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July 23, 2012

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 3:14 pm, Jan 26, 2015*

**Re: Chevron Facility No. 351641 (Former Unocal Service Station No. 4625)  
3070 Fruitvale Avenue, Oakland, California**

**ACEH Fuel Leak Case No. RO0000298  
RWQCB Case No. 01-2346  
GeoTracker Global ID T0600102156**

I have reviewed the attached report dated July 23, 2012.

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,

Roya Kambin  
Project Manager

Attachment: *Second Quarter 2012 Semi-Annual Groundwater Monitoring Report by AECOM  
Environment, Inc.*



AECOM Environment  
10461 Old Placerville Road, Suite 170  
Sacramento, CA 95827  
tel (916) 361-6400  
fax (916) 361-6401

July 23, 2012

Mr. Keith Nowell  
Alameda County Environmental Health (ACEH)  
1131 Harbor Bay Parkway, Suite 250  
Alameda CA 94502

**Subject: Second Quarter 2012 Semi-Annual Groundwater Monitoring Report  
Chevron Facility No. 351641 (Former Unocal Service Station No. 4625)  
3070 Fruitvale Avenue, Oakland, California  
Fuel Leak Case RO0000298**

Dear Mr. Nowell,

On behalf of Chevron Environmental Management Company, for itself and as Attorney-in-Fact for Union Oil Company of California (hereinafter "EMC"), AECOM Environment, Inc. (AECOM) has been authorized by CEMC to prepare the second quarter 2012 semi-annual groundwater monitoring report for the site located at 3070 Fruitvale Avenue in Oakland, California (Site) (**Figure 1**). The locations of former and current site features are illustrated on **Figure 2**. Semi-annual groundwater monitoring is intended to evaluate the distribution of petroleum hydrocarbon constituents in groundwater beneath the site. Groundwater sampling was performed by TRC Solutions (TRC) of Irvine, California. This report summarizes sample results collected from the Site during the second quarter of 2012.

### **Site Background and History**

In April and May 1998, two 10,000-gallon gasoline underground storage tanks (USTs), one 550-gallon waste oil tank, associated piping, four dispenser islands, and the station building were removed. Over 1,160 tons of excavated soil were transported to Forward Landfill in Stockton, California. Approximately 40,000 gallons of water were removed from the gasoline UST excavation and transported to the Tosco Refinery in Rodeo, California for treatment and disposal. A conductor cased well (USTW) was installed in the excavation backfill during installation of the replacement gasoline USTs. The former gasoline USTs were replaced with two 12,000-gallon gasoline USTs and the waste oil UST was replaced with an aboveground storage tank. Concentrations of total petroleum hydrocarbons as gasoline in soil (TPHg) ranged from 4.2 milligrams per kilogram (mg/kg) below product lines to a maximum of 1,700 mg/kg in soil beneath the UST excavation. Benzene ranged from 0.013 mg/kg beneath product lines to 17 mg/kg below the UST excavation. Methyl tert butyl ether (MTBE) ranged from 0.071 mg/kg to a maximum of 150 mg/kg beneath product lines. Chromium and Nickel were reported at concentrations of 700 mg/kg and 1,400 mg/kg, respectively beneath the waste oil UST excavation and remote fill line.

From April 2000 four monitoring wells (MW-1 through MW-4) were installed at the site. MTBE was not detected in any of the soil samples, benzene, toluene, ethylbenzene, and xylenes (BTEX) were detected in MW-2 and MW-3 soil only.

In November 2002, four exploratory borings were advanced to between 12 and 25 feet below ground surface (bgs). The borings drilled to 25 feet were converted to MW-5 and MW-6. The shallower borings were B-1 (12 feet bgs) and B-2 (14.5 feet bgs), grab groundwater samples were collected from both borings. Soil samples contained concentrations of benzene, MTBE, and tertiary butyl alcohol (TBA), and TPHg. Grab groundwater samples collected from the two soil borings contained low concentrations of petroleum hydrocarbons in both samples.

In February and March 2006, TRC conducted a hydropunch groundwater investigation at the site which involved the advancement of three onsite and seven offsite hydropunch borings using a cone penetrometer testing (CPT) rig. No petroleum hydrocarbons or fuel oxygenates were detected in the shallow or deep offsite borings. Detections were found in the onsite borings consistent with existing monitoring well data.

In July 2007, TRC installed one additional onsite groundwater monitoring well (MW-7) to a total depth of 55 feet bgs and two offsite groundwater monitoring wells (MW-8 and MW-9) to a total depth of 20 feet bgs. TPHg, BTEX, and MTBE were detected in MW-7, MW-8 and MW-9 soil samples were not analyzed based on photo-ionization detector screening.

### Groundwater Monitoring Field Data

Groundwater elevation data was recorded in ten monitoring wells, MW-1 through MW-9, and the USTW well on June 4, 2012 (**Table 1**). Groundwater stabilization parameters including; temperature, pH, and electrical conductivity readings were collected during purging. Copies of the groundwater sampling/purge logs are included in **Attachment A**. Groundwater elevation data from well MW-7 was not used in contouring because it is screened in the deeper aquifer. The groundwater flow direction was calculated to flow to the south/southwest with an average hydraulic gradient of approximately 0.035 feet per foot (**Figure 2**). The depth to groundwater ranged from 7.32 to 10.03 feet below the top of well casings (130.89 to 126.69 feet above mean sea level). A summary of historical groundwater elevation is presented in **Attachment B**.

### Groundwater Sampling and Analytical Results

Groundwater samples were collected from monitoring wells MW-1 through MW-9 on June 4, 2012. Laboratory analyses were performed by BC Laboratories, Inc. (BC Labs) of Bakersfield, California. The BC Labs analytical report dated June 16, 2012 is included as **Attachment C**. Samples were analyzed for the following analytes based on historic trends in each monitoring well:

- total petroleum hydrocarbons as diesel (TPHd) by United States Environmental Protection Agency (USEPA) Method 8015B;
- TPH as oil and grease (TPHmo) by USEPA method 1664;
- semi-volatile organic compounds (SVOCs) by USEPA method 8270C;
- total chromium by USEPA method 6010B;
- BTEX by USEPA method 8260B;
- TPHg by USEPA method 8260B;
- volatile organic compounds (VOCs) by USEPA method 8260B; and
- fuel oxygenates including MTBE, tertiary-amyl methyl ether (TAME), TBA, di-isopropyl ether (DIPE), and ethyl tertiary-butyl ether (ETBE), ethanol, ethylene dibromide (EDB), and 1,2-Dichloroethane (1,2-DCA or ethylene dichloride [EDC]) by USEPA method 8260B.

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

- TPHd, TBA, ETBE, DIPE, TAME, EDB, 1,2-DCA, ethanol, TPHmo, and SVOCs were not detected in any of the samples analyzed.
- Total chromium was detected in MW-3 at a concentration of 34 µg/L.
- MTBE is the only fuel oxygenate identified in laboratory analysis and ranges from non-detect to 84 µg/L.
- Monitoring wells MW-5 and MW-6 continue to have elevated concentrations of fuel constituents; however, there is a general decreasing trend for detected analytes.
- The MTBE concentration in the sample collected from MW-6 was 82 µg/L, which is the highest since June 2010 but within historic fluctuations.

A summary of historical groundwater analytical data is presented in **Attachment B**.

Approximately 82 gallons of groundwater were generated during purging activities. Purged water was transported by TRC to their Concord, CA field yard as non-hazardous waste for future disposal.

## Conclusions and Recommendations

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

- Elevated concentrations of fuel constituents remain localized around MW-5 and MW-6 in the western portion of the Site.
- Fuel constituents have not been detected in offsite monitoring wells supporting localization of impacts onsite.
- No impacts have been observed in the deep groundwater monitoring well MW-7 since 1998.

AECOM recommends continued semi-annual monitoring and sampling to verify decreasing concentrations and localization of onsite impacts.

## Future Activities

### *Groundwater Monitoring*

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

### *Additional Activity*

AECOM will prepare a conceptual site model (CSM) that will evaluate data gaps that exist at the Site. The CSM will be submitted by the end of the fourth quarter 2012.

## Remarks/Signatures

The interpretations in this report represent our professional opinions and are based, in part, on the information supplied by the client. 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 either of the undersigned at (916) 361-6400.

Sincerely,

  
James Harms  
Project Manager

  
Tiina Couture, P.E.  
Project Engineer



cc: Roya Kambin, CEMC (electronic)  
Jamee Inc., Property Owner

Tables

Table 1	Groundwater Elevation and Analytical Data
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Figures

Figure 1	Site Location Map
Figure 2	Groundwater Elevation Contour Map
Figure 3	Groundwater Concentration Map

Attachments

Attachment A	June 4, 2012 Groundwater Data Field Sheets
Attachment B	Historic Groundwater Data
Attachment C	BC Laboratories Analytical Report

**TABLE 1**

**GROUNDWATER MONITORING AND SAMPLING DATA  
UNOCAL #4625  
3070 FRUITVALE AVENUE  
OAKLAND, CALIFORNIA**

Location	Date	TOC	DTW	GWE	HYDROCARBONS		PRIMARY VOCS										GENERAL CHEMISTRY					
					TPH - Diesel	TPH - Gasoline	Benzene	Toluene	Ethylbenzene	Total Xylenes	MTBE by SW8260	TBA	ETBE	DIPE	TAME	EDB	1,2-DCA	Ethanol	Oil and grease, Total by 1664	VOCs by EPA Method 8260	SVOCs by EPA Method 8270	Total Chromium by 6010B
		ft-amsl	ft-btoc	ft-amsl	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	mg/L	µg/L	µg/L	µg/L
MW-1	06/10/2011	137.57	7.58	129.99	-	<50	<0.50	<0.50	<0.50	<1.0	<0.50	-	-	-	-	<0.50	<0.50	<250	-	-	-	-
	12/13/2011	137.57	7.55	130.02	-	<50	<0.50	<0.50	<0.50	<1.0	<0.50	-	-	-	-	-	-	<250	-	-	-	-
	<b>06/04/2012</b>	<b>137.57</b>	<b>7.53</b>	<b>130.04</b>	-	<b>&lt;50</b>	<b>&lt;0.50</b>	<b>&lt;0.50</b>	<b>&lt;0.50</b>	<b>&lt;1.0</b>	<b>&lt;0.50</b>	-	-	-	-	<b>&lt;0.50</b>	<b>&lt;0.50</b>	<b>&lt;250</b>	-	-	-	-
MW-2	06/10/2011	139.85	7.78	132.07	-	260	0.58	<0.50	<0.50	<1.0	1.7	-	-	-	-	<0.50	<0.50	<250	-	-	-	-
	12/13/2011	139.85	9.32	130.53	-	470	<0.50	<0.50	<0.50	<1.0	1.1	-	-	-	-	-	-	<250	-	-	-	-
	<b>06/04/2012</b>	<b>139.85</b>	<b>9.12</b>	<b>130.73</b>	-	<b>460</b>	<b>&lt;0.50</b>	<b>&lt;0.50</b>	<b>&lt;0.50</b>	<b>&lt;1.0</b>	<b>3.9</b>	-	-	-	-	<b>&lt;0.50</b>	<b>&lt;0.50</b>	<b>&lt;250</b>	-	-	-	-
MW-3	06/10/2011	138.89	6.78	132.11	<40	<50	<0.50	<0.50	<0.50	<1.0	<0.50	<10	<0.50	<0.50	<0.50	<0.50	<0.50	<250	<5.0	ND	ND	81
	12/13/2011	138.89	8.32	130.57	<40	<50	<0.50	<0.50	<0.50	<1.0	<0.50	<10	<0.50	<0.50	<0.50	<0.50	<0.50	<250	<5.0	ND	ND	<10
	<b>06/04/2012</b>	<b>138.89</b>	<b>8.00</b>	<b>130.89</b>	<b>&lt;40</b>	<b>&lt;50</b>	<b>&lt;0.50</b>	<b>&lt;0.50</b>	<b>&lt;0.50</b>	<b>&lt;1.0</b>	<b>&lt;0.50</b>	<b>&lt;10</b>	<b>&lt;0.50</b>	<b>&lt;0.50</b>	<b>&lt;0.50</b>	<b>&lt;0.50</b>	<b>&lt;0.50</b>	<b>&lt;250</b>	<b>&lt;5.0</b>	<b>ND</b>	<b>ND</b>	<b>34</b>
MW-4	06/10/2011	137.81	6.95	130.86	-	<50	<0.50	<0.50	<0.50	<1.0	<0.50	-	-	-	-	<0.50	<0.50	<250	-	-	-	-
	12/13/2011	137.81	8.72	129.09	-	<50	<0.50	<0.50	<0.50	<1.0	<0.50	-	-	-	-	-	-	<250	-	-	-	-
	<b>06/04/2012</b>	<b>137.81</b>	<b>9.13</b>	<b>128.68</b>	-	<b>&lt;50</b>	<b>&lt;0.50</b>	<b>&lt;0.50</b>	<b>&lt;0.50</b>	<b>&lt;1.0</b>	<b>&lt;0.50</b>	-	-	-	-	<b>&lt;0.50</b>	<b>&lt;0.50</b>	<b>&lt;250</b>	-	-	-	-
MW-5	06/10/2011	137.35	7.60	129.75	-	5,500	180	38	410	1,000	170	160	<0.50	<0.50	<0.50	<0.50	<0.50	<250	-	-	-	-
	12/13/2011	137.35	8.98	128.37	-	1,700	53	3.0	100	86	60	<10	<0.50	<0.50	<0.50	<0.50	<0.50	<250	-	-	-	-
	<b>06/04/2012</b>	<b>137.35</b>	<b>8.57</b>	<b>128.85</b>	-	<b>1,800</b>	<b>32</b>	<b>1.0</b>	<b>79</b>	<b>53</b>	<b>84</b>	<b>79</b>	<b>&lt;0.50</b>	<b>&lt;0.50</b>	<b>&lt;0.50</b>	<b>&lt;0.50</b>	<b>&lt;0.50</b>	<b>&lt;250</b>	-	-	-	-
MW-6	06/10/2011	138.69	7.35	131.34	-	380	14	8.9	5.6	13	45	<10	<0.50	<0.50	<0.50	<0.50	<0.50	<250	-	-	-	-
	12/13/2011	138.69	8.83	129.86	-	59	<0.50	<0.50	<0.50	<1.0	12	<10	<0.50	<0.50	<0.50	<0.50	<0.50	<250	-	-	-	-
	<b>06/04/2012</b>	<b>138.69</b>	<b>8.50</b>	<b>130.12</b>	-	<b>93</b>	<b>&lt;0.50</b>	<b>&lt;0.50</b>	<b>&lt;0.50</b>	<b>&lt;1.0</b>	<b>82</b>	<b>&lt;10</b>	<b>&lt;0.50</b>	<b>&lt;0.50</b>	<b>&lt;0.50</b>	<b>&lt;0.50</b>	<b>&lt;0.50</b>	<b>&lt;250</b>	-	-	-	-
MW-7	06/10/2011	138.74	8.55	130.19	-	<50	<0.50	<0.50	<0.50	<1.0	<0.50	<10	<0.50	<0.50	<0.50	<0.50	<0.50	<250	-	-	-	-
	12/13/2011	138.74	9.17	129.57	-	<50	<0.50	<0.50	<0.50	<1.0	<0.50	<10	<0.50	<0.50	<0.50	<0.50	<0.50	<250	-	-	-	-
	<b>06/04/2012</b>	<b>138.74</b>	<b>8.74</b>	<b>130.00</b>	-	<b>&lt;50</b>	<b>&lt;0.50</b>	<b>&lt;0.50</b>	<b>&lt;0.50</b>	<b>&lt;1.0</b>	<b>&lt;0.50</b>	<b>&lt;10</b>	<b>&lt;0.50</b>	<b>&lt;0.50</b>	<b>&lt;0.50</b>	<b>&lt;0.50</b>	<b>&lt;0.50</b>	<b>&lt;250</b>	-	-	-	-

**TABLE 1**

**GROUNDWATER MONITORING AND SAMPLING DATA  
UNOCAL #4625  
3070 FRUITVALE AVENUE  
OAKLAND, CALIFORNIA**

Location	Date	TOC	DTW	GWE	HYDROCARBONS		PRIMARY VOCs										GENERAL CHEMISTRY						
					TPH - Diesel	TPH - Gasoline	Benzene	Toluene	Ethylbenzene	Total Xylenes	MTBE by SW8260	TBA	ETBE	DIPE	TAME	EDB	1,2-DCA	Ethanol	Oil and grease, Total by 1664	VOCs by EPA Method 8260	SVOCs by EPA Method 8270	Total Chromium by 6010B	
		ft-amsl	ft-btoc	ft-amsl	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	mg/L	µg/L	µg/L	µg/L	
MW-8	06/10/2011	136.22	9.12	127.10	-	<50	<0.50	<0.50	<0.50	<1.0	<0.50	<10	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<250	-	-	-	-
	12/13/2011	136.22	9.65	126.57	-	<50	<0.50	<0.50	<0.50	<1.0	<0.50	<10	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<250	-	-	-	-
	<b>06/04/2012</b>	<b>136.22</b>	<b>9.53</b>	<b>126.69</b>	-	<b>&lt;50</b>	<b>&lt;0.50</b>	<b>&lt;0.50</b>	<b>&lt;0.50</b>	<b>&lt;1.0</b>	<b>&lt;0.50</b>	<b>&lt;10</b>	<b>&lt;0.50</b>	<b>&lt;0.50</b>	<b>&lt;0.50</b>	<b>&lt;0.50</b>	<b>&lt;0.50</b>	<b>&lt;0.50</b>	<b>&lt;250</b>	-	-	-	-
MW-9	06/10/2011	137.11	9.56	127.55	-	<50	<0.50	<0.50	<0.50	<1.0	<0.50	<10	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<250	-	-	-	-
	12/13/2011	137.11	10.15	126.96	-	<50	<0.50	<0.50	<0.50	<1.0	<0.50	<10	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<250	-	-	-	-
	<b>06/04/2012</b>	<b>137.11</b>	<b>10.03</b>	<b>127.08</b>	-	<b>&lt;50</b>	<b>&lt;0.50</b>	<b>&lt;0.50</b>	<b>&lt;0.50</b>	<b>&lt;1.0</b>	<b>&lt;0.50</b>	<b>&lt;10</b>	<b>&lt;0.50</b>	<b>&lt;0.50</b>	<b>&lt;0.50</b>	<b>&lt;0.50</b>	<b>&lt;0.50</b>	<b>&lt;0.50</b>	<b>&lt;250</b>	-	-	-	-
USTW	06/10/2011 <sup>1</sup>	-	7.11	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	12/13/2011 <sup>1</sup>	-	7.67	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	<b>06/04/2012<sup>1</sup></b>	-	<b>7.32</b>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

**Abbreviations and Notes:**

TOC = Top of Casing  
 DTW = Depth to Water  
 GWE = Groundwater elevation  
 ft-amsl = Feet above mean sea level  
 ft-btoc= Feet below top of casing  
 µg/L = Micrograms per Liter  
 TPH - Total Petroleum Hydrocarbons  
 VOCs = Volatile Organic Compounds

SVOCs = Semi-Volatile Organic Compounds  
 MTBE = Methyl tert butyl ether  
 TBA = Tert-Butyl alcohol  
 DIPE = Diisopropyl ether  
 ETBE = Tert-Butyl ethyl ether  
 TAME = Tert-Amyl methyl ether  
 EDB = 1,2-Dibromoethane (Ethylene dibromide)  
 1,2-DCA = 1,2-Dichloroethane (EDC)

-- = Not available / not applicable  
 <x = Not detected above laboratory method detection limit  
 ND = No constituent detected above laboratory detected limits  
 1 Gauge depth to water only, top of casing not surveyed.



North

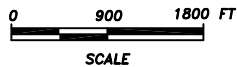


FIGURE 1

SITE LOCATION MAP

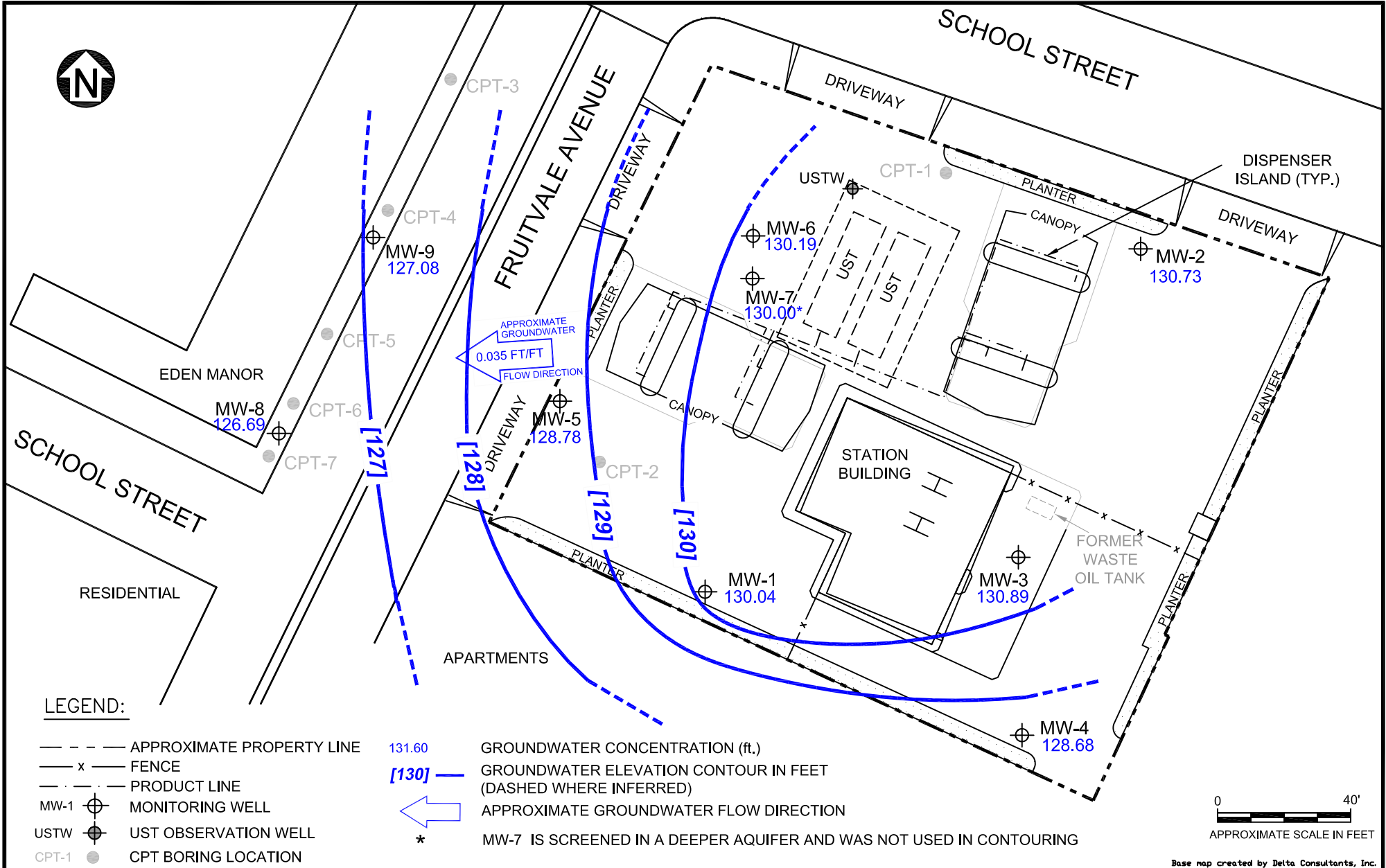
CHEVRON #351641  
76 SERVICE STATION NO.4625  
3070 FRUITVALE AVENUE  
OAKLAND, CALIFORNIA

PROJECT NO. 60267017	DRAWN BY CD 06/28/2012
FILE NO. 351641	PREPARED BY CD
REVISION NO.	REVIEWED BY JH



SOURCE: USGS 7.5 MINUTE TOPOGRAPHIC MAP, OAKLAND EAST QUADRANGLE (1973)  
BASE MAP PROVIDED BY DELTA CONSULTANTS, INC.





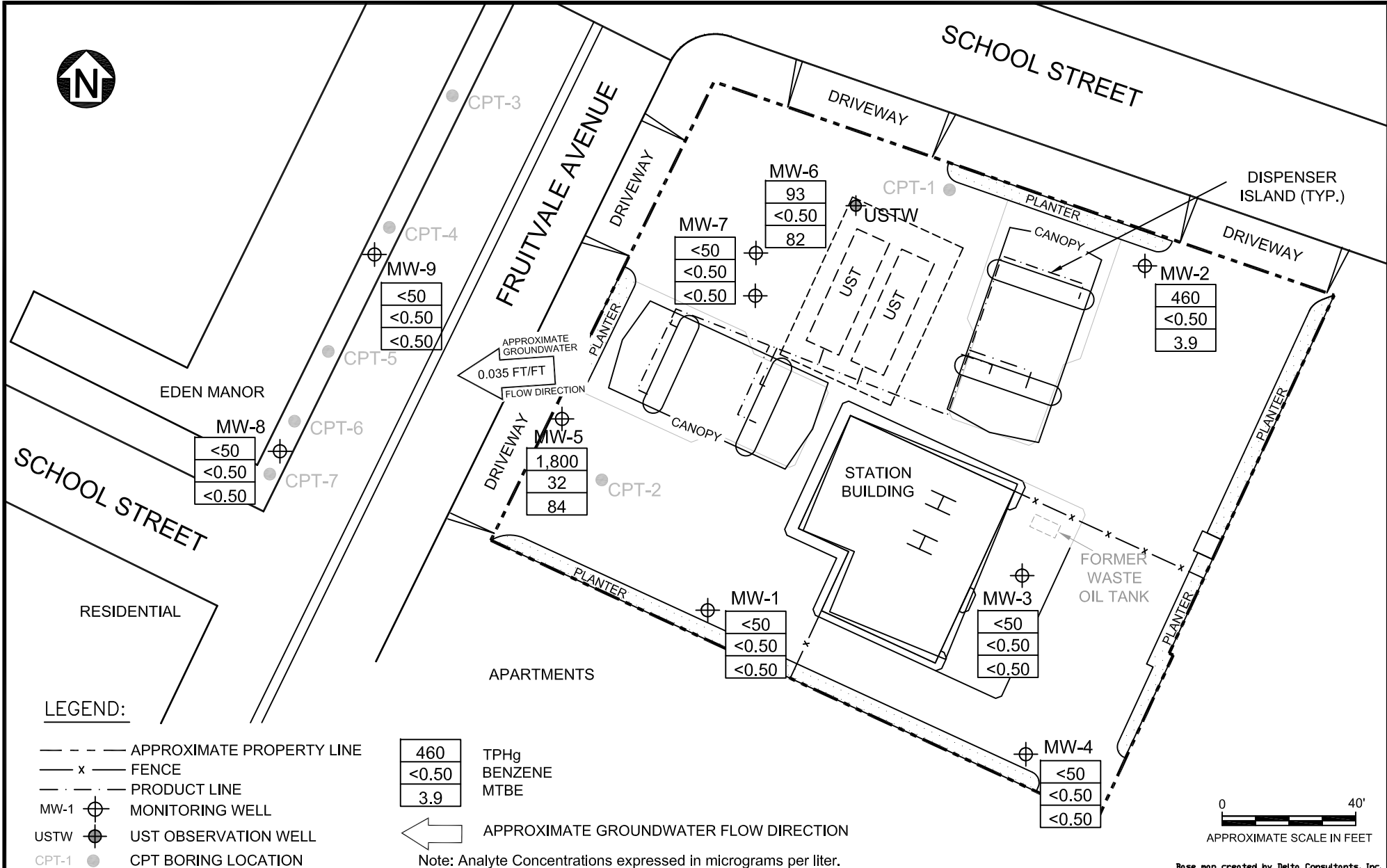
**GROUNDWATER CONTOUR MAP**

Chevron Site #351641 Unocal #4625  
3070 Fruitvale Avenue, Oakland, California

SCALE: 1" = 80'	DATE: 06/28/2012	PROJECT NUMBER: 60267017
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**AECOM**  
10461 OLD PLACERVILLE ROAD SUITE 170  
SACRAMENTO, CALIFORNIA 95827  
PHONE: (916) 361-6400  
FAX: (916) 361-6401  
WEB: HTTP://WWW.AECOM.COM

DESIGNED BY:	REVISIONS				FIGURE NUMBER:
DELTA	NO.:	DESCRIPTION:	DATE:	BY:	2
DRAWN BY:	1	MW-5/6 Elevations	1/20/15	JH	
CD					
CHECKED BY:					
JH					
APPROVED BY:					
JH					



**LEGEND:**

- APPROXIMATE PROPERTY LINE
  - x- FENCE
  - .-.- PRODUCT LINE
  - MW-1 ⊕ MONITORING WELL
  - USTW ⊕ UST OBSERVATION WELL
  - CPT-1 ● CPT BORING LOCATION
- |       |         |
|-------|---------|
| 460   | TPHg    |
| <0.50 | BENZENE |
| 3.9   | MTBE    |
- ← APPROXIMATE GROUNDWATER FLOW DIRECTION

Note: Analyte Concentrations expressed in micrograms per liter.



Base map created by Delta Consultants, Inc.

<p><b>GROUNDWATER CONCENTRATION MAP</b></p> <p>Chevron Site #351641 Unocal #4625 3070 Fruitvale Avenue, Oakland, California</p>			<p><b>AECOM</b> 10461 OLD PLACERVILLE ROAD SUITE 170 SACRAMENTO, CALIFORNIA 95827 PHONE: (916) 361-6400 FAX: (916) 361-6401 WEB: HTTP://WWW.AECOM.COM</p>		DESIGNED BY:				REVISIONS				FIGURE NUMBER:	
					DRAWN BY:				CHECKED BY:				APPROVED BY:	
CD				JH				JH						
1" = 80'				07/18/2012				60267017						



123 Technology Drive West  
Irvine, CA 92618

949.727.9336 PHONE  
949.727.7399 FAX

[www.TRCsolutions.com](http://www.TRCsolutions.com)

DATE: June 11, 2012

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

SITE: Unocal Site 4625  
Facility 351641  
3070 Fruitvale Avenue, Oakland, CA

RE: Transmittal of Groundwater Monitoring Data

Dear Mr. Harms,

Please find attached the field data sheets, chain of custody (COC) forms, and technical services request (TSR) form for the monitoring event that was completed on June 4, 2012. Field measurements and collection of samples submitted to the laboratory were completed in general accordance with our usual groundwater monitoring protocol which is also attached for your reference.

Please call me at 949-727-7345 if you have questions.

Sincerely,

TRC  
A handwritten signature in black ink, appearing to be 'Christina Carrillo', written over a circular stamp that contains the letters 'TRC'.

Christina Carrillo  
Groundwater Program Coordinator

# GENERAL FIELD PROCEDURES

## Groundwater Gauging and Sampling Assignments

For each site, TRC technicians are provided with a Technical Service Request (TSR) that specifies activities required to complete the groundwater gauging and sampling assignment for the site. TSRs are based on client directives, instructions from the primary environmental consultant for the site, regulatory requirements, and TRC's previous experience with the site.

## Fluid Level Measurements (Gauging)

Initial site activities include determination of well locations based on a site map provided with the TSR. Well boxes are opened and caps are removed. Indications of well or well box damage or of pressure buildup in the well are noted.

Fluid levels in each well are measured using a coated cloth tape equipped with an electronic interface probe, which distinguishes between liquid phase hydrocarbon (LPH) and water. The depth to LPH (if it is present), to water, and to the bottom of the well are measured from the top of the well casing (surveyors mark or notch if present) to the nearest 0.01 foot. Unless otherwise instructed, a well with less than 0.67 foot between the measured top of water and the measured bottom of the well casing is considered dry, and is not sampled. If the well contains 0.67 foot or more of water, an attempt is made to bail and/or sample as specified on the TSR.

Unless otherwise instructed, a well that is found to contain a measureable amount of LPH (0.01 foot) is not purged or sampled. Instead, one casing volume of fluid is bailed from the well and the well is re-sealed.

## Purging and Groundwater Parameter Measurement

TSR instructions may specify that a well not be purged (no-purge sampling), be purged using low-flow methods, or be purged using conventional pump and/or bail methods. Conventional purging generally consists of pumping or bailing until a minimum of three casing volumes of water have been removed or until the well has been pumped dry. Pumping is generally accomplished using submersible electric or pneumatic diaphragm pumps. The pump intake is initially set at about 5 feet below the level of water in the casing, and is lowered as needed to compensate for falling water level. Pump depths are recorded in Field Notes.

During conventional purging, three groundwater parameters (temperature, pH, and conductivity) are measured after removal of each casing volume. Stabilization of these parameters, to within 10 percent, confirm that sufficient purging has been completed. In some cases, the TSR indicates that other parameters are also to be measured during purging. TRC commonly measures dissolved oxygen (DO), oxidation-reduction potential (ORP), and/or turbidity. Instruments used for groundwater parameter measurements are calibrated daily according to manufacturer's instructions.

Low-flow purging utilizes a bladder or peristaltic pump to remove water from the well at a low rate. Groundwater parameters specified by the TSR are measured continuously, using a flow cell, until they become stable in general accordance with EPA guidelines.

## Groundwater Sample Collection

After wells are purged, or not purged, according to TSR instructions, samples are collected for laboratory analysis. For wells that have been purged using conventional pump or bail methods, sampling is conducted after the well has recovered to 80 percent of its original volume or after two hours if the well does not recover to at least 80 percent. If there is insufficient recharge of water in the well after two hours, the well is not sampled.

## **GENERAL FIELD PROCEDURES**

Samples are collected by lowering a new, disposable polyethylene bottom-fill bailer to just below the water level in the well. The bailer is retrieved and the water sample is carefully transferred to containers specified for the laboratory analytical methods indicated by the TSR. Particular care is given to containers for volatile organic analysis (VOAs) which require filling to zero headspace and fitting with Teflon-sealed caps.

Sample containers are labeled with project number (or site number), well designation, sample date, sample time, and the sampler's initials, and placed in an insulated chest with ice. Samples remain chilled prior to and during transport to a state-certified laboratory for analysis. Sample container descriptions and requested analyses are entered onto a chain-of-custody form in order to provide instructions to the laboratory. The chain-of-custody form accompanies the samples during transportation to provide a continuous record of possession from the field to the laboratory. If a freight or overnight carrier transports the samples, the carrier is noted on the form.

For wells that have been purged using low-flow methods, sample containers are filled from the effluent stream of the bladder or peristaltic pump. In some cases, if so specified by the TSR, samples are taken from the sample ports of actively pumping remediation wells.

### **Sequence of Gauging, Purging and Sampling**

The sequence in which monitoring activities are conducted is specified on the TSR. In general, wells are gauged beginning with the least affected well and ending with the well that has the highest concentration based on previous analytic results. After all gauging for the site is completed, wells are purged and/or sampled from the least-affected to the most-affected well. If wells must be gauged or sampled out of order, alternate interface probes and/or pumps are utilized and are noted in field documentation.

### **Decontamination**

In order to reduce the possibility of cross contamination between wells, strict isolation and decontamination procedures are observed. Portable pumps are not used in wells with LPH. Technicians wear nitrile gloves during all gauging, purging, and sampling activities. Gloves are changed between wells and more often if warranted. Any equipment that could come in contact with fluids are either dedicated a particular well, decontaminated prior to each use, or discarded after a single use. Decontamination consists of washing in a solution of Liquinox and water and rinsing twice. The final rinse is in deionized water.

### **Purge Water Disposal**

Purge water is generally collected in labeled drums for disposal as non-hazardous waste. Drums may be left on site for disposal by others, or transported to a collection location at a TRC field office, in either Fullerton, California or Concord, California, for eventual transfer to a licensed treatment or recycling facility. Alternatively, purge water may be collected directly from the site by a licensed vacuum truck company, or may be treated on site by an active remediation system, if so directed.

### **Exceptions**

Additional tasks or non-standard procedures, if any, that may be requested or required for a particular site, are documented in field notes on the following pages.



## GROUNDWATER SAMPLING FIELD NOTES

Technician: Baulis

Site: 4625

Project No.: 189791.0035.1641

Date: 6-4-12

Well No. MW-4

Purge Method: Sub

Depth to Water (feet): 9.13

Depth to Product (feet): —

Total Depth (feet) 24.26

LPH & Water Recovered (gallons): —

Water Column (feet): 15.13

Casing Diameter (Inches): 2

80% Recharge Depth(feet): 12.15

1 Well Volume (gallons): 3

Time Start	Time Stop	Depth to Water (feet)	Volume Purged (gallons)	Conductivity (µS/cm)	Temperature (F, C)	pH	D.O. (mg/L)	ORP	Turbidity
Pre-Purge									
0932			3	617.3	17.3	6.48			
			6	558.3	17.2	6.41			
	0938		9	606	17.2	6.40			
Static at Time Sampled			Total Gallons Purged			Sample Time			
11.90			9			1145			
Comments:									

Well No. MW-3

Purge Method: Sub

Depth to Water (feet): 8.00

Depth to Product (feet): —

Total Depth (feet) 25.10

LPH & Water Recovered (gallons): —

Water Column (feet): 17.10

Casing Diameter (Inches): 2

80% Recharge Depth(feet): 11.42

1 Well Volume (gallons): 3

Time Start	Time Stop	Depth to Water (feet)	Volume Purged (gallons)	Conductivity (µS/cm)	Temperature (F, C)	pH	D.O. (mg/L)	ORP	Turbidity
Pre-Purge									
0910			3	498.2	17.6	6.39			
			6	358.8	18.5	6.53			
	0910		9	349.1	18.7	6.18			
Static at Time Sampled			Total Gallons Purged			Sample Time			
8.23			9			0916			
Comments:									

## GROUNDWATER SAMPLING FIELD NOTES

Technician: Basilio

Site: 4625

Project No.: 189791.0035

Date: 6-4-12

Well No. MW-9

Purge Method: Sub

Depth to Water (feet): 10.03

Depth to Product (feet): —

Total Depth (feet) 19.60

LPH & Water Recovered (gallons): —

Water Column (feet): 9.57

Casing Diameter (Inches): 2

80% Recharge Depth(feet): 11.94

1 Well Volume (gallons): 2

Time Start	Time Stop	Depth to Water (feet)	Volume Purged (gallons)	Conductivity (µS/cm)	Temperature (F, C)	pH	D.O. (mg/L)	ORP	Turbidity
<b>Pre-Purge</b>									
<u>1003</u>			<u>2</u>	<u>501.7</u>	<u>16.8</u>	<u>6.97</u>			
			<u>4</u>	<u>489.0</u>	<u>17.7</u>	<u>6.79</u>			
	<u>1010</u>		<u>6</u>	<u>479.8</u>	<u>18.1</u>	<u>6.59</u>			
Static at Time Sampled			Total Gallons Purged			Sample Time			
<u>1072</u>			<u>6</u>			<u>1015</u>			
Comments:									

Well No. MW-8

Purge Method: Sub

Depth to Water (feet): 9.53

Depth to Product (feet): —

Total Depth (feet) 19.62

LPH & Water Recovered (gallons): —

Water Column (feet): 10.09

Casing Diameter (Inches): 2

80% Recharge Depth(feet): 11.54

1 Well Volume (gallons): 2

Time Start	Time Stop	Depth to Water (feet)	Volume Purged (gallons)	Conductivity (µS/cm)	Temperature (F, C)	pH	D.O. (mg/L)	ORP	Turbidity
<b>Pre-Purge</b>									
<u>1026</u>			<u>2</u>	<u>444.7</u>	<u>17.0</u>	<u>6.45</u>			
			<u>4</u>	<u>453.1</u>	<u>17.7</u>	<u>6.34</u>			
	<u>1030</u>		<u>6</u>	<u>449.1</u>	<u>17.8</u>	<u>6.27</u>			
Static at Time Sampled			Total Gallons Purged			Sample Time			
<u>10.02</u>			<u>6</u>			<u>1036</u>			
Comments:									



## GROUNDWATER SAMPLING FIELD NOTES

Technician: Baile

Site: 4625

Project No.: 189791-0035-1641

Date: 6-4-12

Well No. MW-7

Purge Method: SUS

Depth to Water (feet): 8.74

Depth to Product (feet): —

Total Depth (feet) 54.65

LPH & Water Recovered (gallons): —

Water Column (feet): 45.91

Casing Diameter (Inches): 2

80% Recharge Depth(feet): 17.92

1 Well Volume (gallons): 8

Time Start	Time Stop	Depth to Water (feet)	Volume Purged (gallons)	Conductivity (µS/cm)	Temperature (F, C)	pH	D.O. (mg/L)	ORP	Turbidity
Pre-Purge									
1044			8	793.3	18.1	6.50			
	1055		16	794.1	19.2	6.89			
			24	—	—	—			
Static at Time Sampled			Total Gallons Purged			Sample Time			
16.38			16			1255			
Comments: <u>Dry at 16 gals. did not recover 45 min</u>									

Well No. MW-1

Purge Method: SUS

Depth to Water (feet): 7.53

Depth to Product (feet): —

Total Depth (feet) 25.10

LPH & Water Recovered (gallons): —

Water Column (feet): 17.57

Casing Diameter (Inches): 2

80% Recharge Depth(feet): 11.04

1 Well Volume (gallons): 3

Time Start	Time Stop	Depth to Water (feet)	Volume Purged (gallons)	Conductivity (µS/cm)	Temperature (F, C)	pH	D.O. (mg/L)	ORP	Turbidity
Pre-Purge									
1104			3	629.1	18.2	7.09			
			6	595.1	18.4	6.76			
	1108		9	617.4	18.5	6.47			
Static at Time Sampled			Total Gallons Purged			Sample Time			
18.22			9			1310			
Comments: <u>Did not recharge in 2 hrs.</u>									

## GROUNDWATER SAMPLING FIELD NOTES

Technician: Baillio

Site: 4625

Project No.: 189791.0035.1641

Date: 6-4-12

Well No. MW-2

Purge Method: Sub

Depth to Water (feet): 9.12

Depth to Product (feet): -

Total Depth (feet) 24.92

LPH & Water Recovered (gallons): -

Water Column (feet): 15.80

Casing Diameter (Inches): 2

80% Recharge Depth(feet): 12.28

1 Well Volume (gallons): 3

Time Start	Time Stop	Depth to Water (feet)	Volume Purged (gallons)	Conductivity (µS/cm)	Temperature (F, °C)	pH	D.O. (mg/L)	ORP	Turbidity
<b>Pre-Purge</b>									
<u>1126</u>			<u>3</u>	<u>406.5</u>	<u>17.7</u>	<u>6.69</u>			
			<u>6</u>	<u>377.6</u>	<u>18.5</u>	<u>6.48</u>			
	<u>1130</u>		<u>9</u>	<u>376.4</u>	<u>18.3</u>	<u>6.32</u>			
Static at Time Sampled			Total Gallons Purged			Sample Time			
<u>9.21</u>			<u>9</u>			<u>1136</u>			
<b>Comments:</b>									

Well No. MW-6

Purge Method: Sub

Depth to Water (feet): 8.50

Depth to Product (feet): -

Total Depth (feet) 23.42

LPH & Water Recovered (gallons): -

Water Column (feet): 14.92

Casing Diameter (Inches): 2

80% Recharge Depth(feet): 11.48

1 Well Volume (gallons): 3

Time Start	Time Stop	Depth to Water (feet)	Volume Purged (gallons)	Conductivity (µS/cm)	Temperature (F, °C)	pH	D.O. (mg/L)	ORP	Turbidity
<b>Pre-Purge</b>									
<u>1155</u>			<u>3</u>	<u>376.7</u>	<u>17.2</u>	<u>6.32</u>			
			<u>6</u>	<u>356.0</u>	<u>17.9</u>	<u>6.26</u>			
	<u>1159</u>		<u>9</u>	<u>356.7</u>	<u>18.2</u>	<u>6.27</u>			
Static at Time Sampled			Total Gallons Purged			Sample Time			
<u>8.62</u>			<u>9</u>			<u>1204</u>			
<b>Comments:</b>									

## GROUNDWATER SAMPLING FIELD NOTES

Technician: Baillio

Site: 4625

Project No.: 189791.0035.1641

Date: 6-4-12

Well No. MW-5

Purge Method: Sub

Depth to Water (feet): 8.57

Depth to Product (feet): —

Total Depth (feet) 24.40

LPH & Water Recovered (gallons): —

Water Column (feet): 15.83

Casing Diameter (Inches): 2

80% Recharge Depth(feet): 11.73

1 Well Volume (gallons): 3

Time Start	Time Stop	Depth to Water (feet)	Volume Purged (gallons)	Conductivity (µS/cm)	Temperature (F, C)	pH	D.O. (mg/L)	ORP	Turbidity
<b>Pre-Purge</b>									
<u>1212</u>			<u>3</u>	<u>603.0</u>	<u>18.3</u>	<u>6.15</u>			
			<u>6</u>	<u>649.3</u>	<u>18.7</u>	<u>6.09</u>			
	<u>1216</u>		<u>9</u>	<u>682.9</u>	<u>18.8</u>	<u>6.13</u>			
Static at Time Sampled			Total Gallons Purged			Sample Time			
<u>11:22</u>			<u>9</u>			<u>1328</u>			
<b>Comments:</b>									

Well No. \_\_\_\_\_

Purge Method: \_\_\_\_\_

Depth to Water (feet): \_\_\_\_\_

Depth to Product (feet): \_\_\_\_\_

Total Depth (feet) \_\_\_\_\_

LPH & Water Recovered (gallons): \_\_\_\_\_

Water Column (feet): \_\_\_\_\_

Casing Diameter (Inches): \_\_\_\_\_

80% Recharge Depth(feet): \_\_\_\_\_

1 Well Volume (gallons): \_\_\_\_\_

Time Start	Time Stop	Depth to Water (feet)	Volume Purged (gallons)	Conductivity (µS/cm)	Temperature (F, C)	pH	D.O. (mg/L)	ORP	Turbidity
<b>Pre-Purge</b>									
Static at Time Sampled			Total Gallons Purged			Sample Time			
<b>Comments:</b>									

# WELL BOX CONDITION REPORT

SITE NO. 4625  
 ADDRESS 3070 Fruitvale Ave.  
 DATE 6-4-12

PERFORMED BY: Basilio

PAGE 1 OF 1

Well Name	Current Well Box Size	# of Ears	# of Stripped Ears	# of Broken Ears	# of Broken Bolts	# of Missing Bolts	Seal Damaged	Missing Lid	Broken Lid	Well Box is Exposed	Well Box is Below Grade	Unable to Access	Unable to Locate	Foundation Damaged	Paved Over	Street Well	Saw Cui Needed	System Well	USA Marked Well	Comments
U5TW	12"	2																		
UW9	12"	2																		
UW8	12"	2																		
UW-7	12"	2																		
UW1	8"	3	1																	
UW-4	8"	3																		
UW-3	8"	3																		
UW-2	8"	3																		
UW6	8"	2																		
UW-5	8"	2																		



CHAIN OF CUSTODY FORM

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

COC 1 of       

Union Oil Site ID: <u>11625</u>				Union Oil Consultant: <u>AFCO/IA</u>				ANALYSES REQUIRED											
Site Global ID: <u>T0600102156</u>				Consultant Contact: <u>Jim Harris</u>				TPH - Diesel by EPA 8015, SVOCs by 8210	TPH - G by GC/MS	BTEX/MTBE/OXYS by EPA 8260B	Ethanol by EPA 8260B	EPA 8260B Full List with OXYS	BTEX/MTBE by 8260B	CIN/PAH by 8260B	Full Scan 8260B including OXYS	TO5	Total Chromium	Turnaround Time (TAT):	
Site Address: <u>3070 Fruitvale Ave. Oakland</u>				Consultant Phone No.: <u>916-361-6412</u>														Standard <input checked="" type="checkbox"/> 24 Hours <input type="checkbox"/>	48 Hours <input type="checkbox"/> 72 Hours <input type="checkbox"/>
Union Oil PM: <u>Maria Kamin</u>				Sampling Company: <u>TRC</u>														Special Instructions	
Union Oil PM Phone No.: <u>925 492 6230</u>				Sampled By (PRINT): <u>R. Garcia</u>				"Run 8 OXYS by 8260B on all MTBE with!"											
Charge Code: <u>NWRTB-0 351641-0-LAB</u>				Sampler Signature: <u>[Signature]</u>															
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															
SAMPLE ID				Sample Time	# of Containers	TPH - Diesel by EPA 8015, SVOCs by 8210	TPH - G by GC/MS	BTEX/MTBE/OXYS by EPA 8260B	Ethanol by EPA 8260B	EPA 8260B Full List with OXYS	BTEX/MTBE by 8260B	CIN/PAH by 8260B	Full Scan 8260B including OXYS	TO5	Total Chromium	Notes / Comments			
Field Point Name	Matrix	DTW	Date (yymmdd)																
<u>MW-1</u>	<u>W-S-A</u>		<u>120604</u>	<u>1310</u>	<u>3</u>														
<u>MW-2</u>	<u>W-S-A</u>			<u>1136</u>	<u>3</u>														
<u>MW-3</u>	<u>W-S-A</u>			<u>0916</u>	<u>3</u>	<u>X</u>							<u>X</u>	<u>X</u>					
<u>MW-4</u>	<u>W-S-A</u>			<u>1145</u>	<u>3</u>								<u>X</u>	<u>X</u>					
<u>MW-5</u>	<u>W-S-A</u>			<u>1328</u>	<u>3</u>			<u>X</u>					<u>X</u>	<u>X</u>					
<u>MW-6</u>	<u>W-S-A</u>			<u>1204</u>	<u>3</u>			<u>X</u>					<u>X</u>	<u>X</u>					
<u>MW-7</u>	<u>W-S-A</u>			<u>1255</u>	<u>3</u>			<u>X</u>					<u>X</u>	<u>X</u>					
<u>MW-8</u>	<u>W-S-A</u>			<u>1036</u>	<u>3</u>			<u>X</u>					<u>X</u>	<u>X</u>					
<u>MW-9</u>	<u>W-S-A</u>			<u>1015</u>	<u>3</u>			<u>X</u>					<u>X</u>	<u>X</u>					
	<u>W-S-A</u>																		
	<u>W-S-A</u>																		
	<u>W-S-A</u>																		
Relinquished By <u>[Signature]</u> Company <u>TRC</u> Date / Time: <u>6/14/12 1435</u>				Relinquished By _____ Company _____ Date / Time: _____				Relinquished By _____ Company _____ Date / Time: _____											
Received By <u>[Signature]</u> Company <u>BC Lab</u> Date / Time: <u>6/14/12 1435</u>				Received By _____ Company _____ Date / Time: _____				Received By _____ Company _____ Date / Time: _____											

**TRC SOLUTIONS**  
**TECHNICAL SERVICES REQUEST FORM**

21-May-12

**Site ID:** 4625  
**Address:** 3070 Fruitvale Avenue  
**City:** Oakland  
**Cross Street:** School Street

**Project No.:** 189791.0035.1641 / 00TA01  
**Client:** Roya Kambin  
**Contact #:** 925-790-6270  
**PM:** Jim Harms                      AECOM  
**PM Contact #:** 916-361-6412

**Total number of wells:** 10      **Min. Well Diameter (in.):** 2      **# of Techs, # of Hrs:** 1, 6  
**Depth to Water (ft.):** 7      **Max. Well Diameter (in.):** 2      **Travel Time (hrs):**  
**Max. Well Depth (ft):** 25      **Hotel PO#:**

ACTIVITIES:	Frequency	Notes	Hotel PO#:
Gauging:	<input checked="" type="checkbox"/> Semi Q2/Q4		
Purge/Sampling:	<input checked="" type="checkbox"/> Semi Q2/Q4		
No Purge/Sample	<input type="checkbox"/>		

RELATED ACTIVITIES	Note
Drums:	<input checked="" type="checkbox"/>
Other Activities:	<input type="checkbox"/>
Traffic Control:	<input checked="" type="checkbox"/> City of Oakland

*Permit Allowed*

**PERMIT INFORMATION:**

**NOTIFICATIONS:**

Fruitvale 76 - Kham Thai: 510-533-7900

**SITE INFORMATION:**

MW-3 & MW-4 are located behind a locked fence that does not open until 8:30AM.

**TRC SOLUTIONS**  
**TECHNICAL SERVICES REQUEST FORM**

21-May-12

**Site ID:** 4625  
**Address:** 3070 Fruitvale Avenue  
**City:** Oakland  
**Cross Street:** School Street

**Project No.:** 189791.0035.1641 / 00TA01  
**Client:** Roya Kambin  
**Contact #:** 925-790-6270  
**PM:** Jim Harms AECOM  
**PM Contact #:** 916-361-6412

**LAB INFORMATION:**

**Global ID:** T0600102156

**Lab WO:** 351641

**Lab Used:** BC Labs

**Lab Notes:** Lab Analyses for wells MW-1, MW-2, MW-4:  
TPH-G by GC/MS, BTEX/MTBE by 8260B, Ethanol by 8260B, EDB/EDC by 8260B [Containers: 3 voas w/ HCl]

Lab Analyses for well MW-3:

TPH-D by 8015M [Containers: two 1L ambers unpreserved]

SVOCS by 8270 [Containers: one 1L amber unpreserved]

TOG [Containers: two 1L ambers w/HCl]

TPH-G by GC/MS, Full Scan 8260B including OXYS, Ethanol by 8260B [Containers: 3 voas w/HCl]

Total Chromium [Containers: one 500mL poly w/ HNO3]

Lab Analyses for wells MW-5, MW-6, MW-7, MW-8 & MW-9:

TPH-G by GC/MS, BTEX/MTBE/OXYS by 8260B, EDB/EDC by 8260B, Ethanol by 8260B [Containers: 3 voas w/ HCl]

Note on COC: "Run 8 OXYS by 8260 on all 8260 MTBE hits."

**TRC SOLUTIONS**  
**TECHNICAL SERVICES REQUEST FORM**

21-May-12

**Site ID.:** 4625  
**Address** 3070 Fruitvale Avenue  
**City:** Oakland  
**Cross Street** School Street

Well IDs	Benz.	MTBE	Gauging				Sampling				Field Measurements			Comments	
			Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Pre-Purge	Post-Purge	Type		
USTW			<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		6" casing
MW-9	0	0	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	2" casing
MW-8	0	0	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	2" casing
MW-7	0	0	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	2" casing
MW-4	0	0	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	2" casing
MW-3	0	0	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	2" casing
MW-1	0	0	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	2" casing
MW-2	0	1.1	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	2" casing
MW-6	0	12	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	2" casing
MW-5	53	60	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	2" casing



**Table 2**  
**HISTORIC Groundwater Data**  
**Chevron Station # 351641**  
**Former Unocal Station # 4625**  
**3070 Fruitvale Avenue, Oakland, CA**

Date Sampled	TOC Elevation (feet)	Depth to Water (feet)	LPH Thickness (feet)	Ground-Water Elevation (feet)	Change in Elevation (feet)	TPH-G 8015 (µg/l)	TPH-G (GC/MS) (µg/l)	Benzene (µg/l)	Toluene (µg/l)	Ethyl-benzene (µg/l)	Total Xylenes (µg/l)	MTBE (8021B) (µg/l)	MTBE (8260B) (µg/l)	Comments
<b>MW-1</b>														
5/3/2000	136.36	11.81	0	124.55	--	ND	--	ND	ND	ND	ND	11	14	
7/28/2000	136.36	7.79	0	128.57	4.02	ND	--	ND	ND	ND	ND	21	19	
10/29/2000	136.36	7.90	0	128.46	-0.11	62	--	ND	ND	ND	ND	6.5	3.9	
2/9/2001	136.36	7.95	0	128.41	-0.05	ND	--	ND	ND	ND	ND	9.0	9.0	
5/11/2001	136.36	7.22	0	129.14	0.73	ND	--	ND	ND	ND	ND	12.7	16.3	
8/10/2001	136.36	8.47	0	127.89	-1.25	ND<0.50	--	ND<0.50	ND<0.50	ND<0.50	ND<0.50	17	19	
11/7/2001	136.36	8.10	0	128.26	0.37	ND<0.50	--	ND<0.50	ND<0.50	ND<0.50	ND<0.50	22	26	
2/6/2002	136.36	6.84	0	129.52	1.26	ND<0.50	--	ND<0.50	ND<0.50	ND<0.50	ND<0.50	14	18	
5/8/2002	136.36	7.29	0	129.07	-0.45	ND<0.50	--	ND<0.50	ND<0.50	ND<0.50	ND<0.50	20	19	
8/9/2002	136.36	8.20	0	128.16	-0.91	--	57	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	22	
11/26/2002	136.36	7.78	0	128.58	0.42	--	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	23	
2/14/2003	137.57	6.90	0	130.67	2.09	--	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	8.8	
5/3/2003	137.57	7.36	0	130.21	-0.46	--	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	3.4	
8/1/2003	137.57	7.48	0	130.09	-0.12	--	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	9.7	
10/30/2003	137.57	8.74	0	128.83	-1.26	--	300	35	41	21	71	--	8.5	
1/29/2004	137.57	6.72	0	130.85	2.02	--	74	ND<0.50	4.3	ND<0.50	ND<1.0	--	12	
5/27/2004	137.57	7.98	0	129.59	-1.26	--	ND<0.50	ND<0.50	ND<0.50	ND<0.50	1.0	--	16	
8/31/2004	137.57	8.42	0	129.15	-0.44	--	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	23	
11/18/2004	137.57	6.91	0	130.66	1.51	--	ND<0.50	ND<0.50	ND<0.50	ND<0.50	1.4	--	7.2	
3/25/2005	137.57	6.23	0	131.34	0.68	--	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	6.2	
6/22/2005	137.57	6.83	0	130.74	-0.60	--	ND<0.50	ND<0.50	0.23J	ND<0.50	ND<1.0	--	11	
9/26/2005	137.57	7.97	0	129.60	-1.14	--	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	5.6	
12/20/2005	137.57	6.73	0	130.84	1.24	--	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	3.2	
3/29/2006	137.57	6.41	0	131.16	0.32	--	79	1.3	ND<0.50	1.4	4.2	--	3.4	
6/12/2006	137.57	7.10	0	130.47	-0.69	--	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	1.0	
9/27/2006	137.57	7.85	0	129.72	-0.75	--	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	--	ND<0.50	
12/27/2006	137.57	6.90	0	130.67	0.95	--	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	--	ND<0.50	
3/16/2007	137.57	7.07	0	130.50	-0.17	--	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	--	ND<0.50	
6/27/2007	137.57	7.53	0	130.04	-0.46	--	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	--	ND<0.50	
9/27/2007	137.57	8.42	0	129.15	-0.89	--	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	--	ND<0.50	
12/26/2007	137.57	6.96	0	130.61	1.46	--	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	ND<0.50	

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**HISTORIC Groundwater Data**  
**Chevron Station # 351641**  
**Former Unocal Station # 4625**  
**3070 Fruitvale Avenue, Oakland, CA**

Date Sampled	TOC Elevation (feet)	Depth to Water (feet)	LPH Thickness (feet)	Ground-Water Elevation (feet)	Change in Elevation (feet)	TPH-G 8015 (µg/l)	TPH-G (GC/MS) (µg/l)	Benzene (µg/l)	Toluene (µg/l)	Ethyl-benzene (µg/l)	Total Xylenes (µg/l)	MTBE (8021B) (µg/l)	MTBE (8260B) (µg/l)	Comments
3/26/2008	137.57	7.08	0	130.49	-0.12	--	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	ND<0.50	
6/17/2008	137.57	8.26	0	129.31	-1.18	--	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	ND<0.50	
9/15/2008	137.57	8.75	0	128.82	-0.49	--	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	ND<0.50	
12/30/2008	137.57	7.30	0	130.27	1.45	--	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	ND<0.50	
3/30/2009	137.57	6.42	0	131.15	0.88	--	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	ND<0.50	
6/25/2009	137.57	7.72	0	129.85	-1.30	--	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	ND<0.50	
12/17/2009	137.57	7.21	0	130.36	0.51	--	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	ND<0.50	
6/29/2010	137.57	7.77	0	129.80	-0.56	--	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	ND<0.50	
12/30/2010	137.57	6.65	0	130.92	1.12	--	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	ND<0.50	
<b>MW-2</b>														
5/3/2000	138.64	8.59	0	130.05	--	2400	--	53	ND	ND	240	ND	ND	
7/28/2000	138.64	9.95	0	128.69	-1.36	2200	--	680	4.1	57	270	24	ND	
10/29/2000	138.64	8.38	0	130.26	1.57	490	--	67	ND	23	22	ND	--	
2/9/2001	138.64	8.41	0	130.23	-0.03	ND	--	3.1	ND	0.52	1.1	ND	--	
5/11/2001	138.64	8.93	0	129.71	-0.52	ND	--	1.99	ND	ND	ND	ND	--	
8/10/2001	138.64	10.68	0	127.96	-1.75	96	--	20	ND<0.50	2.1	9.4	ND<5.0	--	
11/7/2001	138.64	10.01	0	128.63	0.67	480	--	110	ND<1.0	26	42	ND<10	--	
2/6/2002	138.64	8.10	0	130.54	1.91	69	--	13	ND<0.50	0.84	4.4	ND<5.0	--	
5/8/2002	138.64	9.16	0	129.48	-1.06	53	--	13	ND<0.50	1.2	1.5	ND<5.0	--	
8/9/2002	138.64	10.39	0	128.25	-1.23	--	140	20	ND<0.50	10	11	--	ND<2.0	
11/26/2002	138.64	9.81	0	128.83	0.58	--	340	87	ND<0.50	33	23	--	ND<2.0	
2/14/2003	139.85	8.19	0	131.66	2.83	--	130	12	ND<0.50	7.4	5.4	--	ND<2.0	
5/3/2003	139.85	6.77	0	133.08	1.42	--	ND<50	2.5	ND<0.50	1.7	ND<1.0	--	ND<2.0	
8/1/2003	139.85	9.63	0	130.22	-2.86	--	270	55	ND<0.50	23	6.0	--	ND<2.0	
10/30/2003	139.85	11.06	0	128.79	-1.43	--	180	17	4.8	6.1	13	--	ND<2.0	
1/29/2004	139.85	8.35	0	131.50	2.71	--	98	4.3	ND<0.50	1.5	3.6	--	ND<2.0	
5/27/2004	139.85	9.66	0	130.19	-1.31	--	58	1.2	ND<0.50	0.87	1.1	--	ND<0.50	
8/31/2004	139.85	10.45	0	129.40	-0.79	--	99	2.7	ND<0.50	1.8	2.8	--	ND<0.50	
11/18/2004	139.85	8.21	0	131.64	2.24	--	220	2.4	ND<0.50	2.1	1.7	--	ND<0.50	
3/25/2005	139.85	5.85	0	134.00	2.36	--	240	3.5	ND<0.50	4.4	6.5	--	ND<0.50	
6/22/2005	139.85	8.21	0	131.64	-2.36	--	56	1.1	ND<0.50	1.3	1.5	--	ND<0.50	
9/26/2005	139.85	9.98	0	129.87	-1.77	--	83	0.56	ND<0.50	0.86	ND<1.0	--	ND<0.50	

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**Chevron Station # 351641**  
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Date Sampled	TOC Elevation (feet)	Depth to Water (feet)	LPH Thickness (feet)	Ground-Water Elevation (feet)	Change in Elevation (feet)	TPH-G 8015 (µg/l)	TPH-G (GC/MS) (µg/l)	Benzene (µg/l)	Toluene (µg/l)	Ethyl-benzene (µg/l)	Total Xylenes (µg/l)	MTBE (8021B) (µg/l)	MTBE (8260B) (µg/l)	Comments
12/20/2005	139.85	6.59	0	133.26	3.39	--	63	2.6	ND<0.50	2.4	3.7	--	ND<0.50	
3/29/2006	139.85	5.79	0	134.06	0.80	--	94	2.0	ND<0.50	1.7	2.0	--	ND<0.50	
6/12/2006	139.85	8.72	0	131.13	-2.93	--	140	1.1	ND<0.50	0.94	2.8	--	ND<0.50	
9/27/2006	139.85	9.86	0	129.99	-1.14	--	55	0.55	ND<0.50	0.80	ND<0.50	--	ND<0.50	
12/27/2006	139.85	6.98	0	132.87	2.88	--	72	0.61	ND<0.50	0.52	ND<0.50	--	ND<0.50	
3/16/2007	139.85	8.10	0	131.75	-1.12	--	62	ND<0.50	ND<0.50	ND<0.50	ND<0.50	--	ND<0.50	
6/27/2007	139.85	9.48	0	130.37	-1.38	--	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	--	ND<0.50	
9/27/2007	139.85	10.50	0	129.35	-1.02	--	280	0.65	ND<0.50	1.8	ND<0.50	--	0.70	
12/26/2007	139.85	7.84	0	132.01	2.66	--	64	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	0.56	
3/26/2008	139.85	8.75	0	131.10	-0.91	--	64	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	ND<0.50	
6/17/2008	139.85	10.19	0	129.66	-1.44	--	56	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	ND<0.50	
9/15/2008	139.85	10.79	0	129.06	-0.60	--	74	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	ND<0.50	
12/30/2008	139.85	8.36	0	131.49	2.43	--	52	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	ND<0.50	
3/30/2009	139.85	8.11	0	131.74	0.25	--	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	ND<0.50	
6/25/2009	139.85	9.65	0	130.20	-1.54	--	67	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	ND<0.50	
12/17/2009	139.85	7.57	0	132.28	2.08	--	99	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	0.81	
6/29/2010	139.85	9.06	0	130.79	-1.49	--	150	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	0.86	
12/30/2010	139.85	5.67	0	134.18	3.39	--	54	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	0.62	
<b>MW-3</b>														
5/3/2000	137.68	7.60	0	130.08	--	ND	--	ND	ND	ND	ND	ND	ND	
7/28/2000	137.68	8.82	0	128.86	-1.22	ND	--	ND	ND	ND	ND	ND	ND	
10/29/2000	137.68	7.33	0	130.35	1.49	ND	--	ND	ND	ND	ND	ND	--	
2/9/2001	137.68	7.40	0	130.28	-0.07	ND	--	ND	ND	ND	ND	ND	--	
5/11/2001	137.68	7.90	0	129.78	-0.50	ND	--	ND	ND	ND	ND	ND	--	
8/10/2001	137.68	9.09	0	128.59	-1.19	ND<50	--	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<5.0	--	
11/7/2001	137.68	9.03	0	128.65	0.06	ND<50	--	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<5.0	--	
2/6/2002	137.68	7.16	0	130.52	1.87	ND<50	--	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<5.0	--	
5/8/2002	137.68	8.04	0	129.64	-0.88	ND<50	--	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<5.0	--	
8/9/2002	137.68	9.27	0	128.41	-1.23	--	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	ND<2.0	
11/26/2002	137.68	8.79	0	128.89	0.48	--	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	ND<2.0	
2/14/2003	138.89	7.18	0	131.71	2.82	--	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	ND<2.0	
5/3/2003	138.89	5.88	0	133.01	1.30	--	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	ND<2.0	

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Date Sampled	TOC Elevation (feet)	Depth to Water (feet)	LPH Thickness (feet)	Ground-Water Elevation (feet)	Change in Elevation (feet)	TPH-G 8015 (µg/l)	TPH-G (GC/MS) (µg/l)	Benzene (µg/l)	Toluene (µg/l)	Ethyl-benzene (µg/l)	Total Xylenes (µg/l)	MTBE (8021B) (µg/l)	MTBE (8260B) (µg/l)	Comments
8/1/2003	138.89	8.52	0	130.37	-2.64	--	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	ND<2.0	
10/30/2003	138.89	10.05	0	128.84	-1.53	--	ND<50	0.62	0.83	ND<0.50	ND<1.0	--	ND<5.0	
1/29/2004	138.89	6.58	0	132.31	3.47	--	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	ND<2.0	
5/27/2004	138.89	8.51	0	130.38	-1.93	--	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	ND<0.50	
8/31/2004	138.89	9.72	0	129.17	-1.21	--	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	ND<5.0	
11/18/2004	138.89	7.20	0	131.69	2.52	--	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	ND<0.50	
11/18/2004	138.89	7.20	0	131.69	2.52	--	--	--	--	--	--	--	ND<5.0	
3/25/2005	138.89	5.39	0	133.50	1.81	--	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	0.97	
6/22/2005	138.89	7.31	0	131.58	-1.92	--	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	ND<0.50	
9/26/2005	138.89	8.99	0	129.90	-1.68	--	--	ND<0.50	ND<0.50	ND<0.50	ND<0.50	--	ND<0.50	
9/26/2005	138.89	8.99	0	129.90	-1.68	--	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	ND<0.50	
12/20/2005	138.89	8.03	0	130.86	0.96	--	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	ND<0.50	
3/29/2006	138.89	8.55	0	130.34	-0.52	--	--	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	0.54	Duplicates obtained by EPA method 8240
3/29/2006	138.89	8.55	0	130.34	-0.52	--	61	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	0.54	Duplicates obtained by EPA method 8240
6/12/2006	138.89	7.70	0	131.19	0.85	--	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	ND<0.50	
6/12/2006	138.89	7.70	0	131.19	0.85	--	--	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	ND<0.50	
9/27/2006	138.89	8.87	0	130.02	-1.17	--	--	ND<0.50	ND<0.50	ND<0.50	ND<0.50	--	ND<0.50	
9/27/2006	138.89	8.87	0	130.02	-1.17	--	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	--	ND<0.50	
12/27/2006	138.89	6.10	0	132.79	2.77	--	--	ND<0.50	ND<0.50	ND<0.50	ND<0.50	--	ND<0.50	
12/27/2006	138.89	6.10	0	132.79	2.77	--	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	ND<0.50	
3/16/2007	138.89	7.14	0	131.75	-1.04	--	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	ND<0.50	
3/16/2007	138.89	7.14	0	131.75	-1.04	--	--	ND<0.50	ND<0.50	ND<0.50	ND<0.50	--	ND<0.50	
6/27/2007	138.89	8.58	0	130.31	-1.44	--	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	--	ND<0.50	
9/27/2007	138.89	9.47	0	129.42	-0.89	--	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	--	ND<0.50	
12/26/2007	138.89	7.00	0	131.89	2.47	--	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	ND<0.50	
3/26/2008	138.89	7.77	0	131.12	-0.77	--	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	ND<0.50	
6/17/2008	138.89	9.15	0	129.74	-1.38	--	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	ND<0.50	
9/15/2008	138.89	9.79	0	129.10	-0.64	--	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	ND<0.50	
12/30/2008	138.89	7.24	0	131.65	2.55	--	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	ND<0.50	
3/30/2009	138.89	7.04	0	131.85	0.20	--	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	ND<0.50	

**Table 2**  
**HISTORIC Groundwater Data**  
**Chevron Station # 351641**  
**Former Unocal Station # 4625**  
**3070 Fruitvale Avenue, Oakland, CA**

Date Sampled	TOC Elevation (feet)	Depth to Water (feet)	LPH Thickness (feet)	Ground-Water Elevation (feet)	Change in Elevation (feet)	TPH-G 8015 (µg/l)	TPH-G (GC/MS) (µg/l)	Benzene (µg/l)	Toluene (µg/l)	Ethyl-benzene (µg/l)	Total Xylenes (µg/l)	MTBE (8021B) (µg/l)	MTBE (8260B) (µg/l)	Comments
6/25/2009	138.89	8.60	0	130.29	-1.56	--	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	ND<0.50	
12/17/2009	138.89	6.58	0	132.31	2.02	--	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	ND<0.50	
6/29/2010	138.89	7.98	0	130.91	-1.40	--	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	ND<0.50	
12/30/2010	138.89	5.12	0	133.77	2.86	--	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	ND<0.50	
<b>MW-4</b>														
5/3/2000	136.60	6.48	0	130.12	--	ND	--	ND	ND	ND	ND	ND	ND	
7/28/2000	136.60	7.55	0	129.05	-1.07	ND	--	ND	ND	ND	ND	ND	--	
10/29/2000	136.60	6.12	0	130.48	1.43	ND	--	ND	ND	ND	ND	ND	--	
2/9/2001	136.60	6.14	0	130.46	-0.02	ND	--	ND	ND	ND	ND	ND	--	
5/11/2001	136.60	7.51	0	129.09	-1.37	ND	--	ND	ND	ND	ND	ND	--	
8/10/2001	136.60	8.66	0	127.94	-1.15	ND<0.50	--	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<5.0	--	
11/7/2001	136.60	7.92	0	128.68	0.74	ND<0.50	--	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<5.0	--	
2/6/2002	136.60	7.18	0	129.42	0.74	ND<0.50	--	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<5.0	--	
5/8/2002	136.60	6.86	0	129.74	0.32	ND<0.50	--	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<5.0	--	
8/9/2002	136.60	7.67	0	128.93	-0.81	--	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	ND<2.0	
11/26/2002	136.60	8.08	0	128.52	-0.41	--	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	ND<2.0	
5/3/2003	137.81	6.05	0	131.76	1.38	--	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	ND<2.0	
8/1/2003	137.81	8.21	0	129.60	-2.16	--	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	ND<2.0	
10/30/2003	137.81	9.04	0	128.77	-0.83	--	ND<0.50	1.1	2.3	2.2	7.0	--	ND<2.0	
1/29/2004	137.81	8.22	0	129.59	0.82	--	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	ND<2.0	
5/27/2004	137.81	7.43	0	130.38	0.79	--	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	ND<0.50	
8/31/2004	137.81	8.35	0	129.46	-0.92	--	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	ND<0.50	
11/18/2004	137.81	8.26	0	129.55	0.09	--	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	ND<0.50	
3/25/2005	137.81	4.40	0	133.41	3.86	--	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	ND<0.50	
6/22/2005	137.81	8.44	0	129.37	-4.04	--	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	ND<0.50	
9/26/2005	137.81	7.93	0	129.88	0.51	--	ND<0.50	0.51	ND<0.50	0.53	2.3	--	ND<0.50	
12/20/2005	137.81	5.65	0	132.16	2.28	--	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	ND<0.50	
3/29/2006	137.81	5.15	0	132.66	0.50	--	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	ND<0.50	
6/12/2006	137.81	5.68	0	132.13	-0.53	--	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	ND<0.50	
9/27/2006	137.81	7.52	0	130.29	-1.84	--	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	--	ND<0.50	
12/27/2006	137.81	6.95	0	130.86	0.57	--	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	--	ND<0.50	
3/16/2007	137.81	7.20	0	130.61	-0.25	--	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	--	ND<0.50	

**Table 2**  
**HISTORIC Groundwater Data**  
**Chevron Station # 351641**  
**Former Unocal Station # 4625**  
**3070 Fruitvale Avenue, Oakland, CA**

Date Sampled	TOC Elevation (feet)	Depth to Water (feet)	LPH Thickness (feet)	Ground-Water Elevation (feet)	Change in Elevation (feet)	TPH-G 8015 (µg/l)	TPH-G (GC/MS) (µg/l)	Benzene (µg/l)	Toluene (µg/l)	Ethyl-benzene (µg/l)	Total Xylenes (µg/l)	MTBE (8021B) (µg/l)	MTBE (8260B) (µg/l)	Comments
6/27/2007	137.81	7.68	0	130.13	-0.48	--	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	--	ND<0.50	
9/27/2007	137.81	9.01	0	128.80	-1.33	--	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	--	ND<0.50	
12/26/2007	137.81	5.98	0	131.83	3.03	--	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	ND<0.50	
3/26/2008	137.81	8.83	0	128.98	-2.85	--	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	ND<0.50	
6/17/2008	137.81	9.05	0	128.76	-0.22	--	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	ND<0.50	
9/15/2008	137.81	9.03	0	128.78	0.02	--	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	ND<0.50	
12/30/2008	137.81	8.22	0	129.59	0.81	--	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	ND<0.50	
3/30/2009	137.81	8.14	0	129.67	0.08	--	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	ND<0.50	
6/25/2009	137.81	8.10	0	129.71	0.04	--	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	ND<0.50	
12/17/2009	137.81	7.08	0	130.73	1.02	--	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	ND<0.50	
6/29/2010	137.81	6.94	0	130.87	0.14	--	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	ND<0.50	
12/30/2010	137.81	7.82	0	129.99	-0.88	--	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	ND<0.50	
<b>MW-5</b>														
11/26/2002	--	9.89	0	--	--	--	2500	350	39	32	640	--	470	
2/14/2003	137.66	8.65	0	129.01	--	--	6600	920	210	430	1300	--	960	
5/3/2003	137.66	8.23	0	129.43	0.42	--	33000	2400	2200	2000	7600	--	1500	
8/1/2003	137.66	9.63	0	128.03	-1.40	--	14000	880	130	630	2000	--	630	
10/30/2003	137.66	10.58	0	127.08	-0.95	--	1400	75	43	39	140	--	330	
1/29/2004	137.66	8.70	0	128.96	1.88	--	6300	750	56	400	1000	--	1100	
5/27/2004	137.66	9.59	0	128.07	-0.89	--	4600	260	15	300	840	--	400	
8/31/2004	137.66	10.05	0	127.61	-0.46	--	1500	53	ND<2.5	48	49	--	250	
11/18/2004	137.66	8.54	0	129.12	1.51	--	22000	1300	900	1100	4600	--	1100	
3/25/2005	137.66	7.12	0	130.54	1.42	--	53000	1400	660	1600	6400	--	1000	
6/22/2005	137.66	8.62	0	129.04	-1.50	--	5100	240	110	320	1100	--	420	
9/26/2005	137.66	9.70	0	127.96	-1.08	--	2500	81	ND<0.50	85	200	--	180	
12/20/2005	137.66	8.23	0	129.43	1.47	--	3800	220	42	240	620	--	300	
3/29/2006	137.66	6.70	0	130.96	1.53	--	7100	520	150	470	1500	--	680	
6/12/2006	137.66	8.68	0	128.98	-1.98	--	7500	290	97	500	1600	--	500	
9/27/2006	137.66	9.45	0	128.21	-0.77	--	2200	55	ND<0.50	85	170	--	220	
12/27/2006	137.66	7.57	0	130.09	1.88	--	13000	560	160	750	1900	--	580	
3/16/2007	137.66	8.10	0	129.56	-0.53	--	8000	340	62	400	700	--	480	
6/27/2007	137.66	9.56	0	128.10	-1.46	--	8900	330	14	690	1400	--	370	

**Table 2**  
**HISTORIC Groundwater Data**  
**Chevron Station # 351641**  
**Former Unocal Station # 4625**  
**3070 Fruitvale Avenue, Oakland, CA**

Date Sampled	TOC Elevation (feet)	Depth to Water (feet)	LPH Thickness (feet)	Ground-Water Elevation (feet)	Change in Elevation (feet)	TPH-G 8015 (µg/l)	TPH-G (GC/MS) (µg/l)	Benzene (µg/l)	Toluene (µg/l)	Ethyl-benzene (µg/l)	Total Xylenes (µg/l)	MTBE (8021B) (µg/l)	MTBE (8260B) (µg/l)	Comments
9/27/2007	137.35	9.85	0	127.50	-0.60	--	1300	31	ND<0.50	47	23	--	140	
12/26/2007	137.35	8.99	0	128.36	0.86	--	5700	410	44	470	760	--	650	
3/26/2008	137.35	9.22	0	128.13	-0.23	--	5400	360	ND<5.0	420	350	--	500	
6/17/2008	137.35	9.67	0	127.68	-0.45	--	2000	160	ND<0.50	99	64	--	290	
9/15/2008	137.35	10.09	0	127.26	-0.42	--	230	5.3	ND<0.50	4.5	2.9	--	99	
12/30/2008	137.35	8.14	0	129.21	1.95	--	5700	230	32	350	650	--	150	
3/30/2009	137.35	8.01	0	129.34	0.13	--	2600	140	10	180	280	--	130	
6/25/2009	137.35	9.00	0	128.35	-0.99	--	1400	40	1.3	71	96	--	110	
12/17/2009	137.35	7.62	0	129.73	1.38	--	12000	540	94	820	1900	--	190	
6/29/2010	137.35	8.82	0	128.53	-1.20	--	2200	77	5.2	150	290	--	88	
12/30/2010	137.35	6.15	0	131.20	2.67	--	7400	330	110	550	1300	--	120	
<b>MW-6</b>														
11/26/2002	--	9.19	0	--	--	--	11000	1200	2000	400	2300	--	490	
2/14/2003	138.88	7.76	0	131.12	--	--	13000	2300	1900	560	2300	--	360	
5/3/2003	138.88	6.62	0	132.26	1.14	--	4300	1000	640	260	990	--	300	
8/1/2003	138.88	9.05	0	129.83	-2.43	--	16000	2600	2300	740	2900	--	660	
10/30/2003	138.88	10.43	0	128.45	-1.38	--	2900	420	260	120	480	--	450	
1/29/2004	138.88	7.81	0	131.07	2.62	--	400	58	21	14	65	--	62	
5/27/2004	138.88	9.11	0	129.77	-1.30	--	580	58	14	20	69	--	410	
8/31/2004	138.88	9.76	0	129.12	-0.65	--	660	77	7.0	19	65	--	360	
11/18/2004	138.88	7.68	0	131.20	2.08	--	660	92	19	20	80	--	130	
3/25/2005	138.88	5.83	0	133.05	1.85	--	870	82	13	15	73	--	90	
6/22/2005	138.88	7.83	0	131.05	-2.00	--	480	84	2.4	23	72	--	360	
9/26/2005	138.88	9.50	0	129.38	-1.67	--	440	72	0.65	12	52	--	160	
12/20/2005	138.88	6.91	0	131.97	2.59	--	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	ND<0.50	
3/29/2006	138.88	6.48	0	132.40	0.43	--	430	61	13	11	41	--	130	
6/12/2006	138.88	8.10	0	130.78	-1.62	--	1000	190	8.0	28	130	--	310	
9/27/2006	138.88	9.25	0	129.63	-1.15	--	330	19	0.87	5.4	29	--	220	
12/27/2006	138.88	6.88	0	132.00	2.37	--	220	13	2.4	3.8	9.6	--	75	
3/16/2007	138.88	7.73	0	131.15	-0.85	--	160	22	8.7	3.5	12	--	82	
6/27/2007	138.88	8.98	0	129.90	-1.25	--	310	2.9	ND<0.50	1.4	2.0	--	370	
9/27/2007	138.69	9.82	0	128.87	-1.03	--	500	14	ND<0.50	7.3	3.5	--	190	

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**HISTORIC Groundwater Data**  
**Chevron Station # 351641**  
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Date Sampled	TOC Elevation (feet)	Depth to Water (feet)	LPH Thickness (feet)	Ground-Water Elevation (feet)	Change in Elevation (feet)	TPH-G 8015 (µg/l)	TPH-G (GC/MS) (µg/l)	Benzene (µg/l)	Toluene (µg/l)	Ethyl-benzene (µg/l)	Total Xylenes (µg/l)	MTBE (8021B) (µg/l)	MTBE (8260B) (µg/l)	Comments
12/26/2007	138.69	7.44	0	131.25	2.38	--	64	4.8	1.2	1.6	2.8	--	51	
3/26/2008	138.69	8.32	0	130.37	-0.88	--	200	21	1.1	4.0	2.6	--	97	
6/17/2008	138.69	9.63	0	129.06	-1.31	--	180	7.1	ND<0.50	2.8	2.0	--	250	
9/15/2008	138.69	10.08	0	128.61	-0.45	--	150	0.90	ND<0.50	ND<0.50	ND<1.0	--	200	
12/30/2008	138.69	7.62	0	131.07	2.46	--	ND<50	4.2	0.83	0.98	2.0	--	16	
3/30/2009	138.69	7.71	0	130.98	-0.09	--	58	6.5	0.61	1.1	1.8	--	9.8	
6/25/2009	138.69	9.09	0	129.60	-1.38	--	280	3.5	0.54	3.0	3.8	--	270	
12/17/2009	138.69	7.12	0	131.57	1.97	--	77	1.4	1.4	ND<0.50	1.4	--	16	
6/29/2010	138.69	8.58	0	130.11	-1.46	--	91	2.3	ND<0.50	ND<0.50	ND<1.0	--	200	
12/30/2010	138.69	5.43	0	133.26	3.15	--	ND<50	3.0	3.0	0.73	2.8	--	3.9	
<b>MW-7</b>														
9/27/2007	138.74	9.62	0	129.12	--	--	240	6.7	ND<0.50	24	5.0	--	16	
12/26/2007	138.74	8.60	0	130.14	1.02	--	73	ND<0.50	ND<0.50	9.5	ND<1.0	--	12	
3/26/2008	138.74	13.70	0	125.04	-5.10	--	ND<50	ND<0.50	ND<0.50	0.70	ND<1.0	--	7.0	
6/17/2008	138.74	9.81	0	128.93	3.89	--	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	2.4	
9/15/2008	138.74	10.57	0	128.17	-0.76	--	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	1.4	
12/30/2008	138.74	10.21	0	128.53	0.36	--	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	0.70	
3/30/2009	138.74	9.22	0	129.52	0.99	--	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	ND<0.50	
6/25/2009	138.74	8.97	0	129.77	0.25	--	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	ND<0.50	
12/17/2009	138.74	8.80	0	129.94	0.17	--	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	ND<0.50	
6/29/2010	138.74	8.64	0	130.10	0.16	--	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	ND<0.50	
12/30/2010	138.74	8.23	0	130.51	0.41	--	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	ND<0.50	
<b>MW-8</b>														
9/27/2007	136.22	10.02	0	126.20	--	--	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	--	ND<0.50	
12/26/2007	136.22	9.02	0	127.20	1.00	--	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	ND<0.50	
3/26/2008	136.22	9.41	0	126.81	-0.39	--	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	ND<0.50	
6/17/2008	136.22	10.00	0	126.22	-0.59	--	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	ND<0.50	
9/15/2008	136.22	10.29	0	125.93	-0.29	--	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	ND<0.50	
12/30/2008	136.22	9.13	0	127.09	1.16	--	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	ND<0.50	
3/30/2009	136.22	9.13	0	127.09	0.00	--	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	ND<0.50	
6/25/2009	136.22	9.55	0	126.67	-0.42	--	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	ND<0.50	
12/17/2009	136.22	8.84	0	127.38	0.71	--	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	ND<0.50	



**Table 2**  
**HISTORIC Groundwater Data**  
**Chevron Station # 351641**  
**Former Unocal Station # 4625**  
**3070 Fruitvale Avenue, Oakland, CA**

Date Sampled	TOC Elevation (feet)	Depth to Water (feet)	LPH Thickness (feet)	Ground-Water Elevation (feet)	Change in Elevation (feet)	TPH-G 8015 (µg/l)	TPH-G (GC/MS) (µg/l)	Benzene (µg/l)	Toluene (µg/l)	Ethyl-benzene (µg/l)	Total Xylenes (µg/l)	MTBE (8021B) (µg/l)	MTBE (8260B) (µg/l)	Comments
6/29/2010	136.22	9.56	0	126.66	-0.72	--	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	ND<0.50	
12/30/2010	136.22	7.57	0	128.65	1.99	--	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	ND<0.50	
<b>MW-9</b>														
9/27/2007	137.11	10.60	0	126.51	--	--	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	--	ND<0.50	
12/26/2007	137.11	9.46	0	127.65	1.14	--	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	ND<0.50	
3/26/2008	137.11	9.89	0	127.22	-0.43	--	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	ND<0.50	
6/17/2008	137.11	10.58	0	126.53	-0.69	--	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	ND<0.50	
9/15/2008	137.11	10.89	0	126.22	-0.31	--	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	ND<0.50	
12/30/2008	137.11	9.51	0	127.60	1.38	--	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	ND<0.50	
3/30/2009	137.11	9.57	0	127.54	-0.06	--	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	ND<0.50	
6/25/2009	137.11	10.22	0	126.89	-0.65	--	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	ND<0.50	
12/17/2009	137.11	9.27	0	127.84	0.95	--	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	ND<0.50	
6/29/2010	137.11	10.04	0	127.07	-0.77	--	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	ND<0.50	
12/30/2010	137.11	8.03	0	129.08	2.01	--	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	ND<0.50	
<b>USTW</b>														
5/3/2000	--	8.00	0	--	--	--	--	--	--	--	--	--	--	
7/28/2000	--	9.28	0	--	--	--	--	--	--	--	--	--	--	
10/29/2000	--	7.75	0	--	--	--	--	--	--	--	--	--	--	
2/9/2001	--	6.14	0	--	--	--	--	--	--	--	--	--	--	
5/11/2001	--	7.96	0	--	--	--	--	--	--	--	--	--	--	
8/10/2001	--	9.54	0	--	--	--	--	--	--	--	--	--	--	
11/7/2001	--	9.33	0	--	--	--	--	--	--	--	--	--	--	
2/6/2002	--	8.08	0	--	--	--	--	--	--	--	--	--	--	
5/8/2002	--	8.51	0	--	--	--	--	--	--	--	--	--	--	
8/9/2002	--	9.56	0	--	--	--	--	--	--	--	--	--	--	
11/26/2002	--	9.16	0	--	--	--	--	--	--	--	--	--	--	
5/3/2003	--	6.25	0	--	--	--	--	--	--	--	--	--	--	
8/1/2003	--	8.99	--	--	--	--	--	--	--	--	--	--	--	
10/30/2003	--	10.44	0	--	--	--	--	--	--	--	--	--	--	Monitored Only
1/29/2004	--	6.52	0	--	--	--	--	--	--	--	--	--	--	Monitored Only
5/27/2004	--	8.98	0	--	--	--	--	--	--	--	--	--	--	Monitored Only
8/31/2004	--	9.75	0	--	--	--	--	--	--	--	--	--	--	Monitored Only

**Table 2**  
**HISTORIC Groundwater Data**  
**Chevron Station # 351641**  
**Former Unocal Station # 4625**  
**3070 Fruitvale Avenue, Oakland, CA**

Date Sampled	TOC Elevation (feet)	Depth to Water (feet)	LPH Thickness (feet)	Ground-Water Elevation (feet)	Change in Elevation (feet)	TPH-G 8015 (µg/l)	TPH-G (GC/MS) (µg/l)	Benzene (µg/l)	Toluene (µg/l)	Ethyl-benzene (µg/l)	Total Xylenes (µg/l)	MTBE (8021B) (µg/l)	MTBE (8260B) (µg/l)	Comments
11/18/2004	--	7.39	0	--	--	--	--	--	--	--	--	--	--	Monitored Only-UST well
3/25/2005	--	5.01	0	--	--	--	--	--	--	--	--	--	--	Monitor only
6/22/2005	--	7.63	0	--	--	--	--	--	--	--	--	--	--	Monitored Only
9/26/2005	--	9.45	0	--	--	--	--	--	--	--	--	--	--	Monitored Only
12/20/2005	--	5.35	0	--	--	--	--	--	--	--	--	--	--	Monitored Only
3/29/2006	--	4.83	0	--	--	--	--	--	--	--	--	--	--	Monitored Only
6/12/2006	--	8.05	0	--	--	--	--	--	--	--	--	--	--	Monitored Only
9/27/2006	--	9.21	0	--	--	--	--	--	--	--	--	--	--	Monitored Only
12/27/2006	--	6.37	0	--	--	--	--	--	--	--	--	--	--	Monitored Only
3/16/2007	--	7.43	0	--	--	--	--	--	--	--	--	--	--	Monitored Only
6/27/2007	--	8.92	0	--	--	--	--	--	--	--	--	--	--	Monitored Only
9/27/2007	--	9.80	0	--	--	--	--	--	--	--	--	--	--	Monitored Only
12/26/2007	--	9.72	0	--	--	--	--	--	--	--	--	--	--	Monitored only
3/26/2008	--	8.10	0	--	--	--	--	--	--	--	--	--	--	Monitored Only
6/17/2008	--	9.59	0	--	--	--	--	--	--	--	--	--	--	Monitored Only
9/15/2008	--	10.08	0	--	--	--	--	--	--	--	--	--	--	Monitored only
12/30/2008	--	7.34	0	--	--	--	--	--	--	--	--	--	--	Monitored only
3/30/2009	--	7.41	0	--	--	--	--	--	--	--	--	--	--	Monitored only
6/25/2009	--	8.99	0	--	--	--	--	--	--	--	--	--	--	Monitored only
12/17/2009	--	6.79	0	--	--	--	--	--	--	--	--	--	--	Gauged only
6/29/2010	--	8.42	0	--	--	--	--	--	--	--	--	--	--	Gauged only
12/30/2010	--	4.85	0	--	--	--	--	--	--	--	--	--	--	Gauged only



Date of Report: 06/18/2012

Jim Harms

AECOM

10461 Old Placerville Rd, Suite 170  
Sacramento, CA 95827

Project: 4625  
BC Work Order: 1210074  
Invoice ID: B124273

Enclosed are the results of analyses for samples received by the laboratory on 6/4/2012. 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



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# 1210074

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

CHAIN OF CUSTODY FORM

CHK BY [Signature] DISTRIBUTION [Signature] SUB-OUT

COG 1 of 1

Union Oil Site ID: 4625

Site Global ID: TOGDD102156

Site Address: 3070 Fruitvale Ave. Oakland

Union Oil P.M. Phone No.: Roy A. Karamian 925 790 6270

Union Oil PM Phone No.: 925 790 6270

Charge Code: NWRTB-0 351641-0-LAB

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

Sampler Signature: [Signature]

Union Oil Consultant: AECOM

Consultant Contact: Jim Hansen

Consultant Phone No.: 916-361-6412

Sampling Company: TRC

Sampled By (PRINT): B. Carlin

Sample Time: 1310

# of Containers: 3

TPH - Diesel by EPA 8015, SVOCs

TPH - G by GC/MS

BTEX/MTBE/OXYS by EPA 8260B

Ethanol by EPA 8260B

EPA 8260B Full List with OXYS

BTEX/MTBE by 8260B

EOD/EOC by 8260B

Fullscan 8260B including OXYS

TOC

Total Chromium

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

Special Instructions: Run 8 OXYS by 8260B on all MTBE WTs.

Field Point Name	Matrix	DTW	Date (yy/mm/dd)	Sample Time	# of Containers	TPH - Diesel by EPA 8015, SVOCs	TPH - G by GC/MS	BTEX/MTBE/OXYS by EPA 8260B	Ethanol by EPA 8260B	EPA 8260B Full List with OXYS	BTEX/MTBE by 8260B	EOD/EOC by 8260B	Fullscan 8260B including OXYS	TOC	Total Chromium
MW-1	W-S-A	-1	12-06-04	1310	3	X	X	X	X	X	X	X	X	X	X
MW-2	W-S-A	-2		1136	3	X	X	X	X	X	X	X	X	X	X
MW-3	W-S-A	-3		0916	3	X	X	X	X	X	X	X	X	X	X
MW-4	W-S-A	-4		1145	3	X	X	X	X	X	X	X	X	X	X
MW-5	W-S-A	-5		1328	3	X	X	X	X	X	X	X	X	X	X
MW-6	W-S-A	-6		1204	3	X	X	X	X	X	X	X	X	X	X
MW-7	W-S-A	-7		1255	3	X	X	X	X	X	X	X	X	X	X
MW-8	W-S-A	-8		1036	3	X	X	X	X	X	X	X	X	X	X
MW-9	W-S-A	-9		1015	3	X	X	X	X	X	X	X	X	X	X

Relinquished By	Company	Date / Time	Relinquished By	Company	Date / Time	Relinquished By	Company	Date / Time
[Signature]	ORL	6/4/12 1435	[Signature]	ORL	6-4-12 1930	[Signature]	ORL	6-4-12 2230
[Signature]	Belab	6/4/12 1435	[Signature]	ORL	6-4-12 1930	[Signature]	ORL	6-4-12 2230



BC LABORATORIES INC. SAMPLE RECEIPT FORM Rev. No. 12 06/24/08 Page 1 of 1

Submission #: 1210074

**SHIPPING INFORMATION**  
 Federal Express  UPS  Hand Delivery   
 BC Lab Field Service  Other  (Specify) \_\_\_\_\_

**SHIPPING CONTAINER**  
 Ice Chest  None   
 Box  Other  (Specify) \_\_\_\_\_

Refrigerant: Ice  Blue Ice  None  Other  Comments: \_\_\_\_\_

Custody Seals Ice Chest  Containers  None  Comments: \_\_\_\_\_  
 Intact? Yes  No  Intact? Yes  No

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

**COC Received**  
 YES  NO

Emissivity: 0.98 Container: PPE Thermometer ID: 177  
 Temperature: A 1.9 °C / C 2.0 °C

Date/Time 6-4-12 Analyst Init JAW 2040

SAMPLE CONTAINERS	SAMPLE NUMBERS									
	1	2	3	4	5	6	7	8	9	10
QT GENERAL MINERAL/ GENERAL PHYSICAL										
PT PE UNPRESERVED										
QT INORGANIC CHEMICAL METALS										
PT INORGANIC CHEMICAL METALS			B							
PT CYANIDE										
PT NITROGEN FORMS										
PT TOTAL SULFIDE										
2oz. NITRATE / NITRITE										
PT TOTAL ORGANIC CARBON										
PT TOX										
PT CHEMICAL OXYGEN DEMAND										
PTA PHENOLICS										
40ml VOA VIAL TRAVEL BLANK										
40ml VOA VIAL	A (3)	A (3)	A (3)	A (3)	A (3)	A (3)	A (3)	A (3)	A (3)	(1)
QT EPA 413.1, 413.2, 418.1			C, D							
PT ODOR										
RADIOLOGICAL										
BACTERIOLOGICAL										
40 ml VOA VIAL- 504										
QT EPA 508/608/8050										
QT EPA 515.1/8150										
QT EPA 525										
QT EPA 525 TRAVEL BLANK										
100ml EPA 547										
100ml EPA 531.1										
QT EPA 548										
QT EPA 549										
QT EPA 632										
QT EPA 8015M										
QT AMBER			E, F, G							
8 OZ. JAR										
32 OZ. JAR										
SOIL SLEEVE										
PCB VIAL										
PLASTIC BAG										
FERROUS IRON										
ENCORE										

Comments: \_\_\_\_\_

Sample Numbering Completed By: BLT Date/Time: 6-5-12 @ 0710

A = Actual / C = Corrected

[H:\DOCS\WPB0\LAB\_DOCS\FORMS\SAMREC2.WPD]



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

**Reported:** 06/18/2012 16:13  
**Project:** 4625  
**Project Number:** 351641  
**Project Manager:** Jim Harms

### Laboratory / Client Sample Cross Reference

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

<b>1210074-01</b>	<b>COC Number:</b> --- <b>Project Number:</b> 4625 <b>Sampling Location:</b> --- <b>Sampling Point:</b> MW-1-W-120604 <b>Sampled By:</b> TRCI	<b>Receive Date:</b> 06/04/2012 22:30 <b>Sampling Date:</b> 06/04/2012 13:10 <b>Sample Depth:</b> --- <b>Lab Matrix:</b> Water <b>Sample Type:</b> Water Delivery Work Order: Global ID: T0600102156 Location ID (FieldPoint): MW-1 Matrix: W Sample QC Type (SACode): CS Cooler ID:
-------------------	---	--

<b>1210074-02</b>	<b>COC Number:</b> --- <b>Project Number:</b> 4625 <b>Sampling Location:</b> --- <b>Sampling Point:</b> MW-2-W-120604 <b>Sampled By:</b> TRCI	<b>Receive Date:</b> 06/04/2012 22:30 <b>Sampling Date:</b> 06/04/2012 11:36 <b>Sample Depth:</b> --- <b>Lab Matrix:</b> Water <b>Sample Type:</b> Water Delivery Work Order: Global ID: T0600102156 Location ID (FieldPoint): MW-2 Matrix: W Sample QC Type (SACode): CS Cooler ID:
-------------------	---	--

<b>1210074-03</b>	<b>COC Number:</b> --- <b>Project Number:</b> 4625 <b>Sampling Location:</b> --- <b>Sampling Point:</b> MW-3-W-120604 <b>Sampled By:</b> TRCI	<b>Receive Date:</b> 06/04/2012 22:30 <b>Sampling Date:</b> 06/04/2012 09:16 <b>Sample Depth:</b> --- <b>Lab Matrix:</b> Water <b>Sample Type:</b> Water Delivery Work Order: Global ID: T0600102156 Location ID (FieldPoint): MW-3 Matrix: W Sample QC Type (SACode): CS Cooler ID:
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Sacramento, CA 95827

**Reported:** 06/18/2012 16:13  
**Project:** 4625  
**Project Number:** 351641  
**Project Manager:** Jim Harms

### Laboratory / Client Sample Cross Reference

Laboratory	Client Sample Information
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<b>1210074-04</b>	<b>COC Number:</b> --- <b>Project Number:</b> 4625 <b>Sampling Location:</b> --- <b>Sampling Point:</b> MW-4-W-120604 <b>Sampled By:</b> TRCI	<b>Receive Date:</b> 06/04/2012 22:30 <b>Sampling Date:</b> 06/04/2012 11:45 <b>Sample Depth:</b> --- <b>Lab Matrix:</b> Water <b>Sample Type:</b> Water Delivery Work Order: Global ID: T0600102156 Location ID (FieldPoint): MW-4 Matrix: W Sample QC Type (SACode): CS Cooler ID:
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<b>1210074-05</b>	<b>COC Number:</b> --- <b>Project Number:</b> 4625 <b>Sampling Location:</b> --- <b>Sampling Point:</b> MW-5-W-120604 <b>Sampled By:</b> TRCI	<b>Receive Date:</b> 06/04/2012 22:30 <b>Sampling Date:</b> 06/04/2012 13:28 <b>Sample Depth:</b> --- <b>Lab Matrix:</b> Water <b>Sample Type:</b> Water Delivery Work Order: Global ID: T0600102156 Location ID (FieldPoint): MW-5 Matrix: W Sample QC Type (SACode): CS Cooler ID:
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<b>1210074-06</b>	<b>COC Number:</b> --- <b>Project Number:</b> 4625 <b>Sampling Location:</b> --- <b>Sampling Point:</b> MW-6-W-120604 <b>Sampled By:</b> TRCI	<b>Receive Date:</b> 06/04/2012 22:30 <b>Sampling Date:</b> 06/04/2012 12:04 <b>Sample Depth:</b> --- <b>Lab Matrix:</b> Water <b>Sample Type:</b> Water Delivery Work Order: Global ID: T0600102156 Location ID (FieldPoint): MW-6 Matrix: W Sample QC Type (SACode): CS Cooler ID:
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AECOM  
10461 Old Placerville Rd, Suite 170  
Sacramento, CA 95827

**Reported:** 06/18/2012 16:13  
**Project:** 4625  
**Project Number:** 351641  
**Project Manager:** Jim Harms

### Laboratory / Client Sample Cross Reference

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

<b>1210074-07</b>	<b>COC Number:</b> --- <b>Project Number:</b> 4625 <b>Sampling Location:</b> --- <b>Sampling Point:</b> MW-7-W-120604 <b>Sampled By:</b> TRCI	<b>Receive Date:</b> 06/04/2012 22:30 <b>Sampling Date:</b> 06/04/2012 12:55 <b>Sample Depth:</b> --- <b>Lab Matrix:</b> Water <b>Sample Type:</b> Water Delivery Work Order: Global ID: T0600102156 Location ID (FieldPoint): MW-7 Matrix: W Sample QC Type (SACode): CS Cooler ID:
-------------------	---	--

<b>1210074-08</b>	<b>COC Number:</b> --- <b>Project Number:</b> 4625 <b>Sampling Location:</b> --- <b>Sampling Point:</b> MW-8-W-120604 <b>Sampled By:</b> TRCI	<b>Receive Date:</b> 06/04/2012 22:30 <b>Sampling Date:</b> 06/04/2012 10:36 <b>Sample Depth:</b> --- <b>Lab Matrix:</b> Water <b>Sample Type:</b> Water Delivery Work Order: Global ID: T0600102156 Location ID (FieldPoint): MW-8 Matrix: W Sample QC Type (SACode): CS Cooler ID:
-------------------	---	--

<b>1210074-09</b>	<b>COC Number:</b> --- <b>Project Number:</b> 4625 <b>Sampling Location:</b> --- <b>Sampling Point:</b> MW-9-W-120604 <b>Sampled By:</b> TRCI	<b>Receive Date:</b> 06/04/2012 22:30 <b>Sampling Date:</b> 06/04/2012 10:15 <b>Sample Depth:</b> --- <b>Lab Matrix:</b> Water <b>Sample Type:</b> Water Delivery Work Order: Global ID: T0600102156 Location ID (FieldPoint): MW-9 Matrix: W Sample QC Type (SACode): CS Cooler ID:
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AECOM  
10461 Old Placerville Rd, Suite 170  
Sacramento, CA 95827

**Reported:** 06/18/2012 16:13  
**Project:** 4625  
**Project Number:** 351641  
**Project Manager:** Jim Harms

### Volatile Organic Analysis (EPA Method 8260)

<b>BCL Sample ID:</b> 1210074-01	<b>Client Sample Name:</b> 4625, MW-1-W-120604, 6/4/2012 1:10:00PM
----------------------------------	--

Constituent	Result	Units	PQL	Method	MB Bias	Lab Quals	Run #
Benzene	ND	ug/L	0.50	EPA-8260	ND		1
1,2-Dibromoethane	ND	ug/L	0.50	EPA-8260	ND		1
1,2-Dichloroethane	ND	ug/L	0.50	EPA-8260	ND		1
Ethylbenzene	ND	ug/L	0.50	EPA-8260	ND		1
Methyl t-butyl ether	ND	ug/L	0.50	EPA-8260	ND		1
Toluene	ND	ug/L	0.50	EPA-8260	ND		1
Total Xylenes	ND	ug/L	1.0	EPA-8260	ND		1
Ethanol	ND	ug/L	250	EPA-8260	ND		1
Total Purgeable Petroleum Hydrocarbons	ND	ug/L	50	Luft-GC/MS	ND		1
1,2-Dichloroethane-d4 (Surrogate)	81.1	%	75 - 125 (LCL - UCL)	EPA-8260			1
Toluene-d8 (Surrogate)	97.4	%	80 - 120 (LCL - UCL)	EPA-8260			1
4-Bromofluorobenzene (Surrogate)	101	%	80 - 120 (LCL - UCL)	EPA-8260			1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-8260	06/07/12	06/08/12 08:46	KEA	HPCHEM	1	BVF0445



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**Reported:** 06/18/2012 16:13  
**Project:** 4625  
**Project Number:** 351641  
**Project Manager:** Jim Harms

### Volatile Organic Analysis (EPA Method 8260)

<b>BCL Sample ID:</b> 1210074-02	<b>Client Sample Name:</b> 4625, MW-2-W-120604, 6/4/2012 11:36:00AM
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Constituent	Result	Units	PQL	Method	MB Bias	Lab Quals	Run #
Benzene	ND	ug/L	0.50	EPA-8260	ND		1
1,2-Dibromoethane	ND	ug/L	0.50	EPA-8260	ND		1
1,2-Dichloroethane	ND	ug/L	0.50	EPA-8260	ND		1
Ethylbenzene	ND	ug/L	0.50	EPA-8260	ND		1
<b>Methyl t-butyl ether</b>	<b>3.9</b>	<b>ug/L</b>	<b>0.50</b>	<b>EPA-8260</b>	ND		1
Toluene	ND	ug/L	0.50	EPA-8260	ND		1
Total Xylenes	ND	ug/L	1.0	EPA-8260	ND		1
Ethanol	ND	ug/L	250	EPA-8260	ND		1
<b>Total Purgeable Petroleum Hydrocarbons</b>	<b>460</b>	<b>ug/L</b>	<b>50</b>	<b>Luft-GC/MS</b>	ND		1
1,2-Dichloroethane-d4 (Surrogate)	80.2	%	75 - 125 (LCL - UCL)	EPA-8260			1
Toluene-d8 (Surrogate)	101	%	80 - 120 (LCL - UCL)	EPA-8260			1
4-Bromofluorobenzene (Surrogate)	100	%	80 - 120 (LCL - UCL)	EPA-8260			1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-8260	06/07/12	06/08/12 08:21	KEA	HPCHEM	1	BVF0445

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**Reported:** 06/18/2012 16:13  
**Project:** 4625  
**Project Number:** 351641  
**Project Manager:** Jim Harms

### Volatile Organic Analysis (EPA Method 8260)

<b>BCL Sample ID:</b> 1210074-03	<b>Client Sample Name:</b> 4625, MW-3-W-120604, 6/4/2012 9:16:00AM
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Constituent	Result	Units	PQL	Method	MB Bias	Lab Quals	Run #
Benzene	ND	ug/L	0.50	EPA-8260	ND		1
Bromobenzene	ND	ug/L	0.50	EPA-8260	ND		1
Bromochloromethane	ND	ug/L	0.50	EPA-8260	ND		1
Bromodichloromethane	ND	ug/L	0.50	EPA-8260	ND		1
Bromoform	ND	ug/L	0.50	EPA-8260	ND		1
Bromomethane	ND	ug/L	1.0	EPA-8260	ND		1
n-Butylbenzene	ND	ug/L	0.50	EPA-8260	ND		1
sec-Butylbenzene	ND	ug/L	0.50	EPA-8260	ND		1
tert-Butylbenzene	ND	ug/L	0.50	EPA-8260	ND		1
Carbon tetrachloride	ND	ug/L	0.50	EPA-8260	ND		1
Chlorobenzene	ND	ug/L	0.50	EPA-8260	ND		1
Chloroethane	ND	ug/L	0.50	EPA-8260	ND		1
Chloroform	ND	ug/L	0.50	EPA-8260	ND		1
Chloromethane	ND	ug/L	0.50	EPA-8260	ND		1
2-Chlorotoluene	ND	ug/L	0.50	EPA-8260	ND		1
4-Chlorotoluene	ND	ug/L	0.50	EPA-8260	ND		1
Dibromochloromethane	ND	ug/L	0.50	EPA-8260	ND		1
1,2-Dibromo-3-chloropropane	ND	ug/L	1.0	EPA-8260	ND		1
1,2-Dibromoethane	ND	ug/L	0.50	EPA-8260	ND		1
Dibromomethane	ND	ug/L	0.50	EPA-8260	ND		1
1,2-Dichlorobenzene	ND	ug/L	0.50	EPA-8260	ND		1
1,3-Dichlorobenzene	ND	ug/L	0.50	EPA-8260	ND		1
1,4-Dichlorobenzene	ND	ug/L	0.50	EPA-8260	ND		1
Dichlorodifluoromethane	ND	ug/L	0.50	EPA-8260	ND		1
1,1-Dichloroethane	ND	ug/L	0.50	EPA-8260	ND		1
1,2-Dichloroethane	ND	ug/L	0.50	EPA-8260	ND		1
1,1-Dichloroethene	ND	ug/L	0.50	EPA-8260	ND		1
cis-1,2-Dichloroethene	ND	ug/L	0.50	EPA-8260	ND		1
trans-1,2-Dichloroethene	ND	ug/L	0.50	EPA-8260	ND		1
Total 1,2-Dichloroethene	ND	ug/L	1.0	EPA-8260	ND		1
1,2-Dichloropropane	ND	ug/L	0.50	EPA-8260	ND		1
1,3-Dichloropropane	ND	ug/L	0.50	EPA-8260	ND		1
2,2-Dichloropropane	ND	ug/L	0.50	EPA-8260	ND		1

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**Project Number:** 351641  
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### Volatile Organic Analysis (EPA Method 8260)

<b>BCL Sample ID:</b> 1210074-03	<b>Client Sample Name:</b> 4625, MW-3-W-120604, 6/4/2012 9:16:00AM
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Constituent	Result	Units	PQL	Method	MB Bias	Lab Quals	Run #
1,1-Dichloropropene	ND	ug/L	0.50	EPA-8260	ND		1
cis-1,3-Dichloropropene	ND	ug/L	0.50	EPA-8260	ND		1
trans-1,3-Dichloropropene	ND	ug/L	0.50	EPA-8260	ND		1
Total 1,3-Dichloropropene	ND	ug/L	1.0	EPA-8260	ND		1
Ethylbenzene	ND	ug/L	0.50	EPA-8260	ND		1
Hexachlorobutadiene	ND	ug/L	0.50	EPA-8260	ND		1
Isopropylbenzene	ND	ug/L	0.50	EPA-8260	ND		1
p-Isopropyltoluene	ND	ug/L	0.50	EPA-8260	ND		1
Methylene chloride	ND	ug/L	1.0	EPA-8260	ND		1
Methyl t-butyl ether	ND	ug/L	0.50	EPA-8260	ND		1
Naphthalene	ND	ug/L	0.50	EPA-8260	ND		1
n-Propylbenzene	ND	ug/L	0.50	EPA-8260	ND		1
Styrene	ND	ug/L	0.50	EPA-8260	ND		1
1,1,1,2-Tetrachloroethane	ND	ug/L	0.50	EPA-8260	ND		1
1,1,1,2,2-Tetrachloroethane	ND	ug/L	0.50	EPA-8260	ND		1
Tetrachloroethene	ND	ug/L	0.50	EPA-8260	ND		1
Toluene	ND	ug/L	0.50	EPA-8260	ND		1
1,2,3-Trichlorobenzene	ND	ug/L	0.50	EPA-8260	ND		1
1,2,4-Trichlorobenzene	ND	ug/L	0.50	EPA-8260	ND		1
1,1,1-Trichloroethane	ND	ug/L	0.50	EPA-8260	ND		1
1,1,2-Trichloroethane	ND	ug/L	0.50	EPA-8260	ND		1
Trichloroethene	ND	ug/L	0.50	EPA-8260	ND		1
Trichlorofluoromethane	ND	ug/L	0.50	EPA-8260	ND		1
1,2,3-Trichloropropane	ND	ug/L	1.0	EPA-8260	ND		1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	ug/L	0.50	EPA-8260	ND		1
1,2,4-Trimethylbenzene	ND	ug/L	0.50	EPA-8260	ND		1
1,3,5-Trimethylbenzene	ND	ug/L	0.50	EPA-8260	ND		1
Vinyl chloride	ND	ug/L	0.50	EPA-8260	ND		1
Total Xylenes	ND	ug/L	1.0	EPA-8260	ND		1
t-Amyl Methyl ether	ND	ug/L	0.50	EPA-8260	ND		1
t-Butyl alcohol	ND	ug/L	10	EPA-8260	ND		1
Diisopropyl ether	ND	ug/L	0.50	EPA-8260	ND		1
Ethanol	ND	ug/L	250	EPA-8260	ND		1

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**Reported:** 06/18/2012 16:13  
**Project:** 4625  
**Project Number:** 351641  
**Project Manager:** Jim Harms

### Volatile Organic Analysis (EPA Method 8260)

<b>BCL Sample ID:</b> 1210074-03	<b>Client Sample Name:</b> 4625, MW-3-W-120604, 6/4/2012 9:16:00AM
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Constituent	Result	Units	PQL	Method	MB Bias	Lab Quals	Run #
Ethyl t-butyl ether	ND	ug/L	0.50	EPA-8260	ND		1
Total Purgeable Petroleum Hydrocarbons	ND	ug/L	50	Luft-GC/MS	ND		1
1,2-Dichloroethane-d4 (Surrogate)	86.2	%	75 - 125 (LCL - UCL)	EPA-8260			1
Toluene-d8 (Surrogate)	98.3	%	80 - 120 (LCL - UCL)	EPA-8260			1
4-Bromofluorobenzene (Surrogate)	96.0	%	80 - 120 (LCL - UCL)	EPA-8260			1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-8260	06/07/12	06/07/12 22:27	KEA	HPCHEM	1	BVF0445

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**Reported:** 06/18/2012 16:13  
**Project:** 4625  
**Project Number:** 351641  
**Project Manager:** Jim Harms

### Base Neutral and Acid Extractables Organic Analysis (EPA Method 8270C)

<b>BCL Sample ID:</b> 1210074-03	<b>Client Sample Name:</b> 4625, MW-3-W-120604, 6/4/2012 9:16:00AM
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Constituent	Result	Units	PQL	Method	MB Bias	Lab Quals	Run #
Acenaphthene	ND	ug/L	2.0	EPA-8270C	ND		1
Acenaphthylene	ND	ug/L	2.0	EPA-8270C	ND		1
Anthracene	ND	ug/L	2.0	EPA-8270C	ND		1
Benzo[a]anthracene	ND	ug/L	2.0	EPA-8270C	ND		1
Benzo[b]fluoranthene	ND	ug/L	2.0	EPA-8270C	ND		1
Benzo[k]fluoranthene	ND	ug/L	2.0	EPA-8270C	ND		1
Benzo[a]pyrene	ND	ug/L	2.0	EPA-8270C	ND		1
Benzo[g,h,i]perylene	ND	ug/L	2.0	EPA-8270C	ND		1
Benzoic acid	ND	ug/L	10	EPA-8270C	ND		1
Benzyl alcohol	ND	ug/L	2.0	EPA-8270C	ND		1
Benzyl butyl phthalate	ND	ug/L	2.0	EPA-8270C	ND		1
bis(2-Chloroethoxy)methane	ND	ug/L	2.0	EPA-8270C	ND		1
bis(2-Chloroethyl) ether	ND	ug/L	2.0	EPA-8270C	ND		1
bis(2-Chloroisopropyl)ether	ND	ug/L	2.0	EPA-8270C	ND		1
bis(2-Ethylhexyl)phthalate	ND	ug/L	4.0	EPA-8270C	ND		1
4-Bromophenyl phenyl ether	ND	ug/L	2.0	EPA-8270C	ND		1
4-Chloroaniline	ND	ug/L	2.0	EPA-8270C	ND		1
2-Chloronaphthalene	ND	ug/L	2.0	EPA-8270C	ND		1
4-Chlorophenyl phenyl ether	ND	ug/L	2.0	EPA-8270C	ND		1
Chrysene	ND	ug/L	2.0	EPA-8270C	ND		1
Dibenzo[a,h]anthracene	ND	ug/L	3.0	EPA-8270C	ND		1
Dibenzofuran	ND	ug/L	2.0	EPA-8270C	ND		1
1,2-Dichlorobenzene	ND	ug/L	2.0	EPA-8270C	ND		1
1,3-Dichlorobenzene	ND	ug/L	2.0	EPA-8270C	ND		1
1,4-Dichlorobenzene	ND	ug/L	2.0	EPA-8270C	ND		1
3,3-Dichlorobenzidine	ND	ug/L	10	EPA-8270C	ND		1
Diethyl phthalate	ND	ug/L	2.0	EPA-8270C	ND		1
Dimethyl phthalate	ND	ug/L	2.0	EPA-8270C	ND		1
Di-n-butyl phthalate	ND	ug/L	2.0	EPA-8270C	ND		1
2,4-Dinitrotoluene	ND	ug/L	2.0	EPA-8270C	ND		1
2,6-Dinitrotoluene	ND	ug/L	2.0	EPA-8270C	ND		1
Di-n-octyl phthalate	ND	ug/L	2.0	EPA-8270C	ND		1
Fluoranthene	ND	ug/L	2.0	EPA-8270C	ND		1

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**Reported:** 06/18/2012 16:13  
**Project:** 4625  
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### Base Neutral and Acid Extractables Organic Analysis (EPA Method 8270C)

<b>BCL Sample ID:</b> 1210074-03	<b>Client Sample Name:</b> 4625, MW-3-W-120604, 6/4/2012 9:16:00AM
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Constituent	Result	Units	PQL	Method	MB Bias	Lab Quals	Run #
Fluorene	ND	ug/L	2.0	EPA-8270C	ND		1
Hexachlorobenzene	ND	ug/L	2.0	EPA-8270C	ND		1
Hexachlorobutadiene	ND	ug/L	2.0	EPA-8270C	ND		1
Hexachlorocyclopentadiene	ND	ug/L	2.0	EPA-8270C	ND		1
Hexachloroethane	ND	ug/L	2.0	EPA-8270C	ND		1
Indeno[1,2,3-cd]pyrene	ND	ug/L	2.0	EPA-8270C	ND		1
Isophorone	ND	ug/L	2.0	EPA-8270C	ND		1
2-Methylnaphthalene	ND	ug/L	2.0	EPA-8270C	ND		1
Naphthalene	ND	ug/L	2.0	EPA-8270C	ND		1
2-Nitroaniline	ND	ug/L	2.0	EPA-8270C	ND		1
3-Nitroaniline	ND	ug/L	2.0	EPA-8270C	ND		1
4-Nitroaniline	ND	ug/L	5.0	EPA-8270C	ND		1
Nitrobenzene	ND	ug/L	2.0	EPA-8270C	ND		1
N-Nitrosodi-N-propylamine	ND	ug/L	2.0	EPA-8270C	ND		1
N-Nitrosodiphenylamine	ND	ug/L	2.0	EPA-8270C	ND		1
Phenanthrene	ND	ug/L	2.0	EPA-8270C	ND		1
Pyrene	ND	ug/L	2.0	EPA-8270C	ND		1
1,2,4-Trichlorobenzene	ND	ug/L	2.0	EPA-8270C	ND		1
4-Chloro-3-methylphenol	ND	ug/L	5.0	EPA-8270C	ND		1
2-Chlorophenol	ND	ug/L	2.0	EPA-8270C	ND		1
2,4-Dichlorophenol	ND	ug/L	2.0	EPA-8270C	ND		1
2,4-Dimethylphenol	ND	ug/L	2.0	EPA-8270C	ND		1
4,6-Dinitro-2-methylphenol	ND	ug/L	10	EPA-8270C	ND		1
2,4-Dinitrophenol	ND	ug/L	10	EPA-8270C	ND		1
2-Methylphenol	ND	ug/L	2.0	EPA-8270C	ND		1
3- & 4-Methylphenol	ND	ug/L	2.0	EPA-8270C	ND		1
2-Nitrophenol	ND	ug/L	2.0	EPA-8270C	ND		1
4-Nitrophenol	ND	ug/L	2.0	EPA-8270C	ND		1
Pentachlorophenol	ND	ug/L	10	EPA-8270C	ND		1
Phenol	ND	ug/L	2.0	EPA-8270C	ND		1
2,4,5-Trichlorophenol	ND	ug/L	5.0	EPA-8270C	ND		1
2,4,6-Trichlorophenol	ND	ug/L	5.0	EPA-8270C	ND		1
2-Fluorophenol (Surrogate)	39.0	%	30 - 120 (LCL - UCL)	EPA-8270C			1

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**Project Number:** 351641  
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### Base Neutral and Acid Extractables Organic Analysis (EPA Method 8270C)

<b>BCL Sample ID:</b> 1210074-03	<b>Client Sample Name:</b> 4625, MW-3-W-120604, 6/4/2012 9:16:00AM
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Constituent	Result	Units	PQL	Method	MB Bias	Lab Quals	Run #
Phenol-d5 (Surrogate)	29.1	%	12 - 110 (LCL - UCL)	EPA-8270C			1
Nitrobenzene-d5 (Surrogate)	84.2	%	60 - 130 (LCL - UCL)	EPA-8270C			1
2-Fluorobiphenyl (Surrogate)	77.2	%	55 - 125 (LCL - UCL)	EPA-8270C			1
2,4,6-Tribromophenol (Surrogate)	60.4	%	40 - 150 (LCL - UCL)	EPA-8270C			1
p-Terphenyl-d14 (Surrogate)	79.4	%	40 - 150 (LCL - UCL)	EPA-8270C			1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-8270C	06/07/12	06/14/12 22:48	SKC	MS-B2	1	BVF0975

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**Reported:** 06/18/2012 16:13  
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**Project Number:** 351641  
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### Total Petroleum Hydrocarbons

<b>BCL Sample ID:</b> 1210074-03	<b>Client Sample Name:</b> 4625, MW-3-W-120604, 6/4/2012 9:16:00AM
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Constituent	Result	Units	PQL	Method	MB Bias	Lab Quals	Run #
Diesel Range Organics (C12 - C24)	ND	ug/L	40	EPA-8015B/TPH d	ND		1
Tetracosane (Surrogate)	104	%	30 - 150 (LCL - UCL)	EPA-8015B/TPH d			1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-8015B/TPHd	06/08/12	06/08/12 21:14	MK1	GC-5	1	BVF0568

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**Project Number:** 351641  
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### EPA Method 1664

<b>BCL Sample ID:</b> 1210074-03	<b>Client Sample Name:</b> 4625, MW-3-W-120604, 6/4/2012 9:16:00AM
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Constituent	Result	Units	PQL	Method	MB Bias	Lab Quals	Run #
Oil and Grease	ND	mg/L	5.0	EPA-1664HEM	ND		1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-1664HEM	06/07/12	06/07/12 10:30	JAK	MAN-SV	1	BVF0550



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**Reported:** 06/18/2012 16:13  
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### Water Analysis (Metals)

<b>BCL Sample ID:</b> 1210074-03	<b>Client Sample Name:</b> 4625, MW-3-W-120604, 6/4/2012 9:16:00AM
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Constituent	Result	Units	PQL	Method	MB Bias	Lab Quals	Run #
Total Chromium	34	ug/L	10	EPA-6010B	ND		1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-6010B	06/07/12	06/08/12 13:00	JRG	PE-OP1	1	BVF0446



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**Project Number:** 351641  
**Project Manager:** Jim Harms

### Volatile Organic Analysis (EPA Method 8260)

<b>BCL Sample ID:</b> 1210074-04	<b>Client Sample Name:</b> 4625, MW-4-W-120604, 6/4/2012 11:45:00AM
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Constituent	Result	Units	PQL	Method	MB Bias	Lab Quals	Run #
Benzene	ND	ug/L	0.50	EPA-8260	ND		1
1,2-Dibromoethane	ND	ug/L	0.50	EPA-8260	ND		1
1,2-Dichloroethane	ND	ug/L	0.50	EPA-8260	ND		1
Ethylbenzene	ND	ug/L	0.50	EPA-8260	ND		1
Methyl t-butyl ether	ND	ug/L	0.50	EPA-8260	ND		1
Toluene	ND	ug/L	0.50	EPA-8260	ND		1
Total Xylenes	ND	ug/L	1.0	EPA-8260	ND		1
Ethanol	ND	ug/L	250	EPA-8260	ND		1
Total Purgeable Petroleum Hydrocarbons	ND	ug/L	50	Luft-GC/MS	ND		1
1,2-Dichloroethane-d4 (Surrogate)	79.4	%	75 - 125 (LCL - UCL)	EPA-8260			1
Toluene-d8 (Surrogate)	97.8	%	80 - 120 (LCL - UCL)	EPA-8260			1
4-Bromofluorobenzene (Surrogate)	98.2	%	80 - 120 (LCL - UCL)	EPA-8260			1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-8260	06/07/12	06/08/12 07:56	KEA	HPCHEM	1	BVF0445

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Reported: 06/18/2012 16:13  
Project: 4625  
Project Number: 351641  
Project Manager: Jim Harms

### Volatile Organic Analysis (EPA Method 8260)

<b>BCL Sample ID:</b> 1210074-05	<b>Client Sample Name:</b> 4625, MW-5-W-120604, 6/4/2012 1:28:00PM
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Constituent	Result	Units	PQL	Method	MB Bias	Lab Quals	Run #
Benzene	32	ug/L	0.50	EPA-8260	ND		1
1,2-Dibromoethane	ND	ug/L	0.50	EPA-8260	ND		1
1,2-Dichloroethane	ND	ug/L	0.50	EPA-8260	ND		1
Ethylbenzene	79	ug/L	0.50	EPA-8260	ND		1
Methyl t-butyl ether	84	ug/L	0.50	EPA-8260	ND		1
Toluene	1.0	ug/L	0.50	EPA-8260	ND		1
Total Xylenes	53	ug/L	1.0	EPA-8260	ND		1
t-Amyl Methyl ether	ND	ug/L	0.50	EPA-8260	ND		1
t-Butyl alcohol	79	ug/L	10	EPA-8260	ND		1
Diisopropyl ether	ND	ug/L	0.50	EPA-8260	ND		1
Ethanol	ND	ug/L	250	EPA-8260	ND		1
Ethyl t-butyl ether	ND	ug/L	0.50	EPA-8260	ND		1
<b>Total Purgeable Petroleum Hydrocarbons</b>	<b>1800</b>	<b>ug/L</b>	<b>50</b>	<b>Luft-GC/MS</b>	<b>ND</b>		<b>1</b>
1,2-Dichloroethane-d4 (Surrogate)	79.7	%	75 - 125 (LCL - UCL)	EPA-8260			1
Toluene-d8 (Surrogate)	102	%	80 - 120 (LCL - UCL)	EPA-8260			1
4-Bromofluorobenzene (Surrogate)	95.7	%	80 - 120 (LCL - UCL)	EPA-8260			1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-8260	06/07/12	06/08/12 07:31	KEA	HPCHEM	1	BVF0445



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### Volatile Organic Analysis (EPA Method 8260)

<b>BCL Sample ID:</b> 1210074-06	<b>Client Sample Name:</b> 4625, MW-6-W-120604, 6/4/2012 12:04:00PM
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Constituent	Result	Units	PQL	Method	MB Bias	Lab Quals	Run #
Benzene	ND	ug/L	0.50	EPA-8260	ND		1
1,2-Dibromoethane	ND	ug/L	0.50	EPA-8260	ND		1
1,2-Dichloroethane	ND	ug/L	0.50	EPA-8260	ND		1
Ethylbenzene	ND	ug/L	0.50	EPA-8260	ND		1
<b>Methyl t-butyl ether</b>	<b>82</b>	<b>ug/L</b>	<b>1.0</b>	<b>EPA-8260</b>	ND	<b>A01</b>	<b>2</b>
Toluene	ND	ug/L	0.50	EPA-8260	ND		1
Total Xylenes	ND	ug/L	1.0	EPA-8260	ND		1
t-Amyl Methyl ether	ND	ug/L	0.50	EPA-8260	ND		1
t-Butyl alcohol	ND	ug/L	10	EPA-8260	ND		1
Diisopropyl ether	ND	ug/L	0.50	EPA-8260	ND		1
Ethanol	ND	ug/L	250	EPA-8260	ND		1
Ethyl t-butyl ether	ND	ug/L	0.50	EPA-8260	ND		1
<b>Total Purgeable Petroleum Hydrocarbons</b>	<b>93</b>	<b>ug/L</b>	<b>50</b>	<b>Luft-GC/MS</b>	ND		<b>1</b>
1,2-Dichloroethane-d4 (Surrogate)	79.8	%	75 - 125 (LCL - UCL)	EPA-8260			1
1,2-Dichloroethane-d4 (Surrogate)	110	%	75 - 125 (LCL - UCL)	EPA-8260			2
Toluene-d8 (Surrogate)	98.1	%	80 - 120 (LCL - UCL)	EPA-8260			1
Toluene-d8 (Surrogate)	99.1	%	80 - 120 (LCL - UCL)	EPA-8260			2
4-Bromofluorobenzene (Surrogate)	96.7	%	80 - 120 (LCL - UCL)	EPA-8260			1
4-Bromofluorobenzene (Surrogate)	101	%	80 - 120 (LCL - UCL)	EPA-8260			2

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-8260	06/07/12	06/08/12 07:06	KEA	HPCHEM	1	BVF0445
2	EPA-8260	06/07/12	06/08/12 21:55	KEA	HPCHEM	2	BVF0445

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### Volatile Organic Analysis (EPA Method 8260)

<b>BCL Sample ID:</b> 1210074-07	<b>Client Sample Name:</b> 4625, MW-7-W-120604, 6/4/2012 12:55:00PM
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Constituent	Result	Units	PQL	Method	MB Bias	Lab Quals	Run #
Benzene	ND	ug/L	0.50	EPA-8260	ND		1
1,2-Dibromoethane	ND	ug/L	0.50	EPA-8260	ND		1
1,2-Dichloroethane	ND	ug/L	0.50	EPA-8260	ND		1
Ethylbenzene	ND	ug/L	0.50	EPA-8260	ND		1
Methyl t-butyl ether	ND	ug/L	0.50	EPA-8260	ND		1
Toluene	ND	ug/L	0.50	EPA-8260	ND		1
Total Xylenes	ND	ug/L	1.0	EPA-8260	ND		1
t-Amyl Methyl ether	ND	ug/L	0.50	EPA-8260	ND		1
t-Butyl alcohol	ND	ug/L	10	EPA-8260	ND		1
Diisopropyl ether	ND	ug/L	0.50	EPA-8260	ND		1
Ethanol	ND	ug/L	250	EPA-8260	ND		1
Ethyl t-butyl ether	ND	ug/L	0.50	EPA-8260	ND		1
Total Purgeable Petroleum Hydrocarbons	ND	ug/L	50	Luft-GC/MS	ND		1
1,2-Dichloroethane-d4 (Surrogate)	79.7	%	75 - 125 (LCL - UCL)	EPA-8260			1
Toluene-d8 (Surrogate)	99.1	%	80 - 120 (LCL - UCL)	EPA-8260			1
4-Bromofluorobenzene (Surrogate)	95.4	%	80 - 120 (LCL - UCL)	EPA-8260			1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-8260	06/07/12	06/08/12 06:40	KEA	HPCHEM	1	BVF0445





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### Volatile Organic Analysis (EPA Method 8260)

<b>BCL Sample ID:</b> 1210074-08	<b>Client Sample Name:</b> 4625, MW-8-W-120604, 6/4/2012 10:36:00AM
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Constituent	Result	Units	PQL	Method	MB Bias	Lab Quals	Run #
Benzene	ND	ug/L	0.50	EPA-8260	ND		1
1,2-Dibromoethane	ND	ug/L	0.50	EPA-8260	ND		1
1,2-Dichloroethane	ND	ug/L	0.50	EPA-8260	ND		1
Ethylbenzene	ND	ug/L	0.50	EPA-8260	ND		1
Methyl t-butyl ether	ND	ug/L	0.50	EPA-8260	ND		1
Toluene	ND	ug/L	0.50	EPA-8260	ND		1
Total Xylenes	ND	ug/L	1.0	EPA-8260	ND		1
t-Amyl Methyl ether	ND	ug/L	0.50	EPA-8260	ND		1
t-Butyl alcohol	ND	ug/L	10	EPA-8260	ND		1
Diisopropyl ether	ND	ug/L	0.50	EPA-8260	ND		1
Ethanol	ND	ug/L	250	EPA-8260	ND		1
Ethyl t-butyl ether	ND	ug/L	0.50	EPA-8260	ND		1
Total Purgeable Petroleum Hydrocarbons	ND	ug/L	50	Luft-GC/MS	ND		1
1,2-Dichloroethane-d4 (Surrogate)	79.3	%	75 - 125 (LCL - UCL)	EPA-8260			1
Toluene-d8 (Surrogate)	96.8	%	80 - 120 (LCL - UCL)	EPA-8260			1
4-Bromofluorobenzene (Surrogate)	98.1	%	80 - 120 (LCL - UCL)	EPA-8260			1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-8260	06/07/12	06/08/12 06:15	KEA	HPCHEM	1	BVF0445

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### Volatile Organic Analysis (EPA Method 8260)

<b>BCL Sample ID:</b> 1210074-09	<b>Client Sample Name:</b> 4625, MW-9-W-120604, 6/4/2012 10:15:00AM
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Constituent	Result	Units	PQL	Method	MB Bias	Lab Quals	Run #
Benzene	ND	ug/L	0.50	EPA-8260	ND		1
1,2-Dibromoethane	ND	ug/L	0.50	EPA-8260	ND		1
1,2-Dichloroethane	ND	ug/L	0.50	EPA-8260	ND		1
Ethylbenzene	ND	ug/L	0.50	EPA-8260	ND		1
Methyl t-butyl ether	ND	ug/L	0.50	EPA-8260	ND		1
Toluene	ND	ug/L	0.50	EPA-8260	ND		1
Total Xylenes	ND	ug/L	1.0	EPA-8260	ND		1
t-Amyl Methyl ether	ND	ug/L	0.50	EPA-8260	ND		1
t-Butyl alcohol	ND	ug/L	10	EPA-8260	ND		1
Diisopropyl ether	ND	ug/L	0.50	EPA-8260	ND		1
Ethanol	ND	ug/L	250	EPA-8260	ND		1
Ethyl t-butyl ether	ND	ug/L	0.50	EPA-8260	ND		1
Total Purgeable Petroleum Hydrocarbons	ND	ug/L	50	Luft-GC/MS	ND		1
1,2-Dichloroethane-d4 (Surrogate)	81.4	%	75 - 125 (LCL - UCL)	EPA-8260			1
Toluene-d8 (Surrogate)	97.3	%	80 - 120 (LCL - UCL)	EPA-8260			1
4-Bromofluorobenzene (Surrogate)	98.7	%	80 - 120 (LCL - UCL)	EPA-8260			1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-8260	06/07/12	06/08/12 05:50	KEA	HPCHEM	1	BVF0445

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Volatile Organic Analysis (EPA Method 8260)

Quality Control Report - Method Blank Analysis

Table with 7 columns: Constituent, QC Sample ID, MB Result, Units, PQL, MDL, Lab Quals. Includes a QC Batch ID: BVF0445 and a list of 30 chemical constituents with their respective results (all ND).

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## Volatile Organic Analysis (EPA Method 8260)

### Quality Control Report - Method Blank Analysis

Constituent	QC Sample ID	MB Result	Units	PQL	MDL	Lab Quals
<b>QC Batch ID: BVF0445</b>						
cis-1,3-Dichloropropene	BVF0445-BLK1	ND	ug/L	0.50		
trans-1,3-Dichloropropene	BVF0445-BLK1	ND	ug/L	0.50		
Total 1,3-Dichloropropene	BVF0445-BLK1	ND	ug/L	1.0		
Ethylbenzene	BVF0445-BLK1	ND	ug/L	0.50		
Hexachlorobutadiene	BVF0445-BLK1	ND	ug/L	0.50		
Isopropylbenzene	BVF0445-BLK1	ND	ug/L	0.50		
p-Isopropyltoluene	BVF0445-BLK1	ND	ug/L	0.50		
Methylene chloride	BVF0445-BLK1	ND	ug/L	1.0		
Methyl t-butyl ether	BVF0445-BLK1	ND	ug/L	0.50		
Naphthalene	BVF0445-BLK1	ND	ug/L	0.50		
n-Propylbenzene	BVF0445-BLK1	ND	ug/L	0.50		
Styrene	BVF0445-BLK1	ND	ug/L	0.50		
1,1,1,2-Tetrachloroethane	BVF0445-BLK1	ND	ug/L	0.50		
1,1,2,2-Tetrachloroethane	BVF0445-BLK1	ND	ug/L	0.50		
Tetrachloroethene	BVF0445-BLK1	ND	ug/L	0.50		
Toluene	BVF0445-BLK1	ND	ug/L	0.50		
1,2,3-Trichlorobenzene	BVF0445-BLK1	ND	ug/L	0.50		
1,2,4-Trichlorobenzene	BVF0445-BLK1	ND	ug/L	0.50		
1,1,1-Trichloroethane	BVF0445-BLK1	ND	ug/L	0.50		
1,1,2-Trichloroethane	BVF0445-BLK1	ND	ug/L	0.50		
Trichloroethene	BVF0445-BLK1	ND	ug/L	0.50		
Trichlorofluoromethane	BVF0445-BLK1	ND	ug/L	0.50		
1,2,3-Trichloropropane	BVF0445-BLK1	ND	ug/L	1.0		
1,1,2-Trichloro-1,2,2-trifluoroethane	BVF0445-BLK1	ND	ug/L	0.50		
1,2,4-Trimethylbenzene	BVF0445-BLK1	ND	ug/L	0.50		
1,3,5-Trimethylbenzene	BVF0445-BLK1	ND	ug/L	0.50		
Vinyl chloride	BVF0445-BLK1	ND	ug/L	0.50		
Total Xylenes	BVF0445-BLK1	ND	ug/L	1.0		
t-Amyl Methyl ether	BVF0445-BLK1	ND	ug/L	0.50		
t-Butyl alcohol	BVF0445-BLK1	ND	ug/L	10		
Diisopropyl ether	BVF0445-BLK1	ND	ug/L	0.50		
Ethanol	BVF0445-BLK1	ND	ug/L	250		
Ethyl t-butyl ether	BVF0445-BLK1	ND	ug/L	0.50		
Total Purgeable Petroleum Hydrocarbons	BVF0445-BLK1	ND	ug/L	50		

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## Volatile Organic Analysis (EPA Method 8260)

### Quality Control Report - Method Blank Analysis

Constituent	QC Sample ID	MB Result	Units	PQL	MDL	Lab Quals
<b>QC Batch ID: BVF0445</b>						
1,2-Dichloroethane-d4 (Surrogate)	BVF0445-BLK1	75.6	%	75 - 125 (LCL - UCL)		
Toluene-d8 (Surrogate)	BVF0445-BLK1	96.1	%	80 - 120 (LCL - UCL)		
4-Bromofluorobenzene (Surrogate)	BVF0445-BLK1	94.1	%	80 - 120 (LCL - UCL)		



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## Volatile Organic Analysis (EPA Method 8260)

### Quality Control Report - Laboratory Control Sample

Constituent	QC Sample ID	Type	Result	Spike Level	Units	Percent Recovery	RPD	Control Limits		Lab
								Percent Recovery	RPD	
<b>QC Batch ID: BVF0445</b>										
Benzene	BVF0445-BS1	LCS	25.070	25.000	ug/L	100		70 - 130		
Bromodichloromethane	BVF0445-BS1	LCS	25.810	25.000	ug/L	103		70 - 130		
Chlorobenzene	BVF0445-BS1	LCS	27.560	25.000	ug/L	110		70 - 130		
Chloroethane	BVF0445-BS1	LCS	25.650	25.000	ug/L	103		70 - 130		
1,4-Dichlorobenzene	BVF0445-BS1	LCS	27.050	25.000	ug/L	108		70 - 130		
1,1-Dichloroethane	BVF0445-BS1	LCS	23.770	25.000	ug/L	95.1		70 - 130		
1,1-Dichloroethene	BVF0445-BS1	LCS	23.120	25.000	ug/L	92.5		70 - 130		
Toluene	BVF0445-BS1	LCS	27.060	25.000	ug/L	108		70 - 130		
Trichloroethene	BVF0445-BS1	LCS	27.850	25.000	ug/L	111		70 - 130		
1,2-Dichloroethane-d4 (Surrogate)	BVF0445-BS1	LCS	8.0200	10.000	ug/L	80.2		75 - 125		
Toluene-d8 (Surrogate)	BVF0445-BS1	LCS	10.080	10.000	ug/L	101		80 - 120		
4-Bromofluorobenzene (Surrogate)	BVF0445-BS1	LCS	10.040	10.000	ug/L	100		80 - 120		



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### Volatile Organic Analysis (EPA Method 8260)

#### Quality Control Report - Precision & Accuracy

Constituent	Type	Source Sample ID	Source Result	Result	Spike Added	Units	RPD	Control Limits		Lab
								Percent Recovery	RPD	
<b>QC Batch ID: BVF0445</b>		Used client sample: N								
Benzene	MS	1207076-96	ND	25.510	25.000	ug/L		102		70 - 130
	MSD	1207076-96	ND	24.690	25.000	ug/L	3.3	98.8	20	70 - 130
Bromodichloromethane	MS	1207076-96	ND	25.240	25.000	ug/L		101		70 - 130
	MSD	1207076-96	ND	24.390	25.000	ug/L	3.4	97.6	20	70 - 130
Chlorobenzene	MS	1207076-96	ND	27.210	25.000	ug/L		109		70 - 130
	MSD	1207076-96	ND	26.720	25.000	ug/L	1.8	107	20	70 - 130
Chloroethane	MS	1207076-96	ND	26.750	25.000	ug/L		107		70 - 130
	MSD	1207076-96	ND	26.090	25.000	ug/L	2.5	104	20	70 - 130
1,4-Dichlorobenzene	MS	1207076-96	ND	26.420	25.000	ug/L		106		70 - 130
	MSD	1207076-96	ND	26.040	25.000	ug/L	1.4	104	20	70 - 130
1,1-Dichloroethane	MS	1207076-96	ND	24.150	25.000	ug/L		96.6		70 - 130
	MSD	1207076-96	ND	23.620	25.000	ug/L	2.2	94.5	20	70 - 130
1,1-Dichloroethene	MS	1207076-96	ND	23.780	25.000	ug/L		95.1		70 - 130
	MSD	1207076-96	ND	23.090	25.000	ug/L	2.9	92.4	20	70 - 130
Toluene	MS	1207076-96	ND	26.930	25.000	ug/L		108		70 - 130
	MSD	1207076-96	ND	26.700	25.000	ug/L	0.9	107	20	70 - 130
Trichloroethene	MS	1207076-96	ND	27.240	25.000	ug/L		109		70 - 130
	MSD	1207076-96	ND	26.100	25.000	ug/L	4.3	104	20	70 - 130
1,2-Dichloroethane-d4 (Surrogate)	MS	1207076-96	ND	7.9200	10.000	ug/L		79.2		75 - 125
	MSD	1207076-96	ND	7.6100	10.000	ug/L	4.0	76.1		75 - 125
Toluene-d8 (Surrogate)	MS	1207076-96	ND	10.070	10.000	ug/L		101		80 - 120
	MSD	1207076-96	ND	9.9900	10.000	ug/L	0.8	99.9		80 - 120
4-Bromofluorobenzene (Surrogate)	MS	1207076-96	ND	9.6800	10.000	ug/L		96.8		80 - 120
	MSD	1207076-96	ND	9.5200	10.000	ug/L	1.7	95.2		80 - 120

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Reported: 06/18/2012 16:13  
Project: 4625  
Project Number: 351641  
Project Manager: Jim Harms

## Base Neutral and Acid Extractables Organic Analysis (EPA Method 8270C)

### Quality Control Report - Method Blank Analysis

Constituent	QC Sample ID	MB Result	Units	PQL	MDL	Lab Quals
<b>QC Batch ID: BVF0975</b>						
Acenaphthene	BVF0975-BLK1	ND	ug/L	2.0		
Acenaphthylene	BVF0975-BLK1	ND	ug/L	2.0		
Anthracene	BVF0975-BLK1	ND	ug/L	2.0		
Benzo[a]anthracene	BVF0975-BLK1	ND	ug/L	2.0		
Benzo[b]fluoranthene	BVF0975-BLK1	ND	ug/L	2.0		
Benzo[k]fluoranthene	BVF0975-BLK1	ND	ug/L	2.0		
Benzo[a]pyrene	BVF0975-BLK1	ND	ug/L	2.0		
Benzo[g,h,i]perylene	BVF0975-BLK1	ND	ug/L	2.0		
Benzoic acid	BVF0975-BLK1	ND	ug/L	10		
Benzyl alcohol	BVF0975-BLK1	ND	ug/L	2.0		
Benzyl butyl phthalate	BVF0975-BLK1	ND	ug/L	2.0		
bis(2-Chloroethoxy)methane	BVF0975-BLK1	ND	ug/L	2.0		
bis(2-Chloroethyl) ether	BVF0975-BLK1	ND	ug/L	2.0		
bis(2-Chloroisopropyl)ether	BVF0975-BLK1	ND	ug/L	2.0		
bis(2-Ethylhexyl)phthalate	BVF0975-BLK1	ND	ug/L	4.0		
4-Bromophenyl phenyl ether	BVF0975-BLK1	ND	ug/L	2.0		
4-Chloroaniline	BVF0975-BLK1	ND	ug/L	2.0		
2-Chloronaphthalene	BVF0975-BLK1	ND	ug/L	2.0		
4-Chlorophenyl phenyl ether	BVF0975-BLK1	ND	ug/L	2.0		
Chrysene	BVF0975-BLK1	ND	ug/L	2.0		
Dibenzo[a,h]anthracene	BVF0975-BLK1	ND	ug/L	3.0		
Dibenzofuran	BVF0975-BLK1	ND	ug/L	2.0		
1,2-Dichlorobenzene	BVF0975-BLK1	ND	ug/L	2.0		
1,3-Dichlorobenzene	BVF0975-BLK1	ND	ug/L	2.0		
1,4-Dichlorobenzene	BVF0975-BLK1	ND	ug/L	2.0		
3,3-Dichlorobenzidine	BVF0975-BLK1	ND	ug/L	10		
Diethyl phthalate	BVF0975-BLK1	ND	ug/L	2.0		
Dimethyl phthalate	BVF0975-BLK1	ND	ug/L	2.0		
Di-n-butyl phthalate	BVF0975-BLK1	ND	ug/L	2.0		
2,4-Dinitrotoluene	BVF0975-BLK1	ND	ug/L	2.0		
2,6-Dinitrotoluene	BVF0975-BLK1	ND	ug/L	2.0		
Di-n-octyl phthalate	BVF0975-BLK1	ND	ug/L	2.0		
Fluoranthene	BVF0975-BLK1	ND	ug/L	2.0		
Fluorene	BVF0975-BLK1	ND	ug/L	2.0		

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## Base Neutral and Acid Extractables Organic Analysis (EPA Method 8270C)

### Quality Control Report - Method Blank Analysis

Constituent	QC Sample ID	MB Result	Units	PQL	MDL	Lab Quals
<b>QC Batch ID: BVF0975</b>						
Hexachlorobenzene	BVF0975-BLK1	ND	ug/L	2.0		
Hexachlorobutadiene	BVF0975-BLK1	ND	ug/L	2.0		
Hexachlorocyclopentadiene	BVF0975-BLK1	ND	ug/L	2.0		
Hexachloroethane	BVF0975-BLK1	ND	ug/L	2.0		
Indeno[1,2,3-cd]pyrene	BVF0975-BLK1	ND	ug/L	2.0		
Isophorone	BVF0975-BLK1	ND	ug/L	2.0		
2-Methylnaphthalene	BVF0975-BLK1	ND	ug/L	2.0		
Naphthalene	BVF0975-BLK1	ND	ug/L	2.0		
2-Nitroaniline	BVF0975-BLK1	ND	ug/L	2.0		
3-Nitroaniline	BVF0975-BLK1	ND	ug/L	2.0		
4-Nitroaniline	BVF0975-BLK1	ND	ug/L	5.0		
Nitrobenzene	BVF0975-BLK1	ND	ug/L	2.0		
N-Nitrosodi-N-propylamine	BVF0975-BLK1	ND	ug/L	2.0		
N-Nitrosodiphenylamine	BVF0975-BLK1	ND	ug/L	2.0		
Phenanthrene	BVF0975-BLK1	ND	ug/L	2.0		
Pyrene	BVF0975-BLK1	ND	ug/L	2.0		
1,2,4-Trichlorobenzene	BVF0975-BLK1	ND	ug/L	2.0		
4-Chloro-3-methylphenol	BVF0975-BLK1	ND	ug/L	5.0		
2-Chlorophenol	BVF0975-BLK1	ND	ug/L	2.0		
2,4-Dichlorophenol	BVF0975-BLK1	ND	ug/L	2.0		
2,4-Dimethylphenol	BVF0975-BLK1	ND	ug/L	2.0		
4,6-Dinitro-2-methylphenol	BVF0975-BLK1	ND	ug/L	10		
2,4-Dinitrophenol	BVF0975-BLK1	ND	ug/L	10		
2-Methylphenol	BVF0975-BLK1	ND	ug/L	2.0		
3- & 4-Methylphenol	BVF0975-BLK1	ND	ug/L	2.0		
2-Nitrophenol	BVF0975-BLK1	ND	ug/L	2.0		
4-Nitrophenol	BVF0975-BLK1	ND	ug/L	2.0		
Pentachlorophenol	BVF0975-BLK1	ND	ug/L	10		
Phenol	BVF0975-BLK1	ND	ug/L	2.0		
2,4,5-Trichlorophenol	BVF0975-BLK1	ND	ug/L	5.0		
2,4,6-Trichlorophenol	BVF0975-BLK1	ND	ug/L	5.0		
2-Fluorophenol (Surrogate)	BVF0975-BLK1	80.3	%	30 - 120 (LCL - UCL)		
Phenol-d5 (Surrogate)	BVF0975-BLK1	44.9	%	12 - 110 (LCL - UCL)		
Nitrobenzene-d5 (Surrogate)	BVF0975-BLK1	113	%	60 - 130 (LCL - UCL)		

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## Base Neutral and Acid Extractables Organic Analysis (EPA Method 8270C)

### Quality Control Report - Method Blank Analysis

Constituent	QC Sample ID	MB Result	Units	PQL	MDL	Lab Quals
<b>QC Batch ID: BVF0975</b>						
2-Fluorobiphenyl (Surrogate)	BVF0975-BLK1	102	%	55 - 125 (LCL - UCL)		
2,4,6-Tribromophenol (Surrogate)	BVF0975-BLK1	110	%	40 - 150 (LCL - UCL)		
p-Terphenyl-d14 (Surrogate)	BVF0975-BLK1	91.5	%	40 - 150 (LCL - UCL)		



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### Base Neutral and Acid Extractables Organic Analysis (EPA Method 8270C)

#### 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	
<b>QC Batch ID: BVF0975</b>										
Acenaphthene	BVF0975-BS1	LCS	58.834	50.000	ug/L	118		50 - 120		
1,4-Dichlorobenzene	BVF0975-BS1	LCS	50.072	50.000	ug/L	100		50 - 120		
2,4-Dinitrotoluene	BVF0975-BS1	LCS	58.039	50.000	ug/L	116		50 - 120		
Hexachlorobenzene	BVF0975-BS1	LCS	64.140	50.000	ug/L	128		60 - 120		L01
Hexachlorobutadiene	BVF0975-BS1	LCS	37.457	50.000	ug/L	74.9		40 - 110		
Hexachloroethane	BVF0975-BS1	LCS	44.924	50.000	ug/L	89.8		40 - 120		
Nitrobenzene	BVF0975-BS1	LCS	51.267	50.000	ug/L	103		50 - 120		
N-Nitrosodi-N-propylamine	BVF0975-BS1	LCS	43.232	50.000	ug/L	86.5		50 - 120		
Pyrene	BVF0975-BS1	LCS	57.757	50.000	ug/L	116		40 - 140		
1,2,4-Trichlorobenzene	BVF0975-BS1	LCS	44.888	50.000	ug/L	89.8		45 - 120		
4-Chloro-3-methylphenol	BVF0975-BS1	LCS	55.813	50.000	ug/L	112		50 - 120		
2-Chlorophenol	BVF0975-BS1	LCS	56.398	50.000	ug/L	113		50 - 120		
2-Methylphenol	BVF0975-BS1	LCS	53.885	50.000	ug/L	108		40 - 110		
3- & 4-Methylphenol	BVF0975-BS1	LCS	104.77	100.00	ug/L	105		40 - 110		
4-Nitrophenol	BVF0975-BS1	LCS	27.708	50.000	ug/L	55.4		10 - 110		
Pentachlorophenol	BVF0975-BS1	LCS	42.722	50.000	ug/L	85.4		30 - 120		
Phenol	BVF0975-BS1	LCS	22.604	50.000	ug/L	45.2		20 - 110		
2,4,6-Trichlorophenol	BVF0975-BS1	LCS	56.386	50.000	ug/L	113		54 - 120		
2-Fluorophenol (Surrogate)	BVF0975-BS1	LCS	64.068	80.000	ug/L	80.1		30 - 120		
Phenol-d5 (Surrogate)	BVF0975-BS1	LCS	35.803	80.000	ug/L	44.8		12 - 110		
Nitrobenzene-d5 (Surrogate)	BVF0975-BS1	LCS	85.806	80.000	ug/L	107		60 - 130		
2-Fluorobiphenyl (Surrogate)	BVF0975-BS1	LCS	81.111	80.000	ug/L	101		55 - 125		
2,4,6-Tribromophenol (Surrogate)	BVF0975-BS1	LCS	93.925	80.000	ug/L	117		40 - 150		
p-Terphenyl-d14 (Surrogate)	BVF0975-BS1	LCS	36.288	40.000	ug/L	90.7		40 - 150		

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Base Neutral and Acid Extractables Organic Analysis (EPA Method 8270C)

Quality Control Report - Precision & Accuracy

Table with columns: Constituent, Source Type, Source Sample ID, Source Result, Result, Spike Added, Units, RPD, Percent Recovery, Control Limits RPD, Percent Recovery, Lab Quals. Includes a QC Batch ID: BVF0975 and a list of 28 chemical constituents with their respective test results and recovery percentages.

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## Base Neutral and Acid Extractables Organic Analysis (EPA Method 8270C)

### 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	
<b>QC Batch ID: BVF0975</b>		Used client sample: N								
2-Fluorophenol (Surrogate)	MS	1207076-97	ND	61.766	80.000	ug/L		77.2	30 - 120	
	MSD	1207076-97	ND	64.970	80.000	ug/L	5.1	81.2	30 - 120	
Phenol-d5 (Surrogate)	MS	1207076-97	ND	33.888	80.000	ug/L		42.4	12 - 110	
	MSD	1207076-97	ND	38.180	80.000	ug/L	11.9	47.7	12 - 110	
Nitrobenzene-d5 (Surrogate)	MS	1207076-97	ND	83.635	80.000	ug/L		105	60 - 130	
	MSD	1207076-97	ND	83.920	80.000	ug/L	0.3	105	60 - 130	
2-Fluorobiphenyl (Surrogate)	MS	1207076-97	ND	74.379	80.000	ug/L		93.0	55 - 125	
	MSD	1207076-97	ND	81.360	80.000	ug/L	9.0	102	55 - 125	
2,4,6-Tribromophenol (Surrogate)	MS	1207076-97	ND	96.525	80.000	ug/L		121	40 - 150	
	MSD	1207076-97	ND	97.720	80.000	ug/L	1.2	122	40 - 150	
p-Terphenyl-d14 (Surrogate)	MS	1207076-97	ND	34.779	40.000	ug/L		86.9	40 - 150	
	MSD	1207076-97	ND	36.070	40.000	ug/L	3.6	90.2	40 - 150	



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## Total Petroleum Hydrocarbons

### Quality Control Report - Method Blank Analysis

Constituent	QC Sample ID	MB Result	Units	PQL	MDL	Lab Quals
<b>QC Batch ID: BVF0568</b>						
Diesel Range Organics (C12 - C24)	BVF0568-BLK1	ND	ug/L	40		
Tetracosane (Surrogate)	BVF0568-BLK1	98.9	%	30 - 150 (LCL - UCL)		



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## 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	
<b>QC Batch ID: BVF0568</b>										
Diesel Range Organics (C12 - C24)	BVF0568-BS1	LCS	396.84	500.00	ug/L	79.4		50 - 140		
Tetracosane (Surrogate)	BVF0568-BS1	LCS	19.531	20.000	ug/L	97.7		30 - 150		



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### 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	RPD	
<b>QC Batch ID: BVF0568</b>		Used client sample: N								
Diesel Range Organics (C12 - C24)	MS	1207076-99	ND	360.02	500.00	ug/L		72.0		50 - 140
	MSD	1207076-99	ND	374.17	500.00	ug/L	3.9	74.8	30	50 - 140
Tetracosane (Surrogate)	MS	1207076-99	ND	19.658	20.000	ug/L		98.3		30 - 150
	MSD	1207076-99	ND	19.252	20.000	ug/L	2.1	96.3		30 - 150

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### EPA Method 1664

### Quality Control Report - Method Blank Analysis

Constituent	QC Sample ID	MB Result	Units	PQL	MDL	Lab Quals
<b>QC Batch ID: BVF0550</b>						
Oil and Grease	BVF0550-BLK1	ND	mg/L	5.0		



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### EPA Method 1664

### Quality Control Report - Laboratory Control Sample

Constituent	QC Sample ID	Type	Result	Spike Level	Units	Percent Recovery	RPD	Control Limits		Lab
								Percent Recovery	RPD	
<b>QC Batch ID: BVF0550</b>										
Oil and Grease	BVF0550-BS1	LCS	33.550	40.300	mg/L	83.3		78	114	



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### EPA Method 1664

### Quality Control Report - Precision & Accuracy

Constituent	Type	Source Sample ID	Source Result	Result	Spike Added	Units	RPD	Percent		Lab Quals
								Recovery	RPD	
<b>QC Batch ID: BVF0550</b>		Used client sample: Y - Description: MW-3-W-120604, 06/04/2012 09:16								
Oil and Grease	DUP	1210074-03	ND	ND		mg/L				18
	MS	1207076-99	ND	35.400	40.300	mg/L		87.8		78 - 114
	MSD	1207076-99	ND	34.950	40.300	mg/L	1.3	86.7	18	78 - 114



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### Water Analysis (Metals)

#### Quality Control Report - Method Blank Analysis

Constituent	QC Sample ID	MB Result	Units	PQL	MDL	Lab Quals
<b>QC Batch ID: BVF0446</b>						
Total Chromium	BVF0446-BLK1	ND	ug/L	10		



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### Water Analysis (Metals)

#### Quality Control Report - Laboratory Control Sample

Constituent	QC Sample ID	Type	Result	Spike Level	Units	Percent Recovery	RPD	Control Limits		Lab
								Percent Recovery	RPD	
<b>QC Batch ID: BVF0446</b>										
Total Chromium	BVF0446-BS1	LCS	211.03	200.00	ug/L	106		85	115	



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### Water Analysis (Metals)

#### Quality Control Report - Precision & Accuracy

Constituent	Type	Source Sample ID	Source Result	Result	Spike Added	Units	RPD	Percent Recovery	Control Limits		Lab Quals	
									RPD	Percent Recovery		
<b>QC Batch ID: BVF0446</b>		Used client sample: N										
Total Chromium	DUP	1210028-21	2.4755	ND		ug/L				20		
	MS	1210028-21	2.4755	218.60	200.00	ug/L		108		75 - 125		
	MSD	1210028-21	2.4755	205.81	200.00	ug/L	6.0	102	20	75 - 125		



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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.
- L01 The Laboratory Control Sample Water (LCSW) recovery is not within laboratory established control limits.
- Q03 Matrix spike recovery(s) is(are) not within the control limits.