Timothy L. Bishop
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October 29, 2013

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

Re: **Unocal No. 3538 (351642)**
411 West MacArthur Boulevard, Oakland, California
Fuel Leak Case No. RO0000251
GeoTracker Global ID # T0600101472

I have reviewed the attached report dated October 29, 2013.

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,

Tim Bishop
Project Manager

Attachment: Second Semi-Annual 2013 Groundwater Monitoring Report by AECOM

AECOM
10461 Old Placerville Road
Suite 170
Sacramento, CA 95827
www.aecom.com

916 361 6400 tel
916 361 6401 fax

October 29, 2013

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

Subject: **Second Semi-Annual 2013 Groundwater Monitoring Report**
Unocal No. 3538 (351642)
411 West MacArthur Boulevard, Oakland, California
Fuel Leak Case No. RO0000251
Geotracker Global ID # T0600101472

Dear Mr. Nowell,

On behalf of Chevron Environmental Management Company, for itself and as Attorney-in-Fact for Union Oil Company of California (hereinafter "EMC"), AECOM is pleased to present the second semi-annual 2013 groundwater monitoring report for the site located at 411 West MacArthur Boulevard Oakland, California (site) (**Figure 1**). The locations of former and current site features are illustrated on **Figure 2**. Semi-annual groundwater monitoring is intended to evaluate the distribution of petroleum hydrocarbon constituents in groundwater beneath the site. Groundwater sampling was performed by Gettler-Ryan Inc. of Dublin, California. This report summarizes sample results collected from the Site during the third quarter of 2013.

Groundwater Monitoring Field Data

The depth to groundwater was measured in six monitoring wells, MW-1 through MW-6 at the site on August 1, 2013. The resulting measurements were used to calculate groundwater elevations (**Table 1**). Temperature, pH, and electrical conductivity readings were collected during purging. Copies of the groundwater sampling/purge logs are included in **Attachment A**. The groundwater elevation data from well MW-6 was not used in contouring because of the anomalous measurement. The groundwater flow direction was calculated to flow to the south/southwest with an average hydraulic gradient of approximately 0.04 feet per foot (**Figure 2)**. The depth to groundwater ranged from 13.58 to 18.45 feet below the top of well casings, and groundwater elevation ranged from 53.38 to 57.79 feet above mean sea level.

Groundwater Sampling and Analytical Results

Groundwater samples were collected from monitoring wells MW-1 through MW-6 on August 1, 2013. Laboratory analyses were performed by BC Laboratories, Inc. (BC Labs) of Bakersfield, California. The BC Labs analytical report dated August 13, 2013, is included as **Attachment B**. Samples were analyzed for the following analytes based on historical trends for each monitoring well:

- Benzene, toluene, ethylbenzene, total xylenes (BTEX), and methyl t-butyl ether (MTBE) by Environmental Protection Agency (EPA) Method 8021B;

- Total petroleum hydrocarbons-gasoline range organics TPH-GRO by EPA Method 8015B; and
- 1,2-Dibromoethane (EDB), 1,2-Dichloroethane (EDC), and ethanol by EPA Method 8260B

Analytical results for this groundwater monitoring event are consistent with previous reporting periods (**Tables 1 and 2**). A map depicting dissolved concentrations of benzene, TPH-g, and MTBE in groundwater samples collected on August 1, 2013, is included as **Figure 3**. The following presents a brief summary of the analytical sample results:

- TPHg was not detected in any samples.
- BTEX constituents were not detected in any samples.
- Ethanol was not detected in any samples.
- EDC and EDB was not detected in any samples.
- MTBE was detected in samples collected from monitoring wells MW-3 and MW-5 at concentrations of 5.5 micrograms per lite (µg/L) and 1.9 µg/L, respectively. The concentration detected for MW-3 is slightly above the ESL of 5.0 µg/L.

A summary of historical groundwater analytical data is presented in **Tables 3 and 4**. Approximately 30.50 gallons of groundwater was generated during purging activities. Purged water was transported by Clean Harbors Environmental Services to Seaport Environmental located in Redwood City, California as non-hazardous waste.

Conclusions and Recommendations

The sample results of the groundwater monitoring activities at the site indicate the following:

- MTBE was detected at a concentration slightly above the ESL of 5.0 µg/L for MW-3.
- Based on analytical results from this and previous sampling events, dissolved hydrocarbons in groundwater are adequately delineated.

Future Activities

AECOM submitted a revised conceptual site model, data gap investigation plan, and path to closure schedule on September 13, 2013. The additional work proposed in the data gap investigation plan will be performed following Alameda County Environmental Health approval.

Remarks/Signatures

The interpretations in this report represent AECOM's professional opinions and are based, in part, on the information supplied by Gettler-Ryan Inc. 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) 361-6400 or James.Harms@aecom.com.

Sincerely,

James Harms
Project Manager

Jessica Law, PG #8840
Project Geologist

cc: Mr. Timothy Bishop, EMC (via electronic copy)
Mr. Kevin Ma and Mr. Arthur Yu, property owner (via paper copy)

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 Contour Map
Figure 3	Groundwater Concentration Map

Attachments

Attachment A	August 1, 2013, Groundwater Data Field Sheets
Attachment B	BC Laboratories Analytical Report #1316529

Tables

Table 1
Current Groundwater Monitoring Data and Analytical Results
Unocal No. 3538 (351642)
411 West MacArthur Boulevard
Oakland, California

WELL ID	TOC* (ft)	DATE	DTW (ft)	GWE* (ft)	TPH-GRO (µg/L)	B (µg/L)	T (µg/L)	E (µg/L)	X (µg/L)
MW-1	72.12	8/1/2013	18.45	53.67	<50	<0.30	<0.30	<0.30	<0.60
MW-2	71.34	8/1/2013	16.30	55.04	<50	<0.30	<0.30	<0.30	<0.60
MW-3	71.40	8/1/2013	18.02	53.38	<50	<0.30	<0.30	<0.30	<0.60
MW-4	71.54	8/1/2013	18.05	53.49	<50	<0.30	<0.30	<0.30	<0.60
MW-5	71.16	8/1/2013	17.71	53.45	<50	<0.30	<0.30	<0.30	<0.60
MW-6	71.37	8/1/2013	13.58	57.79	<50	<0.30	<0.30	<0.30	<0.60

NOTES:

* TOC and GWE are in feet above mean sea level

TPH-GRO analyzed by Environmental Protection Agency Method 8015B

BTEX analyzed by Environmental Protection Agency Method 8021B

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

TOC = Top of casing

ft = Feet

DTW = Depth to water

GWE = Groundwater elevation

µg/L = Micrograms per liter

ID = Identification

TPH-GRO = Total Petroleum Hydrocarbons as Gasoline/Gasoline Range Organics

B = Benzene

T = Toluene

E = Ethylbenzene

X = Total xylenes

Table 2
Current Groundwater Analytical Results - Oxygenate Compounds
Unocal No. 3538 (351642)
411 West MacArthur Boulevard
Oakland, California

WELL ID	DATE	MTBE (µg/L)	ETHANOL (µg/L)	EDB (µg/L)	EDC (µg/L)
MW-1	8/1/2013	<1.0	<250	<0.50	<0.50
MW-2	8/1/2013	<1.0	<250	<0.50	<0.50
MW-3	8/1/2013	5.5	<250	<0.50	<0.50
MW-4	8/1/2013	<1.0	<250	<0.50	<0.50
MW-5	8/1/2013	1.9	<250	<0.50	<0.50
MW-6	8/1/2013	<1.0	<250	<0.50	<0.50

NOTES:
MTBE analyzed by Environmental Protection Agency Method 8021B
Ethanol, EDB, and EDC analyzed by Environmental Protection Agency Method 8260B
<# = Analyte not detected at or above indicated laboratory practical quantitation limit

µg/L = Micrograms per liter
MTBE = Methyl t-butyl ether
EDB = 1,2-Dibromoethane
EDC = 1,2-Dichloroethane
ID = Identification

Table 3
Historical Groundwater Monitoring Data and Analytical Results
Unocal No. 3538 (351642)
411 West MacArthur Boulevard
Oakland, California

WELL ID	DATE	TOC* (ft)	DTW (ft)	GWE* (ft)	TPH-GRO (µg/L)	B (µg/L)	T (µg/L)	E (µg/L)	X (µg/L)
MW-1	9/15/1989	--	--	--	ND	ND	0.61	ND	ND
	1/23/1990	--	--	--	ND	1.5	2.3	ND	4.3
	4/19/1990	--	--	--	ND	ND	ND	ND	ND
	7/17/1990	--	--	--	ND	ND	ND	ND	ND
	10/16/1990	--	--	--	ND	ND	ND	ND	ND
	1/15/1991	--	--	--	ND	ND	ND	ND	ND
	4/12/1991	--	--	--	ND	ND	ND	ND	ND
	7/15/1991	--	--	--	ND	ND	ND	ND	ND
	7/14/1992	--	--	--	ND	ND	ND	ND	ND
	4/13/1993	72.43	17.70	54.73	Sampled Annually in the Third Quarter				
	7/14/1993	72.43	18.49	53.94	ND	2.2	2.1	1.1	6.2
	10/14/1993	72.10	18.32	53.78	Sampled Annually in the Third Quarter				
	1/12/1994	72.10	18.18	53.92	Sampled Annually in the Third Quarter				
	4/11/1994	72.10	17.80	54.30	Sampled Annually in the Third Quarter				
	7/7/1994	72.10	18.28	53.82	ND	ND	ND	ND	ND
	10/5/1994	72.10	18.55	53.55	Sampled Annually in the Third Quarter				
	1/9/1995	72.10	17.90	54.20	Sampled Annually in the Third Quarter				
	4/17/1995	72.10	17.22	54.88	Sampled Annually in the Third Quarter				
	7/19/1995	72.10	18.03	54.07	ND	ND	ND	ND	ND
	10/26/1995	72.10	18.67	53.43	Sampled Annually in the Third Quarter				
	1/16/1996	72.10	17.20	54.90	Sampled Annually in the Third Quarter				
	4/15/1996	72.10	17.40	54.70	Sampled Annually in the Third Quarter				
	7/11/1996	72.10	18.03	54.07	ND	ND	ND	ND	ND
	1/17/1997	72.10	16.54	55.56	Sampled Annually in the Third Quarter				
	7/21/1997	72.10	18.16	53.94	ND	ND	ND	ND	ND
	1/14/1998	72.10	16.05	56.05	Sampled Annually in the Third Quarter				
	7/6/1998	72.10	16.46	55.64	ND	ND	ND	ND	ND
	1/13/1999	72.10	17.37	54.73	Sampled Annually in the Third Quarter				
	8/31/1999	72.12	17.00	55.12	ND	ND	ND	ND	ND
	1/21/2000	72.12	17.04	55.08	Sampled Annually in the Third Quarter				
	7/10/2000	72.12	18.10	54.02	ND	ND	ND	ND	ND

Table 3
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411 West MacArthur Boulevard
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WELL ID	DATE	TOC* (ft)	DTW (ft)	GWE* (ft)	TPH-GRO (µg/L)	B (µg/L)	T (µg/L)	E (µg/L)	X (µg/L)
MW-1 cont.	1/4/2001	72.12	17.95	54.17	Sampled Annually in the Third Quarter				
	7/16/2001	72.12	18.03	54.09	ND	ND	ND	ND	ND
	1/28/2002	72.12	17.31	54.81	Sampled Annually in the Third Quarter				
	7/12/2002	72.12	18.15	53.97	<50	<0.50	<0.50	<0.50	<0.50
	1/14/2003	72.12	17.66	54.46	Sampled Annually in the Third Quarter				
	7/10/2003	72.12	17.86	54.26	<50	<0.50	<0.50	<0.50	<0.50
	2/4/2004	72.12	17.43	54.69	Sampled Annually in the Third Quarter				
	7/29/2004	72.12	18.12	54.00	<50	<0.30	0.38	<0.30	<0.6
	3/2/2005	72.12	16.15	55.97	Sampled Annually in the Third Quarter				
	9/30/2005	72.12	18.04	54.08	<50	<0.30	<0.30	<0.30	<0.6
	3/23/2006	72.12	--	--	Sampled Annually in the Third Quarter				
	9/26/2006	72.12	17.90	54.22	<50	<0.30	<0.30	<0.30	<0.6
	3/15/2007	72.12	17.22	54.90	Sampled Annually in the Third Quarter				
	9/27/2007	72.12	18.49	53.63	<50	<0.30	<0.30	<0.30	<0.6
	3/27/2008	72.12	17.57	54.55	Sampled Annually in the Third Quarter				
	9/17/2008	72.12	18.20	53.92	<50	<0.30	<0.30	<0.30	<0.6
	3/27/2009	72.12	16.75	55.37	Sampled Annually in the Third Quarter				
	9/17/2009	72.12	18.18	53.94	<50	<0.30	<0.30	<0.30	<0.6
	3/23/2010	72.12	17.34	54.78	Sampled Annually in the Third Quarter				
	9/21/2010	72.12	18.74	53.38	<50	<0.30	<0.30	<0.30	<0.6
	3/30/2011	72.12	16.68	55.44	Sampled Annually in the Third Quarter				
	9/6/2011	72.12	18.36	53.76	<50	<0.30	<0.30	<0.30	<0.60
	02/03/2012	72.12	18.02	54.10	Sampled Annually in the Third Quarter				
	8/17/2012	72.12	18.50	53.62	<50	<0.30	<0.30	<0.30	<0.60
	2/14/2013	72.12	17.98	54.14	Sampled Annually in the Third Quarter				
	8/1/2013	**72.12**	**18.45**	**53.67**	**<50**	**<0.30**	**<0.30**	**<0.30**	**<0.60**
MW-2	9/15/1989	--	--	--	290	ND	12	ND	ND
	1/23/1990	--	--	--	400	73	36	10	40
	4/19/1990	--	--	--	3900	550	5.1	91	390
	7/17/1990	--	--	--	490	76	0.59	11	46

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WELL ID	DATE	TOC* (ft)	DTW (ft)	GWE* (ft)	TPH-GRO (µg/L)	B (µg/L)	T (µg/L)	E (µg/L)	X (µg/L)
MW-2 cont.	10/16/1990	--	--	--	1400	430	2.0	48	240
	1/15/1991	--	--	--	680	170	0.7	19	81
	4/12/1991	--	--	--	2200	160	4.3	23	62
	7/15/1991	--	--	--	2200	770	12	72	370
	10/15/1991	--	--	--	140	44	0.56	1.5	12
	1/15/1992	--	--	--	220	37	0.52	1.1	7
	4/14/1992	--	--	--	150	6.2	ND	ND	1.4
	7/14/1992	--	--	--	130	3.7	ND	ND	ND
	10/12/1992	--	--	--	370	3.4	0.56	ND	11
	1/8/1993	--	--	--	510	ND	ND	ND	ND
	4/13/1993	71.63	17.86	53.77	410	42	7.7	6.4	28
	7/14/1993	71.63	18.38	53.25	110	6.5	ND	ND	1.1
	10/14/1993	71.38	18.20	53.18	230	5.3	ND	ND	2.1
	1/12/1994	71.38	18.08	53.30	300	7.8	3.8	1.8	10
	4/9/1994	71.38	17.97	53.41	120	10	0.88	1.1	4.9
	4/11/1994	71.38	17.88	53.50	--	--	--	--	--
	7/7/1994	71.38	17.81	53.57	110	4.4	ND	ND	ND
	10/5/1994	71.38	18.33	53.05	720	20	ND	ND	3.1
	1/9/1995	71.38	17.40	53.98	ND	ND	ND	ND	ND
	4/17/1995	71.38	17.50	53.88	93	5.6	0.62	1.7	5.5
	7/19/1995	71.38	18.01	53.37	77	32	0.58	1.7	4.1
	10/26/1995	71.38	18.21	53.17	54	13	ND	ND	0.72
	1/16/1996	71.38	16.58	54.80	120	23	ND	ND	0.99
	4/15/1996	71.38	17.61	53.77	340	21	ND	2.2	3.7
	7/11/1996	71.38	17.98	53.40	540	34	ND	4.3	12
	1/17/1997	71.38	17.08	54.30	320	63	2.4	9.4	26
	7/21/1997	71.38	18.06	53.32	160	13	ND	1.3	1.6
	1/14/1998	71.38	16.52	54.86	66	6.3	ND	ND	0.98
	7/6/1998	71.38	16.87	54.51	ND	2.3	ND	ND	ND
	1/13/1999	71.38	17.88	53.50	53	24	ND	0.52	0.98
	8/31/1999	71.34	18.45	52.89	86	14	ND	0.63	ND

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MW-2 cont.	1/21/2000	71.34	17.73	53.61	ND	1.94	ND	ND	ND
	7/10/2000	71.34	18.14	53.20	ND	ND	ND	ND	ND
	1/4/2001	71.34	18.02	53.32	ND	0.925	ND	ND	ND
	7/16/2001	71.34	18.02	53.32	ND	ND	ND	ND	ND
	1/28/2002	71.34	17.57	53.77	<50	<0.50	<0.50	<0.50	<0.50
	7/12/2002	71.34	18.05	53.29	<50	<0.50	<0.50	<0.50	<0.50
	1/14/2003	71.34	17.44	53.90	<50	<0.50	<0.50	<0.50	<0.50
	7/10/2003	71.34	--	--	--	--	--	--	--
	2/4/2004	71.34	17.22	54.12	<50	<0.50	<0.50	<0.50	<0.50
	7/29/2004	71.34	--	--	--	--	--	--	--
	3/2/2005	71.34	16.63	54.71	99	26	<0.50	3.5	2.8
	9/30/2005	71.34	17.94	53.40	<50	1.2	<0.30	<0.30	<0.60
	3/23/2006	71.34	16.74	54.60	<50	3.6	<0.30	0.35	<0.60
	9/26/2006	71.34	17.91	53.43	<50	1.2	<0.30	<0.30	<0.60
	3/15/2007	71.34	17.45	53.89	110	6.5	<0.30	0.70	<0.60
	9/27/2007	71.34	18.23	53.11	<50	<0.30	<0.30	<0.30	<0.60
	3/27/2008	71.34	17.77	53.57	<50	1.8	<0.30	<0.30	<0.60
	9/17/2008	71.34	18.06	53.28	<50	1.6	<0.30	<0.30	<0.60
	3/27/2009	71.34	17.43	53.91	<50	3.5	<0.30	<0.30	<0.60
	9/17/2009	71.34	18.01	53.33	<50	2.7	<0.30	<0.30	<0.60
	3/23/2010	71.34	17.47	53.87	<50	0.68	<0.30	<0.30	<0.60
	9/21/2010	71.34	18.41	52.93	69	1.6	<0.30	<0.30	<0.60
	3/30/2011	71.34	16.58	54.76	<50	<0.30	<0.30	<0.30	<0.60
	9/6/2011	71.34	18.14	53.20	<50	<0.30	<0.30	<0.30	<0.60
	2/3/2012	71.34	17.97	53.37	<50	<0.30	<0.30	<0.30	<0.60
	8/17/2012	71.34	18.20	53.14	57	1.2	<0.30	<0.30	<0.60
	2/14/2013	71.34	17.88	53.46	<50	<0.30	<0.30	<0.30	<0.60
	8/1/2013	**71.34**	**16.30**	**55.04**	**<50**	**<0.30**	**<0.30**	**<0.30**	**<0.60**
MW-3	9/15/1989	--	--	--	32	ND	ND	ND	ND
	1/23/1990	--	--	--	450	110	1.2	4.4	11

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WELL ID	DATE	TOC* (ft)	DTW (ft)	GWE* (ft)	TPH-GRO (µg/L)	B (µg/L)	T (µg/L)	E (µg/L)	X (µg/L)
MW-3 cont.	4/19/1990	--	--	--	3100	600	27	54	220
	7/17/1990	--	--	--	4000	270	48	130	250
	10/16/1990	--	--	--	740	210	1.4	2.5	82
	1/15/1991	--	--	--	3200	460	1.5	120	270
	4/12/1991	--	--	--	880	170	1.1	34	110
	7/15/1991	--	--	--	9200	1300	230	490	1900
	10/15/1991	--	--	--	3100	390	34	150	390
	1/15/1992	--	--	--	3000	590	14	310	750
	4/14/1992	--	--	--	14000	660	48	560	2000
	7/14/1992	--	--	--	21000	890	200	1200	4300
	10/12/1992	--	--	--	3200	160	10	230	540
	1/8/1993	--	--	--	1100	48	0.99	0.9	93
	4/13/1993	72.06	17.96	54.10	12000	290	38	760	2300
	7/14/1993	72.06	18.54	53.52	6300	190	ND	430	1000
	10/14/1993	71.86	18.45	53.41	2500	52	ND	110	250
	1/12/1994	71.86	18.34	53.52	3800	78	ND	180	390
	4/9/1994	71.86	18.19	53.67	1800	22	ND	140	280
	4/11/1994	71.86	18.12	53.74	--	--	--	--	--
	7/7/1994	71.86	18.21	53.65	110	4.5	ND	ND	ND
	10/5/1994	71.86	18.58	53.28	ND	ND	ND	ND	ND
	1/9/1995	71.86	17.69	54.17	ND	0.68	ND	ND	ND
	4/17/1995	71.86	17.68	54.18	3700	80	10	270	510
	7/19/1995	71.86	18.20	53.66	15000	330	27	990	2400
	10/26/1995	71.86	18.32	53.54	14000	420	180	750	1600
	1/16/1996	71.86	17.95	53.91	920	38	ND	30	57
	4/15/1996	71.86	17.78	54.08	9700	240	ND	570	860
	7/11/1996	71.86	18.19	53.67	13000	69	5.5	430	900
	1/17/1997	71.86	17.23	54.63	4400	25	ND	270	580
	7/21/1997	71.86	18.29	53.57	9000	36	ND	450	800
	1/14/1998	71.86	16.71	55.15	7100	40	ND	380	360
	7/6/1998	71.86	17.03	54.83	6800	39	ND	320	360

Table 3
Historical Groundwater Monitoring Data and Analytical Results
Unocal No. 3538 (351642)
411 West MacArthur Boulevard
Oakland, California

WELL ID	DATE	TOC* (ft)	DTW (ft)	GWE* (ft)	TPH-GRO (µg/L)	B (µg/L)	T (µg/L)	E (µg/L)	X (µg/L)
MW-3 cont.	1/13/1999	71.86	18.00	53.86	1800	9.4	ND	58	36
	8/31/1999	71.40	--	--	--	--	--	--	--
	1/21/2000	71.40	17.58	53.82	ND	ND	ND	ND	ND
	7/10/2000	71.40	18.05	53.35	ND	ND	ND	ND	ND
	8/25/2000	71.40	17.82	53.58	--	--	--	--	--
	1/4/2001	71.40	18.16	53.24	ND	ND	ND	ND	ND
	7/16/2001	71.40	17.98	53.42	ND	ND	ND	ND	ND
	1/28/2002	71.40	17.84	53.56	<50	ND<0.50	ND<0.50	ND<0.50	ND<0.50
	7/12/2002	71.40	17.87	53.53	<50	ND<0.50	ND<0.50	ND<0.50	ND<0.50
	1/14/2003	71.40	17.28	54.12	<50	ND<0.50	ND<0.50	ND<0.50	ND<0.50
	7/10/2003	71.40	17.64	53.76	<50	ND<0.50	ND<0.50	ND<0.50	ND<0.50
	2/4/2004	71.40	17.05	54.35	<50	ND<0.50	ND<0.50	ND<0.50	ND<0.50
	7/29/2004	71.40	17.82	53.58	<50	<0.30	<0.30	<0.30	<0.60
	3/2/2005	71.40	16.47	54.93	93	<0.50	<0.50	<0.50	<0.50
	9/30/2005	71.40	17.79	53.61	65	<0.30	<0.30	<0.30	<0.60
	3/23/2006	71.40	16.61	54.79	54	<0.30	0.41	ND<0.30	0.98
	9/26/2006	71.40	17.77	53.63	51	<0.30	<0.30	<0.30	<0.60
	3/15/2007	71.40	17.27	54.13	140	<0.30	<0.30	<0.30	<0.60
	9/27/2007	71.40	18.48	52.92	<50	<0.30	<0.30	<0.30	<0.60
	3/27/2008	71.40	17.67	53.73	<50	<0.30	<0.30	<0.30	<0.60
	9/17/2008	71.40	17.91	53.49	56	<0.30	<0.30	<0.30	<0.60
	3/27/2009	71.40	17.34	54.06	<50	<0.30	<0.30	<0.30	<0.60
	9/17/2009	71.40	17.88	53.52	<50	<0.30	<0.30	<0.30	<0.60
	3/23/2010	71.40	17.33	54.07	<50	<0.30	<0.30	<0.30	<0.60
	9/21/2010	71.40	18.28	53.12	69	<0.30	<0.30	<0.30	<0.60
	3/30/2011	71.40	16.50	54.90	110	<0.30	<0.30	<0.30	<0.60
	9/6/2011	71.40	18.03	53.37	<50	<0.30	<0.30	<0.30	<0.60
	2/3/2012	71.40	17.83	53.57	<50	<0.30	<0.30	<0.30	<0.60
	8/17/2012	71.40	18.07	53.33	<50	<0.30	<0.30	<0.30	<0.60
	2/14/2013	71.40	17.72	53.68	<50	<0.30	<0.30	<0.30	<0.60
	8/1/2013	**71.40**	**18.02**	**53.38**	**<50**	**<0.30**	**<0.30**	**<0.30**	**<0.60**

Table 3
Historical Groundwater Monitoring Data and Analytical Results
Unocal No. 3538 (351642)
411 West MacArthur Boulevard
Oakland, California

WELL ID	DATE	TOC* (ft)	DTW (ft)	GWE* (ft)	TPH-GRO (µg/L)	B (µg/L)	T (µg/L)	E (µg/L)	X (µg/L)
MW-4	9/15/1989	--	--	--	ND	ND	ND	ND	ND
	1/23/1990	--	--	--	ND	ND	0.4	ND	ND
	4/19/1990	--	--	--	ND	ND	0.48	ND	ND
	7/17/1990	--	--	--	ND	ND	ND	ND	ND
	10/16/1990	--	--	--	ND	ND	ND	ND	ND
	1/15/1991	--	--	--	ND	ND	ND	--	ND
	4/12/1991	--	--	--	ND	ND	ND	ND	ND
	7/15/1991	--	--	--	ND	ND	ND	ND	ND
	7/14/1992	--	--	--	ND	1.3	2.5	ND	1.0
	4/13/1993	71.98	17.67	54.31	Sampled Annually in the Third Quarter				
	7/14/1993	71.98	18.31	53.67	ND	ND	ND	ND	ND
	10/14/1993	71.64	18.08	53.56	Sampled Annually in the Third Quarter				
	1/12/1994	71.64	17.97	53.67	Sampled Annually in the Third Quarter				
	4/11/1994	71.64	17.70	53.94	Sampled Annually in the Third Quarter				
	7/7/1994	71.64	17.80	53.84	ND	ND	ND	ND	ND
	10/5/1994	71.64	18.28	53.36	Sampled Annually in the Third Quarter				
	1/9/1995	71.64	17.38	54.26	Sampled Annually in the Third Quarter				
	4/17/1995	71.64	17.21	54.43	Sampled Annually in the Third Quarter				
	7/19/1995	71.64	17.82	53.82	ND	ND	ND	ND	ND
	10/26/1995	71.64	18.17	53.47	Sampled Annually in the Third Quarter				
	1/16/1996	71.64	16.45	55.19	Sampled Annually in the Third Quarter				
	4/15/1996	71.64	17.35	54.29	Sampled Annually in the Third Quarter				
	7/11/1996	71.64	17.81	53.83	ND	ND	ND	ND	ND
	1/17/1997	71.64	16.73	54.91	Sampled Annually in the Third Quarter				
	7/21/1997	71.64	17.91	53.73	ND	ND	ND	ND	ND
	1/14/1998	71.64	16.18	55.46	Sampled Annually in the Third Quarter				
	7/6/1998	71.64	16.49	55.15	ND	ND	ND	ND	ND
	1/13/1999	71.64	17.29	54.35	Sampled Annually in the Third Quarter				
	8/31/1999	71.54	--	--	Sampled Annually in the Third Quarter				
	1/21/2000	71.54	17.51	54.03	Sampled Annually in the Third Quarter				

Table 3
Historical Groundwater Monitoring Data and Analytical Results
Unocal No. 3538 (351642)
411 West MacArthur Boulevard
Oakland, California

WELL ID	DATE	TOC* (ft)	DTW (ft)	GWE* (ft)	TPH-GRO (µg/L)	B (µg/L)	T (µg/L)	E (µg/L)	X (µg/L)
MW-4 cont.	7/10/2000	71.54	17.93	53.61	ND	ND	ND	ND	ND
	1/4/2001	71.54	18.10	53.44	Sampled Annually in the Third Quarter				
	7/16/2001	71.54	17.76	53.78	ND	ND	ND	ND	ND
	1/28/2002	71.54	17.20	54.34	Sampled Annually in the Third Quarter				
	7/12/2002	71.54	17.81	53.73	<50	<0.50	<0.50	<0.50	<0.50
	1/14/2003	71.54	17.30	54.24	Sampled Annually in the Third Quarter				
	7/10/2003	71.54	17.58	53.96	<50	<0.50	<0.50	<0.50	<0.50
	2/4/2004	71.54	17.07	54.47	Sampled Annually in the Third Quarter				
	7/29/2004	71.54	17.81	53.73	<50	<0.30	<0.30	<0.30	<0.60
	3/2/2005	71.54	16.25	55.29	Sampled Annually in the Third Quarter				
	9/30/2005	71.54	17.74	53.80	<50	<0.30	<0.30	<0.30	<0.60
	3/23/2006	71.54	--	--	Sampled Annually in the Third Quarter				
	9/26/2006	71.54	17.71	53.83	<50	<0.30	<0.30	<0.30	<0.60
	3/15/2007	71.54	17.56	53.98	Sampled Annually in the Third Quarter				
	9/27/2007	71.54	18.16	53.38	<50	<0.30	<0.30	<0.30	<0.60
	3/27/2008	71.54	17.58	53.96	Sampled Annually in the Third Quarter				
	9/17/2008	71.54	17.87	53.67	<50	<0.30	<0.30	<0.30	<0.60
	3/27/2009	71.54	17.17	54.37	Sampled Annually in the Third Quarter				
	9/17/2009	71.54	17.86	53.68	<50	<0.30	<0.30	<0.30	<0.60
	3/23/2010	71.54	17.25	54.29	Sampled Annually in the Third Quarter				
	9/21/2010	71.54	18.31	53.23	<50	<0.30	<0.30	<0.30	<0.60
	3/30/2011	71.54	16.35	55.19	Sampled Annually in the Third Quarter				
	09/06/2011	71.54	18.00	53.54	<50	<0.30	<0.30	<0.30	<0.60
	02/03/2012	71.54	17.81	53.73	Sampled Annually in the Third Quarter				
	08/17/2012	71.54	18.09	53.45	<50	<0.30	<0.30	<0.30	<0.60
	2/14/2013	71.54	17.68	53.86	Sampled Annually in the Third Quarter				
	8/1/2013	**71.54**	**18.05**	**53.49**	**<50**	**<0.30**	**<0.30**	**<0.30**	**<0.60**
MW-5	11/30/1992	--	--	--	ND	ND	ND	ND	ND
	1/8/1993	--	--	--	ND	ND	ND	ND	ND
	4/13/1993	71.51	17.49	54.02	ND	ND	ND	ND	ND

Table 3
Historical Groundwater Monitoring Data and Analytical Results
Unocal No. 3538 (351642)
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Oakland, California

WELL ID	DATE	TOC* (ft)	DTW (ft)	GWE* (ft)	TPH-GRO (µg/L)	B (µg/L)	T (µg/L)	E (µg/L)	X (µg/L)
MW-5 cont.	7/14/1993	71.51	18.02	53.49	ND	ND	0.57	ND	ND
	10/14/1993	71.23	17.82	53.41	ND	ND	ND	ND	ND
	1/12/1994	71.23	17.74	53.49	ND	ND	0.84	ND	1.6
	4/11/1994	71.23	17.56	53.67	Sampled Annually in the Third Quarter				
	7/7/1994	71.23	17.50	53.73	ND	ND	ND	ND	ND
	10/5/1994	71.23	17.98	53.25	Sampled Annually in the Third Quarter				
	1/9/1995	71.23	17.13	54.10	Sampled Annually in the Third Quarter				
	4/17/1995	71.23	17.05	54.18	Sampled Annually in the Third Quarter				
	7/19/1995	71.23	17.59	53.64	ND	ND	ND	ND	ND
	10/26/1995	71.23	18.10	53.13	Sampled Annually in the Third Quarter				
	1/16/1996	71.23	17.11	54.12	Sampled Annually in the Third Quarter				
	4/15/1996	71.23	17.22	54.01	Sampled Annually in the Third Quarter				
	7/11/1996	71.23	17.59	53.64	ND	ND	ND	ND	ND
	1/17/1997	71.23	16.75	54.48	Sampled Annually in the Third Quarter				
	7/21/1997	71.23	17.59	53.64	ND	ND	ND	ND	ND
	1/14/1998	71.23	16.16	55.07	Sampled Annually in the Third Quarter				
	7/6/1998	71.23	16.52	54.71	ND	ND	ND	ND	ND
	1/13/1999	71.23	17.62	53.61	Sampled Annually in the Third Quarter				
	8/31/1999	71.16	17.76	53.40	ND	ND	ND	ND	ND
	1/21/2000	71.16	16.83	54.33	Sampled Annually in the Third Quarter				
	7/10/2000	71.16	17.46	53.70	ND	ND	ND	ND	ND
	1/4/2001	71.16	17.51	53.65	Sampled Annually in the Third Quarter				
	7/16/2001	71.16	17.32	53.84	ND	ND	ND	ND	ND
	1/28/2002	71.16	17.12	54.04	Sampled Annually in the Third Quarter				
	7/12/2002	71.16	17.12	54.04	<50	<0.50	<0.50	<0.50	<0.50
	1/14/2003	71.16	16.67	54.49	Sampled Annually in the Third Quarter				
	7/10/2003	71.16	17.39	53.77	<50	<0.50	<0.50	<0.50	<0.50
	2/4/2004	71.16	16.23	54.93	Sampled Annually in the Third Quarter				
	7/29/2004	71.16	16.02	55.14	<50	<0.30	0.64	<0.30	0.79
	3/2/2005	71.16	16.43	54.73	Sampled Annually in the Third Quarter				
	9/30/2005	71.16	17.41	53.75	<50	<0.30	<0.30	<0.30	<0.60

Table 3
Historical Groundwater Monitoring Data and Analytical Results
Unocal No. 3538 (351642)
411 West MacArthur Boulevard
Oakland, California

WELL ID	DATE	TOC* (ft)	DTW (ft)	GWE* (ft)	TPH-GRO (µg/L)	B (µg/L)	T (µg/L)	E (µg/L)	X (µg/L)
MW-5 cont.	3/23/2006	71.16	16.37	54.79		Sampled Annually in the Third Quarter			
	9/26/2006	71.16	15.54	55.62	<50	<0.30	<0.30	<0.30	<0.60
	3/15/2007	71.16	17.20	53.96		Sampled Annually in the Third Quarter			
	9/27/2007	71.16	18.01	53.15	<50	<0.30	<0.30	<0.30	<0.60
	3/27/2008	71.16	17.57	53.59		Sampled Annually in the Third Quarter			
	9/17/2008	71.16	17.68	53.48	<50	<0.30	<0.30	<0.30	<0.60
	3/27/2009	71.16	17.14	54.02		Sampled Annually in the Third Quarter			
	9/17/2009	71.16	17.60	53.56	<50	<0.30	<0.30	<0.30	<0.60
	3/23/2010	71.16	17.84	53.32		Sampled Annually in the Third Quarter			
	9/21/2010	71.16	17.92	53.24	<50	<0.30	<0.30	<0.30	<0.60
	3/30/2011	71.16	15.87	55.29		Sampled Annually in the Third Quarter			
	9/6/2011	71.16	17.74	53.42	<50	<0.30	<0.30	<0.30	<0.60
	2/3/2012	71.16	17.69	53.47		Sampled Annually in the Third Quarter			
	8/17/2012	71.16	17.75	53.41	<50	<0.30	<0.30	<0.30	<0.60
	2/14/2013	71.16	17.51	53.65		Sampled Annually in the Third Quarter			
	8/1/2013	**71.16**	**17.71**	**53.45**	**<50**	**<0.30**	**<0.30**	**<0.30**	**<0.60**
MW-6	11/30/1992	--	--	--	ND	ND	ND	ND	ND
	1/8/1993	--	--	--	ND	ND	ND	ND	ND
	4/13/1993	71.79	11.94	59.85	ND	ND	ND	ND	ND
	7/14/1993	71.79	17.20	54.59	ND	0.99	2.4	ND	1.9
	10/14/1993	71.44	17.21	54.23	ND	ND	0.64	ND	ND
	1/12/1994	71.44	17.44	54.00	ND	ND	1.2	ND	2.9
	4/11/1994	71.44	13.66	57.78		Sampled Annually in the Third Quarter			
	7/7/1994	71.44	14.05	57.39	ND	ND	ND	ND	ND
	10/5/1994	71.44	14.16	57.28		Sampled Annually in the Third Quarter			
	1/9/1995	71.44	13.73	57.71		Sampled Annually in the Third Quarter			
	4/17/1995	71.44	11.30	60.14		Sampled Annually in the Third Quarter			
	7/19/1995	71.44	12.32	59.12	ND	ND	ND	ND	ND
	10/26/1995	71.44	17.88	53.56		Sampled Annually in the Third Quarter			
	1/16/1996	71.44	16.38	55.06		Sampled Annually in the Third Quarter			

Table 3
Historical Groundwater Monitoring Data and Analytical Results
Unocal No. 3538 (351642)
411 West MacArthur Boulevard
Oakland, California

WELL ID	DATE	TOC* (ft)	DTW (ft)	GWE* (ft)	TPH-GRO (µg/L)	B (µg/L)	T (µg/L)	E (µg/L)	X (µg/L)
MW-6 cont.	4/15/1996	71.44	14.00	57.44		Sampled Annually in the Third Quarter			
	7/11/1996	71.44	13.58	57.86	ND	ND	ND	ND	ND
	1/17/1997	71.44	15.42	56.02		Sampled Annually in the Third Quarter			
	7/21/1997	71.44	13.78	57.66	ND	ND	ND	ND	ND
	1/14/1998	71.44	13.65	57.79		Sampled Annually in the Third Quarter			
	7/6/1998	71.44	13.90	57.54	ND	ND	ND	ND	ND
	1/13/1999	71.44	14.93	56.51		Sampled Annually in the Third Quarter			
	8/31/1999	71.37	15.81	55.56	ND	ND	ND	ND	ND
	1/21/2000	71.37	16.13	55.24		Sampled Annually in the Third Quarter			
	7/10/2000	71.37	16.95	54.42	ND	ND	ND	ND	ND
	1/4/2001	71.37	17.09	54.28		Sampled Annually in the Third Quarter			
	7/16/2001	71.37	16.83	54.54	ND	ND	ND	ND	ND
	1/28/2002	71.37	14.58	56.79		Sampled Annually in the Third Quarter			
	7/12/2002	71.37	16.76	54.61	<50	<0.50	<0.50	<0.50	<0.50
	1/14/2003	71.37	16.25	55.12		Sampled Annually in the Third Quarter			
	7/10/2003	71.37	12.97	58.40	<50	<0.50	<0.50	<0.50	<0.50
	2/4/2004	71.37	16.20	55.17		Sampled Annually in the Third Quarter			
	7/29/2004	71.37	14.98	56.39	<50	<0.30	<0.30	<0.30	<0.6
	3/2/2005	71.37	14.51	56.86		Sampled Annually in the Third Quarter			
	9/30/2005	71.37	14.45	56.92	<50	<0.30	<0.30	<0.30	<0.6
	3/23/2006	71.37	16.55	54.82		Sampled Annually in the Third Quarter			
	9/26/2006	71.37	17.58	53.79	<50	<0.30	<0.30	<0.30	<0.60
MW-6 cont.	3/15/2007	71.37	13.72	57.65		Sampled Annually in the Third Quarter			
	9/27/2007	71.37	14.18	57.19	<50	<0.30	<0.30	<0.30	<0.60
	3/27/2008	71.37	14.83	56.54		Sampled Annually in the Third Quarter			
	9/17/2008	71.37	14.70	56.67	<50	<0.30	<0.30	<0.30	<0.6
	3/27/2009	71.37	15.66	55.71		Sampled Annually in the Third Quarter			
	9/17/2009	71.37	15.31	56.06	<50	<0.30	<0.30	<0.30	<0.60
	3/23/2010	71.37	15.42	55.95		Sampled Annually in the Third Quarter			
	9/21/2010	71.37	15.62	55.75	<50	<0.30	<0.30	<0.30	<0.60
	3/30/2011	71.37	14.12	57.25		Sampled Annually in the Third Quarter			

Table 3
Historical Groundwater Monitoring Data and Analytical Results
Unocal No. 3538 (351642)
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Oakland, California

WELL ID	DATE	TOC* (ft)	DTW (ft)	GWE* (ft)	TPH-GRO (µg/L)	B (µg/L)	T (µg/L)	E (µg/L)	X (µg/L)
MW-6 cont.	09/06/2011	71.37	15.07	56.30	<50	<0.30	<0.30	<0.30	<0.60
	02/03/2012	71.37	14.88	56.49	Sampled Annually in the Third Quarter				
	08/17/2012	71.37	16.08	55.29	<50	<0.30	<0.30	<0.30	<0.60
	2/14/2013	71.37	13.66	57.71	Sampled Annually in the Third Quarter				
	8/1/2013	**71.37**	**13.58**	**57.79**	**<50**	**<0.30**	**<0.30**	**<0.30**	**<0.60**

NOTES:

* TOC and GWE are in feet above mean sea level

TPH-GRO analyzed by Environmental Protection Agency Method 8015B

BTEX analyzed by Environmental Protection Agency Method 8021B

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

TOC = Top of casing
ft = Feet
DTW = Depth to water
GWE = Groundwater elevation
µg/L = Micrograms per liter
ID = Identification
-- = Not available/applicable

TPH-GRO = Total Petroleum Hydrocarbons as Gasoline/Gasoline Range Organics
B = Benzene
T = Toluene
E = Ethylbenzene
X = Total xylenes

Table 4
Historical Groundwater Analytical Results - Oxygenate Compounds
Unocal No. 3538 (351642)
411 West MacArthur Boulevard
Oakland, California

WELL ID	DATE	MTBE (µg/L)	ETHANOL (µg/L)	EDB (µg/L)	EDC (µg/L)
MW-1	9/15/1989	--	--	--	--
	1/23/1990	--	--	--	--
	4/19/1990	--	--	--	--
	7/17/1990	--	--	--	--
	10/16/1990	--	--	--	--
	1/15/1991	--	--	--	--
	4/12/1991	--	--	--	--
	7/15/1991	--	--	--	--
	7/14/1992	--	--	--	--
	4/13/1993		Sampled Annually in the Third Quarter		
	7/14/1993	--	--	--	--
	10/14/1993		Sampled Annually in the Third Quarter		
	1/12/1994		Sampled Annually in the Third Quarter		
	4/11/1994		Sampled Annually in the Third Quarter		
	7/7/1994	--	--	--	--
	10/5/1994		Sampled Annually in the Third Quarter		
	1/9/1995		Sampled Annually in the Third Quarter		
	4/17/1995		Sampled Annually in the Third Quarter		
	7/19/1995	--	--	--	--
	10/26/1995		Sampled Annually in the Third Quarter		
	1/16/1996		Sampled Annually in the Third Quarter		
	4/15/1996		Sampled Annually in the Third Quarter		
	7/11/1996	ND	--	--	--
	1/17/1997		Sampled Annually in the Third Quarter		
	7/21/1997	ND	--	--	--
	1/14/1998		Sampled Annually in the Third Quarter		
	7/6/1998	ND	--	--	--
	1/13/1999		Sampled Annually in the Third Quarter		
	8/31/1999	ND	--	--	--
	1/21/2000		Sampled Annually in the Third Quarter		
	7/10/2000	ND	--	--	--
	1/4/2001		Sampled Annually in the Third Quarter		
	7/16/2001	ND	--	--	--
	1/28/2002		Sampled Annually in the Third Quarter		
	7/12/2002	<2.5	--	--	--
	1/14/2003		Sampled Annually in the Third Quarter		
	7/10/2003	<2.0	--	--	--
	2/4/2004		Sampled Annually in the Third Quarter		
	7/29/2004	<1	--	--	--
	3/2/2005		Sampled Annually in the Third Quarter		
	9/30/2005	<1.0	--	--	--
	3/23/2006		Sampled Annually in the Third Quarter		
	9/26/2006	<1.0	--	--	--
	3/15/2007		Sampled Annually in the Third Quarter		
	9/27/2007	<1.0	--	--	--

Table 4
Historical Groundwater Analytical Results - Oxygenate Compounds
Unocal No. 3538 (351642)
411 West MacArthur Boulevard
Oakland, California

WELL ID	DATE	MTBE (µg/L)	ETHANOL (µg/L)	EDB (µg/L)	EDC (µg/L)
MW-1 cont.	3/27/2008		Sampled Annually in the Third Quarter		
	9/17/2008	<1.0	--	--	--
	3/27/2009		Sampled Annually in the Third Quarter		
	9/17/2009	<1.0	--	--	--
	3/23/2010		Sampled Annually in the Third Quarter		
	9/21/2010	<1.0	--	--	--
	3/30/2011		Sampled Annually in the Third Quarter		
	9/6/2011	<1.0	--	<0.50	--
	02/03/2012		Sampled Annually in the Third Quarter		
	8/17/2012	<1.0	<250	<0.50	<0.50
	2/14/2013		Sampled Annually in the Third Quarter		
	8/1/2013	**<1.0**	**<250**	**<0.50**	**<0.50**
MW-2	9/15/1989	--	--	--	--
	1/23/1990	--	--	--	--
	4/19/1990	--	--	--	--
	7/17/1990	--	--	--	--
	10/16/1990	--	--	--	--
	1/15/1991	--	--	--	--
	4/12/1991	--	--	--	--
	7/15/1991	--	--	--	--
	10/15/1991	--	--	--	--
	1/15/1992	--	--	--	--
	4/14/1992	--	--	--	--
	7/14/1992	--	--	--	--
	10/12/1992	--	--	--	--
	1/8/1993	--	--	--	--
	4/13/1993	200	--	--	--
	7/14/1993	250	--	--	--
	10/14/1993	--	--	--	--
	1/12/1994	--	--	--	--
	4/9/1994	--	--	--	--
	4/11/1994	--	--	--	--
	7/7/1994	--	--	--	--
	10/5/1994	--	--	--	--
	1/9/1995	--	--	--	--
	4/17/1995	--	--	--	--
	7/19/1995	--	--	--	--
	10/26/1995	220	--	--	--
	1/16/1996	--	--	--	--
	4/15/1996	45	--	--	--
	7/11/1996	150	--	--	--
	1/17/1997	260	--	--	--
	7/21/1997	180	--	--	--
	1/14/1998	100	--	--	--

Table 4
Historical Groundwater Analytical Results - Oxygenate Compounds
Unocal No. 3538 (351642)
411 West MacArthur Boulevard
Oakland, California

WELL ID	DATE	MTBE (µg/L)	ETHANOL (µg/L)	EDB (µg/L)	EDC (µg/L)
MW-2 cont.	7/6/1998	11	--	--	--
	1/13/1999	120	--	--	--
	8/31/1999	21	--	--	--
	1/21/2000	10.1	--	--	--
	7/10/2000	46.6	--	--	--
	1/4/2001	ND	--	--	--
	7/16/2001	ND	--	--	--
	1/28/2002	<2.5	--	--	--
	7/12/2002	<2.5	--	--	--
	1/14/2003	<2.0	--	--	--
	7/10/2003	--	--	--	--
	2/4/2004	<5.0	--	--	--
	7/29/2004	--	--	--	--
	3/2/2005	<5.0	--	--	--
	9/30/2005	1.6	--	--	--
	3/23/2006	2.5	--	--	--
	9/26/2006	<1.0	--	--	--
	3/15/2007	1.7	--	--	--
	9/27/2007	<1.0	--	--	--
	3/27/2008	1.3	--	--	--
	9/17/2008	3.1	--	--	--
	3/27/2009	<1.0	--	--	--
	9/17/2009	1.1	--	--	--
	3/23/2010	<1.0	--	--	--
	9/21/2010	1.6	--	--	--
	3/30/2011	1.6	--	--	--
	9/6/2011	<1.0	--	<0.50	--
	2/3/2012	<1.0	--	<0.50	--
	8/17/2012	<1.0	<250	<0.50	<0.50
	2/14/2013	<1.0	<250	<0.50	<0.50
	8/1/2013	**<1.0**	**<250**	**<0.50**	**<0.50**
MW-3	9/15/1989	--	--	--	--
	1/23/1990	--	--	--	--
	4/19/1990	--	--	--	--
	7/17/1990	--	--	--	--
	10/16/1990	--	--	--	--
	1/15/1991	--	--	--	--
	4/12/1991	--	--	--	--
	7/15/1991	--	--	--	--
	10/15/1991	--	--	--	--
	1/15/1992	--	--	--	--
	4/14/1992	--	--	--	--
	7/14/1992	--	--	--	--
	10/12/1992	--	--	--	--

Table 4
Historical Groundwater Analytical Results - Oxygenate Compounds
Unocal No. 3538 (351642)
411 West MacArthur Boulevard
Oakland, California

WELL ID	DATE	MTBE (µg/L)	ETHANOL (µg/L)	EDB (µg/L)	EDC (µg/L)
MW-3 cont.	1/8/1993	--	--	--	--
	4/13/1993	1400	--	--	--
	7/14/1993	860	--	--	--
	10/14/1993	--	--	--	--
	1/12/1994	--	--	--	--
	4/9/1994	--	--	--	--
	4/11/1994	--	--	--	--
	7/7/1994	--	--	--	--
	10/5/1994	--	--	--	--
	1/9/1995	--	--	--	--
	4/17/1995	--	--	--	--
	7/19/1995	--	--	--	--
	10/26/1995	4800	--	--	--
	1/16/1996	--	--	--	--
	4/15/1996	3200	--	--	--
	7/11/1996	740	--	--	--
	1/17/1997	1600	--	--	--
	7/21/1997	950	--	--	--
	1/14/1998	930	--	--	--
	7/6/1998	370	--	--	--
	1/13/1999	180	--	--	--
	8/31/1999	--	--	--	--
	1/21/2000	21.4	--	--	--
	7/10/2000	162	--	--	--
	8/25/2000	180	--	--	--
	1/4/2001	193	--	--	--
	7/16/2001	660	--	--	--
	1/28/2002	34	--	--	--
	7/12/2002	11	--	--	--
	1/14/2003	12	--	--	--
	7/10/2003	23	--	--	--
	2/4/2004	26	--	--	--
	7/29/2004	ND<1	--	--	--
	3/2/2005	140	--	--	--
	9/30/2005	61	--	--	--
	3/23/2006	63	--	--	--
	9/26/2006	41	--	--	--
	3/15/2007	110	--	--	--
	9/27/2007	20	--	--	--
	3/27/2008	19	--	--	--
	9/17/2008	43	--	--	--
	3/27/2009	15	--	--	--
	9/17/2009	30	--	--	--
	3/23/2010	22	--	--	--
	9/21/2010	48	--	--	--

Table 4
Historical Groundwater Analytical Results - Oxygenate Compounds
Unocal No. 3538 (351642)
411 West MacArthur Boulevard
Oakland, California

WELL ID	DATE	MTBE (µg/L)	ETHANOL (µg/L)	EDB (µg/L)	EDC (µg/L)
MW-3 cont.	3/30/2011	73	--	--	--
	9/6/2011	4.7	--	<0.50	--
	2/3/2012	8.2	--	<0.50	--
	8/17/2012	4.7	<250	<0.50	<0.50
	2/14/2013	5.1	<250	<0.50	<0.50
	8/1/2013	**5.5**	**<250**	**<0.50**	**<0.50**
MW-4	9/15/1989	--	--	--	--
	1/23/1990	--	--	--	--
	4/19/1990	--	--	--	--
	7/17/1990	--	--	--	--
	10/16/1990	--	--	--	--
	1/15/1991	--	--	--	--
	4/12/1991	--	--	--	--
	7/15/1991	--	--	--	--
	7/14/1992	--	--	--	--
	4/13/1993		Sampled Annually in the Third Quarter		
	7/14/1993	--	--	--	--
	10/14/1993		Sampled Annually in the Third Quarter		
	1/12/1994		Sampled Annually in the Third Quarter		
	4/11/1994		Sampled Annually in the Third Quarter		
	7/7/1994	--	--	--	--
	10/5/1994		Sampled Annually in the Third Quarter		
	1/9/1995		Sampled Annually in the Third Quarter		
	4/17/1995		Sampled Annually in the Third Quarter		
	7/19/1995	--	--	--	--
	10/26/1995		Sampled Annually in the Third Quarter		
	1/16/1996		Sampled Annually in the Third Quarter		
	4/15/1996		Sampled Annually in the Third Quarter		
	7/11/1996	ND	--	--	--
	1/17/1997		Sampled Annually in the Third Quarter		
	7/21/1997	ND	--	--	--
	1/14/1998		Sampled Annually in the Third Quarter		
	7/6/1998	ND	--	--	--
	1/13/1999		Sampled Annually in the Third Quarter		
	8/31/1999		Sampled Annually in the Third Quarter		
	1/21/2000		Sampled Annually in the Third Quarter		
	7/10/2000	ND	--	--	--
	1/4/2001		Sampled Annually in the Third Quarter		
	7/16/2001	ND	--	--	--
	1/28/2002		Sampled Annually in the Third Quarter		
	7/12/2002	<2.5	--	--	--
	1/14/2003		Sampled Annually in the Third Quarter		
	7/10/2003	<2.0	--	--	--
	2/4/2004		Sampled Annually in the Third Quarter		

Table 4
Historical Groundwater Analytical Results - Oxygenate Compounds
Unocal No. 3538 (351642)
411 West MacArthur Boulevard
Oakland, California

WELL ID	DATE	MTBE (µg/L)	ETHANOL (µg/L)	EDB (µg/L)	EDC (µg/L)
MW-4 cont.	7/29/2004	<1	--	--	--
	3/2/2005		Sampled Annually in the Third Quarter		
	9/30/2005	<1.0	--	--	--
	3/23/2006		Sampled Annually in the Third Quarter		
	9/26/2006	<1.0	--	--	--
	3/15/2007		Sampled Annually in the Third Quarter		
	9/27/2007	<1.0	--	--	--
	3/27/2008		Sampled Annually in the Third Quarter		
	9/17/2008	<1.0	--	--	--
	3/27/2009		Sampled Annually in the Third Quarter		
	9/17/2009	<1.0	--	--	--
	3/23/2010		Sampled Annually in the Third Quarter		
	9/21/2010	<1.0	--	--	--
	3/30/2011		Sampled Annually in the Third Quarter		
	09/06/2011	<1.0	--	<0.50	--
	02/03/2012		Sampled Annually in the Third Quarter		
	08/17/2012	<1.0	<250	<0.50	<0.50
	2/14/2013		Sampled Annually in the Third Quarter		
	8/1/2013	**<1.0**	**<250**	**<0.50**	**<0.50**
MW-5	11/30/1992	--	--	--	--
	1/8/1993	--	--	--	--
	4/13/1993	--	--	--	--
	7/14/1993	--	--	--	--
	10/14/1993	--	--	--	--
	1/12/1994	--	--	--	--
	4/11/1994		Sampled Annually in the Third Quarter		
	7/7/1994	--	--	--	--
	10/5/1994		Sampled Annually in the Third Quarter		
	1/9/1995		Sampled Annually in the Third Quarter		
	4/17/1995		Sampled Annually in the Third Quarter		
	7/19/1995	--	--	--	--
	10/26/1995		Sampled Annually in the Third Quarter		
	1/16/1996		Sampled Annually in the Third Quarter		
	4/15/1996		Sampled Annually in the Third Quarter		
	7/11/1996	ND	--	--	--
	1/17/1997		Sampled Annually in the Third Quarter		
	7/21/1997	ND	--	--	--
	1/14/1998		Sampled Annually in the Third Quarter		
	7/6/1998	ND	--	--	--
	1/13/1999		Sampled Annually in the Third Quarter		
	8/31/1999	ND	--	--	--
	1/21/2000		Sampled Annually in the Third Quarter		
	7/10/2000	ND	--	--	--
	1/4/2001		Sampled Annually in the Third Quarter		

Table 4
Historical Groundwater Analytical Results - Oxygenate Compounds
Unocal No. 3538 (351642)
411 West MacArthur Boulevard
Oakland, California

WELL ID	DATE	MTBE (µg/L)	ETHANOL (µg/L)	EDB (µg/L)	EDC (µg/L)
MW-5 cont.	7/16/2001	ND	--	--	--
	1/28/2002		Sampled Annually in the Third Quarter		
	7/12/2002	<2.5	--	--	--
	1/14/2003		Sampled Annually in the Third Quarter		
	7/10/2003	<2.0	--	--	--
	2/4/2004		Sampled Annually in the Third Quarter		
	7/29/2004	<1	--	--	--
	3/2/2005		Sampled Annually in the Third Quarter		
	9/30/2005	<1.0	--	--	--
	3/23/2006		Sampled Annually in the Third Quarter		
	9/26/2006	<1.0	--	--	--
	3/15/2007		Sampled Annually in the Third Quarter		
	9/27/2007	<1.0	--	--	--
	3/27/2008		Sampled Annually in the Third Quarter		
	9/17/2008	<1.0	--	--	--
	3/27/2009		Sampled Annually in the Third Quarter		
	9/17/2009	<1.0	--	--	--
	3/23/2010		Sampled Annually in the Third Quarter		
	9/21/2010	<1.0	--	--	--
	3/30/2011		Sampled Annually in the Third Quarter		
	9/6/2011	<1.0	--	<0.50	--
	2/3/2012		Sampled Annually in the Third Quarter		
	8/17/2012	<1.0	<250	<0.50	<0.50
	2/14/2013		Sampled Annually in the Third Quarter		
	8/1/2013	**1.9**	**<250**	**<0.50**	**<0.50**
MW-6	11/30/1992	--	--	--	--
	1/8/1993	--	--	--	--
	4/13/1993	--	--	--	--
	7/14/1993	--	--	--	--
	10/14/1993	--	--	--	--
	1/12/1994	--	--	--	--
	4/11/1994		Sampled Annually in the Third Quarter		
	7/7/1994	--	--	--	--
	10/5/1994		Sampled Annually in the Third Quarter		
	1/9/1995		Sampled Annually in the Third Quarter		
	4/17/1995		Sampled Annually in the Third Quarter		
	7/19/1995	--	--	--	--
	10/26/1995		Sampled Annually in the Third Quarter		
	1/16/1996		Sampled Annually in the Third Quarter		
	4/15/1996		Sampled Annually in the Third Quarter		
	7/11/1996	ND	--	--	--
	1/17/1997		Sampled Annually in the Third Quarter		
	7/21/1997	ND	--	--	--
	1/14/1998		Sampled Annually in the Third Quarter		

Table 4
Historical Groundwater Analytical Results - Oxygenate Compounds
Unocal No. 3538 (351642)
411 West MacArthur Boulevard
Oakland, California

WELL ID	DATE	MTBE (µg/L)	ETHANOL (µg/L)	EDB (µg/L)	EDC (µg/L)
MW-6 cont.	7/6/1998	ND	--	--	--
	1/13/1999		Sampled Annually in the Third Quarter		
	8/31/1999	ND	--	--	--
	1/21/2000		Sampled Annually in the Third Quarter		
	7/10/2000	ND	--	--	--
	1/4/2001		Sampled Annually in the Third Quarter		
	7/16/2001	ND	--	--	--
	1/28/2002		Sampled Annually in the Third Quarter		
	7/12/2002	<2.5	--	--	--
	1/14/2003		Sampled Annually in the Third Quarter		
	7/10/2003	<2.0	--	--	--
	2/4/2004		Sampled Annually in the Third Quarter		
	7/29/2004	1.3	--	--	--
	3/2/2005		Sampled Annually in the Third Quarter		
	9/30/2005	1.7	--	--	--
	3/23/2006		Sampled Annually in the Third Quarter		
	9/26/2006	<1.0	--	--	--
	3/15/2007		Sampled Annually in the Third Quarter		
	9/27/2007	<1.0	--	--	--
	3/27/2008		Sampled Annually in the Third Quarter		
	9/17/2008	2.8	--	--	--
	3/27/2009		Sampled Annually in the Third Quarter		
	9/17/2009	<1.0	--	--	--
	3/23/2010		Sampled Annually in the Third Quarter		
	9/21/2010	<1.0	--	--	--
	3/30/2011		Sampled Annually in the Third Quarter		
	09/06/2011	<1.0	--	<0.50	--
	02/03/2012		Sampled Annually in the Third Quarter		
	08/17/2012	<1.0	<250	<0.50	<0.50
	2/14/2013		Sampled Annually in the Third Quarter		
	8/1/2013	**<1.0**	**<250**	**<0.50**	**<0.50**

NOTES:

MTBE analyzed by Environmental Protection Agency Method 8021B

Ethanol, EDB, and EDC analyzed by Environmental Protection Agency Method 8260B

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

-- = Not available/applicable

µg/L = Micrograms per liter

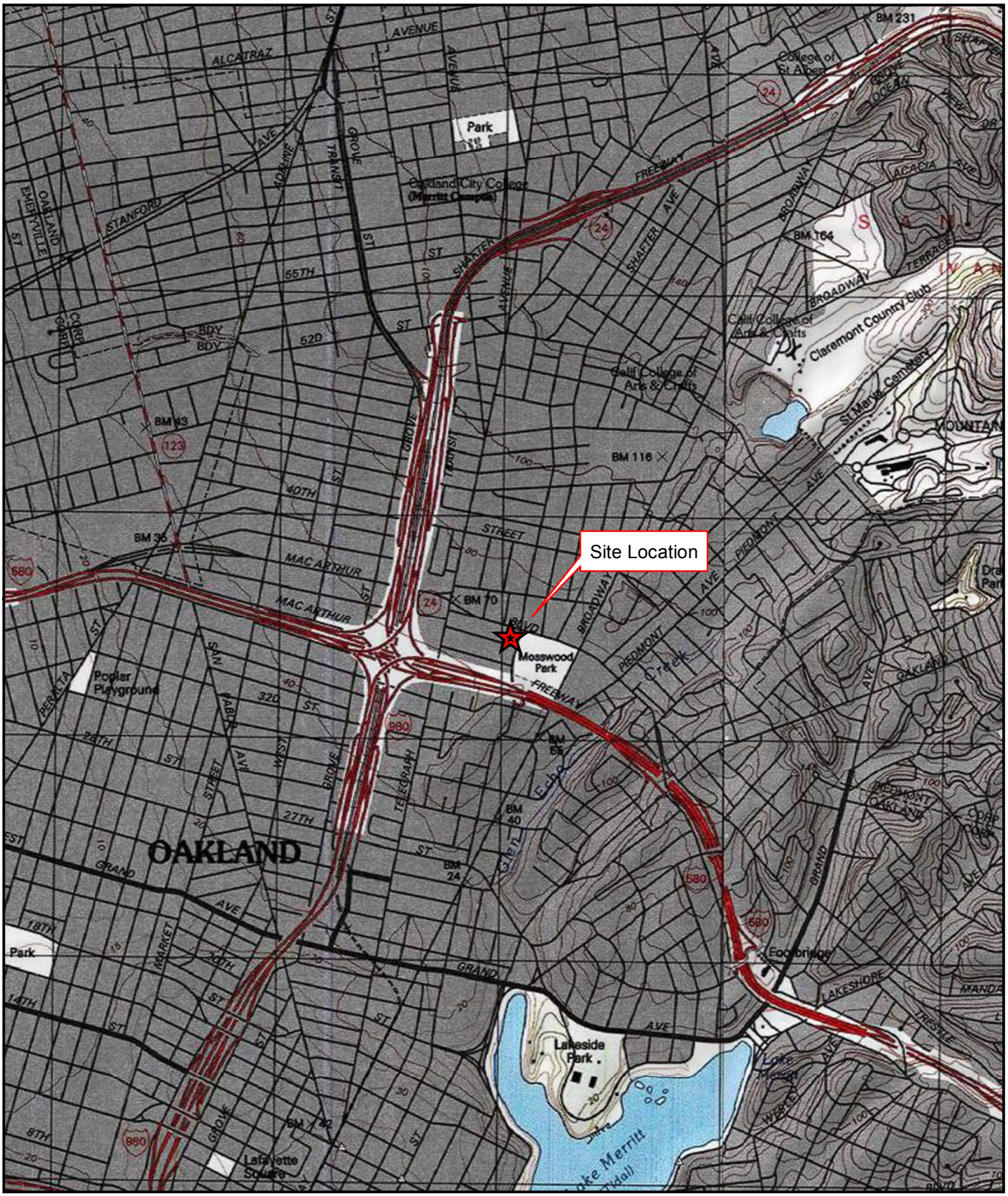
MTBE = Methyl t-butyl ether

EDB = 1,2-Dibromoethane

EDC = 1,2-Dichloroethane

ID = Identification

Figures



Map Source: ESRI Data Resource Center 2013.

0.5 0.25 0 0.5 Miles

AECOM
10461 Old Placervillle Rd, Suite 170
Sacramento, CA 95827
916.361.6400

N

Unocal No.3538 (351642)
411 West MacArthur Boulevard
Oakland, California

Site Location Map

DATE:9/9/13	DRWN: JH	Revision: 0		**Figure 1**

Path: P:\01231-Chevron\76Products_transfer_sites\351642_3538_Oakland\7.0 Deliverables\7.2 CADD\GIS\Figure1_site_location_351642.mxd

EVERGREEN
MISSIONARY
BAPTIST CHURCH

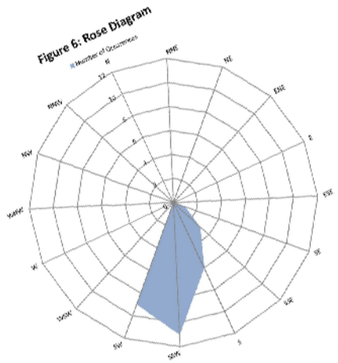
MW-6
57.79

VALERO STATION

[57.0]

WEST MACARTHUR BOULEVARD

[55.0]



HISTORICAL GROUNDWATER
FLOW DIRECTION
1990 TO 2SA13

FORMER FIRST
AND FIRST
AND SECOND
GENERATION
GASOLINE
USTs

MW-5
53.45

[53.0]

MW-4
53.49

MW-3
53.38

FORMER
DISPENSER
ISLANDS

419/421
WEST
MACARTHUR
BOULEVARD

STATION
BUILDING

MW-1
53.67

MW-2
55.04*

FORMER
WASTE OIL
UST

MOSSWOOD PARK

WEBSTER STREET

SITE
BOUNDARY

416
37TH
STREET

414
37TH
STREET

3701
WEBSTER
STREET

LEGEND

- MONITORING WELL
- 53.45 — GROUNDWATER ELEVATION IN FEET ABOVE MEAN SEA LEVEL
- [55.0] — GROUNDWATER ELEVATION CONTOUR IN FEET ABOVE MEAN SEAL LEVEL (DASHED WHERE INFERRED)
- GROUNDWATER FLOW DIRECTION
- EXTENT OF 1989 EXCAVATION
- HYDRAULIC GRADIENT = 0.04 FT/FT

Notes:
UST = underground storage tank
FT/FT = feet per foot
* = Anomalous Groundwater Elevation, Not Used in Contouring

0 40'
SCALE

REVISIONS			
NO.:	DESCRIPTION:	DATE:	BY:
1	Internal Tech Review	10/2/13	JH

DESIGNED BY:
DRAWN BY: JH
CHECKED BY: JL
APPROVED BY: JH

AECOM TECHNICAL SERVICES
10461 OLD PLACERVILLE ROAD, SUITE 170
SACRAMENTO, CALIFORNIA 95827
PHONE: (916) 361-6400
FAX: (916) 361-6401
WEB: HTTP://WWW.AECOM.COM

GROUNDWATER ELEVATION CONTOUR MAP

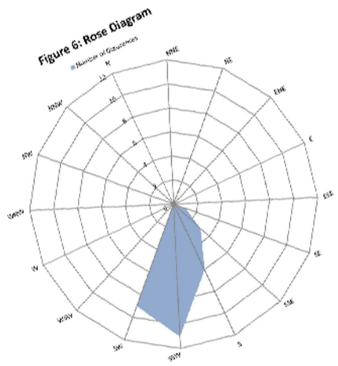
Second Semi-Annual 2013
Groundwater Monitoring Event
Unocal No. 3538 (351642)
411 West MacArthur Boulevard, Oakland, California

SCALE: 1" = 40'
DATE: 10/02/2013
PROJECT NUMBER: 60284077

FIGURE NUMBER:
2

SHEET NUMBER:
1 of 1

P:\01231-Chevron\76Products_transfer_sites\351642_3538_Oakland\7.0 Deliverables\7.2 CADD\2SA13\Figures2_3_351642_2SA13.dwg Oct 02, 2013 - 12:41pm HarmsJ



HISTORICAL GROUNDWATER
FLOW DIRECTION
1990 TO 2SA13

EVERGREEN
MISSIONARY
BAPTIST CHURCH

MW-6
<50
<0.30
<1.0

VALERO STATION

WEST MACARTHUR BOULEVARD

<50
<0.30
<1.0

<50
<0.30
5.5

FORMER FIRST AND FIRST AND SECOND GENERATION GASOLINE USTs

MW-4

MW-3

419/421
WEST
MACARTHUR
BOULEVARD

FORMER
DISPENSER
ISLANDS

MW-2

STATION
BUILDING

MW-1

FORMER
WASTE OIL
UST

<50
<0.30
<1.0

SITE
BOUNDARY

<50
<0.30
<1.0

MW-5

<50
<0.30
1.9

MOSSWOOD PARK

WEBSTER STREET

416
37TH
STREET

414
37TH
STREET

3701
WEBSTER
STREET

Legend

- Monitoring Well
- Groundwater Flow Direction
- UST — Underground Storage Tank
- TPH-GRO / Benzene / MTBE — TPH-GRO = Total Petroleum Hydrocarbons as Gasoline Range Organics
- MTBE = Methyl T-Butyl Ether
- Extent of 1989 Excavation
- <# = Analyte not detected at or above indicated laboratory practical quantitation limit
- Hydraulic Gradient = 0.04 ft/ft
- FT/FT = feet per foot
- Analyte Results Expressed in Micrograms per Liter

0 40'
SCALE

REVISIONS			
NO.:	DESCRIPTION:	DATE:	BY:
1	Internal Tech Review	10/2/13	JH

DESIGNED BY:
DRAWN BY: JH
CHECKED BY: JL
APPROVED BY: JH

AECOM TECHNICAL SERVICES
10461 OLD PLACERVILLE ROAD, SUITE 170
SACRAMENTO, CALIFORNIA 95827
PHONE: (916) 361-6400
FAX: (916) 361-6401
WEB: HTTP://WWW.AECOM.COM

GROUNDWATER CONCENTRATION MAP

Second Semi-Annual 2013
Groundwater Monitoring Event
Unocal No. 3538 (351642)
411 West MacArthur Boulevard, Oakland, California

SCALE: 1" = 40'
DATE: 10/02/2013
PROJECT NUMBER: 60284077

FIGURE NUMBER:
3

SHEET NUMBER:
1 of 1

P:\01231-Chevron\76Products_transfer_sites\351642_3538_Oakland\7.0 Deliverables\7.2 CADD\2SA13\Figures2_3_351642_2SA13.dwg Oct 02, 2013 - 12:47pm HarmsJ

Attachment A

August 1, 2013, Groundwater Data Field Sheets

GETTLER-RYAN INC.

TRANSMITTAL

August 12, 2013
G-R #385643

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

FROM: Deanna L. Harding
Project Coordinator
Gettler-Ryan Inc.
6747 Sierra Court, Suite J
Dublin, California 94568

RE: Chevron Facility
#351642/3538
411 West MacArthur Boulevard
Oakland, California

WE HAVE ENCLOSED THE FOLLOWING:

COPIES	DESCRIPTION
VIA PDF	Groundwater Monitoring and Sampling Data Package **Second Semi-Annual Event of August 1, 2013**

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/351642/3538

WELL CONDITION STATUS SHEET

Client/
Facility #: **Chevron #351642 / 3538**

Site Address: **411 West Macarthur Blvd.**

City: **Oakland, CA**

Job #: **385643**

Event Date: 8/1/13

Sampler: JOE

WELL ID	Vault Frame Condition	Gasket/ O-Ring (M) Missing (R) Replaced	Bolts (M) Missing (R) Replaced	Bolt Flanges B=Broken S=Stripped R=Retap	Apron Condition C=Cracked B=Broken G=Gone	Grout Seal (Deficient) Inches from TOC	Casing (Condition prevents tight cap seal)	REPLACE LOCK Y/N	REPLACE CAP Y/N	WELL VAULT Manufacture/Size/ # of Bolts	Pictures Taken Y/N
MW-1	OK	→	→	→	→	→	→	N	N	Emco 12" 2	N
MW-2	OK	→	R-1	OK	→	→	→	Y	Y	Emco 12" 2	N
MW-3	OK	→	→	→	→	→	→	N	N	Emco 12" 2	N
MW-4	OK	→	→	→	→	→	→	N	N	Emco 12" 2	N
MW-5	OK	→	M-1	B=1	OK	→	→	~~N~~ Y	Y	Brainard Killman 8" 3	N
MW-6	OK	M	M-1	B=1	OK	→	→	~~N~~ Y	Y	Brainard Killman ~~Boart Longyear~~ 8" 3	N

Comments

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 #351642 / 3538 Job Number: 385643
Site Address: 411 West Macarthur Blvd. Event Date: 8/1/13 (inclusive)
City: Oakland, CA Sampler: JOE

Well ID MW-1 Date Monitored: 8/1/13
Well Diameter 2 in.
Total Depth 23.98 ft.
Depth to Water 18.45 ft.

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

☐ Check if water column is less then 0.50 ft.

5.53 xVF 0.17 = 0.94 x3 case volume = Estimated Purge Volume: 2.82 gal.

Depth to Water w/ 80% Recharge [(Height of Water Column x 0.20) + DTW]: 20.08

Purge Equipment:		Sampling Equipment:	
Disposable Bailer	✓	Disposable Bailer	✓
Stainless Steel Bailer		Pressure Bailer	
Stack Pump		Metal Filters	
Suction Pump		Peristaltic Pump	
Grundfos		QED Bladder Pump	
Peristaltic Pump		Other:	
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: gal
Amt Removed from Well: gal
Water Removed:

Start Time (purge): 0908 Weather Conditions: Overcast
Sample Time/Date: 0922 / 8/1/13 Water Color: gray Odor: Y / (N)
Approx. Flow Rate: — gpm. Sediment Description: Light
Did well de-water? No If yes, Time: — Volume: — gal. DTW @ Sampling: 19.60

Time (2400 hr.)	Volume (gal.)	pH	Conductivity MS ~~(µmhos/cm µS)~~	Temperature ((C) / F)	D.O. (mg/L)	ORP (mV)
0910	1	6.82	0.62	18.7		
0912	2	6.80	0.61	18.6		
0914	3	6.74	0.60	18.4		

LABORATORY INFORMATION

SAMPLE ID	(#) CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
MW-1	6 x voa vial	YES	HCL	BC LABS	TPH-GRO(8015)/BTEX+MTBE(8021)/EDB/EDC(8260)/ ETHANOL (8260)

COMMENTS:

Add/Replaced Gasket: _____ Add/Replaced Bolt: _____ Add/Replaced Lock: _____ Add/Replaced Plug: _____

GETTLER-RYAN INC.

WELL MONITORING/SAMPLING FIELD DATA SHEET

Client/Facility#: Chevron #351642 / 3538 Job Number: 385643
Site Address: 411 West Macarthur Blvd. Event Date: 8/1/13 (inclusive)
City: Oakland, CA Sampler: JOE

Well ID MW-2 Date Monitored: 8/1/13
Well Diameter 2 in.
Total Depth 24.25 ft.
Depth to Water 16.30 ft.

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

☐ Check if water column is less then 0.50 ft.

7.95 xVF 0.17 = 1.35 x3 case volume = Estimated Purge Volume: 4.05 gal.

Depth to Water w/ 80% Recharge [(Height of Water Column x 0.20) + DTW]: 17.89

Purge Equipment:
Disposable Bailer ✓
Stainless Steel Bailer
Stack Pump
Suction Pump
Grundfos
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: gal
Amt Removed from Well: gal
Water Removed:

Start Time (purge): 0808 Weather Conditions: overcast
Sample Time/Date: 0825 / 8/1/13 Water Color: gray Odor: Y / (N)
Approx. Flow Rate: — gpm. Sediment Description: Light
Did well de-water? No If yes, Time: — Volume: — gal. DTW @ Sampling: 16.40

Time (2400 hr.)	Volume (gal.)	pH	Conductivity ~~(umhos/cm µS)~~ mS	Temperature (C / F)	D.O. (mg/L)	ORP (mV)
0810	1.5	6.78	0.78	18.3		
0812	3	6.70	0.77	18.2		
0814	4	6.67	0.76	18.2		

LABORATORY INFORMATION

SAMPLE ID	(#) CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
MW-2	6 x voa vial	YES	HCL	BC LABS	TPH-GRO(8015)/BTEX+MTBE(8021)/EDB/EDC(8260)/ ETHANOL (8260)

COMMENTS:

Add/Replaced Gasket: Add/Replaced Bolt: 1 Add/Replaced Lock: ✓ Add/Replaced Plug: ✓ by #1

GETTLER-RYAN INC.

WELL MONITORING/SAMPLING FIELD DATA SHEET

Client/Facility#: Chevron #351642 / 3538 | Job Number: 385643
Site Address: 411 West Macarthur Blvd. | Event Date: 8/1/13 (inclusive)
City: Oakland, CA | Sampler: JOE

Well ID: MW-3 | Date Monitored: 8/1/13
Well Diameter: 2 in.
Total Depth: 27.11 ft.
Depth to Water: 18.02 ft.

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

☐ Check if water column is less then 0.50 ft.

9.09 xVF 0.17 = 1.54 x3 case volume = Estimated Purge Volume: 4.63 gal.

Depth to Water w/ 80% Recharge [(Height of Water Column x 0.20) + DTW]: 19.83

Purge Equipment:
- Disposable Bailer: ✓
- Stainless Steel Bailer:
- Stack Pump:
- Suction Pump:
- Grundfos:
- 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: gal
Amt Removed from Well: gal
Water Removed:

Start Time (purge): 0841 | Weather Conditions: overcast
Sample Time/Date: 0858 / 8/1/13 | Water Color: Brown | Odor: Y / (N)
Approx. Flow Rate: — gpm. | Sediment Description: Light
Did well de-water? NO | If yes, Time: — | Volume: — gal. | DTW @ Sampling: 18.05

Time (2400 hr.)	Volume (gal.)	pH	Conductivity MS ~~(µmhos/cm - µS)~~	Temperature (C / F)	D.O. (mg/L)	ORP (mV)
0844	2	6.85	0.79	18.8		
0847	4	6.80	0.77	18.6		
0848	5	6.78	0.77	18.5		

LABORATORY INFORMATION

SAMPLE ID	(#) CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
MW-3	6 x voa vial	YES	HCL	BC LABS	TPH-GRO(8015)/BTEX+MTBE(8021)/EDB/EDC(8260)/ ETHANOL (8260)

COMMENTS:

Add/Replaced Gasket: _____ Add/Replaced Bolt: _____ Add/Replaced Lock: _____ Add/Replaced Plug: _____

GETTLER-RYAN INC.

WELL MONITORING/SAMPLING
FIELD DATA SHEET

Client/Facility#: Chevron #351642 / 3538 Job Number: 385643
Site Address: 411 West Macarthur Blvd. Event Date: 8/1/13 (inclusive)
City: Oakland, CA Sampler: JOE

Well ID MW-4 Date Monitored: 8/1/13
Well Diameter 2 in.
Total Depth 24.73 ft.
Depth to Water 18.05 ft.

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

☐ Check if water column is less then 0.50 ft.

6.68 xVF 0.17 = 1.13 x3 case volume = Estimated Purge Volume: 3.40 gal.

Depth to Water w/ 80% Recharge [(Height of Water Column x 0.20) + DTW]: 19.38

Purge Equipment:		Sampling Equipment:	
Disposable Bailer	✓	Disposable Bailer	✓
Stainless Steel Bailer		Pressure Bailer	
Stack Pump		Metal Filters	
Suction Pump		Peristaltic Pump	
Grundfos		QED Bladder Pump	
Peristaltic Pump		Other:	
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: gal
Amt Removed from Well: gal
Water Removed:

Start Time (purge): 0939 Weather Conditions: Overcast
Sample Time/Date: 0953 / 8/1/13 Water Color: Brown Odor: Y / (N)
Approx. Flow Rate: — gpm. Sediment Description: Light
Did well de-water? No If yes, Time: — Volume: — gal. DTW @ Sampling: 18.07

Time (2400 hr.)	Volume (gal.)	pH	Conductivity MS ~~(µmhos/cm µS)~~	Temperature ((C) / F)	D.O. (mg/L)	ORP (mV)
0941	1	6.81	0.74	19.2		
0943	2	6.74	0.72	19.1		
0945	3.5	6.72	0.71	19.0		

LABORATORY INFORMATION

SAMPLE ID	(#) CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
MW-4	6 x voa vial	YES	HCL	BC LABS	TPH-GRO(8015)/BTEX+MTBE(8021)/EDB/EDC(8260)/ ETHANOL (8260)

COMMENTS:

Add/Replaced Gasket: _____ Add/Replaced Bolt: _____ Add/Replaced Lock: _____ Add/Replaced Plug: _____

GETTLER-RYAN INC.

WELL MONITORING/SAMPLING FIELD DATA SHEET

Client/Facility#: Chevron #351642 / 3538 Job Number: 385643
Site Address: 411 West Macarthur Blvd. Event Date: 8/1/13 (inclusive)
City: Oakland, CA Sampler: JOE

Well ID MW-5 Date Monitored: 8/1/13
Well Diameter 2 in.
Total Depth 30.16 ft.
Depth to Water 17.71 ft.

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

☐ Check if water column is less then 0.50 ft.

12.45 xVF 0.17 = 2.11 x3 case volume = Estimated Purge Volume: 6.34 gal.

Depth to Water w/ 80% Recharge [(Height of Water Column x 0.20) + DTW]: 20.20

Purge Equipment:
Disposable Bailer ✓
Stainless Steel Bailer
Stack Pump
Suction Pump
Grundfos
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: gal
Amt Removed from Well: gal
Water Removed:

Start Time (purge): 0703 Weather Conditions: Overcast
Sample Time/Date: 0725 / 8/1/13 Water Color: gray Odor: Y / (N)
Approx. Flow Rate: — gpm. Sediment Description: None
Did well de-water? NO If yes, Time: — Volume: — gal. DTW @ Sampling: 20.18

Time (2400 hr.)	Volume (gal.)	pH	Conductivity mS (umhos/cm - uS)	Temperature (C / F)	D.O. (mg/L)	ORP (mV)
0706	2	6.77	0.92	18.3		
0709	4	6.69	0.93	18.1		
0712	6.5	6.67	0.93	18.0		

LABORATORY INFORMATION

SAMPLE ID	(#) CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
MW-5	6 x voa vial	YES	HCL	BC LABS	TPH-GRO(8015)/BTEX+MTBE(8021)/EDB/EDC(8260)/ ETHANOL (8260)

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 #351642 / 3538 Job Number: 385643
Site Address: 411 West Macarthur Blvd. Event Date: 8/1/13 (inclusive)
City: Oakland, CA Sampler: JOE

Well ID MW-6 Date Monitored: 8/1/13
Well Diameter 2 in.
Total Depth 30.09 ft.
Depth to Water 13.58 ft.

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

☐ Check if water column is less then 0.50 ft.

16.51 xVF 0.17 = 2.80 x3 case volume = Estimated Purge Volume: 8.40 gal.

Depth to Water w/ 80% Recharge [(Height of Water Column x 0.20) + DTW]: 16.88

Purge Equipment:
Disposable Bailer ✓
Stainless Steel Bailer
Stack Pump
Suction Pump
Grundfos
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: gal
Amt Removed from Well: gal
Water Removed:

Start Time (purge): 0622 Weather Conditions: overcast
Sample Time/Date: 0740 / 8/1/13 Water Color: Clear Odor: Y / (N)
Approx. Flow Rate: — gpm. Sediment Description: None
Did well de-water? NO If yes, Time: — Volume: — gal. DTW @ Sampling: 16.88

Time (2400 hr.)	Volume (gal.)	pH	Conductivity mS ~~(µmhos/cm µS)~~	Temperature (C / F)	D.O. (mg/L)	ORP (mV)
0627	3	6.91	0.70	18.8		
0632	6	6.85	0.69	18.5		
0636	8.5	6.80	0.69	18.2		

LABORATORY INFORMATION

SAMPLE ID	(#) CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
MW-6	6 x voa vial	YES	HCL	BC LABS	TPH-GRO(8015)/BTEX+MTBE(8021)/EDB/EDC(8260)/ ETHANOL (8260)

COMMENTS: Slow recovery

Add/Replaced Gasket: Add/Replaced Bolt: Add/Replaced Lock: ✓ Add/Replaced Plug: V-2"

CHAIN OF CUSTODY FORM

Union Oil Company of California ■ 6101 Bollinger Canyon Road ■ San Ramon, CA 94583

COC 1 of 1

Union Oil Site ID: 3538	Union Oil Consultant: AECOM
Site Global ID: T0600101472	Consultant Contact: James Harms
Site Address: 411 West Macarthur Blvd. Oakland, CA	Consultant Phone No.: (916) 361-6412
	Sampling Company: Gettler-Ryan
Union Oil PM: Timothy L. Bishop	Sampled By (PRINT): Joe D. Lewis
Union Oil PM Phone No.: (925) 790-6463	Sampler Signature: Joe D. Lewis
Charge Code: NWRTB- 0 351642 -0- LAB	BC Laboratories, Inc.
This is a LEGAL document. ALL fields must be filled out CORRECTLY and COMPLETELY.	Project Manager: Molly Meyers 4100 Atlas Court, Bakersfield, CA 93308 Phone No. 661-327-4911

Turnaround Time (TAT): Standard ☑ 24 Hours ☐ 48 Hours ☐ 72 Hours ☐

Special Instructions

SAMPLE ID						ANALYSES REQUIRED											
Field Point Name	Matrix	Depth	Date (yymmdd)	Sample Time	# of Containers	TPH - Diesel by EPA 8015	TPH - G by 8015M	BTEX/MTBE/ by EPA 8021	Ethanol by EPA 8260B	EPA 8260B Full List with OXYS	EDB/EDC (8260)						Notes / Comments
MW-1	W-S-A		13/8/1	0922	6		X	X	X		X						
MW-2	W-S-A			0825													
MW-3	W-S-A			0858													
MW-4	W-S-A			0953													
MW-5	W-S-A			0725													
MW-6	W-S-A			0740													
QA	W-S-A			NA	3												
	W-S-A																
	W-S-A																
	W-S-A																
	W-S-A																
	W-S-A																

Relinquished By	Company	Date / Time:	Relinquished By	Company	Date / Time :	Relinquished By	Company	Date / Time:
Joe D. Lewis	Gettler-Ryan	8/2/13 1230	GRIN		08-05-13 1445			
Received By	**Company**	**Date / Time:**	**Received By**	**Company**	**Date / Time:**	**Received By**	**Company**	**Date / Time:**
Gettler-Ryan Fridge		08-02-13 1230	[illegible]	BC Lab	8-5-13 1445			

Attachment B

BC Laboratories Analytical Report #1316529

BC Laboratories, Inc.
Environmental Testing Laboratory Since 1949

Date of Report: 08/13/2013

Jim Harms

AECOM
10461 Old Placerville Rd, Suite 170
Sacramento, CA 95827

Project:	3538
BC Work Order:	1316529
Invoice ID:	B152567

Enclosed are the results of analyses for samples received by the laboratory on 8/5/2013. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Molly Meyers

Contact Person: Molly Meyers
Client Service Rep

Authorized Signature

Table of Contents

CHAIN OF CUSTODY FORM

13-16529

Union Oil Company of California ■ 6101 Bollinger Canyon Road ■ San Ramon, CA 94583

COC 1 of 1

Union Oil Site ID: 3538	Union Oil Consultant: AECOM
Site Global ID: T0600101472	Consultant Contact: James Harms
Site Address: 411 West Macarthur Blvd. Oakland, CA	Consultant Phone No.: (916) 361-6412
Union Oil PM: Timothy L. Bishop	Sampling Company: Gettler-Ryan
Union Oil PM Phone No.: (925) 790-6463	Sampled By (PRINT): JOE D. LEWIS
Charge Code: NWRTB- 0 3 51 6 42 0- LAB	Sampler Signature: Joe D. Lewis
This is a LEGAL document. ALL fields must be filled out CORRECTLY and COMPLETELY.	BC Laboratories, Inc. Project Manager: Molly Meyers 4100 Atlas Court, Bakersfield, CA 93308 Phone No. 661-327-4911

ANALYSES REQUIRED

Turnaround Time (TAT): Standard ☑ 24 Hours ☐ 48 Hours ☐ 72 Hours ☐

Special Instructions

SAMPLE ID						TPH - Diesel by EPA 8015	TPH - G by [redacted] 8015M	BTEX/MTBE/[redacted] by EPA 8021	Ethanol by EPA 8260B	EPA 8260B Full List with OXYS	EDB/EDC (8260)						Notes / Comments
Field Point Name	Matrix	Depth	Date (yymmdd)	Sample Time	# of Containers												
MW-1	W-S-A	-1	13/8/1	0922	6		X	X	X		X						
MW-2	W-S-A	-2		0825													
MW-3	W-S-A	-3		0858													
MW-4	W-S-A	-4		0953													
MW-5	W-S-A	-5		0725													
MW-6	W-S-A	-6		0740													
QA	W-S-A	-7		NA	3												
	W-S-A																
	W-S-A																
	W-S-A																
	W-S-A																
	W-S-A																

CHK BY JK

SUB-OUT

Relinquished By	Company	Date / Time:
Joe D. Lewis	Gettler-Ryan	8/2/13 1230
Received By	Company	Date / Time:
Gettler-Ryan Fridge		08-02-13 1230

Relinquished By	Company	Date / Time:
GRNC		08-05-13 1445
Received By	Company	Date / Time:
Mary Began	BCLab	8-5-13 1445

Relinquished By	Company	Date / Time:
Mary Began	BCLab	8-5-13 1830
Received By	Company	Date / Time:
[redacted]	BCLAB	8.5.13 18:30

REL. [redacted] 8-5-13 21:40 Rec: SAS 8.5.13 2140

Chain of Custody and Cooler Receipt Form for 1316529 Page 2 of 2

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

Submission #: 13-116529

SHIPPING INFORMATION
Federal Express ☐ UPS ☐ Hand Delivery
BC Lab Field Service ☑ Other ☐ (Specify)_____

SHIPPING CONTAINER
Ice Chest ☑ None ☐ Box ☐
Other ☐ (Specify)_____

FREE LIQUID
YES ☐ NO ☐

Refrigerant: Ice ☑ Blue Ice ☐ None ☐ Other ☐ Comments:

Custody Seals Ice Chest ☐ Intact? Yes ☐ No ☐ Containers ☐ Intact? Yes ☐ No ☐ None ☑ Comments:

All samples received? Yes ☑ No ☐ All samples containers intact? Yes ☑ No ☐ Description(s) match COC? Yes ☑ No ☐

COC Received ☑ YES ☐ NO

Emissivity: 0.97 Container: Voa Thermometer ID: 207 Date/Time 8.5.13 2140

Temperature: (A) 1.7 °C / (C) 1.2 °C Analyst Init SAS

SAMPLE CONTAINERS	SAMPLE NUMBERS									
	1	2	3	4	5	6	7	8	9	10
)T GENERAL MINERAL/ GENERAL										
'T PE UNPRESERVED										
)T INORGANIC CHEMICAL METALS										
'T INORGANIC CHEMICAL METALS										
'T CYANIDE										
'T NITROGEN FORMS										
'T TOTAL SULFIDE										
oz. NITRATE / NITRITE										
'T TOTAL ORGANIC CARBON										
T TOX										
'T CHEMICAL OXYGEN DEMAND										
tA PHENOLICS										
)ml VOA VIAL TRAVEL BLANK							A(3)			
)ml VOA VIAL	A,6)	A,6)	A,6)	A,6)	A,6)	A,6)	( )	( )	( )	( )
T EPA 413.1, 413.2, 418.1										
F ODOR										
ADIOLOGICAL										
ACTERIOLOGICAL										
) ml VOA VIAL- 504										
T EPA 508/608/8080										
F EPA 515.1/8150										
T EPA 525										
F EPA 525 TRAVEL BLANK										
0ml EPA 547										
0ml EPA 531.1										
F EPA 548										
F EPA 549										
F EPA 632										
F EPA 8015M										
F AMBER										
)Z. JAR										
OZ. JAR										
IL SLEEVE										
B VIAL										
ASTIC BAG										
RROUS IRON										
CORE										
ART KIT										
mma Canister										

)mments:_____

ple Numbering Completed By: KIQ Date/Time: 8/6/13 @ 1650

Actual / C = Corrected

[S:\MyDOCS\WordPerfect\LAB_DOCS\FORMS\SAMREC15]

AECOM
10461 Old Placerville Rd, Suite 170
Sacramento, CA 95827

Reported: 08/13/2013 11:17
Project: 3538
Project Number: 351642
Project Manager: Jim Harms

Laboratory / Client Sample Cross Reference

Laboratory	Client Sample Information			
1316529-01	**COC Number:**	---	**Receive Date:**	08/06/2013 21:40
	Project Number:	3538	**Sampling Date:**	08/01/2013 09:22
	Sampling Location:	---	**Sample Depth:**	---
	Sampling Point:	MW-1-W-130801	**Lab Matrix:**	Water
	Sampled By:	GRD	**Sample Type:**	Water
	Delivery Work Order:			
	Global ID: T0600101472			
	Location ID (FieldPoint): MW-1			
	Matrix: W			
	Sample QC Type (SACode): CS			
	Cooler ID:			
1316529-02	**COC Number:**	---	**Receive Date:**	08/06/2013 21:40
	Project Number:	3538	**Sampling Date:**	08/01/2013 08:25
	Sampling Location:	---	**Sample Depth:**	---
	Sampling Point:	MW-2-W-130801	**Lab Matrix:**	Water
	Sampled By:	GRD	**Sample Type:**	Water
	Delivery Work Order:			
	Global ID: T0600101472			
	Location ID (FieldPoint): MW-2			
	Matrix: W			
	Sample QC Type (SACode): CS			
	Cooler ID:			
1316529-03	**COC Number:**	---	**Receive Date:**	08/06/2013 21:40
	Project Number:	3538	**Sampling Date:**	08/01/2013 08:58
	Sampling Location:	---	**Sample Depth:**	---
	Sampling Point:	MW-3-W-130801	**Lab Matrix:**	Water
	Sampled By:	GRD	**Sample Type:**	Water
	Delivery Work Order:			
	Global ID: T0600101472			
	Location ID (FieldPoint): MW-3			
	Matrix: W			
	Sample QC Type (SACode): CS			
	Cooler ID:			

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Reported: 08/13/2013 11:17
Project: 3538
Project Number: 351642
Project Manager: Jim Harms

Laboratory / Client Sample Cross Reference

Laboratory	Client Sample Information			
1316529-04	**COC Number:**	---	**Receive Date:**	08/06/2013 21:40
	Project Number:	3538	**Sampling Date:**	08/01/2013 09:53
	Sampling Location:	---	**Sample Depth:**	---
	Sampling Point:	MW-4-W-130801	**Lab Matrix:**	Water
	Sampled By:	GRD	**Sample Type:**	Water
	Delivery Work Order:			
	Global ID: T0600101472			
	Location ID (FieldPoint): MW-4			
	Matrix: W			
	Sample QC Type (SACode): CS			
	Cooler ID:			
1316529-05	**COC Number:**	---	**Receive Date:**	08/06/2013 21:40
	Project Number:	3538	**Sampling Date:**	08/01/2013 07:25
	Sampling Location:	---	**Sample Depth:**	---
	Sampling Point:	MW-5-W-130801	**Lab Matrix:**	Water
	Sampled By:	GRD	**Sample Type:**	Water
	Delivery Work Order:			
	Global ID: T0600101472			
	Location ID (FieldPoint): MW-5			
	Matrix: W			
	Sample QC Type (SACode): CS			
	Cooler ID:			
1316529-06	**COC Number:**	---	**Receive Date:**	08/06/2013 21:40
	Project Number:	3538	**Sampling Date:**	08/01/2013 07:40
	Sampling Location:	---	**Sample Depth:**	---
	Sampling Point:	MW-6-W-130801	**Lab Matrix:**	Water
	Sampled By:	GRD	**Sample Type:**	Water
	Delivery Work Order:			
	Global ID: T0600101472			
	Location ID (FieldPoint): MW-6			
	Matrix: W			
	Sample QC Type (SACode): CS			
	Cooler ID:			

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Reported: 08/13/2013 11:17
Project: 3538
Project Number: 351642
Project Manager: Jim Harms

Laboratory / Client Sample Cross Reference

Laboratory	Client Sample Information

1316529-07

COC Number: ---
Project Number: 3538
Sampling Location: ---
Sampling Point: QA-W-130801
Sampled By: GRD

Receive Date: 08/06/2013 21:40
Sampling Date: 08/01/2013 00:00
Sample Depth: ---
Lab Matrix: Water
Sample Type: Water
Delivery Work Order:
Global ID: T0600101472
Location ID (FieldPoint): QA
Matrix: W
Sample QC Type (SACode): CS
Cooler ID:

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Sacramento, CA 95827

Reported: 08/13/2013 11:17
Project: 3538
Project Number: 351642
Project Manager: Jim Harms

Volatile Organic Analysis (EPA Method 8260)

BCL Sample ID: 1316529-01 | **Client Sample Name:** 3538, MW-1-W-130801, 8/1/2013 9:22:00AM

Constituent	Result	Units	PQL	Method	MB Bias	Lab Quals	Run #
1,2-Dibromoethane	ND	ug/L	0.50	EPA-8260B	ND		1
1,2-Dichloroethane	ND	ug/L	0.50	EPA-8260B	ND		1
Ethanol	ND	ug/L	250	EPA-8260B	ND		1
1,2-Dichloroethane-d4 (Surrogate)	97.1	%	75 - 125 (LCL - UCL)	EPA-8260B			1
Toluene-d8 (Surrogate)	93.7	%	80 - 120 (LCL - UCL)	EPA-8260B			1
4-Bromofluorobenzene (Surrogate)	105	%	80 - 120 (LCL - UCL)	EPA-8260B			1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-8260B	08/07/13	08/07/13 10:50	EAR	MS-V12	1	BWH0380

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10461 Old Placerville Rd, Suite 170
Sacramento, CA 95827

Reported: 08/13/2013 11:17
Project: 3538
Project Number: 351642
Project Manager: Jim Harms

Purgeable Aromatics and Total Petroleum Hydrocarbons

BCL Sample ID: 1316529-01 | **Client Sample Name:** 3538, MW-1-W-130801, 8/1/2013 9:22:00AM

Constituent	Result	Units	PQL	Method	MB Bias	Lab Quals	Run #
Benzene	ND	ug/L	0.30	EPA-8021B	ND		1
Toluene	ND	ug/L	0.30	EPA-8021B	ND		1
Ethylbenzene	ND	ug/L	0.30	EPA-8021B	ND		1
Methyl t-butyl ether	ND	ug/L	1.0	EPA-8021B	ND		1
Total Xylenes	ND	ug/L	0.60	EPA-8021B	ND		1
Gasoline Range Organics (C4 - C12)	ND	ug/L	50	EPA-8015B	ND		2
a,a,a-Trifluorotoluene (PID Surrogate)	93.3	%	70 - 130 (LCL - UCL)	EPA-8021B			1
a,a,a-Trifluorotoluene (FID Surrogate)	108	%	70 - 130 (LCL - UCL)	EPA-8015B			2

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-8021B	08/09/13	08/12/13 19:27	jjh	GC-V9	1	BWH0729
2	EPA-8015B	08/09/13	08/12/13 19:27	jjh	GC-V9	1	BWH0729

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Reported: 08/13/2013 11:17
Project: 3538
Project Number: 351642
Project Manager: Jim Harms

Volatile Organic Analysis (EPA Method 8260)

BCL Sample ID: 1316529-02 | **Client Sample Name:** 3538, MW-2-W-130801, 8/1/2013 8:25:00AM

Constituent	Result	Units	PQL	Method	MB Bias	Lab Quals	Run #
1,2-Dibromoethane	ND	ug/L	0.50	EPA-8260B	ND		1
1,2-Dichloroethane	ND	ug/L	0.50	EPA-8260B	ND		1
Ethanol	ND	ug/L	250	EPA-8260B	ND		1
1,2-Dichloroethane-d4 (Surrogate)	97.2	%	75 - 125 (LCL - UCL)	EPA-8260B			1
Toluene-d8 (Surrogate)	95.1	%	80 - 120 (LCL - UCL)	EPA-8260B			1
4-Bromofluorobenzene (Surrogate)	108	%	80 - 120 (LCL - UCL)	EPA-8260B			1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-8260B	08/07/13	08/07/13 11:07	EAR	MS-V12	1	BWH0380

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Reported: 08/13/2013 11:17
Project: 3538
Project Number: 351642
Project Manager: Jim Harms

Purgeable Aromatics and Total Petroleum Hydrocarbons

BCL Sample ID: 1316529-02 | **Client Sample Name:** 3538, MW-2-W-130801, 8/1/2013 8:25:00AM

Constituent	Result	Units	PQL	Method	MB Bias	Lab Quals	Run #
Benzene	ND	ug/L	0.30	EPA-8021B	ND		1
Toluene	ND	ug/L	0.30	EPA-8021B	ND		1
Ethylbenzene	ND	ug/L	0.30	EPA-8021B	ND		1
Methyl t-butyl ether	ND	ug/L	1.0	EPA-8021B	ND		1
Total Xylenes	ND	ug/L	0.60	EPA-8021B	ND		1
Gasoline Range Organics (C4 - C12)	ND	ug/L	50	EPA-8015B	ND		2
a,a,a-Trifluorotoluene (PID Surrogate)	97.8	%	70 - 130 (LCL - UCL)	EPA-8021B			1
a,a,a-Trifluorotoluene (FID Surrogate)	108	%	70 - 130 (LCL - UCL)	EPA-8015B			2

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-8021B	08/09/13	08/12/13 19:47	jjh	GC-V9	1	BWH0729
2	EPA-8015B	08/09/13	08/12/13 19:47	jjh	GC-V9	1	BWH0729

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Reported: 08/13/2013 11:17
Project: 3538
Project Number: 351642
Project Manager: Jim Harms

Volatile Organic Analysis (EPA Method 8260)

BCL Sample ID: 1316529-03 | **Client Sample Name:** 3538, MW-3-W-130801, 8/1/2013 8:58:00AM

Constituent	Result	Units	PQL	Method	MB Bias	Lab Quals	Run #
1,2-Dibromoethane	ND	ug/L	0.50	EPA-8260B	ND		1
1,2-Dichloroethane	ND	ug/L	0.50	EPA-8260B	ND		1
Ethanol	ND	ug/L	250	EPA-8260B	ND		1
1,2-Dichloroethane-d4 (Surrogate)	94.7	%	75 - 125 (LCL - UCL)	EPA-8260B			1
Toluene-d8 (Surrogate)	94.8	%	80 - 120 (LCL - UCL)	EPA-8260B			1
4-Bromofluorobenzene (Surrogate)	101	%	80 - 120 (LCL - UCL)	EPA-8260B			1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-8260B	08/07/13	08/07/13 11:25	EAR	MS-V12	1	BWH0380

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Reported: 08/13/2013 11:17
Project: 3538
Project Number: 351642
Project Manager: Jim Harms

Purgeable Aromatics and Total Petroleum Hydrocarbons

BCL Sample ID: 1316529-03 | **Client Sample Name:** 3538, MW-3-W-130801, 8/1/2013 8:58:00AM

Constituent	Result	Units	PQL	Method	MB Bias	Lab Quals	Run #
Benzene	ND	ug/L	0.30	EPA-8021B	ND		1
Toluene	ND	ug/L	0.30	EPA-8021B	ND		1
Ethylbenzene	ND	ug/L	0.30	EPA-8021B	ND		1
Methyl t-butyl ether	**5.5**	**ug/L**	**1.0**	**EPA-8021B**	ND		1
Total Xylenes	ND	ug/L	0.60	EPA-8021B	ND		1
Gasoline Range Organics (C4 - C12)	ND	ug/L	50	EPA-8015B	ND		2
a,a,a-Trifluorotoluene (PID Surrogate)	92.5	%	70 - 130 (LCL - UCL)	EPA-8021B			1
a,a,a-Trifluorotoluene (FID Surrogate)	104	%	70 - 130 (LCL - UCL)	EPA-8015B			2

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-8021B	08/09/13	08/12/13 20:08	jjh	GC-V9	1	BWH0729
2	EPA-8015B	08/09/13	08/12/13 20:08	jjh	GC-V9	1	BWH0729

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Reported: 08/13/2013 11:17
Project: 3538
Project Number: 351642
Project Manager: Jim Harms

Volatile Organic Analysis (EPA Method 8260)

BCL Sample ID: 1316529-04 | **Client Sample Name:** 3538, MW-4-W-130801, 8/1/2013 9:53:00AM

Constituent	Result	Units	PQL	Method	MB Bias	Lab Quals	Run #
1,2-Dibromoethane	ND	ug/L	0.50	EPA-8260B	ND		1
1,2-Dichloroethane	ND	ug/L	0.50	EPA-8260B	ND		1
Ethanol	ND	ug/L	250	EPA-8260B	ND		1
1,2-Dichloroethane-d4 (Surrogate)	97.6	%	75 - 125 (LCL - UCL)	EPA-8260B			1
Toluene-d8 (Surrogate)	93.4	%	80 - 120 (LCL - UCL)	EPA-8260B			1
4-Bromofluorobenzene (Surrogate)	99.6	%	80 - 120 (LCL - UCL)	EPA-8260B			1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-8260B	08/07/13	08/07/13 11:43	EAR	MS-V12	1	BWH0380

AECOM
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Sacramento, CA 95827

Reported: 08/13/2013 11:17
Project: 3538
Project Number: 351642
Project Manager: Jim Harms

Purgeable Aromatics and Total Petroleum Hydrocarbons

BCL Sample ID: 1316529-04 | **Client Sample Name:** 3538, MW-4-W-130801, 8/1/2013 9:53:00AM

Constituent	Result	Units	PQL	Method	MB Bias	Lab Quals	Run #
Benzene	ND	ug/L	0.30	EPA-8021B	ND		1
Toluene	ND	ug/L	0.30	EPA-8021B	ND		1
Ethylbenzene	ND	ug/L	0.30	EPA-8021B	ND		1
Methyl t-butyl ether	ND	ug/L	1.0	EPA-8021B	ND		1
Total Xylenes	ND	ug/L	0.60	EPA-8021B	ND		1
Gasoline Range Organics (C4 - C12)	ND	ug/L	50	EPA-8015B	ND		2
a,a,a-Trifluorotoluene (PID Surrogate)	93.0	%	70 - 130 (LCL - UCL)	EPA-8021B			1
a,a,a-Trifluorotoluene (FID Surrogate)	114	%	70 - 130 (LCL - UCL)	EPA-8015B			2

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-8021B	08/09/13	08/12/13 20:28	jjh	GC-V9	1	BWH0729
2	EPA-8015B	08/09/13	08/12/13 20:28	jjh	GC-V9	1	BWH0729

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Sacramento, CA 95827

Reported: 08/13/2013 11:17
Project: 3538
Project Number: 351642
Project Manager: Jim Harms

Volatile Organic Analysis (EPA Method 8260)

BCL Sample ID: 1316529-05 | **Client Sample Name:** 3538, MW-5-W-130801, 8/1/2013 7:25:00AM

Constituent	Result	Units	PQL	Method	MB Bias	Lab Quals	Run #
1,2-Dibromoethane	ND	ug/L	0.50	EPA-8260B	ND		1
1,2-Dichloroethane	ND	ug/L	0.50	EPA-8260B	ND		1
Ethanol	ND	ug/L	250	EPA-8260B	ND		1
1,2-Dichloroethane-d4 (Surrogate)	100	%	75 - 125 (LCL - UCL)	EPA-8260B			1
Toluene-d8 (Surrogate)	99.0	%	80 - 120 (LCL - UCL)	EPA-8260B			1
4-Bromofluorobenzene (Surrogate)	99.4	%	80 - 120 (LCL - UCL)	EPA-8260B			1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-8260B	08/07/13	08/07/13 12:00	EAR	MS-V12	1	BWH0380

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Reported: 08/13/2013 11:17
Project: 3538
Project Number: 351642
Project Manager: Jim Harms

Purgeable Aromatics and Total Petroleum Hydrocarbons

BCL Sample ID: 1316529-05 | **Client Sample Name:** 3538, MW-5-W-130801, 8/1/2013 7:25:00AM

Constituent	Result	Units	PQL	Method	MB Bias	Lab Quals	Run #
Benzene	ND	ug/L	0.30	EPA-8021B	ND		1
Toluene	ND	ug/L	0.30	EPA-8021B	ND		1
Ethylbenzene	ND	ug/L	0.30	EPA-8021B	ND		1
Methyl t-butyl ether	**1.9**	**ug/L**	**1.0**	**EPA-8021B**	ND		1
Total Xylenes	ND	ug/L	0.60	EPA-8021B	ND		1
Gasoline Range Organics (C4 - C12)	ND	ug/L	50	EPA-8015B	ND		2
a,a,a-Trifluorotoluene (PID Surrogate)	95.8	%	70 - 130 (LCL - UCL)	EPA-8021B			1
a,a,a-Trifluorotoluene (FID Surrogate)	102	%	70 - 130 (LCL - UCL)	EPA-8015B			2

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-8021B	08/09/13	08/12/13 20:48	jjh	GC-V9	1	BWH0729
2	EPA-8015B	08/09/13	08/12/13 20:48	jjh	GC-V9	1	BWH0729

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10461 Old Placerville Rd, Suite 170
Sacramento, CA 95827

Reported: 08/13/2013 11:17
Project: 3538
Project Number: 351642
Project Manager: Jim Harms

Volatile Organic Analysis (EPA Method 8260)

BCL Sample ID: 1316529-06 | **Client Sample Name:** 3538, MW-6-W-130801, 8/1/2013 7:40:00AM

Constituent	Result	Units	PQL	Method	MB Bias	Lab Quals	Run #
1,2-Dibromoethane	ND	ug/L	0.50	EPA-8260B	ND		1
1,2-Dichloroethane	ND	ug/L	0.50	EPA-8260B	ND		1
Ethanol	ND	ug/L	250	EPA-8260B	ND		1
1,2-Dichloroethane-d4 (Surrogate)	101	%	75 - 125 (LCL - UCL)	EPA-8260B			1
Toluene-d8 (Surrogate)	99.4	%	80 - 120 (LCL - UCL)	EPA-8260B			1
4-Bromofluorobenzene (Surrogate)	101	%	80 - 120 (LCL - UCL)	EPA-8260B			1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-8260B	08/07/13	08/07/13 12:18	EAR	MS-V12	1	BWH0380

AECOM
10461 Old Placerville Rd, Suite 170
Sacramento, CA 95827

Reported: 08/13/2013 11:17
Project: 3538
Project Number: 351642
Project Manager: Jim Harms

Purgeable Aromatics and Total Petroleum Hydrocarbons

BCL Sample ID: 1316529-06 | **Client Sample Name:** 3538, MW-6-W-130801, 8/1/2013 7:40:00AM

Constituent	Result	Units	PQL	Method	MB Bias	Lab Quals	Run #
Benzene	ND	ug/L	0.30	EPA-8021B	ND		1
Toluene	ND	ug/L	0.30	EPA-8021B	ND		1
Ethylbenzene	ND	ug/L	0.30	EPA-8021B	ND		1
Methyl t-butyl ether	ND	ug/L	1.0	EPA-8021B	ND		1
Total Xylenes	ND	ug/L	0.60	EPA-8021B	ND		1
Gasoline Range Organics (C4 - C12)	ND	ug/L	50	EPA-8015B	ND		2
a,a,a-Trifluorotoluene (PID Surrogate)	98.3	%	70 - 130 (LCL - UCL)	EPA-8021B			1
a,a,a-Trifluorotoluene (FID Surrogate)	111	%	70 - 130 (LCL - UCL)	EPA-8015B			2

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-8021B	08/09/13	08/12/13 21:09	jjh	GC-V9	1	BWH0729
2	EPA-8015B	08/09/13	08/12/13 21:09	jjh	GC-V9	1	BWH0729

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Sacramento, CA 95827

Reported: 08/13/2013 11:17
Project: 3538
Project Number: 351642
Project Manager: Jim Harms

Purgeable Aromatics and Total Petroleum Hydrocarbons

BCL Sample ID: 1316529-07 | **Client Sample Name:** 3538, QA-W-130801, 8/1/2013 12:00:00AM

Constituent	Result	Units	PQL	Method	MB Bias	Lab Quals	Run #
Benzene	ND	ug/L	0.30	EPA-8021B	ND		1
Toluene	ND	ug/L	0.30	EPA-8021B	ND		1
Ethylbenzene	ND	ug/L	0.30	EPA-8021B	ND		1
Methyl t-butyl ether	ND	ug/L	1.0	EPA-8021B	ND		1
Total Xylenes	ND	ug/L	0.60	EPA-8021B	ND		1
Gasoline Range Organics (C4 - C12)	ND	ug/L	50	EPA-8015B	ND		2
a,a,a-Trifluorotoluene (PID Surrogate)	96.7	%	70 - 130 (LCL - UCL)	EPA-8021B			1
a,a,a-Trifluorotoluene (FID Surrogate)	107	%	70 - 130 (LCL - UCL)	EPA-8015B			2

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-8021B	08/09/13	08/12/13 21:29	jjh	GC-V9	1	BWH0729
2	EPA-8015B	08/09/13	08/12/13 21:29	jjh	GC-V9	1	BWH0729

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Volatile Organic Analysis (EPA Method 8260)

Quality Control Report - Method Blank Analysis

Constituent	QC Sample ID	MB Result	Units	PQL	MDL	Lab Quals
QC Batch ID: BWH0380						
1,2-Dibromoethane	BWH0380-BLK1	ND	ug/L	0.50		
1,2-Dichloroethane	BWH0380-BLK1	ND	ug/L	0.50		
Ethanol	BWH0380-BLK1	ND	ug/L	250		
1,2-Dichloroethane-d4 (Surrogate)	BWH0380-BLK1	101	%	75 - 125 (LCL - UCL)		
Toluene-d8 (Surrogate)	BWH0380-BLK1	96.9	%	80 - 120 (LCL - UCL)		
4-Bromofluorobenzene (Surrogate)	BWH0380-BLK1	105	%	80 - 120 (LCL - UCL)		

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Volatile Organic Analysis (EPA Method 8260)

Quality Control Report - Laboratory Control Sample

Constituent	QC Sample ID	Type	Result	Spike Level	Units	Percent Recovery	RPD	Control Limits Percent Recovery	Control Limits RPD	Lab Quals
QC Batch ID: BWH0380										
1,2-Dichloroethane-d4 (Surrogate)	BWH0380-BS1	LCS	9.5800	10.000	ug/L	95.8		75 - 125		
Toluene-d8 (Surrogate)	BWH0380-BS1	LCS	10.110	10.000	ug/L	101		80 - 120		
4-Bromofluorobenzene (Surrogate)	BWH0380-BS1	LCS	10.270	10.000	ug/L	103		80 - 120		

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Volatile Organic Analysis (EPA Method 8260)

Quality Control Report - Precision & Accuracy

Constituent	Type	Source Sample ID	Source Result	Result	Spike Added	Units	RPD	Percent Recovery	Control Limits RPD	Control Limits Percent Recovery	Lab Quals
QC Batch ID: BWH0380	Used client sample: N										
1,2-Dichloroethane-d4 (Surrogate)	MS	1316245-03	ND	9.8800	10.000	ug/L		98.8		75 - 125	
	MSD	1316245-03	ND	9.5700	10.000	ug/L	3.2	95.7		75 - 125	
Toluene-d8 (Surrogate)	MS	1316245-03	ND	9.9000	10.000	ug/L		99.0		80 - 120	
	MSD	1316245-03	ND	9.7600	10.000	ug/L	1.4	97.6		80 - 120	
4-Bromofluorobenzene (Surrogate)	MS	1316245-03	ND	9.9100	10.000	ug/L		99.1		80 - 120	
	MSD	1316245-03	ND	10.070	10.000	ug/L	1.6	101		80 - 120	

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Quality Control Report - Method Blank Analysis

Constituent	QC Sample ID	MB Result	Units	PQL	MDL	Lab Quals
QC Batch ID: BWH0729						
Benzene	BWH0729-BLK1	ND	ug/L	0.30		
Toluene	BWH0729-BLK1	ND	ug/L	0.30		
Ethylbenzene	BWH0729-BLK1	ND	ug/L	0.30		
Methyl t-butyl ether	BWH0729-BLK1	ND	ug/L	1.0		
Total Xylenes	BWH0729-BLK1	ND	ug/L	0.60		
Gasoline Range Organics (C4 - C12)	BWH0729-BLK1	ND	ug/L	50		
a,a,a-Trifluorotoluene (PID Surrogate)	BWH0729-BLK1	95.9	%	70 - 130 (LCL - UCL)		
a,a,a-Trifluorotoluene (FID Surrogate)	BWH0729-BLK1	100	%	70 - 130 (LCL - UCL)		

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Quality Control Report - Laboratory Control Sample

Constituent	QC Sample ID	Type	Result	Spike Level	Units	Percent Recovery	RPD	Control Limits Percent Recovery	Control Limits RPD	Lab Quals
QC Batch ID: BWH0729										
Benzene	BWH0729-BS1	LCS	39.105	40.000	ug/L	97.8		85 - 115		
Toluene	BWH0729-BS1	LCS	38.818	40.000	ug/L	97.0		85 - 115		
Ethylbenzene	BWH0729-BS1	LCS	40.657	40.000	ug/L	102		85 - 115		
Methyl t-butyl ether	BWH0729-BS1	LCS	41.566	40.000	ug/L	104		85 - 115		
Total Xylenes	BWH0729-BS1	LCS	120.56	120.00	ug/L	100		85 - 115		
Gasoline Range Organics (C4 - C12)	BWH0729-BS1	LCS	851.38	1000.0	ug/L	85.1		85 - 115		
a,a,a-Trifluorotoluene (PID Surrogate)	BWH0729-BS1	LCS	38.794	40.000	ug/L	97.0		70 - 130		
a,a,a-Trifluorotoluene (FID Surrogate)	BWH0729-BS1	LCS	40.001	40.000	ug/L	100		70 - 130		

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Quality Control Report - Precision & Accuracy

Constituent	Type	Source Sample ID	Source Result	Result	Spike Added	Units	RPD	Percent Recovery	Control Limits RPD	Control Limits Percent Recovery	Lab Quals
QC Batch ID: BWH0729	Used client sample: N										
Benzene	MS	1316245-04	ND	39.635	40.000	ug/L		99.1		70 - 130	
	MSD	1316245-04	ND	37.931	40.000	ug/L	4.4	94.8	20	70 - 130	
Toluene	MS	1316245-04	ND	39.355	40.000	ug/L		98.4		70 - 130	
	MSD	1316245-04	ND	37.598	40.000	ug/L	4.6	94.0	20	70 - 130	
Ethylbenzene	MS	1316245-04	ND	41.273	40.000	ug/L		103		70 - 130	
	MSD	1316245-04	ND	39.516	40.000	ug/L	4.3	98.8	20	70 - 130	
Methyl t-butyl ether	MS	1316245-04	ND	41.486	40.000	ug/L		104		70 - 130	
	MSD	1316245-04	ND	39.949	40.000	ug/L	3.8	99.9	20	70 - 130	
Total Xylenes	MS	1316245-04	ND	122.19	120.00	ug/L		102		70 - 130	
	MSD	1316245-04	ND	117.01	120.00	ug/L	4.3	97.5	20	70 - 130	
Gasoline Range Organics (C4 - C12)	MS	1316245-04	ND	988.41	1000.0	ug/L		98.8		70 - 130	
	MSD	1316245-04	ND	851.39	1000.0	ug/L	14.9	85.1	20	70 - 130	
a,a,a-Trifluorotoluene (PID Surrogate)	MS	1316245-04	ND	38.727	40.000	ug/L		96.8		70 - 130	
	MSD	1316245-04	ND	38.976	40.000	ug/L	0.6	97.4		70 - 130	
a,a,a-Trifluorotoluene (FID Surrogate)	MS	1316245-04	ND	42.088	40.000	ug/L		105		70 - 130	
	MSD	1316245-04	ND	43.012	40.000	ug/L	2.2	108		70 - 130	

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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