 94608

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AUGUST 30, 2013
REF. NO. 240554 (18)

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EXECUTIVE SUMMARY

- This request was prepared to demonstrate that this site meets SWRCB's *Low-Threat Underground Storage Tank Case Closure Policy*.
- Petroleum hydrocarbon soil and groundwater impacts are adequately defined horizontally to below RWQCB ESLs, with the exception of TPHg in groundwater from well MW-10.
- TPHg concentrations in groundwater are declining and predicted to reach ESLs by 2062, with the exception of MW-6R, where the TPHg concentration trend is stable to slightly decreasing. These trends indicate that the TPHg plume is shrinking, and it is anticipated that TPHg concentrations in MW-6R will decline as the plume shrinks.
- Benzene and ethylbenzene groundwater concentrations in on-site wells MW-2 and MW-6R currently exceed ESLs. Historical groundwater data demonstrate that the benzene and ethylbenzene concentrations in these wells are declining, and they are all predicted to reach ESLs by 2064, a reasonable timeframe.
- The site is an active fueling facility, and there is no reasonable concern that subsurface contamination poses unacceptable indoor vapor inhalation health risk.
- The extent of impacted soil exceeding Policy criteria is limited to a single soil sample. The residual impacted soils do not appear to pose a significant threat to construction workers that may occasionally come in contact with the potentially-impacted soils on site as any work at this site would require contractors to have appropriate health and safety training to perform the work.
- Because the site is paved in the area where soil impacts exceed Policy criteria, there is low potential for outdoor air exposure under the current land use.
- On behalf of Shell, we respectfully request closure of this case. CRA requests that ACEH suspend the groundwater monitoring program during the closure review.

1.0 INTRODUCTION

Conestoga-Rovers & Associates (CRA) prepared this request on behalf of Equilon Enterprises LLC dba Shell Oil Products US (Shell) to respond to Alameda County Environmental Health's (ACEH's) June 12, 2013 letter and to demonstrate that this site meets State Water Resources Control Board's (SWRCB's) *Low-Threat Underground Storage Tank Case Closure Policy* (the Policy). ACEH's July 29, 2013 electronic correspondence approved an extension for submittal of this report to August 30, 2013.

The subject site is a former Shell service station located at the southeast corner of the San Pablo Avenue and 35th Street intersection in a mixed commercial and residential neighborhood of Oakland, California (Figure 1). Shell sold the station and property in March 2005. The site is currently an operating third-party service station (Figure 2).

A summary of previous work performed at the site is contained in Appendix A. Historical soil analytical data are presented on Table 1. Historical groundwater data are presented on Table 2, and groundwater data from the second quarter 2013 are presented on Figure 3. Historical soil vapor analytical data are presented on Table 3. Geologic cross sections are presented in Appendix B. SWRCB's low-threat site closure checklist is included in Appendix C.

2.0 LOW-THREAT CLOSURE EVALUATION

Data demonstrate that site conditions meet the case closure criteria outlined in the Policy. These criteria are addressed below.

2.1 GENERAL CRITERIA

2.1.1 THE UNAUTHORIZED RELEASE IS LOCATED THE SERVICE AREA OF A PUBLIC WATER SYSTEM

East Bay Municipal Utility District is the public water system for the site and the surrounding area.

2.1.2 THE UNAUTHORIZED RELEASE CONSISTS ONLY OF PETROLEUM

As stated above, the site is currently operated as a third-party service station. Soil and groundwater impacts identified in site investigations consist only of petroleum hydrocarbons and fuel additives.

2.1.3 THE UNAUTHORIZED ("PRIMARY") RELEASE FROM THE UNDERGROUND STORAGE TANK (UST) SYSTEM HAS BEEN STOPPED

During dispenser replacement in December 1984, gasoline-saturated soil was discovered beneath the pump island area. Product lines were tested, and super unleaded and regular gasoline systems failed. The USTs and product piping were replaced in January 1985. In 1997, fuel systems at the site were upgraded, and one 550-gallon waste oil tank was removed.

2.1.4 FREE PRODUCT HAS BEEN REMOVED TO THE MAXIMUM EXTENT PRACTICABLE

Separate-phase hydrocarbons (SPHs) were observed intermittently in wells MW-1, MW-2, and MW-4 through MW-7 from 1991 to 1997. SPHs were measured intermittently in well MW-6R from October 2003 to October 2010. Approximately 27.7 pounds of SPHs have been removed by hand bailing and using SPH-absorbent socks.

2.1.5 A CONCEPTUAL SITE MODEL THAT ASSESSES THE NATURE, EXTENT, AND MOBILITY OF THE RELEASE HAS BEEN DEVELOPED

Cambria Environmental Technology, Inc.'s (Cambria's) December 19, 2005 *Site Conceptual Model Report* (SCM) recommended additional activities including conducting a risk evaluation. Cambria's *Groundwater Monitoring Report – First Quarter 2006, Water Leak and Risk Evaluation* recommended conducting soil gas sampling around the station building. No constituents of concern (COCs) were detected during Cambria's soil vapor investigation in the area of the station building in October 2006.

A product piping soil sample from June 1997 (P-7) and a soil sample collected from one of the borings drilled in October 2006 (SB-1 at 2 feet below grade [fbg]) contained up to 2,000 milligrams per kilogram (mg/kg) lead. ACEH requested additional investigations

of the lead detections in shallow soils, which CRA completed in January 2012, May 2012, and February 2013. CRA determined that the distribution of lead in shallow soils did not appear to be related to petroleum hydrocarbon releases and may be part of a regional impact.

Together, the 2005 updated SCM and subsequent investigations and reports constitute a comprehensive SCM for the site.

2.1.6 SECONDARY SOURCE REMOVAL HAS BEEN REMOVED TO THE EXTENT PRACTICABLE

Between October 1991 and October 1997, SPHs were observed for various periods in monitoring wells MW-1, MW-2, and MW-4 through MW-7. From October 2003 to October 2010, SPHs were measured intermittently in MW-6R. Bailing, skimming, and SPH-absorbent cartridges have removed an estimated 27.7 pounds of SPHs.

Approximately 10,000 gallons of groundwater were removed for off-site disposal during station renovations in 1997 and 1998.

In January 2004, a vacuum truck removed approximately 71 gallons of SPHs and groundwater from well MW-6R.

According to the Policy and *Leaking Underground Fuel Tank Guidance Manual, Chapter 17, September 2012*, "A secondary source is defined as petroleum-impacted soil or groundwater located at or immediately beneath the point of release from the primary source. To the extent practicable means implementing a cost-effective corrective action which removes or destroys in place the most readily recoverable fraction of source-area mass. It is expected that most secondary mass-removal efforts will be completed in one year or less. Following removal or destruction of the secondary source, additional removal or active remedial actions shall not be required by regulatory agencies unless (1) necessary to abate a demonstrated threat to human health or (2) the groundwater plume does not meet the definition of low threat as described in the policy."

The remediation performed (SPH removal and groundwater extraction) appears to have been effective in remediating the site to the extent practicable. Additional remedial actions are not warranted as there is not a demonstrated threat to human health, and the groundwater plume meets low-threat closure criteria.

2.1.7 SOIL OR GROUNDWATER HAS BEEN TESTED FOR METHYL TERTIARY-BUTYL ETHER (MTBE)

Soil samples collected since June 1997 have been analyzed for MTBE. Groundwater samples have been analyzed for MTBE since October 1995. Analytical data have been reported to the ACEH in investigation reports and periodic groundwater monitoring reports.

2.1.8 NUISANCE AS DEFINED BY WATER CODE SECTION 13050 DOES NOT EXIST AT THE SITE

According to the Policy and *Leaking Underground Fuel Tank Guidance Manual, Chapter 17, September 2012;* "A nuisance is defined as anything that meets all of the following requirements:

1. Is injurious to health, or is indecent or offensive to the senses, or an obstruction the free use of property, so as to interfere with the comfortable enjoyment of life or property.
2. Affects at the same time an entire community or neighborhood, or any considerable number of persons, although the extent of the annoyance or damage inflicted upon individuals may be unequal.
3. Occurs during, or as a result of, the treatment or disposal of wastes."

Site conditions do not interfere with enjoyment of life or property, affect an entire community or neighborhood, and present a nuisance during or as a result of the treatment or disposal of wastes.

2.2 MEDIA-SPECIFIC CRITERIA

2.2.1 GROUNDWATER

Figures 4 through 10 present groundwater concentration trends for COCs that currently exceed San Francisco Bay Regional Water Quality Control Board (RWQCB) environmental screening levels (ESLs)[1]. Total petroleum hydrocarbons as gasoline (TPHg) concentrations in groundwater are declining and predicted to reach ESLs by

[1] *Screening for Environmental Concerns at Site With Contaminated Soil and Groundwater,* California Regional Water Quality Control Board, Interim Final – November 2007 [Revised May 2008] – Updated May 2013

2062, with the exception of MW-6R where the TPHg concentration trend is stable to slightly decreasing. These trends indicate that the TPHg plume is shrinking, and it is anticipated that TPHg concentrations in MW-6R will decline further as the plume shrinks.

Historical data from monitoring wells MW-9 through MW-11 adequately define TPHg, benzene, toluene, ethylbenzene, and total xylenes (BTEX), MTBE, and tertiary-butyl alcohol (TBA) impacts horizontally in groundwater to below applicable ESLs, with the exception of TPHg in MW-10. As shown in Figure 10, TPHg concentrations in well MW-10 are declining and are expected to reach the RWQCB ESL by September 2038, a reasonable timeframe.

It should also be noted that the ESL document states that "TPH ESLs must be used in conjunction with ESLs for related chemicals," in this case BTEX, MTBE, and TBA. Only benzene and ethylbenzene groundwater concentrations in on-site wells MW-2 and MW-6R currently exceed ESLs. Historical groundwater data demonstrate that the benzene and ethylbenzene concentrations in these wells are declining, and they are predicted to reach ESLs by 2064, also a reasonable timeframe.

The contaminant plume that exceeds water quality objectives (WQOs) consists of only TPHg, benzene, and ethylbenzene. As discussed above, benzene and ethylbenzene are adequately defined to below WQOs and the plume lengths are less than 150 feet. As discussed above, TPHg is not defined to below WQOs west of well MW-10. However, as discussed above, because BTEX, MTBE, and TBA are all adequately defined, additional investigation is not warranted. Further, the TPHg plume length is likely less than 250 feet long[2]. Since the plume is limited in size, is decreasing in areal extent, is not likely to impact any receptors, and COCs are predicted to reach ESLs in a reasonable timeframe, this site meets the requirements for Class 3 for groundwater in the Policy.

2.2.2 VAPOR

The Policy states, "Exposures to petroleum vapors associated with historical fuel system releases are comparatively insignificant relative to exposures from small surface spills and fugitive vapor releases that typically occur at active fueling facilities. Therefore, satisfaction of the media-specific criteria for petroleum vapor intrusion to indoor air is

---

2 *Technical Justification for Groundwater Plume Lengths, Indicator Constituents, Concentrations, and Buffer Distances (Separation Distances) to Receptors,* California State Water Resources Control Board, July 12, 2011

not required at active commercial petroleum facilities, except in cases where release characteristics can be reasonably believed to pose an unacceptable risk."

The site is an active fueling facility, and there is no reasonable concern that subsurface contamination poses unacceptable indoor inhalation health risk.

2.2.3 DIRECT CONTACT AND OUTDOOR AIR EXPOSURE

With a single exception, this site meets the residential direct contact and outdoor air requirements for benzene in commercial soil specified in scenario 1 in the low-threat document:

- *Benzene and ethylbenzene concentrations at 0 to 5 fbg are less than 8.2 mg/kg, and 89 mg/kg, respectively:* Soil samples collected from 0 to 5 fbg have contained up to 0.20 mg/kg benzene and 0.38 mg/kg ethylbenzene, with the exception of 74 mg/kg benzene in a soil sample collected from boring SB-2 at 2 fbg in October 2006.
- *Benzene and ethylbenzene concentrations at 5 to 10 fbg are less than 12 mg/kg, and 134 mg/kg, respectively:* Soil samples collected from 5 to 10 fbg have contained up to 1.9 mg/kg benzene and 43 mg/kg ethylbenzene.

As discussed above, the extent of impacted soil exceeding the criteria is limited to a single sample. Because the site is paved in the area of SB-2, there is low potential for direct exposure under the current land use. In addition, any worker doing trenching or excavating at a current or former gasoline station would be properly trained and prepared for encountering potentially-impacted soil and would wear personal protective equipment, as necessary. Therefore, the residual impacted soils do not appear to pose a significant threat to construction workers that may occasionally come in contact with the potentially-impacted soils on site, and any work at this site would require contractors to have appropriate health and safety training to perform the work. Because of the limited soil impacts and institutional controls, soils at this site do not pose a significant human health risk and the case meets the requirements for scenario 3c in the Policy.

3.0 CLOSURE REQUEST

Given the concentrations and extents of COCs remaining in site soil and groundwater, CRA concludes that the residual petroleum and fuel oxygenate impacts at this site pose very little or no risk to human health or the environment.

This site meets the Policy closure requirements. Therefore, on behalf of Shell, we respectfully request closure of this case. CRA requests that ACEH suspend the groundwater monitoring program during the closure review.

All of Which is Respectfully Submitted,
CONESTOGA-ROVERS & ASSOCIATES

Peter Schaefer, CEG, CHG

Aubrey K. Cool, PG

FIGURES

12/02/08

I:\Shell\6-chars\2405--\240554-Oakland 3420 San Pablo\240554-FIGURES\240554 VICINITY.AI

FIGURE
1

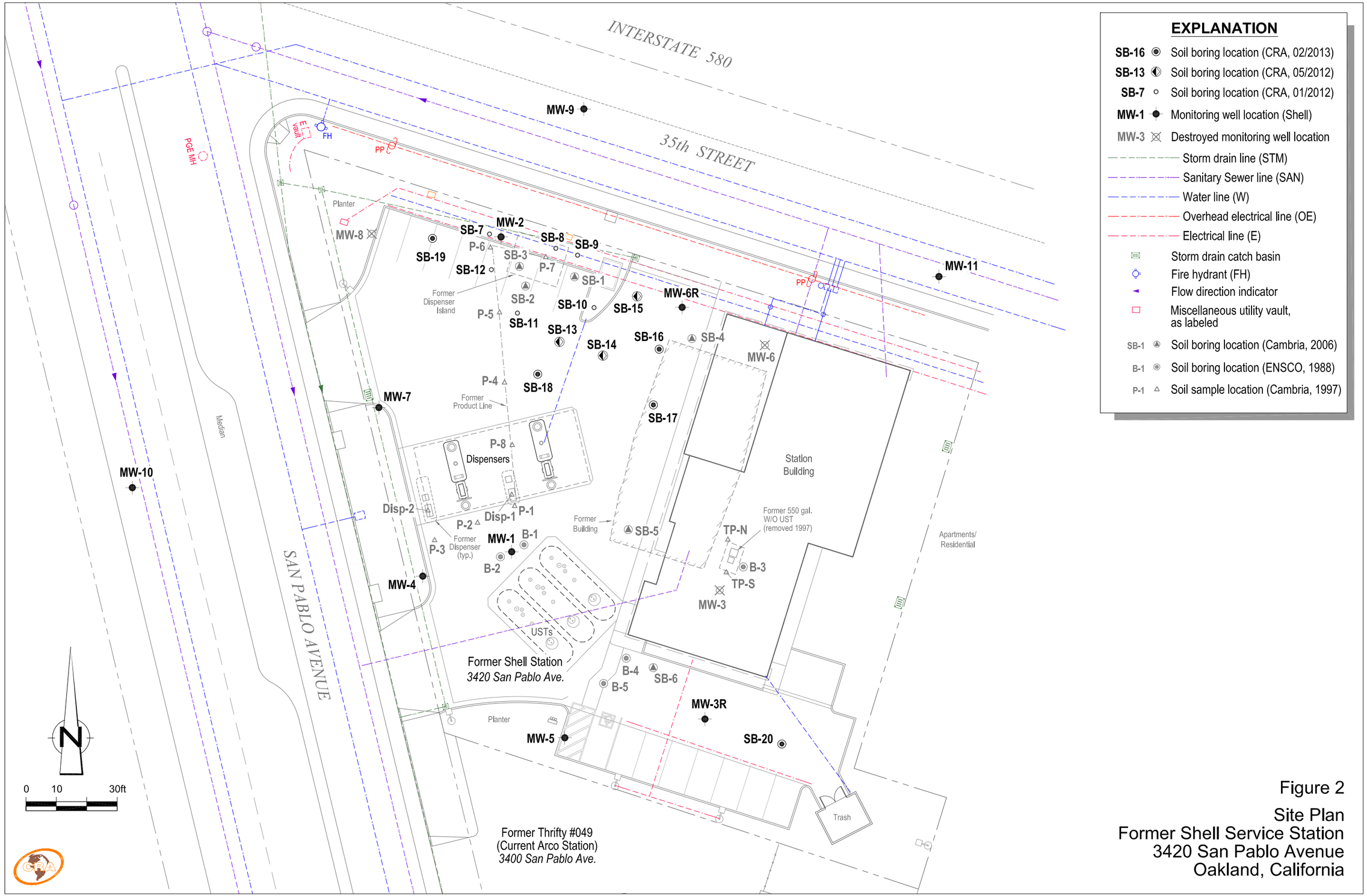
0 1/8 1/4 1/2 1

SCALE (MILES)

Former Shell Service Station
3420 San Pablo Avenue
Oakland, California

CONESTOGA-ROVERS & ASSOCIATES

Vicinity Map



EXPLANATION

- SB-16 — Soil boring location (CRA, 02/2013)
- SB-13 — Soil boring location (CRA, 05/2012)
- SB-7 — Soil boring location (CRA, 01/2012)
- MW-1 — Monitoring well location (Shell)
- MW-3 — Destroyed monitoring well location
- Storm drain line (STM)
- Sanitary Sewer line (SAN)
- Water line (W)
- Overhead electrical line (OE)
- Electrical line (E)
- Storm drain catch basin
- Fire hydrant (FH)
- Flow direction indicator
- Miscellaneous utility vault, as labeled
- SB-1 — Soil boring location (Cambria, 2006)
- B-1 — Soil boring location (ENSCO, 1988)
- P-1 — Soil sample location (Cambria, 1997)

Figure 2

Site Plan
Former Shell Service Station
3420 San Pablo Avenue
Oakland, California

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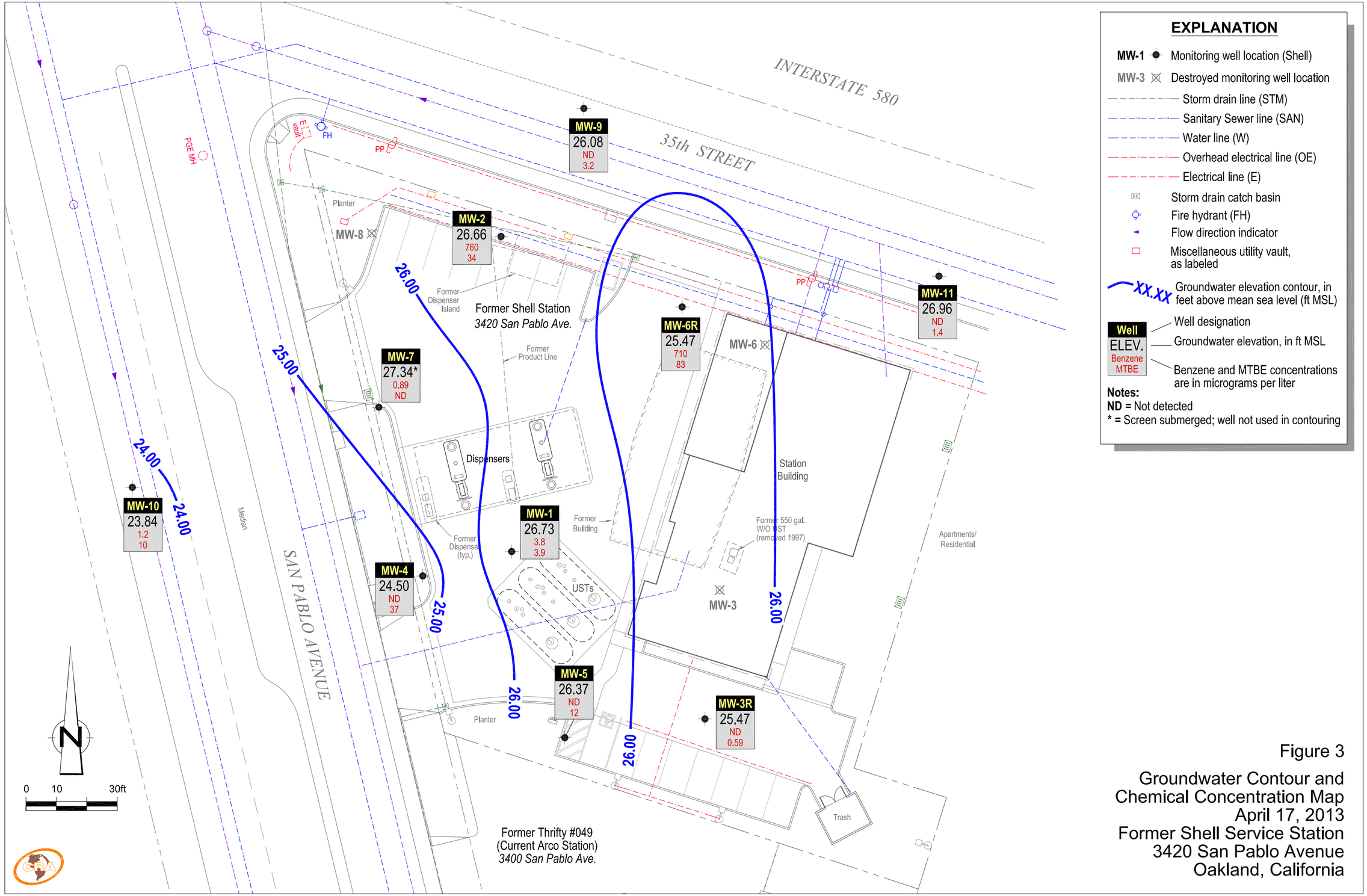


EXPLANATION

- MW-1 — Monitoring well location (Shell)
- MW-3 — Destroyed monitoring well location
- Storm drain line (STM)
- Sanitary Sewer line (SAN)
- Water line (W)
- Overhead electrical line (OE)
- Electrical line (E)
- Storm drain catch basin
- Fire hydrant (FH)
- Flow direction indicator
- Miscellaneous utility vault, as labeled
- XX.XX — Groundwater elevation contour, in feet above mean sea level (ft MSL)

Well
ELEV.
Benzene
MTBE

- Well designation
- Groundwater elevation, in ft MSL
- Benzene and MTBE concentrations are in micrograms per liter

Notes:
ND = Not detected
*** =** Screen submerged; well not used in contouring

Figure 3

Groundwater Contour and Chemical Concentration Map
April 17, 2013
Former Shell Service Station
3420 San Pablo Avenue
Oakland, California

I:\Shell\6-chars\2405--\240554-Oakland 3420 San Pablo\240554-REPORTS\240554-RPT17-2Q13\240554 2QM13-GW.DWG (07/31/2013)

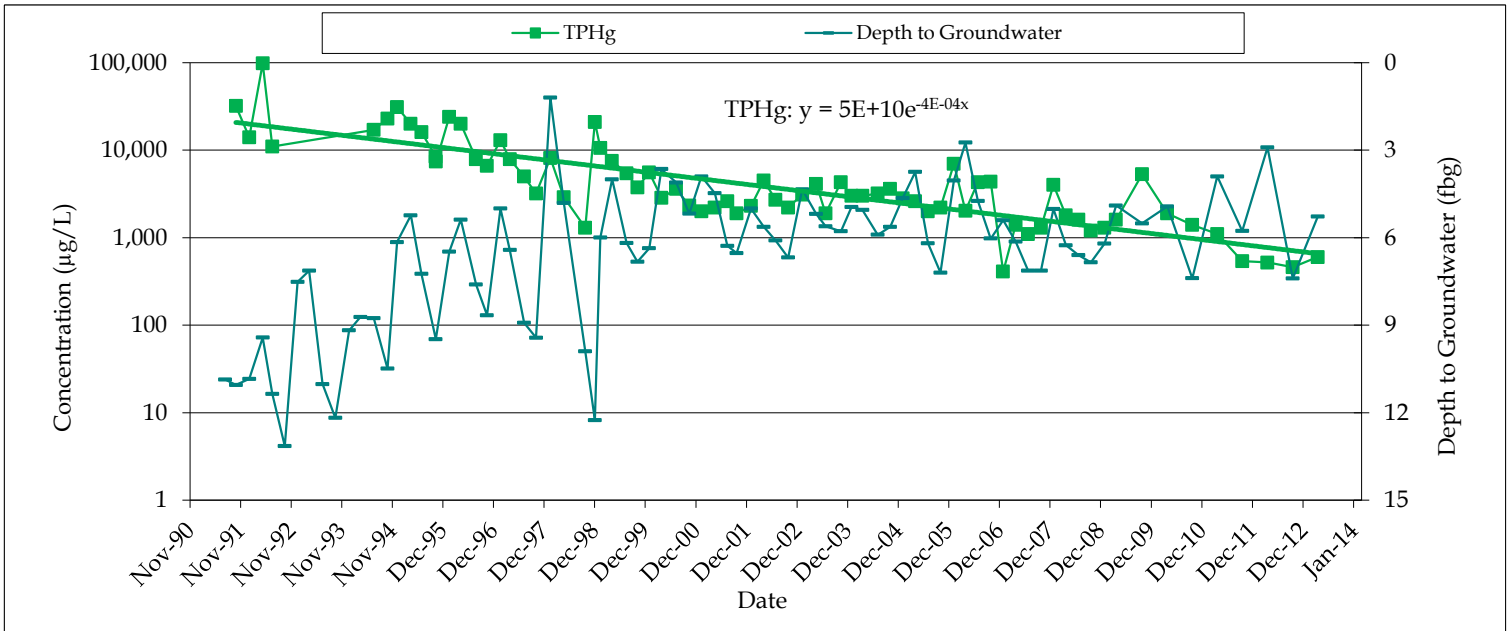
Figure 4: Predicted Time to Reach Environmental Screening Levels (ESL) in Well MW-1

Independent Service Station 3420 San Pablo Avenue, Oakland, California

$y = b\,e^{ax}$ **===>** $x = \ln(y/b) / a$

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

		Constituent: Total Petroleum Hydrocarbons as Gasoline
Given		
ESL :	y	500
Constant:	b	5.00E+10
Constant:	a	-4.00E-04
Starting date for current trend:		8/6/1991
Calculate		
Attenuation Half Life (years):	(-ln(2)/a)/365.25	4.74
Estimated Date to Reach ESL:	(x = ln(y/b) / a)	Jan 2026



SHELL-BRANDED SERVICE STATION
3420 SAN PABLO AVENUE
OAKLAND, CALIFORNIA

CONESTOGA-ROVERS & ASSOCIATES

MW-1: TPHG CONCENTRATIONS AND DEPTH TO GROUNDWATER

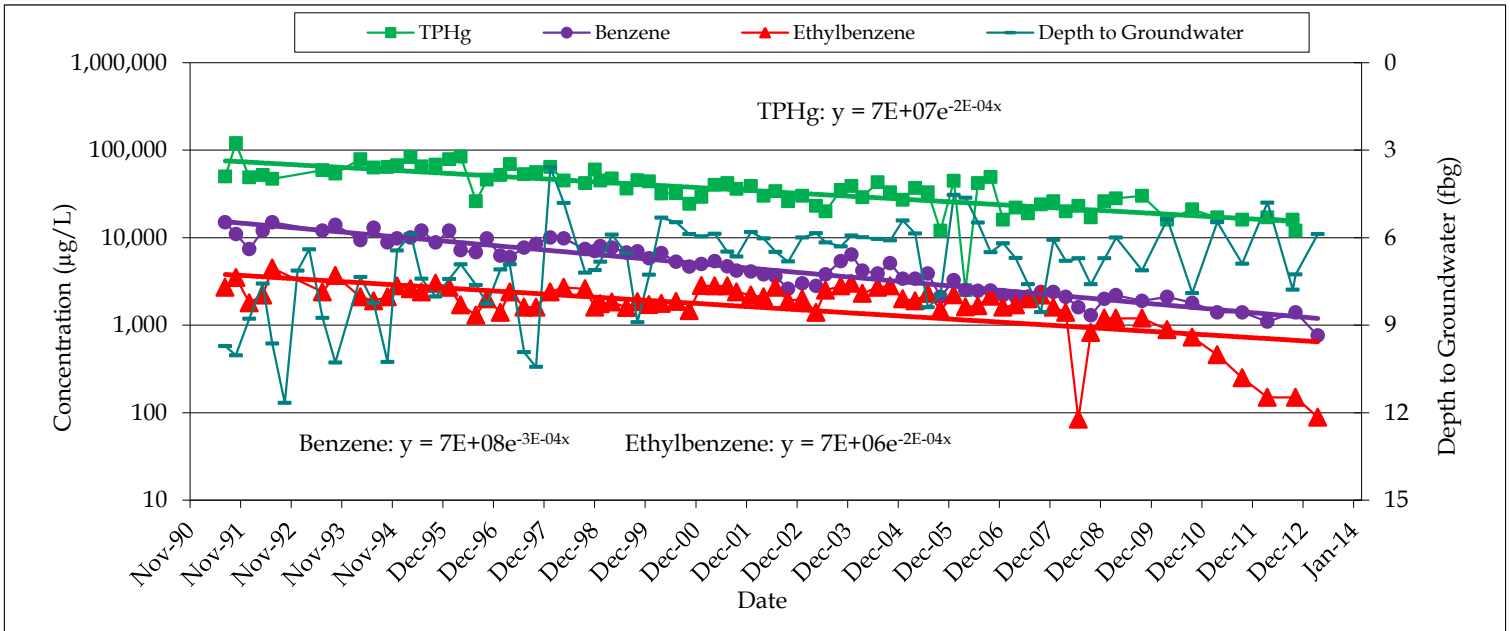
Figure 5: Predicted Time to Reach Environmental Screening Levels (ESL) in Well MW-2

Independent Service Station 3420 San Pablo Avenue, Oakland, California

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

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

	Constituent	Total Petroleum Hydrocarbons as Gasoline	Benzene	Ethylbenzene
Given				
ESL :	y	500	27	43
Constant:	b	7.00E+07	7.00E+08	7.00E+06
Constant:	a	-2.00E-04	-3.00E-04	-2.00E-04
Starting date for current trend:		8/6/1991	8/6/1991	8/6/1991
Calculate				
Attenuation Half Life (years):	(-ln(2)/a)/365.25	9.49	6.33	9.49
Estimated Date to Reach ESL:	(x = ln(y/b) / a)	Mar 2062	Oct 2055	Apr 2064



SHELL-BRANDED SERVICE STATION
3420 SAN PABLO AVENUE
OAKLAND, CALIFORNIA

CONESTOGA-ROVERS & ASSOCIATES

MW-2: TPHG, BENZENE, AND ETHYLBENZENE CONCENTRATIONS AND DEPTH TO GROUNDWATER

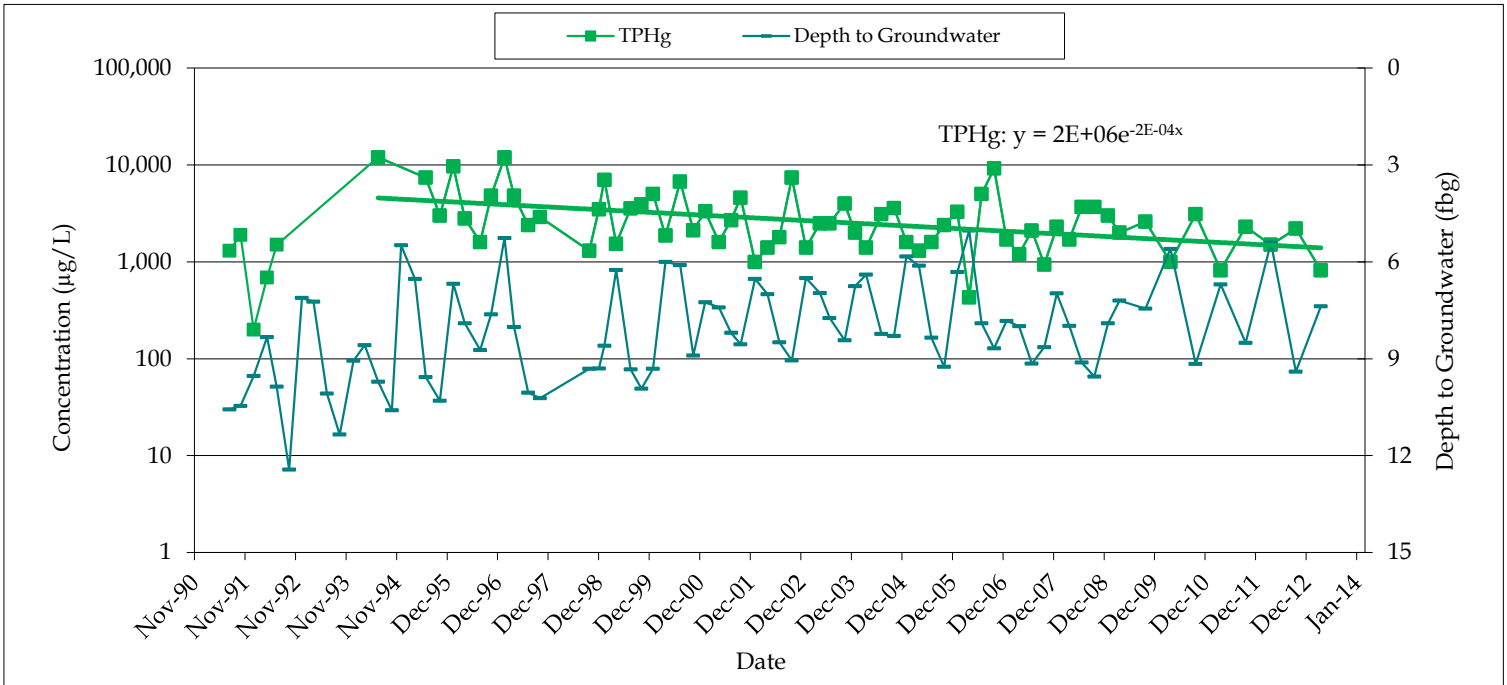
Figure 6: Predicted Time to Reach Environmental Screening Levels (ESL) in Well MW-4

Independent Service Station 3420 San Pablo Avenue, Oakland, California

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

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

		Constituent: Total Petroleum Hydrocarbons as Gasoline
Given		
ESL :	y	500
Constant:	b	2.00E+06
Constant:	a	-2.00E-04
Starting date for current trend:		7/19/1994
Calculate		
Attenuation Half Life (years):	(-ln(2)/a)/365.25	9.49
Estimated Date to Reach ESL:	(x = ln(y/b) / a)	Sep 2021



SHELL-BRANDED SERVICE STATION
3420 SAN PABLO AVENUE
OAKLAND, CALIFORNIA

CONESTOGA-ROVERS & ASSOCIATES

MW-4: TPHG CONCENTRATIONS AND DEPTH TO GROUNDWATER

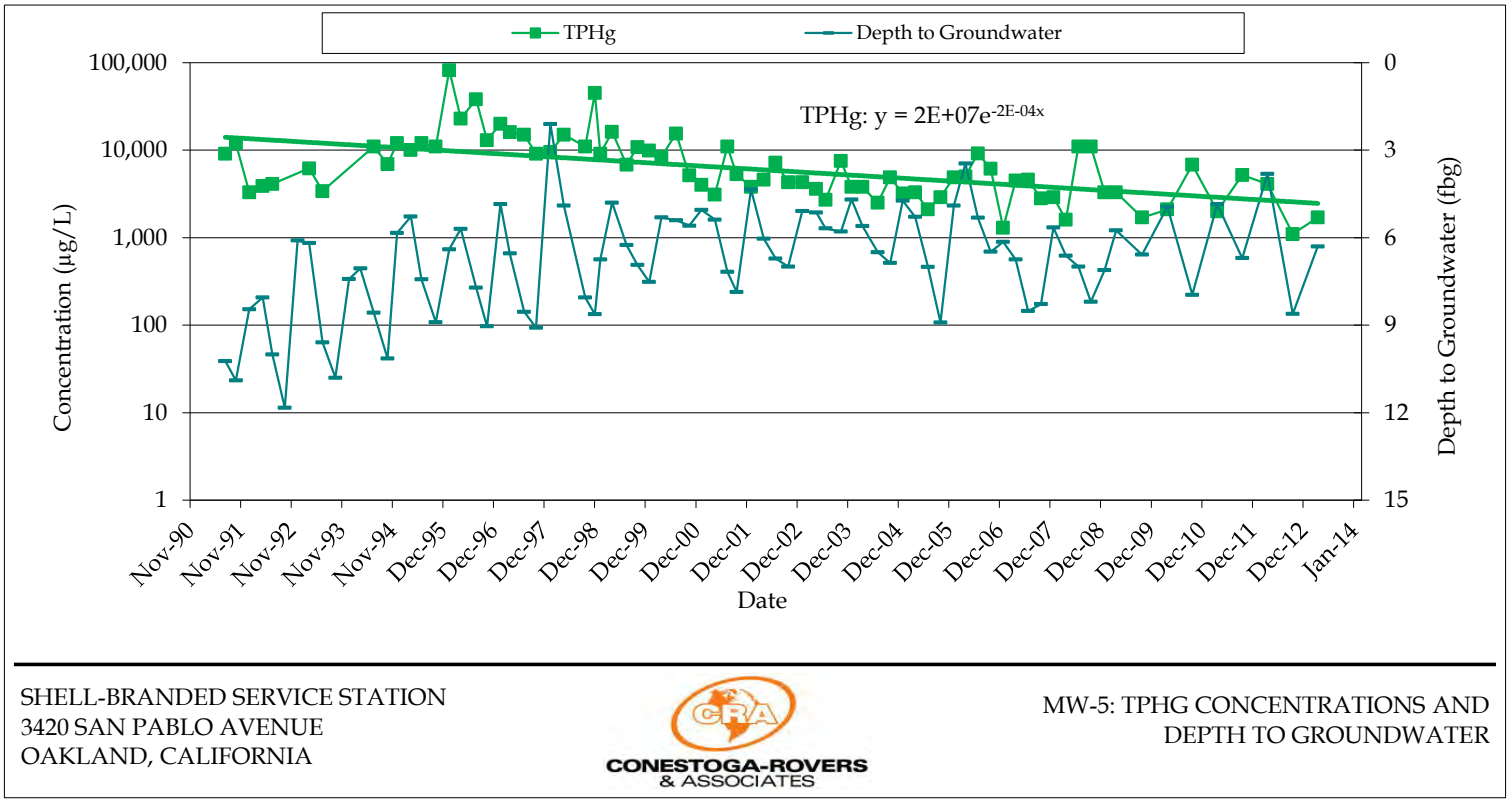
Figure 7: Predicted Time to Reach Environmental Screening Levels (ESL) in Well MW-5

Independent Service Station 3420 San Pablo Avenue, Oakland, California

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

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

	Constituent	Total Petroleum Hydrocarbons as Gasoline
Given		
ESL :	y	500
Constant:	b	2.00E+07
Constant:	a	-2.00E-04
Starting date for current trend:		8/6/1991
Calculate		
Attenuation Half Life (years):	(-ln(2)/a)/365.25	9.49
Estimated Date to Reach ESL:	(x = ln(y/b) / a)	Jan 2045



SHELL-BRANDED SERVICE STATION
3420 SAN PABLO AVENUE
OAKLAND, CALIFORNIA

CONESTOGA-ROVERS & ASSOCIATES

MW-5: TPHG CONCENTRATIONS AND DEPTH TO GROUNDWATER

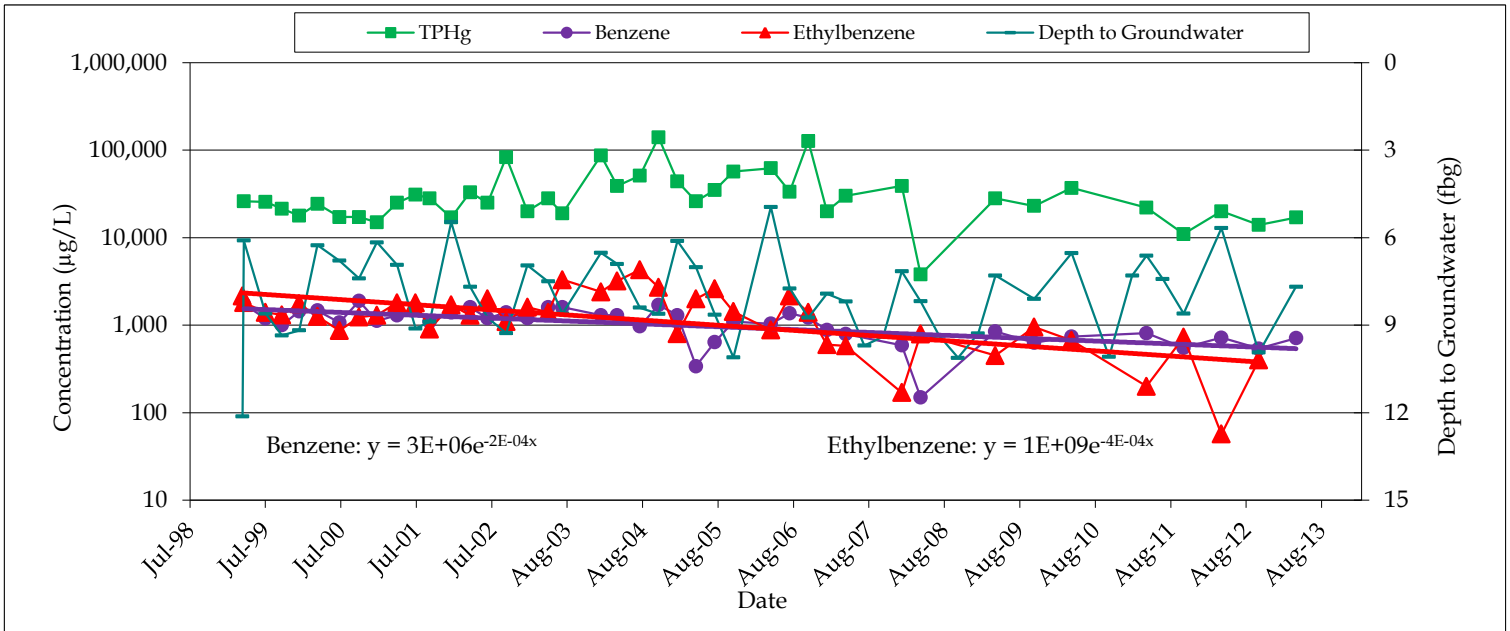
Figure 8: Predicted Time to Reach Environmental Screening Levels (ESL) in Well MW-6R

Independent Service Station 3420 San Pablo Avenue, Oakland, California

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

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

	Constituent	Total Petroleum Hydrocarbons as Gasoline	Benzene	Ethylbenzene
Given				
ESL :	y	500	27	43
Constant:	b		3.00E+06	1.00E+09
Constant:	a		-2.00E-04	-4.00E-04
Starting date for current trend:		4/6/1999	4/6/1999	4/6/1999
Calculate				
Attenuation Half Life (years):	(-ln(2)/a)/365.25	Stable	9.49	4.74
Estimated Date to Reach ESL:	(x = ln(y/b) / a)	Stable	Jan 2059	Feb 2016



SHELL-BRANDED SERVICE STATION
3420 SAN PABLO AVENUE
OAKLAND, CALIFORNIA

CONESTOGA-ROVERS & ASSOCIATES

MW-6R: TPHG, BENZENE, AND ETHYLBENZENE CONCENTRATIONS AND DEPTH TO GROUNDWATER

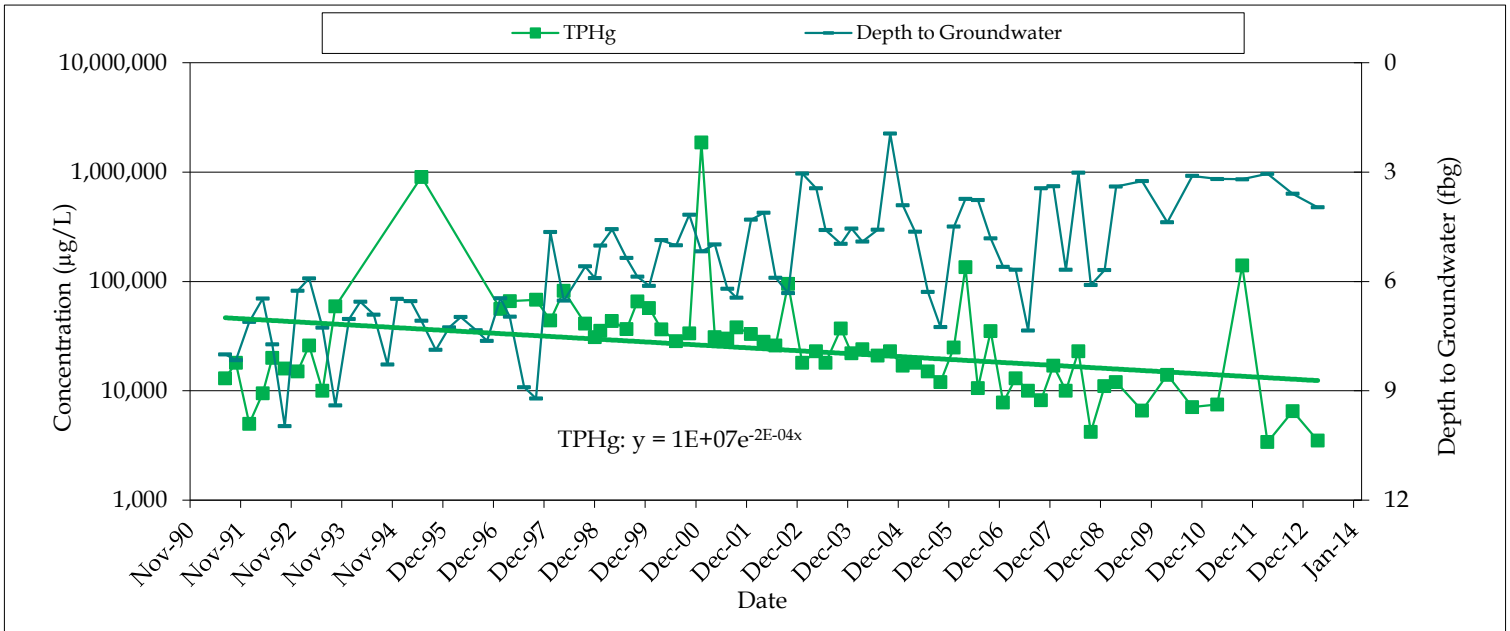
Figure 9: Predicted Time to Reach Environmental Screening Levels (ESL) in Well MW-7

Independent Service Station 3420 San Pablo Avenue, Oakland, California

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

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

		Constituent: Total Petroleum Hydrocarbons as Gasoline
Given		
ESL :	y	500
Constant:	b	1.00E+07
Constant:	a	-2.00E-04
Starting date for current trend:		8/6/1991
Calculate		
Attenuation Half Life (years):	(-ln(2)/a)/365.25	9.49
Estimated Date to Reach ESL:	(x = ln(y/b) / a)	Jul 2035



SHELL-BRANDED SERVICE STATION
3420 SAN PABLO AVENUE
OAKLAND, CALIFORNIA

CONESTOGA-ROVERS & ASSOCIATES

MW-7: TPHG CONCENTRATIONS AND DEPTH TO GROUNDWATER

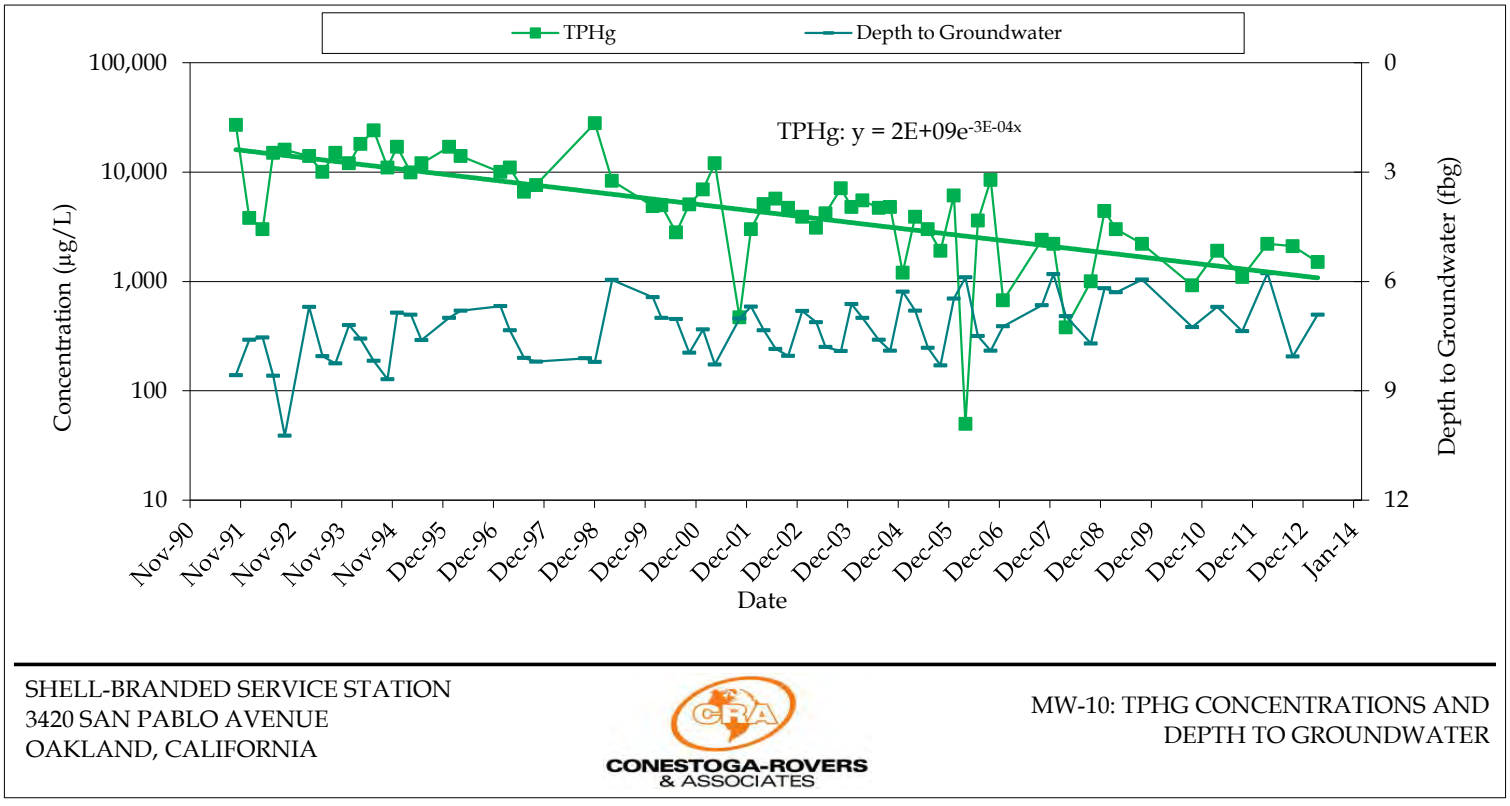
Figure 10: Predicted Time to Reach Environmental Screening Levels (ESL) in Well MW-10

Independent Service Station 3420 San Pablo Avenue, Oakland, California

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

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

		Constituent: Total Petroleum Hydrocarbons as Gasoline
Given		
ESL :	y	500
Constant:	b	2.00E+09
Constant:	a	-3.00E-04
Starting date for current trend:		10/23/1991
Calculate		
Attenuation Half Life (years):	(-ln(2)/a)/365.25	6.33
Estimated Date to Reach ESL:	(x = ln(y/b) / a)	Sep 2038



SHELL-BRANDED SERVICE STATION
3420 SAN PABLO AVENUE
OAKLAND, CALIFORNIA

CONESTOGA-ROVERS & ASSOCIATES

MW-10: TPHG CONCENTRATIONS AND DEPTH TO GROUNDWATER

TABLES

TABLE 1

HISTORICAL SOIL ANALYTICAL DATA
FORMER SHELL SERVICE STATION
3420 SAN PABLO AVENUE, OAKLAND, CALIFORNIA

Sample ID	*Date*	*Depth (fbg)*	*TPHg (mg/kg)*	*B (mg/kg)*	*T (mg/kg)*	*E (mg/kg)*	*X (mg/kg)*	*MTBE (mg/kg)*	*Total Lead (mg/kg)*
B-1	8/8/1988	5 - 5.5	1,400	1.9	42	43	120	---	---
B-1	8/8/1988	9.5 - 10	80	---	---	---	---	---	---
B-1	8/8/1988	15 - 15.5	<5.0	---	---	---	---	---	---
B-1	8/8/1988	20 - 20.5	<5.0	---	---	---	---	---	---
B-2	8/8/1988	5 - 5.5	550	1.5	16	35	33	---	---
B-2	8/8/1988	10 - 10.5	580	0.7	3.3	7.8	48	---	---
B-3	8/8/1988	5, 10, and 15	<5.0	---	---	---	---	---	---
B-4	8/8/1988	5, 10, and 15	<5.0	---	---	---	---	---	---
B-5	8/8/1988	5, 10, and 15	<5.0	---	---	---	---	---	---
MW-1	4/10/1989	5.5 - 6	850	1.2	14	19	100	---	4
MW-1	4/10/1989	10.5 - 11	80	<0.05	1.9	1.9	16	---	3
MW-2	4/10/1989	10.5 - 11	70	0.4	1.5	1.7	1.5	---	8
MW-3	4/10/1989	10.5 - 11	<0.2	<0.002	0.010	0.008	0.069	---	3
MW-4	4/10/1989	10.5 - 11	<0.2	<0.002	0.005	0.004	0.031	---	2
MW-5	1/19/1990	5.5 - 6	5.0	<0.05	<0.1	<0.1	<0.1	---	---
MW-6	1/19/1990	5.5 - 6	<1.0	<0.05	<0.1	<0.1	<0.1	---	---
MW-7	1/19/1990	5.5 - 6	14	0.078	<0.1	0.21	<0.1	---	---
MW-8	1/18/1990	5.5 - 6	<1.0	<0.05	<0.1	<0.1	<0.1	---	---
MW-9	1/18/1990	10.5 - 11	6.1	<0.05	<0.1	0.39	0.14	---	---
MW-10	10/23/1991	5	1.4	0.015	0.006	0.010	0.008	---	---
MW-10	10/23/1991	10	1.8	0.06	<0.0050	0.027	0.0070	---	---
MW-11	10/23/1991	5	<1.0	<0.0050	<0.0050	<0.0050	<0.0050	---	---
MW-11	10/23/1991	10	<1.0	<0.0050	<0.0050	<0.0050	<0.0050	---	---
Disp-1-2.5	6/26/1997	2.5	8.4	0.054	0.046	0.0094	0.21	1.6	5.8
Disp-2-2.0	6/26/1997	2	51	0.075	1.6	0.38	1.6	7.9	9.6
TP-N-7	6/26/1997	7	<1.0	<0.0050	<0.0050	<0.0050	<0.0050	<0.025	<5.0
TP-S-7	6/26/1997	7	<1.0	<0.0050	<0.0050	<0.0050	<0.0050	<0.025	6.4
P-1-2.5	6/26/1997	2.5	39	0.13	0.051	0.012	0.032	0.82	7.4
P-2-2.5	6/26/1997	2.5	17	0.035	0.079	0.063	0.11	0.33	7.4
P-3-2.5	6/26/1997	2.5	16	0.028	0.059	0.019	0.026	0.092	6.9
P-4-4.0	6/26/1997	4	19	0.041	0.053	<0.010	0.078	<0.050	7.4
P-5-4.0	6/26/1997	4	3.1	0.016	0.0054	<0.0050	0.018	0.028	7.4
P-6-2.5	6/26/1997	2.5	<1.0	<0.0050	<0.0050	<0.0050	<0.0050	<0.025	33

TABLE 1

HISTORICAL SOIL ANALYTICAL DATA
FORMER SHELL SERVICE STATION
3420 SAN PABLO AVENUE, OAKLAND, CALIFORNIA

Sample ID	*Date*	*Depth (fbg)*	*TPHg (mg/kg)*	*B (mg/kg)*	*T (mg/kg)*	*E (mg/kg)*	*X (mg/kg)*	*MTBE (mg/kg)*	*Total Lead (mg/kg)*
P-7-2.0	6/26/1997	2	4.5	0.040	0.0097	0.0095	0.053	<0.025	**2,000**
P-8-2.5	6/26/1997	2.5	120	<0.12	0.43	0.33	0.42	<0.62	8.2
SB-1-2	10/4/2006	2	<1.0	0.011	<0.0050	0.0058	0.017	0.0096	**620**
SB-1-5	10/4/2006	5	6.9	0.0066	<0.0050	<0.0050	<0.010	<0.0050	140
SB-1-8	10/4/2006	8	**46,000**	<25	<25	<25	<50	<25	250
SB-2-2	10/4/2006	2	**12,000**	**74**	<25	<25	**82**	<25	180
SB-2-5	10/4/2006	5	1.8	<0.0050	<0.0050	<0.0050	<0.010	<0.0050	<20
SB-2-8	10/4/2006	8	160	<0.12	<0.12	2.2	1.3	<0.12	<20
SB-3-2	10/4/2006	2	4.7	0.058	0.0075	0.018	0.079	0.15	58
SB-3-5	10/4/2006	5	**11,000**	<25	<25	<25	<50	<25	<20
SB-3-8	10/4/2006	8	27	<0.12	<0.12	<0.12	<0.25	<0.12	<20
SB-4-4.5	10/4/2006	4.5	<1.0	<0.0050	<0.0050	<0.0050	<0.010	<0.0050	<5
SB-5-4.5	10/4/2006	4.5	2.9	<0.0050	<0.0050	<0.0050	<0.010	0.059	<5
SB-6-4.5	10/4/2006	4.5	7.2	0.012	0.017	0.018	0.16	<0.0050	29
SB-7-1'	1/16/2012	1	<0.099	0.0020	<0.0020	<0.0020	<0.0040	<0.0050	79
SB-7-2'	1/16/2012	2	<0.12	0.0023	<0.0023	<0.0023	<0.0046	0.0058	**340**
SB-7-5'	1/16/2012	5	<0.20	<0.00099	<0.00099	<0.00099	<0.0020	<0.0020	5.2
SB-8-1'	1/16/2012	1	<0.085	0.0023	<0.0017	<0.0017	<0.0034	<0.0043	160
SB-8-2'	1/16/2012	2	<0.096	0.0044	<0.0019	<0.0019	<0.0039	<0.0048	250
SB-8-5'	1/16/2012	5	1.7	<0.00098	<0.00098	<0.00098	<0.0020	<0.0020	4.9
SB-9-1'	1/16/2012	1	0.12	0.0025	0.0023	<0.0018	<0.0036	<0.0045	97
SB-9-2'	1/16/2012	2	<0.083	0.0048	<0.0017	<0.0017	<0.0033	<0.0042	**720**
SB-9-5'	1/16/2012	5	<0.20	<0.0010	<0.0010	<0.0010	<0.0020	<0.0020	7.7
SB-10-1'	1/16/2012	1	0.12	0.017	0.0028	<0.0022	<0.0044	<0.0056	**990**
SB-10-2'	1/16/2012	2	0.67	0.0036	<0.0019	<0.0019	<0.0039	<0.0048	140
SB-10-5'	1/16/2012	5	3.1	0.0016	<0.0010	<0.0010	<0.0020	<0.0020	8.7
SB-11-1'	1/16/2012	1	0.72	0.065	0.0070	0.0071	0.022	0.012	260
SB-11-2'	1/16/2012	2	1.7	0.16	0.0070	0.019	0.049	0.021	200
SB-11-5'	1/16/2012	5	2.9	0.10	0.0010	0.042	0.0074	0.030	6.1
SB-12-1'	1/16/2012	1	0.20	0.031	0.0041	0.0040	0.015	0.0061	60
SB-12-2'	1/16/2012	2	2.8	0.20	0.011	0.025	0.097	0.029	200
SB-12-5'	1/16/2012	5	180	0.22	<0.050	1.6	<0.10	<0.10	4.8
SB-13-1'	5/9/2012	1	---	---	---	---	---	---	**370**
SB-13-2'	5/9/2012	2	---	---	---	---	---	---	**320**

TABLE 1

HISTORICAL SOIL ANALYTICAL DATA
FORMER SHELL SERVICE STATION
3420 SAN PABLO AVENUE, OAKLAND, CALIFORNIA

Sample ID	*Date*	*Depth (fbg)*	*TPHg (mg/kg)*	*B (mg/kg)*	*T (mg/kg)*	*E (mg/kg)*	*X (mg/kg)*	*MTBE (mg/kg)*	*Total Lead (mg/kg)*
SB-13-5'	5/9/2012	5	---	---	---	---	---	---	2.0
SB-14-1'	5/9/2012	1	---	---	---	---	---	---	**1,200**
SB-14-2'	5/9/2012	2	---	---	---	---	---	---	150
SB-14-5'	5/9/2012	5	---	---	---	---	---	---	<2.0
SB-15-1'	5/9/2012	1	---	---	---	---	---	---	**480**
SB-15-2'	5/9/2012	2	---	---	---	---	---	---	**550**
SB-15-5'	5/9/2012	5	---	---	---	---	---	---	3.0
SB-16-1'	2/1/2013	1	---	---	---	---	---	---	**590**
SB-16-2'	2/1/2013	2	---	---	---	---	---	---	7.5
SB-16-5'	2/1/2013	5	---	---	---	---	---	---	6.3
SB-17-1'	2/1/2013	1	---	---	---	---	---	---	**900**
SB-17-2'	2/1/2013	2	---	---	---	---	---	---	9.7
SB-17-5'	2/1/2013	5	---	---	---	---	---	---	4.9
SB-18-1'	2/1/2013	1	---	---	---	---	---	---	300
SB-18-2'	2/1/2013	2	---	---	---	---	---	---	6.7
SB-18-5'	2/1/2013	5	---	---	---	---	---	---	6.5
SB-19-1'	2/1/2013	1	---	---	---	---	---	---	370
SB-19-2'	2/1/2013	2	---	---	---	---	---	---	290
SB-19-5'	2/1/2013	5	---	---	---	---	---	---	6.5
SB-20-1'	2/1/2013	1	---	---	---	---	---	---	270
SB-20-2'	2/1/2013	2	---	---	---	---	---	---	13
SB-20-5'	2/1/2013	5	---	---	---	---	---	---	7.4
Shallow Soil (≤10 fbg) Screeening Level[a]			500	1.2	9.3	4.7	11	8.4	320
Deep Soil (>10 fbg) Screeening Level[a]*:*			2400	1.2	9.3	4.7	11	8.4	320

Notes:
TPHg = Total petroleum hydrocarbons as gasoline analyzed by EPA Method 8260B; prior to June 26, 1997, analyzed by EPA Method 8015M
BTEX = Benzene, toluene, ethylbenzene, and total xylenes analyzed by EPA Method 8260B; prior to June 26, 1997, analyzed by EPA Method 8020
MTBE = Methyl tertiary-butyl ether analyzed by EPA Method 8260B; prior to June 26, 1997, analyzed by EPA Method 8020
Total lead analysis by EPA 6010B; prior to April 11, 1989 analyzed by EPA Method 7420
fbg = Feet below grade
mg/kg = Milligrams per kilogram
<x = Not detected at reporting limit x
--- = Not analyzed
ESL = Environmental screening level
Results in **bold** equal or exceed applicable ESL

TABLE 1

HISTORICAL SOIL ANALYTICAL DATA
FORMER SHELL SERVICE STATION
3420 SAN PABLO AVENUE, OAKLAND, CALIFORNIA

Sample ID	*Date*	*Depth (fbg)*	*TPHg (mg/kg)*	*B (mg/kg)*	*T (mg/kg)*	*E (mg/kg)*	*X (mg/kg)*	*MTBE (mg/kg)*	*Total Lead (mg/kg)*

a = San Francisco Bay Regional Water Quality Control Board commercial/industrial ESL for soil where groundwater is not a 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]) - Updated May 2013.

TABLE 2

GROUNDWATER DATA
FORMER SHELL SERVICE STATION
3420 SAN PABLO AVENUE, OAKLAND, CALIFORNIA

Well ID	Date	TPHg (µg/L)	B (µg/L)	T (µg/L)	E (µg/L)	X (µg/L)	MTBE 8020 (µg/L)	MTBE 8260 (µg/L)	TBA (µg/L)	DIPE (µg/L)	ETBE (µg/L)	TAME (µg/L)	EDB (µg/L)	1,2-DCA (µg/L)	Ethanol (µg/L)	DO Reading (mg/L)	TOC (ft MSL)	Depth to Water (ft TOC)	SPH Thickness (ft)	GW Elevation (ft MSL)
MW-1	08/06/1991	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	21.28	10.86	---	10.42
MW-1	10/23/1991	32,000	2,700	360	550	3,700	---	---	---	---	---	---	---	---	---	---	21.28	11.05	0.01	10.24
MW-1	01/28/1992	14,000	1,000	106	450	1,600	---	---	---	---	---	---	---	---	---	---	21.28	10.84	---	10.44
MW-1	05/05/1992	98,000	11,000	1,200	3,500	18,000	---	---	---	---	---	---	---	---	---	---	21.28	9.42	<0.01	11.87
MW-1	07/13/1992	11,000	1,100	130	740	1,300	---	---	---	---	---	---	---	---	---	---	21.28	11.36	---	9.92
MW-1	10/12/1992	---	---	---	---	---	---	---	---	125	---	---	---	---	---	---	21.28	13.14	0.09	8.21
MW-1	01/12/1993	---	110	---	---	---	---	---	---	---	---	---	---	---	---	---	21.28	7.52	0.02	13.78
MW-1	04/06/1993	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	21.28	7.13	<0.01	14.16
MW-1	07/12/1993	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	21.28	11.02	0.01	10.27
MW-1	10/13/1993	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	21.28	12.18	0.01	9.11
MW-1	01/20/1994	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	21.28	9.18	0.01	12.11
MW-1	04/13/1994	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	21.28	8.72	0.02	12.58
MW-1	07/19/1994	17,000	420	140	530	1,300	---	---	---	---	---	---	---	---	---	---	21.28	8.76	---	12.52
MW-1	10/27/1994	23,000	1,200	130	990	960	---	---	---	---	---	---	---	---	---	---	21.28	10.49	---	10.79
MW-1	01/03/1995	31,000	610	160	1,200	5,000	---	---	---	---	---	---	---	---	---	---	21.28	6.15	---	15.13
MW-1	04/13/1995	20,000	340	42	680	2,900	---	---	---	---	---	---	---	---	---	---	21.28	5.24	---	16.04
MW-1	06/30/1995	16,000	450	62	460	1,200	---	---	---	---	---	---	---	---	---	---	21.28	7.24	---	14.04
MW-1	10/11/1995	8,400	660	47	510	850	8,000	---	---	---	---	---	---	---	---	---	21.28	9.48	---	11.80
MW-1	10/13/1995	7,400	730	54	490	1,100	8,200	---	---	---	---	---	---	---	---	---	21.28	---	---	---
MW-1	01/17/1996	24,000	570	110	820	2,900	15,000	---	---	---	---	---	---	---	---	---	21.28	6.48	---	14.80
MW-1	04/10/1996	20,000	120	11	420	1,400	15,000	---	---	---	---	---	---	---	---	---	21.28	5.38	---	15.90
MW-1	07/30/1996	7,900	240	22	170	300	12,000	---	---	---	---	---	---	---	---	---	21.28	7.61	---	13.67
MW-1	10/17/1996	6,600	1,000	20	120	130	10,000	---	---	---	---	---	---	---	---	1.4	21.28	8.66	---	12.62
MW-1	01/22/1997	13,000	170	<50	330	1,200	18,000	---	---	---	---	---	---	---	---	1.6	21.28	5.00	---	16.28
MW-1	04/01/1997	7,900	240	26	130	200	6,400	---	---	---	---	---	---	---	---	1.4	21.28	6.42	---	14.86
MW-1	07/14/1997	5,000	<20	<20	59	61	9,000	---	---	---	---	---	---	---	---	1.9	21.28	8.92	---	12.36
MW-1	10/08/1997	3,200	180	7.6	18	6.1	11,000	---	---	---	---	---	---	---	---	4.8	21.28	9.43	---	11.85
MW-1	01/19/1998	8,100	39	<20	280	660	1,100	---	---	---	---	---	---	---	---	2.6	21.28	1.20	---	20.08
MW-1	04/28/1998	2,900	62	<10	160	370	1,200	1,200	---	---	---	---	---	---	---	2.4	21.28	4.81	---	16.47
MW-1	09/30/1998	1,300	25	8.3	<5.0	12	2,000	---	---	---	---	---	---	---	---	1.6	21.05	9.90	---	11.15
MW-1	12/09/1998	21,000	240	<200	520	920	18,000	18,000	---	---	---	---	---	---	---	4.3	21.05	12.26	---	8.79
MW-1	01/18/1999	10,600	<100	<100	471	130	48,600	50,800	---	---	---	---	---	---	---	1.3	21.05	6.00	---	15.05
MW-1	04/12/1999	7,500	101	26.0	248	578	31,000	37,900	---	---	---	---	---	---	---	1.2	21.05	4.00	---	17.05
MW-1	07/27/1999	5,420	80.1	<50.0	123	143	24,700	33,200 j	---	---	---	---	---	---	---	1.3	21.05	6.18	---	14.87
MW-1	10/14/1999	3,750	75.8	<12.5	30.3	37.0	17,200	20,600	---	---	---	---	---	---	---	1.3	21.05	6.83	---	14.22
MW-1	01/06/2000	5,550	82.2	<5.00	128	45.4	9,410	8,200	---	---	---	---	---	---	---	1.3	21.05	6.36	---	14.69
MW-1	04/05/2000	2,860	50.6	<10.0	98.2	36.2	4,120	3,150 j	---	---	---	---	---	---	---	2.0	21.05	3.65	---	17.40
MW-1	07/20/2000	3,600	37.9	36.0	34.2	40.4	3,140	3,430 j	---	---	---	---	---	---	---	1.2	21.05	4.11	---	16.94

TABLE 2

GROUNDWATER DATA
FORMER SHELL SERVICE STATION
3420 SAN PABLO AVENUE, OAKLAND, CALIFORNIA

Well ID	Date	TPHg (µg/L)	B (µg/L)	T (µg/L)	E (µg/L)	X (µg/L)	MTBE 8020 (µg/L)	MTBE 8260 (µg/L)	TBA (µg/L)	DIPE (µg/L)	ETBE (µg/L)	TAME (µg/L)	EDB (µg/L)	1,2-DCA (µg/L)	Ethanol (µg/L)	DO Reading (mg/L)	TOC (ft MSL)	Depth to Water (ft TOC)	SPH Thickness (ft)	GW Elevation (ft MSL)
MW-1	10/24/2000	2,330	32.3	<10.0	10.5	27.1	4,900	4,500	---	---	---	---	---	---	---	1.4	21.05	5.18	---	15.87
MW-1	01/19/2001	2,000	25.9	24.9	12.5	29.7	2,610	3,070	---	---	---	---	---	---	---	1.8	32.01	3.90	---	28.11
MW-1	04/27/2001	2,200	14	<2.0	5.3	6.8	---	1,100	---	---	---	---	---	---	---	1.5	32.01	4.48	---	27.53
MW-1	07/26/2001	2,600	26	2.3	<2.0	5.4	---	890	---	---	---	---	---	---	---	1.2	32.01	6.28	---	25.73
MW-1	10/02/2001	1,900	54	<2.0	7.8	14	---	890	450	<2.0	<2.0	<2.0	---	---	<500	1.6	32.01	6.53	---	25.48
MW-1	01/15/2002	2,300	19	2.8	9.3	12	---	370	---	---	---	---	---	---	---	1.9	32.01	5.00	---	27.01
MW-1	04/17/2002	4,500	20	2.0	1.3	4.6	---	500	---	---	---	---	---	---	---	2.4	32.01	5.63	---	26.38
MW-1	07/11/2002	2,700	25	1.1	<1.0	2.1	---	500	---	---	---	---	---	---	---	1.5	32.01	6.10	---	25.91
MW-1	10/10/2002	2,200	20	1.0	1.8	3.5	---	580	---	---	---	---	---	---	---	2.5	32.01	6.68	---	25.33
MW-1	01/21/2003	3,100	27	12	30	14	---	810	---	---	---	---	---	---	---	1.7	32.01	4.35	---	27.66
MW-1	05/02/2003	4,100	36	<25	<25	<50	---	1,000	---	---	---	---	---	---	---	2.1	32.01	5.19	---	26.82
MW-1	07/10/2003	1,900	37	<12	<12	<25	---	600	---	---	---	---	---	---	---	---	32.01	5.61	---	26.40
MW-1	10/28/2003	4,300	97	<10	10	<20	---	1,800	---	---	---	---	---	---	---	---	32.01	5.78	---	26.23
MW-1	01/13/2004	3,000	53	10	29	<10	---	510	---	---	---	---	---	---	---	---	32.01	4.95	---	27.06
MW-1	04/01/2004	3,000	85	29	11	15	---	310	---	---	---	---	---	---	---	---	32.01	5.05	---	26.96
MW-1	07/21/2004	3,200	130	19	7.7	18	---	410	1,100	<20	<20	<20	---	---	---	---	32.01	5.90	---	26.11
MW-1	10/20/2004	3,600	200	8.4	12	21	---	320	---	---	---	---	---	---	---	---	32.01	5.63	---	26.38
MW-1	01/19/2005	2,800	55	<5.0	21	17	---	170	---	---	---	---	---	---	---	---	32.01	4.64	---	27.37
MW-1	04/20/2005	2,600	28	<5.0	11	<10	---	140	---	---	---	---	---	---	---	---	32.01	3.75	---	28.26
MW-1	07/20/2005	2,000	20	<1.0	1.6	2.3	---	110	220	<4.0	<4.0	<4.0	---	---	---	---	32.01	6.19	---	25.82
MW-1	10/19/2005	2,200	21	0.80	2.1	1.9	---	80	---	---	---	---	---	---	---	---	32.01	7.20	---	24.81
MW-1	01/24/2006	7,000	35.5	2.24	119	17.1	---	80.2	---	---	---	---	---	---	---	---	32.01	4.04	---	27.97
MW-1	04/19/2006	2,030	10.3	1.04	2.44	<0.500	---	27.2	---	---	---	---	---	---	---	---	32.01	2.74	---	29.27
MW-1	07/19/2006	4,310	18.1	<0.500	1.48	<0.500	---	34.8	<10.0	<0.500	<0.500	<0.500	---	---	---	---	32.01	4.74	---	27.27
MW-1	10/18/2006	4,370	15.0	0.520	4.73	2.06	---	49.1	---	---	---	---	---	---	---	---	32.01	6.03	---	25.98
MW-1	01/17/2007	410	<0.50	<0.50	<0.50	<1.0	---	24	---	---	---	---	---	---	---	---	32.01	5.40	---	26.61
MW-1	04/18/2007	1,400 h	9.2	0.35 i	0.94 i	0.92 i	---	37	---	---	---	---	---	---	---	---	32.01	6.13	---	25.88
MW-1	07/18/2007	1,100 h	25	0.34 i	3.4	<1.0	---	72	63	<2.0	<2.0	<2.0	---	---	---	---	32.01	7.13	---	24.88
MW-1	10/18/2007	1,300 h	70	0.85 i	14	1.08 i	---	160	---	---	---	---	---	---	---	---	32.01	7.13	---	24.88
MW-1	01/16/2008	4,000 h	22	<1.0	14	3.5	---	33	---	---	---	---	---	---	---	---	32.01	5.02	---	26.99
MW-1	04/16/2008	1,800	12	<1.0	1.5	1.5	---	39	---	---	---	---	---	---	---	---	32.01	6.26	---	25.75
MW-1	07/16/2008	1,600	5.3	<1.0	<1.0	<1.0	---	32	27	<2.0	<2.0	<2.0	---	---	---	---	32.01	6.60	---	25.41
MW-1	10/15/2008	1,200	4.1	<1.0	<1.0	<1.0	---	20	---	---	---	---	---	---	---	---	32.01	6.85	---	25.16
MW-1	01/21/2009	1,300	6.7	<1.0	<1.0	<1.0	---	28	---	---	---	---	---	---	---	---	32.01	6.20	---	25.81
MW-1	04/15/2009	1,600	4.1	1.2	1.5	<1.0	---	5.2	---	---	---	---	---	---	---	---	32.01	4.90	---	27.11
MW-1	10/21/2009	5,300	54	2.2	89	3.6	---	35	20	<2.0	<2.0	<2.0	---	---	---	---	32.01	5.51	---	26.50
MW-1	04/21/2010	1,900	4.3	<1.0	<1.0	<1.0	---	3.6	---	---	---	---	---	---	---	---	32.01	4.93	---	27.08
MW-1	10/20/2010	1,400	18	<1.0	1.4	<1.0	---	32	---	---	---	---	---	---	---	---	32.01	7.39	---	24.62

TABLE 2

GROUNDWATER DATA
FORMER SHELL SERVICE STATION
3420 SAN PABLO AVENUE, OAKLAND, CALIFORNIA

Well ID	Date	TPHg (µg/L)	B (µg/L)	T (µg/L)	E (µg/L)	X (µg/L)	MTBE 8020 (µg/L)	MTBE 8260 (µg/L)	TBA (µg/L)	DIPE (µg/L)	ETBE (µg/L)	TAME (µg/L)	EDB (µg/L)	1,2-DCA (µg/L)	Ethanol (µg/L)	DO Reading (mg/L)	TOC (ft MSL)	Depth to Water (ft TOC)	SPH Thickness (ft)	GW Elevation (ft MSL)
MW-1	04/20/2011	1,100	3.1	<0.50	1.1	<1.0	---	3.1	---	---	---	---	---	---	---	---	32.01	3.90	---	28.11
MW-1	10/18/2011	540	2.0	2.5	1.2	6.0	---	5.6	<10	<1.0	<1.0	<1.0	<0.50	<0.50	---	---	32.01	5.77	---	26.24
MW-1	04/18/2012	520	1.3	<0.50	0.75	<1.0	---	3.4	---	---	---	---	<0.50	<0.50	---	---	32.01	2.91	---	29.10
MW-1	10/17/2012	460	4.9	<0.50	<0.50	<1.0	---	13	---	---	---	---	<0.50	<0.50	---	---	32.01	7.40	---	24.61
MW-1	**04/17/2013**	**600**	**3.8**	**<0.50**	**0.63**	**<1.0**	**---**	**3.9**	**---**	**---**	**---**	**---**	**<0.50**	**<0.50**	**---**	**---**	**32.01**	**5.28**	**---**	**26.73**
MW-2	08/06/1991	50,000	15,000	---	2,700	13,000	---	---	---	---	---	---	---	---	---	---	21.56	9.72	---	11.84
MW-2	10/23/1991	120,000	11,000	1,400	3,500	19,000	---	---	---	---	---	---	---	---	---	---	21.56	10.03	---	11.53
MW-2	01/28/1992	49,000	7,400	800	1,800	8,300	---	---	---	---	---	---	---	---	---	---	21.56	8.78	---	12.78
MW-2	05/05/1992	52,000	12,000	1,100	2,200	12,000	---	---	---	---	---	---	---	---	---	---	21.56	7.58	---	13.98
MW-2	07/13/1992	47,000	15,000	2,400	4,500	16,000	---	---	---	---	---	---	---	---	---	---	21.56	9.63	---	11.93
MW-2	10/12/1992	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	21.56	11.66	0.03	9.92
MW-2	01/12/1993	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	21.56	7.13	0.01	14.44
MW-2	04/06/1993	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	21.56	6.40	<0.01	15.17
MW-2	07/12/1993	59,000	12,000	950	2,400	11,000	---	---	---	---	---	---	---	---	---	---	21.56	8.75	---	12.81
MW-2	10/13/1993	54,000	14,000	1,200	3,700	22,000	---	---	---	---	---	---	---	---	---	---	21.56	10.28	---	11.28
MW-2	01/20/1994	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	21.56	---	---	---
MW-2	04/13/1994	79,000	9,400	740	2,100	12,000	---	---	---	---	---	---	---	---	---	---	21.56	7.35	<0.01	14.22
MW-2	07/19/1994	63,000	13,000	810	1,900	13,000	---	---	---	---	---	---	---	---	---	---	21.56	8.24	---	13.32
MW-2	10/27/1994	64,000	8,800	480	2,100	10,000	---	---	---	---	---	---	---	---	---	---	21.56	10.26	---	11.30
MW-2	01/03/1995	67,000	9,800	720	2,800	11,000	---	---	---	---	---	---	---	---	---	---	21.56	6.44	---	15.12
MW-2	04/13/1995	83,000	10,000	490	2,600	13,000	---	---	---	---	---	---	---	---	---	---	21.56	5.89	---	15.67
MW-2	06/30/1995	65,000	12,000	1,800	2,400	12,000	---	---	---	---	---	---	---	---	---	---	21.56	7.41	---	14.15
MW-2	10/11/1995	68,000	8,800	840	3,000	13,000	1,400	---	---	---	---	---	---	---	---	---	21.56	8.02	---	13.54
MW-2	01/17/1996	79,000	12,000	640	2,700	14,000	2,200	---	---	---	---	---	---	---	---	---	21.56	7.42	---	14.14
MW-2	04/10/1996	84,000	7,200	310	1,700	7,800	2,900	---	---	---	---	---	---	---	---	---	21.56	6.91	---	14.65
MW-2	07/30/1996	26,000	6,800	210	1,300	5,500	4,500	---	---	---	---	---	---	---	---	---	21.56	7.63	---	13.93
MW-2	10/17/1996	46,000	9,800	340	2,000	6,500	4,900	---	---	---	---	---	---	---	---	1.8	21.56	8.27	---	13.29
MW-2	01/22/1997	52,000	6,200	220	1,400	6,600	3,000	---	---	---	---	---	---	---	---	1.9	21.56	7.09	---	14.47
MW-2	04/01/1997	69,000	6,000	380	2,400	11,000	3,800	---	---	---	---	---	---	---	---	2.0	21.56	6.91	---	14.65
MW-2	07/14/1997	53,000	7,700	260	1,600	5,200	2,400	---	---	---	---	---	---	---	---	1.2	21.56	9.93	---	11.63
MW-2	10/08/1997	56,000	8,500	320	1,600	5,100	4,200	---	---	---	---	---	---	---	---	2.1	21.56	10.43	---	11.13
MW-2	01/19/1998	64,000	10,000	230	2,400	12,000	2,700	---	---	---	---	---	---	---	---	2.4	21.56	3.60	---	17.96
MW-2	04/28/1998	45,000	9,800	310	2,700	11,000	2,400	2,000	---	---	---	---	---	---	---	2	21.56	4.81	---	16.75
MW-2	09/30/1998	42,000	7,400	200	2,600	9,800	1,800	---	---	---	---	---	---	---	---	1.6	21.58	7.20	---	14.38
MW-2	12/09/1998	60,000	7,000	270	1,600	7,000	2,100	---	---	---	---	---	---	---	---	4.6	21.58	7.11	---	14.47
MW-2	01/18/1999	45,000	7,960	151	1,750	6,410	1,310	---	---	---	---	---	---	---	---	1.8	21.58	6.83	---	14.75
MW-2	04/12/1999	47,400	7,680	131	1,840	6,400	<1,000	---	---	---	---	---	---	---	---	1.9	21.58	5.90	---	15.68

TABLE 2

GROUNDWATER DATA
FORMER SHELL SERVICE STATION
3420 SAN PABLO AVENUE, OAKLAND, CALIFORNIA

Well ID	Date	TPHg (µg/L)	B (µg/L)	T (µg/L)	E (µg/L)	X (µg/L)	MTBE 8020 (µg/L)	MTBE 8260 (µg/L)	TBA (µg/L)	DIPE (µg/L)	ETBE (µg/L)	TAME (µg/L)	EDB (µg/L)	1,2-DCA (µg/L)	Ethanol (µg/L)	DO Reading (mg/L)	TOC (ft MSL)	Depth to Water (ft TOC)	SPH Thickness (ft)	GW Elevation (ft MSL)
MW-2	07/27/1999	36,400	6,750	83.5	1,590	5,070	682	---	---	---	---	---	---	---	---	2.0	21.58	6.56	---	15.02
MW-2	10/14/1999	45,300	6,990	144	1,850	4,930	1,070	---	---	---	---	---	---	---	---	1.5	21.58	8.90	---	12.68
MW-2	01/06/2000	44,100	5,820	107	1,720	4,590	841	---	---	---	---	---	---	---	---	1.4	21.58	7.27	---	14.31
MW-2	04/05/2000	32,000	6,680	<100	1,770	4,030	934	---	---	---	---	---	---	---	---	1.3	21.58	5.32	---	16.26
MW-2	07/20/2000	32,100	5,290	68.6	1,870	3,810	254	---	---	---	---	---	---	---	---	2.9	21.58	5.47	---	16.11
MW-2	10/24/2000	24,400	4,680	<50.0	1,460	2,380	682	---	---	---	---	---	---	---	---	2.2	21.58	5.88	---	15.70
MW-2	01/19/2001	29,200	4,980	127	2,820	4,320	<500	---	---	---	---	---	---	---	---	1.4	32.54	5.96	---	26.58
MW-2	04/27/2001	40,000	5,400	67	2,800	5,100	---	380	---	---	---	---	---	---	---	1.1	32.54	5.87	---	26.67
MW-2	07/26/2001	42,000	4,700	59	2,800	4,300	---	<250	---	---	---	---	---	---	---	1.0	32.54	6.48	---	26.06
MW-2	10/02/2001	36,000	4,200	64	2,400	2,700	---	<200	---	---	---	---	---	---	---	1.6	32.54	6.65	---	25.89
MW-2	01/15/2002	39,000	4,100	46	2,200	2,300	---	280	---	---	---	---	---	---	---	1.8	32.54	5.81	---	26.73
MW-2	04/17/2002	30,000	3,800	44	2,100	2,100	---	270	---	---	---	---	---	---	---	1.6	32.54	6.03	---	26.51
MW-2	07/11/2002	34,000	3,600	18	2,700	2,200	---	110	---	---	---	---	---	---	---	2.7	32.54	6.49	---	26.05
MW-2	10/10/2002	26,000	2,600	19	1,900	810	---	<100	---	---	---	---	---	---	---	2.4	32.54	6.82	---	25.72
MW-2	01/21/2003	30,000	3,000	24	2,000	1,400	---	140	---	---	---	---	---	---	---	1.6	32.54	6.00	---	26.54
MW-2	05/02/2003	23,000	2,800	28	1,400	880	---	<250	---	---	---	---	---	---	---	1.7	32.54	5.85	---	26.69
MW-2	07/10/2003	20,000	3,800	<50	2,500	1,500	---	180	---	---	---	---	---	---	---	---	32.54	6.16	---	26.38
MW-2	10/28/2003	35,000	5,400	59	2,800	1,400	---	140	---	---	---	---	---	---	---	---	32.54	6.30	---	26.24
MW-2	01/13/2004	39,000	6,400	55	3,000	1,400	---	240	---	---	---	---	---	---	---	---	32.54	5.93	---	26.61
MW-2	04/01/2004	29,000	4,200	<50	2,300	1,000	---	140	---	---	---	---	---	---	---	---	32.54	5.99	---	26.55
MW-2	07/21/2004	43,000	3,900	<50	2,700	860	---	93	<500	<200	<200	<200	---	---	---	---	32.54	6.05	---	26.49
MW-2	10/20/2004	33,000	5,100	<50	2,800	950	---	97	---	---	---	---	---	---	---	---	32.54	6.10	---	26.44
MW-2	01/19/2005	27,000	3,400	<50	2,000	580	---	120	---	---	---	---	---	---	---	---	32.54	5.41	---	27.13
MW-2	04/20/2005	37,000	3,400	<50	1,900	580	---	110	---	---	---	---	---	---	---	---	32.54	5.86	---	26.68
MW-2	07/20/2005	33,000	3,900	<50	2,300	590	---	86	<500	<200	<200	<200	---	---	---	---	32.54	8.39	---	24.15
MW-2	10/19/2005	12,000	2,100	15	1,500	430	---	80	---	---	---	---	---	---	---	---	32.54	7.96	---	24.58
MW-2	01/24/2006	44,600	3,260	20.3	2,220	458	---	107	---	---	---	---	---	---	---	---	32.54	4.54	---	28.00
MW-2	04/19/2006	<2,500	2,520	13.2	1,610	343	---	104	---	---	---	---	---	---	---	---	32.54	4.63	---	27.91
MW-2	07/19/2006	41,900	2,460	10.9	1,670	322	---	78.2	<10.0	<0.500	<0.500	<0.500	---	---	---	---	32.54	5.48	---	27.06
MW-2	10/18/2006	49,400	2,490	11.0	2,130	320	---	47.6	---	---	---	---	---	---	---	---	32.54	6.50	---	26.04
MW-2	01/17/2007	16,000	2,200	12	1,600	260	---	56	---	---	---	---	---	---	---	---	32.54	6.19	---	26.35
MW-2	04/18/2007	22,000 h	2,100	14 i	1,700	289	---	100	---	---	---	---	---	---	---	---	32.54	6.70	---	25.84
MW-2	07/18/2007	19,000 h	2,100	12 i	2,000	267	---	61	<200	<40	<40	<40	---	---	---	---	32.54	7.60	---	24.94
MW-2	10/18/2007	24,000 h	2,400	17 i	2,200	253	---	150	---	---	---	---	---	---	---	---	32.54	8.55	---	23.99
MW-2	01/16/2008	26,000 h	2,400	<20	1,600	200	---	130	---	---	---	---	---	---	---	---	32.54	6.08	---	26.46
MW-2	04/16/2008	20,000	2,100	<20	1,400	180	---	200	---	---	---	---	---	---	---	---	32.54	6.80	---	25.74
MW-2	07/16/2008	23,000	1,600	<20	84	170	---	<20	<200	<40	<40	<40	---	---	---	---	32.54	6.71	---	25.83
MW-2	10/15/2008	17,000	1,300	<20	820	98	---	49	---	---	---	---	---	---	---	---	32.54	7.60	---	24.94

TABLE 2

GROUNDWATER DATA
FORMER SHELL SERVICE STATION
3420 SAN PABLO AVENUE, OAKLAND, CALIFORNIA

Well ID	Date	TPHg (µg/L)	B (µg/L)	T (µg/L)	E (µg/L)	X (µg/L)	MTBE 8020 (µg/L)	MTBE 8260 (µg/L)	TBA (µg/L)	DIPE (µg/L)	ETBE (µg/L)	TAME (µg/L)	EDB (µg/L)	1,2-DCA (µg/L)	Ethanol (µg/L)	DO Reading (mg/L)	TOC (ft MSL)	Depth to Water (ft TOC)	SPH Thickness (ft)	GW Elevation (ft MSL)
MW-2	01/21/2009	26,000	2,000	<20	1,200	130	---	130	---	---	---	---	---	---	---	---	32.54	6.71	---	25.83
MW-2	04/15/2009	28,000	2,200	<20	1,200	110	---	220	---	---	---	---	---	---	---	---	32.54	6.00	---	26.54
MW-2	10/21/2009	30,000	1,900	<20	1,200	130	---	110	<200	<40	<40	<40	---	---	---	---	32.54	7.12	---	25.42
MW-2	04/21/2010	16,000	2,100	<25	890	95	---	140	---	---	---	---	---	---	---	---	32.54	5.37	---	27.17
MW-2	10/20/2010	21,000	1,800	<20	730	97	---	110	---	---	---	---	---	---	---	---	32.54	7.90	---	24.64
MW-2	04/20/2011	17,000	1,400	<12	460	76	---	82	---	---	---	---	---	---	---	---	32.54	5.46	---	27.08
MW-2	10/18/2011	16,000	1,400	<10	250	93	---	73	<200	<20	<20	<20	<10	<10	---	---	32.54	6.89	---	25.65
MW-2	04/18/2012	17,000	1,100	<13	150	57	---	57	---	---	---	---	<13	<13	---	---	32.54	4.80	---	27.74
MW-2	10/17/2012	Well inaccessible to sampling equipment					---	---	---	---	---	---	---	---	---	---	32.54	7.78	---	24.76
MW-2	11/07/2012	16,000	1,400	<10	150	73	---	<10	<200	<10	<10	<10	<10	<10	---	---	32.54	7.26	---	25.28
MW-2	**04/17/2013**	**12,000**	**760**	**<10**	**89**	**33**	**---**	**34**	**---**	**---**	**---**	**---**	**<10**	**<10**	**---**	**---**	**32.54**	**5.88**	**---**	**26.66**
MW-3	08/06/1991	430	8.0	1.0	4.0	15	---	---	---	---	---	---	---	---	---	---	21.78	11.18	---	10.60
MW-3	10/23/1991	390	2.1	<0.3	0.48	2.0	---	---	---	---	---	---	---	---	---	---	21.78	11.69	---	10.09
MW-3	01/28/1992	190	<0.5	<0.5	<0.5	<0.5	---	---	---	---	---	---	---	---	---	---	21.78	9.99	---	11.79
MW-3	05/04/1992	190	<1	<1	<1	0.71	---	---	---	---	---	---	---	---	---	---	21.78	9.46	---	12.32
MW-3	07/20/1992	200 a	<0.5	<0.5	<0.5	<0.5	---	---	---	---	---	---	---	---	---	---	21.78	11.29	---	10.49
MW-3	10/12/1992	180 a	<0.5	<0.5	<0.5	<0.5	---	---	---	---	---	---	---	---	---	---	21.78	13.10	---	8.68
MW-3	01/12/1993	180	<0.5	2.3	0.90	5.6	---	---	---	---	---	---	---	---	---	---	21.78	7.32	---	14.46
MW-3	04/06/1993	280	<0.5	<0.5	<0.5	<0.5	---	---	---	---	---	---	---	---	---	---	21.78	7.44	---	14.34
MW-3	07/12/1993	310 a	<0.5	<0.5	<0.5	<0.5	---	---	---	---	---	---	---	---	---	---	21.78	10.62	---	11.16
MW-3	10/13/1993	150	<0.5	<0.5	<0.5	<0.5	---	---	---	---	---	---	---	---	---	---	21.78	12.05	---	9.73
MW-3	01/20/1994	180	<0.5	<0.5	<0.5	<0.5	---	---	---	---	---	---	---	---	---	---	21.78	9.62	---	12.16
MW-3	04/13/1994	270	<0.5	<0.5	<0.5	<0.5	---	---	---	---	---	---	---	---	---	---	21.78	9.15	---	12.63
MW-3	07/19/1994	190 a	<0.5	<0.5	<0.5	<0.5	---	---	---	---	---	---	---	---	---	---	21.78	10.13	---	11.65
MW-3	10/27/1994	160 a	<0.5	<0.5	<0.5	<0.5	---	---	---	---	---	---	---	---	---	---	21.78	11.66	---	10.12
MW-3	01/03/1995	100 a	<0.5	<0.5	<0.5	<0.5	---	---	---	---	---	---	---	---	---	---	21.78	6.89	---	14.89
MW-3	04/13/1995	120 a	<0.5	<0.5	<0.5	<0.5	---	---	---	---	---	---	---	---	---	---	21.78	6.79	---	14.99
MW-3	06/30/1995	180 a	<0.5	<0.5	<0.5	<0.5	---	---	---	---	---	---	---	---	---	---	21.78	8.94	---	12.84
MW-3	10/11/1995	150	2.2	<0.5	<0.5	<0.5	2.3	---	---	---	---	---	---	---	---	---	21.78	10.62	---	11.16
MW-3	01/17/1996	120	<0.5	<0.5	<0.5	<0.5	7.8	---	---	---	---	---	---	---	---	---	21.78	7.18	---	14.60
MW-3	04/10/1996	160	<0.5	<0.5	<0.5	<0.5	12	---	---	---	---	---	---	---	---	---	21.78	6.76	---	15.02
MW-3	07/30/1996	57	<0.5	<0.5	<0.5	<0.5	<2.5	---	---	---	---	---	---	---	---	---	21.78	9.04	---	12.74
MW-3	10/17/1996	<50	<0.5	<0.5	<0.5	<0.5	<2.5	---	---	---	---	---	---	---	---	2.0	21.78	9.04	---	12.74
MW-3	01/22/1997	<50	<0.5	<0.5	<0.5	<0.5	3.7	---	---	---	---	---	---	---	---	2.4	21.78	5.03	---	16.75
MW-3	04/01/1997	71	<0.50	<0.50	<0.50	<0.50	b	---	---	---	---	---	---	---	---	1.6	21.78	8.23	---	13.55
MW-3	07/14/1997	<50	<0.50	<0.50	<0.50	1.5	b	---	---	---	---	---	---	---	---	1.9	21.78	9.09	---	12.69
MW-3	10/08/1997	73	<0.50	<0.50	<0.50	<0.50	b	---	---	---	---	---	---	---	---	5.5	21.78	10.23	---	11.55

TABLE 2

GROUNDWATER DATA
FORMER SHELL SERVICE STATION
3420 SAN PABLO AVENUE, OAKLAND, CALIFORNIA

Well ID	Date	TPHg (µg/L)	B (µg/L)	T (µg/L)	E (µg/L)	X (µg/L)	MTBE 8020 (µg/L)	MTBE 8260 (µg/L)	TBA (µg/L)	DIPE (µg/L)	ETBE (µg/L)	TAME (µg/L)	EDB (µg/L)	1,2-DCA (µg/L)	Ethanol (µg/L)	DO Reading (mg/L)	TOC (ft MSL)	Depth to Water (ft TOC)	SPH Thickness (ft)	GW Elevation (ft MSL)
MW-3	12/05/1997	Well destroyed		---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
MW-3R	04/06/1999	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	21.83	9.89	---	11.94
MW-3R	04/12/1999	<50.0	<0.500	<0.500	<0.500	<0.500	<5.00	---	---	---	---	---	---	---	---	2.1	21.83	5.83	---	16.00
MW-3R	07/27/1999	<50.0	<0.500	<0.500	<0.500	<0.500	4.15	---	---	---	---	---	---	---	---	2.0	21.83	9.59	---	12.24
MW-3R	10/14/1999	<50.0	<0.500	<0.500	<0.500	<0.500	9.43	---	---	---	---	---	---	---	---	0.6	21.83	10.00	---	11.83
MW-3R	01/06/2000	78	<0.500	<0.500	<0.500	<0.500	31	---	---	---	---	---	---	---	---	0.8	21.83	9.71	---	12.12
MW-3R	04/05/2000	<50.0	<0.500	<0.500	<0.500	<0.500	273	2,890 j	---	---	---	---	---	---	---	1.5	21.83	6.90	---	14.93
MW-3R	07/20/2000	<50.0	<0.500	<0.500	<0.500	<0.500	<2.50	---	---	---	---	---	---	---	---	1.1	21.83	6.94	---	14.89
MW-3R	10/24/2000	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	21.83	8.90	---	12.93
MW-3R	01/19/2001	<50.0	<0.500	<0.500	<0.500	<0.500	79.2	---	---	---	---	---	---	---	---	2.0	32.79	7.04	---	25.75
MW-3R	04/27/2001	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	32.79	7.38	---	25.41
MW-3R	07/26/2001	97	<0.50	<0.50	<0.50	<0.50	---	200	---	---	---	---	---	---	---	1.8	32.79	9.30	---	23.49
MW-3R	10/02/2001	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	32.79	9.41	---	23.38
MW-3R	01/15/2002	55	<0.50	<0.50	<0.50	<0.50	---	32	---	---	---	---	---	---	---	0.7	32.79	6.05	---	26.74
MW-3R	04/17/2002	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	32.79	7.70	---	25.09
MW-3R	07/11/2002	110	<0.50	<0.50	<0.50	<0.50	---	65	---	---	---	---	---	---	---	2.5	32.79	8.76	---	24.03
MW-3R	10/10/2002	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	32.79	9.65	---	23.14
MW-3R	01/21/2003	65	<0.50	<0.50	<0.50	<0.50	---	13	---	---	---	---	---	---	---	1.6	32.79	5.21	---	27.58
MW-3R	05/02/2003	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	32.79	6.08	---	26.71
MW-3R	07/10/2003	<50	<0.50	<0.50	<0.50	<1.0	---	11	---	---	---	---	---	---	---	---	32.79	8.20	---	24.59
MW-3R	10/28/2003	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	32.79	8.57	---	24.22
MW-3R	01/13/2004	<50	<0.50	<0.50	<0.50	<1.0	---	3.9	---	---	---	---	---	---	---	---	32.79	5.79	---	27.00
MW-3R	04/01/2004	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	32.79	7.22	---	25.57
MW-3R	07/21/2004	<50	<0.50	<0.50	<0.50	<1.0	---	2.7	<5.0	<2.0	<2.0	<2.0	---	---	---	---	32.79	8.55	---	24.24
MW-3R	10/20/2004	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	32.79	8.30	---	24.49
MW-3R	01/19/2005	<50	<0.50	<0.50	<0.50	<1.0	---	2.0	---	---	---	---	---	---	---	---	32.79	6.10	---	26.69
MW-3R	04/20/2005	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	32.79	6.41	---	26.38
MW-3R	07/20/2005	<50	<0.50	<0.50	<0.50	<1.0	---	2.9	<5.0	<2.0	<2.0	<2.0	---	---	---	---	32.79	8.76	---	24.03
MW-3R	10/19/2005	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	32.79	9.87	---	22.92
MW-3R	01/24/2006	<50.0	<0.500	<0.500	<0.500	<0.500	---	<0.500	---	---	---	---	---	---	---	---	32.79	5.96	---	26.83
MW-3R	04/19/2006	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	32.79	6.07	---	26.72
MW-3R	07/19/2006	70.2	<0.500	<0.500	<0.500	<0.500	---	5.43	<10.0	<0.500	<0.500	<0.500	---	---	---	---	32.79	8.07	---	24.72
MW-3R	10/18/2006	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	32.79	8.72	---	24.07
MW-3R	01/17/2007	<50	<0.50	<0.50	<0.50	<1.0	---	1.1	---	---	---	---	---	---	---	---	32.79	7.88	---	24.91
MW-3R	04/18/2007	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	32.79	8.37	---	24.42
MW-3R	07/18/2007	<50 h	<0.50	<1.0	<1.0	<1.0	---	2.2	<10	<2.0	<2.0	<2.0	---	---	---	---	32.79	9.80	---	22.99
MW-3R	01/16/2008	<50 h	<0.50	<1.0	<1.0	<1.0	---	1.6	<10	<2.0	<2.0	<2.0	---	---	---	---	32.79	6.65	---	26.14

TABLE 2

GROUNDWATER DATA
FORMER SHELL SERVICE STATION
3420 SAN PABLO AVENUE, OAKLAND, CALIFORNIA

Well ID	Date	TPHg (µg/L)	B (µg/L)	T (µg/L)	E (µg/L)	X (µg/L)	MTBE 8020 (µg/L)	MTBE 8260 (µg/L)	TBA (µg/L)	DIPE (µg/L)	ETBE (µg/L)	TAME (µg/L)	EDB (µg/L)	1,2-DCA (µg/L)	Ethanol (µg/L)	DO Reading (mg/L)	TOC (ft MSL)	Depth to Water (ft TOC)	SPH Thickness (ft)	GW Elevation (ft MSL)
MW-3R	04/16/2008	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	32.79	8.31	---	24.48
MW-3R	07/16/2008	<50	<0.50	<1.0	<1.0	<1.0	---	4.4	<10	<2.0	<2.0	<2.0	---	---	---	---	32.79	9.33	---	23.46
MW-3R	10/15/2008	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	32.79	10.00	---	22.79
MW-3R	01/21/2009	<50	<0.50	<1.0	<1.0	<1.0	---	3.0	---	---	---	---	---	---	---	---	32.79	8.20	---	24.59
MW-3R	04/15/2009	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	32.79	7.05	---	25.74
MW-3R	10/21/2009	<50	<0.50	<1.0	<1.0	<1.0	---	1.8	<10	<2.0	<2.0	<2.0	---	---	---	---	32.79	7.61	---	25.18
MW-3R	04/21/2010	<50	<0.50	<1.0	<1.0	<1.0	---	<1.0	---	---	---	---	---	---	---	---	32.79	5.70	---	27.09
MW-3R	10/20/2010	65	<0.50	<1.0	<1.0	<1.0	---	6.7	---	---	---	---	---	---	---	---	32.79	9.75	---	23.04
MW-3R	04/20/2011	<50	<0.50	<0.50	<0.50	<1.0	---	<1.0	---	---	---	---	---	---	---	---	32.79	5.90	---	26.89
MW-3R	10/18/2011	<50	<0.50	<0.50	<0.50	<1.0	---	2.1	<10	<1.0	<1.0	<1.0	<0.50	<0.50	---	---	32.79	8.75	---	24.04
MW-3R	04/18/2012	<50	<0.50	<0.50	<0.50	<1.0	---	<0.50	---	---	---	---	<0.50	<0.50	---	---	32.79	5.23	---	27.56
MW-3R	10/17/2012	<50	<0.50	<0.50	<0.50	<1.0	---	4.8	---	---	---	---	<0.50	<0.50	---	---	32.79	10.00	---	22.79
MW-3R	**04/17/2013**	**<50**	**<0.50**	**<0.50**	**<0.50**	**<1.0**	**---**	**0.59**	**---**	**---**	**---**	**---**	**<0.50**	**<0.50**	**---**	**---**	**32.79**	**7.32**	**---**	**25.47**
MW-4	08/06/1991	1,300	28	18	68	150	---	---	---	---	---	---	---	---	---	---	20.31	10.57	---	9.74
MW-4	10/23/1991	1,900	97	6.1	38	77	---	---	---	---	---	---	---	---	---	---	20.31	10.46	---	9.85
MW-4	01/28/1992	200	7.6	<0.5	3.0	3.3	---	---	---	---	---	---	---	---	---	---	20.31	9.54	---	10.77
MW-4	05/04/1992	690	98	3.0	13	<1	---	---	---	---	---	---	---	---	---	---	20.31	8.33	---	11.98
MW-4	07/13/1992	1,500	140	2.90	17	12	---	---	---	---	---	---	---	---	---	---	20.31	9.87	---	10.44
MW-4	10/12/1992	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	20.31	12.43	0.78	8.50
MW-4	01/12/1993	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	20.31	7.12	1.00	13.99
MW-4	04/06/1993	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	20.31	7.23	0.95	13.84
MW-4	07/12/1993	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	20.31	10.08	0.03	10.25
MW-4	10/13/1993	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	20.31	11.35	0.12	9.06
MW-4	01/20/1994	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	20.31	9.06	0.02	11.27
MW-4	04/13/1994	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	20.31	8.58	0.01	11.74
MW-4	07/19/1994	12,000	230	43	230	660	---	---	---	---	---	---	---	---	---	---	20.31	9.71	---	10.60
MW-4	10/27/1994	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	20.31	10.60	0.03	9.73
MW-4	01/03/1995	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	20.31	5.49	0.01	14.83
MW-4	04/13/1995	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	20.31	6.53	0.03	13.80
MW-4	06/30/1995	7,400	140	<0.5	160	350	---	---	---	---	---	---	---	---	---	---	20.31	9.57	---	10.74
MW-4	10/11/1995	3,000	29	10	100	82	9,700	---	---	---	---	---	---	---	---	---	20.31	10.30	---	10.01
MW-4	01/17/1996	9,700	190	<0.5	190	410	4,500	---	---	---	---	---	---	---	---	---	20.31	6.68	---	13.63
MW-4	04/10/1996	2,800	16	<0.5	22	50	6,100	---	---	---	---	---	---	---	---	---	20.31	7.90	---	12.41
MW-4	07/30/1996	1,600	68	<12	58	39	8,500	---	---	---	---	---	---	---	---	2.8	20.31	8.73	---	11.58
MW-4	10/17/1996	4,800	120	<25	150	96	11,000	---	---	---	---	---	---	---	---	2.8	20.31	7.63	---	12.68
MW-4	01/22/1997	12,000	83	<20	170	240	4,300	---	---	---	---	---	---	---	---	2.6	20.31	5.26	---	15.05
MW-4	04/01/1997	4,800	65	<5.0	81	93	3,200	---	---	---	---	---	---	---	---	2.4	20.31	8.02	---	12.29

TABLE 2

GROUNDWATER DATA
FORMER SHELL SERVICE STATION
3420 SAN PABLO AVENUE, OAKLAND, CALIFORNIA

Well ID	Date	TPHg (µg/L)	B (µg/L)	T (µg/L)	E (µg/L)	X (µg/L)	MTBE 8020 (µg/L)	MTBE 8260 (µg/L)	TBA (µg/L)	DIPE (µg/L)	ETBE (µg/L)	TAME (µg/L)	EDB (µg/L)	1,2-DCA (µg/L)	Ethanol (µg/L)	DO Reading (mg/L)	TOC (ft MSL)	Depth to Water (ft TOC)	SPH Thickness (ft)	GW Elevation (ft MSL)
MW-4	07/14/1997	2,400	35	<10	30	20	6,000	---	---	---	---	---	---	---	---	2.0	20.31	10.05	---	10.26
MW-4	10/08/1997	2,900	66	<20	<20	<20	7,300	---	---	---	---	---	---	---	---	5.9	20.31	10.22	---	10.09
MW-4	01/19/1998	Inaccessible		---	---	---	---	---	---	---	---	---	---	---	---	---	20.31	---	---	---
MW-4	04/28/1998	Inaccessible		---	---	---	---	---	---	---	---	---	---	---	---	---	20.31	---	---	---
MW-4	09/30/1998	1,300	57	8.7	58	37	3,600	---	---	---	---	---	---	---	---	2.9	20.92	9.31	---	11.61
MW-4	12/09/1998	3,500	130	<5.0	100	36	3,200	4,500	---	---	---	---	---	---	---	2.2	20.92	9.30	---	11.62
MW-4	01/18/1999	7,040	321	<25.0	273	<25.0	4,830	4,660	---	---	---	---	---	---	---	2.3	20.92	8.60	---	12.32
MW-4	04/12/1999	1,540	47.6	<10.0	24.4	<10.0	2,760	---	---	---	---	---	---	---	---	1.9	20.92	6.25	---	14.67
MW-4	07/27/1999	3,570	214	<25.0	58.3	31.0	5,440	7,280 j	---	---	---	---	---	---	---	1.9	20.92	9.33	---	11.59
MW-4	10/14/1999	3,920	157	<25.0	103	<25.0	6,550	8,990	---	---	---	---	---	---	---	1.7	20.92	9.93	---	10.99
MW-4	01/06/2000	5,030	247	7.2	169	37.7	6,860	7,400	---	---	---	---	---	---	---	1.7	20.92	9.31	---	11.61
MW-4	04/05/2000	1,870	120	<5.00	15.1	<5.00	4,400	2,890 j	---	---	---	---	---	---	---	1.8	20.92	6.00	---	14.92
MW-4	07/20/2000	6,740	114	36.4	71.9	28.2	1,900	---	---	---	---	---	---	---	---	2.1	20.92	6.10	---	14.82
MW-4	10/24/2000	2,120	108	8.28	12.5	<5.00	6,070	5,950	---	---	---	---	---	---	---	1.1	20.92	8.90	---	12.02
MW-4	01/19/2001	3,330	67.2	<5.00	7.18	<5.00	3,620	4,330	---	---	---	---	---	---	---	1.8	31.88	7.25	---	24.63
MW-4	04/27/2001	1,600	79	<10	<10	<10	---	3,900	---	---	---	---	---	---	---	1.4	31.88	7.41	---	24.47
MW-4	07/26/2001	2,700	140	<20	24	<20	---	4,700	---	---	---	---	---	---	---	1.8	31.88	8.20	---	23.68
MW-4	10/02/2001	4,600	170	<10	50	<10	---	6,300	2,600	<10	<10	<10	---	---	<500	2.1	31.88	8.55	---	23.33
MW-4	01/15/2002	1,000	34	<5.0	<5.0	9.8	---	2,800	---	---	---	---	---	---	---	2.7	31.88	6.53	---	25.35
MW-4	04/17/2002	1,400	92	<10	<10	11	---	4,100	---	---	---	---	---	---	---	2.4	31.88	7.00	---	24.88
MW-4	07/11/2002	1,800	82	<10	<10	11	---	4,500	---	---	---	---	---	---	---	2.1	31.88	8.49	---	23.39
MW-4	10/10/2002	7,400	230	<10	45	<10	---	6,600	---	---	---	---	---	---	---	2.5	31.88	9.05	---	22.83
MW-4	01/21/2003	1,400	27	<2.5	<2.5	<2.5	---	1,200	---	---	---	---	---	---	---	0.4	31.88	6.50	---	25.38
MW-4	05/02/2003	<2,500	80	<25	<25	<50	---	2,500	---	---	---	---	---	---	---	1.3	31.88	6.97	---	24.91
MW-4	07/10/2003	<2,500	93	<25	<25	<50	---	2,800	---	---	---	---	---	---	---	---	31.88	7.74	---	24.14
MW-4	10/28/2003	4,000	120	<10	<10	<20	---	2,100	---	---	---	---	---	---	---	---	31.88	8.43	---	23.45
MW-4	01/13/2004	2,000	45	<5.0	<5.0	<10	---	620	---	---	---	---	---	---	---	---	31.88	6.75	---	25.13
MW-4	04/01/2004	1,400	17	<2.5	<2.5	<5.0	---	540	---	---	---	---	---	---	---	---	31.88	6.40	---	25.48
MW-4	07/21/2004	3,100	120	<2.5	11	<5.0	---	900	2,200	<10	<10	<10	---	---	---	---	31.88	8.23	---	23.65
MW-4	10/20/2004	3,600	97	<2.5	9.7	<5.0	---	470	---	---	---	---	---	---	---	---	31.88	8.30	---	23.58
MW-4	01/19/2005	1,600	15	<2.5	<2.5	<5.0	---	220	---	---	---	---	---	---	---	---	31.88	5.83	---	26.05
MW-4	04/20/2005	1,300	8.8	<2.5	<2.5	<5.0	---	210	---	---	---	---	---	---	---	---	31.88	6.12	---	25.76
MW-4	07/20/2005	1,600	34	<2.5	3.8	<5.0	---	280	1,100	<10	<10	<10	---	---	---	---	31.88	8.35	---	23.53
MW-4	10/19/2005	2,400	74	1.1	7.2	<2.0	---	360	---	---	---	---	---	---	---	---	31.88	9.25	---	22.63
MW-4	01/24/2006	3,290	17.2	<0.500	3.02	<0.500	---	159	---	---	---	---	---	---	---	---	31.88	6.32	---	25.56
MW-4	04/19/2006	430	6.40	<0.500	0.610	<0.500	---	134	---	---	---	---	---	---	---	---	31.88	5.03	---	26.85
MW-4	07/19/2006	5,020	48.7	0.760	6.67	<0.500	---	234	582	<0.500	<0.500	<0.500	---	---	---	---	31.88	7.90	---	23.98
MW-4	10/18/2006	9,220	48.4	1.07	16.7	4.45	---	233	---	---	---	---	---	---	---	---	31.88	8.68	---	23.20

TABLE 2

GROUNDWATER DATA
FORMER SHELL SERVICE STATION
3420 SAN PABLO AVENUE, OAKLAND, CALIFORNIA

Well ID	Date	TPHg (µg/L)	B (µg/L)	T (µg/L)	E (µg/L)	X (µg/L)	MTBE 8020 (µg/L)	MTBE 8260 (µg/L)	TBA (µg/L)	DIPE (µg/L)	ETBE (µg/L)	TAME (µg/L)	EDB (µg/L)	1,2-DCA (µg/L)	Ethanol (µg/L)	DO Reading (mg/L)	TOC (ft MSL)	Depth to Water (ft TOC)	SPH Thickness (ft)	GW Elevation (ft MSL)
MW-4	01/17/2007	1,700	13	<2.5	<2.5	<5.0	---	120	---	---	---	---	---	---	---	---	31.88	7.83	---	24.05
MW-4	04/18/2007	1,200 h	9.2	0.50 i	1.3	1.13 i	---	120	---	---	---	---	---	---	---	---	31.88	7.99	---	23.89
MW-4	07/18/2007	2,100 h	21	0.71 i	2.6	1.22 i	---	150	730	<2.0	<2.0	<2.0	---	---	---	---	31.88	9.15	---	22.73
MW-4	10/18/2007	940 h	32	1.2	11	2.57 i	---	160	---	---	---	---	---	---	---	---	31.88	8.64	---	23.24
MW-4	01/16/2008	2,300 h	8.5	<1.0	<1.0	<1.0	---	110	---	---	---	---	---	---	---	---	31.88	6.98	---	24.90
MW-4	04/16/2008	1,700	4.2	<1.0	1.0	<1.0	---	110	---	---	---	---	---	---	---	---	31.88	7.98	---	23.90
MW-4	07/16/2008	3,700	34	1.5	1.3	2.5	---	150	740	<2.0	<2.0	<2.0	---	---	---	---	31.88	9.12	---	22.76
MW-4	10/15/2008	3,700	18	<2.0	7.9	2.2	---	120	---	---	---	---	---	---	---	---	31.88	9.55	---	22.33
MW-4	01/21/2009	3,000	6.4	<1.0	1.9	1.1	---	86	---	---	---	---	---	---	---	---	31.88	7.90	---	23.98
MW-4	04/15/2009	2,000	2.2	<1.0	<1.0	<1.0	---	68	---	---	---	---	---	---	---	---	31.88	7.20	---	24.68
MW-4	10/21/2009	2,600	4.2	<1.0	1.3	<1.0	---	86	430	<2.0	<2.0	<2.0	---	---	---	---	31.88	7.45	---	24.43
MW-4	04/21/2010	1,000	2.3	<1.0	1.3	<1.0	---	46	---	---	---	---	---	---	---	---	31.88	5.60	---	26.28
MW-4	10/20/2010	3,100	2.3	<1.0	1.3	<1.0	---	83	---	---	---	---	---	---	---	---	31.88	9.16	---	22.72
MW-4	04/20/2011	820	<0.50	<0.50	<0.50	<1.0	---	31	---	---	---	---	---	---	---	---	31.88	6.70	---	25.18
MW-4	10/18/2011	2,300	27	30	12	60	---	25	280	<1.0	<1.0	<1.0	<0.50	<0.50	---	---	31.88	8.51	---	23.37
MW-4	04/18/2012	1,500	0.67	<0.50	0.63	<1.0	---	14	---	---	---	---	<0.50	<0.50	---	---	31.88	5.41	---	26.47
MW-4	10/17/2012	2,200	0.51	0.59	0.91	<1.0	---	43	---	---	---	---	<0.50	<0.50	---	---	31.88	9.40	---	22.48
MW-4	**04/17/2013**	**820**	**<0.50**	**<0.50**	**<0.50**	**<1.0**	**---**	**37**	**---**	**---**	**---**	**---**	**<0.50**	**<0.50**	**---**	**---**	**31.88**	**7.38**	**---**	**24.50**
MW-5	08/06/1991	9,100	210	27	240	660	---	---	---	---	---	---	---	---	---	---	20.91	10.23	---	10.68
MW-5	10/23/1991	12,000	92	18	230	450	---	---	---	---	---	---	---	---	---	---	20.91	10.89	---	10.02
MW-5	01/28/1992	3,300	130	10	180	220	---	---	---	---	---	---	---	---	---	---	20.91	8.45	---	12.46
MW-5	05/04/1992	3,900	95	<12.5	260	120	---	---	---	---	---	---	---	---	---	---	20.91	8.05	---	12.86
MW-5	07/13/1992	4,100	180	12	250	73	---	---	---	---	---	---	---	---	---	---	20.91	10.00	---	10.91
MW-5	10/12/1992	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	20.91	11.83	0.01	9.09
MW-5	01/12/1993	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	20.91	6.10	<0.01	14.82
MW-5	04/06/1993	6,200	71	<0.5	53	150	---	---	---	---	---	---	---	---	---	---	20.91	6.18	---	14.73
MW-5	07/12/1993	3,400	130	<0.5	170	130	---	---	---	---	---	---	---	---	---	---	20.91	9.59	---	11.32
MW-5	10/13/1993	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	20.91	10.80	0.03	10.13
MW-5	01/20/1994	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	20.91	7.42	0.01	13.50
MW-5	04/13/1994	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	20.91	7.05	0.01	13.87
MW-5	07/19/1994	11,000	180	13	180	260	---	---	---	---	---	---	---	---	---	---	20.91	8.57	---	12.34
MW-5	10/27/1994	6,900	82	<5	210	1,110	---	---	---	---	---	---	---	---	---	---	20.91	10.14	---	10.77
MW-5	01/03/1995	12,000	110	46	790	510	---	---	---	---	---	---	---	---	---	---	20.91	5.84	---	15.07
MW-5	04/13/1995	10,000	61	<20	330	140	---	---	---	---	---	---	---	---	---	---	20.91	5.28	---	15.63
MW-5	06/30/1995	12,000	180	8.60	440	340	---	---	---	---	---	---	---	---	---	---	20.91	7.43	---	13.48
MW-5	10/11/1995	11,000	<50	<50	440	340	5,100	---	---	---	---	---	---	---	---	---	20.91	8.90	---	12.01
MW-5	01/17/1996	82,000	330	120	960	1,400	820	---	---	---	---	---	---	---	---	---	20.91	6.40	---	14.51

TABLE 2

GROUNDWATER DATA
FORMER SHELL SERVICE STATION
3420 SAN PABLO AVENUE, OAKLAND, CALIFORNIA

Well ID	Date	TPHg (µg/L)	B (µg/L)	T (µg/L)	E (µg/L)	X (µg/L)	MTBE 8020 (µg/L)	MTBE 8260 (µg/L)	TBA (µg/L)	DIPE (µg/L)	ETBE (µg/L)	TAME (µg/L)	EDB (µg/L)	1,2-DCA (µg/L)	Ethanol (µg/L)	DO Reading (mg/L)	TOC (ft MSL)	Depth to Water (ft TOC)	SPH Thickness (ft)	GW Elevation (ft MSL)
MW-5	04/10/1996	23,000	<50	<50	360	190	770	---	---	---	---	---	---	---	---	---	20.91	5.70	---	15.21
MW-5	07/30/1996	38,000	3,000	<100	1,100	2,600	560	---	---	---	---	---	---	---	---	---	20.91	7.71	---	13.20
MW-5	10/17/1996	13,000	36	<10	210	160	720	---	---	---	---	---	---	---	---	1.4	20.91	9.04	---	11.87
MW-5	01/22/1997	20,000	63	<50	380	390	650	---	---	---	---	---	---	---	---	1.6	20.91	4.85	---	16.06
MW-5	04/01/1997	16,000	110	<50	390	320	2,200	---	---	---	---	---	---	---	---	1.4	20.91	6.54	---	14.37
MW-5	07/14/1997	15,000	70	<20	220	170	450	---	---	---	---	---	---	---	---	1.8	20.91	8.54	---	12.37
MW-5	10/08/1997	9,100	27	11	170	57	530	---	---	---	---	---	---	---	---	4.7	20.91	9.09	---	11.82
MW-5	01/19/1998	9,500	92	<50	200	77	1,100	---	---	---	---	---	---	---	---	2.5	20.91	2.11	---	18.80
MW-5	04/28/1998	15,000	100	53	150	80	460	---	---	---	---	---	---	---	---	2.2	20.91	4.90	---	16.01
MW-5	09/30/1998	11,000	120	<100	240	200	<500	---	---	---	---	---	---	---	---	2.0	21.71	8.05	---	13.66
MW-5	12/09/1998	45,000	<200	<200	240	240	<1,000	---	---	---	---	---	---	---	---	4.7	21.71	8.62	---	13.09
MW-5	01/18/1999	9,120	13.8	<2.50	315	74.5	131	---	---	---	---	---	---	---	---	2.1	21.71	6.75	---	14.96
MW-5	04/12/1999	16,200	80.9	<50.0	163	<50.0	8,310	---	---	---	---	---	---	---	---	2.3	21.71	4.80	---	16.91
MW-5	07/27/1999	6,820	<5.00	<5.00	99.7	<5.00	216	---	---	---	---	---	---	---	---	2.1	21.71	6.25	---	15.46
MW-5	10/14/1999	10,800	47.8	<12.5	313	23.1	232	---	---	---	---	---	---	---	---	2.8	21.71	6.93	---	14.78
MW-5	01/06/2000	9,920	39.8	15.4	220	69.6	478	---	---	---	---	---	---	---	---	2.9	21.71	7.52	---	14.19
MW-5	04/05/2000	8,370	68.3	20.1	40.2	<10.0	1,570	---	---	---	---	---	---	---	---	0.4	21.71	5.31	---	16.40
MW-5	07/20/2000	15,500	60.5	181	104	108	460	---	---	---	---	---	---	---	---	1.7	21.71	5.40	---	16.31
MW-5	10/24/2000	5,170	24.3	12.6	16.5	9.79	130	---	---	---	---	---	---	---	---	1.3	21.71	5.59	---	16.12
MW-5	01/19/2001	4,000	<5.00	17.4	88.1	22.6	371	---	---	---	---	---	---	---	---	1.0	32.67	5.05	---	27.62
MW-5	04/27/2001	3,100	<1.0	<1.0	2.6	1.3	---	210	---	---	---	---	---	---	---	1.3	32.67	5.38	---	27.29
MW-5	07/26/2001	11,000	1.4	<1.0	13	2.2	---	46	---	---	---	---	---	---	---	1.6	32.67	7.17	---	25.50
MW-5	10/02/2001	5,300	6.2	3.4	60	11	---	<100	---	---	---	---	---	---	---	2.2	32.67	7.86	---	24.81
MW-5	01/15/2002	3,800	1.0	<0.50	1.7	0.60	---	120	---	---	---	---	---	---	---	1.7	32.67	4.35	---	28.32
MW-5	04/17/2002	4,600	0.61	<0.50	1.5	<0.50	---	140	---	---	---	---	---	---	---	0.5	32.67	6.04	---	26.63
MW-5	07/11/2002	7,200	1.8	0.58	5.9	0.78	---	130	---	---	---	---	---	---	---	4.2	32.67	6.72	---	25.95
MW-5	10/10/2002	4,300	3.2	<1.0	3.5	<1.0	---	86	---	---	---	---	---	---	---	2.5	32.67	6.99	---	25.68
MW-5	01/21/2003	4,300	2.4	<0.50	7.8	0.67	---	170	---	---	---	---	---	---	---	0.5	32.67	5.09	---	27.58
MW-5	05/02/2003	3,600 d	<10	<10	<10	<20	---	170	---	---	---	---	---	---	---	0.05	32.67	5.14	---	27.53
MW-5	07/10/2003	2,700	2.1	<1.0	4.8	<2.0	---	48	---	---	---	---	---	---	---	---	32.67	5.68	---	26.99
MW-5	10/28/2003	7,500	<5.0	<5.0	11	<10	---	63	---	---	---	---	---	---	---	---	32.67	5.79	---	26.88
MW-5	01/13/2004	3,800	<2.5	<2.5	6.9	<5.0	---	140	---	---	---	---	---	---	---	---	32.67	4.69	---	27.98
MW-5	04/01/2004	3,800	<5.0	<5.0	<5.0	<10	---	180	---	---	---	---	---	---	---	---	32.67	5.60	---	27.07
MW-5	07/21/2004	2,500	<5.0	<5.0	<5.0	<10	---	85	59	<20	<20	<20	---	---	---	---	32.67	6.50	---	26.17
MW-5	10/20/2004	4,900	<5.0	<5.0	<5.0	<10	---	120	---	---	---	---	---	---	---	---	32.67	6.87	---	25.80
MW-5	01/19/2005	3,200	<5.0	<5.0	<5.0	<10	---	110	---	---	---	---	---	---	---	---	32.67	4.73	---	27.94
MW-5	04/20/2005	3,300	<5.0	<5.0	<5.0	<10	---	53	---	---	---	---	---	---	---	---	32.67	5.29	---	27.38
MW-5	07/20/2005	2,100	<1.0	<1.0	1.0	<2.0	---	110	51	<4.0	<4.0	<4.0	---	---	---	---	32.67	7.00	---	25.67

TABLE 2

GROUNDWATER DATA
FORMER SHELL SERVICE STATION
3420 SAN PABLO AVENUE, OAKLAND, CALIFORNIA

Well ID	Date	TPHg (µg/L)	B (µg/L)	T (µg/L)	E (µg/L)	X (µg/L)	MTBE 8020 (µg/L)	MTBE 8260 (µg/L)	TBA (µg/L)	DIPE (µg/L)	ETBE (µg/L)	TAME (µg/L)	EDB (µg/L)	1,2-DCA (µg/L)	Ethanol (µg/L)	DO Reading (mg/L)	TOC (ft MSL)	Depth to Water (ft TOC)	SPH Thickness (ft)	GW Elevation (ft MSL)
MW-5	10/19/2005	2,900	1.7	<1.0	2.8	<2.0	---	140	---	---	---	---	---	---	---	---	32.67	8.91	---	23.76
MW-5	01/24/2006	4,890	0.670	2.41	4.89	<0.500	---	37.9	---	---	---	---	---	---	---	---	32.67	4.90	---	27.77
MW-5	04/19/2006	5,010	0.710	1.26	1.09	<0.500	---	67.1	---	---	---	---	---	---	---	---	32.67	3.46	---	29.21
MW-5	07/19/2006	9,180	<0.500	<0.500	0.790	<0.500	---	2.92 g	<10.0	<0.500	<0.500	<0.500	---	---	---	---	32.67	5.32	---	27.35
MW-5	10/18/2006	6,110	1.07	1.02	2.48	<0.500	---	36.5	---	---	---	---	---	---	---	---	32.67	6.48	---	26.19
MW-5	01/17/2007	1,300	<0.50	<0.50	0.74	<1.0	---	27	---	---	---	---	---	---	---	---	32.67	6.14	---	26.53
MW-5	04/18/2007	4,500 h	0.31 i	0.33 i	0.75 i	0.99 i	---	60	---	---	---	---	---	---	---	---	32.67	6.75	---	25.92
MW-5	07/18/2007	4,600 h	0.80 i	<5.0	<5.0	0.91 i	---	69	42 i	<10	<10	<10	---	---	---	---	32.67	8.51	---	24.16
MW-5	10/18/2007	2,800 h	0.66	<1.0	0.32 i	<1.0	---	120	---	---	---	---	---	---	---	---	32.67	8.28	---	24.39
MW-5	01/16/2008	2,900 h	0.89	<1.0	2.6	<1.0	---	32	---	---	---	---	---	---	---	---	32.67	5.65	---	27.02
MW-5	04/16/2008	1,600	<0.50	<1.0	<1.0	<1.0	---	39	---	---	---	---	---	---	---	---	32.67	6.62	---	26.05
MW-5	07/16/2008	11,000	<5.0	<10	<10	<10	---	<10	<100	<20	<20	<20	---	---	---	---	32.67	6.99	---	25.68
MW-5	10/15/2008	11,000	<2.5	<5.0	<5.0	<5.0	---	42	---	---	---	---	---	---	---	---	32.67	8.20	---	24.47
MW-5	01/21/2009	3,300	<0.50	<1.0	<1.0	<1.0	---	29	---	---	---	---	---	---	---	---	32.67	7.11	---	25.56
MW-5	04/15/2009	3,300	<0.50	<1.0	<1.0	<1.0	---	11	---	---	---	---	---	---	---	---	32.67	5.75	---	26.92
MW-5	10/21/2009	1,700	<0.50	<1.0	<1.0	<1.0	---	32	28	<2.0	<2.0	<2.0	---	---	---	---	32.67	6.58	---	26.09
MW-5	04/21/2010	2,100	<0.50	<1.0	1.1	<1.0	---	8.3	---	---	---	---	---	---	---	---	32.67	4.94	---	27.73
MW-5	10/20/2010	6,800	<1.0	<2.0	<2.0	<2.0	---	24	---	---	---	---	---	---	---	---	32.67	7.96	---	24.71
MW-5	04/20/2011	2,000	<0.50	<0.50	<0.50	<1.0	---	9.6	---	---	---	---	---	---	---	---	32.67	4.85	---	27.82
MW-5	10/18/2011	5,200	4.1	6.2	3.2	17	---	8.4	11	<1.0	<1.0	<1.0	<0.50	<0.50	---	---	32.67	6.70	---	25.97
MW-5	04/18/2012	4,100	<1.3	<1.3	<1.3	<2.5	---	7.4	---	---	---	---	<1.3	<1.3	---	---	32.67	3.81	---	28.86
MW-5	10/17/2012	1,100	<0.50	<0.50	<0.50	<1.0	---	15	---	---	---	---	<0.50	<0.50	---	---	32.67	8.61	---	24.06
MW-5	**04/17/2013**	**1,700**	**<0.50**	**<0.50**	**<0.50**	**<1.0**	**---**	**12**	**---**	**---**	**---**	**---**	**<0.50**	**<0.50**	**---**	**---**	**32.67**	**6.30**	**---**	**26.37**
MW-6	08/06/1991	28,000	1,400	200	1,300	4,200	---	---	---	---	---	---	---	---	---	---	22.32	10.61	---	11.71
MW-6	10/23/1991	53,000	1,400	230	1,800	6,700	---	---	---	---	---	---	---	---	---	---	22.32	11.68	---	10.64
MW-6	01/28/1992	87,000	1,200	470	2,000	6,600	---	---	---	---	---	---	---	---	---	---	22.32	8.90	---	13.42
MW-6	05/05/1992	230,000	<500	<500	3,200	11,000	---	---	---	---	---	---	---	---	---	---	22.32	8.01	---	14.31
MW-6	07/13/1992	2,700,000	<2,500	3,500	14,000	36,000	---	---	---	---	---	---	---	---	---	---	22.32	10.77	---	11.55
MW-6	10/12/1992	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	22.32	8.68	0.48	14.02
MW-6	01/12/1993	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	22.32	6.40	<0.01	15.93
MW-6	04/06/1993	320,000	2,500	14,000	980	14,000	---	---	---	---	---	---	---	---	---	---	22.32	5.93	---	16.39
MW-6	07/12/1993	31,000	1,100	4,500	150	4,500	---	---	---	---	---	---	---	---	---	---	22.32	10.25	---	12.07
MW-6	10/13/1993	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	22.32	12.28	0.20	10.20
MW-6	01/20/1994	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	22.32	9.14	0.02	13.20
MW-6	04/13/1994	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	22.32	7.67	0.01	14.66
MW-6	07/19/1994	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	22.32	10.07	0.07	12.31
MW-6	10/27/1994	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	22.32	11.84	0.11	10.57

TABLE 2

GROUNDWATER DATA
FORMER SHELL SERVICE STATION
3420 SAN PABLO AVENUE, OAKLAND, CALIFORNIA

Well ID	Date	TPHg (µg/L)	B (µg/L)	T (µg/L)	E (µg/L)	X (µg/L)	MTBE 8020 (µg/L)	MTBE 8260 (µg/L)	TBA (µg/L)	DIPE (µg/L)	ETBE (µg/L)	TAME (µg/L)	EDB (µg/L)	1,2-DCA (µg/L)	Ethanol (µg/L)	DO Reading (mg/L)	TOC (ft MSL)	Depth to Water (ft TOC)	SPH Thickness (ft)	GW Elevation (ft MSL)
MW-6	01/03/1995	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	22.32	7.80	0.02	14.54
MW-6	04/13/1995	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	22.32	5.77	0.02	16.57
MW-6	06/30/1995	1,100,000	6,600	6,100	12,000	29,000	---	---	---	---	---	---	---	---	---	---	22.32	7.78	---	14.54
MW-6	10/11/1995	30,000	130	<50	1,400	4,200	710	---	---	---	---	---	---	---	---	---	22.32	10.06	---	12.26
MW-6	01/17/1996	450,000	510	1,400	2,700	11,000	630	---	---	---	---	---	---	---	---	---	22.32	6.91	---	15.41
MW-6	04/10/1996	22,000	47	<10	350	860	<50	---	---	---	---	---	---	---	---	---	22.32	5.92	---	16.40
MW-6	07/30/1996	38,000	3,000	<100	1,100	2,600	560	---	---	---	---	---	---	---	---	---	22.32	8.97	---	13.35
MW-6	10/17/1996	34,000	470	<100	1,300	3,900	<500	---	---	---	---	---	---	---	---	1.0	22.32	9.87	---	12.45
MW-6	01/22/1997	26,000	<100	<100	600	1,700	<500	---	---	---	---	---	---	---	---	1.3	22.32	4.43	---	17.89
MW-6	04/01/1997	30,000	96	33	840	2,600	190	---	---	---	---	---	---	---	---	1.4	22.32	6.84	---	15.48
MW-6	07/14/1997	29,000	200	<100	690	2,000	<500	---	---	---	---	---	---	---	---	2.3	22.32	10.30	---	12.02
MW-6	10/08/1997	55,000	500	110	640	1,500	900	---	---	---	---	---	---	---	---	0.0	22.32	10.46	---	11.86
MW-6	12/05/1997	Well destroyed		---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
MW-6R	04/06/1999	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	22.19	12.13	---	10.06
MW-6R	04/12/1999	26,100	1,750	68.5	2,160	4,450	765	---	---	---	---	---	---	---	---	2.4	22.19	6.10	---	16.09
MW-6R	07/27/1999	25,600	1,190	30.5	1,810	3,030	163	---	---	---	---	---	---	---	---	2.5	22.19	8.60	---	13.59
MW-6R	10/14/1999	21,400	999	<50.0	1,400	1,680	<500	---	---	---	---	---	---	---	---	2.0	22.19	9.35	---	12.84
MW-6R	01/06/2000	17,800	1,440	<50.0	1,310	2,340	301	---	---	---	---	---	---	---	---	2.1	22.19	9.18	---	13.01
MW-6R	04/05/2000	24,400	1,470	63.1	1,750	3,590	496	---	---	---	---	---	---	---	---	0.4	22.19	6.26	---	15.93
MW-6R	07/20/2000	17,200	1,070	42.9	1,260	2,490	725	---	---	---	---	---	---	---	---	2.6	22.19	6.79	---	15.40
MW-6R	10/24/2000	17,200	1,890	107	869	1,620	1,320	---	---	---	---	---	---	---	---	1.1	22.19	7.40	---	14.79
MW-6R	01/19/2001	15,000	1,120	40.2	1,240	2,230	1,670	---	---	---	---	---	---	---	---	1.4	33.15	6.16	---	26.99
MW-6R	04/27/2001	25,000	1,300	24	1,300	2,400	---	400	---	---	---	---	---	---	---	1.0	33.15	6.93	---	26.22
MW-6R	07/26/2001	31,000	1,500	31	1,800	3,000	---	370	---	---	---	---	---	---	---	1.4	33.15	9.12	---	24.03
MW-6R	10/02/2001	28,000	1,100	28	1,800	2,800	---	160	---	---	---	---	---	---	---	2.1	33.15	8.88	---	24.27
MW-6R	01/15/2002	17,000	1,400	19	900	1,500	---	650	---	---	---	---	---	---	---	2.1	33.15	5.46	---	27.69
MW-6R	04/17/2002	33,000	1,600	33	1,700	3,100	---	220	---	---	---	---	---	---	---	2.2	33.15	7.68	---	25.47
MW-6R	07/11/2002	25,000	1,200	21	1,300	1,900	---	240	---	---	---	---	---	---	---	1.6	33.15	8.75	---	24.40
MW-6R	10/10/2002	83,000 c	1,400	34	2,000	4,400	---	290	---	---	---	---	---	---	---	1.0	33.15	9.27	---	23.88
MW-6R	01/21/2003	20,000	1,200	18	1,100	1,700	---	340	---	---	---	---	---	---	---	1.2	33.15	6.95	---	26.20
MW-6R	05/02/2003	28,000	1,600	32	1,600	2,400	---	300	---	---	---	---	---	---	---	1.6	33.15	7.50	---	25.65
MW-6R	07/10/2003	19,000	1,600	<25	1,400	2,000	---	730	---	---	---	---	---	---	---	---	33.15	8.60	---	24.55
MW-6R	10/28/2003	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	33.15	8.91	0.26	24.45
MW-6R	11/24/2003	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	33.15	8.47	0.15	24.80
MW-6R	01/13/2004	87,000	1,300	<50	3,300	6,700	---	160	---	---	---	---	---	---	---	---	33.15	6.52	---	26.63
MW-6R	04/01/2004	39,000	1,300	<50	2,400	3,500	---	160	---	---	---	---	---	---	---	---	33.15	6.90	---	26.25
MW-6R	07/21/2004	51,000	970	<50	3,200	6,700	---	120	<500	<200	<200	<200	---	---	---	---	33.15	8.40	---	24.75

TABLE 2

GROUNDWATER DATA
FORMER SHELL SERVICE STATION
3420 SAN PABLO AVENUE, OAKLAND, CALIFORNIA

Well ID	Date	TPHg (µg/L)	B (µg/L)	T (µg/L)	E (µg/L)	X (µg/L)	MTBE 8020 (µg/L)	MTBE 8260 (µg/L)	TBA (µg/L)	DIPE (µg/L)	ETBE (µg/L)	TAME (µg/L)	EDB (µg/L)	1,2-DCA (µg/L)	Ethanol (µg/L)	DO Reading (mg/L)	TOC (ft MSL)	Depth to Water (ft TOC)	SPH Thickness (ft)	GW Elevation (ft MSL)
MW-6R	10/20/2004	140,000	1,700	<50	4,300	7,400	---	210	---	---	---	---	---	---	---	---	33.15	8.61	<0.01	24.55
MW-6R	01/19/2005	44,000	1,300	<50	2,700	3,300	---	140	---	---	---	---	---	---	---	---	33.15	6.11	---	27.04
MW-6R	04/20/2005	26,000	340	<50	800	920	---	<50	---	---	---	---	---	---	---	---	33.15	7.01	---	26.14
MW-6R	07/20/2005	35,000	640	<50	2,000	2,200	---	83	<500	<200	<200	<200	---	---	---	---	33.15	8.64	---	24.51
MW-6R	10/19/2005	57,000	1,100	<50	2,600	2,400	---	100	---	---	---	---	---	---	---	---	33.15	10.10	---	23.05
MW-6R	01/24/2006	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	33.15	5.95	0.04	27.23
MW-6R	04/19/2006	62,200	1,040	9.41	1,430	1,280	---	130	---	---	---	---	---	---	---	---	33.15	4.95	0.01	28.21
MW-6R	07/19/2006	33,500	1,370	6.34	878	393	---	362 g	<10.0	<0.500	<0.500	<0.500	---	---	---	---	33.15	7.74	---	25.41
MW-6R	10/18/2006	127,000	1,220	9.07	2,150	1,330	---	130	---	---	---	---	---	---	---	---	33.15	8.74	---	24.41
MW-6R	01/17/2007	20,000	880	<12	1,400	730	---	75	---	---	---	---	---	---	---	---	33.15	7.92	---	25.23
MW-6R	04/18/2007	30,000 h	790	5.7	600	257.5	---	180	---	---	---	---	---	---	---	---	33.15	8.19	---	24.96
MW-6R	07/18/2007	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	33.15	9.70	0.10	23.53
MW-6R	10/18/2007	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	33.15	9.39	0.16	23.89
MW-6R	01/16/2008	39,000 h	590	<5.0	580	160	---	150	---	---	---	---	---	---	---	---	33.15	7.15	---	26.00
MW-6R	04/16/2008	3,800	150	1.4	170	83.5	---	27	---	---	---	---	---	---	---	---	33.15	8.18	---	24.97
MW-6R	07/16/2008	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	33.15	9.36	0.06	23.84
MW-6R	10/15/2008	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	33.15	10.12	0.31	23.28
MW-6R	01/21/2009	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	33.15	9.28	0.05	23.91
MW-6R	04/15/2009	28,000	850	<10	790	290	---	120	---	---	---	---	---	---	---	---	33.15	7.30	---	25.85
MW-6R	10/21/2009	23,000	630	<10	450	80	---	120	<100	<20	<20	<20	---	---	---	---	33.15	8.10	---	25.05
MW-6R	04/21/2010	37,000	740	<10	950	230	---	82	---	---	---	---	---	---	---	---	33.15	6.53	---	26.62
MW-6R	10/20/2010	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	33.15	10.08	0.16	23.20
MW-6R	02/10/2011	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	33.15	7.30	---	25.85
MW-6R	04/20/2011	22,000	810	<12	670	170	---	92	---	---	---	---	---	---	---	---	33.15	6.62	---	26.53
MW-6R	07/08/2011	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	33.15	7.42	---	25.73
MW-6R	10/18/2011	11,000	550	<5.0	200	41	---	80	<100	<10	<10	<10	<5.0	<5.0	---	---	33.15	8.60	---	24.55
MW-6R	01/06/2012	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	33.15	9.19	---	23.96
MW-6R	04/18/2012	20,000	720	<5.0	730	130	---	<5.0	---	---	---	---	<5.0	<5.0	---	---	33.15	5.67	---	27.48
MW-6R	07/06/2012	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	33.15	8.96	---	24.19
MW-6R	10/17/2012	14,000	540	<5.0	57	15	---	80	---	---	---	---	<5.0	<5.0	---	---	33.15	9.94	---	23.21
MW-6R	**01/29/2013**	**---**	**---**	**---**	**---**	**---**	**---**	**---**	**---**	**---**	**---**	**---**	**---**	**---**	**---**	**---**	**33.15**	**7.28**	**---**	**25.87**
MW-6R	**04/17/2013**	**17,000**	**710**	**<5.0**	**400**	**59**	**---**	**83**	**---**	**---**	**---**	**---**	**<5.0**	**<5.0**	**---**	**---**	**33.15**	**7.68**	**---**	**25.47**
MW-7	08/06/1991	13,000	4,300	76	770	730	---	---	---	---	---	---	---	---	---	---	20.36	8.00	---	12.36
MW-7	10/23/1991	18,000	3,200	31	660	770	---	---	---	---	---	---	---	---	---	---	20.36	8.16	---	12.20
MW-7	01/28/1992	5,000	1,200	<10	220	54	---	---	---	---	---	---	---	---	---	---	20.36	7.11	---	13.25
MW-7	05/05/1992	9,500	3,100	72	620	880	---	---	---	---	---	---	---	---	---	---	20.36	6.47	---	13.89
MW-7	07/13/1992	20,000	4,200	130	1,600	1,100	---	---	---	---	---	---	---	---	---	---	20.36	7.73	---	12.63

TABLE 2

GROUNDWATER DATA
FORMER SHELL SERVICE STATION
3420 SAN PABLO AVENUE, OAKLAND, CALIFORNIA

Well ID	Date	TPHg (µg/L)	B (µg/L)	T (µg/L)	E (µg/L)	X (µg/L)	MTBE 8020 (µg/L)	MTBE 8260 (µg/L)	TBA (µg/L)	DIPE (µg/L)	ETBE (µg/L)	TAME (µg/L)	EDB (µg/L)	1,2-DCA (µg/L)	Ethanol (µg/L)	DO Reading (mg/L)	TOC (ft MSL)	Depth to Water (ft TOC)	SPH Thickness (ft)	GW Elevation (ft MSL)
MW-7	10/12/1992	16,000	2,500	170	560	170	---	---	---	---	---	---	---	---	---	---	20.36	9.97	---	10.39
MW-7	01/12/1993	15,000	2,300	<50	690	440	---	---	---	---	---	---	---	---	---	---	20.36	6.26	---	14.10
MW-7	04/06/1993	26,000	5,400	<0.5	1,200	3,000	---	---	---	---	---	---	---	---	---	---	20.36	5.92	---	14.44
MW-7	07/12/1993	10,000	3,000	100	510	530	---	---	---	---	---	---	---	---	---	---	20.36	7.27	---	13.09
MW-7	10/13/1993	59,000	13,000	4,400	4,400	20,000	---	---	---	---	---	---	---	---	---	---	20.36	9.40	---	10.96
MW-7	01/20/1994	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	20.36	7.03	0.05	13.37
MW-7	04/13/1994	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	20.36	6.56	0.16	13.93
MW-7	07/19/1994	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	20.36	6.91	0.20	13.61
MW-7	10/27/1994	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	20.36	8.28	0.04	12.11
MW-7	01/03/1995	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	20.36	6.48	0.02	13.90
MW-7	04/13/1995	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	20.36	6.54	0.02	13.84
MW-7	06/30/1995	900,000	11,000	8,500	14,000	52,000	---	---	---	---	---	---	---	---	---	---	20.36	7.08	---	---
MW-7	10/11/1995	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	20.36	7.88	0.04	12.51
MW-7	01/17/1996	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	20.36	7.26	0.04	13.13
MW-7	04/10/1996	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	20.36	6.98	0.05	13.42
MW-7	07/30/1996	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	20.36	7.34	0.03	13.04
MW-7	10/17/1996	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	20.36	7.63	0.02	12.75
MW-7	01/22/1997	56,000	2,000	520	1,400	8,400	1,800	---	---	---	---	---	---	---	---	0.5	20.36	6.46	---	13.90
MW-7	04/01/1997	66,000	3,600	460	2,400	10,000	2,300	---	---	---	---	---	---	---	---	1.6	20.36	6.97	---	13.39
MW-7	07/14/1997	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	20.36	8.90	0.03	11.48
MW-7	10/08/1997	68,000	3,200	470	2,400	9,700	3,300	---	---	---	---	---	---	---	---	2.1	20.36	9.21	0.01	11.16
MW-7	01/19/1998	44,000	1,800	220	1,700	7,800	1,600	---	---	---	---	---	---	---	---	1.6	20.36	4.65	---	15.71
MW-7	04/28/1998	82,000	1,500	<500	1,200	8,900	<2,500	---	---	---	---	---	---	---	---	1.3	20.36	6.53	---	13.83
MW-7	09/30/1998	41,000	2,300	290	2,200	7,000	1,400	---	---	---	---	---	---	---	---	1.4	20.35	5.59	---	14.76
MW-7	12/09/1998	31,000	530	130	1,100	4,300	<500	---	---	---	---	---	---	---	---	4.9	20.35	5.91	---	14.44
MW-7	01/18/1999	35,300	975	175	1,360	5,750	256	---	---	---	---	---	---	---	---	1.2	20.35	5.02	---	15.33
MW-7	04/12/1999	43,300	728	161	1,820	6,190	<500	---	---	---	---	---	---	---	---	1.3	20.35	4.57	---	15.78
MW-7	07/27/1999	36,600	863	68.3	1,540	4,370	593	---	---	---	---	---	---	---	---	1.2	20.35	5.36	---	14.99
MW-7	10/14/1999	65,600	1,140	157	2,230	7,060	1,090	---	---	---	---	---	---	---	---	1.8	20.35	5.87	---	14.48
MW-7	01/06/2000	57,100	1,060	142	1,540	5,980	634	---	---	---	---	---	---	---	---	1.8	20.35	6.12	---	14.23
MW-7	04/05/2000	36,500	843	<100	1,460	4,220	1,140	---	---	---	---	---	---	---	---	1.4	20.35	4.87	---	15.48
MW-7	07/20/2000	28,400	263	251	457	1,300	690	---	---	---	---	---	---	---	---	1.7	20.35	5.01	---	15.34
MW-7	10/24/2000	33,500	464	<200	1,600	3,830	<1,000	---	---	---	---	---	---	---	---	1.5	20.35	4.17	---	16.18
MW-7	01/19/2001	1,860,000	<2,000	<2,000	<2,000	5,790	<10,000	---	---	---	---	---	---	---	---	1.2	31.31	5.18	---	26.13
MW-7	04/27/2001	31,000	150	20	1,400	3,000	---	190	---	---	---	---	---	---	---	1.4	31.31	4.99	---	26.32
MW-7	07/26/2001	30,000	340	20	1,500	2,600	---	380	---	---	---	---	---	---	---	1.1	31.31	6.20	---	25.11
MW-7	10/02/2001	38,000	480	9.0	970	2,600	---	300	---	---	---	---	---	---	---	1.5	31.31	6.45	---	24.86
MW-7	01/15/2002	33,000	160	6.6	810	1,300	---	130	---	---	---	---	---	---	---	2.0	31.31	4.31	---	27.00

TABLE 2

GROUNDWATER DATA
FORMER SHELL SERVICE STATION
3420 SAN PABLO AVENUE, OAKLAND, CALIFORNIA

Well ID	Date	TPHg (µg/L)	B (µg/L)	T (µg/L)	E (µg/L)	X (µg/L)	MTBE 8020 (µg/L)	MTBE 8260 (µg/L)	TBA (µg/L)	DIPE (µg/L)	ETBE (µg/L)	TAME (µg/L)	EDB (µg/L)	1,2-DCA (µg/L)	Ethanol (µg/L)	DO Reading (mg/L)	TOC (ft MSL)	Depth to Water (ft TOC)	SPH Thickness (ft)	GW Elevation (ft MSL)
MW-7	04/17/2002	28,000	160	6.1	1,000	1,700	---	140	---	---	---	---	---	---	---	1.2	31.31	4.12	---	27.19
MW-7	07/11/2002	26,000	200	<5.0	830	1,300	---	170	---	---	---	---	---	---	---	3.0	31.31	5.90	---	25.41
MW-7	10/10/2002	95,000 c	380	11	1,500	3,900	---	330	---	---	---	---	---	---	---	2.9	31.31	6.32	---	24.99
MW-7	01/21/2003	18,000	100	2.6	530	780	---	96	---	---	---	---	---	---	---	0.9	31.31	3.04	---	28.27
MW-7	05/02/2003	23,000	99	<10	490	620	---	<100	---	---	---	---	---	---	---	0.91	31.31	3.45	---	27.86
MW-7	07/10/2003	18,000	200	<5.0	460	1,100	---	52	---	---	---	---	---	---	---	---	31.31	4.59	---	26.72
MW-7	10/28/2003	37,000	290	<10	830	1,200	---	98	---	---	---	---	---	---	---	---	31.31	4.97	---	26.34
MW-7	01/13/2004	22,000	94	<10	410	680	---	97	---	---	---	---	---	---	---	---	31.31	4.55	---	26.76
MW-7	04/01/2004	24,000	250	<10	440	660	---	210	---	---	---	---	---	---	---	---	31.31	4.91	---	26.40
MW-7	07/21/2004	21,000	440	<10	460	640	---	110	<100	<40	<40	<40	---	---	---	---	31.31	4.58	---	26.73
MW-7	10/20/2004	23,000	430	<10	410	640	---	40	---	---	---	---	---	---	---	---	31.31	1.95	---	29.36
MW-7	01/19/2005	17,000	97	<10	240	370	---	150	---	---	---	---	---	---	---	---	31.31	3.91	---	27.40
MW-7	04/20/2005	18,000	160	<10	260	320	---	80	---	---	---	---	---	---	---	---	31.31	4.64	---	26.67
MW-7	07/20/2005	15,000	800	<10	200	250	---	660	290	<40	<40	<40	---	---	---	---	31.31	6.29	---	25.02
MW-7	10/19/2005	12,000	1,200	<5.0	120	150	---	760	---	---	---	---	---	---	---	---	31.31	7.25	---	24.06
MW-7	01/24/2006	24,900	604	3.14	135	216	---	259	---	---	---	---	---	---	---	---	31.31	4.50	---	26.81
MW-7	04/19/2006	135,000	378	1.82	66.0	177	---	74.0	---	---	---	---	---	---	---	---	31.31	3.74	---	27.57
MW-7	07/19/2006	10,600	33.0	<0.500	13.0	27.5	---	<0.500	<10.0	<0.500	<0.500	<0.500	---	---	---	---	31.31	3.77	---	27.54
MW-7	10/18/2006	35,200	295	2.44	133	105	---	36.1	---	---	---	---	---	---	---	---	31.31	4.82	---	26.49
MW-7	01/17/2007	7,800	84	<2.5	83	60	---	20	---	---	---	---	---	---	---	---	31.31	5.60	---	25.71
MW-7	04/18/2007	13,000 h	180	1.8	120	90.5	---	56	---	---	---	---	---	---	---	---	31.31	5.68	---	25.63
MW-7	07/18/2007	10,000 h	190	<5.0	68	40.4 i	---	88	77	<10	<10	<10	---	---	---	---	31.31	7.35	---	23.96
MW-7	10/18/2007	8,200 h	56	<5.0	6.0	17.3 i	---	17	---	---	---	---	---	---	---	---	31.31	3.45	---	27.86
MW-7	01/16/2008	17,000 h	37	<2.0	21	15	---	<2.0	---	---	---	---	---	---	---	---	31.31	3.39	---	27.92
MW-7	04/16/2008	10,000	51	2.1	29	17.2	---	28	---	---	---	---	---	---	---	---	31.31	5.68	---	25.63
MW-7	07/16/2008	23,000	46	<50	<50	<50	---	<50	<500	<100	<100	<100	---	---	---	---	31.31	3.02	---	28.29
MW-7	10/15/2008	4,200	17	<1.0	1.3	4.6	---	4.9	---	---	---	---	---	---	---	---	31.31	6.10	---	25.21
MW-7	01/21/2009	11,000	15	1.7	15	4.2	---	<1.0	---	---	---	---	---	---	---	---	31.31	5.69	---	25.62
MW-7	04/15/2009	12,000	11	<10	11	<10	---	<10	---	---	---	---	---	---	---	---	31.31	3.40	---	27.91
MW-7	10/21/2009	6,600	43	<5.0	<5.0	<5.0	---	29	<50	<10	<10	<10	---	---	---	---	31.31	3.25	---	28.06
MW-7	04/21/2010	14,000	3.6	<1.0	3.5	1.1	---	5.4	---	---	---	---	---	---	---	---	31.31	4.38	---	26.93
MW-7	10/20/2010	7,100	4.1	<5.0	<5.0	<5.0	---	5.5	---	---	---	---	---	---	---	---	31.31	3.11	---	28.20
MW-7	04/20/2011	7,500	<2.5	<2.5	<2.5	<5.0	---	<5.0	---	---	---	---	---	---	---	---	31.31	3.19	---	28.12
MW-7	10/18/2011	140,000	12	12	12	24	---	<10	<100	<10	<10	<10	<5.0	<5.0	---	---	31.31	3.20	---	28.11
MW-7	04/18/2012	3,400	<5.0	<5.0	<5.0	<10	---	<5.0	---	---	---	---	<5.0	<5.0	---	---	31.31	3.05	---	28.26
MW-7	10/17/2012	6,500	11	0.76	1.1	<1.0	---	6.2	---	---	---	---	0.60	<0.50	---	---	31.31	3.60	---	27.71
MW-7	**04/17/2013**	**3,500**	**0.89**	**0.57**	**0.94**	**<1.0**	**---**	**<0.50**	**---**	**---**	**---**	**---**	**<0.50**	**<0.50**	**---**	**---**	**31.31**	**3.97**	**---**	**27.34**

TABLE 2

GROUNDWATER DATA
FORMER SHELL SERVICE STATION
3420 SAN PABLO AVENUE, OAKLAND, CALIFORNIA

Well ID	Date	TPHg (µg/L)	B (µg/L)	T (µg/L)	E (µg/L)	X (µg/L)	MTBE 8020 (µg/L)	MTBE 8260 (µg/L)	TBA (µg/L)	DIPE (µg/L)	ETBE (µg/L)	TAME (µg/L)	EDB (µg/L)	1,2-DCA (µg/L)	Ethanol (µg/L)	DO Reading (mg/L)	TOC (ft MSL)	Depth to Water (ft TOC)	SPH Thickness (ft)	GW Elevation (ft MSL)
MW-8	08/06/1991	32,000	3,700	1,100	1,400	6,100	---	---	---	---	---	---	---	---	---	---	20.95	9.60	---	11.35
MW-8	10/23/1991	63,000	4,800	1,300	1,300	6,900	---	---	---	---	---	---	---	---	---	---	20.95	9.73	---	11.22
MW-8	01/28/1992	32,000	1,900	750	1,400	6,300	---	---	---	---	---	---	---	---	---	---	20.95	7.72	---	13.23
MW-8	05/05/1992	180,000	2,200	2,000	2,700	13,000	---	---	---	---	---	---	---	---	---	---	20.95	6.48	---	14.47
MW-8	07/13/1992	56,000	4,500	1,500	2,700	9,100	---	---	---	---	---	---	---	---	---	---	20.95	8.55	---	12.40
MW-8	10/12/1992	34,000	2,400	550	1,400	6,400	---	---	---	---	---	---	---	---	---	---	20.95	9.97	---	10.98
MW-8	01/12/1993	110,000	2,100	1,200	2,400	12,000	---	---	---	---	---	---	---	---	---	---	20.95	6.94	---	14.01
MW-8	04/06/1993	38,000	2,500	840	1,100	4,900	---	---	---	---	---	---	---	---	---	---	20.95	5.72	---	15.23
MW-8	07/12/1993	27,000	2,800	990	1,200	5,300	---	---	---	---	---	---	---	---	---	---	20.95	7.65	---	13.30
MW-8	10/13/1993	32,000	3,300	1,300	1,600	8,400	---	---	---	---	---	---	---	---	---	---	20.95	8.25	---	12.70
MW-8	01/20/1994	78,000	1,900	670	1,300	6,600	---	---	---	---	---	---	---	---	---	---	20.95	7.25	---	13.70
MW-8	04/13/1994	41,000	1,300	720	1,200	6,000	---	---	---	---	---	---	---	---	---	---	20.95	7.12	---	13.83
MW-8	07/19/1994	140,000	1,800	1,400	2,000	9,000	---	---	---	---	---	---	---	---	---	---	20.95	7.43	---	13.52
MW-8	10/27/1994	32,000	1,200	670	1,200	5,700	---	---	---	---	---	---	---	---	---	---	20.95	7.55	---	13.40
MW-8	01/03/1995	38,000	1,000	700	1,500	7,500	---	---	---	---	---	---	---	---	---	---	20.95	6.04	---	14.91
MW-8	04/13/1995	31,000	1,200	570	1,000	5,300	---	---	---	---	---	---	---	---	---	---	20.95	5.04	---	15.91
MW-8	06/30/1995	110,000	2,000	1,500	2,000	9,700	---	---	---	---	---	---	---	---	---	---	20.95	5.72	---	15.23
MW-8	10/11/1995	36,000	170	60	1,300	6,300	510	---	---	---	---	---	---	---	---	---	20.95	7.06	---	13.89
MW-8	01/17/1996	38,000	1,000	520	1,100	6,200	950	---	---	---	---	---	---	---	---	---	20.95	5.84	---	15.11
MW-8	04/10/1996	54,000	650	260	850	4,700	<250	---	---	---	---	---	---	---	---	---	20.95	5.03	---	15.92
MW-8	07/30/1996	33,000	780	330	830	4,200	1,700	---	---	---	---	---	---	---	---	---	20.95	6.36	---	14.59
MW-8	10/17/1996	35,000	750	300	1,100	5,000	1,200	---	---	---	---	---	---	---	---	1.6	20.95	5.94	---	15.01
MW-8	01/22/1997	25,000	260	78	420	2,400	120	---	---	---	---	---	---	---	---	1.8	20.95	5.93	---	15.02
MW-8	04/01/1997	22,000	680	180	550	2,500	260	---	---	---	---	---	---	---	---	1.8	20.95	6.24	---	14.71
MW-8	07/14/1997	29,000	870	200	850	3,100	500	---	---	---	---	---	---	---	---	1.4	20.95	8.59	---	12.36
MW-8	10/08/1997	27,000	1,000	190	960	3,000	170	---	---	---	---	---	---	---	---	4.6	20.95	9.04	---	11.91
MW-8	01/19/1998	21,000	660	160	740	3,300	170	---	---	---	---	---	---	---	---	2.2	20.95	3.34	---	17.61
MW-8	04/28/1998	Well inaccessible		---	---	---	---	---	---	---	---	---	---	---	---	---	20.95	---	---	---
MW-8	09/30/1998	19,000	370	230	880	3,800	410	---	---	---	---	---	---	---	---	1.2	21.15	7.00	---	14.15
MW-8	12/09/1998	1,400	92	90	74	260	<250	---	---	---	---	---	---	---	---	3.6	21.15	6.38	---	14.77
MW-8	01/18/1999	317	<0.500	<0.500	3.04	0.984	3.92	---	---	---	---	---	---	---	---	2.0	21.15	1.85	---	19.30
MW-8	04/12/1999	8,300	35.6	24.4	144	466	<100	---	---	---	---	---	---	---	---	1.6	21.15	3.65	---	17.50
MW-8	07/27/1999	12,700	<5.00	5.47	281	1,130	50.3	---	---	---	---	---	---	---	---	1.4	21.15	5.00	---	16.15
MW-8	10/14/1999	11,900	86.7	16.9	210	469	<100	---	---	---	---	---	---	---	---	1.2	21.15	5.95	---	15.20
MW-8	01/06/2000	5,930	65	12.4	106	129	203.0	---	---	---	---	---	---	---	---	1.3	21.15	6.19	---	14.96
MW-8	04/05/2000	6,770	100	<50.0	61.3	150	322	---	---	---	---	---	---	---	---	2.1	21.15	5.14	---	16.01
MW-8	07/20/2000	28,900	109	307	119	235	337	---	---	---	---	---	---	---	---	2.1	21.15	5.21	---	15.94
MW-8	10/24/2000	8,620	99.0	12.8	152	366	225	---	---	---	---	---	---	---	---	1.0	21.15	3.11	---	18.04

TABLE 2

GROUNDWATER DATA
FORMER SHELL SERVICE STATION
3420 SAN PABLO AVENUE, OAKLAND, CALIFORNIA

Well ID	Date	TPHg (µg/L)	B (µg/L)	T (µg/L)	E (µg/L)	X (µg/L)	MTBE 8020 (µg/L)	MTBE 8260 (µg/L)	TBA (µg/L)	DIPE (µg/L)	ETBE (µg/L)	TAME (µg/L)	EDB (µg/L)	1,2-DCA (µg/L)	Ethanol (µg/L)	DO Reading (mg/L)	TOC (ft MSL)	Depth to Water (ft TOC)	SPH Thickness (ft)	GW Elevation (ft MSL)
MW-8	01/19/2001	5,590	49.4	6.50	26.0	57.4	99.5	---	---	---	---	---	---	---	---	1.8	32.11	5.35	---	26.76
MW-8	04/27/2001	3,800	<0.50	<0.50	14	31	---	<5.0	---	---	---	---	---	---	---	0.7	32.11	4.58	---	27.53
MW-8	07/26/2001	4,400	0.88	0.59	7.0	14	---	<5.0	---	---	---	---	---	---	---	0.9	32.11	5.83	---	26.28
MW-8	10/02/2001	1,800	9.8	<0.50	23	16	---	<5.0	---	---	---	---	---	---	---	1.2	32.11	6.50	---	25.61
MW-8	01/15/2002	2,700	1.2	1.5	0.93	1.7	---	12	---	---	---	---	---	---	---	1.6	32.11	5.07	---	27.04
MW-8	04/17/2002	3,200	2.2	<1.0	9.0	14	---	<10	---	---	---	---	---	---	---	1.0	32.11	3.80	---	28.31
MW-8	07/11/2002	6,500	23	1.0	12	19	---	<10	---	---	---	---	---	---	---	1.9	32.11	6.29	---	25.82
MW-8	10/10/2002	1,900	5.3	<0.50	30	33	---	7.6	---	---	---	---	---	---	---	2.4	32.11	4.32	---	27.79
MW-8	01/21/2003	3,700	1.4	<1.0	3.9	6.6	---	<10	---	---	---	---	---	---	---	0.6	32.11	5.57	---	26.54
MW-8	05/02/2003	3,900 d	<5.0	<5.0	<5.0	<10	---	<50	---	---	---	---	---	---	---	0.23	32.11	1.67	---	30.44
MW-8	07/10/2003	2,400	<2.5	<2.5	<2.5	<5.0	---	<2.5	---	---	---	---	---	---	---	---	32.11	3.81	---	28.30
MW-8	10/28/2003	3,000	<2.5	3.1	4.6	6.1	---	<2.5	---	---	---	---	---	---	---	---	32.11	4.99	---	27.12
MW-8	01/13/2004	4,600	3.6	<2.5	14	20	---	2.5	---	---	---	---	---	---	---	---	32.11	5.10	---	27.01
MW-8	04/01/2004	4,200	3.9	<2.5	7.1	8.8	---	<2.5	---	---	---	---	---	---	---	---	32.11	3.32	---	28.79
MW-8	07/21/2004	3,400	<2.5	<2.5	4.1	<5.0	---	<2.5	<25	<10	<10	<10	---	---	---	---	32.11	3.95	---	28.16
MW-8	10/20/2004	2,300	<2.5	<2.5	<2.5	<5.0	---	<2.5	---	---	---	---	---	---	---	---	32.11	1.48	---	30.63
MW-8	01/19/2005	2,000	<2.5	<2.5	<2.5	<5.0	---	<2.5	---	---	---	---	---	---	---	---	32.11	5.28	---	26.83
MW-8	04/20/2005	2,300	<2.5	<2.5	<2.5	<5.0	---	<2.5	---	---	---	---	---	---	---	---	32.11	3.52	---	28.59
MW-8	07/20/2005	1,500	2.0	0.77	1.4	1.3	---	<0.50	<5.0	<2.0	<2.0	<2.0	---	---	---	---	32.11	5.35	---	26.76
MW-8	10/19/2005	2,200	4.0	0.96	2.5	3.1	---	<0.50	---	---	---	---	---	---	---	---	32.11	7.80	---	24.31
MW-8	01/24/2006	5,150	0.600	<0.500	3.33	<0.500	---	<0.500	---	---	---	---	---	---	---	---	32.11	2.18	---	29.93
MW-8	06/02/2006	Well destroyed		---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
MW-9	08/06/1991	11,000	1,700	95	520	1,400	---	---	---	---	---	---	---	---	---	---	21.19	10.33	---	10.86
MW-9	10/23/1991	20,000	1,000	47	<0.3	940	---	---	---	---	---	---	---	---	---	---	21.19	11.13	---	10.06
MW-9	01/28/1992	3,500	120	<10	280	36	---	---	---	---	---	---	---	---	---	---	21.19	9.02	---	12.17
MW-9	05/04/1992	7,700	1,200	<50	380	630	---	---	---	---	---	---	---	---	---	---	21.19	7.67	---	13.52
MW-9	07/20/1992	11,000	910	<50	220	1,200	---	---	---	---	---	---	---	---	---	---	21.19	10.26	---	10.93
MW-9	10/12/1992	2,100	340	15	77	44	---	---	---	---	---	---	---	---	---	---	21.19	12.19	---	9.00
MW-9	01/12/1993	Well inaccessible		---	---	---	---	---	---	---	---	---	---	---	---	---	21.19	---	---	---
MW-9	04/06/1993	Well inaccessible		---	---	---	---	---	---	---	---	---	---	---	---	---	21.19	---	---	---
MW-9	07/12/1993	Well inaccessible		---	---	---	---	---	---	---	---	---	---	---	---	---	21.19	---	---	---
MW-9	10/13/1993	2,900	140	<5	<5	120	---	---	---	---	---	---	---	---	---	---	21.19	11.17	---	10.02
MW-9	01/20/1994	1,700	380	6.9	150	400	---	---	---	---	---	---	---	---	---	---	21.19	8.03	---	13.16
MW-9	04/13/1994	6,000	1,000	<20	450	420	---	---	---	---	---	---	---	---	---	---	21.19	7.81	---	13.38
MW-9	07/19/1994	12,000	1,400	<5	740	1,200	---	---	---	---	---	---	---	---	---	---	21.19	8.96	---	12.23
MW-9	10/27/1994	10,000	1,200	160	280	860	---	---	---	---	---	---	---	---	---	---	21.19	11.00	---	10.19
MW-9	01/03/1995	4,400	680	7.7	180	370	---	---	---	---	---	---	---	---	---	---	21.19	6.60	---	14.59

TABLE 2

GROUNDWATER DATA
FORMER SHELL SERVICE STATION
3420 SAN PABLO AVENUE, OAKLAND, CALIFORNIA

Well ID	Date	TPHg (µg/L)	B (µg/L)	T (µg/L)	E (µg/L)	X (µg/L)	MTBE 8020 (µg/L)	MTBE 8260 (µg/L)	TBA (µg/L)	DIPE (µg/L)	ETBE (µg/L)	TAME (µg/L)	EDB (µg/L)	1,2-DCA (µg/L)	Ethanol (µg/L)	DO Reading (mg/L)	TOC (ft MSL)	Depth to Water (ft TOC)	SPH Thickness (ft)	GW Elevation (ft MSL)
MW-9	04/13/1995	1,700	270	<10	69	170	---	---	---	---	---	---	---	---	---	---	21.19	6.73	---	14.46
MW-9	06/30/1995	14,000	2,200	18	900	2,600	---	---	---	---	---	---	---	---	---	---	21.19	7.32	---	13.87
MW-9	10/11/1995	9,600	35	12	360	980	590	---	---	---	---	---	---	---	---	---	21.19	8.10	---	13.09
MW-9	01/17/1996	2,800	150	7.4	54	130	170	---	---	---	---	---	---	---	---	---	21.19	5.75	---	15.44
MW-9	04/10/1996	5,200	290	<5	92	220	240	---	---	---	---	---	---	---	---	---	21.19	5.17	---	16.02
MW-9	07/30/1996	5,100	960	<10	380	770	670	---	---	---	---	---	---	---	---	---	21.19	8.10	---	13.09
MW-9	10/17/1996	15,000	2,100	<25	590	1,300	1,500	---	---	---	---	---	---	---	---	2.4	21.19	9.12	---	12.07
MW-9	01/22/1997	5,600	690	<5.0	140	310	620	---	---	---	---	---	---	---	---	2.2	21.19	4.72	---	16.47
MW-9	04/01/1997	4,000	590	<10	140	200	600	---	---	---	---	---	---	---	---	2.2	21.19	6.86	---	14.33
MW-9	07/14/1997	7,100	860	<10	51	230	950	---	---	---	---	---	---	---	---	3.8	21.19	10.04	---	11.15
MW-9	10/08/1997	1,500	57	<2.0	2.0	13	540	---	---	---	---	---	---	---	---	8.2	21.19	11.38	---	9.81
MW-9	01/19/1998	2,500	280	<20	79	61	620	---	---	---	---	---	---	---	---	1.4	21.19	3.88	---	17.31
MW-9	04/28/1998	2,200	330	<20	91	110	640	---	---	---	---	---	---	---	---	1.6	21.19	5.87	---	15.32
MW-9	09/30/1998	2,800	490	<5.0	87	240	1,200	---	---	---	---	---	---	---	---	4.0	21.19	8.25	---	12.94
MW-9	12/09/1998	3,700	370	<5.0	83	130	1,100	---	---	---	---	---	---	---	---	2.9	21.19	8.07	---	13.12
MW-9	01/18/1999	9,670	1,110	<5.00	442	571	786	---	---	---	---	---	---	---	---	3.2	21.19	7.54	---	13.65
MW-9	04/12/1999	3,140	272	<10.0	41.6	114	542	---	---	---	---	---	---	---	---	1.7	21.19	5.60	---	15.59
MW-9	07/27/1999	3,580	247	<1.00	67.7	137	432	---	---	---	---	---	---	---	---	1.6	21.19	7.30	---	13.89
MW-9	10/14/1999	3,200	199	<10.0	74.1	88.9	468	---	---	---	---	---	---	---	---	1.4	21.19	7.26	---	13.93
MW-9	01/06/2000	<50.0	<0.500	<0.500	<0.500	<0.500	<2.50	---	---	---	---	---	---	---	---	1.5	21.19	8.31	---	12.88
MW-9	04/05/2000	2,790	156	<5.00	39.1	57.8	399	---	---	---	---	---	---	---	---	0.9	21.19	5.40	---	15.79
MW-9	07/20/2000	5,530	283	14.9	379	728	92.7	---	---	---	---	---	---	---	---	2.1	21.19	5.70	---	15.49
MW-9	10/24/2000	3,090	110	<5.00	46.4	63.3	362	---	---	---	---	---	---	---	---	1.0	21.19	5.90	---	15.29
MW-9	01/19/2001	6,060	180	<5.00	181	164	231	---	---	---	---	---	---	---	---	1.2	32.15	5.39	---	26.76
MW-9	04/27/2001	2,700	56	<0.50	26	46	---	150	---	---	---	---	---	---	---	1.2	32.15	5.38	---	26.77
MW-9	07/26/2001	4,200	50	<0.50	28	53	---	180	---	---	---	---	---	---	---	1.0	32.15	6.45	---	25.70
MW-9	10/02/2001	11,000	150	<2.0	120	140	---	180	---	---	---	---	---	---	---	1.4	32.15	6.10	---	26.05
MW-9	01/15/2002	1,200	<0.50	<0.50	<0.50	<0.50	---	<5.0	---	---	---	---	---	---	---	1.2	32.15	4.77	---	27.38
MW-9	04/17/2002	2,200	24	<0.50	26	27	---	96	---	---	---	---	---	---	---	0.6	32.15	5.57	---	26.58
MW-9	07/11/2002	4,600	21	<0.50	17	33	---	140	---	---	---	---	---	---	---	2.1	32.15	6.64	---	25.51
MW-9	10/10/2002	2,800	8.8	<0.50	3.2	9.5	---	160	---	---	---	---	---	---	---	2.4	32.15	7.41	---	24.74
MW-9	01/21/2003	470	1.9	<0.50	1.7	1.1	---	13	---	---	---	---	---	---	---	1.0	32.15	5.47	---	26.68
MW-9	05/02/2003	770	2.9	<0.50	1.5	1.8	---	82	---	---	---	---	---	---	---	0.96	32.15	5.40	---	26.75
MW-9	07/10/2003	1,700	4.9	<2.5	3.0	5.2	---	100	---	---	---	---	---	---	---	---	32.15	6.59	---	25.56
MW-9	10/28/2003	2,400	<5.0	<5.0	<5.0	<10	---	180	---	---	---	---	---	---	---	---	32.15	6.94	---	25.21
MW-9	01/13/2004	550	<0.50	0.54	<0.50	<1.0	---	23	---	---	---	---	---	---	---	---	32.15	5.62	---	26.53
MW-9	04/01/2004	440	<0.50	<0.50	<0.50	<1.0	---	19	---	---	---	---	---	---	---	---	32.15	5.94	---	26.21
MW-9	07/21/2004	1,100	<0.50	<0.50	<0.50	<1.0	---	110	34	<2.0	<2.0	<2.0	---	---	---	---	32.15	6.60	---	25.55

TABLE 2

GROUNDWATER DATA
FORMER SHELL SERVICE STATION
3420 SAN PABLO AVENUE, OAKLAND, CALIFORNIA

Well ID	Date	TPHg (µg/L)	B (µg/L)	T (µg/L)	E (µg/L)	X (µg/L)	MTBE 8020 (µg/L)	MTBE 8260 (µg/L)	TBA (µg/L)	DIPE (µg/L)	ETBE (µg/L)	TAME (µg/L)	EDB (µg/L)	1,2-DCA (µg/L)	Ethanol (µg/L)	DO Reading (mg/L)	TOC (ft MSL)	Depth to Water (ft TOC)	SPH Thickness (ft)	GW Elevation (ft MSL)
MW-9	10/20/2004	730	<0.50	<0.50	<0.50	<1.0	---	56	---	---	---	---	---	---	---	---	32.15	4.48	---	27.67
MW-9	01/19/2005	320	<0.50	<0.50	<0.50	<1.0	---	3.0	---	---	---	---	---	---	---	---	32.15	4.56	---	27.59
MW-9	04/20/2005	100	<0.50	0.56	<0.50	<1.0	---	5.8	---	---	---	---	---	---	---	---	32.15	5.21	---	26.94
MW-9	07/20/2005	400	<0.50	1.4	<0.50	<1.0	---	45	20	<2.0	<2.0	<2.0	---	---	---	---	32.15	6.90	---	25.25
MW-9	10/19/2005	400	<0.50	<0.50	<0.50	<1.0	---	44	---	---	---	---	---	---	---	---	32.15	7.75	---	24.40
MW-9	01/24/2006	666	<0.500	3.24	<0.500	<0.500	---	2.96	---	---	---	---	---	---	---	---	32.15	4.64	---	27.51
MW-9	04/19/2006	<50.0	<0.500	<0.500	0.610	<0.500	---	28.4	---	---	---	---	---	---	---	---	32.15	3.48	---	28.67
MW-9	07/19/2006	660	<0.500	<0.500	<0.500	<0.500	---	49.2	<10.0	<0.500	<0.500	<0.500	---	---	---	---	32.15	5.63	---	26.52
MW-9	10/18/2006	994	<0.500	<0.500	<0.500	<0.500	---	39.9	---	---	---	---	---	---	---	---	32.15	6.58	---	25.57
MW-9	01/17/2007	100	<0.50	<0.50	<0.50	<1.0	---	17	---	---	---	---	---	---	---	---	32.15	6.03	---	26.12
MW-9	04/18/2007	400 h	0.29 i	<1.0	0.41 i	0.36 i	---	35	---	---	---	---	---	---	---	---	32.15	6.51	---	25.64
MW-9	07/18/2007	320 h	0.17 i	<1.0	<1.0	<1.0	---	34	24	<2.0	<2.0	<2.0	---	---	---	---	32.15	6.88	---	25.27
MW-9	10/18/2007	89 h	1.1	<1.0	0.55 i	<1.0	---	27	---	---	---	---	---	---	---	---	32.15	7.95	---	24.20
MW-9	01/16/2008	370 h	<0.50	<1.0	<1.0	<1.0	---	28	---	---	---	---	---	---	---	---	32.15	5.90	---	26.25
MW-9	04/16/2008	120	<0.50	<1.0	<1.0	<1.0	---	23	---	---	---	---	---	---	---	---	32.15	6.52	---	25.63
MW-9	07/16/2008	360	<0.50	<1.0	<1.0	<1.0	---	29	21	<2.0	<2.0	<2.0	---	---	---	---	32.15	7.41	---	24.74
MW-9	10/15/2008	220	<0.50	<1.0	<1.0	<1.0	---	24	---	---	---	---	---	---	---	---	32.15	7.70	---	24.45
MW-9	01/21/2009	200	<0.50	<1.0	<1.0	<1.0	---	19	---	---	---	---	---	---	---	---	32.15	6.59	---	25.56
MW-9	04/15/2009	68	<0.50	<1.0	<1.0	<1.0	---	6.0	---	---	---	---	---	---	---	---	32.15	5.59	---	26.56
MW-9	10/21/2009	130	<0.50	<1.0	<1.0	<1.0	---	15	12	<2.0	<2.0	<2.0	---	---	---	---	32.15	6.90	---	25.25
MW-9	04/21/2010	Unable to access		---	---	---	---	---	---	---	---	---	---	---	---	---	32.15	---	---	---
MW-9	10/20/2010	260	<0.50	<1.0	<1.0	<1.0	---	11	---	---	---	---	---	---	---	---	32.15	7.75	---	24.40
MW-9	04/20/2011	<50	<0.50	<0.50	<0.50	<1.0	---	1.3	---	---	---	---	---	---	---	---	32.15	5.07	---	27.08
MW-9	10/18/2011	85	<0.50	<0.50	<0.50	<1.0	---	7.0	<10	<1.0	<1.0	<1.0	<0.50	<0.50	---	---	32.15	6.93	---	25.22
MW-9	04/18/2012	<50	<0.50	<0.50	<0.50	<1.0	---	0.69	---	---	---	---	<0.50	<0.50	---	---	32.15	3.96	---	28.19
MW-9	10/17/2012	51	<0.50	<0.50	<0.50	<1.0	---	5.6	---	---	---	---	<0.50	<0.50	---	---	32.15	7.50	---	24.65
MW-9	**04/17/2013**	**<50**	**<0.50**	**<0.50**	**<0.50**	**<1.0**	**---**	**3.2**	**---**	**---**	**---**	**---**	**<0.50**	**<0.50**	**---**	**---**	**32.15**	**6.07**	**---**	**26.08**
MW-10	10/23/1991	27,000	1,600	110	1,800	510	---	---	---	---	---	---	---	---	---	---	19.74	8.57	---	11.17
MW-10	01/28/1992	3,800	360	14	170	39	---	---	---	---	---	---	---	---	---	---	19.74	7.60	---	12.14
MW-10	05/04/1992	3,000	360	<12.5	140	26	---	---	---	---	---	---	---	---	---	---	19.74	7.54	---	12.20
MW-10	07/20/1992	15,000	400	<25	180	67	---	---	---	---	---	---	---	---	---	---	19.74	8.59	---	11.15
MW-10	10/12/1992	16,000	320	<50	360	100	---	---	---	---	---	---	---	---	---	---	19.74	10.23	---	9.51
MW-10	01/12/1993	Well inaccessible		---	---	---	---	---	---	---	---	---	---	---	---	---	19.74	---	---	---
MW-10	04/06/1993	14,000	370	<0.5	880	210	---	---	---	---	---	---	---	---	---	---	19.74	6.70	---	13.04
MW-10	07/12/1993	10,000	440	58	890	220	---	---	---	---	---	---	---	---	---	---	19.74	8.05	---	11.69
MW-10	10/13/1993	15,000	1,000	51	810	170	---	---	---	---	---	---	---	---	---	---	19.74	8.25	---	11.49
MW-10	01/20/1994	12,000	820	56	1,100	350	---	---	---	---	---	---	---	---	---	---	19.74	7.20	---	12.54

TABLE 2

GROUNDWATER DATA
FORMER SHELL SERVICE STATION
3420 SAN PABLO AVENUE, OAKLAND, CALIFORNIA

Well ID	Date	TPHg (µg/L)	B (µg/L)	T (µg/L)	E (µg/L)	X (µg/L)	MTBE 8020 (µg/L)	MTBE 8260 (µg/L)	TBA (µg/L)	DIPE (µg/L)	ETBE (µg/L)	TAME (µg/L)	EDB (µg/L)	1,2-DCA (µg/L)	Ethanol (µg/L)	DO Reading (mg/L)	TOC (ft MSL)	Depth to Water (ft TOC)	SPH Thickness (ft)	GW Elevation (ft MSL)
MW-10	04/13/1994	18,000	760	36	700	130	---	---	---	---	---	---	---	---	---	---	19.74	7.57	---	12.17
MW-10	07/19/1994	24,000	400	2.30	800	22	---	---	---	---	---	---	---	---	---	---	19.74	8.18	---	11.56
MW-10	10/27/1994	11,000	360	43	310	89	---	---	---	---	---	---	---	---	---	---	19.74	8.68	---	11.06
MW-10	01/03/1995	17,000	770	38	690	160	---	---	---	---	---	---	---	---	---	---	19.74	6.86	---	12.88
MW-10	04/13/1995	9,900	650	16	280	40	---	---	---	---	---	---	---	---	---	---	19.74	6.91	---	12.83
MW-10	06/30/1995	12,000	750	20	480	130	---	---	---	---	---	---	---	---	---	---	19.74	7.61	---	12.13
MW-10	01/17/1996	17,000	870	260	93	830	---	---	---	---	---	---	---	---	---	---	19.74	7.00	---	12.74
MW-10	04/10/1996	14,000	470	38	110	370	---	---	---	---	---	---	---	---	---	---	19.74	6.80	---	12.94
MW-10	07/30/1996	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	19.74	---	---	---
MW-10	10/17/1996	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	19.74	---	---	---
MW-10	01/22/1997	10,000	520	<20	64	32	180	---	---	---	---	---	---	---	---	3.1	19.74	6.68	---	13.06
MW-10	04/01/1997	11,000	590	<20	53	32	210	---	---	---	---	---	---	---	---	2.8	19.74	7.34	---	12.40
MW-10	07/14/1997	6,600	410	13	28	11	89	---	---	---	---	---	---	---	---	1.4	19.74	8.10	---	11.64
MW-10	10/08/1997	7,600	220	13	65	22	190	---	---	---	---	---	---	---	---	6.4	19.74	8.20	---	11.54
MW-10	01/19/1998	Well inaccessible		---	---	---	---	---	---	---	---	---	---	---	---	---	19.74	---	---	---
MW-10	04/28/1998	Well inaccessible		---	---	---	---	---	---	---	---	---	---	---	---	---	19.74	---	---	---
MW-10	09/30/1998	Well inaccessible		---	---	---	---	---	---	---	---	---	---	---	---	---	19.76	8.11	---	11.65
MW-10	12/09/1998	28,000	150	<100	240	160	<500	---	---	---	---	---	---	---	---	2.7	19.76	8.21	---	11.55
MW-10	01/18/1999	Well inaccessible		---	---	---	---	---	---	---	---	---	---	---	---	---	19.76	---	---	---
MW-10	04/12/1999	8,320	71.2	27.4	138	456	<100	---	---	---	---	---	---	---	---	1.8	19.76	5.96	---	13.80
MW-10	07/27/1999	Well inaccessible		---	---	---	---	---	---	---	---	---	---	---	---	---	19.76	---	---	---
MW-10	10/14/1999	Well inaccessible		---	---	---	---	---	---	---	---	---	---	---	---	---	19.76	---	---	---
MW-10	01/06/2000	Well inaccessible		---	---	---	---	---	---	---	---	---	---	---	---	---	19.76	---	---	---
MW-10	02/01/2000	4880	40.2	5.27	27.0	8.42	75.5	23.9	---	---	---	---	---	---	---	1.6	19.76	6.43	---	13.33
MW-10	04/05/2000	4,950	97.6	6.72	20.2	5.39	104	---	---	---	---	---	---	---	---	1.7	19.76	7.00	---	12.76
MW-10	07/20/2000	2,800	166	191	27.6	88.7	81.5	---	---	---	---	---	---	---	---	1.0	19.76	7.03	---	12.73
MW-10	10/24/2000	5,070	79.6	46.6	34.2	11.7	242	---	---	---	---	---	---	---	---	1.9	19.76	7.96	---	11.80
MW-10	01/19/2001	Well inaccessible		---	---	---	---	---	---	---	---	---	---	---	---	---	19.76	---	---	---
MW-10	01/30/2001	6,920	362	14.2	22.7	<10.0	138	---	---	---	---	---	---	---	---	2.2	30.75	7.32	---	23.43
MW-10	04/27/2001	12,000	35	<2.5	37	6.5	---	51	---	---	---	---	---	---	---	1.2	30.75	8.28	---	22.47
MW-10	07/26/2001	Well inaccessible		---	---	---	---	---	---	---	---	---	---	---	---	---	30.75	---	---	---
MW-10	10/02/2001	Well inaccessible		---	---	---	---	---	---	---	---	---	---	---	---	---	30.75	---	---	---
MW-10	10/23/2001	470	3.5	<0.50	<0.50	<0.50	---	<5.0	---	---	---	---	---	---	---	1.8	30.75	7.02	---	23.73
MW-10	01/15/2002	3,000	5.4	<0.50	7.9	2.1	---	12	---	---	---	---	---	---	---	2.7	30.75	6.69	---	24.06
MW-10	04/17/2002	5,100	7.9	<1.0	9.3	2.6	---	15	---	---	---	---	---	---	---	0.6	30.75	7.34	---	23.41
MW-10	07/11/2002	5,700	38	2.2	7.8	3.5	---	43	---	---	---	---	---	---	---	2.0	30.75	7.85	---	22.90
MW-10	10/10/2002	4,700	53	2.1	3.8	2.8	---	80	---	---	---	---	---	---	---	3.3	30.75	8.04	---	22.71
MW-10	01/21/2003	3,900	11	1.0	7.5	2.3	---	51	---	---	---	---	---	---	---	1.7	30.75	6.81	---	23.94

TABLE 2

GROUNDWATER DATA
FORMER SHELL SERVICE STATION
3420 SAN PABLO AVENUE, OAKLAND, CALIFORNIA

Well ID	Date	TPHg (µg/L)	B (µg/L)	T (µg/L)	E (µg/L)	X (µg/L)	MTBE 8020 (µg/L)	MTBE 8260 (µg/L)	TBA (µg/L)	DIPE (µg/L)	ETBE (µg/L)	TAME (µg/L)	EDB (µg/L)	1,2-DCA (µg/L)	Ethanol (µg/L)	DO Reading (mg/L)	TOC (ft MSL)	Depth to Water (ft TOC)	SPH Thickness (ft)	GW Elevation (ft MSL)
MW-10	05/02/2003	3,100	1.4	<0.50	4.6	1.4	---	41	---	---	---	---	---	---	---	0.75	30.75	7.12	---	23.63
MW-10	07/10/2003	4,200	17	<1.2	6.2	<2.5	---	51	---	---	---	---	---	---	---	---	30.75	7.80	---	22.95
MW-10	10/28/2003	7,100	20	<5.0	8.4	<10	---	120	---	---	---	---	---	---	---	---	30.75	7.91	---	22.84
MW-10	01/13/2004	4,800	18	<2.5	6.3	<5.0	---	99	---	---	---	---	---	---	---	---	30.75	6.62	---	24.13
MW-10	04/01/2004	5,500	6.0	<5.0	<5.0	<10	---	59	---	---	---	---	---	---	---	---	30.75	7.00	---	23.75
MW-10	07/21/2004	Well inaccessible		---	---	---	---	---	---	---	---	---	---	---	---	---	30.75	---	---	---
MW-10	07/29/2004	4,700	22	<5.0	5.5	<10	---	95	<50	<20	<20	<20	---	---	---	---	30.75	7.60	---	23.15
MW-10	10/20/2004	4,800	23	<5.0	<5.0	<10	---	110	---	---	---	---	---	---	---	---	30.75	7.90	---	22.85
MW-10	01/19/2005	1,200	1.1	<0.50	<0.50	<1.0	---	30	---	---	---	---	---	---	---	---	30.75	6.28	---	24.47
MW-10	04/20/2005	3,900	3.9	<0.50	2.7	<1.0	---	9.0	---	---	---	---	---	---	---	---	30.75	6.80	---	23.95
MW-10	07/20/2005	3,000	8.1	1.2	2.1	1.4	---	35	19	29	<2.0	<2.0	---	---	---	---	30.75	7.82	---	22.93
MW-10	10/19/2005	1,900	2.9	0.62	0.85	<1.0	---	39	---	---	---	---	---	---	---	---	30.75	8.30	---	22.45
MW-10	01/24/2006	6,110	0.710	<0.500	2.01	<0.500	---	20.1	---	---	---	---	---	---	---	---	30.75	6.47	---	24.28
MW-10	04/19/2006	<50.0	<0.500	<0.500	<0.500	<0.500	---	2.64	---	---	---	---	---	---	---	---	30.75	5.89	---	24.86
MW-10	07/19/2006	3,590	7.86	<0.500	0.780	<0.500	---	21.5	<10.0	<0.500	<0.500	<0.500	---	---	---	---	30.75	7.50	---	23.25
MW-10	10/18/2006	8,470	4.81	0.910	1.51	2.05	---	51.7	---	---	---	---	---	---	---	---	30.75	7.90	---	22.85
MW-10	01/17/2007	670	<0.50	<0.50	<0.50	<1.0	---	14	---	---	---	---	---	---	---	---	30.75	7.23	---	23.52
MW-10	04/18/2007	Well inaccessible		---	---	---	---	---	---	---	---	---	---	---	---	---	30.75	---	---	---
MW-10	07/18/2007	Well inaccessible		---	---	---	---	---	---	---	---	---	---	---	---	---	30.75	---	---	---
MW-10	10/18/2007	Well inaccessible		---	---	---	---	---	---	---	---	---	---	---	---	---	30.75	---	---	---
MW-10	10/26/2007	2,400 h	0.17 i	0.32 i	0.66 i	<1.0	---	28	---	---	---	---	---	---	---	---	30.75	6.65	---	24.10
MW-10	01/16/2008	2,200 h	<0.50	<1.0	<1.0	<1.0	---	16	---	---	---	---	---	---	---	---	30.75	5.80	---	24.95
MW-10	04/16/2008	380	<0.50	<1.0	<1.0	<1.0	---	4.6	---	---	---	---	---	---	---	---	30.75	6.95	---	23.80
MW-10	07/16/2008	Well inaccessible		---	---	---	---	---	---	---	---	---	---	---	---	---	30.75	---	---	---
MW-10	10/15/2008	1,000	2.7	<1.0	1.4	<1.0	---	19	---	---	---	---	---	---	---	---	30.75	7.70	---	23.05
MW-10	01/21/2009	4,400	<0.50	<1.0	<1.0	<1.0	---	<1.0	---	---	---	---	---	---	---	---	30.75	6.19	---	24.56
MW-10	04/15/2009	3,000	<5.0	<10	<10	<10	---	<10	---	---	---	---	---	---	---	---	30.75	6.30	---	24.45
MW-10	10/21/2009	2,200	0.71	<1.0	<1.0	<1.0	---	<1.0	<10	<2.0	<2.0	<2.0	---	---	---	---	30.75	5.95	---	24.80
MW-10	04/21/2010	Well inaccessible		---	---	---	---	---	---	---	---	---	---	---	---	---	30.75	---	---	---
MW-10	10/20/2010	920	<0.50	<1.0	<1.0	<1.0	---	4.3	---	---	---	---	---	---	---	---	30.75	7.25	---	23.50
MW-10	04/20/2011	1,900	<0.50	0.50	<0.50	<1.0	---	<1.0	---	---	---	---	---	---	---	---	30.75	6.70	---	24.05
MW-10	10/18/2011	1,100	<0.50	0.50	<0.50	<1.0	---	3.5	<10	<1.0	<1.0	<1.0	0.50	<0.50	---	---	30.75	7.36	---	23.39
MW-10	04/18/2012	2,200	<0.50	<0.50	<0.50	<1.0	---	<0.50	---	---	---	---	<0.50	<0.50	---	---	30.75	5.78	---	24.97
MW-10	10/17/2012	2,100	<0.50	<0.50	<0.50	<1.0	---	4.7	---	---	---	---	<0.50	<0.50	---	---	30.75	8.06	---	22.69
MW-10	**04/17/2013**	**1,500**	**1.2**	**0.58**	**0.75**	**<1.0**	**---**	**10**	**---**	**---**	**---**	**---**	**<0.50**	**<0.50**	**---**	**---**	**30.75**	**6.91**	**---**	**23.84**
MW-11	10/23/1991	140	<12	<0.3	0.37	0.56	---	---	---	---	---	---	---	---	---	---	22.06	8.06	---	14.00
MW-11	01/28/1992	<50	<0.5	<0.5	<0.5	<0.5	---	---	---	---	---	---	---	---	---	---	22.06	8.74	---	13.32

TABLE 2

GROUNDWATER DATA
FORMER SHELL SERVICE STATION
3420 SAN PABLO AVENUE, OAKLAND, CALIFORNIA

Well ID	Date	TPHg (µg/L)	B (µg/L)	T (µg/L)	E (µg/L)	X (µg/L)	MTBE 8020 (µg/L)	MTBE 8260 (µg/L)	TBA (µg/L)	DIPE (µg/L)	ETBE (µg/L)	TAME (µg/L)	EDB (µg/L)	1,2-DCA (µg/L)	Ethanol (µg/L)	DO Reading (mg/L)	TOC (ft MSL)	Depth to Water (ft TOC)	SPH Thickness (ft)	GW Elevation (ft MSL)
MW-11	05/04/1992	<50	<0.5	<0.5	<0.5	<0.5	---	---	---	---	---	---	---	---	---	---	22.06	8.29	---	13.77
MW-11	07/13/1992	140	<0.5	<0.5	<0.5	<0.5	---	---	---	---	---	---	---	---	---	---	22.06	10.50	---	11.56
MW-11	10/12/1992	75	<0.5	<0.5	<0.5	<0.5	---	---	---	---	---	---	---	---	---	---	22.06	12.40	---	9.66
MW-11	01/12/1993	Well inaccessible		---	---	---	---	---	---	---	---	---	---	---	---	---	22.06	---	---	---
MW-11	04/06/1993	Well inaccessible		---	---	---	---	---	---	---	---	---	---	---	---	---	22.06	---	---	---
MW-11	07/12/1993	Well inaccessible		---	---	---	---	---	---	---	---	---	---	---	---	---	22.06	---	---	---
MW-11	10/13/1993	<50	<0.5	<0.5	<0.5	<0.5	---	---	---	---	---	---	---	---	---	---	22.06	11.47	---	10.59
MW-11	01/20/1994	<50	<0.5	<0.5	<0.5	<0.5	---	---	---	---	---	---	---	---	---	---	22.06	9.09	---	12.97
MW-11	04/13/1994	<50	<0.5	<0.5	<0.5	<0.5	---	---	---	---	---	---	---	---	---	---	22.06	8.02	---	14.04
MW-11	07/19/1994	50	<0.5	<0.5	<0.5	<0.5	---	---	---	---	---	---	---	---	---	---	22.06	9.82	---	12.24
MW-11	10/27/1994	60 j	<0.5	<0.5	<0.5	<0.5	---	---	---	---	---	---	---	---	---	---	22.06	11.66	---	10.40
MW-11	01/03/1995	<50	<0.5	<0.5	<0.5	<0.5	---	---	---	---	---	---	---	---	---	---	22.06	6.15	---	15.91
MW-11	04/13/1995	<50	<0.5	<0.5	<0.5	<0.5	---	---	---	---	---	---	---	---	---	---	22.06	6.00	---	16.06
MW-11	06/30/1995	70	<0.5	<0.5	<0.5	<0.5	---	---	---	---	---	---	---	---	---	---	22.06	8.31	---	13.75
MW-11	10/11/1995	60	53	<0.5	<0.5	0.80	3.0	---	---	---	---	---	---	---	---	---	22.06	10.30	---	11.76
MW-11	01/17/1996	<50	<0.5	<0.5	<0.5	<0.5	<2	---	---	---	---	---	---	---	---	---	22.06	6.45	---	15.61
MW-11	04/10/1996	<50	<0.5	<0.5	<0.5	<0.5	3.9	---	---	---	---	---	---	---	---	---	22.06	6.05	---	16.01
MW-11	07/30/1996	<50	<0.5	<0.5	<0.5	<0.5	<2.5	---	---	---	---	---	---	---	---	---	22.06	8.92	---	13.14
MW-11	10/17/1996	3,000	28	23	29	210	76	---	---	---	---	---	---	---	---	---	22.06	9.24	---	12.82
MW-11	01/22/1997	<50	<0.5	<0.5	<0.5	<0.5	<2.5	---	---	---	---	---	---	---	---	3.7	22.06	5.12	---	16.94
MW-11	04/01/1997	<50	<0.50	<0.50	<0.50	<0.50	<2.5	---	---	---	---	---	---	---	---	2.8	22.06	7.41	---	14.65
MW-11	07/14/1997	<50	<0.50	<0.50	<0.50	<0.50	<2.5	---	---	---	---	---	---	---	---	1.9	22.06	9.74	---	12.32
MW-11	10/08/1997	<50	<0.50	<0.50	<0.50	<0.50	<2.5	---	---	---	---	---	---	---	---	2.4	22.06	10.23	---	11.83
MW-11	01/19/1998	<50	<0.50	<0.50	<0.50	<0.50	<2.5	---	---	---	---	---	---	---	---	3.2	22.06	3.69	---	18.37
MW-11	04/28/1998	<50	<0.50	<0.50	<0.50	<0.50	<2.5	---	---	---	---	---	---	---	---	3.0	22.06	5.83	---	16.23
MW-11	09/30/1998	Well inaccessible		---	---	---	---	---	---	---	---	---	---	---	---	---	22.06	---	---	---
MW-11	12/09/1998	Well inaccessible		---	---	---	---	---	---	---	---	---	---	---	---	---	22.06	---	---	---
MW-11	01/18/1999	Well inaccessible		---	---	---	---	---	---	---	---	---	---	---	---	---	22.06	---	---	---
MW-11	04/12/1999	Well inaccessible		---	---	---	---	---	---	---	---	---	---	---	---	---	22.06	---	---	---
MW-11	04/26/1999	63	<0.50	<0.50	<0.50	<0.50	<2.5	---	---	---	---	---	---	---	---	3.6	22.06	5.80	---	16.26
MW-11	07/27/1999	<50.0	<0.500	<0.500	<0.500	<0.500	6.02	---	---	---	---	---	---	---	---	2.0	22.06	8.30	---	13.76
MW-11	10/14/1999	<50.0	<0.500	<0.500	<0.500	<0.500	<5.00	---	---	---	---	---	---	---	---	2.4	22.06	8.99	---	13.07
MW-11	01/06/2000	<50.0	<0.500	<0.500	<0.500	<0.500	<2.50	---	---	---	---	---	---	---	---	2.9	22.06	9.93	---	12.13
MW-11	04/05/2000	<50.0	<0.500	<0.500	<0.500	<0.500	3.53	---	---	---	---	---	---	---	---	1.8	22.06	5.90	---	16.16
MW-11	07/20/2000	<50.0	<0.500	<0.500	<0.500	<0.500	<2.50	---	---	---	---	---	---	---	---	1.7	22.06	6.13	---	15.93
MW-11	10/24/2000	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	22.06	7.45	---	14.61
MW-11	01/19/2001	<50.0	<0.500	<0.500	<0.500	<0.500	4.29	---	---	---	---	---	---	---	---	1.6	32.99	5.95	---	27.04
MW-11	04/27/2001	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	32.99	6.12	---	26.87

TABLE 2

GROUNDWATER DATA
FORMER SHELL SERVICE STATION
3420 SAN PABLO AVENUE, OAKLAND, CALIFORNIA

Well ID	Date	TPHg (µg/L)	B (µg/L)	T (µg/L)	E (µg/L)	X (µg/L)	MTBE 8020 (µg/L)	MTBE 8260 (µg/L)	TBA (µg/L)	DIPE (µg/L)	ETBE (µg/L)	TAME (µg/L)	EDB (µg/L)	1,2-DCA (µg/L)	Ethanol (µg/L)	DO Reading (mg/L)	TOC (ft MSL)	Depth to Water (ft TOC)	SPH Thickness (ft)	GW Elevation (ft MSL)
MW-11	07/26/2001	<50	<0.50	<0.50	<0.50	<0.50	---	<5.0	---	---	---	---	---	---	---	2.1	32.99	7.65	---	25.34
MW-11	10/02/2001	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	32.99	6.17	---	26.82
MW-11	01/15/2002	69	<0.50	<0.50	<0.50	<0.50	---	<5.0	---	---	---	---	---	---	---	1.5	32.99	4.95	---	28.04
MW-11	04/17/2002	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	32.99	6.35	---	26.64
MW-11	07/11/2002	58	<0.50	<0.50	<0.50	<0.50	---	<5.0	---	---	---	---	---	---	---	2.3	32.99	7.47	---	25.52
MW-11	10/10/2002	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	32.99	8.45	---	24.54
MW-11	01/21/2003	57	<0.50	<0.50	<0.50	<0.50	---	<5.0	---	---	---	---	---	---	---	1.4	32.99	5.45	---	27.54
MW-11	05/02/2003	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	32.99	5.14	---	27.85
MW-11	07/10/2003	<50	<0.50	<0.50	<0.50	<1.0	---	2.1	---	---	---	---	---	---	---	---	32.99	7.41	---	25.58
MW-11	10/28/2003	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	32.99	7.78	---	25.21
MW-11	01/13/2004	56 d	<0.50	0.50	<0.50	<1.0	---	2.9	---	---	---	---	---	---	---	---	32.99	5.85	---	27.14
MW-11	04/01/2004	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	32.99	6.02	---	26.97
MW-11	07/21/2004	<50	<0.50	<0.50	<0.50	<1.0	---	2.2	<5.0	<2.0	<2.0	<2.0	---	---	---	---	32.99	7.52	---	25.47
MW-11	10/20/2004	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	32.99	7.20	---	25.79
MW-11	01/19/2005	<50	<0.50	<0.50	<0.50	<1.0	---	1.8	---	---	---	---	---	---	---	---	32.99	4.50	---	28.49
MW-11	04/20/2005	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	32.99	5.09	---	27.90
MW-11	07/20/2005	53 f	<0.50	<0.50	<0.50	<1.0	---	2.9	<5.0	<2.0	<2.0	<2.0	---	---	---	---	32.99	7.31	---	25.68
MW-11	10/19/2005	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	32.99	8.60	---	24.39
MW-11	01/24/2006	<50.0	<0.500	<0.500	<0.500	<0.500	---	1.38	---	---	---	---	---	---	---	---	32.99	4.38	---	28.61
MW-11	04/19/2006	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	32.99	3.86	---	29.13
MW-11	07/19/2006	<50.0	<0.500	<0.500	<0.500	<0.500	---	2.22	<10.0	<0.500	<0.500	<0.500	---	---	---	---	32.99	7.07	---	25.92
MW-11	10/18/2006	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	32.99	7.36	---	25.63
MW-11	01/17/2007	<50	<0.50	<0.50	<0.50	<1.0	---	0.92	---	---	---	---	---	---	---	---	32.99	6.34	---	26.65
MW-11	07/18/2007	<50 h	<0.50	<1.0	<1.0	<1.0	---	1.9	<10	<2.0	<2.0	<2.0	---	---	---	---	32.99	8.30	---	24.69
MW-11	01/16/2008	<50 h	<0.50	<1.0	<1.0	<1.0	---	1.6	<10	<2.0	<2.0	<2.0	---	---	---	---	32.99	5.39	---	27.60
MW-11	04/16/2008	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	32.99	6.89	---	26.10
MW-11	07/16/2008	<50	<0.50	<1.0	<1.0	<1.0	---	1.5	<10	<2.0	<2.0	<2.0	---	---	---	---	32.99	8.31	---	24.68
MW-11	10/15/2008	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	32.99	8.70	---	24.29
MW-11	01/21/2009	51	<0.50	<1.0	<1.0	<1.0	---	1.2	---	---	---	---	---	---	---	---	32.99	7.13	---	25.86
MW-11	04/15/2009	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	32.99	5.89	---	27.10
MW-11	10/21/2009	<50	<0.50	<1.0	<1.0	<1.0	---	<1.0	<10	<2.0	<2.0	<2.0	---	---	---	---	32.99	7.15	---	25.84
MW-11	04/21/2010	Well inaccessible		---	---	---	---	---	---	---	---	---	---	---	---	---	32.99	---	---	---
MW-11	10/20/2010	76	<0.50	<1.0	<1.0	<1.0	---	1.5	---	---	---	---	---	---	---	---	32.99	8.75	---	24.24
MW-11	04/20/2011	<50	<0.50	<0.50	<0.50	<1.0	---	1.3	---	---	---	---	---	---	---	---	32.99	5.16	---	27.83
MW-11	10/18/2011	<50	<0.50	0.50	<0.50	<1.0	---	1.8	<10	<1.0	<1.0	<1.0	0.50	<0.50	---	---	32.99	7.33	---	25.66
MW-11	04/18/2012	<50	<0.50	<0.50	<0.50	<1.0	---	0.70	---	---	---	---	<0.50	<0.50	---	---	32.99	3.89	---	29.10
MW-11	10/17/2012	<50	<0.50	<0.50	<0.50	<1.0	---	1.1	---	---	---	---	<0.50	<0.50	---	---	32.99	8.75	---	24.24
MW-11	**04/17/2013**	**50**	**<0.50**	**<0.50**	**<0.50**	**<1.0**	**---**	**1.4**	**---**	**---**	**---**	**---**	**<0.50**	**<0.50**	**---**	**---**	**32.99**	**6.03**	**---**	**26.96**

TABLE 2

GROUNDWATER DATA
FORMER SHELL SERVICE STATION
3420 SAN PABLO AVENUE, OAKLAND, CALIFORNIA

Well ID	*Date*	*TPHg (µg/L)*	*B (µg/L)*	*T (µg/L)*	*E (µg/L)*	*X (µg/L)*	*MTBE 8020 (µg/L)*	*MTBE 8260 (µg/L)*	*TBA (µg/L)*	*DIPE (µg/L)*	*ETBE (µg/L)*	*TAME (µg/L)*	*EDB (µg/L)*	*1,2-DCA (µg/L)*	*Ethanol (µg/L)*	*DO Reading (mg/L)*	*TOC (ft MSL)*	*Depth to Water (ft TOC)*	*SPH Thickness (ft)*	*GW Elevation (ft MSL)*

Notes:
TPHg = Total petroleum hydrocarbons as gasoline analyzed by EPA Method 8260B; prior to April 27, 2001, analyzed by EPA Method 8015 unless otherwise noted.
BTEX = Benzene, toluene, ethylbenzene, and total xylenes analyzed by EPA Method 8260B; prior to April 27, 2001, analyzed by EPA Method 8020.
MTBE = Methyl tertiary-butyl ether analyzed by method noted
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
EDB = 1,2-Dibromoethane analyzed by EPA Method 8260B
1,2-DCA = 1,2-Dichloroethane analyzed by EPA Method 8260B
Ethanol analyzed by EPA Method 8260B
DO = Dissolved oxygen
TOC = Top of casing elevation, in feet relative to mean sea level
SPH = Separate-phase hydrocarbon
GW = Groundwater
µg/L = Micrograms per liter
mg/L = Milligrams per liter
ft = Feet
MSL = Mean sea level
<x = Not detected at reporting limit x
--- = Not analyzed or available

a = Chromatogram pattern indicates an unidentified hydrocarbon.
b = MTBE could not be quantified due to co-eluting compounds.
c = The highest recovery value for TPH has been reported, but this should be considered an estimate. Repeated analysis yielded inconsistent results.
d = Hydrocarbon does not match pattern of laboratory's standard.
e = SPH present in well measured at less than 0.01 feet. Visual inspection revealed the presence of distinct phases within the sample, indicating the possible presence of undissolved hydrocarbons.
f = The concentration reported reflects individual or discrete unidentified peaks not matching a typical fuel pattern.
g = Secondary ion abundances were outside method requirements. Identification based on analytical judgment.
h = Analyzed by EPA Method 8015B (M).
i = Analyte was detected at a concentration below the reporting limit and above the laboratory method detection limit. Reported value is estimated.
j = Analyzed outside the EPA recommended holding time.

When SPHs are present, groundwater elevation is adjusted using the equation:
Corrected Groundwater Elevation = TOC - Depth to water + (0.8 x SPH Thickness).
Resurvey of wells was performed on August 28, 1998 by Virgil Chavez Land Surveying

TABLE 2

GROUNDWATER DATA
FORMER SHELL SERVICE STATION
3420 SAN PABLO AVENUE, OAKLAND, CALIFORNIA

Well ID	Date	TPHg (µg/L)	B (µg/L)	T (µg/L)	E (µg/L)	X (µg/L)	MTBE 8020 (µg/L)	MTBE 8260 (µg/L)	TBA (µg/L)	DIPE (µg/L)	ETBE (µg/L)	TAME (µg/L)	EDB (µg/L)	1,2-DCA (µg/L)	Ethanol (µg/L)	DO Reading (mg/L)	TOC (ft MSL)	Depth to Water (ft TOC)	SPH Thickness (ft)	GW Elevation (ft MSL)

All wells except MW-11 surveyed February 26, 2001 by Virgil Chavez Land Surveying

TABLE 3

HISTORICAL SOIL VAPOR ANALYTICAL DATA
FORMER SHELL SERVICE STATION
3420 SAN PABLO AVENUE, OAKLAND, CALIFORNIA

Sample ID	*Date*	*Depth (fbg)*	*TPHg ($\mu g/m^3$)*	*B ($\mu g/m^3$)*	*T ($\mu g/m^3$)*	*E ($\mu g/m^3$)*	*X ($\mu g/m^3$)*	*MTBE ($\mu g/m^3$)*
SB-4-V a	10/4/2006	4	<50,000	<500	<500	<500	<1,000	<500
SB-5-V a	10/4/2006	4	<50,000	<500	<500	<500	<1,000	<500
SB-6-V a	10/4/2006	4	<50,000	<500	<500	<500	<1,000	<500
ESLs [b]			1,200,000	420	1,300,000	4,900	440,000	47,000

Notes:
TPHg = Total petroleum hydrocarbons as gasoline analyzed by EPA Method TO-3M
BTEX = Benzene, toluene, ethylbenzene, and total xylenes analyzed by EPA Method 8260B (M)
MTBE = Methyl tertiary-butyl ether analyzed by EPA Method 8260B (M)
fbg = Feet below grade
µg/m3 =Micrograms per cubic meter
<x = Not detected at reporting limit x
ESL = Environmental screening level

a = Samples were analyzed beyond EPA-recommended hold time
b = San Francisco Bay Regional Water Quality Control Board (RWQCB) shallow soil gas screening level for evaluation of potential vapor intrusion concerns - commercial/industrial land use from RWQCB's *Screening for Environmental Concerns at Sites With Contaminated Soil and Groundwater*, California Regional Water Quality Control Board, Interim Final - November 2007 (Revised May 2008) - Updated May 2013.

APPENDIX A

SITE HISTORY

SITE HISTORY

1984 Dispenser Leak: During dispenser replacement in December 1984, gasoline-saturated soil was discovered beneath the pump island area. Product lines were tested, and super unleaded and regular gasoline systems failed. A review of inventory records indicated a loss of approximately 2,500 gallons of super-unleaded and 1,500 gallons of regular gasoline. No separate-phase hydrocarbons (SPHs) were recovered. Delta Environmental Consultants' (Delta's) January 19, 1989 *Hydrogeologic Assessment Work Plan* presents this information.

1985 Underground Storage Tank (UST) Replacement: In January 1985, the steel USTs and product lines were replaced with double-walled fiberglass tanks and product lines. The UST replacement is summarized in Delta's January 19, 1989 *Hydrogeologic Assessment Work Plan.*

1988 Subsurface Investigation: In August 1988, Ensco Environmental Services, Inc. (Ensco) drilled five soil borings (B-1 though B-5) to a maximum depth of 20.5 feet below grade (fbg). Soil samples contained up to 1,400 milligrams per kilogram (mg/kg) total petroleum hydrocarbons as gasoline (TPHg) and 1.9 mg/kg benzene. The maximum detections of TPHg and benzene were both in a soil sample collected from B-1, near the USTs, at 5 fbg. Investigation details are provided in Ensco's September 12, 1988 *Soil and Ground-water Investigation* report.

1989 Subsurface Investigation: In April 1989, Delta installed four on-site monitoring wells (MW-1 though MW-4). Soil samples collected from the well borings contained up to 850 mg/kg TPHg and 1.2 mg/kg benzene. The maximum concentrations of TPHg and benzene were both detected in a soil sample from 5.5 fbg in well boring MW-1, located adjacent to soil boring B-1. Delta conducted slug tests on the four new wells and obtained calculated hydraulic conductivities ranging from 2.13 to 3.45 feet per day. Delta's August 22, 1989 *Phase I Hydrogeologic Assessment Report* presents well installation details.

1990 Subsurface Investigation and Well Survey: In January 1990, Delta installed four additional on-site monitoring wells (MW-5 though MW-8) and one off-site well (MW-9). Soil samples collected from the well borings contained up to 14 mg/kg TPHg and 0.078 mg/kg benzene. In addition, Delta reviewed California Department of Water Resources (DWR) well records and identified 5 municipal, 3 domestic, and 17 industrial water-producing wells within one mile of the site. Delta's June 20, 1990 *Phase II Hydrogeologic Assessment Report* provides well installation and well survey details.

1991 Subsurface Investigation: In October 1991, Delta installed two off-site groundwater monitoring wells (MW-10 and MW-11). Soil samples collected from the well borings contained up to 1.8 mg/kg TPHg and 0.06 mg/kg benzene. The maximum concentrations of TPHg and benzene were both detected in a soil sample collected from well boring MW-10 at 10 fbg. Well installation details are presented in Delta's December 12, 1991 *Additional Ground Water Monitoring Well Installation and Quarterly Ground Water Monitoring Report, Fourth Quarter 1991.*

1991 - 2013 SPH Recovery: Between October 1991 and October 1997, SPHs were observed for various periods in monitoring wells MW-1, MW-2, and MW-4 through MW-7. Between October 2003 and October 2010, SPHs were measured intermittently in MW-6R. Bailing, skimming, and absorbent cartridges have removed an estimated 27.7 pounds of SPHs (through second quarter 2013). SPH removal is summarized in various periodic groundwater monitoring reports from the first quarter 1993 through the fourth quarter 1997 and from the third quarter 2007 through the present.

1993 Soil Vapor Extraction (SVE) Test: In November 1993, Weiss Associates (WA) conducted an SVE test using wells MW-1, MW-2, MW-4, and MW-6. Initially, a 15-minute test was conducted at each well, and wells MW-1 and MW-6 were selected for longer term testing. Testing at applied vacuums ranging from 40 to 64 inches of water resulted in vapor flow rates from 8 to 19 standard cubic feet per minute. Based on laboratory analytical results, the hydrocarbon concentrations in soil vapor ranged from 1,400 to 4,500 parts per million by volume (ppmv) TPHg. No benzene was detected in the extracted soil vapor. A methane concentration of 9,000 ppmv was detected in vapors from MW-6. Mass removal rates from 7 to 32 pounds TPHg per day were estimated from the results. WA stated that vapor flow rates would be limited by groundwater upwelling in the extraction wells as a result of the applied vacuum. The pilot test data are presented in WA's January 27, 1994 *Soil Vapor Extraction Test Results* letter, which is included in Appendix A of their April 8, 1994 groundwater monitoring report.

1997 Waste Oil UST, Dispenser, and Piping Removal: In June 1997, Armer-Norman & Associates removed a 550-gallon waste oil UST, two dispensers, and associated piping from the site. Cambria Environmental Technology, Inc. (Cambria) collected 2 soil samples from the sidewalls of the waste oil tank excavation and 10 soil samples from beneath the former dispensers and product piping. The soil samples contained up to 120 mg/kg TPHg (P-8 at 2.5 fbg), 0.13 mg/kg benzene (P-1 at 2.5 fbg), 7.9 mg/kg methyl tertiary-butyl ether (MTBE; Disp-2 at 2 fbg), and 2,000 mg/kg lead (P-7 at 2 fbg). Cambria's December 5, 1997 *Waste Oil Tank Removal and Gasoline Dispenser/Pipeline Removal Soil Sampling Report* presents these results.

1997 Well Destruction: In December 1997, Cambria destroyed monitoring wells MW-3 and MW-6 to accommodate the new site building, as reported in Cambria's March 18, 1998 *Well Abandonment Report.*

1997 - 1998 Station Renovation: In December 1997, the station building and two adjacent residential buildings were demolished, and the site was re-graded in preparation for future construction. During 1998, Winmax Construction Corporation constructed a new station building which included installing perforated plastic piping into the gravel base beneath the foundation of the site building to remove hydrocarbon vapors should they accumulate beneath the building. Pea gravel from above the USTs, and soil excavated during grading and footing excavation were sampled, profiled for disposal, and transported to an appropriate disposal facility. Groundwater was pumped from the building foundation excavations to allow construction.

1998 Risk-Based Corrective Action (RBCA) Analysis: In June 1998, Cambria prepared a RBCA analysis for the site to determine the potential risks posed by residual hydrocarbons in soil and groundwater underlying the site. Cambria's Tier 2 risk assessment demonstrated that the risk associated with exposure to hydrocarbons in soil and groundwater beneath the new on-site building was acceptable. The analysis found that no further remediation action was warranted. Cambria's June 22, 1998 *Risk-Based Corrective Action* presents details of this analysis.

1998 Subsurface Investigation: In June 1998, Cambria installed two groundwater monitoring wells (MW-3R and MW-6R) to replace monitoring wells MW-3 and MW-6 which were destroyed to make way for the new station building. Because soil data had been collected during previous well installations, no soil samples were submitted for chemical analysis during this investigation. Cambria's July 1, 1998 *Well Installation Report* provides well installation details.

2001 Sensitive Receptor Survey (SRS), Conduit Study, and Site Conceptual Model (SCM): In 2001, Cambria reviewed DWR well records within a one-half mile radius of the site. The nearest well identified in the survey was a 97-foot-deep irrigation well located approximately 700 feet west of the site. In January 2002, a representative for the property owner indicated to Cambria that the well had not been used in decades and was scheduled for destruction. The site where the well was located, the former City of Paris Cleaners at 3516 Adeline Street, is also an open Leaking Underground Fuel Tank site overseen by Alameda County Environmental Health (ACEH).

Cambria also performed a utility conduit survey to determine the location of potential preferential groundwater pathways in the site vicinity. Cambria reviewed maps and plans from the City of Oakland Engineering Department and the East Bay Municipal Utility District (EBMUD) and conducted a site visit to visually identify utilities in the vicinity. Utility survey results indicated that San Pablo Avenue is underlain by two southward flowing 8-inch-diameter sanitary sewer pipes, an 18-inch-diameter southward-flowing storm drain, and two water lines. A water line and a westward-flowing, 8-inch-diameter sanitary sewer line is located beneath 35th Street. Three electrical utility vault boxes, possibly associated with traffic control signals, and one Pacific Bell utility vault are located in the sidewalk near the southeast corner of San Pablo Avenue and 35th Street. EBMUD utility vault boxes are located in the sidewalks of both 35th Street (near the northeastern corner of the site) and San Pablo Avenue (near the southern edge of the property). Two cable television utility vaults are located in the sidewalk of 35th Street near the northwest corner of the property. City of Oakland engineering maps of the area indicate that the sanitary sewer lines are typically buried at approximately 6 to 7 fbg and that the flow-line elevation of the sanitary sewer line beneath 35th Street ranges from 23.82 to 25.22 feet above mean sea level (ft MSL). Storm drains in the area are typically buried at approximately 7 to 9 fbg, and the flow-line elevation of the storm drain beneath San Pablo Avenue is approximately 21 ft MSL. The exact depths to water mains were not available, but according to EBMUD, the tops of the water main pipes are typically 8 fbg. Based on this information, the back-filled trenches of the sanitary sewer, storm drain, and water lines are likely to be deeper at times than shallow groundwater and may potentially affect groundwater flow.

Cambria's July 6, 2001 *Second Quarter 2001 Monitoring Report* included an SCM, which summarized the environmental conditions and findings of the well survey and conduit study.

2002 Subsurface Investigation: In October 2002, Cambria attempted to install a shallow groundwater well within San Pablo Avenue opposite the southerly site property line to further define the horizontal extent of MTBE. A concrete road base was encountered, and Cambria could not complete the well installation. Cambria contacted the City of Oakland Department of Public Works for more information about the street construction of the concrete road base. Due to safety considerations, Cambria did not make an additional attempt to install this well through the concrete road base. Cambria's *First Quarter 2003 Monitoring Report* discusses the attempted well installation effort.

2004 Groundwater Extraction (GWE): In January 2004, Cambria coordinated a one-time GWE event, using a vacuum truck to remove SPHs and groundwater from well MW-6R

prior to the monitoring event. Approximately 71 gallons of water with SPHs were removed in 40 minutes of extraction. The GWE event is described in Cambria's April 19, 2004 *First Quarter 2004 Monitoring Report.*

2004 Agency Response Letter: Cambria's April 12, 2004 *Agency Response* letter addressed comments in ACEH's March 9, 2004 letter. ACEH's letter requested a feasibility study and corrective action plan (FS/CAP) and sought a response to five technical comments. Cambria recommended that prior to preparing an FS/CAP, a revised SCM (to update the 2001 SCM) should be developed.

2004 - 2005 Updated SRS and SCM: In March 2004, Cambria updated the 2001 SRS. As part of the SRS, Cambria reviewed DWR well records within a one-half mile radius of the site and identified four possible receptor wells. The closest identified well to the site was a 97-foot-deep well of unknown use located approximately 700 feet west and cross-gradient of the site. As stated above, in January 2002, a representative for the property owner indicated to Cambria that the well had not been used in decades and was scheduled for destruction. A down-gradient well identified approximately 2,500 feet to the southwest of the site is a 215-fbg well of unknown use or ownership. Site inspection of the approximate location in 2004 indicated three vacant lots and one unidentified building. Two wells were identified approximately 2,000 feet up gradient from the site: a 108-fbg well of unknown use, reportedly originally owned by a bakery, located to the northwest and a 510-fbg well of unknown use, reportedly originally owned by a laundry. The exact location of the laundry well is uncertain due to incomplete records, but it is believed to be located to the north-northwest. From this revised well survey and SRS, Cambria concluded that there are no known water-production wells or known shallow or deep groundwater users within one-half mile of the site.

Cambria's December 19, 2005 *Site Conceptual Model Report,* which included the SRS data, recommended continued groundwater monitoring, a risk evaluation, and investigation of on-site water use or leaks for the source of groundwater mounding observed at the site.

2006 Water Leak Investigation and Risk Evaluation: In January 2006, Blaine Tech Services, Inc. (BTS) observed water leaking into a long vertical crack in well MW-8's casing. BTS removed the well box to attempt to repair the well casing and discovered a leak in the adjacent station sprinkler system. Due to the length of the vertical crack in MW-8 (more than 6 feet), BTS was unable to repair the well. Cambria concluded this leak and cracks observed in the top of wells MW-5 and MW-9 were a possible cause of groundwater mounding at the site. BTS was able to repair wells MW-5 and MW-9.

In order to further evaluate potential risks from residual soil and groundwater impacts at this site to human health and environment, Cambria identified and evaluated plausible routes of exposure and possible receptors near or on site. For applicable scenarios, Cambria evaluated the available analytical data in comparison with the applicable environmental screening levels (ESLs) published in the San Francisco Bay Regional Water Quality Control Board's *Screening For Environmental Concerns At Sites With Contaminated Soil and Groundwater* (Interim Final - February 2005). Based on this evaluation, Cambria recommended a soil vapor investigation in the area of the station building.

These activities are detailed in Cambria's March 28, 2006 *Groundwater Monitoring Report - First Quarter 2006, Water Leak Investigation, and Risk Evaluation.*

2006 Well Destruction: In June 2006, Cambria destroyed well MW-8 due to the large irreparable crack discussed above. Cambria's June 23, 2006 *Groundwater Monitoring Report - Second Quarter 2006 and Well Destruction Report (MW-8)* presents well destruction details.

2006 Subsurface Investigation: In October 2006, Cambria drilled three soil borings (SB-1 through SB-3) to assess residual lead concentrations near former dispenser piping and three soil borings (SB-4 through SB-6) to evaluate soil gas concentrations near the station building. Soil samples collected from the borings near the former dispenser piping contained up to 46,000 mg/kg TPHg, 74 mg/kg benzene, 0.15 mg/kg MTBE, and 620 mg/kg lead. Soil samples collected from the borings near the station building contained up to 7.2 mg/kg TPHg, 0.012 mg/kg benzene, 0.059 mg/kg MTBE, and 29 mg/kg lead. No TPHg, benzene, toluene, ethylbenzene, total xylenes, or MTBE was detected in soil vapor samples collected from these borings; however, the samples were analyzed beyond recommended hold time. Cambria's December 14, 2006 *Site Investigation Report* provides investigation details.

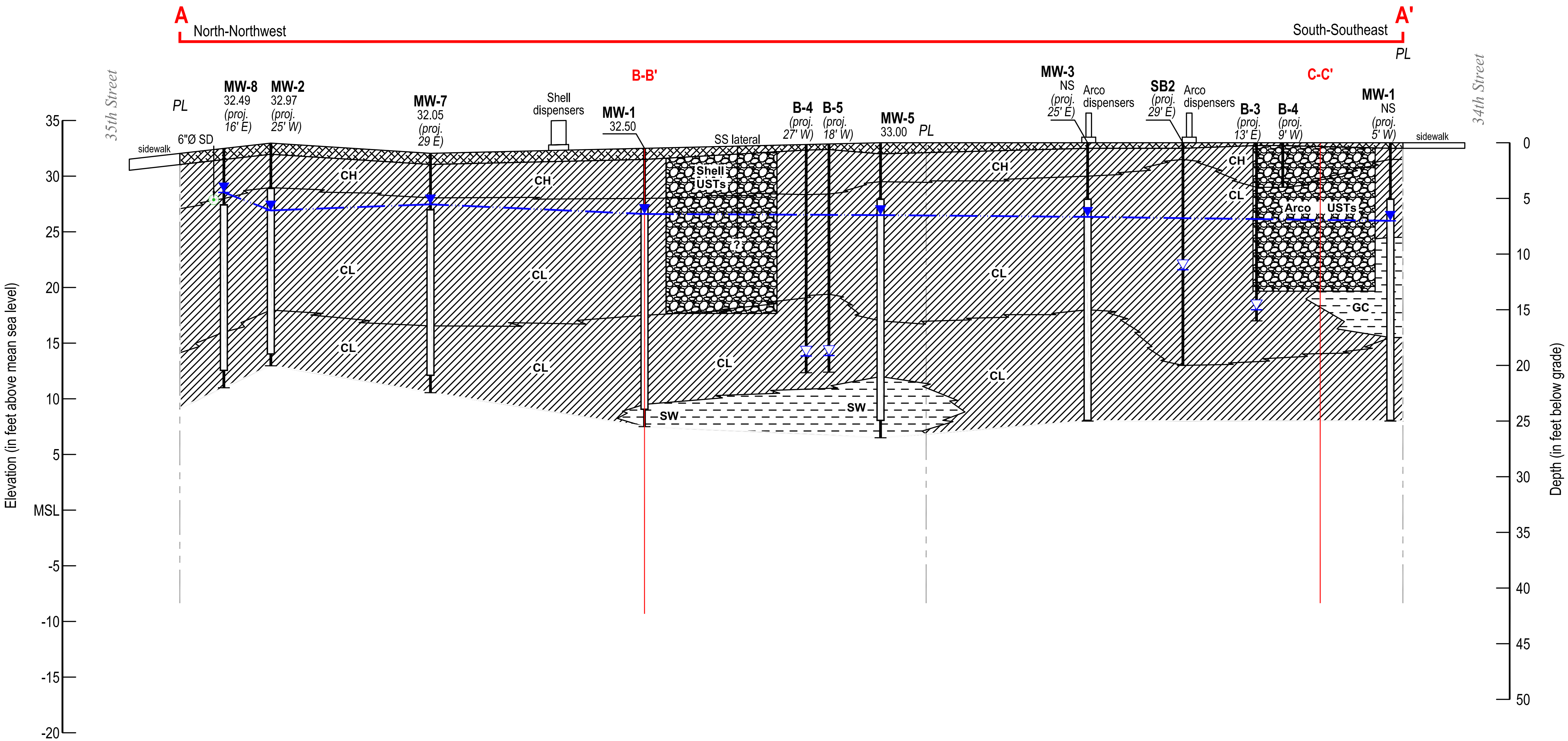
2012 - 2013 Subsurface Investigations: In January 2012, May 2012, and February 2013, Conestoga-Rovers & Associates (CRA) drilled 13 soil borings (SB-7 through S-19) to investigate the extent of lead in shallow soils. Soil samples contained up to 180 mg/kg TPHg, 0.22 mg/kg benzene, 0.030 mg/kg MTBE, and 1,200 mg/kg lead. CRA determined that the distribution of lead in shallow soils did not appear to be related to petroleum hydrocarbon releases and may be part of a regional impact. CRA's February 8, 2012 *Subsurface Investigation Report*, July 25, 2012 *Subsurface Investigation Report*, and February 28, 2013 *Subsurface Investigation Report* provide investigation details.

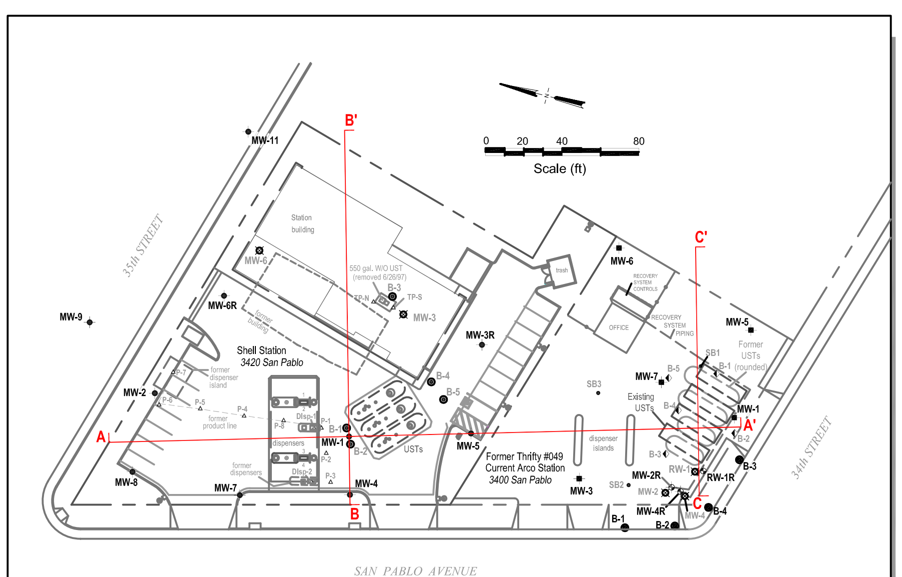
Groundwater Monitoring: Groundwater monitoring has been conducted at the site since August 1991. SPHs were observed intermittently in wells MW-1, MW-2, MW-4, MW-5, MW-6, and MW-7 from 1991 to 1997. SPHs were measured intermittently in well MW-6R from 2003 to 2010.

APPENDIX B

GEOLOGIC CROSS SECTIONS

08/09/05





EXPLANATION

= Low Permeability Soils
- **CH** - Inorganic Clay
- **CL** - Clay
- **SC** - Clayey Sand

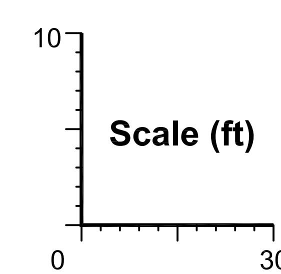
= Moderate Permeability Soils
- **ML** - Clayey Silt
- **SM** - Silty Sand

= High Permeability Soils
- **SP** - Poorly Graded Sand
- **SW** - Well Graded Sand
- **GC** - Gravels

= Fill (Tank Pit)

Well ID — Well Designation
Elev. — Top of Well Vault Elevation
NS — Not surveyed

Groundwater Monitoring Well
Well Screen Interval
Bottom of boring
Groundwater Table
Initial Groundwater level
Depth of Groundwater - 7/21/2004



Geologic Cross Section A-A'

CAMBRIA

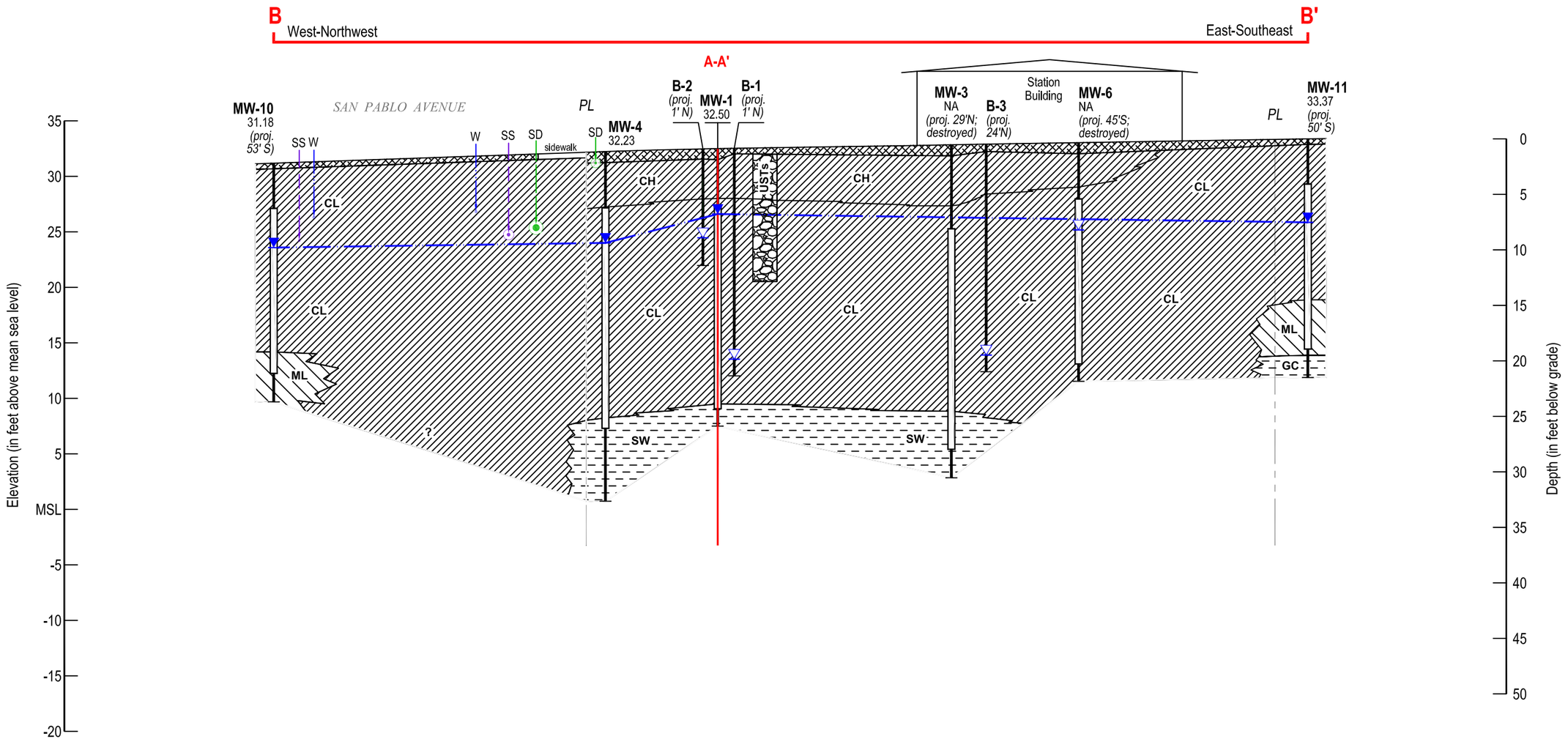
Shell-branded Service Station
3420 San Pablo Avenue
Oakland, California

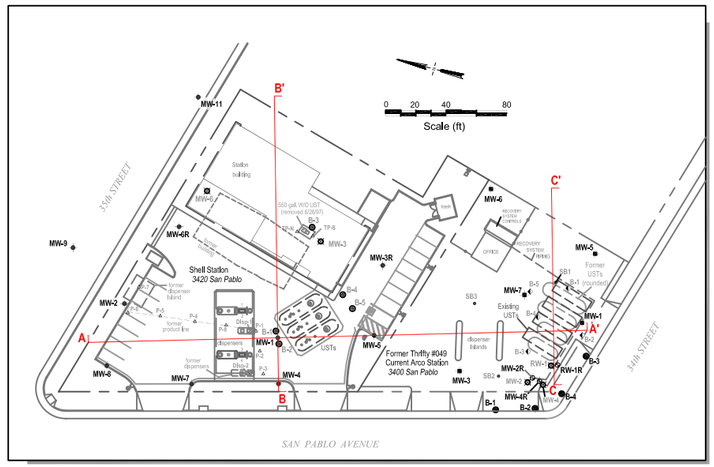
FIGURE
3

G:\OAKLAND 3420 SAN PABLO\FIGURES\X-SECT A-A'.DWG

08/09/05

Geologic Cross Section B-B'





EXPLANATION

= Low Permeability Soils
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= Moderate Permeability Soils
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= High Permeability Soils
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= Fill (Tank Pit)

Well ID — Well Designation
Elev. — Top of Well Vault Elevation
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Groundwater Monitoring Well
Well Screen Interval
Bottom of boring
Groundwater Table
Initial Groundwater level
Depth of Groundwater - 7/21/2004

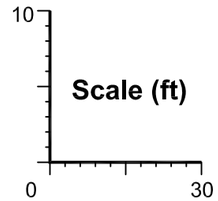


FIGURE
4

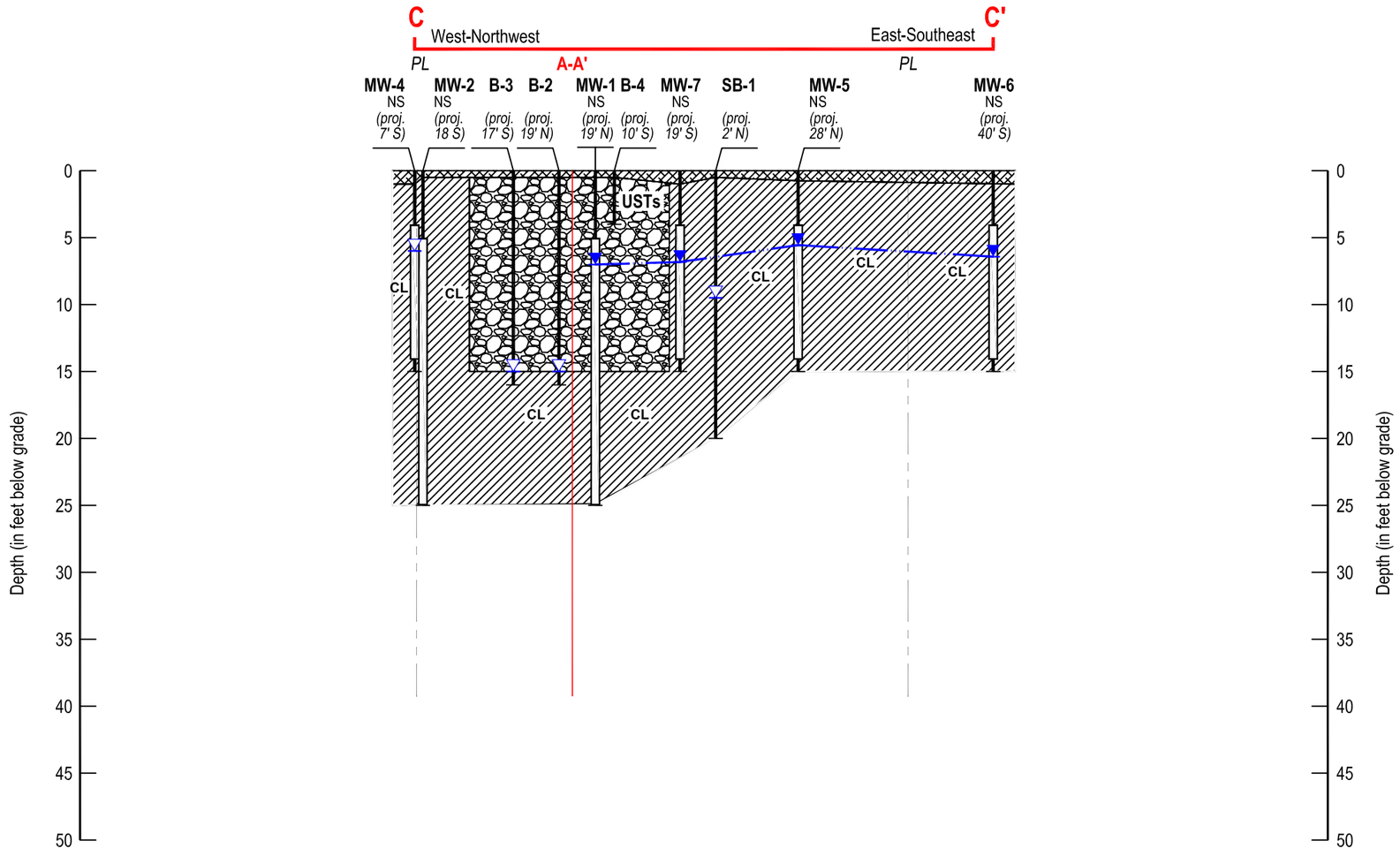
Shell-branded Service Station
3420 San Pablo Avenue
Oakland, California

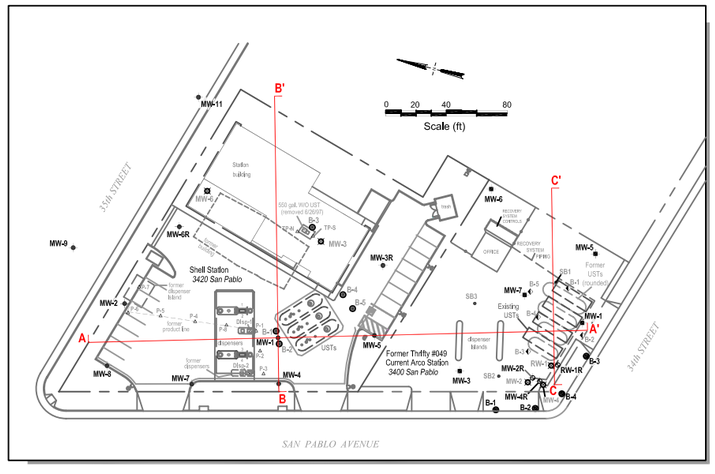
CAMBRIA

G:\OAKLAND 3420 SAN PABLO\FIGURES\X-SECT B-B'.DWG

08/18/05

Geologic Cross Section C-C'





EXPLANATION

= Low Permeability Soils
- CH - Inorganic Clay
- CL - Clay
- SC - Clayey Sand

= Moderate Permeability Soils
- ML - Clayey Silt
- SM - Silty Sand

= High Permeability Soils
- SP - Poorly Graded Sand
- SW - Well Graded Sand
- GC - Gravels

= Fill (Tank Pit)

Well ID — Well Designation
Elev. — Top of Well Vault Elevation
NS — Not surveyed

Groundwater Monitoring Well
Well Screen Interval
Bottom of boring
Groundwater Table
Initial Groundwater level
Depth of Groundwater - 7/21/2004

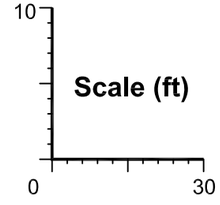


FIGURE
5

Shell-branded Service Station
3420 San Pablo Avenue
Oakland, California

CAMBRIA

G:\OAKLAND 3420 SAN PABLO\FIGURES\X-SECT C-C'.DWG

APPENDIX C

SWRCB LOW-THREAT SITE CLOSURE CHECKLIST

APPENDIX E: COMPLIANCE WITH STATE WATER BOARD POLICIES AND STATE LAW

The site comply with the State Water Resources Control Board policies and state law. Section 25296.10 of the Health and Safety Code requires that sites be cleaned up to protect human health, safety, and the environment. Based on available information, any residual petroleum constituents at the site do not pose significant risk to human health, safety, or the environment.

The site complies with the requirements of the Low-Threat Underground Storage Tank (UST) Case Closure Policy as described below.

Is corrective action consistent with Chapter 6.7 of the Health and Safety Code and implementing regulations? The corrective action provisions contained in Chapter 6.7 of the Health and Safety Code and the implementing regulations govern the entire corrective action process at leaking UST site. If it is determined, at any stage in the corrective action process, that UST case closure is appropriate, further compliance with corrective action requirements is not necessary. Corrective action at this site has been consistent with Chapter 6.7 of the Health and Safety Code and implementing regulations and, since this case meets applicable case-closure requirements, further corrective action is not necessary, unless the activity is necessary for case closure.	☑ Yes ☐ No
Have waste discharge requirements or any other orders issued pursuant to Division 7 of the Water Code been issued at this site?	☐ Yes ☑ No
If so, was the corrective action performed consistent with any order? There was an order issued for this site. The corrective action performed in the past is consistent with that order. Since this case meets applicable case-closure requirements, further corrective action under the order that is not necessary, unless the activity is necessary for case closure.	☐ Yes ☐ No
General Criteria General criteria that must be satisfied by all candidate sites:	
Is the unauthorized release located within the service area of a public water system?	☑ Yes ☐ No
Does the unauthorized release consist only of petroleum?	☑ Yes ☐ No
Has the unauthorized ("primary") release from the UST system been stopped?	☑ Yes ☐ No
Has free product been removed to the maximum extent practicable?	☑ Yes ☐ No
Has a conceptual site model that assesses the nature, extent, and mobility of the release been developed?	☑ Yes ☐ No
Has secondary source been removed to the extent practicable?	☑ Yes ☐ No
Has the soil or groundwater been tested for MTBE and results reported in accordance with Health and Safety Code section 25296.15?	☑ Yes ☐ No
Nuisance as defined by Water Code section 13050 does not exist at the site?	☑ Yes ☐ No
Are there unique site attributes or site-specific conditions that demonstrably increase the risk associated with residual petroleum constituents?	☐ Yes ☑ No
Media-Specific Criteria Candidate sites must satisfy all three of these media-specific criteria: **1. Groundwater** To satisfy the media-specific criteria for groundwater, the contaminant plume that exceeds water quality objectives must be stable or decreasing in areal extent, and meet all of the additional characteristics of one of the five classes of sites:	
Is the contaminant plume that exceeds water quality objectives stable or decreasing in areal extent?	☑ Yes ☐ No ☐ NA

Does the contaminant plume that exceeds water quality objectives meet all of the additional characteristics of one of the five classes of sites?	☑ Yes ☐ No ☐ NA
If YES, check applicable class: ☐ 1 ☐ 2 ☑ 3 ☐ 4 ☐ 5 **Do site soils contain insufficient mobile constituents (leachate, vapors, or light non-aqueous phase liquids) to threaten groundwater?**	☐ Yes ☐ No ☑ NA
2. Petroleum Vapor Intrusion to Indoor Air: The site considered low-threat for vapor intrusion to indoor air if site-specific conditions satisfy all of the characteristics of one of the three classes of sites (a through c) or if the exception for active commercial fueling facilities applies. **Is the site an active commercial petroleum fueling facility?** Exception: Satisfaction of the media-specific criteria for petroleum vapor intrusion to indoor air is not required at active commercial petroleum fueling facilities, except in cases where release characteristics can be reasonably believed to pose an unacceptable health risk.	☑ Yes ☐ No
a. Do site-specific conditions at the release site satisfy all of the applicable characteristics and criteria of scenarios 1 through 3 or all of applicable characteristics and criteria of scenario 4? If YES, check applicable scenarios: ☐ 1 ☐ 2 ☐ 3 ☐ 4	☐ Yes ☐ No ☑ NA
b. Has a site-specific risk assessment for the vapor intrusion pathway been conducted and demonstrates that human health is protected to the satisfaction of the regulatory agency?	☐ Yes ☐ No ☑ NA
c. As a result of controlling exposure through the use of mitigation measures or through the use of institutional or engineering controls, has the regulatory agency determined that petroleum vapors migrating from soil or groundwater will have no significant risk of adversely affecting human health?	☐ Yes ☐ No ☑ NA
3. Direct Contact and Outdoor Air Exposure: The site is considered low-threat for direct contact and outdoor air exposure if site-specific conditions satisfy one of the three classes of sites (a through c).	
a. Are maximum concentrations of petroleum constituents in soil less than or equal to those listed in Table 1 for the specified depth below ground surface (bgs?)	☐ Yes ☑ No ☐ NA
b. Are maximum concentrations of petroleum constituents in soil less than levels that a site specific risk assessment demonstrates will have no significant risk of adversely affecting human health?	☐ Yes ☐ No ☑ NA
c. As a result of controlling exposure through the use of mitigation measures or through the use of institutional or engineering controls, has the regulatory agency determined that petroleum constituents in soil will have no significant risk of adversely affecting human health?	☑ Yes ☐ No ☐ NA