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October 22, 2014

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

RECEIVED

By Alameda County Environmental Health at 2:01 pm, Oct 30, 2014

**Re: Unocal No. 5781 (351640)
3535 Pierson Street, Oakland, California
Fuel Leak Case No. RO0000251
GeoTracker Global ID #T0600101472**

I have reviewed the attached report dated October 22, 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 Arceneaux".

Nicole Arceneaux
Project Manager

Attachment: Third Quarter 2014 Groundwater Monitoring Report by AECOM

October 22, 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: Third Quarter 2014 Groundwater Monitoring Report
Unocal No. 5781 (351640)
3535 Pierson Street, Oakland, California
Fuel Leak Case No. RO0000253**

Dear Mr. Nowell,

On behalf of Chevron Environmental Management Company's (EMC's) affiliate, Union Oil Company of California ("Union Oil"), AECOM is pleased to present the third quarter 2014 groundwater monitoring report for the site located at 3535 Pierson Street in Oakland, California (site) (**Figure 1**). The locations of the former and current site features are illustrated on **Figure 2**. Quarterly groundwater monitoring is 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 collected from wells associated with the site during the third quarter of 2014.

Groundwater Monitoring Field Data

On July 18, 2014, Gettler-Ryan measured and recorded the depth to groundwater for the seven site monitoring wells (MW-A and MW-4 through MW-9). These depths were converted to groundwater elevations and used to construct a groundwater elevation contour map (**Figure 2** and **Table 1**). Copies of the groundwater gauging logs are included in **Attachment A**. The groundwater elevation data collected from well MW-A was not used in contouring because the well is screened in the deeper aquifer. The depth to groundwater at the site ranged from 12.90 to 18.02 feet below the top of well casings with calculated elevations ranging from 136.77 to 140.58 feet above mean sea level. The groundwater flow direction is to the northeast with a calculated average hydraulic gradient of approximately 0.05 feet per foot (**Figure 2**).

Groundwater Sampling and Analytical Results

On July 18, 2014, Gettler-Ryan collected groundwater samples from monitoring wells MW-A and MW-4 through MW-9. The site wells historically have poor recharge, so pre-purge samples are collected. If the wells do not recharge in 2 hours, the pre-purge samples are submitted for analysis. After purging a minimum of three well volumes, only MW-A and MW-8 recharged within the 2-hour period and post-purge samples were submitted for analysis. Temperature, pH, and electrical conductivity readings were recorded during purging, and copies of those purge logs are presented in **Attachment A**.

The groundwater samples were submitted to BC Laboratories, Inc. (BC Labs) of Bakersfield, California. The BC Labs analytical report dated August 18, 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 diesel range organics (TPH-DRO) by Luft/TPHd method with silica gel cleanup;
- Total petroleum hydrocarbons as gasoline range organics (TPH-GRO) by Environmental Protection Agency (EPA) Method 8015B;
- Benzene, toluene, ethylbenzene, and total xylenes (BTEX) by EPA Method 8260B; and
- Fuel oxygenates, including methyl t-butyl ether (MTBE), t-amyl methyl ether (TAME), t-butyl alcohol (TBA), diisopropyl ether (DIPE), and ethyl t-butyl ether (ETBE), ethanol, 1,2 dibromoethane (EDB), and 1,2-dichloroethane (EDC) by EPA Method 8260B.

Analytical results are presented in **Table 1**, **Table 2**, and **Figure 3** for this quarterly groundwater monitoring event. The following presents a brief summary of the analytical sample results:

- Benzene, ETBE, DIPE, TAME, EDB, EDC, TBA and ethanol were not detected in any of the groundwater samples analyzed.
- TPH-DRO was reported for MW-5 at 2,100 µg/L, the laboratory report notes that the chromatogram is not of diesel.
- TPH-GRO was detected for MW-5 at 6,600 µg/L.
- MTBE was detected in the groundwater samples collected from MW-5 and MW-8 at 3.6 µg/L and 0.94 µg/L, respectively.
- Toluene, ethylbenzene, and total xylenes were detected in the groundwater sample collected from MW-5 at 0.97 µg/L, 84 µg/L, and 330 µg/L, respectively. Historical concentrations of toluene, ethylbenzene, and total xylenes detected for MW-5 have shown an overall decreasing trend.

A summary of historical groundwater analytical data through July 2014 is presented in **Tables 3 through 5**.

Approximately 45.5 gallons of purge water was generated during the groundwater monitoring event. The purge water and decontamination water generated during sampling activities was transported by Clean Harbors Environmental Services to Seaport Environmental located in Redwood City, California.

During the fourth quarter of 2012, 0.39 feet of free product/light non-aqueous phase liquid (LNAPL) was observed in well MW-5. Free product/LNAPL has not been observed in MW-5 since that time.

Conclusions

The sample results from the groundwater monitoring activities at the site indicate the following.

- MW-A, MW-4, MW-6, MW-7, and MW-9 are historically non-detect for all analytes.
- MW-5 continues to show elevated petroleum hydrocarbon concentrations; however, the concentrations observed in 2014 have generally been the lowest observed to date.
- MTBE was detected in the groundwater samples collected from MW-5 and MW-8 at 3.6 µg/L and 0.94 µg/L, respectively.

Future Activities**Groundwater Monitoring**

AECOM will coordinate monitoring and sampling activities as per the established schedule. AECOM will submit quarterly groundwater monitoring and sampling reports.

Additional Activity

AECOM will finalize and submit a site assessment work plan during the fourth quarter of 2014 to address downgradient hydrocarbons in groundwater east of MW-5

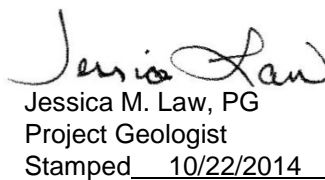
Remarks/Signatures

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.

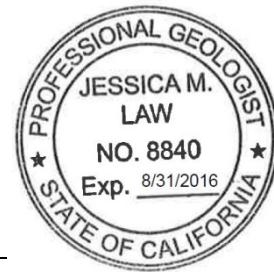
Sincerely,



James Harms
Project Manager



Jessica M. Law, PG
Project Geologist
Stamped 10/22/2014



ccs: Ms. Nicole M. Arceneaux, EMC (via electronic copy)
DeLong Liu, United Brothers Enterprise, Inc., 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
Table 5	Additional Historical Analytical Results

Figures

Figure 1	Site Location Map
Figure 2	Groundwater Elevation Contour Map – Third Quarter 2014
Figure 3	Groundwater Concentration Map – Third Quarter 2014

Attachments

- Attachment A July 18, 2014, Groundwater Data Field Sheets
- Attachment B BC Laboratories, Inc. Analytical Report

Tables

Table 1
Current Groundwater Monitoring Data and Analytical Results
RO253, Unocal No. 5781 (351640)
3535 Pierson Street
Oakland, California

WELL ID	TOC* (ft)	DATE	DTW (ft)	GWE* (ft)	LNAPL (ft)	TPH-DRO (µg/L)	TPH-GRO (µg/L)	B (µg/L)	T (µg/L)	E (µg/L)	X (µg/L)	COMMENTS
MW-A	154.79	7/18/2014	18.02	136.77	0	--	<50	<0.50	<0.50	<0.50	<1.0	
MW-4	153.48	7/18/2014	12.90	140.58	0	<50	<50	<0.50	<0.50	<0.50	<1.0	
MW-5	153.66	7/18/2014	15.28	138.38	0	2, 100 (A52)	6,600	<0.50	0.97	84	330	
MW-6	154.62	7/18/2014	14.96	139.66	0	<50	<50	<0.50	<0.50	<0.50	<1.0	
MW-7	155.38	7/18/2014	15.70	139.68	0	<50	<50	<0.50	<0.50	<0.50	<1.0	
MW-8	153.71	7/18/2014	13.78	139.93	0	<50	<50	<0.50	<0.50	<0.50	<1.0	
MW-9	153.37	7/18/2014	13.69	139.68	0	<50	<50	<0.50	<0.50	<0.50	<1.0	

NOTES:

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

BTEX compounds analyzed by Environmental Protection Agency Method 8260B

TPH-DRO analyzed by Luft/TPHd method with silica gel cleanup

TPH-GRO analyzed by Environmental Protection Agency Method 8015B

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

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

(A52) = Chromatogram not typical of diesel

B = Benzene

T = Toluene

E = Ethylbenzene

X = Total xylenes

TPH-DRO = Total petroleum hydrocarbons as diesel/diesel range organics

TPH-GRO = Total petroleum hydrocarbons as gasoline/gasoline range organics

-- = Not analyzed

Table 2
Current Groundwater Analytical Results - Oxygenate Compounds
RO253, Unocal No. 5781 (351640)
3535 Pierson Street
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-A	7/18/2014	<0.50	<10	<250	<0.50	<0.50	<0.50	<0.50	<0.50
MW-4	7/18/2014	<0.50	<10	<250	<0.50	<0.50	<0.50	<0.50	<0.50
MW-5	7/18/2014	3.6	<10	<250	<0.50	<0.50	<0.50	<0.50	<0.50
MW-6	7/18/2014	<0.50	<10	<250	<0.50	<0.50	<0.50	<0.50	<0.50
MW-7	7/18/2014	<0.50	<10	<250	<0.50	<0.50	<0.50	<0.50	<0.50
MW-8	7/18/2014	0.94	<10	<250	<0.50	<0.50	<0.50	<0.50	<0.50
MW-9	7/18/2014	<0.50	<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

Table 3
Historical Groundwater Monitoring Data and Analytical Results
RO253, Unocal No. 5781 (351640)
3535 Pierson Street
Oakland, California

WELL ID	TOC* (ft)	DATE	DTW (ft)	GWE* (ft)	LNAPL (ft)	TPH-DRO (µg/L)	TPH-GRO (µg/L)	B (µg/L)	T (µg/L)	E (µg/L)	X (µg/L)	Comments
MW-A	--	12/18/1990	--	--	--	73	ND	ND	ND	ND	ND	
	--	5/3/1991	--	--	--	ND	ND	ND	ND	ND	ND	
	--	8/7/1991	--	--	--	ND	ND	ND	ND	ND	ND	
	--	11/8/1991	--	--	--	ND	ND	ND	ND	ND	ND	
	151.80	2/6/1992	19.88	131.92	0	ND	ND	ND	ND	ND	ND	
	151.80	8/4/1992	18.95	132.85	0	ND	ND	ND	ND	ND	0.51	
	151.80	2/10/1993	17.71	134.09	0	ND	ND	ND	ND	ND	ND	
	151.80	2/10/1994	15.25	136.55	0	ND	ND	ND	0.52	ND	0.92	
	151.80	2/9/1995	15.68	136.12	0	ND	ND	ND	ND	ND	ND	
	151.80	2/6/1996	12.52	139.28	0	120	ND	ND	ND	ND	2.1	
	151.80	2/5/1997	13.01	138.79	0	61	ND	ND	ND	ND	ND	
	151.80	2/2/1998	11.91	139.89	0	ND	ND	ND	ND	ND	ND	
	151.80	2/22/1999	11.24	140.56	0	ND	ND	ND	ND	ND	ND	
	151.80	2/26/2000	12.16	139.64	0	ND	ND	ND	1.01	ND	ND	
	151.80	3/7/2001	11.91	139.89	0	131	ND	ND	ND	ND	ND	
	151.80	2/22/2002	14.08	137.72	0	<50	<50	<0.50	<0.50	<0.50	<0.50	
	151.80	2/22/2003	14.41	137.39	0	93	<50	<0.50	<0.50	<0.50	<0.50	
	151.80	2/3/2004	14.32	137.48	0	60	<50	<0.50	<0.50	<0.50	<0.50	
	151.80	2/18/2005	14.21	137.59	0	<50	<50	<0.50	<0.50	<0.50	<0.50	
	151.80	3/29/2006	12.72	139.08	0	<200	<50	<0.30	<0.30	<0.30	<0.60	
	151.80	3/28/2007	13.98	137.82	0	92	<50	<0.30	<0.30	<0.30	<0.60	
	151.80	3/22/2008	12.68	139.12	0	<50	<50	<0.30	<0.30	<0.30	<0.60	
	151.80	3/27/2009	14.35	137.45	0	53	<50	<0.30	<0.30	<0.30	<0.60	
	151.80	3/23/2010	19.55	132.25	0	<58	--	--	--	--	--	
	154.79	6/16/2010	17.85	136.94	0	<50	<50	<0.50	<0.50	<0.50	<1.0	
	154.79	9/29/2010	15.50	139.29	0	<1200	<50	<0.50	<0.50	<0.50	<1.0	
	154.79	12/21/2010	14.43	140.36	0	<50	<50	<0.50	<0.50	<0.50	<1.0	
	154.79	3/10/2011	17.70	137.09	0	<50	<50	<0.50	<0.50	<0.50	<1.0	
	154.79	06/07/2011	13.92	140.87	0	<40	<50	<0.50	<0.50	<0.50	<1.0	
	154.79	08/18/2011	18.83	135.96	0	<40	<50	<0.50	<0.50	<0.50	<1.0	
	154.79	10/04/2011	14.67	140.12	0	<40	<50	<0.50	<0.50	<0.50	<1.0	
	154.79	01/24/2012	16.75	138.04	0	<40	<50	<0.50	<0.50	<0.50	<1.0	
	154.79	04/06/2012	17.14	137.65	0	<40	<50	<0.50	<0.50	<0.50	<1.0	
	154.79	07/02/2012	14.79	140.00	0	<40	<50	<0.50	<0.50	<0.50	<1.0	

Table 3
Historical Groundwater Monitoring Data and Analytical Results
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3535 Pierson Street
Oakland, California

WELL ID	TOC* (ft)	DATE	DTW (ft)	GWE* (ft)	LNAPL (ft)	TPH-DRO (µg/L)	TPH-GRO (µg/L)	B (µg/L)	T (µg/L)	E (µg/L)	X (µg/L)	Comments
MW-A cont.	154.79	10/4/2012	17.52	137.27	0	<50	<50	<0.50	<0.50	<0.50	<1.0	
	154.79	1/23/2013	15.08	139.71	0	<50	<50	<0.50	<0.50	<0.50	<1.0	
	154.79	4/22/2013	15.60	139.19	0	<50	<50	<0.50	<0.50	<0.50	<1.0	
	154.79	7/31/2013	16.42	138.37	0	<50	<50	<0.50	<0.50	<0.50	<1.0	
	154.79	10/17/2013	16.57	138.22	0	<50	<50	<0.50	<0.50	<0.50	<1.0	
	154.79	2/24/2014	17.33	137.46	0	<50	<50	<0.50	<0.50	<0.50	<1.0	
	154.79	4/17/2014	16.65	138.14	0	<50	<50	<0.50	<0.50	<0.50	<1.0	
	154.79	7/18/2014	18.02	136.77	0	--	<50	<0.50	<0.50	<0.50	<0.50	<1.0
MW-4	153.48	6/16/2010	11.13	142.35	0	<50	58	<0.50	9.7	1.3	16	
	153.48	9/29/2010	12.62	140.86	0	<50	<50	<0.50	<0.50	<0.50	<1.0	
	153.48	12/21/2010	11.17	142.31	0	<50	<50	<0.50	<0.50	<0.50	<1.0	
	153.48	3/10/2011	10.57	142.91	0	<50	<50	<0.50	<0.50	<0.50	<1.0	
	153.48	06/07/2011	10.94	142.54	0	<40	<50	<0.50	<0.50	<0.50	<1.0	
	153.48	08/18/2011	12.07	141.41	0	<40	<50	<0.50	<0.50	<0.50	<1.0	
	153.48	10/04/2011	12.70	140.78	0	<40	<50	<0.50	<0.50	<0.50	<1.0	
	153.48	01/24/2012	12.40	141.08	0	<40	<50	<0.50	<0.50	<0.50	<1.0	
	153.48	04/06/2012	11.10	142.38	0	<40	390	<0.50	3.8	11	150	
	153.48	07/02/2012	12.14	141.34	0	<40	<50	<0.50	<0.50	<0.50	<1.0	
	153.48	10/4/2012	13.43	140.05	0	<50	<50	<0.50	<0.50	<0.50	<1.0	
	153.48	1/23/2013	11.64	141.84	0	<50	<50	<0.50	<0.50	<0.50	<1.0	
	153.48	4/22/2013	12.22	141.26	0	<50	<50	<0.50	<0.50	<0.50	<1.0	
	153.48	7/31/2013	13.24	140.24	0	<50	<50	<0.50	<0.50	<0.50	<1.0	
	153.48	10/17/2013	13.85	139.63	0	<50	<50	<0.50	<0.50	<0.50	<1.0	
	153.48	2/24/2014	13.06	140.42	0	<50	<50	<0.50	<0.50	<0.50	<1.0	
	153.48	4/17/2014	11.96	141.52	0	<50	<50	<0.50	<0.50	<0.50	<1.0	
	153.48	7/18/2014	12.90	140.58	0	<50	<50	<0.50	<0.50	<0.50	<0.50	<1.0
MW-5	153.66	6/16/2010	11.95	141.71	0	3,000	29,000	580	6,800	850	7,200	
	153.66	9/29/2010	13.67	139.99	0	64,000	29,000	220	4,100	2,500	23,000	
	153.66	12/21/2010	11.17	142.49	0	11,000	50,000	81	4,800	2,200	22,000	
	153.66	3/10/2011	11.35	142.31	0	4,900	48,000	69	3,600	1,700	20,000	
	153.66	06/07/2011	11.45	142.21	0	3,700	40,000	32	2,300	1,500	16,000	
	153.66	08/18/2011	12.30	141.36	0	5,400	30,000	29	1,000	980	7,200	
	153.66	10/04/2011	13.72	139.94	0	20,000	42,000	21	2,400	2,400	20,000	
	153.66	01/24/2012	12.20	141.46	0	46,000	71,000	<25	1,100	1,400	10,000	

Table 3
Historical Groundwater Monitoring Data and Analytical Results
RO253, Unocal No. 5781 (351640)
3535 Pierson Street
Oakland, California

WELL ID	TOC* (ft)	DATE	DTW (ft)	GWE* (ft)	LNAPL (ft)	TPH-DRO (µg/L)	TPH-GRO (µg/L)	B (µg/L)	T (µg/L)	E (µg/L)	X (µg/L)	Comments
MW-5 cont.	153.66	04/06/2012	11.88	141.78	0	21,000	58,000	9.9	880	660	9,800	
	153.66	07/02/2012	12.75	140.91	0	30,000	53,000	89	590	1,000	12,000	
	153.66	10/4/2012	16.03	137.94	0.39	No Sample Collected - Free Product in Well						
	153.66	1/23/2013	12.02	141.64	0	22,000	54,000	<25	160	1,100	13,000	
	153.66	4/22/2013	12.37	141.29	0	7,600	39,000	0.70	65	330	4,500	
	153.66	7/31/2013	15.62	138.04	0	11,000	35,000	1.0	59	470	3,500	
	153.659999	10/17/2013	16.41	137.25	0	<50	86,000	<10	66	770	9,300	
	153.66	2/24/2014	15.27	138.39	0	1,700	3,900	<0.50	4.5	240	1,800	
	153.66	4/17/2014	12.02	141.64	0	960	27,000	<0.50	2.5	160	1,100	
	153.66	7/18/2014	15.28	138.38	0	2,100 (A52)	6,600	<0.50	0.97	84	330	
	MW-6	154.62	12/21/2010	12.10	142.52	0	<50	<50	<0.50	<0.50	<0.50	<1.0
154.62		3/10/2011	11.36	143.26	0	<50	<50	<0.50	<0.50	<0.50	<1.0	
154.62		06/07/2011	11.33	143.29	0	<40	<50	<0.50	<0.50	<0.50	<1.0	
154.62		08/18/2011	13.00	141.62	0	<40	<50	<0.50	<0.50	<0.50	<1.0	
154.62		10/04/2011	14.02	140.60	0	<40	<50	<0.50	<0.50	<0.50	<1.0	
154.62		01/24/2012	11.94	142.68	0	<40	<50	<0.50	<0.50	<0.50	<1.0	
154.62		04/06/2012	11.39	143.23	0	<40	<50	<0.50	<0.50	<0.50	<1.0	
154.62		07/02/2012	11.49	143.13	0	<40	<50	<0.50	<0.50	<0.50	<1.0	
154.62		10/4/2012	16.09	138.53	0	<50	<50	<0.50	<0.50	<0.50	<1.0	
154.62		1/23/2013	11.41	143.21	0	<50	<50	<0.50	<0.50	<0.50	<1.0	
154.62		4/22/2013	11.43	143.19	0	<50	<50	<0.50	<0.50	<0.50	<1.0	
154.62		7/31/2013	15.71	138.91	0	<50	<50	<0.50	<0.50	<0.50	<1.0	
154.62		10/17/2013	16.83	137.79	0	<50	<50	<0.50	<0.50	<0.50	<1.0	
154.62		2/24/2014	15.22	139.40	0	<50	<50	<0.50	<0.50	<0.50	<1.0	
154.62		4/17/2014	11.43	143.19	0	<50	<50	<0.50	<0.50	<0.50	<1.0	
154.62	7/18/2014	14.96	139.66	0	<50	<50	<0.50	<0.50	<0.50	<1.0		
MW-7	155.38	12/21/2010	13.46	141.92	0	<50	<50	<0.50	<0.50	<0.50	<1.0	
	155.38	3/10/2011	12.07	143.31001	0	<50	<50	<0.50	<0.50	<0.50	<1.0	
	155.38	06/07/2011	12.59	142.79	0	<40	<50	<0.50	<0.50	<0.50	<1.0	
	155.38	08/18/2011	14.37	141.01	0	<40	<50	<0.50	<0.50	<0.50	<1.0	
	155.38	10/04/2011	15.22	140.16	0	<40	<50	<0.50	<0.50	<0.50	<1.0	
	155.38	01/24/2012	15.32	140.06	0	<40	<50	<0.50	<0.50	<0.50	<1.0	
	155.38	04/06/2012	13.09	142.29	0	<49	<50	<0.50	<0.50	<0.50	<1.0	
	155.38	07/02/2012	14.42	140.96	0	<40	<50	<0.50	<0.50	<0.50	<1.0	

Table 3
Historical Groundwater Monitoring Data and Analytical Results
RO253, Unocal No. 5781 (351640)
3535 Pierson Street
Oakland, California

WELL ID	TOC* (ft)	DATE	DTW (ft)	GWE* (ft)	LNAPL (ft)	TPH-DRO (µg/L)	TPH-GRO (µg/L)	B (µg/L)	T (µg/L)	E (µg/L)	X (µg/L)	Comments
MW-7 cont.	155.38	10/4/2012	16.20	139.18	0	<50	<50	<0.50	<0.50	<0.50	<1.0	
	155.38	1/23/2013	13.27	142.11	0	<50	<50	<0.50	<0.50	<0.50	<1.0	
	155.38	4/22/2013	14.30	141.08	0	<50	52	<0.50	<0.50	<0.50	<1.0	
	155.38	7/31/2013	16.30	139.08	0	Insufficient Water to Sample						
	155.38	10/17/2013	16.77	138.61	0	<50	<50	<0.50	<0.50	<0.50	<1.0	
	155.38	2/24/2014	15.33	140.05	0	<50	<50	<0.50	<0.50	<0.50	<1.0	
	155.38	4/17/2014	13.82	141.56	0	<50	<50	<0.50	<0.50	<0.50	<1.0	
	155.38	7/18/2014	15.70	139.68	0	<50	<50	<0.50	<0.50	<0.50	<1.0	
MW-8	153.71	12/21/2010	11.63	142.08001	0	81	<50	<0.50	<0.50	<0.50	<1.0	
	153.71	3/10/2011	11.38	142.33001	0	61	<50	<0.50	<0.50	<0.50	<1.0	
	153.71	06/07/2011	11.54	142.17	0	71	<50	<0.50	<0.50	<0.50	<1.0	
	153.71	08/18/2011	12.47	141.24	0	<40	<50	<0.50	<0.50	<0.50	<1.0	
	153.71	10/04/2011	12.90	140.81	0	<40	<50	<0.50	<0.50	<0.50	<1.0	
	153.71	01/24/2012	12.52	141.19	0	<40	<50	<0.50	<0.50	<0.50	<1.0	
	153.71	04/06/2012	11.35	142.36	0	160	270	<0.50	3.7	7.8	91	
	153.71	07/02/2012	12.50	141.21	0	<40	<50	<0.50	<0.50	<0.50	<1.0	
	153.71	10/4/2012	13.89	139.82	0	<50	<50	<0.50	<0.50	<0.50	2.4	
	153.71	1/23/2013	13.06	140.65	0	<50	<50	<0.50	<0.50	<0.50	<1.0	
	153.71	4/22/2013	12.82	140.89	0	<50	<50	<0.50	<0.50	<0.50	<1.0	
	153.71	7/31/2013	13.63	140.08	0	<50	<50	<0.50	<0.50	<0.50	<1.0	
	153.71	10/17/2013	14.48	139.23	0	<50	<50	<0.50	<0.50	<0.50	<1.0	
	153.71	2/24/2014	13.56	140.15	0	<50	<50	<0.50	<0.50	<0.50	<1.0	
	153.71	4/17/2014	11.90	141.81	0	<50	<50	<0.50	<0.50	<0.50	<1.0	
153.71	7/18/2014	13.78	139.93	0	<50	<50	<0.50	<0.50	<0.50	<1.0		
MW-9	153.37	12/21/2010	10.53	142.84	0	<50	<50	<0.50	<0.50	<0.50	<1.0	
	153.37	3/10/2011	10.86	142.51	0	<50	<50	<0.50	<0.50	<0.50	<1.0	
	153.37	06/07/2011	11.36	142.01	0	<40	<50	<0.50	<0.50	<0.50	<1.0	
	153.37	08/18/2011	12.52	140.85	0	<40	<50	<0.50	<0.50	<0.50	<1.0	
	153.37	10/04/2011	13.32	140.05	0	<40	<50	<0.50	<0.50	<0.50	<1.0	
	153.37	01/24/2012	11.23	142.14	0	<40	<50	<0.50	<0.50	<0.50	<1.0	
	153.37	04/06/2012	10.98	142.39	0	<40	340	<0.50	4.4	9	120	
	153.37	07/02/2012	12.58	140.79	0	<40	<50	<0.50	<0.50	<0.50	<1.0	
	153.37	10/4/2012	14.31	139.06	0	<50	<50	<0.50	<0.50	<0.50	<1.0	
	153.37	1/23/2013	11.11	142.26	0	<50	<50	<0.50	<0.50	<0.50	<1.0	

Table 3
Historical Groundwater Monitoring Data and Analytical Results
RO253, Unocal No. 5781 (351640)
3535 Pierson Street
Oakland, California

WELL ID	TOC* (ft)	DATE	DTW (ft)	GWE* (ft)	LNAPL (ft)	TPH-DRO (µg/L)	TPH-GRO (µg/L)	B (µg/L)	T (µg/L)	E (µg/L)	X (µg/L)	Comments
MW-9 cont.	153.37	4/22/2013	12.22	141.15	0	<50	<50	<0.50	<0.50	<0.50	<1.0	
	153.37	7/31/2013	14.10	139.27	0	<50	<50	<0.50	<0.50	<0.50	<1.0	
	153.37	10/17/2013	14.56	138.81	0	<50	<50	<0.50	<0.50	<0.50	<1.0	
	153.37	2/24/2014	12.85	140.52	0	<50	<50	<0.50	<0.50	<0.50	<1.0	
	153.37	4/17/2014	11.73	141.64	0	<50	<50	<0.50	<0.50	<0.50	<1.0	
	153.37	7/18/2014	13.69	139.68	0	<50	<50	<0.50	<0.50	<0.50	<1.0	

NOTES:

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

BTEX compounds analyzed by Environmental Protection Agency Method 8260B

TPH-DRO analyzed by Luft/TPHd method with silica gel cleanup

TPH-GRO analyzed by Environmental Protection Agency Method 8015B

Free product correlates to light non-aqueous phase liquid

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

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

-- = Not analyzed/applicable

B = Benzene

T = Toluene

E = Ethylbenzene

X = Total xylenes

TPH-DRO = Total petroleum hydrocarbons as diesel/diesel range organics

TPH-GRO = Total petroleum hydrocarbons as gasoline/gasoline range organics

ND = Non-detect

(A52) = Chromatogram not typical of diesel

Table 4
Historical Groundwater Analytical Results - Oxygenate Compounds
RO253, Unocal No. 5781 (351640)
3535 Pierson Street
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)	METHANOL (µg/L)	METHANE (mg/L)	FERROUS IRON (mg/L)	NITRATE (AS N) (mg/L)	SULFATE (mg/L)
MW-A	12/18/1990	--	--	--	--	--	--	--	--	--	--	--	--	--
	5/3/1991	--	--	--	--	--	--	--	--	--	--	--	--	--
	8/7/1991	--	--	--	--	--	--	--	--	--	--	--	--	--
	11/8/1991	--	--	--	--	--	--	--	--	--	--	--	--	--
	2/6/1992	--	--	--	--	--	--	--	--	--	--	--	--	--
	8/4/1992	--	--	--	--	--	--	--	--	--	--	--	--	--
	2/10/1993	--	--	--	--	--	--	--	--	--	--	--	--	--
	2/10/1994	--	--	--	--	--	--	--	--	--	--	--	--	--
	2/9/1995	--	--	--	--	--	--	--	--	--	--	--	--	--
	2/6/1996	--	--	--	--	--	--	--	--	--	--	--	--	--
	2/5/1997	ND	--	--	--	--	--	--	--	--	--	--	--	--
	2/2/1998	ND	--	--	--	--	--	--	--	--	--	--	--	--
	2/22/1999	ND	--	--	--	--	--	--	--	--	--	--	--	--
	2/26/2000	ND	--	--	--	--	--	--	--	--	--	--	--	--
	3/7/2001	ND	ND	ND	ND	ND	ND	ND	ND	--	--	--	--	--
	2/22/2002	<0.50	--	--	--	--	--	--	--	--	--	--	--	--
	2/22/2003	<2.0	<100	<500	<2.0	<2.0	<2.0	<2.0	<0.50	--	--	--	--	--
	2/3/2004	<2.0	<5.0	<50	<0.50	<0.50	<0.50	<0.50	<0.50	--	--	--	--	--
	2/18/2005	<0.50	<10	<250	<0.50	<0.50	<0.50	<0.50	<0.50	--	--	--	--	--
	3/29/2006	0.54	<10	<250	<0.50	<0.50	<0.50	<0.50	<0.50	--	--	--	--	--
	3/28/2007	<0.50	<10	<250	<0.50	<0.50	<0.50	<0.50	<0.50	--	--	--	--	--
	3/22/2008	<0.50	<10	<250	<0.50	<0.50	<0.50	<0.50	<0.50	--	--	--	--	--
	3/27/2009	<0.50	<10	<250	<0.50	<0.50	<0.50	<0.50	<0.50	<100	--	--	--	--
	3/23/2010	--	--	--	--	--	--	--	--	--	--	--	--	--
	6/16/2010	<0.50	<10	<250	<0.50	<0.50	<0.50	<0.50	<0.50	<100	--	--	--	--
	9/29/2010	0.63	<10	<250	<0.50	<0.50	<0.50	<0.50	<0.50	<100	--	--	--	--
	12/21/2010	0.65	<10	<250	<0.50	<0.50	<0.50	<0.50	<0.50	<100	--	--	--	--
	3/10/2011	0.56	<10	<250	<0.50	<0.50	<0.50	<0.50	<0.50	<100	--	--	--	--
	06/07/2011	0.57	<10	<250	<0.50	<0.50	<0.50	<0.50	<0.50	<100	--	--	--	--
	08/18/2011	0.61	<10	<250	<0.50	<0.50	<0.50	<0.50	<0.50	<100	<0.0010	140	11	69
	10/04/2011	0.72	<10	<250	<0.50	<0.50	<0.50	<0.50	<0.50	<100	<0.0010	<100	13	69
	01/24/2012	<0.50	<10	<250	<0.50	<0.50	<0.50	<0.50	<0.50	--	--	--	--	--
	04/06/2012	<0.50	<10	<250	<0.50	<0.50	<0.50	<0.50	<0.50	--	--	--	--	--
	07/02/2012	0.56	<10	<250	<0.50	<0.50	<0.50	<0.50	<0.50	--	--	--	--	--
	10/4/2012	0.50	<10	<250	<0.50	<0.50	<0.50	<0.50	<0.50	--	--	--	--	--
	1/23/2013	0.55	<10	<250	<0.50	<0.50	<0.50	<0.50	<0.50	--	--	--	--	--
	4/22/2013	0.59	<10	<250	<0.50	<0.50	<0.50	<0.50	<0.50	--	--	--	--	--
	7/31/2013	<0.50	<10	<250	<0.50	<0.50	<0.50	<0.50	<0.50	--	--	--	--	--
	10/17/2013	<0.50	<10	<250	<0.50	<0.50	<0.50	<0.50	<0.50	--	--	--	--	--
	2/24/2014	<0.50	<10	<250	<0.50	<0.50	<0.50	<0.50	<0.50	--	--	--	--	--
	4/17/2014	<0.50	<10	<250	<0.50	<0.50	<0.50	<0.50	<0.50	--	--	--	--	--
	7/18/2014	<0.50	<10	<250	<0.50	<0.50	<0.50	<0.50	<0.50	--	--	--	--	--

Table 4
Historical Groundwater Analytical Results - Oxygenate Compounds
RO253, Unocal No. 5781 (351640)
3535 Pierson Street
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)	METHANOL (µg/L)	METHANE (mg/L)	FERROUS IRON (mg/L)	NITRATE (AS N) (mg/L)	SULFATE (mg/L)	
MW-4	6/16/2010	5.4	<10	<250	<0.50	<0.50	<0.50	<0.50	<0.50	<100	--	--	--	--	
	9/29/2010	7.3	<10	<250	<0.50	<0.50	<0.50	<0.50	<0.50	<100	--	--	--	--	
	12/21/2010	<0.50	<10	<250	<0.50	<0.50	<0.50	<0.50	<0.50	<100	--	--	--	--	
	3/10/2011	2.2	<10	<250	<0.50	<0.50	<0.50	<0.50	<0.50	<100	--	--	--	--	
	06/07/2011	1.6	<10	<250	<0.50	<0.50	<0.50	<0.50	<0.50	<100	--	--	--	--	
	08/18/2011	4	<10	<250	<0.50	<0.50	<0.50	<0.50	<0.50	<100	0.04	<100	4.6	52	
	10/04/2011	3.8	<10	<250	<0.50	<0.50	<0.50	<0.50	<0.50	<100	0.03	100	4.3	50	
	01/24/2012	1.5	<10	<250	<0.50	<0.50	<0.50	<0.50	<0.50	--	--	--	--	--	
	04/06/2012	2.2	<10	<250	<0.50	<0.50	<0.50	<0.50	<0.50	--	--	--	--	--	
	07/02/2012	2.4	<10	<250	<0.50	<0.50	<0.50	<0.50	<0.50	--	--	--	--	--	
	10/4/2012	1.3	<10	<250	<0.50	<0.50	<0.50	<0.50	<0.50	--	--	--	--	--	
	1/23/2013	<0.50	<10	<250	<0.50	<0.50	<0.50	<0.50	<0.50	--	--	--	--	--	
	4/22/2013	2.5	<10	<250	<0.50	<0.50	<0.50	<0.50	<0.50	--	--	--	--	--	
	7/31/2013	0.95	<10	<250	<0.50	<0.50	<0.50	<0.50	<0.50	--	--	--	--	--	
	10/17/2013	<0.50	<10	<250	<0.50	<0.50	<0.50	<0.50	<0.50	--	--	--	--	--	
	2/24/2014	<0.50	<10	<250	<0.50	<0.50	<0.50	<0.50	<0.50	--	--	--	--	--	
	4/17/2014	<0.50	<10	<250	<0.50	<0.50	<0.50	<0.50	<0.50	--	--	--	--	--	
7/18/2014	<0.50	<10	<250	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	--	--	--	--	--	
MW-5	6/16/2010	<50	<1000	<25000	<50	<50	<50	<50	<50	<100	--	--	--	--	
	9/29/2010	52	<1000	<25000	<50	<50	<50	<50	<50	<1000	--	--	--	--	
	12/21/2010	<50	<1000	<25000	<50	<50	<50	<50	<50	<100	--	--	--	--	
	3/10/2011	<50	<1000	<25000	<50	<50	<50	<50	<50	<100	--	--	--	--	
	06/07/2011	24	150	330	<0.50	<0.50	<0.50	<0.50	<0.50	<100	--	--	--	--	
	08/18/2011	56	44	<250	<0.50	<0.50	<0.50	<0.50	<0.50	<100	9.7	15,000	<0.44	<1.0	
	10/04/2011	42	<250	<6,200	<12	<12	<12	<12	<12	<100	1.9	17,000	<0.44	1.3	
	01/24/2012	<25	<500	<12,000	<25	<25	<25	<25	<25	--	--	--	--	--	
	04/06/2012	12	<120	<3,100	<6.2	<6.2	<6.2	<6.2	<6.2	--	--	--	--	--	
	07/02/2012	26	<500	<12,000	<25	<25	<25	<25	<25	--	--	--	--	--	
	10/4/2012	No Sample Collected - Free Product in Well													
	1/23/2013	<25	<500	<12,000	<25	<25	<25	<25	<25	<25	--	--	--	--	--
	4/22/2013	2.9	<10	<250	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	--	--	--	--	--
	7/31/2013	9.8	<10	<250	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	--	--	--	--	--
	10/17/2013	<10	<200	<5,000	<10	<10	<10	<10	<10	<10	--	--	--	--	--
	2/24/2014	1.7	<10	<250	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	--	--	--	--	--
	4/17/2014	1.4	310	<250	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	--	--	--	--	--
7/18/2014	3.6	<10	<250	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	--	--	--	--	--	

Table 4
Historical Groundwater Analytical Results - Oxygenate Compounds
RO253, Unocal No. 5781 (351640)
3535 Pierson Street
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)	METHANOL (µg/L)	METHANE (mg/L)	FERROUS IRON (mg/L)	NITRATE (AS N) (mg/L)	SULFATE (mg/L)
MW-6	12/21/2010	32	<10	<250	<0.50	<0.50	<0.50	<0.50	<0.50	<100	--	--	--	--
	3/10/2011	4.6	<10	<250	<0.50	<0.50	<0.50	<0.50	<0.50	<100	--	--	--	--
	06/07/2011	4.3	<10	<250	<0.50	<0.50	<0.50	<0.50	<0.50	<100	--	--	--	--
	08/18/2011	2.4	<10	<250	<0.50	<0.50	<0.50	<0.50	<0.50	<100	0.0027	<200	18	66
	10/04/2011	3.1	<10	<250	<0.50	<0.50	<0.50	<0.50	<0.50	<100	<0.0010	100	24	78
	01/24/2012	<0.50	<10	<250	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	--	--	--	--
	04/06/2012	<0.50	<10	<250	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	--	--	--	--
	07/02/2012	0.56	<10	<250	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	--	--	--	--
	10/4/2012	0.75	<10	<250	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	--	--	--	--
	1/23/2013	<0.50	<10	<250	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	--	--	--	--
	4/22/2013	0.53	<10	<250	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	--	--	--	--
	7/31/2013	<0.50	<10	<250	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	--	--	--	--
	10/17/2013	16	<10	<250	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	--	--	--	--
	2/24/2014	47	<10	<250	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	--	--	--	--
	4/17/2014	<0.50	<10	<250	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	--	--	--	--
7/18/2014	<0.50	<10	<250	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	--	--	--	--	
MW-7	12/21/2010	<0.50	<10	<250	<0.50	<0.50	<0.50	<0.50	<0.50	<100	--	--	--	--
	3/10/2011	<0.50	<10	<250	<0.50	<0.50	<0.50	<0.50	<0.50	<100	--	--	--	--
	06/07/2011	<0.50	<10	<250	<0.50	<0.50	<0.50	<0.50	<0.50	<100	--	--	--	--
	08/18/2011	<0.50	<10	<250	<0.50	<0.50	<0.50	<0.50	<0.50	<100	0.0012	<500	3.8	100
	10/04/2011	<0.50	<10	<250	<0.50	<0.50	<0.50	<0.50	<0.50	<100	<0.0010	<500	4.2	100
	01/24/2012	<0.50	<10	<250	<0.50	<0.50	<0.50	<0.50	<0.50	--	--	--	--	--
	04/06/2012	<0.50	<10	<250	<0.50	<0.50	<0.50	<0.50	<0.50	--	--	--	--	--
	07/02/2012	<0.50	<10	<250	<0.50	<0.50	<0.50	<0.50	<0.50	--	--	--	--	--
	10/4/2012	<0.50	<10	<250	<0.50	<0.50	<0.50	<0.50	<0.50	--	--	--	--	--
	1/23/2013	<0.50	<10	<250	<0.50	<0.50	<0.50	<0.50	<0.50	--	--	--	--	--
	4/22/2013	<0.50	<10	<250	<0.50	<0.50	<0.50	<0.50	<0.50	--	--	--	--	--
	7/30/2013	--	--	--	--	--	--	--	--	--	--	--	--	--
	10/17/2013	<0.50	<10	<250	<0.50	<0.50	<0.50	<0.50	<0.50	--	--	--	--	--
	2/24/2014	<0.50	<10	<250	<0.50	<0.50	<0.50	<0.50	<0.50	--	--	--	--	--
	4/17/2014	<0.50	<10	<250	<0.50	<0.50	<0.50	<0.50	<0.50	--	--	--	--	--
7/18/2014	<0.50	<10	<250	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	--	--	--	--	
MW-8	12/21/2010	3.9	<10	<250	<0.50	<0.50	<0.50	<0.50	<0.50	<100	--	--	--	--
	3/10/2011	2.3	<10	<250	<0.50	<0.50	<0.50	<0.50	<0.50	<100	--	--	--	--
	06/07/2011	3.6	<10	<250	<0.50	<0.50	<0.50	<0.50	<0.50	<100	--	--	--	--
	08/18/2011	2.1	<10	<250	<0.50	<0.50	<0.50	<0.50	<0.50	<100	<0.0010	140	1.5	65
	10/04/2011	1.5	<10	<250	<0.50	<0.50	<0.50	<0.50	<0.50	<100	<0.0010	190	2.8	67
	01/24/2012	<0.50	<10	<250	<0.50	<0.50	<0.50	<0.50	<0.50	--	--	--	--	--

Table 4
Historical Groundwater Analytical Results - Oxygenate Compounds
RO253, Unocal No. 5781 (351640)
3535 Pierson Street
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)	METHANOL (µg/L)	METHANE (mg/L)	FERROUS IRON (mg/L)	NITRATE (AS N) (mg/L)	SULFATE (mg/L)
MW-8 cont.	04/06/2012	<0.50	<10	<250	<0.50	<0.50	<0.50	<0.50	<0.50	--	--	--	--	--
	07/02/2012	1.5	<10	<250	<0.50	<0.50	<0.50	<0.50	<0.50	--	--	--	--	--
	10/4/2012	0.69	<10	<250	<0.50	<0.50	<0.50	<0.50	<0.50	--	--	--	--	--
	1/23/2013	1.0	<10	<250	<0.50	<0.50	<0.50	<0.50	<0.50	--	--	--	--	--
	4/22/2013	0.88	<10	<250	<0.50	<0.50	<0.50	<0.50	<0.50	--	--	--	--	--
	7/31/2013	0.79	<10	<250	<0.50	<0.50	<0.50	<0.50	<0.50	--	--	--	--	--
	10/17/2013	0.78	<10	<250	<0.50	<0.50	<0.50	<0.50	<0.50	--	--	--	--	--
	2/24/2014	1.1	<10	<250	<0.50	<0.50	<0.50	<0.50	<0.50	--	--	--	--	--
	4/17/2014	1.1	<10	<250	<0.50	<0.50	<0.50	<0.50	<0.50	--	--	--	--	--
	7/18/2014	0.94	<10	<250	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	--	--	--	--
MW-9	12/21/2010	1.2	<10	<250	<0.50	<0.50	<0.50	<0.50	<0.50	<100	--	--	--	--
	3/10/2011	0.90	<10	<250	<0.50	<0.50	<0.50	<0.50	<0.50	<100	--	--	--	--
	06/07/2011	1.4	<10	<250	<0.50	<0.50	<0.50	<0.50	<0.50	<100	--	--	--	--
	08/18/2011	2.1	<10	<250	<0.50	<0.50	<0.50	<0.50	<0.50	<100	0.001	<500	2.7	47
	10/04/2011	2.4	<10	<250	<0.50	<0.50	<0.50	<0.50	<0.50	<100	<0.0010	<200	3.2	47
	01/24/2012	1.3	<10	<250	<0.50	<0.50	<0.50	<0.50	<0.50	--	--	--	--	--
	04/06/2012	<0.50	<10	<250	<0.50	<0.50	<0.50	<0.50	<0.50	--	--	--	--	--
	07/02/2012	2.0	<10	<250	<0.50	<0.50	<0.50	<0.50	<0.50	--	--	--	--	--
	10/4/2012	1.3	<10	<250	<0.50	<0.50	<0.50	<0.50	<0.50	--	--	--	--	--
	1/23/2013	<0.50	<10	<250	<0.50	<0.50	<0.50	<0.50	<0.50	--	--	--	--	--
	4/22/2013	0.83	<10	<250	<0.50	<0.50	<0.50	<0.50	<0.50	--	--	--	--	--
	7/31/2013	1.8	<10	<250	<0.50	<0.50	<0.50	<0.50	<0.50	--	--	--	--	--
	10/17/2013	<0.50	<10	<250	<0.50	<0.50	<0.50	<0.50	<0.50	--	--	--	--	--
	2/24/2014	<0.50	<10	<250	<0.50	<0.50	<0.50	<0.50	<0.50	--	--	--	--	--
	4/17/2014	<0.50	<10	<250	<0.50	<0.50	<0.50	<0.50	<0.50	--	--	--	--	--
	7/18/2014	<0.50	<10	<250	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	--	--	--	--

NOTES:

Oxygenate compounds analyzed by Environmental Protection Agency Method 8260B
Free product correlates to light non-aqueous phase liquid

- <# = Analyte not detected at or above indicated laboratory practical quantitation limit
- ID = Identification
- µg/L = Micrograms per liter
- ND = Non-detect
- 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

Table 5
Additional Historical Analytical Results
RO253, Unocal No. 5781 (351640)
3535 Pierson Street
Oakland, California

WELL ID	DATE	Dichloro- difluoro- methane (µg/L)	1,1-DCA (µg/L)	1,1-DCE (µg/L)	cis- 1,2-DCE (µg/L)	trans- 1,2-DCE (µg/L)	1,2- Dichloro- propane (µg/L)	cis-1,3- Dichloro- propene (µg/L)
MW-A	2/3/2004	ND<1.0	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50
	2/18/2005	ND<1.0	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50
	3/29/2006	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50
	3/28/2007	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50
	3/22/2008	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50
	3/27/2009	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50

WELL ID	DATE	1,1,2,2- Tetrachloro- ethane (µg/L)	Tetrachloro- ethene (PCE) (µg/L)	Trichloro- trifluoro- ethane (µg/L)	1,1,1- Trichloro- ethane (µg/L)	1,1,2- Trichloro- ethane (µg/L)	Trichloro- ethene (TCE) (µg/L)	Trichloro- fluoro- methane (µg/L)	Vinyl chloride (µg/L)
MW-A	2/3/2004	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	ND<0.50
	2/18/2005	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	ND<0.50
	3/29/2006	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50
	3/28/2007	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50
	3/22/2008	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50
	3/27/2009	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50

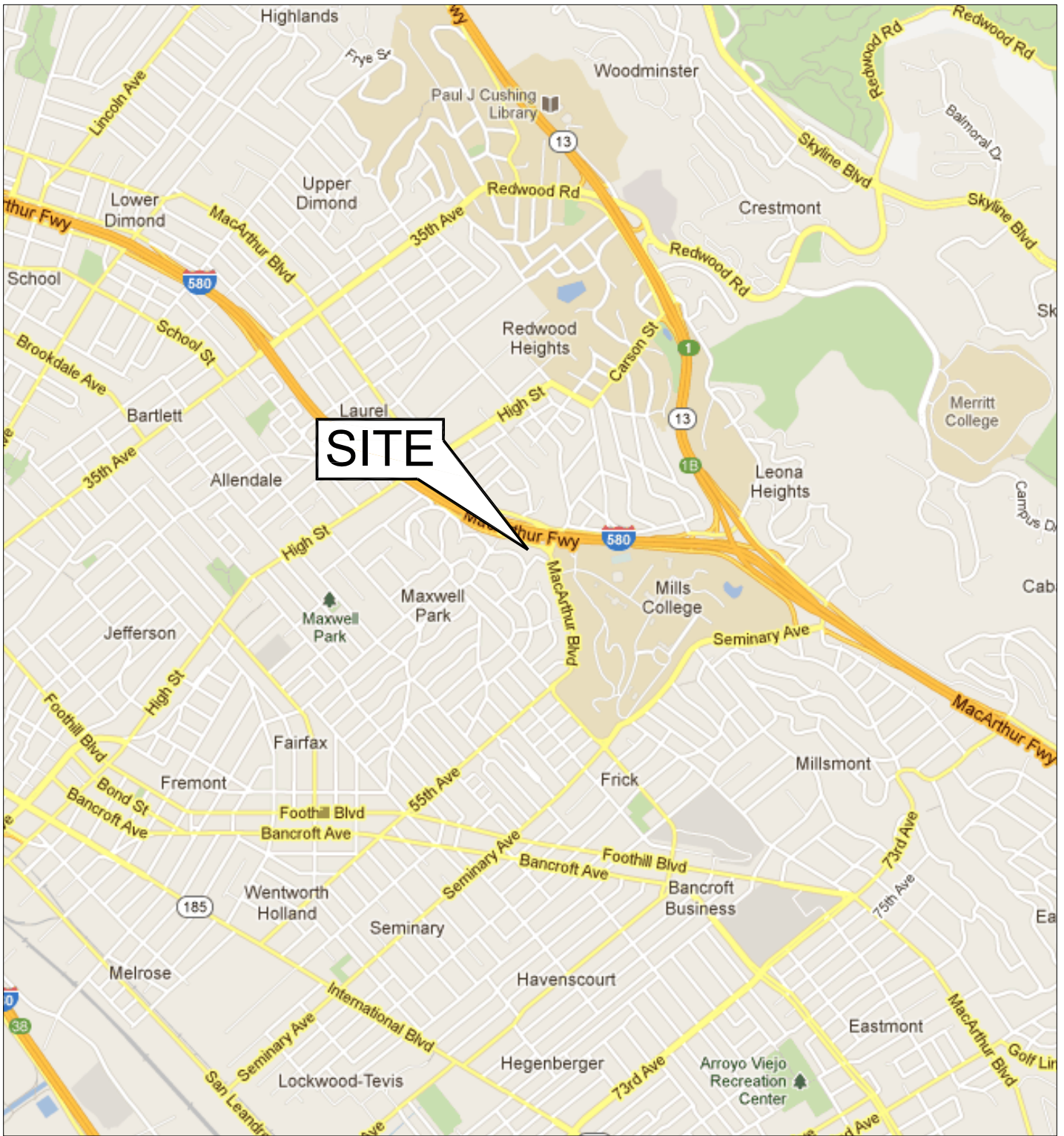
NOTES:

µg/L = Micrograms per liter

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

ID = Identification

Figures



North

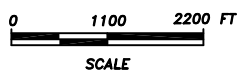


FIGURE 1

SITE LOCATION MAP

UNOCAL NO. 5781

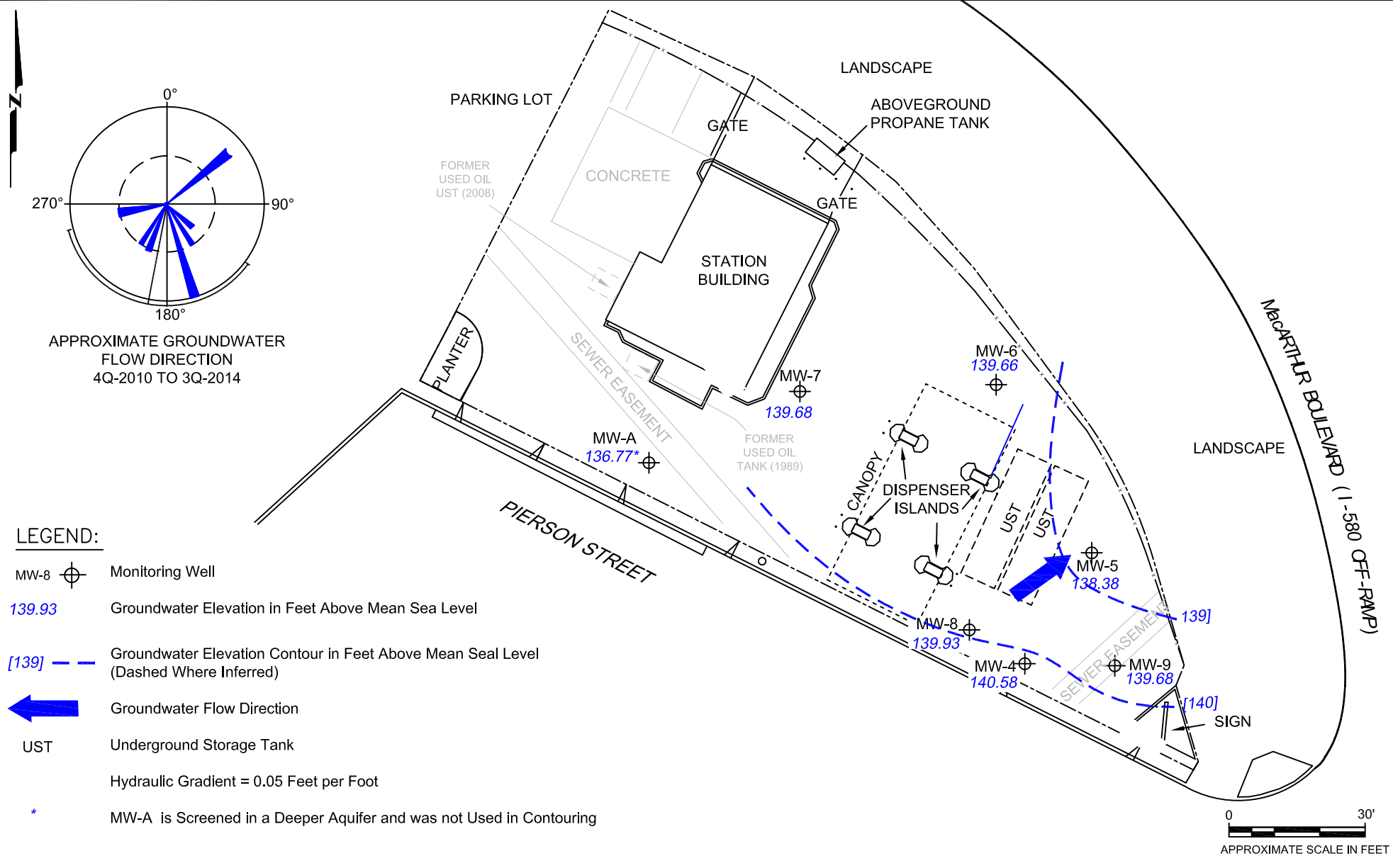
(351640)

3535 PIERSON STREET
OAKLAND, CALIFORNIA

PROJECT NO.	DRAWN BY 04/15/2014
FILE NO. 351640	PREPARED BY CD
REVISION NO.	REVIEWED BY JH



P:\ENV01231-CHEVRO76PRODUCTS_TRANSFER_SITES\351640_5781_OAKLAND\7.0 DELIVERABLES\7.2 CADD\3Q14\FIGURE 2_GWE_351640_3Q14.DWG



GROUNDWATER ELEVATION CONTOUR MAP - THIRD QUARTER 2014

RO253, Unocal No. 5781 (351640)
3535 Pierson Street, Oakland, California



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

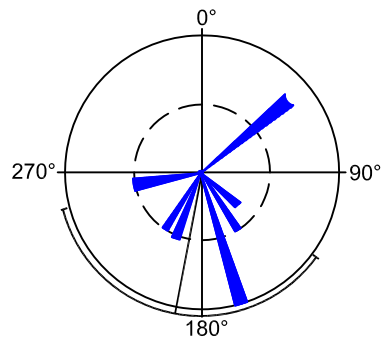
DESIGNED BY:	REVISIONS			
	NO.:	DESCRIPTION:	DATE:	BY:
DRAWN BY:				
JH				
CHECKED BY:				
JL				
APPROVED BY:				
JH				

FIGURE NUMBER:

2

SCALE:	DATE:	PROJECT NUMBER:
1" = 30'	09/29/2014	60314299

P:\ENV01231-CHEVRON76PRODUCTS_TRANSFER_SITES\351640_5781_OAKLAND\7.0 DELIVERABLES\7.2 CADD\3Q14\FIGURE 3 CONC 3Q14_351640.DWG



APPROXIMATE GROUNDWATER FLOW DIRECTION
4Q-2010 TO 3Q-2014

Legend

- MW-A Monitoring Well
- Groundwater Flow Direction
- UST Underground Storage Tank

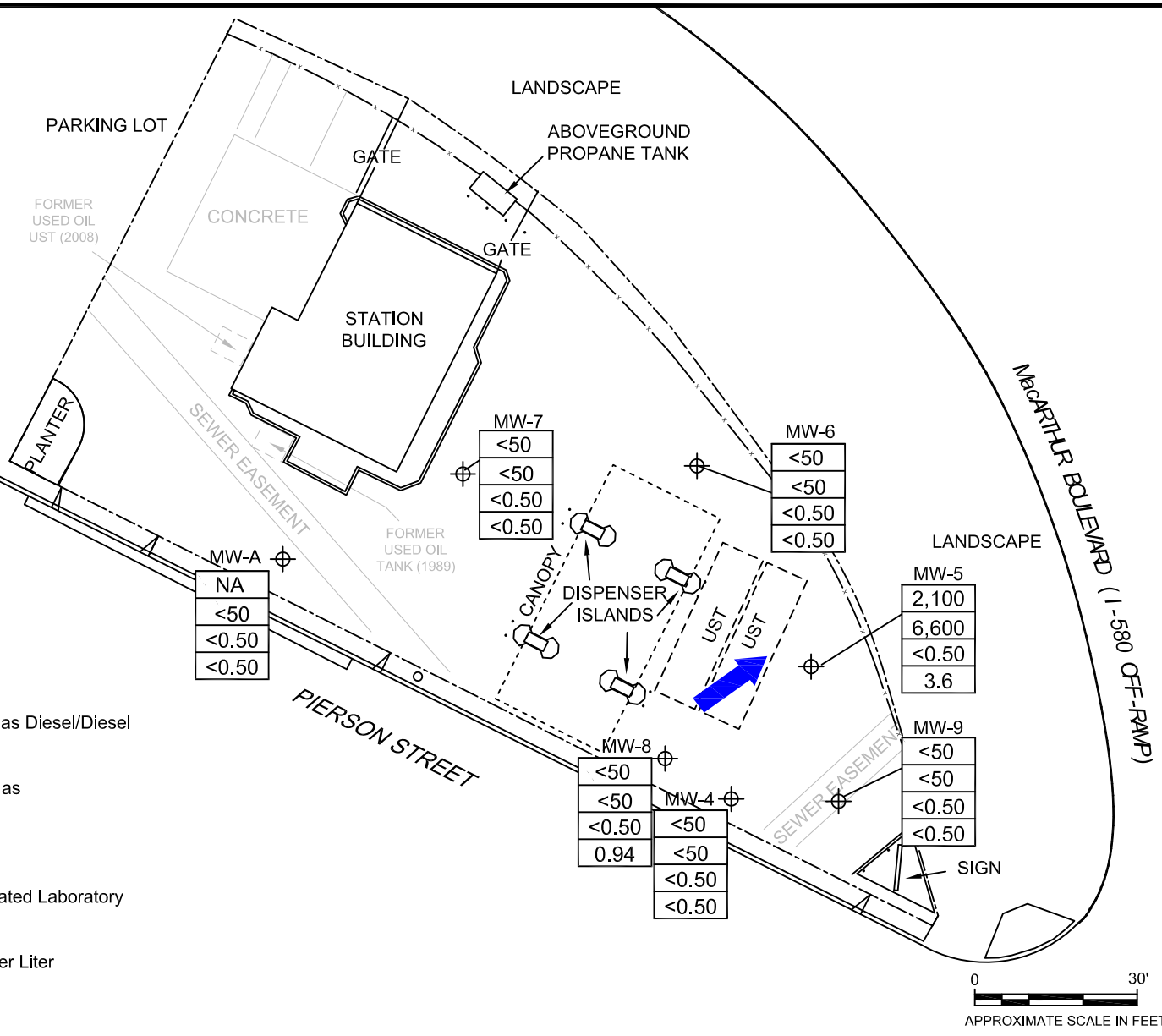
TPH-DRO	TPH-DRO = Total Petroleum Hydrocarbons as Diesel/Diesel Range Organics
TPH-GRO	TPH-GRO = Total Petroleum Hydrocarbons as Gasoline/Gasoline Range Organics
Benzene	
MTBE	

MTBE = Methyl T-Butyl Ether

<# = Analyte not Detected at or Above Indicated Laboratory Practical Quantitation Limit

Analyte Results Expressed in Micrograms per Liter

NA = Not Analyzed



Base map created by Delta Consultants, Inc.

**GROUNDWATER CONCENTRATION MAP -
THIRD QUARTER 2014**

RO253, Unocal No. 5781 (351640)
3535 Pierson Street, Oakland, California

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			
	NO.:	DESCRIPTION:	DATE:	BY:
DRAWN BY:				
JH				
CHECKED BY:				
DF				
APPROVED BY:				
JH				

FIGURE NUMBER:

3

SCALE:	DATE:	PROJECT NUMBER:
1" = 30'	9/29/2014	60314299

Attachment A

**July 18, 2014, Groundwater Data
Field Sheets**



GETTLER-RYAN INC.



TRANSMITTAL

July 28, 2014
G-R #385641

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**
#351640/5781
3535 Pierson Street
Oakland, California

WE HAVE ENCLOSED THE FOLLOWING:

COPIES	DESCRIPTION
VIA PDF	Groundwater Monitoring and Sampling Data Package Third Quarter Event of July 18, 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/351640 5781

WELL CONDITION STATUS SHEET

Client/
Facility #: Chevron #351640 / 5781
Site Address: 3535 Pierson Street
City: Oakland, CA

Job #: 385641
Event Date: 2/13/14
Sampler: G. Medina

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/3/2	N
MW-4	OK									12	
MW-5	OK										
MW-6	OK										
MW-7	OK										
MW-8	OK										
MW-9	OK										

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 #351640 / 5781
 Site Address: 3535 Pierson Street
 City: Oakland, CA

Job Number: 385641
 Event Date: 7/18/14 (inclusive)
 Sampler: GM

Well ID: MW-A
 Well Diameter: 2 1/4 in.
 Total Depth: 45.00 ft.
 Depth to Water: 19.02 ft.
27.04 xVF 0.17 = 4.59

Date Monitored: 7/18/14

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.

x3 case volume = Estimated Purge Volume: 14 gal.

Depth to Water w/ 80% Recharge [(Height of Water Column x 0.20) + DTW]: 23.42

Purge Equipment:

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

Sampling Equipment:

Disposable Bailer X
 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: 0 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): 1023 Weather Conditions: CLOUDY
 Sample Time/Date: 1215 7/18/14 Water Color: CLEAR Odor: Y1(N)
 Approx. Flow Rate: 1 gpm. Sediment Description: NONE
 Did well de-water? NO If yes, Time: _____ Volume: _____ gal. DTW @ Sampling: 23.40

Time (2400 hr.)	Volume (gal.)	pH	Conductivity (µS/ms µmhos/cm)	Temperature (C F)	D.O. (mg/L)	ORP (mV)
<u>1033</u>	<u>5</u>	<u>7.64</u>	<u>0.64</u>	<u>20.5</u>		
<u>1038</u>	<u>10</u>	<u>7.59</u>	<u>0.64</u>	<u>20.3</u>		
<u>1042</u>	<u>14</u>	<u>7.52</u>	<u>0.64</u>	<u>20.5</u>		

LABORATORY INFORMATION

SAMPLE ID	(#) CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
<u>MW-A</u>	<u>6x voa vial</u>	<u>YES</u>	<u>HCL</u>	<u>BC LABS</u>	<u>TPH-GRO(8015)/BTEX+MTBE(8260)/8 OXYS(8260)</u>
	<u>2x 1 liter ambers</u>	<u>YES</u>	<u>NP</u>	<u>BC LABS</u>	<u>TPH-DRO w/sgc(8015M)</u>

COMMENTS: slow RECOVERY

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



GETTLER - RYAN INC.

WELL MONITORING/SAMPLING FIELD DATA SHEET

Client/Facility#: Chevron #351640 / 5781
 Site Address: 3535 Pierson Street
 City: Oakland, CA

Job Number: 385641
 Event Date: 7/13/14 (inclusive)
 Sampler: GM

Well ID: MW-4
 Well Diameter: 21/4 in.
 Total Depth: 24.75 ft.
 Depth to Water: 12.90 ft.

Date Monitored: 7/13/14

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

Depth to Water: 11.95 x VF 0.46 = 7.82 x3 case volume = Estimated Purge Volume: 24 gal.

Depth to Water w/ 80% Recharge [(Height of Water Column x 0.20) + DTW]: 15.27

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

Sampling Equipment:
 Disposable Bailer X
 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: 0 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): 0715 Weather Conditions: CLOUDY
 Sample Time/Date: 0710 7/13/14 Water Color: CLEAR Odor: Y/N
 Approx. Flow Rate: 1 gpm. Sediment Description: NONE
 Did well de-water? YES If yes, Time: 0739 Volume: 16 gal. DTW @ Sampling: 12.90

Time (2400 hr.)	Volume (gal.)	pH	Conductivity (µS / RS) (µmhos/cm)	Temperature (° F)	D.O. (mg/L)	ORP (mV)
<u>0723</u>	<u>8</u>	<u>7.49</u>	<u>0.68</u>	<u>21.1</u>		
<u>0739</u>	<u>16</u>	<u>7.44</u>	<u>0.68</u>	<u>21.0</u>		

LABORATORY INFORMATION

SAMPLE ID	(#) CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
MW-	x voa vial	YES	HCL	BC LABS	TPH-GRO(8015)/BTEX+MTBE(8260)/8 OXYS(8260)
	x 1 liter ambers	YES	NP	BC LABS	TPH-DRO w/sgc(8015M)

COMMENTS: PRE PURGE SAMPLE TAKEN @ 0710. DID NOT RECOVER AFTER 2 HRS PRE PURGE SAMPLE USED. CHECKED @ 1120

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



GETTLER-RYAN INC.

WELL MONITORING/SAMPLING FIELD DATA SHEET

Client/Facility#: Chevron #351640 / 5781
 Site Address: 3535 Pierson Street
 City: Oakland, CA

Job Number: 385641
 Event Date: 2/13/14 (inclusive)
 Sampler: GM

Well ID: MW-5
 Well Diameter: 2 1/4 in.
 Total Depth: 19.93 ft.
 Depth to Water: 15.28 ft.

Date Monitored: 2/13/14

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]: 16.21
 xVF 0.166 = 3.06 x3 case volume = Estimated Purge Volume: 9.5 gal.

Purge Equipment:

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

Sampling Equipment:

Disposable Bailer: X
 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:	<u>Ø</u> 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): 0955 Weather Conditions: Cloudy
 Sample Time/Date: 0951 2/13/14 Water Color: Clear Odor: OPN STRONG
 Approx. Flow Rate: - gpm. Sediment Description: NONE
 Did well de-water? YES If yes, Time: 0905 Volume: 4 gal. DTW @ Sampling: 15.28

Time (2400 hr.)	Volume (gal.)	pH	Conductivity (µS / (µS) / (µmhos/cm))	Temperature (C / F)	D.O. (mg/L)	ORP (mV)
<u>0900</u>	<u>3</u>	<u>7.20</u>	<u>2.99</u>	<u>20.6</u>	_____	_____
_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____

LABORATORY INFORMATION

SAMPLE ID	(#) CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
MW-	x voa vial	YES	HCL	BC LABS	TPH-GRO(8015)/BTEX+MTBE(8260)/8 OXYS(8260)
	x 1 liter ambers	YES	NP	BC LABS	TPH-DRO w/sgc(8015M)

COMMENTS: SHOWN ON WATER. PRE PURGE SAMPLE TAKEN @ 0951 DID NOT RECOVER AFTER 2 HRS CHECKED @ 1140 PRE PURGE SAMPLES USED

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



GETTLER-RYAN INC.

WELL MONITORING/SAMPLING FIELD DATA SHEET

Client/Facility#: Chevron #351640 / 5781
 Site Address: 3535 Pierson Street
 City: Oakland, CA

Job Number: 385641
 Event Date: 7/18/14 (inclusive)
 Sampler: GM

Well ID: MW-6
 Well Diameter: 2 1/4 in.
 Total Depth: 14.96 ft.
 Depth to Water: 14.96 ft.
5.01 xVF 0.17 = 0.35

Date Monitored: 7/18/14

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 than 0.50 ft.

Estimated Purge Volume: 3 gal.
 Depth to Water w/ 80% Recharge [(Height of Water Column x 0.20) + DTW]: 15.96

Purge Equipment:

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

Sampling Equipment:

Disposable Bailer: X
 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:	<u>X</u> 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): 0922 Weather Conditions: cloudy
 Sample Time/Date: 0919 7/13/14 Water Color: clear Odor: YIN
 Approx. Flow Rate: - gpm. Sediment Description: NONE
 Did well de-water? No If yes, Time: _____ Volume: _____ gal. DTW @ Sampling: 14.96

Time (2400 hr.)	Volume (gal.)	pH	Conductivity (µS/mS / µmhos/cm)	Temperature (°C / °F)	D.O. (mg/L)	ORP (mV)
<u>0926</u>	<u>1</u>	<u>7.58</u>	<u>0.60</u>	<u>20.1</u>	_____	_____
<u>0931</u>	<u>2</u>	<u>7.55</u>	<u>0.60</u>	<u>20.1</u>	_____	_____
<u>0938</u>	<u>3</u>	<u>7.51</u>	<u>0.60</u>	<u>20.0</u>	_____	_____

LABORATORY INFORMATION

SAMPLE ID	(#) CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
<u>MW-6</u>	<u>6 x voa vial</u>	<u>YES</u>	<u>HCL</u>	<u>BC LABS</u>	<u>TPH-GRO(8015)/BTEX+MTBE(8260)/8 OXYS(8260)</u>
	<u>1 x 1 liter ambers</u>	<u>YES</u>	<u>NP</u>	<u>BC LABS</u>	<u>TPH-DRO w/sgc(8015M)</u>

COMMENTS: PREPURGE SAMPLE TAKE @ 0919. DID NOT RECOVER AFTER 2 HRS CHECKED @ 1150. PRE PURGE SAMPLES USED.

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



GETTLER-RYAN INC.

WELL MONITORING/SAMPLING FIELD DATA SHEET

Client/Facility#: Chevron #351640 / 5781
 Site Address: 3535 Pierson Street
 City: Oakland, CA

Job Number: 385641
 Event Date: 7/18/14 (inclusive)
 Sampler: GM

Well ID: MW-7
 Well Diameter: 2/4 in.
 Total Depth: 19.70 ft.
 Depth to Water: 15.70 ft.
4.00 xVF 0.17 = 0.68

Date Monitored: 7/18/14

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.

x3 case volume = Estimated Purge Volume: 2.5 gal.

Depth to Water w/ 80% Recharge [(Height of Water Column x 0.20) + DTW]: 16.50

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

Sampling Equipment:
 Disposable Bailer: X
 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): 0950 Weather Conditions: CLOUDY
 Sample Time/Date: 0954 7/18/14 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: 15.70

Time (2400 hr.)	Volume (gal.)	pH	Conductivity ($\mu\text{S}/\text{mS}$ / $\mu\text{mhos}/\text{cm}$)	Temperature (C / F)	D.O. (mg/L)	ORP (mV)
<u>0959</u>	<u>1.0</u>	<u>7.52</u>	<u>0.70</u>	<u>20.9</u>		
<u>1004</u>	<u>2.0</u>	<u>7.49</u>	<u>0.69</u>	<u>20.6</u>		
<u>1010</u>	<u>2.5</u>	<u>7.49</u>	<u>0.69</u>	<u>20.5</u>		

LABORATORY INFORMATION

SAMPLE ID	(#) CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
MW-	x voa vial	YES	HCL	BC LABS	TPH-GRO(8015)/BTEX+MTBE(8260)/8 OXYS(8260)
	x 1 liter ambers	YES	NP	BC LABS	TPH-DRO w/sgc(8015M)

COMMENTS: PRE PURGE SAMPLES TAKEN @ 0954. DID NOT RECOVER AFTER 2 HRS CHECKED @ 1200. PRE PURGE SAMPLES USED.

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



GETTLER - RYAN INC.

WELL MONITORING/SAMPLING FIELD DATA SHEET

Client/Facility#: Chevron #351640 / 5781
 Site Address: 3535 Pierson Street
 City: Oakland, CA

Job Number: 385641
 Event Date: 7/13/14 (inclusive)
 Sampler: Gm

Well ID: MW-3
 Well Diameter: 2.4 in.
 Total Depth: 19.94 ft.
 Depth to Water: 13.78 ft.

Date Monitored: 7/13/14

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

Depth to Water: 6.16 xVF 0.17 = 1.04 x3 case volume = Estimated Purge Volume: 3.5 gal.

Depth to Water w/ 80% Recharge [(Height of Water Column x 0.20) + DTW]: 15.01

Purge Equipment:

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

Sampling Equipment:

Disposable Bailer: K
 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:	<u>0</u> 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): 0750 Weather Conditions: CLOUDY
 Sample Time/Date: 1110 7/13/14 Water Color: CLAR Odor: Y/N
 Approx. Flow Rate: _____ gpm. Sediment Description: NONE
 Did well de-water? NO If yes, Time: _____ Volume: _____ gal. DTW @ Sampling: 14.90

Time (2400 hr.)	Volume (gal.)	pH	Conductivity ($\mu\text{S}/\text{MS}$ / $\mu\text{mhos}/\text{cm}$)	Temperature (C / F)	D.O. (mg/L)	ORP (mV)
<u>0754</u>	<u>1.25</u>	<u>7.62</u>	<u>0.62</u>	<u>20.9</u>	_____	_____
<u>0800</u>	<u>2.5</u>	<u>7.60</u>	<u>0.61</u>	<u>21.1</u>	_____	_____
<u>0805</u>	<u>3.5</u>	<u>7.58</u>	<u>0.61</u>	<u>21.0</u>	_____	_____

LABORATORY INFORMATION

SAMPLE ID	(#) CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
MW-	x voa vial	YES	HCL	BC LABS	TPH-GRO(8015)/BTEX+MTBE(8260)/8 OXYS(8260)
	x 1 liter ambers	YES	NP	BC LABS	TPH-DRO w/sgc(8015M)

COMMENTS: Slow Recovery

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



GETTLER-RYAN INC.

WELL MONITORING/SAMPLING FIELD DATA SHEET

Client/Facility#: Chevron #351640 / 5781
 Site Address: 3535 Pierson Street
 City: Oakland, CA

Job Number: 385641
 Event Date: 7/18/14 (inclusive)
 Sampler: GM

Well ID: MW-9
 Well Diameter: 214 in.
 Total Depth: 19.03 ft.
 Depth to Water: 13.69 ft.

Date Monitored: 7/18/14

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 than 0.50 ft.
 Depth to Water w/ 80% Recharge [(Height of Water Column x 0.20) + DTW]: 14.93
 xVF 0.17 = 1.01 x3 case volume = Estimated Purge Volume: 3.5 gal.

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

Sampling Equipment:
 Disposable Bailer: X
 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: 0 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): 0820 Weather Conditions: cloudy
 Sample Time/Date: 0817 12/13/14 Water Color: CLEAR Odor: YTN
 Approx. Flow Rate: _____ gpm. Sediment Description: NONE
 Did well de-water? NO If yes, Time: _____ Volume: _____ gal. DTW @ Sampling: 13.69

Time (2400 hr.)	Volume (gal.)	pH	Conductivity (µS/mS) (µmhos/cm)	Temperature (°C / F)	D.O. (mg/L)	ORP (mV)
<u>0824</u>	<u>1.25</u>	<u>7.39</u>	<u>0.72</u>	<u>20.6</u>	_____	_____
<u>0829</u>	<u>2.5</u>	<u>7.35</u>	<u>0.71</u>	<u>20.6</u>	_____	_____
<u>0834</u>	<u>3.5</u>	<u>7.32</u>	<u>0.71</u>	<u>20.5</u>	_____	_____

LABORATORY INFORMATION

SAMPLE ID	(#) CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
<u>MW-9</u>	<u>6x voa vial</u>	<u>YES</u>	<u>HCL</u>	<u>BC LABS</u>	<u>TPH-GRO(8015)/BTEX+MTBE(8260)/8 OXYS(8260)</u>
	<u>2x 1 liter ambers</u>	<u>YES</u>	<u>NP</u>	<u>BC LABS</u>	<u>TPH-DRO w/sgc(8015M)</u>

COMMENTS: PRE PURGE SAMPLE TAKEN @ 0817. DID NOT RECOVER AFTER 2 HRS CHECK @ 1130 PRE PURGE SAMPLE USED

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

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: 5781 <u>5781</u>				Union Oil Consultant: <u>AECOM Environmental</u>				ANALYSES REQUIRED																	
Site Global ID: <u>T0600101467</u>				Consultant Contact: <u>JAMES HAZLIS</u>				TPH - Diesel by EPA 8015 w/SGC	TPH - G by GA <u>GA</u>	BTX/MTBE/OXYS by EPA 8260B	Ethanol by EPA 8260B	EPA 8260B Full List with OXYS	<u>TPH - MTBE 5760</u>	Turnaround Time (TAT): Standard <input checked="" type="checkbox"/> 24 Hours <input type="checkbox"/> 48 Hours <input type="checkbox"/> 72 Hours <input type="checkbox"/> Special Instructions											
Site Address: <u>7535 PIERSON STREET</u> <u>DARLAND, CA</u>				Consultant Phone No.: <u>(916) 361-6417</u>																					
Union Oil PM: <u>TIMOTHY L. BISHOP</u>				Sampling Company: <u>TRC</u>										Sampled By (PRINT): <u>George M. D. ...</u>											
Union Oil PM Phone No.: <u>(916) 295-0463</u>				Sampler Signature: <u>[Signature]</u>																					
Charge Code: <u>NWRTB-0 51640-0-LAB</u>				BC Laboratories, Inc. Project Manager: <u>Molly Meyers</u> 4100 Atlas Court, Bakersfield, CA 93308 Phone No. 661-327-4911										This is a LEGAL document. ALL fields must be filled out CORRECTLY and COMPLETELY.											
SAMPLE ID																									
Field Point Name	Matrix	DTW	Date (yymmdd)	Sample Time	# of Containers	TPH - Diesel by EPA 8015 w/SGC	TPH - G by GA <u>GA</u>	BTX/MTBE/OXYS by EPA 8260B	Ethanol by EPA 8260B	EPA 8260B Full List with OXYS	Notes / Comments														
<u>QA</u>	<u>W-S-A</u>		<u>08/14/14</u>	<u>-</u>	<u>2</u>		<u>X</u>				<u>X</u>														
<u>Mw-1</u>	<u>W-S-A</u>			<u>1215</u>	<u>6</u>																				
<u>Mw-4</u>	<u>W-S-A</u>			<u>0210</u>																					
<u>Mw-5</u>	<u>W-S-A</u>			<u>0351</u>																					
<u>Mw-6</u>	<u>W-S-A</u>			<u>0919</u>																					
<u>Mw-7</u>	<u>W-S-A</u>			<u>0954</u>																					
<u>Mw-8</u>	<u>W-S-A</u>			<u>1110</u>																					
<u>Mw-9</u>	<u>W-S-A</u>			<u>0817</u>																					
	<u>W-S-A</u>																								
	<u>W-S-A</u>																								
	<u>W-S-A</u>																								
	<u>W-S-A</u>																								
Relinquished By: <u>[Signature]</u> Company: <u>BC</u> Date / Time: <u>2/19/14 1200</u>				Relinquished By: <u>[Signature]</u> Company: <u>BC</u> Date / Time: <u>02-21-14 1045</u>				Relinquished By: _____ Company: _____ Date / Time: _____																	
Received By: <u>[Signature]</u> Company: <u>BC</u> Date / Time: _____				Received By: <u>[Signature]</u> Company: <u>BC</u> Date / Time: <u>1245</u>				Received By: _____ Company: _____ Date / Time: _____																	

Attachment B

BC Laboratories, Inc. Analytical Report



Date of Report: 08/18/2014

Jim Harms

AECOM

2020 L St, Suite 400
Sacramento, CA 95811

Client Project: 351640
BCL Project: 5781
BCL Work Order: 1416447
Invoice ID: B180858

Enclosed are the results of analyses for samples received by the laboratory on 7/22/2014. 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; OR ELAP #4032-001; AK UST101

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.

All results listed in this report are for the exclusive use of the submitting party. BC Laboratories, Inc. assumes no responsibility for report alteration, separation, detachment or third party interpretation.



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14-16447

CHAIN OF CUSTODY FORM

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

COC _____ of _____

Union Oil Site ID: 1416447 5781		Union Oil Consultant: AECOM ENVIRONMENTAL		ANALYSES REQUIRED		Turnaround Time (TAT): Standard <input checked="" type="checkbox"/> 24 Hours <input type="checkbox"/> 48 Hours <input type="checkbox"/> 72 Hours <input type="checkbox"/>	
Site Global ID: 12600101467		Consultant Contact: JAMES HAYES		EPA 8260B Full List with OXYS		Special Instructions	
Site Address: 3535 PIERSON STREET DANLAND, CA		Consultant Phone No. (916) 361 6417		Ethanol by EPA 8260B			
Union Oil PM: TIMOTHY L. BUSHOP		Sampling Company: BETTLER		BTEX/MTBE/OXYS by EPA 8260B			
Union Oil PM Phone No. (916) 390 6463		Sampled by (PRINT): GRACE MEDINA		TPH - G by 8015 (8015)			
Charge Code: NWRTB-0 JS16400-LAB		Sampler Signature: <i>[Signature]</i>		TPH - Diesel by EPA 8015 w/SGC			
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		TPH - G by 8015 (8015)			
SAMPLE ID			Sample Time	# of Containers	Notes / Comments		
Field Point Name	Matrix	DTW	Date (yyymmdd)				
QA	W-S-A	-1	7/19/14	2			
MW-4	W-S-A	-2	1215	6			
MW-5	W-S-A	-3	0710				
MW-6	W-S-A	-4	0351				
MW-7	W-S-A	-5	0919				
MW-8	W-S-A	-6	0954				
MW-9	W-S-A	-7	1110				
	W-S-A	-8	0817				
	W-S-A						
	W-S-A						
	W-S-A						
	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
<i>[Signature]</i>	GRMC	7/19/14 1200	<i>[Signature]</i>	GRMC	7-21-14 1445	<i>[Signature]</i>	Bogon BCLSB
Received By	Company	Date / Time	Received By	Company	Date / Time	Received By	Company
<i>[Signature]</i>	GRMC	7/19/14 1200	<i>[Signature]</i>	Bogon BCLSB	7-21-14 1445	<i>[Signature]</i>	BCLSB

CHK BY DISTRIBUTION
SUB-OUT

REL. 7-22-14 00:15
BETTLER-RYAN TRIDEE 7-21-14 0700
7-22-14 00:15

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BC LABORATORIES INC. COOLER RECEIPT FORM Rev. No. 17 06/05/14 Page Of 1

Submission #: 14-16447

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 Containers None Intact? Yes No Intact? Yes No 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: 100 Thermometer ID: 207 Date/Time: 7/22/14

Temperature: (A) 2.0 °C / (C) 2.3 °C Analyst Init: WJ

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(1)	A(1)	A(1)	A(1)	A(1)	A(1)	A(1)	A(1)		
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										
40ml EPA 547										
40ml EPA 531.1										
8oz Amber EPA 548										
QT EPA 549										
QT EPA 632										
QT EPA 8015M										
QT AMBER		B(1)	B(1)	B(1)	B(1)	B(1)	B(1)	B(1)		
8 OZ. JAR										
32 OZ. JAR										
SOIL SLEEVE										
PCB VIAL										
PLASTIC BAG										
FEROUS IRON										
ENCORE										
SMART KIT										
Summa Canister										

Comments: _____

Sample Numbering Completed By: WJ Date/Time: 7/22/14 1055

A = Actual / C = Corrected



AECOM
2020 L St, Suite 400
Sacramento, CA 95811

Reported: 08/18/2014 12:21
Project: 5781
Project Number: 351640
Project Manager: Jim Harms

Laboratory / Client Sample Cross Reference

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

1416447-01	COC Number: --- Project Number: 5781 Sampling Location: --- Sampling Point: QA-W-140718 Sampled By: GRD	Receive Date: 07/22/2014 00:15 Sampling Date: 07/18/2014 00:00 Sample Depth: --- Lab Matrix: Water Sample Type: Trip Blank Delivery Work Order: Global ID: T0600101467 Location ID (FieldPoint): QA Matrix: W Sample QC Type (SACode): CS Cooler ID:
-------------------	--	---

1416447-02	COC Number: --- Project Number: 5781 Sampling Location: --- Sampling Point: MW-A-W-140718 Sampled By: GRD	Receive Date: 07/22/2014 00:15 Sampling Date: 07/18/2014 12:15 Sample Depth: --- Lab Matrix: Water Sample Type: Water Delivery Work Order: Global ID: T0600101467 Location ID (FieldPoint): MW-A Matrix: W Sample QC Type (SACode): CS Cooler ID:
-------------------	--	--

1416447-03	COC Number: --- Project Number: 5781 Sampling Location: --- Sampling Point: MW-4-W-140718 Sampled By: GRD	Receive Date: 07/22/2014 00:15 Sampling Date: 07/18/2014 07:10 Sample Depth: --- Lab Matrix: Water Sample Type: Water Delivery Work Order: Global ID: T0600101467 Location ID (FieldPoint): MW-4 Matrix: W Sample QC Type (SACode): CS Cooler ID:
-------------------	--	--

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Reported: 08/18/2014 12:21
Project: 5781
Project Number: 351640
Project Manager: Jim Harms

Laboratory / Client Sample Cross Reference

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

1416447-04	COC Number: --- Project Number: 5781 Sampling Location: --- Sampling Point: MW-5-W-140718 Sampled By: GRD	Receive Date: 07/22/2014 00:15 Sampling Date: 07/18/2014 08:51 Sample Depth: --- Lab Matrix: Water Sample Type: Water Delivery Work Order: Global ID: T0600101467 Location ID (FieldPoint): MW-5 Matrix: W Sample QC Type (SACode): CS Cooler ID:
-------------------	--	--

1416447-05	COC Number: --- Project Number: 5781 Sampling Location: --- Sampling Point: MW-6-W-140718 Sampled By: GRD	Receive Date: 07/22/2014 00:15 Sampling Date: 07/18/2014 09:19 Sample Depth: --- Lab Matrix: Water Sample Type: Water Delivery Work Order: Global ID: T0600101467 Location ID (FieldPoint): MW-6 Matrix: W Sample QC Type (SACode): CS Cooler ID:
-------------------	--	--

1416447-06	COC Number: --- Project Number: 5781 Sampling Location: --- Sampling Point: MW-7-W-140718 Sampled By: GRD	Receive Date: 07/22/2014 00:15 Sampling Date: 07/18/2014 09:54 Sample Depth: --- Lab Matrix: Water Sample Type: Water Delivery Work Order: Global ID: T0600101467 Location ID (FieldPoint): MW-7 Matrix: W Sample QC Type (SACode): CS Cooler ID:
-------------------	--	--

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Reported: 08/18/2014 12:21
Project: 5781
Project Number: 351640
Project Manager: Jim Harms

Laboratory / Client Sample Cross Reference

Laboratory	Client Sample Information
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1416447-07	COC Number: --- Project Number: 5781 Sampling Location: --- Sampling Point: MW-8-W-140718 Sampled By: GRD	Receive Date: 07/22/2014 00:15 Sampling Date: 07/18/2014 11:10 Sample Depth: --- Lab Matrix: Water Sample Type: Water Delivery Work Order: Global ID: T0600101467 Location ID (FieldPoint): MW-8 Matrix: W Sample QC Type (SACode): CS Cooler ID:
-------------------	--	--

1416447-08	COC Number: --- Project Number: 5781 Sampling Location: --- Sampling Point: MW-9-W-140718 Sampled By: GRD	Receive Date: 07/22/2014 00:15 Sampling Date: 07/18/2014 08:17 Sample Depth: --- Lab Matrix: Water Sample Type: Water Delivery Work Order: Global ID: T0600101467 Location ID (FieldPoint): MW-9 Matrix: W Sample QC Type (SACode): CS Cooler ID:
-------------------	--	--

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Reported: 08/18/2014 12:21
Project: 5781
Project Number: 351640
Project Manager: Jim Harms

Volatile Organic Analysis (EPA Method 8260B)

BCL Sample ID: 1416447-01	Client Sample Name: 5781, QA-W-140718, 7/18/2014 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
1,2-Dichloroethane-d4 (Surrogate)	101	%	75 - 125 (LCL - UCL)		EPA-8260B			1
Toluene-d8 (Surrogate)	99.9	%	80 - 120 (LCL - UCL)		EPA-8260B			1
4-Bromofluorobenzene (Surrogate)	93.7	%	80 - 120 (LCL - UCL)		EPA-8260B			1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-8260B	07/22/14	07/23/14 10:34	AA1	MS-V13	1	BXG1998

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Sacramento, CA 95811

Reported: 08/18/2014 12:21
Project: 5781
Project Number: 351640
Project Manager: Jim Harms

Purgeable Aromatics and Total Petroleum Hydrocarbons

BCL Sample ID: 1416447-01	Client Sample Name: 5781, QA-W-140718, 7/18/2014 12:00:00AM
----------------------------------	--

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Gasoline Range Organics (C4 - C12)	ND	ug/L	50		EPA-8015B	ND		1
a,a,a-Trifluorotoluene (FID Surrogate)	87.0	%	70 - 130 (LCL - UCL)		EPA-8015B			1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-8015B	07/23/14	07/24/14 13:00	jjh	GC-V9	1	BXG2076

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Reported: 08/18/2014 12:21
Project: 5781
Project Number: 351640
Project Manager: Jim Harms

Volatile Organic Analysis (EPA Method 8260B)

BCL Sample ID: 1416447-02	Client Sample Name: 5781, MW-A-W-140718, 7/18/2014 12:15:00PM
----------------------------------	--

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	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
1,2-Dichloroethane-d4 (Surrogate)	96.8	%	75 - 125 (LCL - UCL)		EPA-8260B			1
Toluene-d8 (Surrogate)	98.9	%	80 - 120 (LCL - UCL)		EPA-8260B			1
4-Bromofluorobenzene (Surrogate)	94.7	%	80 - 120 (LCL - UCL)		EPA-8260B			1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-8260B	07/22/14	07/22/14 23:33	AA1	MS-V13	1	BXG1998

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AECOM
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Sacramento, CA 95811

Reported: 08/18/2014 12:21
Project: 5781
Project Number: 351640
Project Manager: Jim Harms

Purgeable Aromatics and Total Petroleum Hydrocarbons

BCL Sample ID: 1416447-02	Client Sample Name: 5781, MW-A-W-140718, 7/18/2014 12:15:00PM
----------------------------------	--

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Gasoline Range Organics (C4 - C12)	ND	ug/L	50		EPA-8015B	ND		1
a,a,a-Trifluorotoluene (FID Surrogate)	84.1	%	70 - 130 (LCL - UCL)		EPA-8015B			1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-8015B	07/23/14	07/24/14 13:20	jjh	GC-V9	1	BXG2076

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Reported: 08/18/2014 12:21
Project: 5781
Project Number: 351640
Project Manager: Jim Harms

Volatile Organic Analysis (EPA Method 8260B)

BCL Sample ID: 1416447-03	Client Sample Name: 5781, MW-4-W-140718, 7/18/2014 7:10:00AM
----------------------------------	---

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
1,2-Dichloroethane-d4 (Surrogate)	93.2	%	75 - 125 (LCL - UCL)		EPA-8260B			1
Toluene-d8 (Surrogate)	99.4	%	80 - 120 (LCL - UCL)		EPA-8260B			1
4-Bromofluorobenzene (Surrogate)	96.1	%	80 - 120 (LCL - UCL)		EPA-8260B			1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-8260B	07/22/14	07/23/14 00:21	AA1	MS-V13	1	BXG1998

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AECOM
2020 L St, Suite 400
Sacramento, CA 95811

Reported: 08/18/2014 12:21
Project: 5781
Project Number: 351640
Project Manager: Jim Harms

Purgeable Aromatics and Total Petroleum Hydrocarbons

BCL Sample ID: 1416447-03	Client Sample Name: 5781, MW-4-W-140718, 7/18/2014 7:10:00AM
----------------------------------	---

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Gasoline Range Organics (C4 - C12)	ND	ug/L	50		EPA-8015B	ND		1
a,a,a-Trifluorotoluene (FID Surrogate)	78.0	%	70 - 130 (LCL - UCL)		EPA-8015B			1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-8015B	07/23/14	07/24/14 13:40	jjh	GC-V9	1	BXG2076

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AECOM
2020 L St, Suite 400
Sacramento, CA 95811

Reported: 08/18/2014 12:21
Project: 5781
Project Number: 351640
Project Manager: Jim Harms

Total Petroleum Hydrocarbons (Silica Gel Treated)

BCL Sample ID: 1416447-03	Client Sample Name: 5781, MW-4-W-140718, 7/18/2014 7:10:00AM
----------------------------------	---

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Diesel Range Organics (C12 - C24)	ND	ug/L	50		Luft/TPHd	ND		1
Tetracosane (Surrogate)	82.8	%	20 - 120 (LCL - UCL)		Luft/TPHd			1
Capric acid (Reverse Surrogate)	0	%	0 - 1 (LCL - UCL)		Luft/TPHd			1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	Luft/TPHd	07/26/14	08/13/14 18:26	MBS	GC-5	1	BXH1215

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Sacramento, CA 95811

Reported: 08/18/2014 12:21
Project: 5781
Project Number: 351640
Project Manager: Jim Harms

Volatile Organic Analysis (EPA Method 8260B)

BCL Sample ID: 1416447-04	Client Sample Name: 5781, MW-5-W-140718, 7/18/2014 8:51:00AM
----------------------------------	---

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	84	ug/L	0.50		EPA-8260B	ND		1
Methyl t-butyl ether	3.6	ug/L	0.50		EPA-8260B	ND		1
Toluene	0.97	ug/L	0.50		EPA-8260B	ND		1
Total Xylenes	330	ug/L	2.0		EPA-8260B	ND	A01	2
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
1,2-Dichloroethane-d4 (Surrogate)	87.2	%	75 - 125 (LCL - UCL)		EPA-8260B			1
1,2-Dichloroethane-d4 (Surrogate)	93.7	%	75 - 125 (LCL - UCL)		EPA-8260B			2
Toluene-d8 (Surrogate)	112	%	80 - 120 (LCL - UCL)		EPA-8260B			1
Toluene-d8 (Surrogate)	105	%	80 - 120 (LCL - UCL)		EPA-8260B			2
4-Bromofluorobenzene (Surrogate)	107	%	80 - 120 (LCL - UCL)		EPA-8260B			1
4-Bromofluorobenzene (Surrogate)	96.7	%	80 - 120 (LCL - UCL)		EPA-8260B			2

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-8260B	07/22/14	07/23/14 02:20	AA1	MS-V13	1	BXG1998
2	EPA-8260B	07/22/14	07/24/14 04:13	AA1	MS-V13	2	BXG1998

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AECOM
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Sacramento, CA 95811

Reported: 08/18/2014 12:21
Project: 5781
Project Number: 351640
Project Manager: Jim Harms

Purgeable Aromatics and Total Petroleum Hydrocarbons

BCL Sample ID: 1416447-04	Client Sample Name: 5781, MW-5-W-140718, 7/18/2014 8:51:00AM
----------------------------------	---

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Gasoline Range Organics (C4 - C12)	6600	ug/L	1200		EPA-8015B	ND	A01	1
a,a,a-Trifluorotoluene (FID Surrogate)	83.2	%	70 - 130 (LCL - UCL)		EPA-8015B			1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-8015B	07/23/14	07/24/14 14:00	jjh	GC-V9	25	BXG2076

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Reported: 08/18/2014 12:21
Project: 5781
Project Number: 351640
Project Manager: Jim Harms

Total Petroleum Hydrocarbons (Silica Gel Treated)

BCL Sample ID: 1416447-04	Client Sample Name: 5781, MW-5-W-140718, 7/18/2014 8:51:00AM
----------------------------------	---

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Diesel Range Organics (C12 - C24)	2100	ug/L	250		Luft/TPHd	ND	A01,A52	1
Tetracosane (Surrogate)	75.8	%	20 - 120 (LCL - UCL)		Luft/TPHd		A01,A17	1
Capric acid (Reverse Surrogate)	0	%	0 - 1 (LCL - UCL)		Luft/TPHd		A01	1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	Luft/TPHd	07/26/14	08/14/14 08:26	MBS	GC-5	5	BXH1215

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Reported: 08/18/2014 12:21
Project: 5781
Project Number: 351640
Project Manager: Jim Harms

Volatile Organic Analysis (EPA Method 8260B)

BCL Sample ID: 1416447-05	Client Sample Name: 5781, MW-6-W-140718, 7/18/2014 9:19:00AM
----------------------------------	---

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
1,2-Dichloroethane-d4 (Surrogate)	94.6	%	75 - 125 (LCL - UCL)		EPA-8260B			1
Toluene-d8 (Surrogate)	99.2	%	80 - 120 (LCL - UCL)		EPA-8260B			1
4-Bromofluorobenzene (Surrogate)	93.4	%	80 - 120 (LCL - UCL)		EPA-8260B			1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-8260B	07/22/14	07/23/14 00:45	AA1	MS-V13	1	BXG1998

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Reported: 08/18/2014 12:21
Project: 5781
Project Number: 351640
Project Manager: Jim Harms

Purgeable Aromatics and Total Petroleum Hydrocarbons

BCL Sample ID: 1416447-05	Client Sample Name: 5781, MW-6-W-140718, 7/18/2014 9:19:00AM
----------------------------------	---

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Gasoline Range Organics (C4 - C12)	ND	ug/L	50		EPA-8015B	ND		1
a,a,a-Trifluorotoluene (FID Surrogate)	81.8	%	70 - 130 (LCL - UCL)		EPA-8015B			1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-8015B	07/23/14	07/24/14 14:20	jjh	GC-V9	1	BXG2076

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Reported: 08/18/2014 12:21
Project: 5781
Project Number: 351640
Project Manager: Jim Harms

Total Petroleum Hydrocarbons (Silica Gel Treated)

BCL Sample ID: 1416447-05	Client Sample Name: 5781, MW-6-W-140718, 7/18/2014 9:19:00AM
----------------------------------	---

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Diesel Range Organics (C12 - C24)	ND	ug/L	50		Luft/TPHd	ND		1
Tetracosane (Surrogate)	76.6	%	20 - 120 (LCL - UCL)		Luft/TPHd			1
Capric acid (Reverse Surrogate)	0	%	0 - 1 (LCL - UCL)		Luft/TPHd			1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	Luft/TPHd	07/26/14	08/13/14 18:52	MBS	GC-5	1	BXH1215

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Reported: 08/18/2014 12:21
Project: 5781
Project Number: 351640
Project Manager: Jim Harms

Volatile Organic Analysis (EPA Method 8260B)

BCL Sample ID: 1416447-06	Client Sample Name: 5781, MW-7-W-140718, 7/18/2014 9:54:00AM
----------------------------------	---

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
1,2-Dichloroethane-d4 (Surrogate)	102	%	75 - 125 (LCL - UCL)		EPA-8260B			1
Toluene-d8 (Surrogate)	99.4	%	80 - 120 (LCL - UCL)		EPA-8260B			1
4-Bromofluorobenzene (Surrogate)	97.1	%	80 - 120 (LCL - UCL)		EPA-8260B			1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-8260B	07/22/14	07/23/14 01:08	AA1	MS-V13	1	BXG1998

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Reported: 08/18/2014 12:21
Project: 5781
Project Number: 351640
Project Manager: Jim Harms

Purgeable Aromatics and Total Petroleum Hydrocarbons

BCL Sample ID: 1416447-06	Client Sample Name: 5781, MW-7-W-140718, 7/18/2014 9:54:00AM
----------------------------------	---

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Gasoline Range Organics (C4 - C12)	ND	ug/L	50		EPA-8015B	ND		1
a,a,a-Trifluorotoluene (FID Surrogate)	78.3	%	70 - 130 (LCL - UCL)		EPA-8015B			1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-8015B	07/23/14	07/24/14 14:41	jjh	GC-V9	1	BXG2076

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Reported: 08/18/2014 12:21
Project: 5781
Project Number: 351640
Project Manager: Jim Harms

Total Petroleum Hydrocarbons (Silica Gel Treated)

BCL Sample ID: 1416447-06	Client Sample Name: 5781, MW-7-W-140718, 7/18/2014 9:54:00AM
----------------------------------	---

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Diesel Range Organics (C12 - C24)	ND	ug/L	50		Luft/TPHd	ND		1
Tetracosane (Surrogate)	73.0	%	20 - 120 (LCL - UCL)		Luft/TPHd			1
Capric acid (Reverse Surrogate)	0	%	0 - 1 (LCL - UCL)		Luft/TPHd			1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	Luft/TPHd	07/26/14	08/13/14 19:05	MBS	GC-5	1	BXH1215

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Reported: 08/18/2014 12:21
Project: 5781
Project Number: 351640
Project Manager: Jim Harms

Volatile Organic Analysis (EPA Method 8260B)

BCL Sample ID: 1416447-07	Client Sample Name: 5781, MW-8-W-140718, 7/18/2014 11:10:00AM
----------------------------------	--

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	0.94	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
1,2-Dichloroethane-d4 (Surrogate)	99.3	%	75 - 125 (LCL - UCL)		EPA-8260B			1
Toluene-d8 (Surrogate)	99.3	%	80 - 120 (LCL - UCL)		EPA-8260B			1
4-Bromofluorobenzene (Surrogate)	94.3	%	80 - 120 (LCL - UCL)		EPA-8260B			1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-8260B	07/22/14	07/23/14 01:32	AA1	MS-V13	1	BXG1998

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Reported: 08/18/2014 12:21
Project: 5781
Project Number: 351640
Project Manager: Jim Harms

Purgeable Aromatics and Total Petroleum Hydrocarbons

BCL Sample ID: 1416447-07	Client Sample Name: 5781, MW-8-W-140718, 7/18/2014 11:10:00AM
----------------------------------	--

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Gasoline Range Organics (C4 - C12)	ND	ug/L	50		EPA-8015B	ND		1
a,a,a-Trifluorotoluene (FID Surrogate)	76.5	%	70 - 130 (LCL - UCL)		EPA-8015B			1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-8015B	07/23/14	07/24/14 15:01	jjh	GC-V9	1	BXG2076

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Reported: 08/18/2014 12:21
Project: 5781
Project Number: 351640
Project Manager: Jim Harms

Total Petroleum Hydrocarbons (Silica Gel Treated)

BCL Sample ID: 1416447-07	Client Sample Name: 5781, MW-8-W-140718, 7/18/2014 11:10:00AM
----------------------------------	--

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Diesel Range Organics (C12 - C24)	ND	ug/L	50		Luft/TPHd	ND		1
Tetracosane (Surrogate)	96.9	%	20 - 120 (LCL - UCL)		Luft/TPHd			1
Capric acid (Reverse Surrogate)	0	%	0 - 1 (LCL - UCL)		Luft/TPHd			1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	Luft/TPHd	07/26/14	08/13/14 19:18	MBS	GC-5	1	BXH1215

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Reported: 08/18/2014 12:21
Project: 5781
Project Number: 351640
Project Manager: Jim Harms

Volatile Organic Analysis (EPA Method 8260B)

BCL Sample ID: 1416447-08	Client Sample Name: 5781, MW-9-W-140718, 7/18/2014 8:17:00AM
----------------------------------	---

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
1,2-Dichloroethane-d4 (Surrogate)	97.0	%	75 - 125 (LCL - UCL)		EPA-8260B			1
Toluene-d8 (Surrogate)	101	%	80 - 120 (LCL - UCL)		EPA-8260B			1
4-Bromofluorobenzene (Surrogate)	97.2	%	80 - 120 (LCL - UCL)		EPA-8260B			1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-8260B	07/22/14	07/23/14 01:56	AA1	MS-V13	1	BXG1998

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Reported: 08/18/2014 12:21
Project: 5781
Project Number: 351640
Project Manager: Jim Harms

Purgeable Aromatics and Total Petroleum Hydrocarbons

BCL Sample ID: 1416447-08	Client Sample Name: 5781, MW-9-W-140718, 7/18/2014 8:17:00AM							
Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Gasoline Range Organics (C4 - C12)	ND	ug/L	50		EPA-8015B	ND		1
a,a,a-Trifluorotoluene (FID Surrogate)	75.0	%	70 - 130 (LCL - UCL)		EPA-8015B			1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-8015B	07/23/14	07/24/14 15:21	jjh	GC-V9	1	BXG2076

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Reported: 08/18/2014 12:21
Project: 5781
Project Number: 351640
Project Manager: Jim Harms

Total Petroleum Hydrocarbons (Silica Gel Treated)

BCL Sample ID: 1416447-08	Client Sample Name: 5781, MW-9-W-140718, 7/18/2014 8:17:00AM
----------------------------------	---

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Diesel Range Organics (C12 - C24)	ND	ug/L	50		Luft/TPHd	ND		1
Tetracosane (Surrogate)	84.4	%	20 - 120 (LCL - UCL)		Luft/TPHd			1
Capric acid (Reverse Surrogate)	0	%	0 - 1 (LCL - UCL)		Luft/TPHd			1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	Luft/TPHd	07/26/14	08/13/14 19:31	MBS	GC-5	1	BXH1215

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Reported: 08/18/2014 12:21
Project: 5781
Project Number: 351640
Project Manager: Jim Harms

Volatile Organic Analysis (EPA Method 8260B)

Quality Control Report - Method Blank Analysis

Constituent	QC Sample ID	MB Result	Units	PQL	MDL	Lab Quals
QC Batch ID: BXG1998						
Benzene	BXG1998-BLK1	ND	ug/L	0.50		
1,2-Dibromoethane	BXG1998-BLK1	ND	ug/L	0.50		
1,2-Dichloroethane	BXG1998-BLK1	ND	ug/L	0.50		
Ethylbenzene	BXG1998-BLK1	ND	ug/L	0.50		
Methyl t-butyl ether	BXG1998-BLK1	ND	ug/L	0.50		
Toluene	BXG1998-BLK1	ND	ug/L	0.50		
Total Xylenes	BXG1998-BLK1	ND	ug/L	1.0		
t-Amyl Methyl ether	BXG1998-BLK1	ND	ug/L	0.50		
t-Butyl alcohol	BXG1998-BLK1	ND	ug/L	10		
Diisopropyl ether	BXG1998-BLK1	ND	ug/L	0.50		
Ethanol	BXG1998-BLK1	ND	ug/L	250		
Ethyl t-butyl ether	BXG1998-BLK1	ND	ug/L	0.50		
1,2-Dichloroethane-d4 (Surrogate)	BXG1998-BLK1	93.5	%	75 - 125 (LCL - UCL)		
Toluene-d8 (Surrogate)	BXG1998-BLK1	98.9	%	80 - 120 (LCL - UCL)		
4-Bromofluorobenzene (Surrogate)	BXG1998-BLK1	95.8	%	80 - 120 (LCL - UCL)		

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Reported: 08/18/2014 12:21
Project: 5781
Project Number: 351640
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
								Percent Recovery	RPD	
QC Batch ID: BXG1998										
Benzene	BXG1998-BS1	LCS	25.900	25.000	ug/L	104		70 - 130		
Toluene	BXG1998-BS1	LCS	25.720	25.000	ug/L	103		70 - 130		
1,2-Dichloroethane-d4 (Surrogate)	BXG1998-BS1	LCS	10.090	10.000	ug/L	101		75 - 125		
Toluene-d8 (Surrogate)	BXG1998-BS1	LCS	10.050	10.000	ug/L	100		80 - 120		
4-Bromofluorobenzene (Surrogate)	BXG1998-BS1	LCS	9.6100	10.000	ug/L	96.1		80 - 120		

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Reported: 08/18/2014 12:21
Project: 5781
Project Number: 351640
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: BXG1998		Used client sample: N								
Benzene	MS	1416132-17	ND	25.020	25.000	ug/L		100		70 - 130
	MSD	1416132-17	ND	23.430	25.000	ug/L	6.6	93.7	20	70 - 130
Toluene	MS	1416132-17	ND	25.980	25.000	ug/L		104		70 - 130
	MSD	1416132-17	ND	23.260	25.000	ug/L	11.0	93.0	20	70 - 130
1,2-Dichloroethane-d4 (Surrogate)	MS	1416132-17	ND	9.5300	10.000	ug/L		95.3		75 - 125
	MSD	1416132-17	ND	9.9300	10.000	ug/L	4.1	99.3		75 - 125
Toluene-d8 (Surrogate)	MS	1416132-17	ND	10.170	10.000	ug/L		102		80 - 120
	MSD	1416132-17	ND	10.050	10.000	ug/L	1.2	100		80 - 120
4-Bromofluorobenzene (Surrogate)	MS	1416132-17	ND	9.7200	10.000	ug/L		97.2		80 - 120
	MSD	1416132-17	ND	9.9300	10.000	ug/L	2.1	99.3		80 - 120

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Reported: 08/18/2014 12:21
Project: 5781
Project Number: 351640
Project Manager: Jim Harms

Purgeable Aromatics and Total Petroleum Hydrocarbons

Quality Control Report - Method Blank Analysis

Constituent	QC Sample ID	MB Result	Units	PQL	MDL	Lab Quals
QC Batch ID: BXG2076						
Gasoline Range Organics (C4 - C12)	BXG2076-BLK1	ND	ug/L	50		
a,a,a-Trifluorotoluene (FID Surrogate)	BXG2076-BLK1	72.7	%	70 - 130 (LCL - UCL)		

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AECOM
2020 L St, Suite 400
Sacramento, CA 95811

Reported: 08/18/2014 12:21
Project: 5781
Project Number: 351640
Project Manager: Jim Harms

Purgeable Aromatics and Total Petroleum Hydrocarbons

Quality Control Report - Laboratory Control Sample

Constituent	QC Sample ID	Type	Result	Spike Level	Units	Percent Recovery	RPD	Control Limits		Lab
								Percent Recovery	RPD	
QC Batch ID: BXG2076										
Gasoline Range Organics (C4 - C12)	BXG2076-BS1	LCS	892.44	1000.0	ug/L	89.2		85 - 115		
a,a,a-Trifluorotoluene (FID Surrogate)	BXG2076-BS1	LCS	32.989	40.000	ug/L	82.5		70 - 130		

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Purgeable Aromatics and Total Petroleum Hydrocarbons

Quality Control Report - Precision & Accuracy

Constituent	Type	Source Sample ID	Source Result	Result	Spike Added	Units	RPD	Control Limits		Lab Quals
								Percent Recovery	Percent Recovery	
QC Batch ID: BXG2076		Used client sample: N								
Gasoline Range Organics (C4 - C12)	MS	1416132-16	ND	864.89	1000.0	ug/L		86.5	70 - 130	
	MSD	1416132-16	ND	913.13	1000.0	ug/L	5.4	91.3	20	70 - 130
a,a,a-Trifluorotoluene (FID Surrogate)	MS	1416132-16	ND	31.970	40.000	ug/L		79.9	70 - 130	
	MSD	1416132-16	ND	32.471	40.000	ug/L	1.6	81.2	70 - 130	

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Total Petroleum Hydrocarbons (Silica Gel Treated)

Quality Control Report - Method Blank Analysis

Constituent	QC Sample ID	MB Result	Units	PQL	MDL	Lab Quals
QC Batch ID: BXH1215						
Diesel Range Organics (C12 - C24)	BXH1215-BLK1	ND	ug/L	50		
Tetracosane (Surrogate)	BXH1215-BLK1	96.6	%	20 - 120 (LCL - UCL)		
Capric acid (Reverse Surrogate)	BXH1215-BLK1	0	%	0 - 1 (LCL - UCL)		

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Total Petroleum Hydrocarbons (Silica Gel Treated)

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: BXH1215											
Diesel Range Organics (C12 - C24)	BXH1215-BS1	LCS	340.17	500.00	ug/L	68.0		20	110		
Tetracosane (Surrogate)	BXH1215-BS1	LCS	17.097	20.000	ug/L	85.5		20	120		
Capric acid (Reverse Surrogate)	BXH1215-BS1	LCS	ND	100.00	ug/L	0		0	1		

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Total Petroleum Hydrocarbons (Silica Gel Treated)

Quality Control Report - Precision & Accuracy

Constituent	Type	Source Sample ID	Source Result	Result	Spike Added	Units	RPD	Control Limits		Lab Quals
								Percent Recovery	RPD	
QC Batch ID: BXH1215		Used client sample: N								
Diesel Range Organics (C12 - C24)	MS	1416132-70	ND	322.81	500.00	ug/L		64.6		20 - 110
	MSD	1416132-70	ND	347.29	500.00	ug/L	7.3	69.5	30	20 - 110
Tetracosane (Surrogate)	MS	1416132-70	ND	17.358	20.000	ug/L		86.8		20 - 120
	MSD	1416132-70	ND	17.719	20.000	ug/L	2.1	88.6		20 - 120
Capric acid (Reverse Surrogate)	MS	1416132-70	ND	ND	100.00	ug/L		0		0 - 1
	MSD	1416132-70	ND	ND	100.00	ug/L		0		0 - 1

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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.
- A17 Surrogate not reportable due to sample dilution.
- A52 Chromatogram not typical of diesel.