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By Alameda County Environmental Health at 9:49 am, Jul 25, 2014

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July 23, 2014

Alameda County Health Care Services Agency
Environmental Health Services
Environmental Protection
1131 Harbor Bay Parkway, Suite 250
Alameda, California 94502-6577

Re: Unocal No. 6129 (351639)
3420 35th Avenue, Oakland, California
ACEH Fuel Leak Case No. RO0000058
GeoTracker Global ID T0600101465

I have reviewed the attached report dated July 23, 2014.

I agree with the conclusions and recommendations presented in the referenced report. The information in this report is accurate to the best of my knowledge and all local agency/Regional Board guidelines have been followed. This report was prepared by AECOM, upon whose assistance and advice I have relied.

This letter is submitted pursuant to the requirements of California Water Code Section 13257(b)(1) and the regulating implementation entitled Appendix A pertaining thereto.

I declare under penalty of perjury that the foregoing is true and correct to the best of my knowledge.

Sincerely,

A handwritten signature in blue ink, appearing to read "Nicole M. Arceneaux".

Nicole M. Arceneaux
Project Manager

Attachment: First Semi-Annual 2014 Groundwater Monitoring Report by AECOM



AECOM
2020 L Street
Suite 400
Sacramento, CA 95811
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916 414 5800 tel
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July 23, 2014

Mr. Keith Nowell
Alameda County Health Care Services Agency
Environmental Health Services
Environmental Protection
1131 Harbor Bay Parkway, Suite 250
Alameda, California 94502-6577

**Subject: First Semi-Annual 2014 Groundwater Monitoring Report
Unocal No. 6129 (351639)
3420 35th Avenue, Oakland, California
Fuel Leak Case No. RO0000058
GeoTracker Global ID T0600101465**

Dear Mr. Nowell,

On behalf of Chevron Environmental Management Company's (EMC's) affiliate Union Oil Company of California ("Union Oil"), AECOM has been authorized to prepare the first semi-annual 2014 groundwater monitoring report for the site located at 3420 35th Avenue in Oakland, California (site) (**Figure 1**). The locations of former and current site features are illustrated on **Figure 2**. The first semi-annual 2014 groundwater monitoring event was conducted to evaluate the distribution of petroleum hydrocarbon constituents in groundwater beneath the site. Groundwater sampling was performed by Gettler-Ryan Inc. (Gettler-Ryan) of Dublin, California. This report summarizes sample results of the second first semi-annual sampling event conducted on November May 12, 2014.

Groundwater Monitoring Field Data

The depth to groundwater was measured in three monitoring wells (MW-1 through MW-3) at the site on May 12, 2014, and these depths were converted to groundwater elevations (**Table 1**). Copies of the groundwater gauging logs are included in **Attachment A**. The groundwater flow direction was calculated to the southwest with an average hydraulic gradient of approximately 0.015 feet per foot (**Figure 2**). The depth to groundwater at the site ranged from 27.93 to 28.95 feet below the top of well casings (160.65 to 162.31 feet above mean sea level).

Groundwater Sampling and Analytical Results

Groundwater samples were collected from monitoring wells MW-1 through MW-3 on May 12, 2014, after first purging a minimum of three well volumes at each well. Temperature, pH, oxidation reduction potential, dissolved oxygen, and electrical conductivity readings were recorded during purging, and copies of those purge logs are presented in **Attachment A**. Laboratory analysis of the groundwater samples was performed by BC Laboratories, Inc. (BC Labs) of Bakersfield, California. The BC Labs analytical report dated May 22, 2014, is included as **Attachment B**. Groundwater samples were analyzed for the following, based on historical trends at each monitoring well:

- Total petroleum hydrocarbons as gasoline (TPH-g) by Luft-GC/MS method (TPH-g is reported as total purgeable petroleum hydrocarbons [TPPH] in laboratory analytical report);
- Benzene, toluene, ethylbenzene, and total xylenes (BTEX) by Environmental Protection Agency (EPA) Method 8260B; and

- Fuel oxygenates, including methyl t-butyl ether (MTBE), t-amyl methyl ether (TAME), t-butyl alcohol (TBA), diisopropyl ether (DIPE), ethyl t-butyl ether (ETBE), ethanol, 1,2-dibromoethane (EDB), and 1,2-dichloroethane (EDC) by EPA Method 8260B.

Analytical results for the first semi-annual 2014 groundwater monitoring event are consistent with previous reporting periods (**Table 1**, **Table 2**, and **Figure 3**). The following presents a brief summary of the analytical sample results:

- BTEX, ETBE, TAME, EDB, EDC, and ethanol were not detected in the groundwater samples collected from MW-1, MW-2, and MW-3;
- TPH-g was detected in the groundwater samples collected from MW-1, MW-2, and MW-3 at 98 µg/L, 260 µg/L, and 98 µg/L, respectively;
- MTBE was detected in the groundwater samples collected from MW-1, MW-2, and MW-3 at 170 µg/L, 510 µg/L, and 160 µg/L, respectively;
- TBA was detected in the groundwater sample collected from MW-2 at 44 µg/L. TBA was not detected in the groundwater samples collected from MW-1 and MW-3; and
- DIPE was detected in the groundwater sample collected from MW-2 at 12 µg/L. DIPE was not detected in the groundwater samples collected from MW-1 and MW-3.

A summary of historical groundwater analytical data is presented in **Tables 3 and 4**. Groundwater analytical data from the upgradient former Exxon service station are included in **Attachment C**.

Approximately 21 gallons of purge water was generated during the first semi-annual 2014 groundwater monitoring and sampling event. The purge water and decontamination water generated during sampling activities were transported by Clean Harbors Environmental Services to Seaport Environmental located in Redwood City, California.

Conclusions and Recommendations

Based on the results of historical groundwater monitoring and analytical results of groundwater sampling conducted at the site, AECOM provides the following conclusions and recommendations:

- No BTEX was detected.
- Groundwater levels appear to fluctuate on a seasonal basis with the highest groundwater elevations generally recorded during the first and second quarters and the lowest elevations recorded during the third and fourth quarters.
- Detected TPH-g, MTBE, and oxygenate concentrations fluctuate seasonally, but are generally stable or declining.
- TPH-g and MTBE concentrations are generally higher at the upgradient former Exxon service station.

Future Activities

AECOM has been working with ACEH to reach site closure. A focused site conceptual model addressing the remaining data gaps presented in an April 10, 2014 will be submitted during the third quarter of 2014.

Remarks/Signatures


The interpretations in this report represent AECOM's professional opinions and are based, in part, on the information supplied by Gettler-Ryan and BC labs. These opinions are based on currently available information and are arrived at in accordance with currently accepted hydrogeologic and engineering practices at this time and location. Other than this, no warranty is implied or intended.

If you have any questions regarding this project, please contact James Harms at (916) 414-5800.

Sincerely,



James Harms
Project Manager



Sara Arav Piper, PG #9137
Project Geologist



ccs: Ms. Nicole Arceneaux, EMC (via electronic copy)
Son Nguyen & Le Pham, Nguyen/Pham Family Trust, property owner (via paper copy)

Enclosures:

Tables

Table 1	Current Groundwater Monitoring Data and Analytical Results
Table 2	Current Groundwater Analytical Results - Oxygenate Compounds
Table 3	Historical Groundwater Monitoring Data and Analytical Results
Table 4	Historical Groundwater Analytical Results - Oxygenate Compounds

Figures

Figure 1	Site Location Map
Figure 2	Groundwater Elevation Map, First Semi-Annual 2014
Figure 3	Groundwater Concentration Map, First Semi-Annual 2014

Attachments

Attachment A	May 12, 2014, Groundwater Monitoring and Sampling Field Data Sheets
Attachment B	BC Labs Analytical Report #1410721
Attachment C	Former Exxon Service Station Data Tables

TABLES

Table 1
Current Groundwater Monitoring Data and Analytical Results
Unocal No. 6129 (351639)
3420 35th Avenue
Oakland, California

WELL ID	TOC* (ft)	DATE	DTW (ft)	GWE* (ft)	LNAPL (ft)	TPH-g (µg/L)	B (µg/L)	T (µg/L)	E (µg/L)	X (µg/L)	COMMENTS
MW-1	190.79	5/12/2014	28.95	161.84	0	98 ¹	<0.50	<0.50	<0.50	<1.0	
MW-2	190.80	5/12/2014	28.49	162.31	0	260	<0.50	<0.50	<0.50	<1.0	
MW-3	188.58	5/12/2014	27.93	160.65	0	98 ¹	<0.50	<0.50	<0.50	<1.0	

NOTES:

* TOC and GWE are in feet above mean sea level.

<# = Analyte not detected at or above indicated laboratory practical quantitation limit

BTEX compounds analyzed by Environmental Protection Agency Method 8260B

TPH-g analyzed by Luft-GC/MS method

ID = Identification

TOC = Top of casing

ft = Feet

DTW = Depth to water

GWE = Groundwater elevation

µg/L = Micrograms per liter

LNAPL = Light Non-Aqueous Phase Liquid

¹ = TPH-g does not exhibit a "gasoline" pattern. TPH-g is entirely due to MTBE.

B = Benzene

T = Toluene

E = Ethylbenzene

X = Total Xylenes

TPH-g = Total Petroleum Hydrocarbons as Gasoline

TPH-g reported as TPPH (total purgeable petroleum hydrocarbons) by laboratory

Table 2
Current Groundwater Analytical Results - Oxygenate Compounds
Unocal No. 6129 (351639)
3420 35th Avenue
Oakland, California

WELL ID	DATE	MTBE (µg/L)	TBA (µg/L)	ETHANOL (µg/L)	ETBE (µg/L)	DIPE (µg/L)	TAME (µg/L)	EDB (µg/L)	EDC (µg/L)
MW-1	5/12/2014	170 ¹	<10	<250	<0.50	<0.50	<0.50	<0.50	<0.50
MW-2	5/12/2014	510 ¹	44	<250	<0.50	12	<0.50	<0.50	<0.50
MW-3	5/12/2014	160 ¹	<10	<250	<0.50	<0.50	<0.50	<0.50	<0.50

NOTES:

Oxygenate compounds analyzed by Environmental Protection Agency Method 8260B

<# = Analyte not detected at or above indicated laboratory practical quantitation limit

ID = Identification

µg/L = Micrograms per liter

MTBE = Methyl t-butyl ether

TBA = T-butyl alcohol

DIPE = Diisopropyl ether

ETBE = Ethyl t-butyl ether

TAME = T-amyl methyl ether

EDB = 1,2-Dibromoethane

EDC = 1,2-Dichloroethane

¹ = PQLs and MDLs are raised due to sample dilution.

Table 3
Historical Groundwater Monitoring Data and Analytical Results
Unocal No. 6129 (351639)
3420 35th Avenue
Oakland, California

WELL ID	TOC* (ft)	DATE	DTW (ft)	GWE* (ft)	LNAPL (ft)	TPH-G (µg/L)	B (µg/L)	T (µg/L)	E (µg/L)	X (µg/L)	Comments
MW-1	190.79	1/5/1990	32.80	157.99	--	<30	<0.30	<0.30	<0.30	<0.30	
screened	190.79	5/11/1990	31.80	158.99	--	<30	<0.30	7.1	<0.30	<0.30	
24 to 44' bgs	190.79	8/9/1990	32.37	158.42	--	<30	<0.30	<0.30	<0.30	<0.30	
	190.79	11/14/1990	33.32	157.47	--	<30	<0.30	<0.30	<0.30	<0.30	
	190.79	2/12/1991	33.02	157.77	--	<30	0.32	<0.30	<0.30	<0.30	
	190.79	5/9/1991	30.95	159.84	--	<30	<0.30	<0.30	<0.30	<0.30	
	190.79	11/13/2003	--	--	--	180	<1.0	<1.0	<1.0	<2.0	
	190.79	8/27/2004	30.65	160.14	0	<50	<0.50	<0.50	<0.50	<1.0	
	190.79	11/23/2004	29.35	161.44	0	<50	<0.50	<0.50	<0.50	<1.0	
	190.79	2/9/2005	26.89	163.90	0	<50	<0.50	<0.50	<0.50	<1.0	
	190.79	5/17/2005	26.56	164.23	0	<50	<0.50	<0.50	<0.50	<1.0	
	190.79	7/27/2005	27.33	163.46	0	<50	<0.50	<0.50	<0.50	<1.0	
	190.79	12/6/2005	29.59	161.20	0	<50	<0.50	0.93	<0.50	1.80	
	190.79	2/21/2006	28.27	162.52	0	<50	<0.50	<0.50	<0.50	<1.0	
	190.79	6/8/2006	26.07	164.72	0	<50	<0.50	<0.50	<0.50	<1.0	
	190.79	9/15/2006	28.86	161.93	0	<50	<0.50	<0.50	<0.50	<0.50	
	190.79	12/14/2006	29.49	161.30	0	<50	<0.50	<0.50	<0.50	<0.50	
	190.79	3/28/2007	27.24	163.55	0	<50	<0.50	<0.50	<0.50	<0.50	
	190.79	6/25/2007	28.30	162.49	0	<50	<0.50	<0.50	<0.50	<0.50	
	190.79	9/22/2007	30.61	160.18	0	<50	<0.50	<0.50	<0.50	<0.50	
	190.79	12/14/2007	30.30	160.49	0	<50	<0.50	<0.50	<0.50	<1.0	
	190.79	3/17/2008	27.22	163.57	0	<50	<0.50	<0.50	<0.50	<1.0	
	190.79	6/20/2008	30.10	160.69	0	<50	<0.50	<0.50	<0.50	<1.0	
	190.79	9/11/2008	31.04	159.75	0	<50	<0.50	<0.50	<0.50	<1.0	
	190.79	11/25/2008	30.88	159.91	0	<50	<0.50	<0.50	<0.50	<1.0	
	190.79	3/9/2009	27.50	163.29	0	<50	<0.50	<0.50	<0.50	<1.0	
	190.79	5/28/2009	28.25	162.54	0	<50	<0.50	<0.50	<0.50	<1.0	
	190.79	12/11/2009	30.60	160.19	0	<50	<0.50	<0.50	<0.50	<1.0	
	190.79	5/7/2010	26.06	164.73	0	67	<0.50	<0.50	<0.50	<1.0	
	190.79	11/1/2010	30.18	160.61	0	<50	<0.50	<0.50	<0.50	<1.0	
	190.79	5/27/2011	26.87	163.92	0	110	<0.50	<0.50	<0.50	<1.0	
	190.79	11/23/2011	29.14	161.65	0	1,101	<0.50	<0.50	<0.50	<1.0	

Table 3
Historical Groundwater Monitoring Data and Analytical Results
Unocal No. 6129 (351639)
3420 35th Avenue
Oakland, California

WELL ID	TOC* (ft)	DATE	DTW (ft)	GWE* (ft)	LNAPL (ft)	TPH-G (µg/L)	B (µg/L)	T (µg/L)	E (µg/L)	X (µg/L)	Comments
MW-1 cont.	190.79	5/24/2012	26.58	164.21	0	140	<0.50	<0.50	<0.50	<1.0	
	190.79	10/23/2012	30.51	160.28	0	130	<0.50	<0.50	<0.50	<1.0	
	190.79	5/2/2013	28.30	162.49	0	150 ¹	<0.50	<0.50	<0.50	<1.0	
	190.79	11/13/2013	31.65	159.14	0	240	<0.50	<0.50	<0.50	<1.0	
	190.79	5/12/2014	28.95	161.84	0	98¹	<0.50	<0.50	<0.50	<1.0	
MW-2 screened 24 to 44' bgs	190.80	1/5/1990	33.02	157.78	--	<30	<>0.30	<>0.30	<>0.30	<>0.30	
	190.80	5/11/1990	31.98	158.82	--	<30	<>0.30	<>0.30	<>0.30	<>0.30	
	190.80	8/9/1990	32.45	158.35	--	<30	<>0.30	<>0.30	<>0.30	<>0.30	
	190.80	11/14/1990	33.47	157.33	--	<30	<>0.30	<>0.30	<>0.30	<>0.30	
	190.80	2/12/1991	33.15	157.65	--	<30	<>0.30	0.42	<0.30	0.51	
	190.80	5/9/1991	30.88	159.92	--	<30	<>0.30	<>0.30	<>0.30	<>0.30	
	190.80	11/13/2003	--	--	--	<2,000	<20	<20	<20	<40	
	190.80	8/27/2004	30.28	160.52	0	950	<5.0	<5.0	<5.0	<10	
	190.80	11/23/2004	28.75	162.05	0	53	<0.50	<0.50	<0.50	<1.0	
	190.80	2/9/2005	26.08	164.72	0	<500	<0.50	<0.50	<0.50	<1.0	
	190.80	5/17/2005	24.53	166.27	0	<50	<0.50	<0.50	<0.50	<1.0	
	190.80	7/27/2005	27.51	163.29	0	<500	<5.0	<5.0	<5.0	<10	
	190.80	12/6/2005	29.13	161.67	0	340	<0.50	<0.50	<0.50	<1.0	
	190.80	2/21/2006	29.23	161.57	0	190	<0.50	<0.50	<0.50	<1.0	
	190.80	6/8/2006	25.76	165.04	0	<500	<5.0	<5.0	<5.0	<10	
	190.80	9/15/2006	29.17	161.63	0	<500	<5.0	<5.0	<5.0	<5.0	
	190.80	12/14/2006	29.11	161.69	0	520	<0.50	<0.50	<0.50	<0.50	
	190.80	3/28/2007	26.68	164.12	0	290	<0.50	<0.50	<0.50	<0.50	
	190.80	6/25/2007	25.91	164.89	0	<50	<0.50	<0.50	<0.50	<0.50	
	190.80	9/22/2007	30.18	160.62	0	400	<0.50	<0.50	<0.50	<0.50	
	190.80	12/14/2007	29.96	160.84	0	400	<0.50	<0.50	<0.50	<1.0	
	190.80	3/17/2008	26.74	164.06	0	570	<5.0	<5.0	<5.0	<10	
	190.80	6/20/2008	29.78	161.02	0	580	<0.50	<0.50	<0.50	<1.0	
	190.80	9/11/2008	30.62	160.18	0	220	<0.50	<0.50	<0.50	<1.0	
190.80	11/25/2008	30.48	160.32	0	500	<0.50	<0.50	<0.50	<1.0		
190.80	3/9/2009	25.75	165.05	0	910	<5.0	<5.0	<5.0	<10		
190.80	5/28/2009	27.71	163.09	0	460	<0.50	<0.50	<0.50	<1.0		
190.80	12/11/2009	29.80	161.00	0	640	<5.0	<5.0	<5.0	<10		

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Unocal No. 6129 (351639)
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Oakland, California

WELL ID	TOC* (ft)	DATE	DTW (ft)	GWE* (ft)	LNAPL (ft)	TPH-G (µg/L)	B (µg/L)	T (µg/L)	E (µg/L)	X (µg/L)	Comments
MW-2 cont.	190.80	5/7/2010	25.11	165.69	0	600	<1.0	<1.0	<1.0	<2.0	
	190.80	11/1/2010	29.90	160.90	0	140	<0.50	<0.50	<0.50	<1.0	
	190.80	5/27/2011	26.44	164.36	0	560	<0.50	<0.50	<0.50	<1.0	
	190.80	11/23/2011	28.53	162.27	0	830	<0.50	<0.50	<0.50	<1.0	
	190.80	5/24/2012	25.97	164.83	0	1,000	<0.50	<0.50	<0.50	<1.0	
	190.80	10/23/2012	30.14	160.66	0	750	<0.50	<0.50	<0.50	<1.0	
	190.80	5/2/2013	27.14	163.66	0	290 ¹	<0.50	<0.50	<0.50	<1.0	
	190.80	11/13/2013	31.37	159.43	0	1,200	<0.50	<0.50	<0.50	<1.0	
	190.80	5/12/2014	28.49	162.31	0	260.00	<0.50	<0.50	<0.50	<1.0	
MW-3 screened 23 to 43' bgs	188.58	1/5/1990	31.88	156.70	--	<30	<0.30	<0.30	<0.30	<0.30	
	188.58	5/11/1990	31.25	157.33	--	<30	<0.30	<0.30	<0.30	<0.30	
	188.58	8/9/1990	31.53	157.05	--	<30	<0.30	<0.30	<0.30	<0.30	
	188.58	11/14/1990	33.30	155.28	--	<30	<0.30	<0.30	<0.30	<0.30	
	188.58	2/12/1991	32.05	156.53	--	<30	<0.30	<0.30	<0.30	<0.30	
	188.58	5/9/1991	30.37	158.21	--	<30	<0.30	<0.30	<0.30	<0.30	
	188.58	11/13/2003	--	--	--	2,600	<20	<20	<20	<40	
	188.58	8/27/2004	29.61	158.97	0	1,700	<10	<10	<10	<20	
	188.58	11/23/2004	28.48	160.10	0	1,500	<10	<10	<10	<20	
	188.58	2/9/2005	26.45	162.13	0	<1,000	<0.50	<0.50	<0.50	<1.0	
	188.58	5/17/2005	25.61	162.97	0	<1,000	<0.50	<0.50	<0.50	<1.0	
	188.58	7/27/2005	27.35	161.23	0	<1,000	<10	<10	<10	<20	
	188.58	12/6/2005	28.78	159.80	0	430	<0.50	1.6	<0.50	3.6	
	188.58	2/21/2006	28.91	159.67	0	420	<0.50	<0.50	<0.50	<1.0	
	188.58	6/8/2006	25.97	162.61	0	<1,200	<12	<12	<12	<25	
	188.58	9/15/2006	28.73	159.85	0	<1,200	<12	<12	<12	<12	
	188.58	12/14/2006	28.62	159.96	0	<1,000	<10	<10	<10	<10	
	188.58	3/28/2007	26.69	161.89	0	500	<1.0	<1.0	<1.0	<1.0	
	188.58	6/25/2007	26.74	161.84	0	270	<0.50	<0.50	<0.50	<0.50	
	188.58	9/22/2007	29.57	159.01	0	500	<0.50	<0.50	<0.50	<0.50	
	188.58	12/14/2007	29.30	159.28	0	270	<0.50	<0.50	<0.50	<1.0	
188.58	3/17/2008	26.82	161.76	0	220	<0.50	<0.50	<0.50	<1.0		
188.58	6/20/2008	29.10	159.48	0	490	<0.50	<0.50	<0.50	<1.0		
188.58	9/11/2008	29.89	158.69	0	630	<5.0	<5.0	<5.0	<10		

Table 3
Historical Groundwater Monitoring Data and Analytical Results
Unocal No. 6129 (351639)
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WELL ID	TOC* (ft)	DATE	DTW (ft)	GWE* (ft)	LNAPL (ft)	TPH-G (µg/L)	B (µg/L)	T (µg/L)	E (µg/L)	X (µg/L)	Comments
MW-3 cont.	188.58	11/25/2008	29.74	158.84	0	380	<0.50	<0.50	<0.50	<1.0	
	188.58	3/9/2009	25.56	163.02	0	310	<0.50	<0.50	<0.50	<1.0	
	188.58	5/28/2009	27.55	161.03	0	410	<0.50	<0.50	<0.50	<1.0	
	188.58	12/11/2009	29.10	159.48	0	220	<0.50	<0.50	<0.50	<1.0	
	188.58	5/7/2010	25.72	162.86	0	360	<0.50	<0.50	<0.50	<1.0	
	188.58	11/1/2010	29.29	159.29	0	120	<0.50	<0.50	<0.50	<1.0	
	188.58	5/27/2011	26.53	162.05	0	340	<0.50	<0.50	<0.50	<1.0	
	188.58	5/24/2012	25.95	162.63	0	660	<0.50	<0.50	<0.50	<1.0	
	188.58	10/23/2012	29.39	159.19	0	480	<0.50	<0.50	<0.50	<1.0	
	188.58	5/2/2013	26.98	161.60	0	130 ¹	<0.50	<0.50	<0.50	<1.0	
	188.58	11/13/2013	30.28	158.30	0	110	<0.50	<0.50	<0.50	<1.0	
	188.58	5/12/2014	27.93	160.65	0	98¹	<0.50	<0.50	<0.50	<1.0	

NOTES:

* TOC and GWE are in feet above mean sea level.

<# = Analyte not detected at or above indicated laboratory practical quantitation limit

BTEX compounds analyzed by Environmental Protection Agency Method 8260B

TPH-g analyzed by Luft-GC/MS method

ID = Identification

TOC = Top of casing

ft = Feet

DTW = Depth to water

GWE = Groundwater elevation

-- = Not available/Not analyzed

µg/L = Micrograms per liter

LNAPL = Light Non-Aqueous Phase Liquid

bgs = below ground surface

B = Benzene

T = Toluene

E = Ethylbenzene

X = Total Xylenes

TPH-g = Total Petroleum Hydrocarbons as Gasoline

¹ = TPH-g does not exhibit a "gasoline" pattern. TPH-g is entirely due to MTBE.

TPH-g reported as TPPH (total purgeable petroleum hydrocarbons) on some laboratory reports

Table 4
Historical Groundwater Analytical Results - Oxygenate Compounds
Unocal No. 6129 (351639)
3420 35th Avenue
Oakland, California

WELL ID	DATE	MTBE (µg/L)	TBA (µg/L)	ETHANOL (µg/L)	DIPE (µg/L)	ETBE (µg/L)	TAME (µg/L)	EDB (µg/L)	EDC (µg/L)
MW-1	1/5/1990	--	--	--	--	--	--	--	--
	5/11/1990	--	--	--	--	--	--	--	--
	8/9/1990	--	--	--	--	--	--	--	--
	11/14/1990	--	--	--	--	--	--	--	--
	2/12/1991	--	--	--	--	--	--	--	--
	5/9/1991	--	--	--	--	--	--	--	--
	11/13/2003	240	<200	<1,000	<4.0	<4.0	<4.0	<4.0	<4.0
	8/27/2004	<0.50	<5.0	<50	<0.50	<1.0	<0.50	<0.50	<0.50
	11/23/2004	<0.50	<5.0	<50	<0.50	<1.0	<0.50	<0.50	<0.50
	2/9/2005	9.3	<5.0	<50	<0.50	<0.50	<0.50	<0.50	<0.50
	5/17/2005	1.9	<5.0	<50	<0.50	<0.50	<0.50	<0.50	<0.50
	7/27/2005	<0.50	<5.0	<50	<0.50	<0.50	<0.50	<0.50	<0.50
	12/6/2005	<0.50	<10	<250	<0.50	<0.50	<0.50	<0.50	<0.50
	2/21/2006	2.6	<10	<250	<0.50	<0.50	<0.50	<0.50	<0.50
	6/8/2006	11	<10	<250	<0.50	<0.50	<0.50	<0.50	<0.50
	9/15/2006	1.4	<10	<250	<0.50	<0.50	<0.50	<0.50	<0.50
	12/14/2006	3.5	<10	<250	<0.50	<0.50	<0.50	<0.50	<0.50
	3/28/2007	0.64	<10	<250	<0.50	<0.50	<0.50	<0.50	<0.50
	6/25/2007	<0.50	<10	<250	<0.50	<0.50	<0.50	<0.50	<0.50
	9/22/2007	4.10	<10	<250	<0.50	<0.50	<0.50	<0.50	<0.50
	12/14/2007	0.65	<10	<250	<0.50	<0.50	<0.50	<0.50	<0.50
	3/17/2008	14	<10	<250	<0.50	<0.50	<0.50	<0.50	<0.50
	6/20/2008	11	<10	<250	<0.50	<0.50	<0.50	<0.50	<0.50
	9/11/2008	1.3	<10	<250	<0.50	<0.50	<0.50	<0.50	<0.50
	11/25/2008	5.8	<10	<250	<0.50	<0.50	<0.50	<0.50	<0.50
	3/9/2009	25	<10	<250	<0.50	<0.50	<0.50	<0.50	<0.50
	5/28/2009	17	<10	<250	<0.50	<0.50	<0.50	<0.50	<0.50
	12/11/2009	18	<10	<250	<0.50	<0.50	<0.50	<0.50	<0.50
	5/7/2010	64	<10	<250	<0.50	<0.50	<0.50	<0.50	<0.50
	11/1/2010	92	<10	<250	<0.50	<0.50	<0.50	<0.50	<0.50

Table 4
Historical Groundwater Analytical Results - Oxygenate Compounds
Unocal No. 6129 (351639)
3420 35th Avenue
Oakland, California

WELL ID	DATE	MTBE (µg/L)	TBA (µg/L)	ETHANOL (µg/L)	DIPE (µg/L)	ETBE (µg/L)	TAME (µg/L)	EDB (µg/L)	EDC (µg/L)
MW-1 cont.	5/27/2011	220	<10	<250	<0.50	<0.50	<0.50	<0.50	<0.50
	11/23/2011	150	41	<250	<0.50	<0.50	<0.50	<0.50	<0.50
	5/24/2012	190	66	<250	<0.50	<0.50	<0.50	<0.50	<0.50
	10/23/2012	140	47	<250	<0.50	<0.50	<0.50	<0.50	<0.50
	5/2/2013	270	<10	<250	<0.50	<0.50	<0.50	<0.50	<0.50
	11/13/2013	270	<10	<250	<0.50	<0.50	<0.50	<0.50	<0.50
	5/12/2014	170¹	<10	<250	<0.50	<0.50	<0.50	<0.50	<0.50
MW-2	1/5/1990	--	--	--	--	--	--	--	--
	5/11/1990	--	--	--	--	--	--	--	--
	8/9/1990	--	--	--	--	--	--	--	--
	11/14/1990	--	--	--	--	--	--	--	--
	2/12/1991	--	--	--	--	--	--	--	--
	5/9/1991	--	--	--	--	--	--	--	--
	11/13/2003	2,100	<4,000	<20,000	<80	<80	<80	<80	<80
	8/27/2004	1,400	<5.0	<500	<5.0	24	<5.0	<5.0	<5.0
	11/23/2004	4.2	<5.0	<50	<0.50	18	<0.50	<0.50	<0.50
	2/9/2005	400	<5.0	<500	<5.0	19	<5.0	<5.0	<5.0
	5/17/2005	330	<5.0	<50	<0.50	12	<0.50	<0.50	<0.50
	7/27/2005	580	140	<500	<5.0	16	<5.0	<5.0	<5.0
	12/6/2005	780	61	<250	<0.50	15	<0.50	<0.50	<0.50
	2/21/2006	340	<10	<250	<0.50	18	<0.50	<0.50	<0.50
	6/8/2006	440	<100	<2,500	<5.0	14	<5.0	<5.0	<5.0
	9/15/2006	570	<100	<2,500	<5.0	17	<5.0	<5.0	<5.0
	12/14/2006	770	27	<250	<0.50	20	<0.50	<0.50	<0.50
	3/28/2007	460	260	<250	<0.50	23	<0.50	<0.50	<0.50
	6/25/2007	1.2	<10	<250	<0.50	23	<0.50	<0.50	<0.50
9/22/2007	530	<10	<250	<0.50	35	<0.50	<0.50	<0.50	
12/14/2007	930	48	<250	<0.50	24	<0.50	<0.50	<0.50	
3/17/2008	630	<100	<2,500	<5.0	18	<5.0	<5.0	<5.0	
6/20/2008	1,200	<10	<250	<0.50	16	<0.50	<0.50	<0.50	

Table 4
Historical Groundwater Analytical Results - Oxygenate Compounds
Unocal No. 6129 (351639)
3420 35th Avenue
Oakland, California

WELL ID	DATE	MTBE (µg/L)	TBA (µg/L)	ETHANOL (µg/L)	DIPE (µg/L)	ETBE (µg/L)	TAME (µg/L)	EDB (µg/L)	EDC (µg/L)
MW-2 cont.	9/11/2008	29	<10	<250	<0.50	<0.50	<0.50	<0.50	<0.50
	11/25/2008	1,500	<10	<250	<0.50	19	<0.50	<0.50	<0.50
	3/9/2009	1,400	<100	<2,500	<5.0	15	<5.0	<5.0	<5.0
	5/28/2009	740	<10	<250	<0.50	20	<0.50	<0.50	<0.50
	12/11/2009	1,300	<100	<2,500	<5.0	19	<5.0	<5.0	<5.0
	5/7/2010	940	<20	<500	<1.0	14	<1.0	<1.0	<1.0
	11/1/2010	730	<10	<250	<0.50	28	<0.50	<0.50	<0.50
	5/27/2011	1,100	210.00	<250	<0.50	<0.50	<0.50	<0.50	<0.50
	11/23/2011	1,500	400.00	<250	<0.50	9.00	<0.50	<0.50	<0.50
	5/24/2012	1,200	430	<250	<0.50	8.8	<0.50	<0.50	<0.50
	10/23/2012	1,300	420	<250	<0.50	14	<0.50	<0.50	<0.50
	5/2/2013	460	<10	<250	6.2	<0.50	<0.50	<0.50	<0.50
	11/13/2013	1,300	<10	<250	17	<0.50	<0.50	<0.50	<0.50
	5/12/2014	510¹	44	<250	12	<0.50	<0.50	<0.50	<0.50
MW-3	1/5/1990	--	--	--	--	--	--	--	--
	5/11/1990	--	--	--	--	--	--	--	--
	8/9/1990	--	--	--	--	--	--	--	--
	11/14/1990	--	--	--	--	--	--	--	--
	2/12/1991	--	--	--	--	--	--	--	--
	5/9/1991	--	--	--	--	--	--	--	--
	11/13/2003	3,700	<4,000	<20,000	<80	<80	<80	<80	<80
	8/27/2004	2,600	<100	<1,000	<10	<20	<10	<10	<10
	11/23/2004	1,800	<100	<1,000	<10	<20	<10	<10	<10
	2/9/2005	2,100	130	<1,000	<10	<10	<10	<10	<10
	5/17/2005	1,200	<100	<1,000	<10	<10	<10	<10	<10
	7/27/2005	1,400	360	<1,000	<10	<10	<10	<10	<10
	12/6/2005	1,800	160	<250	<0.50	<0.50	<0.50	<0.50	<0.50
	2/21/2006	1,100	88	<250	<0.50	<0.50	0.58	<0.50	<0.50
6/8/2006	1,000	<250	<6,200	<12	<12	<12	<12	<12	
9/15/2006	1,200	<250	<6,200	<12	<12	<12	<12	<12	

Table 4
Historical Groundwater Analytical Results - Oxygenate Compounds
Unocal No. 6129 (351639)
3420 35th Avenue
Oakland, California

WELL ID	DATE	MTBE (µg/L)	TBA (µg/L)	ETHANOL (µg/L)	DIPE (µg/L)	ETBE (µg/L)	TAME (µg/L)	EDB (µg/L)	EDC (µg/L)
MW-3 cont.	12/14/2006	1,300	<200	<5,000	<10	<10	<10	<10	<10
	3/28/2007	860	500	<500	<1.0	<1.0	<1.0	<1.0	<1.0
	6/25/2007	570	11	<250	<0.50	<0.50	<0.50	<0.50	0.65
	9/22/2007	980	<10	<250	<0.50	<0.50	<0.50	<0.50	<0.50
	12/14/2007	570	26	<250	<0.50	<0.50	<0.50	<0.50	<0.50
	3/17/2008	520	<10	<250	<0.50	<0.50	<0.50	<0.50	0.65
	6/20/2008	1,300	49	<250	<0.50	<0.50	<0.50	<0.50	<0.50
	9/11/2008	1,200	<100	<2,500	<5.0	<5.0	<5.0	<5.0	<5.0
	11/25/2008	870	<10	<250	<0.50	<0.50	<0.50	<0.50	<0.50
	3/9/2009	720	15	<250	<0.50	<0.50	<0.50	<0.50	<0.50
	5/28/2009	750	<10	<250	<0.50	<0.50	<0.50	<0.50	<0.50
	12/11/2009	620	63	<250	<0.50	<0.50	<0.50	<0.50	<0.50
	5/7/2010	660	<10	<250	<0.50	<0.50	<0.50	<0.50	<0.50
	11/1/2010	490	<10	<250	<0.50	<0.50	<0.50	<0.50	<0.50
	5/27/2011	890	73	<250	<0.50	<0.50	<0.50	<0.50	<0.50
	5/24/2012	1,100	300	<250	<0.50	<0.50	<0.50	<0.50	<0.50
	10/23/2012	500	160	<250	<0.50	<0.50	<0.50	<0.50	<0.50
	5/2/2013	220	<10	<250	<0.50	<0.50	<0.50	<0.50	<0.50
	11/13/2013	100	<10	<250	<0.50	<0.50	<0.50	<0.50	<0.50
5/12/2014	160 ¹	<10	<250	<0.50	<0.50	<0.50	<0.50	<0.50	

NOTES:

Oxygenate compounds analyzed by Environmental Protection Agency Method 8260B

<# = Analyte not detected at or above indicated laboratory practical quantitation limit

ID = Identification

-- = Not available/Not Analyzed

µg/L = Micrograms per liter

MTBE = Methyl t-butyl ether

TBA = T-butyl alcohol

DIPE = Diisopropyl ether

ETBE = Ethyl t-butyl ether

TAME = T-amyl methyl ether

EDB = 1,2-Dibromoethane

EDC = 1,2-Dichloroethane

¹ = PQLs and MDLs are raised due to sample dilution.

FIGURES

Path: P:\ENV\01231-Chevron\76Products_transfer_sites\351639_6129_Oakland\7.0 Deliverables\7.2 CADD\GIS\Fig1_vicinity_map351639_GW_reports.mxd



Source: Esri, DigitalGlobe, GeoEye, i-cubed, USDA, USGS, AEX, Getmapping, Aerogrid, IGN, IGP, swisstopo, and the GIS User Community



AECOM
2020 L Street, Suite 400
Sacramento, CA 95811
916.414.5800

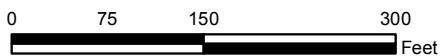
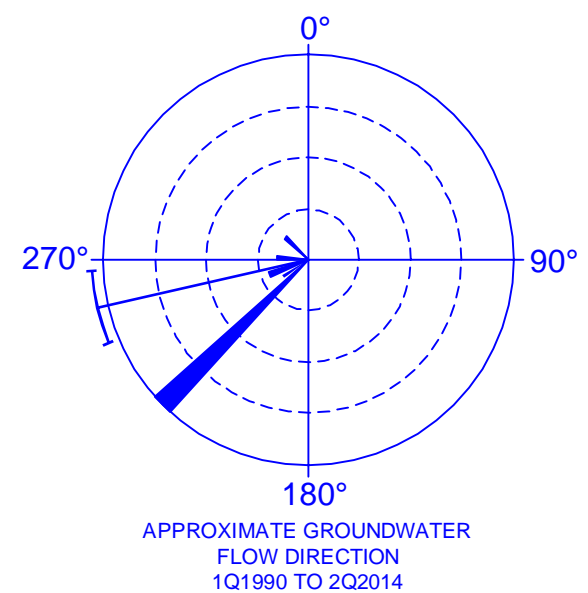
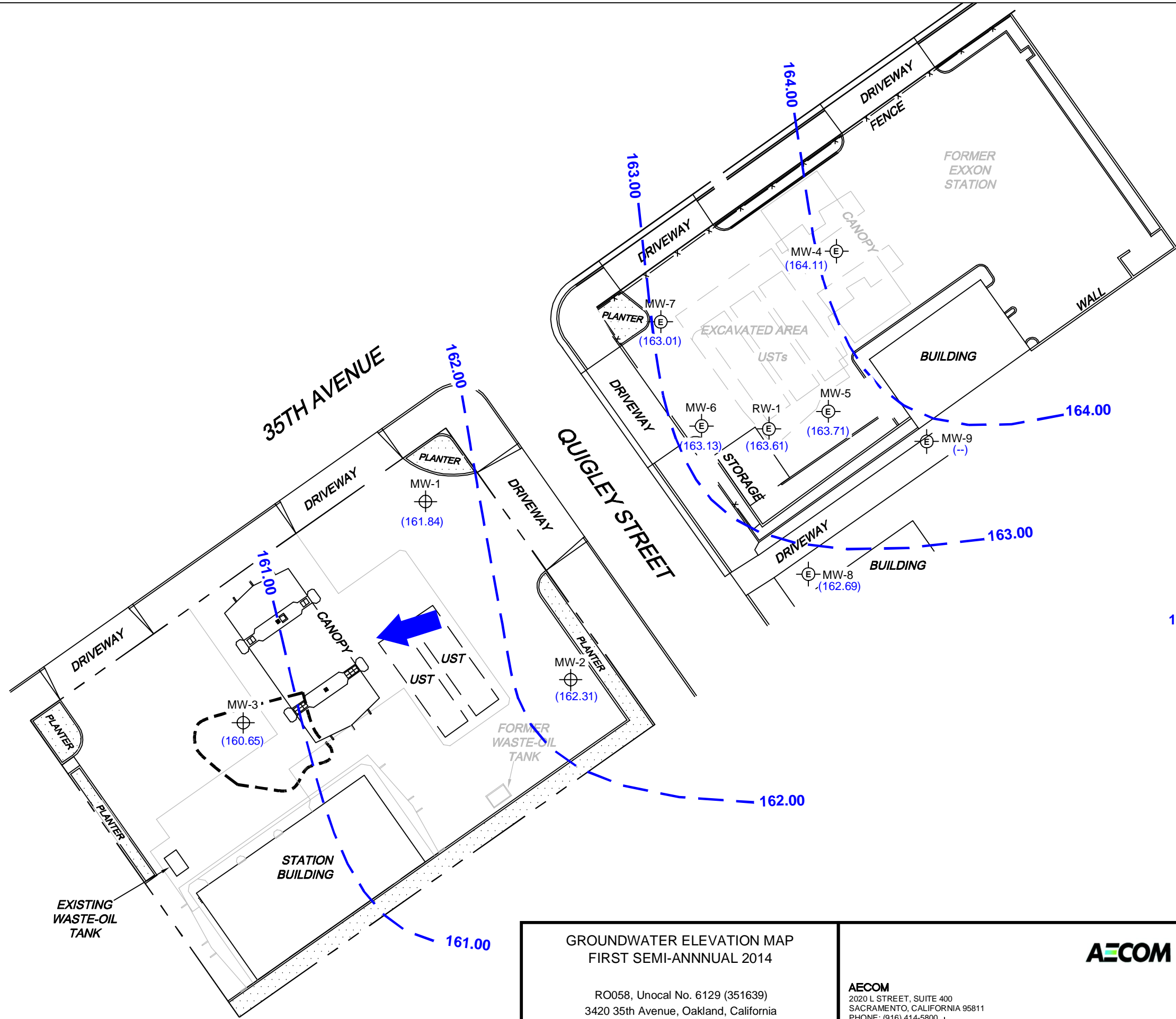


Figure 1: Site Location Map

RO058, UNOCAL NO. 6129 (351639)
3420 35th AVENUE
OAKLAND, CALIFORNIA

\uscript15001\prod\Projects\ENV\01231-Chevron\TBP\products_transfer_sheets\51600_0281_Sacramento\70\Deliberates\72_CADD\15A14



- LEGEND**
- MW-3 MONITORING WELL
 - MW-9 MONITORING WELL (FORMER EXXON PROPERTY)
 - 161.00 GROUNDWATER ELEVATION CONTOUR IN FEET ABOVE MEAN SEA LEVEL
 - GROUNDWATER FLOW DIRECTION
 - 1991 EXCAVATION BOUNDARY
 - SITE BOUNDARY
 - UST UNDERGROUND STORAGE TANK
 - (#) GROUNDWATER ELEVATION IN FEET ABOVE MEAN SEA LEVEL
 - (-) WELL INACCESSIBLE
- HYDRAULIC GRADIENT = 0.015 FEET PER FOOT



Base map created by Delta Consultants, Inc.

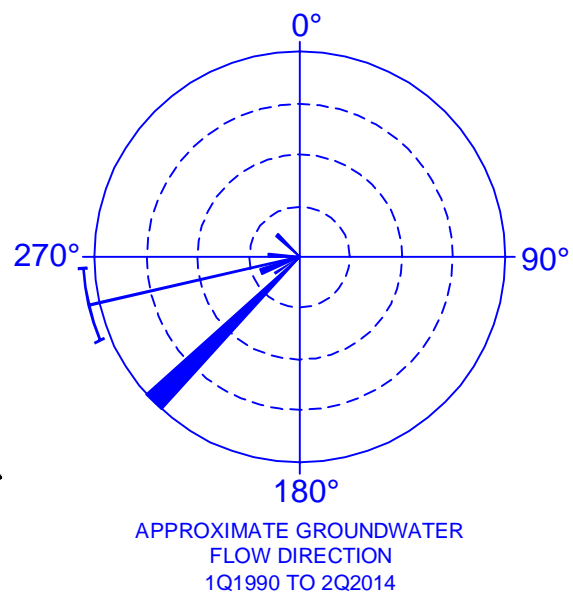
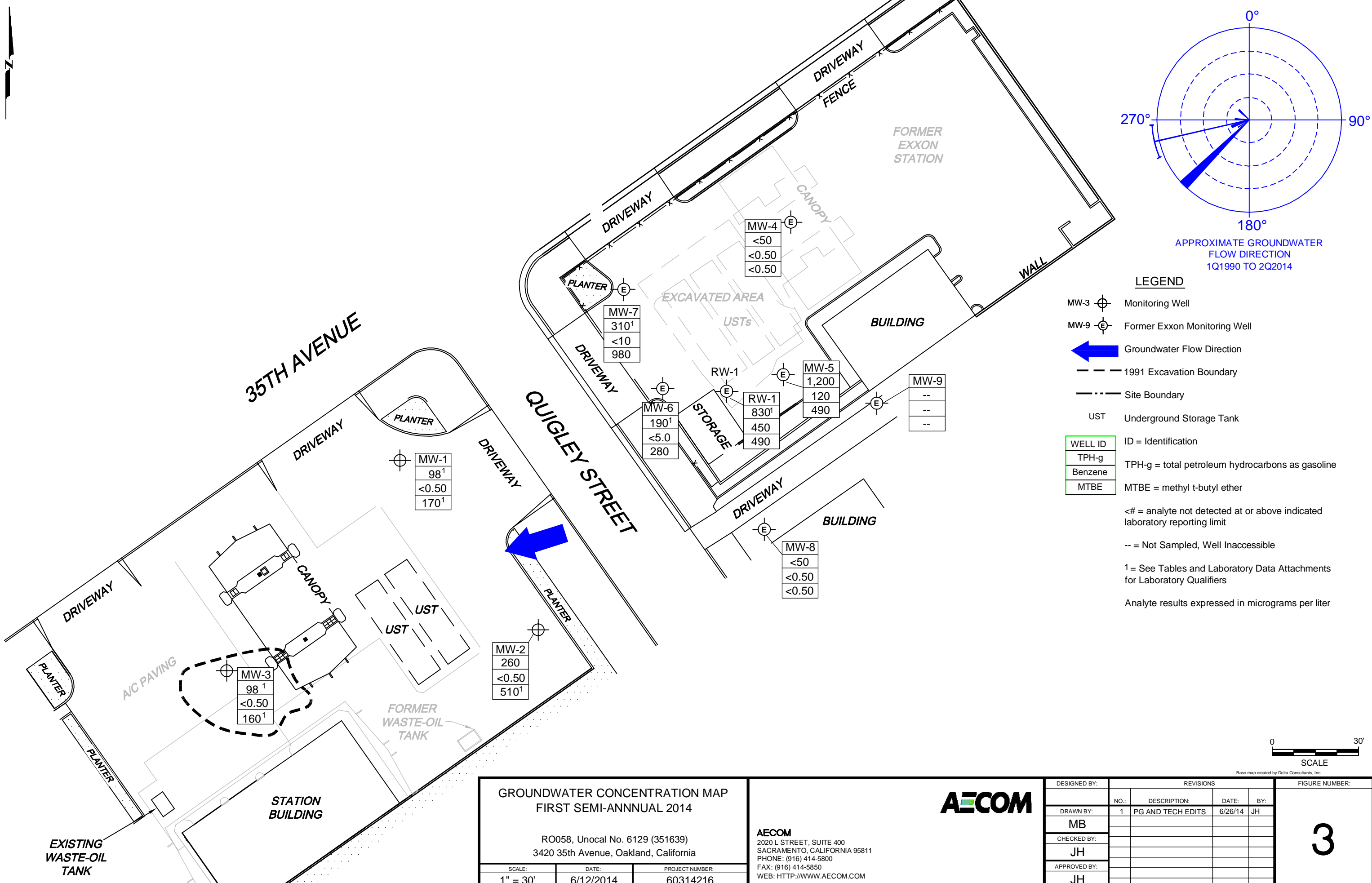
GROUNDWATER ELEVATION MAP FIRST SEMI-ANNUAL 2014		
RO058, Unocal No. 6129 (351639) 3420 35th Avenue, Oakland, California		
SCALE: 1" = 30'	DATE: 6/26/2014	PROJECT NUMBER: 60314216

AECOM

AECOM
 2020 L STREET, SUITE 400
 SACRAMENTO, CALIFORNIA 95811
 PHONE: (916) 414-5800
 FAX: (916) 414-5850
 WEB: HTTP://WWW.AECOM.COM

DESIGNED BY:	REVISIONS			FIGURE NUMBER:
	NO.:	DESCRIPTION:	DATE:	BY:
DRAWN BY:	1	PG AND TECH EDITS	6/26/14	JH
MB				
CHECKED BY:				
JH				
APPROVED BY:				
JH				

2



- LEGEND**
- MW-3 Monitoring Well
 - MW-9 Former Exxon Monitoring Well
 - Groundwater Flow Direction
 - 1991 Excavation Boundary
 - Site Boundary
 - UST Underground Storage Tank
- WELL ID**
- TPH-g TPH-g = total petroleum hydrocarbons as gasoline
 - Benzene Benzene
 - MTBE MTBE = methyl t-butyl ether
- <# = analyte not detected at or above indicated laboratory reporting limit
- = Not Sampled, Well Inaccessible
- 1 = See Tables and Laboratory Data Attachments for Laboratory Qualifiers
- Analyte results expressed in micrograms per liter



**GROUNDWATER CONCENTRATION MAP
FIRST SEMI-ANNUAL 2014**

RO058, Unocal No. 6129 (351639)
3420 35th Avenue, Oakland, California

SCALE: 1" = 30'	DATE: 6/12/2014	PROJECT NUMBER: 60314216
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AECOM
2020 L STREET, SUITE 400
SACRAMENTO, CALIFORNIA 95811
PHONE: (916) 414-5800
FAX: (916) 414-5850
WEB: HTTP://WWW.AECOM.COM

DESIGNED BY:	REVISIONS				FIGURE NUMBER: 3
DRAWN BY:	NO.:	DESCRIPTION:	DATE:	BY:	
MB	1	PG AND TECH EDITS	6/26/14	JH	
CHECKED BY:					
JH					
APPROVED BY:					
JH					

P:\01231-Chevron\176Products transfer sites\351639_6129_Oakland\7.0 Deliverables\7.2 CADD\15A13

ATTACHMENT A

**May 12, 2014, Groundwater Monitoring and
Sampling Field Data Sheets**



GETTLER-RYAN INC.



TRANSMITTAL

May 22, 2014
G-R #385640

TO: Mr. Jim Harms
AECOM
10461 Old Placerville Road #170
Sacramento, California 95827

FROM: Deanna L. Harding
Project Coordinator
Gettler-Ryan Inc.
6805 Sierra Court, Suite G
Dublin, California 94568

RE: **Chevron Facility**
#351639/6129
3420 35th Avenue
Oakland, California

WE HAVE ENCLOSED THE FOLLOWING:

COPIES	DESCRIPTION
VIA PDF	Groundwater Monitoring and Sampling Data Package First Semi-Annual Event of May 12, 2014

COMMENTS:

Pursuant to your request, we are providing you with copies of the above referenced data for your use.

Please provide us the updated historical data prior to the next monitoring and sampling event for our field use.

Please feel free to contact me if you have any comments/questions.

trans/351639 6129

STANDARD OPERATING PROCEDURE - GROUNDWATER SAMPLING

Gettler-Ryan Inc. (GR) field personnel adhere to the following procedures for the collection and handling of groundwater samples prior to analysis by the analytical laboratory. All work is performed in accordance with the GR Health & Safety Plan and all client-specific programs. The scope of work and type of analysis to be performed is determined prior to commencing field work.

Prior to sampling, the presence or absence of free-phase hydrocarbons is determined using an interface probe. Product thickness, if present, is measured to the nearest 0.01 foot and is noted in the field notes. In addition, all depth to water level measurements are collected with a static water level indicator and are also recorded in the field notes, prior to purging and sampling any wells.

After water levels are collected and prior to sampling, if purging is to occur, each well is purged a minimum of three well casing volumes of water using pre-cleaned pumps (stack, peristaltic or Grundfos), or disposable bailers. Temperature, pH and electrical conductivity are measured a minimum of three times during the purging (additional parameters such as dissolved oxygen, oxidation reduction potential, turbidity may also be measured, depending on specific scope of work.). Purging continues until these parameters stabilize.

Groundwater samples are collected using disposable bailers. The water samples are transferred from the bailer into appropriate containers. Pre-preserved containers, supplied by analytical laboratories, are used. When pre-preserved containers are not available, the laboratory is instructed to preserve the sample as appropriate. Duplicate samples are collected for the laboratory to use in maintaining quality assurance/quality control standards, as directed by the scope of work. The samples are labeled to include the job number, sample identification, collection date and time, analysis, preservation (if any), and the sample collector's initials. The water samples are placed in a cooler, maintained at 4°C for transport to the laboratory. Once collected in the field, all samples are maintained under chain of custody until delivered to the laboratory.

The chain of custody document includes the job number, type of preservation, if any, analysis requested, sample identification, date and time collected, and the sample collector's name. The chain of custody is signed and dated (including time of transfer) by each person who receives or surrenders the samples, beginning with the field personnel and ending with the laboratory personnel.

A laboratory supplied trip blank accompanies each sampling set. The trip blank is analyzed for some or all of the same compounds as the groundwater samples.

As requested by Chevron Environmental Management Company, the purge water and decontamination water generated during sampling activities is transported by Clean Harbors Environmental Services to Seaport Environmental located in Redwood City, California.



GETTLER-RYAN INC.

WELL MONITORING/SAMPLING FIELD DATA SHEET

Client/Facility#: Chevron #351639 / 6129
 Site Address: 3420 35Th Avenue
 City: Oakland, CA

Job Number: 385640
 Event Date: 5.12.14 (inclusive)
 Sampler: FT

Well ID: MW-1
 Well Diameter: 2 in.
 Total Depth: 43.44 ft.
 Depth to Water: 28.95 ft.
14.49 xVF .17 = 2.46

Date Monitored: 5.12.14

Volume	3/4"= 0.02	1"= 0.04	2"= 0.17	3"= 0.38
Factor (VF)	4"= 0.66	5"= 1.02	6"= 1.50	12"= 5.80

Check if water column is less than 0.50 ft.

Depth to Water w/ 80% Recharge [(Height of Water Column x 0.20) + DTW]: 31.84 gal.

Purge Equipment:
 Disposable Bailer
 Stainless Steel Bailer _____
 Stack Pump _____
 Peristaltic Pump _____
 QED Bladder Pump _____
 Other: _____

Sampling Equipment:
 Disposable Bailer
 Pressure Bailer _____
 Metal Filters _____
 Peristaltic Pump _____
 QED Bladder Pump _____
 Other: _____

Time Started:	_____ (2400 hrs)
Time Completed:	_____ (2400 hrs)
Depth to Product:	_____ ft
Depth to Water:	_____ ft
Hydrocarbon Thickness:	_____ ft
Visual Confirmation/Description:	_____
Skimmer / Absorbant Sock (circle one)	_____
Amt Removed from Skimmer:	_____ ltr
Amt Removed from Well:	_____ ltr
Water Removed:	_____ ltr

Start Time (purge): 1145
 Sample Time/Date: 1217 / 5.12.14
 Approx. Flow Rate: 1 gpm.
 Did well de-water? No If yes, Time: _____

Weather Conditions: SUNNY
 Water Color: CLEAR Odor: Y / (N)
 Sediment Description: NONE
 Volume: _____ gal. DTW @ Sampling: 31.75

Time (2400 hr.)	Volume (gal.)	pH	Conductivity (µS/mS / µmhos/cm)	Temperature (°C / F)	D.O. (mg/L)	ORP (mV)
<u>1151</u>	<u>2.5</u>	<u>7.81</u>	<u>762</u>	<u>20.3</u>	PRE: <u>2.1</u>	PRE: <u>139</u>
<u>1157</u>	<u>5.0</u>	<u>7.79</u>	<u>758</u>	<u>20.5</u>	<u>2.1</u>	<u>136</u>
<u>1202</u>	<u>7.0</u>	<u>7.75</u>	<u>753</u>	<u>20.7</u>	<u>2.2</u>	<u>133</u>
					<u>1.9</u>	<u>129</u>

LABORATORY INFORMATION

SAMPLE ID	(#) CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
<u>MW-1</u>	<u>3</u> x voa vial	<u>YES</u>	<u>HCL</u>	<u>BC LABS</u>	<u>TPH-GRO(8015)/BTEX+MTBE(8260)/8 OXYS(8260)</u>

COMMENTS: _____

Add/Replaced Gasket: _____ Add/Replaced Bolt: _____ Add/Replaced Lock: Add/Replaced Plug: (2")



GETTLER-RYAN INC.

WELL MONITORING/SAMPLING FIELD DATA SHEET

Client/Facility#: Chevron #351639 / 6129 Job Number: 385640
 Site Address: 3420 35Th Avenue Event Date: 5.12.14 (inclusive)
 City: Oakland, CA Sampler: FT

Well ID: MW-2 Date Monitored: 5.12.14
 Well Diameter: 2 in.
 Total Depth: 43.59 ft.
 Depth to Water: 28.49 ft. Check if water column is less than 0.50 ft.
15.10 xVF .17 = 2.56 x3 case volume = Estimated Purge Volume: 8.0 gal.
 Depth to Water w/ 80% Recharge [(Height of Water Column x 0.20) + DTW]: 31.51

Volume	3/4"= 0.02	1"= 0.04	2"= 0.17	3"= 0.38
Factor (VF)	4"= 0.66	5"= 1.02	6"= 1.50	12"= 5.80

Purge Equipment:
 Disposable Bailer
 Stainless Steel Bailer _____
 Stack Pump _____
 Peristaltic Pump _____
 QED Bladder Pump _____
 Other: _____

Sampling Equipment:
 Disposable Bailer
 Pressure Bailer _____
 Metal Filters _____
 Peristaltic Pump _____
 QED Bladder Pump _____
 Other: _____

Time Started: _____ (2400 hrs)
 Time Completed: _____ (2400 hrs)
 Depth to Product: _____ ft
 Depth to Water: _____ ft
 Hydrocarbon Thickness: _____ ft
 Visual Confirmation/Description: _____
 Skimmer / Absorbant Sock (circle one)
 Amt Removed from Skimmer: _____ ltr
 Amt Removed from Well: _____ ltr
 Water Removed: _____ ltr

Start Time (purge): 1232 Weather Conditions: SUNNY
 Sample Time/Date: 1306 / 5.12.14 Water Color: LT. BRN Odor: Y / 10
 Approx. Flow Rate: / gpm. Sediment Description: S-SILT
 Did well de-water? No If yes, Time: _____ Volume: _____ gal. DTW @ Sampling: 30.92

Time (2400 hr.)	Volume (gal.)	pH	Conductivity (US) mS μmhos/cm	Temperature (C / F)	D.O. (mg/L)	ORP (mV)
<u>1238</u>	<u>2.5</u>	<u>7.65</u>	<u>783</u>	<u>19.9</u>	<u>PRE: 1.9</u>	<u>PRE: 144</u>
<u>1244</u>	<u>5.0</u>	<u>7.62</u>	<u>778</u>	<u>20.1</u>	<u>1.9</u>	<u>139</u>
<u>1251</u>	<u>8.0</u>	<u>7.59</u>	<u>772</u>	<u>20.5</u>	<u>1.8</u>	<u>136</u>
					<u>1.7</u>	<u>132</u>

LABORATORY INFORMATION

SAMPLE ID	(#) CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
<u>MW-2</u>	<u>3</u> x vial	<u>YES</u>	<u>HCL</u>	<u>BC LABS</u>	<u>TPH-GRO(8015)/BTEX+MTBE(8260)/8 OXYS(8260)</u>

COMMENTS: EMCO 12" (1 BROKEN BOLT IN FLANGE)

Add/Replaced Gasket: _____ Add/Replaced Bolt: _____ Add/Replaced Lock: Add/Replaced Plug: (2")



GETTLER-RYAN INC.

WELL MONITORING/SAMPLING FIELD DATA SHEET

Client/Facility#: Chevron #351639 / 6129 Job Number: 385640
 Site Address: 3420 35Th Avenue Event Date: 5.12.14 (inclusive)
 City: Oakland, CA Sampler: FT

Well ID: MW-3 Date Monitored: 5-12-14
 Well Diameter: 2 in.
 Total Depth: 39.46 ft.
 Depth to Water: 27.93 ft. Check if water column is less than 0.50 ft.
11.53 xVF .17 = 1.96 x3 case volume = Estimated Purge Volume: 6.0 gal.
 Depth to Water w/ 80% Recharge [(Height of Water Column x 0.20) + DTW]: 30.23

Volume	3/4"= 0.02	1"= 0.04	2"= 0.17	3"= 0.38
Factor (VF)	4"= 0.66	5"= 1.02	6"= 1.50	12"= 5.80

Purge Equipment:

Disposable Bailer
 Stainless Steel Bailer _____
 Stack Pump _____
 Peristaltic Pump _____
 QED Bladder Pump _____
 Other: _____

Sampling Equipment:

Disposable Bailer
 Pressure Bailer _____
 Metal Filters _____
 Peristaltic Pump _____
 QED Bladder Pump _____
 Other: _____

Time Started: _____ (2400 hrs)
 Time Completed: _____ (2400 hrs)
 Depth to Product: _____ ft
 Depth to Water: _____ ft
 Hydrocarbon Thickness: _____ ft
 Visual Confirmation/Description: _____
 Skimmer / Absorbant Sock (circle one)
 Amt Removed from Skimmer: _____ ltr
 Amt Removed from Well: _____ ltr
 Water Removed: _____ ltr

Start Time (purge): 1100 Weather Conditions: SUNNY
 Sample Time/Date: 1130 / 5.12.14 Water Color: LT. BRN. Odor: Y / (N)
 Approx. Flow Rate: / gpm. Sediment Description: S. SILTY
 Did well de-water? NO If yes, Time: _____ Volume: _____ gal. DTW @ Sampling: 30.19

Time (2400 hr.)	Volume (gal.)	pH	Conductivity (US mS μmhos/cm)	Temperature (C / F)	D.O. (mg/L)	ORP (mV)
<u>1105</u>	<u>2.0</u>	<u>7.86</u>	<u>715</u>	<u>20.0</u>	PRE: <u>2.4</u>	PRE: <u>132</u>
<u>1110</u>	<u>4.0</u>	<u>7.83</u>	<u>709</u>	<u>20.2</u>	<u>2.4</u>	<u>129</u>
<u>1115</u>	<u>6.0</u>	<u>7.82</u>	<u>702</u>	<u>20.4</u>	<u>2.3</u>	<u>127</u>
					<u>2.2</u>	<u>123</u>

LABORATORY INFORMATION

SAMPLE ID	(#) CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
<u>MW-3</u>	<u>3</u> x voa vial	<u>YES</u>	<u>HCL</u>	<u>BC LABS</u>	<u>TPH-GRO(8015)/BTEX+MTBE(8260)/8 OXYS(8260)</u>

COMMENTS:

Add/Replaced Gasket: _____ Add/Replaced Bolt: _____ Add/Replaced Lock: Add/Replaced Plug: (2")

ATTACHMENT B

BC Labs Analytical Report #1410721



Date of Report: 05/22/2014

Jim Harms

AECOM

2020 L St, Suite 400
Sacramento, CA 95811

Client Project: 351639
BCL Project: 6129
BCL Work Order: 1410721
Invoice ID: B173868

Enclosed are the results of analyses for samples received by the laboratory on 5/13/2014. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Contact Person: Molly Meyers
Client Service Rep

Authorized Signature

Certifications: CA ELAP #1186; NV #CA00014; AK UST101

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BC LABORATORIES INC. COOLER RECEIPT FORM Rev. No. 15 07/01/13 Page 1 Of 1

Submission #: (A-1072)

SHIPPING INFORMATION Federal Express <input type="checkbox"/> UPS <input type="checkbox"/> Hand Delivery <input type="checkbox"/> BC Lab Field Service <input checked="" type="checkbox"/> Other <input type="checkbox"/> (Specify) _____		SHIPPING CONTAINER Ice Chest <input checked="" type="checkbox"/> None <input type="checkbox"/> Box <input type="checkbox"/> Other <input type="checkbox"/> (Specify) _____	FREE LIQUID YES <input type="checkbox"/> NO <input type="checkbox"/>
Refrigerant: Ice <input checked="" type="checkbox"/> Blue Ice <input type="checkbox"/> None <input type="checkbox"/> Other <input type="checkbox"/> Comments: _____			
Custody Seals: Ice Chest <input type="checkbox"/> Containers <input type="checkbox"/> None <input checked="" type="checkbox"/> Comments: _____ <small>Intact? Yes <input type="checkbox"/> No <input type="checkbox"/></small>			
All samples received? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> All samples containers intact? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Description(s) match COC? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>			
COC Received <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO	Emissivity: <u>0.97</u> Container: <u>Glass Vial</u> Thermometer ID: <u>207</u> Temperature: (A) <u>4.1</u> °C / (C) <u>3.9</u> °C	Date/Time <u>5/13/14</u> Analyst Init <u>ZISO NWI</u>	

SAMPLE CONTAINERS	SAMPLE NUMBERS									
	1	2	3	4	5	6	7	8	9	10
QT GENERAL MINERAL/GENERAL										
PT PE UNPRESERVED										
QT INORGANIC CHEMICAL METALS										
PT INORGANIC CHEMICAL METALS										
PT CYANIDE										
PT NITROGEN FORMS										
PT TOTAL SULFIDE										
2oz. NITRATE / NITRITE										
PT TOTAL ORGANIC CARBON										
PT TOX										
PT CHEMICAL OXYGEN DEMAND										
PIA PHENOLICS										
40ml VOA VIAL TRAVEL BLANK	A 2									
40ml VOA VIAL	()	A 3	A 3	A 3	()	()	()	()	()	()
QT EPA 413.1, 413.2, 418.1										
PT ODOR										
RADIOLOGICAL										
BACTERIOLOGICAL										
40 ml VOA VIAL- 504										
QT EPA 508/608/8080										
QT EPA 515.1/8150										
QT EPA 525										
QT EPA 525 TRAVEL BLANK										
100ml EPA 547										
100ml EPA 531.1										
QT EPA 548										
QT EPA 549										
QT EPA 632										
QT EPA 8015M										
QT AMBER										
8 OZ. JAR										
32 OZ. JAR										
SOIL SLEEVE										
PCB VIAL										
PLASTIC BAG										
FERROUS IRON										
ENCORE										
SMART KIT										
Summa Canister										

Comments: _____
 Sample Numbering Completed By: M Date/Time: 5/13/14 09:55



AECOM
2020 L St, Suite 400
Sacramento, CA 95811

Reported: 05/22/2014 16:35
Project: 6129
Project Number: 351639
Project Manager: Jim Harms

Laboratory / Client Sample Cross Reference

Laboratory	Client Sample Information
------------	---------------------------

1410721-01	COC Number: --- Project Number: 6129 Sampling Location: --- Sampling Point: QA-W-140512 Sampled By: GRD	Receive Date: 05/13/2014 21:50 Sampling Date: 05/12/2014 00:00 Sample Depth: --- Lab Matrix: Water Sample Type: Blank Water Delivery Work Order: Global ID: T0600101465 Location ID (FieldPoint): QA Matrix: W Sample QC Type (SACode): CS Cooler ID:
-------------------	--	--

1410721-02	COC Number: --- Project Number: 6129 Sampling Location: --- Sampling Point: MW-1-W-140512 Sampled By: GRD	Receive Date: 05/13/2014 21:50 Sampling Date: 05/12/2014 12:17 Sample Depth: --- Lab Matrix: Water Sample Type: Water Delivery Work Order: Global ID: T0600101465 Location ID (FieldPoint): MW-1 Matrix: W Sample QC Type (SACode): CS Cooler ID:
-------------------	--	--

1410721-03	COC Number: --- Project Number: 6129 Sampling Location: --- Sampling Point: MW-2-W-140512 Sampled By: GRD	Receive Date: 05/13/2014 21:50 Sampling Date: 05/12/2014 13:06 Sample Depth: --- Lab Matrix: Water Sample Type: Water Delivery Work Order: Global ID: T0600101465 Location ID (FieldPoint): MW-2 Matrix: W Sample QC Type (SACode): CS Cooler ID:
-------------------	--	--

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2020 L St, Suite 400
Sacramento, CA 95811

Reported: 05/22/2014 16:35
Project: 6129
Project Number: 351639
Project Manager: Jim Harms

Laboratory / Client Sample Cross Reference

Laboratory	Client Sample Information
------------	---------------------------

1410721-04	COC Number:	---	Receive Date:	05/13/2014 21:50
	Project Number:	6129	Sampling Date:	05/12/2014 11:30
	Sampling Location:	---	Sample Depth:	---
	Sampling Point:	MW-3-W-140512	Lab Matrix:	Water
	Sampled By:	GRD	Sample Type:	Water
			Delivery Work Order:	
			Global ID:	T0600101465
			Location ID (FieldPoint):	MW-3
			Matrix:	W
			Sample QC Type (SACode):	CS
		Cooler ID:		

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2020 L St, Suite 400
Sacramento, CA 95811

Reported: 05/22/2014 16:35
Project: 6129
Project Number: 351639
Project Manager: Jim Harms

Volatile Organic Analysis (EPA Method 8260B)

BCL Sample ID: 1410721-01	Client Sample Name: 6129, QA-W-140512, 5/12/2014 12:00:00AM
----------------------------------	--

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Benzene	ND	ug/L	0.50		EPA-8260B	ND		1
1,2-Dibromoethane	ND	ug/L	0.50		EPA-8260B	ND		1
1,2-Dichloroethane	ND	ug/L	0.50		EPA-8260B	ND		1
Ethylbenzene	ND	ug/L	0.50		EPA-8260B	ND		1
Methyl t-butyl ether	ND	ug/L	0.50		EPA-8260B	ND		1
Toluene	ND	ug/L	0.50		EPA-8260B	ND		1
Total Xylenes	ND	ug/L	1.0		EPA-8260B	ND		1
t-Amyl Methyl ether	ND	ug/L	0.50		EPA-8260B	ND		1
t-Butyl alcohol	ND	ug/L	10		EPA-8260B	ND		1
Diisopropyl ether	ND	ug/L	0.50		EPA-8260B	ND		1
Ethanol	ND	ug/L	250		EPA-8260B	ND		1
Ethyl t-butyl ether	ND	ug/L	0.50		EPA-8260B	ND		1
Total Purgeable Petroleum Hydrocarbons	ND	ug/L	50		Luft-GC/MS	ND		1
1,2-Dichloroethane-d4 (Surrogate)	105	%	75 - 125 (LCL - UCL)		EPA-8260B			1
Toluene-d8 (Surrogate)	97.1	%	80 - 120 (LCL - UCL)		EPA-8260B			1
4-Bromofluorobenzene (Surrogate)	95.7	%	80 - 120 (LCL - UCL)		EPA-8260B			1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-8260B	05/19/14	05/19/14 10:03	JMS	MS-V10	1	BXE1400

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Sacramento, CA 95811

Reported: 05/22/2014 16:35
Project: 6129
Project Number: 351639
Project Manager: Jim Harms

Volatile Organic Analysis (EPA Method 8260B)

BCL Sample ID: 1410721-02	Client Sample Name: 6129, MW-1-W-140512, 5/12/2014 12:17:00PM
----------------------------------	--

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Benzene	ND	ug/L	0.50		EPA-8260B	ND		1
1,2-Dibromoethane	ND	ug/L	0.50		EPA-8260B	ND		1
1,2-Dichloroethane	ND	ug/L	0.50		EPA-8260B	ND		1
Ethylbenzene	ND	ug/L	0.50		EPA-8260B	ND		1
Methyl t-butyl ether	170	ug/L	2.5		EPA-8260B	ND	A01	2
Toluene	ND	ug/L	0.50		EPA-8260B	ND		1
Total Xylenes	ND	ug/L	1.0		EPA-8260B	ND		1
t-Amyl Methyl ether	ND	ug/L	0.50		EPA-8260B	ND		1
t-Butyl alcohol	ND	ug/L	10		EPA-8260B	ND		1
Diisopropyl ether	ND	ug/L	0.50		EPA-8260B	ND		1
Ethanol	ND	ug/L	250		EPA-8260B	ND		1
Ethyl t-butyl ether	ND	ug/L	0.50		EPA-8260B	ND		1
Total Purgeable Petroleum Hydrocarbons	98	ug/L	50		Luft-GC/MS	ND	A90	1
1,2-Dichloroethane-d4 (Surrogate)	100	%	75 - 125 (LCL - UCL)		EPA-8260B			1
1,2-Dichloroethane-d4 (Surrogate)	110	%	75 - 125 (LCL - UCL)		EPA-8260B			2
Toluene-d8 (Surrogate)	97.9	%	80 - 120 (LCL - UCL)		EPA-8260B			1
Toluene-d8 (Surrogate)	82.1	%	80 - 120 (LCL - UCL)		EPA-8260B			2
4-Bromofluorobenzene (Surrogate)	100	%	80 - 120 (LCL - UCL)		EPA-8260B			1
4-Bromofluorobenzene (Surrogate)	92.7	%	80 - 120 (LCL - UCL)		EPA-8260B			2

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-8260B	05/19/14	05/20/14 06:35	JMS	MS-V10	1	BXE1682
2	EPA-8260B	05/19/14	05/20/14 17:09	JMS	MS-V10	5	BXE1682

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2020 L St, Suite 400
Sacramento, CA 95811

Reported: 05/22/2014 16:35
Project: 6129
Project Number: 351639
Project Manager: Jim Harms

Volatile Organic Analysis (EPA Method 8260B)

BCL Sample ID: 1410721-03	Client Sample Name: 6129, MW-2-W-140512, 5/12/2014 1:06:00PM
----------------------------------	---

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Benzene	ND	ug/L	0.50		EPA-8260B	ND		1
1,2-Dibromoethane	ND	ug/L	0.50		EPA-8260B	ND		1
1,2-Dichloroethane	ND	ug/L	0.50		EPA-8260B	ND		1
Ethylbenzene	ND	ug/L	0.50		EPA-8260B	ND		1
Methyl t-butyl ether	510	ug/L	5.0		EPA-8260B	ND	A01	2
Toluene	ND	ug/L	0.50		EPA-8260B	ND		1
Total Xylenes	ND	ug/L	1.0		EPA-8260B	ND		1
t-Amyl Methyl ether	ND	ug/L	0.50		EPA-8260B	ND		1
t-Butyl alcohol	44	ug/L	10		EPA-8260B	ND		1
Diisopropyl ether	12	ug/L	0.50		EPA-8260B	ND		1
Ethanol	ND	ug/L	250		EPA-8260B	ND		1
Ethyl t-butyl ether	ND	ug/L	0.50		EPA-8260B	ND		1
Total Purgeable Petroleum Hydrocarbons	260	ug/L	50		Luft-GC/MS	ND		1
1,2-Dichloroethane-d4 (Surrogate)	104	%	75 - 125 (LCL - UCL)		EPA-8260B			1
1,2-Dichloroethane-d4 (Surrogate)	110	%	75 - 125 (LCL - UCL)		EPA-8260B			2
Toluene-d8 (Surrogate)	95.8	%	80 - 120 (LCL - UCL)		EPA-8260B			1
Toluene-d8 (Surrogate)	93.9	%	80 - 120 (LCL - UCL)		EPA-8260B			2
4-Bromofluorobenzene (Surrogate)	98.4	%	80 - 120 (LCL - UCL)		EPA-8260B			1
4-Bromofluorobenzene (Surrogate)	94.8	%	80 - 120 (LCL - UCL)		EPA-8260B			2

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-8260B	05/19/14	05/20/14 07:36	JMS	MS-V10	1	BXE1682
2	EPA-8260B	05/19/14	05/21/14 06:24	JMS	MS-V10	10	BXE1682

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AECOM
2020 L St, Suite 400
Sacramento, CA 95811

Reported: 05/22/2014 16:35
Project: 6129
Project Number: 351639
Project Manager: Jim Harms

Volatile Organic Analysis (EPA Method 8260B)

BCL Sample ID: 1410721-04	Client Sample Name: 6129, MW-3-W-140512, 5/12/2014 11:30:00AM
----------------------------------	--

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Benzene	ND	ug/L	0.50		EPA-8260B	ND		1
1,2-Dibromoethane	ND	ug/L	0.50		EPA-8260B	ND		1
1,2-Dichloroethane	ND	ug/L	0.50		EPA-8260B	ND		1
Ethylbenzene	ND	ug/L	0.50		EPA-8260B	ND		1
Methyl t-butyl ether	160	ug/L	2.5		EPA-8260B	ND	A01	2
Toluene	ND	ug/L	0.50		EPA-8260B	ND		1
Total Xylenes	ND	ug/L	1.0		EPA-8260B	ND		1
t-Amyl Methyl ether	ND	ug/L	0.50		EPA-8260B	ND		1
t-Butyl alcohol	ND	ug/L	10		EPA-8260B	ND		1
Diisopropyl ether	ND	ug/L	0.50		EPA-8260B	ND		1
Ethanol	ND	ug/L	250		EPA-8260B	ND		1
Ethyl t-butyl ether	ND	ug/L	0.50		EPA-8260B	ND		1
Total Purgeable Petroleum Hydrocarbons	98	ug/L	50		Luft-GC/MS	ND	A90	1
1,2-Dichloroethane-d4 (Surrogate)	102	%	75 - 125 (LCL - UCL)		EPA-8260B			1
1,2-Dichloroethane-d4 (Surrogate)	107	%	75 - 125 (LCL - UCL)		EPA-8260B			2
Toluene-d8 (Surrogate)	91.4	%	80 - 120 (LCL - UCL)		EPA-8260B			1
Toluene-d8 (Surrogate)	94.8	%	80 - 120 (LCL - UCL)		EPA-8260B			2
4-Bromofluorobenzene (Surrogate)	100	%	80 - 120 (LCL - UCL)		EPA-8260B			1
4-Bromofluorobenzene (Surrogate)	104	%	80 - 120 (LCL - UCL)		EPA-8260B			2

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-8260B	05/19/14	05/20/14 06:16	JMS	MS-V10	1	BXE1682
2	EPA-8260B	05/19/14	05/20/14 17:47	JMS	MS-V10	5	BXE1682

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AECOM
2020 L St, Suite 400
Sacramento, CA 95811

Reported: 05/22/2014 16:35
Project: 6129
Project Number: 351639
Project Manager: Jim Harms

Volatile Organic Analysis (EPA Method 8260B)

Quality Control Report - Method Blank Analysis

Table with 7 columns: Constituent, QC Sample ID, MB Result, Units, PQL, MDL, Lab Quals

QC Batch ID: BXE1400

Main data table for QC Batch BXE1400 listing various compounds and their results.

QC Batch ID: BXE1682

Main data table for QC Batch BXE1682 listing various compounds and their results.

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

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2020 L St, Suite 400
Sacramento, CA 95811

Reported: 05/22/2014 16:35
Project: 6129
Project Number: 351639
Project Manager: Jim Harms

Volatile Organic Analysis (EPA Method 8260B)

Quality Control Report - Laboratory Control Sample

Constituent	QC Sample ID	Type	Result	Spike Level	Units	Percent Recovery	RPD	Control Limits		Lab Quals
								Percent Recovery	RPD	
QC Batch ID: BXE1400										
Benzene	BXE1400-BS1	LCS	23.570	25.000	ug/L	94.3		70 - 130		
Toluene	BXE1400-BS1	LCS	24.490	25.000	ug/L	98.0		70 - 130		
1,2-Dichloroethane-d4 (Surrogate)	BXE1400-BS1	LCS	10.190	10.000	ug/L	102		75 - 125		
Toluene-d8 (Surrogate)	BXE1400-BS1	LCS	9.7500	10.000	ug/L	97.5		80 - 120		
4-Bromofluorobenzene (Surrogate)	BXE1400-BS1	LCS	10.780	10.000	ug/L	108		80 - 120		
QC Batch ID: BXE1682										
Benzene	BXE1682-BS1	LCS	24.860	25.000	ug/L	99.4		70 - 130		
Toluene	BXE1682-BS1	LCS	26.240	25.000	ug/L	105		70 - 130		
1,2-Dichloroethane-d4 (Surrogate)	BXE1682-BS1	LCS	10.370	10.000	ug/L	104		75 - 125		
Toluene-d8 (Surrogate)	BXE1682-BS1	LCS	10.020	10.000	ug/L	100		80 - 120		
4-Bromofluorobenzene (Surrogate)	BXE1682-BS1	LCS	10.440	10.000	ug/L	104		80 - 120		

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AECOM
2020 L St, Suite 400
Sacramento, CA 95811

Reported: 05/22/2014 16:35
Project: 6129
Project Number: 351639
Project Manager: Jim Harms

Volatile Organic Analysis (EPA Method 8260B)

Quality Control Report - Precision & Accuracy

Constituent	Type	Source Sample ID	Source Result	Result	Spike Added	Units	RPD	Percent Recovery		Lab	
								RPD	Percent Recovery		
QC Batch ID: BXE1400		Used client sample: N									
Benzene	MS	1407468-78	ND	25.970	25.000	ug/L		104		70 - 130	
	MSD	1407468-78	ND	26.550	25.000	ug/L	2.2	106	20	70 - 130	
Toluene	MS	1407468-78	ND	26.330	25.000	ug/L		105		70 - 130	
	MSD	1407468-78	ND	28.220	25.000	ug/L	6.9	113	20	70 - 130	
1,2-Dichloroethane-d4 (Surrogate)	MS	1407468-78	ND	10.080	10.000	ug/L		101		75 - 125	
	MSD	1407468-78	ND	10.150	10.000	ug/L	0.7	102		75 - 125	
Toluene-d8 (Surrogate)	MS	1407468-78	ND	9.4500	10.000	ug/L		94.5		80 - 120	
	MSD	1407468-78	ND	10.050	10.000	ug/L	6.2	100		80 - 120	
4-Bromofluorobenzene (Surrogate)	MS	1407468-78	ND	10.460	10.000	ug/L		105		80 - 120	
	MSD	1407468-78	ND	10.490	10.000	ug/L	0.3	105		80 - 120	
QC Batch ID: BXE1682		Used client sample: N									
Benzene	MS	1407468-80	ND	23.610	25.000	ug/L		94.4		70 - 130	
	MSD	1407468-80	ND	27.300	25.000	ug/L	14.5	109	20	70 - 130	
Toluene	MS	1407468-80	ND	25.770	25.000	ug/L		103		70 - 130	
	MSD	1407468-80	ND	28.870	25.000	ug/L	11.3	115	20	70 - 130	
1,2-Dichloroethane-d4 (Surrogate)	MS	1407468-80	ND	10.190	10.000	ug/L		102		75 - 125	
	MSD	1407468-80	ND	10.410	10.000	ug/L	2.1	104		75 - 125	
Toluene-d8 (Surrogate)	MS	1407468-80	ND	9.9900	10.000	ug/L		99.9		80 - 120	
	MSD	1407468-80	ND	9.7900	10.000	ug/L	2.0	97.9		80 - 120	
4-Bromofluorobenzene (Surrogate)	MS	1407468-80	ND	9.9000	10.000	ug/L		99.0		80 - 120	
	MSD	1407468-80	ND	10.140	10.000	ug/L	2.4	101		80 - 120	

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Reported: 05/22/2014 16:35
Project: 6129
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Notes And Definitions

- MDL Method Detection Limit
- ND Analyte Not Detected at or above the reporting limit
- PQL Practical Quantitation Limit
- RPD Relative Percent Difference
- A01 PQL's and MDL's are raised due to sample dilution.
- A90 TPPH does not exhibit a "gasoline" pattern. TPPH is entirely due to MTBE.

ATTACHMENT C

Former Exxon Service Station Data Tables

TABLE 1 WELL CONSTRUCTION DETAILS,
FORMER EXXON SERVICE STATION 70234,
3450 35TH AVENUE, OAKLAND, CALIFORNIA

Well Number	Date Installed	Date Destroyed	Elevation TOC (feet)	Borehole Diameter (inches)	Total Depth of Boring (feet bgs)	Well Depth (feet bgs)	Casing Diameter (inches)	Casing Material	Screened Interval (feet bgs)	Slot Size (inches)	Filter Pack Interval (feet bgs)	Filter Pack Material
MW1	07/15/92	06/00	192.00	11	45	45	4	Sch. 40 PVC	25-45	0.010	23-45	2/12 Lonestar Sand
MW2	07/15/92	06/00	194.85	11	45	45	4	Sch. 40 PVC	25-45	0.010	23-45	2/12 Lonestar Sand
MW3	07/15/92	06/00	196.90	11	45	45	4	Sch. 40 PVC	25-45	0.010	23-45	2/12 Lonestar Sand
MW4	03/02/09	---	197.62	8	45	45	2	Sch. 40 PVC	35-45	0.020	33-45	#3 Sand
MW5	03/06/09	---	196.35	8	40	40	2	Sch. 40 PVC	30-40	0.020	28-40	#3 Sand
MW6	03/09/09	---	192.41	8	40	39	2	Sch. 40 PVC	29-39	0.020	27-39	#3 Sand
MW7	03/09/09	---	194.34	8	40	40	2	Sch. 40 PVC	30-40	0.020	28-40	#3 Sand
MW8	03/04/09	---	192.96	8	40	40	2	Sch. 40 PVC	30-40	0.020	28-40	#3 Sand
MW9	03/05/09	---	195.16	8	40	40	2	Sch. 40 PVC	30-40	0.020	28-40	#3 Sand
RW1	12/22/11	---	195.15	10	40	40	4	Stainless Steel	25-39.5	0.020	23-40	#2/12 Sand

TOC Top of well casing elevation; datum is mean sea level.
PVC Polyvinyl chloride.
feet bgs Feet below ground surface.
--- Not applicable.

Notes: Data prior to 2013 provided by Cardno ERI.

TABLE 2 CURRENT GROUNDWATER MONITORING DATA,
FORMER EXXON SERVICE STATION 70234,
3450 35TH AVENUE, OAKLAND, CALIFORNIA

Well Number	Date	Elevation TOC (feet)	Depth to Water (feet below TOC)	Groundwater Elevation (feet)	LPH Thickness (feet)	TPH-g (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Total Xylenes (µg/L)	MTBE 8260B (µg/l)
MW4	SCREEN INTERVAL (feet bgs) 35-45										
MW4	05/12/14	a	197.62	33.51	164.11	0.00	<50	<0.50	<0.50	<0.50	<0.50
MW5	SCREEN INTERVAL (feet bgs) 30-40										
MW5	05/12/14	a	196.35	32.64	163.71	0.00	1,200	120	<5.0	<5.0	490
MW6	SCREEN INTERVAL (feet bgs) 29-39										
MW6	05/12/14	a	192.41	29.28	163.13	0.00	190 HD	<5.0	<5.0	<5.0	280
MW7	SCREEN INTERVAL (feet bgs) 30-40										
MW7	05/12/14	a	194.34	31.33	163.01	0.00	310 HD	<10	<10	<10	980
MW8	SCREEN INTERVAL (feet bgs) 30-40										
MW8	05/12/14	a	192.96	30.27	162.69	0.00	<50	<0.50	<0.50	<0.50	<0.50
MW9	SCREEN INTERVAL (feet bgs) 30-40										
MW9	05/12/14	b	195.16	---	---	---	---	---	---	---	---
RW1	SCREEN INTERVAL (feet bgs) 29-39.5										
RW1	05/12/14	a	195.15	31.54	163.61	0.00	830 HD	450	<10	13	<10

TOC Top of casing. bgs Below ground surface.
LPH Liquid-phase hydrocarbons. µg/L Micrograms per liter.
TPH-g Total Petroleum Hydrocarbons as gasoline. --- Not sampled or not analyzed.
MTBE Methyl tertiary butyl ether. NA Not available.
NM Not measured. NC Not calculated.

a Well purged prior to sampling.
b Well inaccessible.
HD Chromat. profile inconsistent with the ref. fuel stnds.

Notes: Data prior to 1999 provided by EA Engineering, Science, and Technology. Data prior to 2013 provided by Cardno ERI.

TABLE 3 HISTORICAL GROUNDWATER MONITORING DATA,
FORMER EXXON SERVICE STATION 70234,
3450 35TH AVENUE, OAKLAND, CALIFORNIA

Well Number	Date	Elevation TOC (feet)	Depth to Water (feet below TOC)	Groundwater Elevation (feet)	LPH Thickness (feet)	TPH-g (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethyl-benzene (µg/L)	Total Xylenes (µg/L)	MTBE 8260B (µg/l)	Total Pb (µg/L)	Organic Pb (mg/L)
MW1	SCREEN INTERVAL (feet bgs) 25-45												
MW1	07/15/92	---	Well installed.										
MW1	07/17/92	192.00	33.02	158.98	0.00	67	6.6	6.9	2.0	4.5	---	17	---
MW1	10/22/92	192.00	34.07	157.93	0.00	<50	2.9	<0.5	<0.5	<0.5	---	16	---
MW1	02/04/93	192.00	29.43	162.57	0.00	<50	0.8	<0.5	<0.5	<0.5	---	4	---
MW1	05/03/93	192.00	29.72	162.28	0.00	71	2.8	7.2	2.2	22	---	40	---
MW1	07/30/93	192.00	32.95	159.05	0.00	<50	<0.5	<0.5	<0.5	<0.5	---	5	---
MW1	10/19/93	192.00	34.34	157.66	0.00	<50	<0.5	<0.5	<0.5	<0.5	---	12	---
MW1	02/23/94	192.00	31.72	160.28	0.00	<50	<0.5	<0.5	<0.5	<0.5	---	4	---
MW1	06/06/94	192.00	31.77	160.23	0.00	<50	<0.5	<0.5	<0.5	<0.5	---	<3	---
MW1	08/18/94	192.00	33.76	158.24	0.00	<50	<0.5	<0.5	<0.5	<0.5	---	130	---
MW1	11/15/94	192.00	34.08	157.92	0.00	<50	<0.5	<0.5	<0.5	<0.5	---	<3.0	<100
MW1	02/06/95	192.00	28.50	163.50	0.00	<50	<0.5	<0.5	<0.5	<0.5	---	---	---
MW1	05/10/95	192.00	29.30	162.70	0.00	<50	<0.5	<0.5	<0.5	<0.5	---	---	---
MW1	09/20/99	192.00	33.30	158.70	0.00	<50	<0.5	<0.5	<0.5	<0.5	<0.5	<75	<50
MW1	Well destroyed in June 2000.												
MW2	SCREEN INTERVAL (feet bgs) 25-45												
MW2	07/15/92	---	Well installed.										
MW2	07/17/92	194.85	34.65	160.20	0.00	<50	<0.5	<0.5	<0.5	<0.5	---	<3	---
MW2	10/22/92	194.85	35.64	159.21	0.00	<50	<0.5	<0.5	<0.5	<0.5	---	--	---
MW2	02/04/93	194.85	31.13	163.72	0.00	<50	<0.5	<0.5	<0.5	<0.5	---	<3	---
MW2	05/03/93	194.85	31.08	163.77	0.00	<50	<0.5	<0.5	<0.5	<0.5	---	3	---
MW2	07/30/93	194.85	34.34	160.51	0.00	<50	<0.5	<0.5	<0.5	<0.5	---	14	---
MW2	10/19/93	194.85	36.00	158.85	0.00	<50	<0.5	<0.5	<0.5	<0.5	---	<3	---
MW2	02/23/94	194.85	33.92	160.93	0.00	<50	<0.5	<0.5	<0.5	<0.5	---	<3	---
MW2	06/06/94	194.85	33.50	161.35	0.00	<50	<0.5	<0.5	<0.5	<0.5	---	<3	---
MW2	08/18/94	194.85	35.38	159.47	0.00	<50	<0.5	<0.5	<0.5	<0.5	---	<3.0	---
MW2	11/15/94	194.85	35.93	158.92	0.00	<50	<0.5	<0.5	<0.5	<0.5	---	<3.0	<100
MW2	02/06/95	194.85	30.38	164.47	0.00	<50	<0.5	<0.5	<0.5	<0.5	---	---	---
MW2	05/10/95	194.85	30.77	164.08	0.00	<50	<0.5	<0.5	<0.5	<0.5	---	---	---
MW2	09/20/99	194.85	35.15	159.70	0.00	<50	<0.5	<0.5	<0.5	<0.5	<0.5	<75	<0.5
MW2	Well destroyed in June 2000.												
MW3	SCREEN INTERVAL (feet bgs) 25-45												
MW3	07/15/92	---	Well installed.										
MW3	07/17/92	196.90	37.24	159.66	0.00	<50	<0.5	<0.5	<0.5	<0.5	---	50	---
MW3	10/22/92	196.90	35.95	160.95	0.00	<50	<0.5	<0.5	<0.5	<0.5	---	9	---
MW3	02/04/93	196.90	29.85	167.05	0.00	<50	<0.5	<0.5	<0.5	<0.5	---	<3	---
MW3	05/03/93	196.90	29.87	167.03	0.00	<50	<0.5	<0.5	<0.5	<0.5	---	3	---
MW3	07/30/93	196.90	33.85	163.05	0.00	<50	<0.5	<0.5	<0.5	<0.5	---	22	---
MW3	10/19/93	196.90	35.89	161.01	0.00	<50	<0.5	<0.5	<0.5	<0.5	---	12	---
MW3	02/23/94	196.90	32.88	164.02	0.00	<50	<0.5	<0.5	<0.5	<0.5	---	25	---

TABLE 3 HISTORICAL GROUNDWATER MONITORING DATA,
FORMER EXXON SERVICE STATION 70234,
3450 35TH AVENUE, OAKLAND, CALIFORNIA

Well Number	Date	Elevation TOC (feet)	Depth to Water (feet below TOC)	Groundwater Elevation (feet)	LPH Thickness (feet)	TPH-g (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethyl-benzene (µg/L)	Total Xylenes (µg/L)	MTBE 8260B (µg/l)	Total Pb (µg/L)	Organic Pb (mg/L)
MW3	06/06/94	196.90	32.40	164.50	0.00	<50	<0.5	<0.5	<0.5	<0.5	---	<3	---
MW3	08/18/94	196.90	35.07	161.83	0.00	<50	<0.5	<0.5	<0.5	<0.5	---	<3.0	---
MW3	11/15/94	196.90	35.97	160.93	0.00	<50	<0.5	<0.5	<0.5	<0.5	---	<3.0	<100
MW3	02/06/95	196.90	28.39	168.51	0.00	<50	<0.5	<0.5	<0.5	<0.5	---	---	---
MW3	05/10/95	196.90	28.90	168.00	0.00	<50	<0.5	<0.5	<0.5	<0.5	---	---	---
MW3	09/20/99	196.90	34.68	162.22	0.00	75.0	<0.5	11.5	1.8	18.0	1.87	<75	<0.5
MW3	Well destroyed in June 2000.												
MW4	SCREEN INTERVAL (feet bgs) 35-45												
MW4	03/02/09	---	Well installed.										
MW4	03/30/09	197.62	30.94	166.68	0.00	<50	<0.50	<0.50	<0.50	<0.50	<0.50	---	---
MW4	04/02/09	197.62	Well surveyed.										
MW4	05/28/09	197.62	32.00	165.62	0.00	<50	<0.50	<0.50	<0.50	<0.50	<0.50	---	---
MW4	08/31/09	197.62	35.43	162.19	0.00	<50	<0.50	<0.50	<0.50	<0.50	<0.50	---	---
MW4	12/11/09	197.62	35.01	162.61	0.00	<50	<0.50	0.83	<0.50	1.1	<0.50	---	---
MW4	05/07/10	197.62	29.11	168.51	0.00	<50	<0.50	<0.50	<0.50	<1.0	<0.50	---	---
MW4	11/01/10	197.62	34.95	162.67	0.00	<50	<0.50	<0.50	<0.50	<1.0	<0.50	---	---
MW4	05/27/11 d	197.62	30.65	166.97	0.00	---	---	---	---	---	---	---	---
MW4	11/23/11	197.62	33.49	164.13	0.00	<50	<0.50	<0.50	<0.50	<1.0	<0.50	---	---
MW4	05/24/12	197.62	30.02	167.60	0.00	58	0.84	4.4	0.64c	3.5	<0.50	---	---
MW4	10/31/12	197.62	35.14	162.48	0.00	110	5.3	45	4.2	21	<0.50	---	---
MW4	05/02/13 e	197.62	32.03	165.59	0.00	<50	<0.50	<0.50	<0.50	<0.50	<0.50	---	---
MW4	11/09/13	197.62	36.53	161.09	0.00	<50	<0.50	<0.50	<0.50	<0.50	<0.50	---	---
MW4	05/12/14 a	197.62	33.51	164.11	0.00	<50	<0.50	<0.50	<0.50	<0.50	<0.50	---	---
MW5	SCREEN INTERVAL (feet bgs) 30-40												
MW5	03/06/09	---	Well installed.										
MW5	03/30/09	196.35	30.05	166.30	0.00	4,200	540	140	<12	310	1,900	---	---
MW5	04/02/09	196.35	Well surveyed.										
MW5	05/28/09	196.35	31.45	164.90	0.00	5,300	890	150	<25	140	3,600	---	---
MW5	08/31/09	196.35	34.70	161.65	0.00	5,800	550	<100	<100	<100	3,500	---	---
MW5	12/11/09	196.35	34.52	161.83	0.00	4,000b	230	<100	<100	<100	3,800	---	---
MW5	05/07/10	196.35	30.84	165.51	0.00	2,700b	73	5.3	3.6	6.5	1,700	---	---
MW5	11/01/10	196.35	33.93	162.42	0.00	2,400b	320	71	21	40	3,400	---	---
MW5	05/27/11 d	196.35	31.65	164.70	0.00	---	---	---	---	---	---	---	---
MW5	11/23/11	196.35	32.58	163.77	0.00	1,900b	72	2.7	3.1	8.1	3,200	---	---
MW5	05/24/12	196.35	30.26	166.09	0.00	2,900b	54	31	5.2	17	1,700	---	---
MW5	10/31/12	196.35	33.94	162.41	0.00	2,200b	220	72	8.7	47	2,700	---	---
MW5	05/02/13 e	196.35	31.33	165.02	0.00	2,200b	61	<0.50	3.8	7.9	1,300	---	---
MW5	11/09/13	196.35	35.69	160.66	0.00	1,300b	120	<5.0	<5.0	8.8	370	---	---
MW5	05/12/14 a	196.35	32.64	163.71	0.00	1,200	120	<5.0	<5.0	<5.0	490	---	---
MW6	SCREEN INTERVAL (feet bgs) 29-39												

TABLE 3 HISTORICAL GROUNDWATER MONITORING DATA,
FORMER EXXON SERVICE STATION 70234,
3450 35TH AVENUE, OAKLAND, CALIFORNIA

Well Number	Date	Elevation TOC (feet)	Depth to Water (feet below TOC)	Groundwater Elevation (feet)	LPH Thickness (feet)	TPH-g (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethyl-benzene (µg/L)	Total Xylenes (µg/L)	MTBE 8260B (µg/l)	Total Pb (µg/L)	Organic Pb (mg/L)
MW6	03/09/09	---	Well installed.										
MW6	03/30/09	192.41	26.94	165.47	0.00	2,800	0.91	<0.50	<0.50	<0.50	4,800	---	---
MW6	04/02/09	192.41	Well surveyed.										
MW6	05/28/09	192.41	28.04	164.37	0.00	2,800	<100	<100	<100	<100	6,000	---	---
MW6	08/31/09	192.41	30.57	161.84	0.00	4,900	<100	<100	<100	<100	6,600	---	---
MW6	12/11/09	192.41	30.78	161.63	0.00	4,900b	<100	<100	<100	<100	6,200	---	---
MW6	05/07/10	192.41	25.42	166.99	0.00	2,900b	2.7	<0.50	0.74c	<1.0	3,700	---	---
MW6	11/01/10	192.41	30.68	161.73	0.00	850b	2.1	<0.50	<0.50	<1.0	6,100	---	---
MW6	05/27/11 d	192.41	27.07	165.34	0.00	---	---	---	---	---	---	---	---
MW6	11/23/11	192.41	29.25	163.16	0.00	1,600b	<0.50	<0.50	<0.50	<1.0	6,400	---	---
MW6	05/24/12	192.41	26.36	166.05	0.00	2,000b	1.3c	9.7	0.97c	5.5	3,400	---	---
MW6	10/31/12	192.41	30.74	161.67	0.00	1,400b	3.8	28	2.2	11	5,400	---	---
MW6	05/02/13	192.41	27.91	164.50	0.00	1,900b	<0.50	<0.50	<0.50	<0.50	2,600	---	---
MW6	11/09/13	192.41	32.15	160.26	0.00	3,600b	<40	<40	<40	<40	4,800	---	---
MW6	05/12/14 a	192.41	29.28	163.13	0.00	190 HD	<5.0	<5.0	<5.0	<5.0	280	---	---
MW7	SCREEN INTERVAL (feet bgs) 30-40												
MW7	03/09/09	---	Well installed.										
MW7	03/30/09	194.34	29.15	165.19	0.00	55	<0.50	<0.50	<0.50	<0.50	66	---	---
MW7	04/02/09	194.34	Well surveyed.										
MW7	05/28/09	194.34	30.16	164.18	0.00	50	<1.0	<1.0	<1.0	<1.0	67	---	---
MW7	08/31/09	194.34	33.31	161.03	0.00	<50	<0.50	0.60	<0.50	<0.50	12	---	---
MW7	12/11/09	194.34	32.71	161.63	0.00	<50	0.78	1.7	0.62	2.4	31	---	---
MW7	05/07/10	194.34	27.54	166.80	0.00	510b	<0.50	<0.50	<0.50	<1.0	700	---	---
MW7	11/01/10	194.34	32.82	161.52	0.00	68b	<0.50	<0.50	<0.50	<1.0	140	---	---
MW7	05/27/11 d	194.34	28.85	165.49	0.00	---	---	---	---	---	---	---	---
MW7	11/23/11	194.34	31.39	162.95	0.00	190b	<0.50	<0.50	<0.50	<1.0	300	---	---
MW7	05/24/12 d	194.34	28.31	166.03	0.00	---	---	---	---	---	---	---	---
MW7	10/31/12	194.34	32.86	161.48	0.00	230b	2.9	21	1.8	9.2	290	---	---
MW7	05/02/13	194.34	29.93	164.41	0.00	570b	<0.50	<0.50	<0.50	<0.50	790	---	---
MW7	11/09/13	194.34	34.23	160.11	0.00	370b	<10	<10	<10	<10	460	---	---
MW7	05/12/14 a	194.34	31.33	163.01	0.00	310 HD	<10	<10	<10	<10	980	---	---
MW8	SCREEN INTERVAL (feet bgs) 30-40												
MW8	03/04/09	---	Well installed.										
MW8	03/30/09	192.96	27.35	165.61	0.00	<50	<0.50	<0.50	<0.50	<0.50	<0.50	---	---
MW8	04/02/09	192.96	Well surveyed.										
MW8	05/28/09	192.96	28.72	164.24	0.00	<50	<0.50	<0.50	<0.50	<0.50	<0.50	---	---
MW8	08/31/09	192.96	31.93	161.03	0.00	<50	<0.50	<0.50	<0.50	<0.50	<0.50	---	---
MW8	12/11/09	192.96	31.24	161.72	0.00	<50	0.74	1.6	0.59	2.3	<0.50	---	---
MW8	05/07/10	192.96	25.68	167.28	0.00	<50	<0.50	<0.50	<0.50	<1.0	<0.50	---	---
MW8	11/01/10	192.96	31.18	161.78	0.00	<50	<0.50	<0.50	<0.50	<1.0	<0.50	---	---
MW8	05/27/11	192.96	27.55	165.41	0.00	<50	<0.50	<0.50	<0.50	<1.0	<0.50	---	---

TABLE 3 HISTORICAL GROUNDWATER MONITORING DATA,
FORMER EXXON SERVICE STATION 70234,
3450 35TH AVENUE, OAKLAND, CALIFORNIA

Well Number	Date	Elevation TOC (feet)	Depth to Water (feet below TOC)	Groundwater Elevation (feet)	LPH Thickness (feet)	TPH-g (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethyl-benzene (µg/L)	Total Xylenes (µg/L)	MTBE 8260B (µg/l)	Total Pb (µg/L)	Organic Pb (mg/L)
MW8	11/23/11	192.96	29.74	163.22	0.00	<50	<0.50	<0.50	<0.50	<1.0	<0.50	---	---
MW8	05/24/12	192.96	26.93	166.03	0.00	<50	<0.50	<0.50	<0.50	<1.0	<0.50	---	---
MW8	10/31/12	192.96	31.35	161.61	0.00	75	2.5	19	1.7	8.7	<0.50	---	---
MW8	05/02/13	192.96	28.44	164.52	0.00	<50	<0.50	<0.50	<0.50	<0.50	<0.50	---	---
MW8	11/09/13	192.96	32.89	160.07	0.00	<50	<0.50	<0.50	<0.50	<0.50	<0.50	---	---
MW8	05/12/14 a	192.96	30.27	162.69	0.00	<50	<0.50	<0.50	<0.50	<0.50	<0.50	---	---
MW9	SCREEN INTERVAL (feet bgs) 30-40												
MW9	03/05/09	---	Well installed.										
MW9	03/30/09	195.16	28.31	166.85	0.00	<50	<0.50	<0.50	<0.50	<0.50	<0.50	---	---
MW9	04/02/09	195.16	Well surveyed.										
MW9	05/28/09	195.16	29.69	165.47	0.00	<50	<0.50	<0.50	<0.50	<0.50	<0.50	---	---
MW9	08/31/09	195.16	33.20	161.96	0.00	<50	<0.50	<0.50	<0.50	<0.50	<0.50	---	---
MW9	12/11/09	195.16	32.62	162.54	0.00	<50	0.73	1.7	0.54	2.2	<0.50	---	---
MW9	05/07/10	195.16	26.59	168.57	0.00	<50	<0.50	<0.50	<0.50	<1.0	<0.50	---	---
MW9	11/01/10	195.16	32.45	162.71	0.00	<50	<0.50	<0.50	<0.50	<1.0	<0.50	---	---
MW9	05/27/11	195.16	29.62	165.54	0.00	<50	<0.50	<0.50	<0.50	<1.0	<0.50	---	---
MW9	11/23/11	195.16	30.56	164.60	0.00	<50	<0.50	<0.50	<0.50	<1.0	<0.50	---	---
MW9	05/24/12	195.16	27.94	167.22	0.00	<50	<0.50	<0.50	<0.50	<1.0	<0.50	---	---
MW9	10/31/12	195.16	32.66	162.50	0.00	140	6.9	38	2.7	13	<0.50	---	---
MW9	05/02/13	195.16	29.58	165.58	0.00	<50	<0.50	<0.50	<0.50	<0.50	<0.50	---	---
MW9	11/09/13	195.16	Well inaccessible.										
MW9	05/12/14 b	195.16	Well inaccessible.										
RW1	SCREEN INTERVAL (feet bgs) 29-39.5												
RW1	12/22/11	---	Well installed.										
RW1	12/30/11	195.15	Well surveyed.										
RW1	05/24/12	195.15	28.55	166.60	0.00	5,500b	920	5.9c	51	14	2,500	---	---
RW1	10/31/12 d	195.15	---	---	---	---	---	---	---	---	---	---	---
RW1	05/02/13 e	195.15	30.27	164.88	0.00	4,300b	1,200	<2.5	41	14	2,300	---	---
RW1	11/09/13	195.15	34.64	160.51	0.00	810b	210	<10	<10	<10	520	---	---
RW1	05/12/14 a	195.15	31.54	163.61	0.00	830 HD	450	<10	13	<10	490	---	---
Grab Groundwater Samples													
Pit Water	06/14/02	---	---	---	---	5,600	140	840	100	530	12,000	---	---
UST Pit	06/19/02	---	---	---	---	680	2.7	36	18	130	640	---	---
W-38-B11	11/14/07	---	---	---	---	<50	<0.50	<0.50	<0.50	<0.50	<0.50	---	---
W-15-B12	11/13/07	---	---	---	---	8,400	67	<5.0	140	150	78	---	---
W-40-B13	11/12/07	---	---	---	---	<50	<0.50	<0.50	<0.50	<0.50	0.53	---	---
W-15-B14	11/13/07	---	---	---	---	2,500	1.7	3.0	26	13	16	---	---
W-38-B15	11/15/07	---	---	---	---	18,000	3,400	2,500	330	2,000	12,000	---	---

TABLE 3 HISTORICAL GROUNDWATER MONITORING DATA,
FORMER EXXON SERVICE STATION 70234,
3450 35TH AVENUE, OAKLAND, CALIFORNIA

Well Number	Date	Elevation TOC (feet)	Depth to Water (feet below TOC)	Groundwater Elevation (feet)	LPH Thickness (feet)	TPH-g (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethyl-benzene (µg/L)	Total Xylenes (µg/L)	MTBE 8260B (µg/l)	Total Pb (µg/L)	Organic Pb (mg/L)
W-40-B16	11/15/07	---	---	---	---	<50	<0.50	<0.50	<0.50	<0.50	7.7	---	---
W-37-B17	11/13/07	---	---	---	---	630	1.8	<0.50	4.1	1.4	2,200	---	---
W-38-B18	11/12/07	---	---	---	---	4,300	52	<12	56	96	1,400	---	---
W-35-B19	03/03/09	---	---	---	---	4,400	<0.50	<0.50	<0.50	<1.0	7,100	---	---
W-35-B20	03/03/09	---	---	---	---	640	<0.50	<0.50	<0.50	<1.0	440	---	---
W-35-B21	03/03/09	---	---	---	---	<50	<0.50	<0.50	<0.50	<1.0	1.4	---	---

TOC	Top of casing.	bgs	Below ground surface.
LPH	Liquid-phase hydrocarbons.	µg/L	Micrograms per liter.
TPH-g	Total Petroleum Hydrocarbons as gasoline.	--	Not sampled or not analyzed.
MTBE	Methyl tertiary butyl ether.	NA	Not available.
NM	Not measured.	NC	Not calculated.

Total Pb Total lead analyzed using EPA Method 6010.

Organic Pb Organic lead analyzed using CA DHS LUFT method.

- a Approximate depth to groundwater surface at time of sampling.
- b Hydrocarbon pattern does not match that of the specified standard.
- c Analyte presence was not confirmed by second column or GC/MS analysis.
- d Well inaccessible.
- e Well sampled the following day.
- HD Chromat. profile inconsistent with the ref. fuel stnds.

Notes: Data prior to 1999 provided by EA Engineering, Science, and Technology. Data prior to 2013 provided by Cardno ERI.

TABLE 4 GROUNDWATER ANALYTICAL RESULTS FOR DETECTED VOCs,
FORMER EXXON SERVICE STATION 70234,
3450 35TH AVENUE, OAKLAND, CALIFORNIA

Well Number	Date	Depth (feet)	EDB (µg/L)	1,2-DCA (µg/L)	TAME (µg/L)	TBA (µg/L)	ETBE (µg/L)	DIPE (µg/L)	Ethanol (µg/L)	Naphthalene (µg/L)	
MW1	7/17/1992 - 09/20/1999		Not analyzed for these analytes.								
MW1	Well destroyed in June 2000.										
MW2	7/17/1992 - 09/20/1999		Not analyzed for these analytes.								
MW2	Well destroyed in June 2000.										
MW3	7/17/1992 - 09/20/1999		Not analyzed for these analytes.								
MW3	Well destroyed in June 2000.										
MW4	03/30/09	---	<0.50	<0.50	<0.50	<5.0	<0.50	<0.50	---	---	
MW4	05/28/09	---	<0.50	<0.50	<0.50	<5.0	<0.50	<0.50	---	---	
MW4	08/31/09	---	<0.50	<0.50	<0.50	<5.0	<0.50	<0.50	---	---	
MW4	12/11/09	---	<0.50	<0.50	<0.50	<5.0	<0.50	<0.50	---	---	
MW4	05/07/10	---	<0.50	<0.50	<0.50	<5.0	<0.50	<0.50	---	---	
MW4	11/01/10	---	<0.50	<0.50	<0.50	<5.0	<0.50	<0.50	---	---	
MW4	05/27/11	d	---	---	---	---	---	---	---	---	
MW4	11/23/11	---	<0.50	<0.50	<0.50	<5.0	<0.50	<0.50	---	---	
MW4	05/24/12	---	<0.50	<0.50	<0.50	<5.0	<0.50	<0.50	---	---	
MW4	10/31/12	---	<0.50	<0.50	<0.50	<5.0	<0.50	<0.50	---	---	
MW4	05/03/13	---	<0.50	<0.50	<0.50	<5.0	<0.50	<0.50	---	---	
MW4	11/09/13	---	<0.50	<0.50	<0.50	<10	<0.50	<0.50	---	---	
MW4	05/12/14	---	<0.50	<0.50	<0.50	<10	<0.50	<0.50	---	<10	
MW5	03/30/09	---	<12	17	<12	450	<12	<12	---	---	
MW5	05/28/09	---	<25	<25	<25	530	<25	<25	---	---	
MW5	08/31/09	---	<100	<100	<100	<1,000	<100	<100	---	---	
MW5	12/11/09	---	<100	<100	<100	2,000	<100	<100	---	---	
MW5	05/07/10	---	<25	<25	<25	400	<25	<25	---	---	
MW5	11/01/10	---	<50	<50	<50	1,500	<50	<50	---	---	
MW5	05/27/11	d	---	---	---	---	---	---	---	---	
MW5	11/23/11	---	<50	<50	<50	<500	<50	<50	---	---	
MW5	05/24/12	---	<50	<50	<50	1,400	<50	<50	---	---	
MW5	10/31/12	---	<50	<50	<50	730	<50	<50	---	---	
MW5	05/03/13	---	<20	<20	<20	590	<20	<20	---	---	
MW5	11/09/13	---	<5.0	<5.0	<5.0	1,100	<5.0	<5.0	---	---	
MW5	05/12/14	---	<5.0	<5.0	<5.0	1,000	<5.0	<5.0	---	<10	
MW6	03/30/09	---	<0.50	<0.50	1.3	410	<0.50	0.82	---	---	
MW6	05/28/09	---	<100	<100	<100	<1,000	<100	<100	---	---	
MW6	08/31/09	---	<100	<100	<100	1,100	<100	<100	---	---	
MW6	12/11/09	---	<100	<100	<100	2,600	<100	<100	---	---	
MW6	05/07/10	---	<100	<100	<100	<1,000	<100	<100	---	---	
MW6	11/01/10	---	<50	<50	<50	2,400	<50	<50	---	---	
MW6	05/27/11	d	---	---	---	---	---	---	---	---	
MW6	11/23/11	---	<100	<100	<100	<1,000	<100	<100	---	---	
MW6	05/24/12	---	<100	<100	<100	2,700	<100	<100	---	---	
MW6	10/31/12	---	<100	<100	<100	<1,000	<100	<100	---	---	
MW6	05/02/13	---	<40	<40	<40	570	<40	<40	---	---	
MW6	11/09/13	---	<40	<40	<40	2,100	<40	<40	---	---	
MW6	05/12/14	---	<5.0	<5.0	<5.0	1,700	<5.0	<5.0	---	<10	
MW7	03/30/09	---	<0.50	<0.50	<0.50	<5.0	<0.50	<0.50	---	---	

TABLE 4 GROUNDWATER ANALYTICAL RESULTS FOR DETECTED VOCs,
FORMER EXXON SERVICE STATION 70234,
3450 35TH AVENUE, OAKLAND, CALIFORNIA

Well Number	Date	Depth (feet)	EDB (µg/L)	1,2-DCA (µg/L)	TAME (µg/L)	TBA (µg/L)	ETBE (µg/L)	DIPE (µg/L)	Ethanol (µg/L)	Naphthalene (µg/L)
MW7	05/28/09	---	<1.0	<1.0	<1.0	<10	<1.0	<1.0	---	---
MW7	08/31/09	---	<0.50	<0.50	<0.50	<5.0	<0.50	<0.50	---	---
MW7	12/11/09	---	<0.50	<0.50	<0.50	12	<0.50	<0.50	---	---
MW7	05/07/10	---	<0.50	<0.50	<0.50	130	<0.50	<0.50	---	---
MW7	11/01/10	---	<2.5	<2.5	<2.5	27	<2.5	<2.5	---	---
MW7	05/27/11	d	---	---	---	---	---	---	---	---
MW7	11/23/11	---	<5.0	<5.0	<5.0	<50	<5.0	<5.0	---	---
MW7	05/24/12	d	---	---	---	---	---	---	---	---
MW7	10/31/12	---	<5.0	<5.0	<5.0	<50	<5.0	<5.0	---	---
MW7	05/02/13	---	<5.0	<5.0	<5.0	57	<5.0	<5.0	---	---
MW7	11/09/13	---	<10	<10	<10	<200	<10	<10	---	---
MW7	05/12/14	---	<10	<10	<10	<200	<10	<10	---	<20
MW8	03/30/09	---	<0.50	<0.50	<0.50	<5.0	<0.50	<0.50	---	---
MW8	05/28/09	---	<0.50	<0.50	<0.50	<5.0	<0.50	<0.50	---	---
MW8	08/31/09	---	<0.50	<0.50	<0.50	<5.0	<0.50	<0.50	---	---
MW8	12/11/09	---	<0.50	<0.50	<0.50	<5.0	<0.50	<0.50	---	---
MW8	05/07/10	---	<0.50	<0.50	<0.50	<5.0	<0.50	<0.50	---	---
MW8	11/01/10	---	<0.50	<0.50	<0.50	<5.0	<0.50	<0.50	---	---
MW8	05/27/11	---	<0.50	<0.50	<0.50	<5.0	<0.50	<0.50	---	---
MW8	11/23/11	---	<0.50	<0.50	<0.50	<5.0	<0.50	<0.50	---	---
MW8	05/24/12	---	<0.50	<0.50	<0.50	<5.0	<0.50	<0.50	---	---
MW8	10/31/12	---	<0.50	<0.50	<0.50	<5.0	<0.50	<0.50	---	---
MW8	05/02/13	---	<0.50	<0.50	<0.50	<5.0	<0.50	<0.50	---	---
MW8	11/09/13	---	<0.50	<0.50	<0.50	<10	<0.50	<0.50	---	---
MW8	05/12/14	---	<0.50	<0.50	<0.50	<10	<0.50	<0.50	---	<1.0
MW9	03/30/09	---	<0.50	<0.50	<0.50	<5.0	<0.50	<0.50	---	---
MW9	05/28/09	---	<0.50	<0.50	<0.50	<5.0	<0.50	<0.50	---	---
MW9	08/31/09	---	<0.50	<0.50	<0.50	<5.0	<0.50	<0.50	---	---
MW9	12/11/09	---	<0.50	<0.50	<0.50	<5.0	<0.50	<0.50	---	---
MW9	05/07/10	---	<0.50	<0.50	<0.50	<5.0	<0.50	<0.50	---	---
MW9	11/01/10	---	<0.50	<0.50	<0.50	<5.0	<0.50	<0.50	---	---
MW9	05/27/11	---	<0.50	<0.50	<0.50	<5.0	<0.50	<0.50	---	---
MW9	11/23/11	---	<0.50	<0.50	<0.50	<5.0	<0.50	<0.50	---	---
MW9	05/24/12	---	<0.50	<0.50	<0.50	<5.0	<0.50	<0.50	---	---
MW9	10/31/12	---	<0.50	<0.50	<0.50	<5.0	<0.50	<0.50	---	---
MW9	05/02/13	---	<0.50	<0.50	<0.50	<5.0	<0.50	<0.50	---	---
MW9	11/09/13	---	Well inaccessible.			<5.0	<0.50	<0.50	---	---
RW1	05/24/12	---	<50	<50	<50	1,900	<50	<50	---	---
RW1	10/31/12	d	---	---	---	---	---	---	---	---
RW1	05/03/13	---	<40	<40	<40	880	<40	<40	---	---
RW1	11/09/13	---	<10	<10	<10	1,100	<10	<10	---	---
RW1	05/12/14	---	<10	<10	<10	840	<10	<10	---	<20
Grab Groundwater Samples										
Pit Water	06/14/02	11.5a	---	---	---	---	---	---	---	---
UST Pit	06/19/02	13.5a	---	---	---	---	---	---	---	---
W-38-B11	11/14/07	38	<0.50	<0.50	<0.50	<10	<0.50	<0.50	<50	---

TABLE 4 GROUNDWATER ANALYTICAL RESULTS FOR DETECTED VOCs,
FORMER EXXON SERVICE STATION 70234,
3450 35TH AVENUE, OAKLAND, CALIFORNIA

Well Number	Date	Depth (feet)	EDB (µg/L)	1,2-DCA (µg/L)	TAME (µg/L)	TBA (µg/L)	ETBE (µg/L)	DIPE (µg/L)	Ethanol (µg/L)	Naphthalene (µg/L)
W-15-B12	11/13/07	15	<5.0	<5.0	<5.0	<100	<5.0	<5.0	<500	---
W-40-B13	11/12/07	40	<0.50	<0.50	<0.50	<10	<0.50	<0.50	<50	---
W-15-B14	11/13/07	15	<1.0	<1.0	<1.0	<20	<1.0	<1.0	<100	---
W-38-B15	11/15/07	38	<25	<25	<25	1,900	<25	<25	<2,500	---
W-40-B16	11/15/07	40	<0.50	<0.50	<0.50	<10	<0.50	<0.50	85	---
W-37-B17	11/13/07	37	<0.50	<0.50	<0.50	58	<0.50	<0.50	<50	---
W-38-B18	11/12/07	38	<12	<12	<12	<250	<12	<12	<1,200	---
W-35-B19	03/03/09	35	<50	<50	<50	<500	<50	<50	<5,000	---
W-35-B20	03/03/09	35	<0.50	<0.50	<0.50	12	<0.50	<0.50	<50	---
W-35-B21	03/03/09	35	<0.50	<0.50	<0.50	<5.0	<0.50	<0.50	<50	---

- EDB 1,2-Dibromoethane analyzed using EPA Method 8260B.
- 1,2-DCA 1,2-Dichloroethane analyzed using EPA Method 8260B.
- TBA Tertiary butyl alcohol analyzed using EPA Method 8260B.
- TAME Tertiary amyl methyl ether analyzed using EPA Method 8260B.
- ETBE Ethyl tertiary butyl ether analyzed using EPA Method 8260B.
- DIPE Di-isopropyl ether analyzed using EPA Method 8260B.
- Ethanol Ethanol analyzed using EPA Method 8260B.
- µg/L Micrograms per liter.
- Not sampled/Not analyzed/Not measured/Not applicable.
- a Approximate depth to groundwater surface at time of sampling.
- d Well inaccessible.

Notes: Data prior to 1999 provided by EA Engineering, Science, and Technology, data prior to 2013 provided by Cardno ERI.

TABLE 5 GROUNDWATER MONITORING PLAN,
FORMER EXXON SERVICE STATION 70234,
3450 35TH AVENUE, OAKLAND, CALIFORNIA

Well Number	Groundwater Gauging Frequency	Groundwater Sampling and Analysis Frequency			
		BTEX	TPH-g	MTBE	TBA
MW4	SA	SA	SA	SA	SA
MW5	SA	SA	SA	SA	SA
MW6	SA	SA	SA	SA	SA
MW7	SA	SA	SA	SA	SA
MW8	SA	SA	SA	SA	SA
MW9	SA	SA	SA	SA	SA
RW1	SA	SA	SA	SA	SA

Notes:

- BTEX Benzene, toluene, ethylbenzene, and xylenes.
- TPH-g Total Petroleum Hydrocarbons as gasoline.
- MTBE Methyl tertiary butyl ether.
- TBA Tertiary butyl alcohol.
- SA Semiannually (performed during the second and fourth quarters of each year).