

# **Xtra** OIL COMPANY

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**RECEIVED**

**9:24 am, Jan 09, 2012**

Alameda County  
Environmental Health

December 19, 2011

Ms. Karel Detterman  
Alameda County Environmental Health Department  
1131 Harbor Bay Parkway, Suite 250  
Alameda, CA 94502

SUBJECT: SEMI-ANNUAL GROUNDWATER MONITORING AND SAMPLING REPORT  
CERTIFICATION  
County Case # RO 191  
Xtra Oil Company  
1701 Park Street  
Alameda, CA

Dear Ms. Detterman:

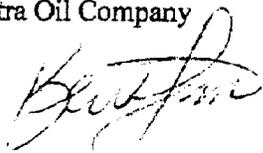
P&D Environmental, Inc. has prepared the following document:

- Semi-Annual Groundwater Monitoring and Sampling Report (July Through December 2011) dated December 19, 2011 (document 0058.R20).

I declare under penalty of perjury that the contents and conclusions in the document are true and correct to the best of my knowledge.

Should you have any questions, please do not hesitate to contact me at (510) 865-9506.

Sincerely,  
Xtra Oil Company



Keith Simas

0058.L47

# **P&D ENVIRONMENTAL, INC.**

**55 Santa Clara Avenue, Suite 240**

**Oakland, CA 94610**

**(510) 658-6916**

December 19, 2011

Report 0058.R20

Mr. Ted Simas  
Mr. Keith Simas  
Xtra Oil Company  
2307 Pacific Ave.  
Alameda, CA 94501

**SUBJECT: SEMI-ANNUAL GROUNDWATER MONITORING AND SAMPLING REPORT  
(JULY THROUGH DECEMBER 2011)  
County Case # RO 191  
Xtra Oil Company  
1701 Park Street  
Alameda, CA**

Gentlemen:

P&D Environmental, Inc. (P&D) is pleased to present this report documenting the semi-annual monitoring and sampling of the four historical groundwater monitoring wells (MW1 through MW4), and the monitoring and sampling of four recently installed wells (EW2, EW4, EW5, and OW2) at the subject site. Wells EW2, EW4, EW5, and OW2 were installed on May 18 and 19, 2011 in accordance with P&D's Groundwater Extraction Feasibility Test Work Plan dated April 15, 2011 (document 0058.W4). Well monitoring was performed for all of the wells on November 28, and sampling was performed on November 28 and 29, 2011. The reporting period is for July through December 2011.

In a letter from the Alameda County Department of Environmental Health (ACDEH) dated July 24, 2009 P&D was asked to review historical monitoring and sampling results, determine during which quarters contaminant concentrations were at their highest, and conduct semi-annual monitoring and sampling during those quarters (during either the first and third or the second and fourth quarters). Based on our review, semi-annual monitoring and sampling events are to be scheduled during the second and fourth quarters starting in 2009. Also at the request of the ACDEH analysis of the groundwater samples was performed for fuel oxygenates including TBA and lead scavengers using EPA Method 8260B. A Site Location Map (Figure 1) and Site Vicinity Map (Figure 2) are attached with this report. In the second half of 2011 the case was assigned to the new caseworker, Karel Detterman.

## **BACKGROUND**

A detailed discussion of the site background, historical monitoring and sampling, and historical investigations are provided in P&D's Remedial Action Work Plan (RAWP) dated October 24, 2007 (document 0058.W2), P&D's Corrective Action Plan (CAP) dated October 11, 2010

(document 0058.W3), and P&D's Site Conceptual Model Report dated October 8, 2010 (document 0058.R10). As an interim step for implementation of the CAP, P&D prepared a Groundwater Extraction Feasibility Work Plan dated April 15, 2011 (document 0058.W4) to verify the feasibility of groundwater extraction at the site with a selected number of wells identified in the RAWP. On May 18 and 19, 2011 P&D oversaw the installation of dual phase extraction wells EW2, EW4, and EW5 and observation well OW2 at the subject site. The wells were installed in accordance with procedures identified in P&D's October 24, 2007 RAWP and P&D's April 15, 2011 Groundwater Extraction Feasibility Work Plan.

### FIELD ACTIVITIES

Water levels were measured in monitoring wells MW1 through MW4, and wells EW2, EW4, EW5, and OW2 once during the reporting period. The wells were monitored for depth to water to the nearest 0.01 foot using an electric water level indicator. Monitoring was performed on November 28, and sampling was performed on November 28 and 29, 2011. The monitoring data obtained during the reporting period is summarized in Table 1. Historical monitoring and sampling data obtained by others for the subject site are attached with this report as Appendix A.

Following determination of the depth to water, the wells were evaluated for the presence of free product or sheen using a transparent bailer. No measurable free product was detected in any of the wells. Prior to sampling, wells MW1 through MW4, EW2, EW4, EW5, and OW2 were purged using low flow purge procedures in accordance with U.S. EPA 1996 guidelines. Purging was performed with a peristaltic pump and new polyethylene tubing for a minimum of fifteen minutes at each sampling location. New silicone tubing was used in the pump rollers at each well. The bottom of the tubing was set at a depth of approximately three to four and a half feet below the static water level in the well. Purging was performed at low flow rates ranging from approximately 200 to 400 milliliters per minute to minimize turbulence and to minimize the likelihood of sediments in the samples. During purging operations, the field parameters of electrical conductivity, temperature, pH, and depth to water were monitored and recorded on a groundwater monitoring/well purging data sheet for each well.

Petroleum hydrocarbon sheen was detected on the purge water from wells MW2, MW4, EW4, and EW5. Moderate to strong petroleum hydrocarbon odors were detected on the purge water from wells MW1, MW4 and EW5; moderate petroleum hydrocarbon odors were detected on the purge water from well MW2; slight to moderate petroleum hydrocarbon odors were detected on the purge water from wells EW2 and EW4; slight petroleum hydrocarbon odors were detected on the purge water from well OW2; and no petroleum hydrocarbon odors were detected on the purge water from well MW3.

Once the wells had been purged for a minimum of fifteen minutes and the field parameters were observed to have stabilized, water samples were collected directly from the discharge tubing of the pump into 40-milliliter glass Volatile Organic Analysis (VOA) vials and 1-liter amber glass bottles which were sealed with Teflon-lined screw caps. The VOA vials were overturned and tapped to ensure that no air bubbles were present. The VOA vials and bottles were then transferred to a cooler with ice, pending transport to the laboratory. New tubing was used for each sample

collection location. Chain of custody documentation accompanied the samples to the laboratory. Records of the field parameters measured during well purging are attached with this report.

## HYDROGEOLOGY

Water levels were measured in monitoring wells MW1 through MW4, and wells EW2, EW4, EW5, and OW2 once during the reporting period. The measured depth to water for groundwater monitoring wells MW1 through MW4 on November 28, 2011 ranged from 6.62 to 7.61 feet. The measured depth to groundwater on November 28, 2011 in wells EW2, EW4, EW5, and OW2 was 6.75, 5.51, 5.49, and 5.80 feet, respectively. Groundwater level data collected during the monitoring period are presented in Table 1.

Monitoring wells MW1, MW2, and MW3 were installed in 1994, and well MW4 was installed in 1997. These four wells were surveyed in 1997, however the datum used for the survey is unknown. In June 2011 these four wells were resurveyed relative to the North American Vertical Datum of 1988 (NAVD 88) along with the new wells (EW2, EW4, EW5, and OW2). All of the calculated groundwater surface elevations in Table 1 beginning in 2011 are relative to the NAVD 88 datum. All of the calculated groundwater surface elevations for wells MW1 through MW4 prior to 2011 are relative to the unknown datum, which is presumed to be relative to the North American Geodetic Vertical Datum of 1929 (NGVD 29).

Based on the water levels measured in wells MW1, MW2 and MW3 on November 28, 2011 the calculated groundwater flow direction was to the east-southeast with a gradient of 0.0055. Since the previous monitoring and sampling event on May 26, 2011 the groundwater flow direction has shifted slightly towards the east and the gradient has increased from 0.0039. The calculated groundwater surface elevation contours based on the measured depth to the water surface in all of the wells and the calculated groundwater flow direction based on the groundwater surface elevations in wells MW1, MW2 and MW3 are shown on Figure 2. The calculated groundwater flow direction on November 28, 2011 was not consistent with the historical northeasterly groundwater flow direction obtained using the groundwater surface elevation information from the nearby 1725 Park Street Exxon/Valero site in conjunction with groundwater surface elevation data from the subject site.

The locations of the subject site and the nearby 1725 Park Street Exxon/Valero site are shown in Figure 3. Historical groundwater flow direction information for both sites is shown in rose diagrams in the figure. In addition, the approximate historical northeasterly groundwater flow direction obtained using the groundwater surface elevation information from the 1725 Park Street Exxon/Valero site in conjunction with groundwater surface elevation data from the subject site is shown in Figure 3.

Comparison of the May 26 and November 28, 2011 water levels in the wells shows that the water levels have become lower in all of the wells by amounts ranging from 0.61 to 1.00 feet with the exception of wells MW1 and MW4 where the water levels became lower by 1.25 and 0.21 feet, respectively. Well MW4 is located in a planter. The smaller change in water level in well MW4 relative to the other wells may be the result of landscape irrigation water preferentially draining to groundwater in the immediate vicinity of the well MW4 location.

## LABORATORY RESULTS

The groundwater samples collected from wells MW1, MW2, MW3, MW4, EW2, EW4, EW5, and OW2 at the subject site were analyzed for Total Petroleum Hydrocarbons as Diesel (TPH-D) and Total Petroleum Hydrocarbons as Motor Oil (TPH-MO) using EPA Method 3510C in conjunction with EPA Method 8015B with silica gel cleanup; Total Petroleum Hydrocarbons as Gasoline (TPH-G) and methyl tertiary-butyl ether (MTBE), benzene, toluene, ethylbenzene, total xylenes (BTEX) using EPA Method 5030B in conjunction with modified EPA Method 8015B and EPA Method 8021B; and for Fuel Oxygenates and Lead Scavengers by EPA Method 5030B in conjunction with EPA Method 8260B.

No analytes were detected in the groundwater sample collected from well MW3. TPH-D was detected in the groundwater samples collected from wells MW1, MW2, MW4, EW2, EW4, EW5, and OW2 at concentrations of 2,600, 2,900, 2,200, 960, 2,000, 3,500, and 1,100 micrograms per liter (ug/L), respectively; TPH-G was detected at concentrations of 18,000, 4,900, 6,000, 4,600, 8,300, 48,000, and 5,300 ug/L, respectively; and benzene was detected at concentrations of 2,600, 400, 86, 1,600, 520, 930, and 350 ug/L, respectively. The remaining BTEX compounds were detected at concentrations ranging from 7.7 to 9,000 ug/L. While MTBE was not detected in any of the groundwater samples using EPA Method 8021B, it was detected using EPA Method 8260B in the groundwater samples collected from wells MW1, MW2, MW4, EW2, EW4, EW5, and OW2 at concentrations of 210, 29, 12, 270, 16, 48, and 50 ug/L, respectively, and tert-Butyl Alcohol (TBA) was detected in the same samples at concentrations of 460, 72, 11, 270, 89, 110, and 210 ug/L, respectively.

Review of the laboratory analytical report shows that the laboratory described the detected TPH-D results for the samples from wells MW1, MW4, EW2, and EW4 as consisting of gasoline-range compounds, and the samples from wells MW2, EW5, and OW2 as consisting of both gasoline-range compounds and diesel-range compounds. The laboratory analytical results are summarized in Table 2. Copies of the laboratory analytical reports and chain of custody documentation are attached with this report.

Since the previous sampling event on May 26, 2011 all analyte concentrations in well MW3 have remained not detected; all analyte concentrations decreased in wells MW2, MW4, and EW5 with the exceptions of TPH-MO, TPH-D and ethylbenzene in well MW2, xylenes in well MW4, and TPH-G, toluene, and ethylbenzene in well EW5 which all increased; and increased in wells MW1, EW2, EW4, and OW2 with the exceptions of toluene, xylenes, and TBA in well MW1, xylenes and TBA in well EW2, TBA and MTBE in well EW4, and TBA in well OW2, which all decreased.

## DISCUSSION AND RECOMMENDATIONS

The four historical groundwater monitoring wells at the subject site (MW1, MW2, MW3, and MW4) and the four recently installed wells (EW2, EW4, EW5, and OW2) were monitored on November 28, 2011 and sampled on November 28 and 29, 2011. Monitoring and sampling is usually performed in conjunction with the monitoring and sampling event performed by ERI for the Exxon/Valero facility located at 1725 Park Street, however coordination of the fourth quarter event did not occur for this sampling event.

On November 28, 2011 the measured depth to water at the subject site ranged from 5.49 to 7.61 feet. Groundwater elevations decreased in wells MW1 through MW4 by amounts ranging from 0.21 to 1.25 feet, and decreased in wells EW2, EW4, EW5, and OW2 by amounts ranging from 0.61 to 0.98 feet since the last sampling event on May 26, 2011. The change in water level in well MW4 relative to the other wells may be the result of landscape irrigation water preferentially draining to groundwater in the immediate vicinity of the well MW4 location.

Since the previous monitoring and sampling event on May 26, 2011 the groundwater flow direction has shifted slightly towards the east the gradient has increased from 0.0039. The groundwater flow direction on November 28, 2011 was not consistent with the historical northeasterly groundwater flow direction obtained using the groundwater surface elevation information from the 1725 Park Street Exxon/Valero site in conjunction with groundwater surface elevation data from the subject site.

Petroleum hydrocarbon sheen was detected on the purge water from wells MW2, MW4, EW4, and EW5. Moderate to strong petroleum hydrocarbon odors were detected on the purge water from wells MW1, MW4 and EW5; moderate petroleum hydrocarbon odors were detected on the purge water from well MW2; slight to moderate petroleum hydrocarbon odors were detected on the purge water from wells EW2 and EW4; slight petroleum hydrocarbon odors were detected on the purge water from well OW2; and no petroleum hydrocarbon odors were detected on the purge water from well MW3.

The sample results showed that no analytes were detected in well MW3. Analysis for fuel oxygenates and lead scavengers was performed during this sampling event, and the only fuel oxygenate or lead scavenger detected other than MTBE was TBA, with the highest MTBE concentration of 270 ug/L detected in well EW2 and the highest TBA concentration of 460 ug/L detected in well MW1. Review of the water quality data shows that the highest concentrations of TPH-D, and TPH-G (48,000 and 3,500 ug/L, respectively) were encountered at well EW5, and the highest concentration of benzene (2,600) was encountered in well MW1.

Based on the results of the groundwater sample analysis, P&D recommends that the semi-annual monitoring and sampling program be continued. The next monitoring and sampling event will be scheduled to be performed in conjunction the next ERI monitoring and sampling event for the Exxon/Valero facility located at 1725 Park Street. In accordance with communications with ACDEH, although future monitoring and sampling events will be performed in conjunction with ERI, the ERI results are not included in this current report and will not be included in future P&D reports because the information is readily available via the internet at both the county website and the GeoTracker website.

The presence of water preferentially migrating vertically in the vicinity of well MW4 could result in water quality dilution for samples collected from well MW4, resulting in water quality data that is not representative of conditions in the vicinity of MW4. P&D also recommends that irrigation drainage in the landscaping in the vicinity of well MW4 also be evaluated in an effort to determine if a conduit is present for the rapid movement of irrigation water to the water table in the vicinity of well MW4.

## DISTRIBUTION

A copy of this report will be uploaded to the ACDEH website, in accordance with ACDEH requirements. In addition, a copy of this report will be uploaded to the GeoTracker database.

## LIMITATIONS

This report was prepared solely for the use of Xtra Oil Company. The content and conclusions provided by P&D in this assessment are based on information collected during our investigation, which may include, but not be limited to, visual site inspections; interviews with the site owner, regulatory agencies and other pertinent individuals; review of available public documents; subsurface exploration and our professional judgment based on said information at the time of preparation of this document. Any subsurface sample results and observations presented herein are considered to be representative of the area of investigation; however, geological conditions may vary between borings and may not necessarily apply to the general site as a whole. If future subsurface or other conditions are revealed which vary from these findings, the newly revealed conditions must be evaluated and may invalidate the findings of this report.

This report is issued with the understanding that it is the responsibility of the owner, or his representative, to ensure that the information contained herein is brought to the attention of the appropriate regulatory agencies, where required by law. Additionally, it is the sole responsibility of the owner to properly dispose of any hazardous materials or hazardous wastes left onsite, in accordance with existing laws and regulations.

This report has been prepared in accordance with generally accepted practices using standards of care and diligence normally practiced by recognized consulting firms performing services of a similar nature. P&D is not responsible for the accuracy or completeness of information provided by other individuals or entities, which are used in this report.

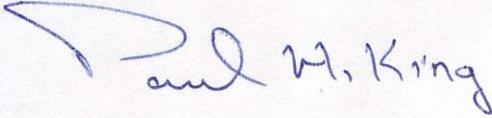
This report presents our professional judgment based upon data and findings identified in this report and interpretation of such data based upon our experience and background, and no warranty, either express or implied, is made. The conclusions presented are based upon the current regulatory climate and may require revision if future regulatory changes occur.

December 19, 2011  
Report 0058.R20

Should you have any questions or comments, please do not hesitate to contact us at (510) 658-6916.

Sincerely,

P&D Environmental, Inc.



Paul H. King  
Professional Geologist #5901  
Expires 12/31/11



Attachments:

Table 1 - Well Monitoring Data  
Table 2 - Summary of Laboratory Analytical Results  
Figure 1 - Site Location Map  
Figure 2 - Site Plan Showing Well Locations and Groundwater Surface Elevations  
Figure 3 - Site Vicinity Map Showing Groundwater Surface Elevations  
Groundwater Monitoring/Well Purging Data Sheets  
Laboratory Analytical Reports and Chain of Custody Documentation  
Appendix A - Historical Water Level and Water Quality Data for the Subject Site

PHK/sjc  
0058.R20

# **TABLES**

Table 1. Well Monitoring Data				
Well Number	Date Monitored	Top of Casing Elevation (ft-msl.)	Depth to Water (ft)	Water Table Elevation (ft-MSL.)
MW1	11/28/2011	22.36*	7.11	15.25
	6/16/2011		6.41	15.95
	5/26/2011		5.86	16.50
	5/24/2011		6.43	15.93
	11/18/2010		7.78	11.82
	4/28/2010	19.60**	6.35	13.25
	12/3/2009		7.84	11.76
	2/25/2009		6.07	13.53
	11/25/2008		7.91	11.69
	8/27/2008		8.03	11.57
	5/28/2008		7.28	12.32
	2/27/2008		6.15	13.45
	11/29/2007		7.82	11.78
	8/29/2007		8.29	11.31
	5/29/2007		7.44	12.16
	3/12/2007		6.34	13.26
	11/6/2006		7.99	11.61
MW2	11/28/2011	23.10*	7.61	15.49
	6/16/2011		6.89	16.21
	5/26/2011		6.90	16.20
	5/24/2011		6.90	16.20
	11/18/2010		8.17	12.14
	4/28/2010	20.31**	6.76	13.55
	12/3/2009		8.23	12.08
	2/25/2009		6.37	13.94
	11/25/2008		8.21	12.10
	8/27/2008		8.40	11.91
	5/28/2008		7.72	12.59
	2/27/2008		6.49	13.82
	11/29/2007		8.15	12.16
	8/29/2007		8.55	11.76
	5/29/2007		7.79	12.52
	3/12/2007		6.82	13.49
	11/6/2006		8.25	12.06
MW3	11/28/2011	23.35*	7.19	16.16
	6/16/2011		6.17	17.18
	5/26/2011		6.19	17.16
	5/24/2011		6.16	17.19
	11/18/2010		7.93	12.64
	4/28/2010	20.57**	6.00	14.57
	12/3/2009		7.83	12.74
	2/25/2009		5.42	15.15
	11/25/2008		7.83	12.74
	8/27/2008		8.23	12.34
	5/28/2008		7.36	13.21
	2/27/2008		5.75	14.82
	11/29/2007		7.88	12.69
	8/29/2007		8.31	12.26
	5/29/2007		7.26	13.31
	3/12/2007		6.03	14.54
	11/6/2006		8.09	12.48
MW4	11/28/2011	22.48*	6.62	15.86
	6/16/2011		5.79	16.69
	5/26/2011		6.41	16.07
	5/24/2011		5.82	16.66
	11/18/2010		7.69	12.00
	4/28/2010	19.69**	5.82	13.87
	12/3/2009		7.60	12.09
	2/25/2009		5.32	14.37
	11/25/2008		7.61	12.08
	8/27/2008		7.91	11.78
	5/28/2008		6.97	12.72
	2/27/2008		5.38	14.31
	11/29/2007		7.57	12.12
	8/29/2007		8.07	11.62
	5/29/2007		7.38	12.31
	3/12/2007		5.30	14.39
	11/6/2006		7.60	12.09
EW2	11/28/2011	22.13*	6.75	15.38
	6/16/2011		6.09	16.04
	5/26/2011		6.14	15.99
	5/24/2011***		6.12	16.01
EW4	11/28/2011	20.95*	5.51	15.44
	6/16/2011		4.72	16.23
	5/26/2011		4.77	16.18
	5/24/2011***		4.75	16.20
EW5	11/28/2011	21.20*	5.49	15.71
	6/16/2011		4.71	16.49
	5/26/2011		4.88	16.32
	5/24/2011***		4.74	16.46
OW2	11/28/2011	21.55*	5.80	15.75
	6/16/2011		4.80	16.75
	5/26/2011		4.82	16.73
	5/24/2011***		4.79	16.76

**Abbreviations and Notes:**  
 \* = Surveyed by Kier & Wright on June 9, 2011.  
 \*\* = Surveyed by Andreas Deak in April 1997.  
 \*\*\* = Prior to well development.  
 ft-MSL = feet above mean sea level  
 ft = feet

Table 2. Summary of Laboratory Analytical Results

Well Number	Sample Date	TPH-G	TPH-D	TPH-MO	MTBE	Benzene	Toluene	Ethylbenzene	Total Xylenes	Fuel Oxygenates & Lead Scavengers	
MW1	11/28/2011	18,000	2,600, c	ND<250	ND<600	2,600	410	410	1,200	ND, except TBA = 460, MTBE = 210	
	5/26/2011	15,000	2,400, b,c	ND<250	ND<500	2,000	430	400	1,300	ND, except TBA = 570, MTBE = 120	
	11/18/2010	21,000	1,900, b,c	ND<250	1,700	6,300	340	340	860	ND, except TBA = 3,300, MTBE = 1,500	
	4/28/2010	19,000	2,800, b,c	260, b,c	840	3,400	680	500	1,600	ND, except TBA = 3,200, MTBE = 750	
	12/3/2009	19,000	1,900, b, c	ND<250	1,500	4,500	670	400	1,300	ND, except TBA = 10,000, MTBE = 1,100	
	2/25/2009	21,000	2,200, b,c	ND<250	ND<2,500	4,300	750	580	1,700	ND, except TBA = 17,000, MTBE = 1,400	
	11/25/2008	20,000	2,400, c	ND<250	1,900	5,500	490	530	1,300	ND, except TBA = 16,000, MTBE = 1,600	
	8/27/2008	46,000	5,200, c	ND<250	1,300	4,600	1,800	2,000	5,200	NA	
	5/28/2008	40,000	6,100, c	290	1,600	4,200	2,600	1,700	5,900	NA	
	2/27/2008	45,000	4,900, c	310	2,600	6,200	3,100	1,300	5,100	NA	
	11/29/2007	27,000	3,100, b,c	ND<250	2,600	4,700	930	770	2,600	NA	
	8/29/2007	26,000	3,900, b,c	470	3,200	5,400	1,400	810	3,000	NA	
	5/30/2007	22,000	3,300, c	ND<250	ND<750	400	380	1,100	3,600	NA	
	3/12/2007	38,000	3,500, b,c	300	3,500	5,400	2,900	1,300	5,100	NA	
	11/6/2006	44,000,a	3,400, a,c	360	3,900	5,600	2,300	920	3,000	NA	
	MW2	11/28/2011	4,900	2,900, c,d	420, c,d	ND<50	400	11	39	7.7	ND, except TBA = 72, MTBE = 29
		5/26/2011	6,600	1,900, b,c	ND<250	ND<350	1,000	39	36	97	ND, except TBA = 480, MTBE = 210
11/18/2010		7,700, a	11,000, a,c,d	3,500, a,c,d	ND<35	640	16	74	14	ND, except TBA = 19, MTBE = 22	
4/28/2010		9,400, a	23,000, a,c,d	9,100, a,c,d	ND<250	1,200	35	40	29	ND, except TBA = 300, MTBE = 100	
12/3/2009		7,700, a	6,900, a, b,c	2,000, a, b, c	ND<250	840	29	34	28	ND, except TBA = 200, MTBE = 61	
2/25/2009		7,600, a	21,000, a,c,d	6,200	ND<160	810	18	46	24	ND, except TBA = 38, MTBE = 31, 1,2-DCA = 2.7	
11/25/2008		8,700, a	23,000, a,c,d	6,400	14,e	740	15	90	27	ND, except TBA = 11, MTBE = 14	
8/27/2008		13,000, a	9,200, a,c,d	2,200	ND<200	990	14	93	19	NA	
5/28/2008		12,000, a	25,000 a,c,d	7,200	ND<210	2,000	77	77	90	NA	
2/27/2008		11,000, a	21,000, a,c,d	6,800	ND<150	940	36	ND<10	22	NA	
11/29/2007		11,000, a	32,000, a,c,d	11,000	ND<50	1,000	28	120	31	NA	
8/29/2007		8,600, a	6,300, a, b, c	2,600	ND<100	1,300	36	48	48	NA	
5/30/2007		14,000, a	22,000, a,c,d	5,800	ND<210	2,200	51	100	99	NA	
3/12/2007		8,500, a	74,000, a, c,d	21,000	ND< 80	1,200	34	140	69	NA	
11/6/2006		14,000,a	45,000, a,c	11,000	ND<120	1,400	27	200	37	NA	
MW3		11/28/2011	ND<50	ND<50	ND<250	ND<5.0	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND
		5/26/2011	ND<50	ND<50	ND<250	ND<5.0	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND
	11/18/2010	ND<50	ND<50	ND<250	ND<5.0	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND	
	4/28/2010	ND<50	ND<50	ND<250	ND<5.0	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND	
	12/3/2009	ND<50	ND<50	ND<250	ND<5.0	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND	
	2/25/2009	ND<50	ND<50	ND<250	ND<5.0	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND	
	11/25/2008	ND<50	ND<50	ND<250	ND<5.0	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND	
	8/27/2008	ND<50	ND<50	ND<250	ND<5.0	ND<0.5	ND<0.5	ND<0.5	ND<0.5	NA	
	5/28/2008	ND<50	ND<50	ND<250	ND<5.0	ND<0.5	ND<0.5	ND<0.5	ND<0.5	NA	
	2/27/2008	ND<50	ND<50	ND<250	15	ND<0.5	ND<0.5	ND<0.5	ND<0.5	NA	
	11/29/2007	ND<50	ND<50	ND<250	ND<5.0	ND<0.5	ND<0.5	ND<0.5	ND<0.5	NA	
	8/29/2007	ND<50	ND<50	ND<250	ND<5.0	ND<0.5	ND<0.5	ND<0.5	ND<0.5	NA	
	5/30/2007	ND<50	ND<50	ND<250	ND< 5.0	ND<0.5	ND<0.5	ND<0.5	ND<0.5	NA	
3/12/2007	ND< 50	ND< 50	ND< 250	ND< 5.0	ND<0.5	ND<0.5	ND<0.5	ND<0.5	NA		
11/6/2006	ND<50	ND<50	ND<250	ND<5.0	ND<0.5	ND<0.5	ND<0.5	ND<0.5	NA		

**Table 2. Summary of Laboratory Analytical Results**

Well Number	Sample Date	TPH-G	TPH-D	TPH-MO	MTBE	Benzene	Toluene	Ethylbenzene	Total Xylenes	Fuel Oxygenates & Lead Scavengers
MW4	11/28/2011	6,000	2,200, c	ND<250	ND<50	86	63	350	1,200	ND, except TBA = 11, MTBE = 12
	5/26/2011	7,300	2,400, b,c	ND<250	ND<210	230	64	450	1,100	ND, except TBA = 74, MTBE = 80
	11/18/2010	5,900	1,100, b,c	ND<250	470	1,100	28	150	390	ND, except TBA = 690, MTBE = 540
	4/28/2010	6,300	1,400, c	ND<250	470	480	74	280	750	ND, except TBA = 350, MTBE = 360
	12/3/2009	6,300	1,200, c	ND<250	640	1,100	35	120	390	ND, except TBA = 600, MTBE = 390
	2/25/2009	11,000	2,200, c	ND<250	ND<300	350	120	490	1,400	ND, except TBA = 160, MTBE = 130
	11/25/2008	10,000	1,900, c	ND<250	270	630	130	390	1,500	ND, except TBA = 190, MTBE = 250
	8/27/2008	9,300	830, c	ND<250	ND<250	260	85	370	1,300	NA
	5/28/2008	2,200	1,400, c	ND<250	ND<30	16	38	100	320	NA
	2/27/2008	8,000	1,900, c	ND<250	ND<50	47	110	270	1,300	NA
	11/29/2007	12,000	2,800, c	ND<250	ND<180	260	230	580	2,500	NA
	8/29/2007	12,000, a	560, c	ND<250	660	910	200	750	2,200	NA
	5/30/2007	43,000	4,500, c	610	3,600	5,800	3,700	1,400	5,400	NA
	3/12/2007	19,000	3,100, c	ND<250	370	560	450	1,100	4,400	NA
	11/6/2006	23,000	4,300, c	850	ND<900	680	250	930	3,100	NA
EW2	11/28/2011	4,600	960, c	ND<250	260	1,600	15	62	38	ND, except TBA = 270, MTBE = 270
	5/26/2011	2,700	560, b,c	ND<250	ND<150	580	7.9	10	80	ND, except TBA = 290, MTBE = 97
EW4	11/28/2011	8,300	2,000, c	ND<250	ND<150	520	40	510	530	ND, except TBA = 89, MTBE = 16
	5/26/2011	2,800	500, b,c	ND<250	ND<150	99	9.9	20	300	ND, except TBA = 110, MTBE = 83
EW5	11/28/2011	48,000	3,500, b,c	ND<250	ND<400	930	3,400	2,400	9,000	ND, except TBA = 110, MTBE = 48
	5/26/2011	35,000	3,600, b,c	ND<250	ND<450	1,000	2,700	850	11,000	ND, except TBA = 250, MTBE = 86
OW2	11/28/2011	5,300	1,100, b,c	ND<250	ND<130	350	170	24	790	ND, except TBA = 210, MTBE = 50
	5/26/2011	450	430, b,c	ND<250	ND<5.0	0.87	0.71	ND<0.5	7.7	ND, except TBA = 350, MTBE = 3.6

**Abbreviations and Notes:**

TPH-MO = Total Petroleum Hydrocarbons as Motor Oil  
 TPH-D = Total Petroleum Hydrocarbons as Diesel  
 TPH-G = Total Petroleum Hydrocarbons as Gasoline  
 MTBE = Methyl tertiary-butyl ether  
 TBA = tert-Butyl alcohol.  
 1,2-DCA = 1,2-Dichloroethane  
 ND = Not Detected.  
 NA = Not Analyzed.  
 a = Laboratory Note: lighter than water immiscible sheen/ product is present  
 b = Laboratory Note: diesel range compounds are significant; no recognizable pattern  
 c = Laboratory Note: gasoline range compounds are significant  
 d = Laboratory Note: unmodified or weakly modified diesel range compounds are significant  
 e = Analysis by EPA 8260B as part of fuel oxygenate analysis. All other results for MTBE and all results for BTEX are by EPA 8021B.  
 Results are in micrograms per liter (µg/L), unless otherwise noted.

# FIGURES

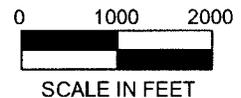


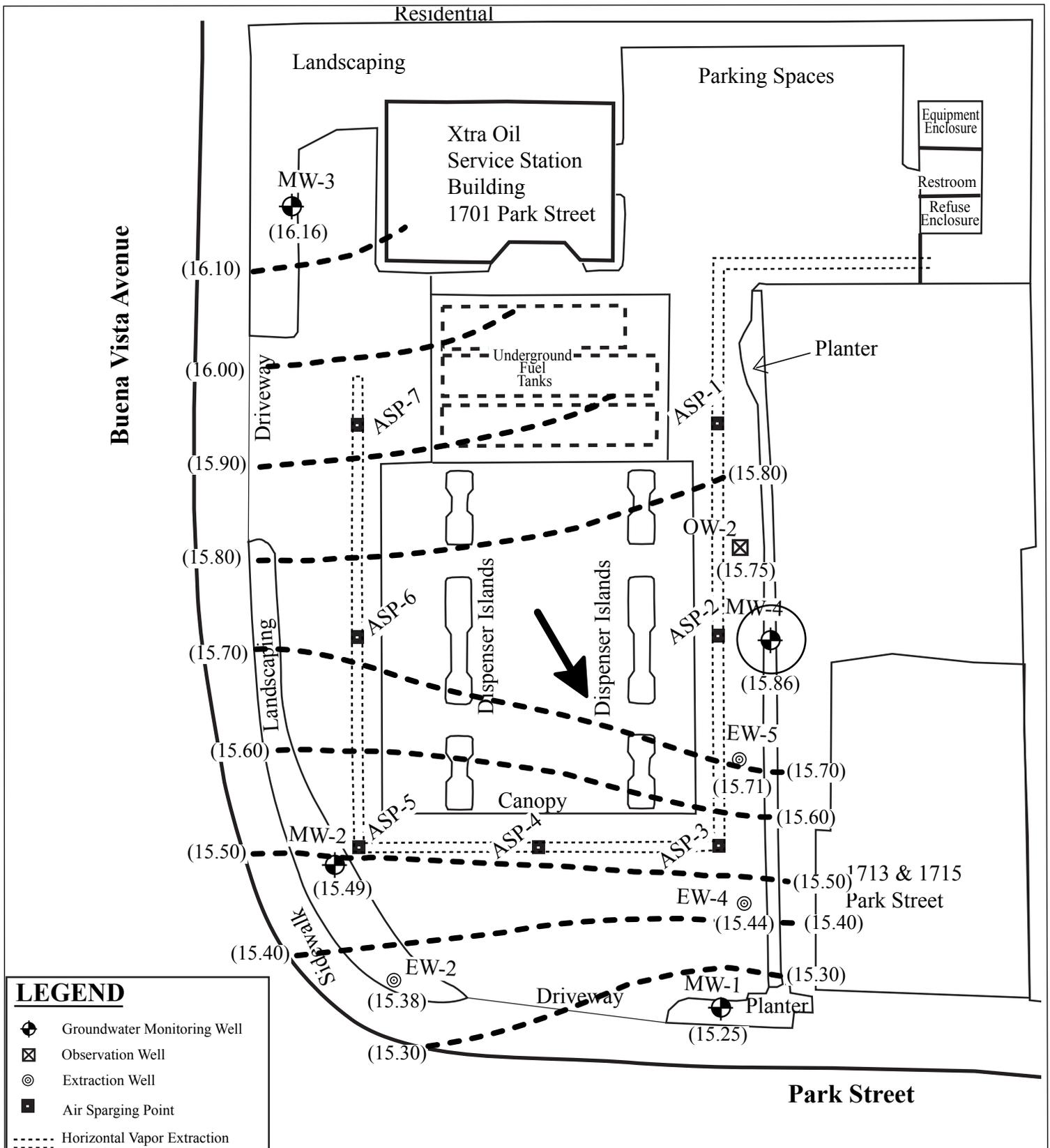
FIGURE 1  
 Site Location Map  
 1701 Park Street  
 Alameda, CA



Base Map From:  
 USGS Topographic Map, 7.5 minute series,  
 Oakland East, Calif. quadrangle, 1980

P&D Environmental, Inc.  
 55 Santa Clara Ave, Ste. 240  
 Oakland, CA 94610





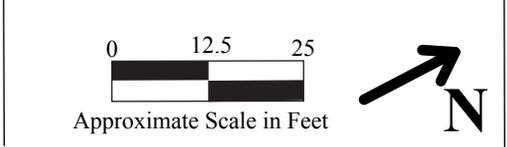
**LEGEND**

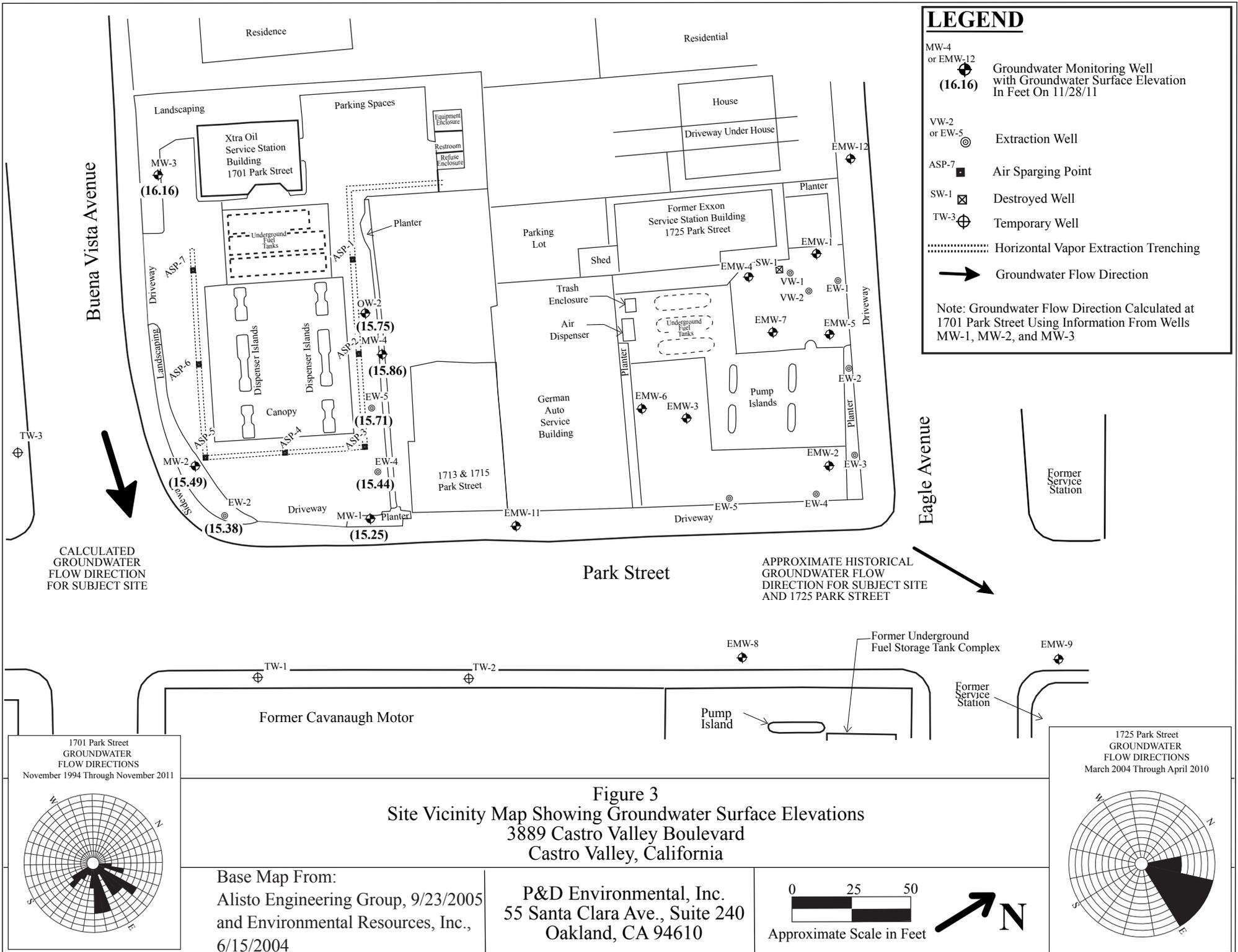
- ◆ Groundwater Monitoring Well
- ⊠ Observation Well
- ⊙ Extraction Well
- Air Sparging Point
- ⋯ Horizontal Vapor Extraction Trenching
- (16.16) Groundwater Surface Elevation in Feet on 11/28/11
- ➔ Groundwater Flow Direction
- - - Groundwater Surface Contour

**Figure 2**  
**Site Plan Showing Well Locations and Groundwater Surface Elevations**  
 Xtra Oil Company  
 1701 Park Street  
 Alameda, California

Basemap from: Alisto Engineering Group September 2005, and Google Earth October 2009

P&D Environmental, Inc.  
 55 Santa Clara Ave., Suite 240  
 Oakland, CA 94610





### LEGEND

- MW-4 or EMW-12 (16.16) Groundwater Monitoring Well with Groundwater Surface Elevation In Feet On 11/28/11
- VW-2 or EW-5 Extraction Well
- ASP-7 Air Sparging Point
- SW-1 Destroyed Well
- TW-3 Temporary Well
- Horizontal Vapor Extraction Trenching
- Groundwater Flow Direction

Note: Groundwater Flow Direction Calculated at 1701 Park Street Using Information From Wells MW-1, MW-2, and MW-3

CALCULATED GROUNDWATER FLOW DIRECTION FOR SUBJECT SITE

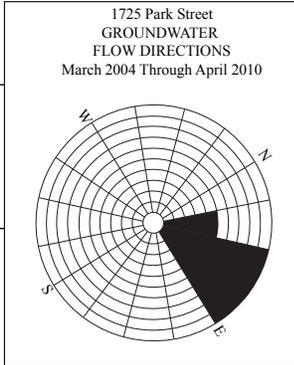
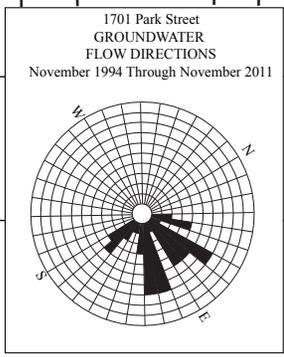
APPROXIMATE HISTORICAL GROUNDWATER FLOW DIRECTION FOR SUBJECT SITE AND 1725 PARK STREET

**Figure 3**  
 Site Vicinity Map Showing Groundwater Surface Elevations  
 3889 Castro Valley Boulevard  
 Castro Valley, California

Base Map From:  
 Alisto Engineering Group, 9/23/2005  
 and Environmental Resources, Inc.,  
 6/15/2004

P&D Environmental, Inc.  
 55 Santa Clara Ave., Suite 240  
 Oakland, CA 94610

0 25 50  
 Approximate Scale in Feet



**WELL MONITORING AND  
PURGE DATA SHEETS**

















**LABORATORY REPORTS  
AND CHAIN OF CUSTODY  
DOCUMENTATION**



## Analytical Report

P & D Environmental  55 Santa Clara, Ste.240  Oakland, CA 94610	Client Project ID: #0058; Xtra Oil 1701 Park St./Alameda	Date Sampled: 11/28/11-11/29/11
		Date Received: 11/29/11
	Client Contact: Steve Carmack	Date Reported: 12/06/11
	Client P.O.:	Date Completed: 12/05/11

**WorkOrder: 1111844**

December 06, 2011

Dear Steve:

Enclosed within are:

- 1) The results of the **8** analyzed samples from your project: **#0058; Xtra Oil 1701 Park St./Alameda,**
- 2) A QC report for the above samples,
- 3) A copy of the chain of custody, and
- 4) An invoice for analytical services.

All analyses were completed satisfactorily and all QC samples were found to be within our control limits.

If you have any questions or concerns, please feel free to give me a call. Thank you for choosing McC Campbell Analytical Laboratories for your analytical needs.

Best regards,

Angela Rydelius  
 Laboratory Manager  
 McC Campbell Analytical, Inc.

*The analytical results relate only to the items tested.*



# McC Campbell Analytical, Inc.



1534 Willow Pass Rd  
 Pittsburg, CA 94565-1701  
 (925) 252-9262

# CHAIN-OF-CUSTODY RECORD

WorkOrder: 1111844

ClientCode: PDEO

WaterTrax   
  WriteOn   
  EDF   
  Excel   
  Fax   
 Email   
  HardCopy   
  ThirdParty   
  J-flag

**Report to:**

Steve Carmack  
 P & D Environmental  
 55 Santa Clara, Ste.240  
 Oakland, CA 94610  
 (510) 658-6916    FAX: 510-834-0152

Email: lab@pdenviro.com  
 cc:  
 PO:  
 ProjectNo: #0058; Xtra Oil 1701 Park St./Alameda

**Bill to:**

Accounts Payable  
 Xtra Oil Company  
 2307 Pacific Avenue  
 Alameda, CA 94501

**Requested TAT:**

**5 days**

*Date Received:* 11/29/2011

*Date Printed:* 11/29/2011

Lab ID	Client ID	Matrix	Collection Date	Hold	Requested Tests (See legend below)												
					1	2	3	4	5	6	7	8	9	10	11	12	
1111844-001	MW-1	Water	11/29/2011 10:30	<input type="checkbox"/>	C	A	B										
1111844-002	MW-2	Water	11/29/2011 11:15	<input type="checkbox"/>	C	A	B										
1111844-003	MW-3	Water	11/28/2011 12:10	<input type="checkbox"/>	C	A	B										
1111844-004	MW-4	Water	11/28/2011 13:50	<input type="checkbox"/>	C	A	B										
1111844-005	EW-2	Water	11/29/2011 12:00	<input type="checkbox"/>	C	A	B										
1111844-006	EW-4	Water	11/28/2011 15:10	<input type="checkbox"/>	C	A	B										
1111844-007	EW-5	Water	11/28/2011 14:35	<input type="checkbox"/>	C	A	B										
1111844-008	OW-2	Water	11/28/2011 13:00	<input type="checkbox"/>	C	A	B										

**Test Legend:**

1	9-OXYS_W	2	G-MBTEX_W	3	TPH(DMO)WSG_W	4		5	
6		7		8		9		10	
11		12							

**Prepared by: Melissa Valles**

**Comments:**

NOTE: Soil samples are discarded 60 days after results are reported unless other arrangements are made (Water samples are 30 days).  
 Hazardous samples will be returned to client or disposed of at client expense.



### Sample Receipt Checklist

Client Name: **P & D Environmental** Date and Time Received: **11/29/2011 3:50:06 PM**  
 Project Name: **#0058; Xtra Oil 1701 Park St./Alameda** Checklist completed and reviewed by: **Melissa Valles**  
 WorkOrder N°: **1111844** Matrix: Water Carrier: Benjamin Yslas (MAI Courier)

#### Chain of Custody (COC) Information

Chain of custody present? Yes  No   
 Chain of custody signed when relinquished and received? Yes  No   
 Chain of custody agrees with sample labels? Yes  No   
 Sample IDs noted by Client on COC? Yes  No   
 Date and Time of collection noted by Client on COC? Yes  No   
 Sampler's name noted on COC? Yes  No

#### Sample Receipt Information

Custody seals intact on shipping container/cooler? Yes  No  NA   
 Shipping container/cooler in good condition? Yes  No   
 Samples in proper containers/bottles? Yes  No   
 Sample containers intact? Yes  No   
 Sufficient sample volume for indicated test? Yes  No

#### Sample Preservation and Hold Time (HT) Information

All samples received within holding time? Yes  No   
 Container/Temp Blank temperature Cooler Temp: 3.4°C NA   
 Water - VOA vials have zero headspace / no bubbles? Yes  No  No VOA vials submitted   
 Sample labels checked for correct preservation? Yes  No   
 Metal - pH acceptable upon receipt (pH<2)? Yes  No  NA   
 Samples Received on Ice? Yes  No

(Ice Type: WET ICE )

\* NOTE: If the "No" box is checked, see comments below.

-----  
 Comments: 1 VOA from sample EW-2 received broken.



P & D Environmental  55 Santa Clara, Ste.240  Oakland, CA 94610	Client Project ID: #0058; Xtra Oil 1701 Park St./Alameda	Date Sampled: 11/28/11-11/29/11
	Client Contact: Steve Carmack	Date Received: 11/29/11
	Client P.O.:	Date Analyzed: 11/30/11
		Date Extracted: 11/30/11

**Oxygenated Volatile Organics + EDB and 1,2-DCA by P&T and GC/MS\***

Extraction Method: SW5030B

Analytical Method: SW8260B

Work Order: 1111844

Lab ID	1111844-001C	1111844-002C	1111844-003C	1111844-004C	Reporting Limit for DF = 1	
Client ID	MW-1	MW-2	MW-3	MW-4		
Matrix	W	W	W	W		
DF	20	3.3	1	3.3		

Compound	Concentration				ug/kg	µg/L
tert-Amyl methyl ether (TAME)	ND<10	ND<1.7	ND	ND<1.7	NA	0.5
t-Butyl alcohol (TBA)	460	72	ND	11	NA	2.0
1,2-Dibromoethane (EDB)	ND<10	ND<1.7	ND	ND<1.7	NA	0.5
1,2-Dichloroethane (1,2-DCA)	ND<10	ND<1.7	ND	ND<1.7	NA	0.5
Diisopropyl ether (DIPE)	ND<10	ND<1.7	ND	ND<1.7	NA	0.5
Ethanol	ND<1000	ND<170	ND	ND<170	NA	50
Ethyl tert-butyl ether (ETBE)	ND<10	ND<1.7	ND	ND<1.7	NA	0.5
Methanol	ND<10,000	ND<1700	ND	ND<1700	NA	500
Methyl-t-butyl ether (MTBE)	210	29	ND	12	NA	0.5

**Surrogate Recoveries (%)**

%SS1:	102	106	107	110
%SS2:	108	106	109	105

**Comments**

\* water and vapor samples are reported in µg/L, soil/sludge/solid samples in mg/kg, product/oil/non-aqueous liquid samples and all TCLP & SPLP extracts are reported in mg/L, wipe samples in µg/wipe.

ND means not detected above the reporting limit/method detection limit; N/A means analyte not applicable to this analysis; %SS = Percent Recovery of Surrogate Standard; DF = Dilution Factor

# surrogate diluted out of range or coelutes with another peak; &) low surrogate due to matrix interference.



P & D Environmental  55 Santa Clara, Ste.240  Oakland, CA 94610	Client Project ID: #0058; Xtra Oil 1701 Park St./Alameda	Date Sampled: 11/28/11-11/29/11
	Client Contact: Steve Carmack	Date Received: 11/29/11
	Client P.O.:	Date Analyzed: 11/30/11
		Date Extracted: 11/30/11

**Oxygenated Volatile Organics + EDB and 1,2-DCA by P&T and GC/MS\***

Extraction Method: SW5030B

Analytical Method: SW8260B

Work Order: 1111844

Lab ID	1111844-005C	1111844-006C	1111844-007C	1111844-008C	Reporting Limit for DF = 1	
Client ID	EW-2	EW-4	EW-5	OW-2		
Matrix	W	W	W	W		
DF	20	3.3	25	3.3		

Compound	Concentration				ug/kg	µg/L
tert-Amyl methyl ether (TAME)	ND<10	ND<1.7	ND<12	ND<1.7	NA	0.5
t-Butyl alcohol (TBA)	270	89	110	210	NA	2.0
1,2-Dibromoethane (EDB)	ND<10	ND<1.7	ND<12	ND<1.7	NA	0.5
1,2-Dichloroethane (1,2-DCA)	ND<10	ND<1.7	ND<12	ND<1.7	NA	0.5
Diisopropyl ether (DIPE)	ND<10	ND<1.7	ND<12	ND<1.7	NA	0.5
Ethanol	ND<1000	ND<170	ND<1200	ND<170	NA	50
Ethyl tert-butyl ether (ETBE)	ND<10	ND<1.7	ND<12	ND<1.7	NA	0.5
Methanol	ND<10,000	ND<1700	ND<12,000	ND<1700	NA	500
Methyl-t-butyl ether (MTBE)	270	16	48	50	NA	0.5

**Surrogate Recoveries (%)**

%SS1:	106	111	107	108
%SS2:	108	106	107	107

**Comments**

\* water and vapor samples are reported in µg/L, soil/sludge/solid samples in mg/kg, product/oil/non-aqueous liquid samples and all TCLP & SPLP extracts are reported in mg/L, wipe samples in µg/wipe.

ND means not detected above the reporting limit/method detection limit; N/A means analyte not applicable to this analysis; %SS = Percent Recovery of Surrogate Standard; DF = Dilution Factor

# surrogate diluted out of range or coelutes with another peak; &) low surrogate due to matrix interference.



P & D Environmental  55 Santa Clara, Ste.240  Oakland, CA 94610	Client Project ID: #0058; Xtra Oil 1701 Park St./Alameda	Date Sampled: 11/28/11-11/29/11
	Client Contact: Steve Carmack	Date Received: 11/29/11
	Client P.O.:	Date Extracted: 11/30/11-12/03/11
		Date Analyzed: 11/30/11-12/03/11

**Gasoline Range (C6-C12) Volatile Hydrocarbons as Gasoline with BTEX and MTBE\***

Extraction method: SW5030B

Analytical methods: SW8021B/8015Bm

Work Order: 1111844

Lab ID	Client ID	Matrix	TPH(g)	MTBE	Benzene	Toluene	Ethylbenzene	Xylenes	DF	% SS	Comments
001A	MW-1	W	18,000	ND<600	2600	410	410	1200	10	119	d1
002A	MW-2	W	4900	ND<50	400	11	39	7.7	5	105	d1
003A	MW-3	W	ND	ND	ND	ND	ND	ND	1	106	
004A	MW-4	W	6000	ND<50	86	63	350	1200	10	115	d1
005A	EW-2	W	4600	260	1600	15	62	38	5	115	d1
006A	EW-4	W	8300	ND<150	520	40	510	530	10	107	d1
007A	EW-5	W	48,000	ND<400	930	3400	2400	9000	50	112	d1
008A	OW-2	W	5300	ND<130	350	170	24	790	1	---#	d1

Reporting Limit for DF =1; ND means not detected at or above the reporting limit	W	50	5.0	0.5	0.5	0.5	0.5	0.5	µg/L
	S	1.0	0.05	0.005	0.005	0.005	0.005	0.005	mg/Kg

\* water and vapor samples are reported in ug/L, soil/sludge/solid samples in mg/kg, wipe samples in ug/wipe, product/oil/non-aqueous liquid samples and all TCLP & SPLP extracts in mg/L.

# cluttered chromatogram; sample peak coelutes w/surrogate peak; low surrogate recovery due to matrix interference. %SS = Percent Recovery of Surrogate Standard; DF = Dilution Factor

The following descriptions of the TPH chromatogram are cursory in nature and McC Campbell Analytical is not responsible for their interpretation:  
 d1) weakly modified or unmodified gasoline is significant



**McC Campbell Analytical, Inc.**

*"When Quality Counts"*

1534 Willow Pass Road, Pittsburg, CA 94565-1701  
Toll Free Telephone: (877) 252-9262 / Fax: (925) 252-9269  
http://www.mcccampbell.com / E-mail: main@mcccampbell.com

P & D Environmental  55 Santa Clara, Ste.240  Oakland, CA 94610	Client Project ID: #0058; Xtra Oil 1701 Park St./Alameda	Date Sampled: 11/28/11-11/29/11
	Client Contact: Steve Carmack	Date Received: 11/29/11
	Client P.O.:	Date Extracted: 11/29/11
		Date Analyzed: 11/30/11

**Total Extractable Petroleum Hydrocarbons with Silica Gel Clean-Up\***

Extraction method: SW3510C/3630C

Analytical methods: SW8015B

Work Order: 1111844

Lab ID	Client ID	Matrix	TPH-Diesel (C10-C23)	TPH-Motor Oil (C18-C36)	DF	% SS	Comments
1111844-001B	MW-1	W	2600	ND	1	116	e4
1111844-002B	MW-2	W	2900	420	1	109	e4,e1
1111844-003B	MW-3	W	ND	ND	1	105	
1111844-004B	MW-4	W	2200	ND	1	117	e4
1111844-005B	EW-2	W	960	ND	1	114	e4
1111844-006B	EW-4	W	2000	ND	1	120	e4
1111844-007B	EW-5	W	3500	ND	1	111	e4,e2
1111844-008B	OW-2	W	1100	ND	1	107	e4,e2

Reporting Limit for DF =1; ND means not detected at or above the reporting limit	W	50	250	µg/L
	S	NA	NA	mg/Kg

\* water samples are reported in µg/L, wipe samples in µg/wipe, soil/solid/sludge samples in mg/kg, product/oil/non-aqueous liquid samples in mg/L, and all DISTLC / STLC / SPLP / TCLP extracts are reported in µg/L.

#) cluttered chromatogram resulting in coeluted surrogate and sample peaks, or; surrogate peak is on elevated baseline, or; surrogate has been diminished by dilution of original extract; &) low or no surrogate due to matrix interference.

%SS = Percent Recovery of Surrogate Standard. DF = Dilution Factor

The following descriptions of the TPH chromatogram are cursory in nature and McC Campbell Analytical is not responsible for their interpretation:  
e1) unmodified or weakly modified diesel is significant  
e2) diesel range compounds are significant; no recognizable pattern  
e4) gasoline range compounds are significant.

 Angela Rydelius, Lab Manager



### QC SUMMARY REPORT FOR SW8260B

W.O. Sample Matrix: Water

QC Matrix: Water

BatchID: 63045

WorkOrder: 1111844

EPA Method: SW8260B		Extraction: SW5030B							Spiked Sample ID: 1111828-015B			
Analyte	Sample	Spiked	MS	MSD	MS-MSD	LCS	LCSD	LCS-LCSD	Acceptance Criteria (%)			
	µg/L	µg/L	% Rec.	% Rec.	% RPD	% Rec.	% Rec.	% RPD	MS / MSD	RPD	LCS/LCSD	RPD
tert-Amyl methyl ether (TAME)	ND	10	88.8	90	1.33	95.4	96.6	1.24	70 - 130	30	70 - 130	30
t-Butyl alcohol (TBA)	ND	50	98	97	1.02	118	123	3.85	70 - 130	30	70 - 130	30
1,2-Dibromoethane (EDB)	ND	10	93.3	96.4	3.20	107	108	1.14	70 - 130	30	70 - 130	30
1,2-Dichloroethane (1,2-DCA)	0.96	10	103	103	0	110	112	1.64	70 - 130	30	70 - 130	30
Diisopropyl ether (DIPE)	ND	10	104	105	0.592	106	109	2.51	70 - 130	30	70 - 130	30
Ethyl tert-butyl ether (ETBE)	ND	10	88.9	89.2	0.420	93.7	94.7	1.02	70 - 130	30	70 - 130	30
Methyl-t-butyl ether (MTBE)	ND	10	108	109	1.21	113	113	0	70 - 130	30	70 - 130	30
%SS1:	108	25	105	104	0.941	107	107	0	70 - 130	30	70 - 130	30
%SS2:	106	25	106	105	0.0835	107	108	0.859	70 - 130	30	70 - 130	30

All target compounds in the Method Blank of this extraction batch were ND less than the method RL with the following exceptions:  
 NONE

#### BATCH 63045 SUMMARY

Lab ID	Date Sampled	Date Extracted	Date Analyzed	Lab ID	Date Sampled	Date Extracted	Date Analyzed
1111844-001C	11/29/11 10:30 AM	11/30/11	11/30/11 5:43 PM	1111844-002C	11/29/11 11:15 AM	11/30/11	11/30/11 6:21 PM
1111844-003C	11/28/11 12:10 PM	11/30/11	11/30/11 8:16 PM	1111844-004C	11/28/11 1:50 PM	11/30/11	11/30/11 8:55 PM

MS = Matrix Spike; MSD = Matrix Spike Duplicate; LCS = Laboratory Control Sample; LCSD = Laboratory Control Sample Duplicate; RPD = Relative Percent Deviation.  
 $\% \text{ Recovery} = 100 * (\text{MS-Sample}) / (\text{Amount Spiked}); \text{RPD} = 100 * (\text{MS} - \text{MSD}) / ((\text{MS} + \text{MSD}) / 2).$   
 MS / MSD spike recoveries and / or %RPD may fall outside of laboratory acceptance criteria due to one or more of the following reasons: a) the sample is inhomogenous AND contains significant concentrations of analyte relative to the amount spiked, or b) the spiked sample's matrix interferes with the spike recovery.  
 N/A = not enough sample to perform matrix spike and matrix spike duplicate.  
 NR = analyte concentration in sample exceeds spike amount for soil matrix or exceeds 2x spike amount for water matrix or sample diluted due to high matrix or analyte content.  
 Laboratory extraction solvents such as methylene chloride and acetone may occasionally appear in the method blank at low levels.



### QC SUMMARY REPORT FOR SW8015B

W.O. Sample Matrix: Water

QC Matrix: Water

BatchID: 63063

WorkOrder: 1111844

EPA Method: SW8015B		Extraction: SW3510C/3630C							Spiked Sample ID: N/A			
Analyte	Sample	Spiked	MS	MSD	MS-MSD	LCS	LCSD	LCS-LCSD	Acceptance Criteria (%)			
	µg/L	µg/L	% Rec.	% Rec.	% RPD	% Rec.	% Rec.	% RPD	MS / MSD	RPD	LCS/LCSD	RPD
TPH-Diesel (C10-C23)	N/A	1000	N/A	N/A	N/A	104	105	0.526	N/A	N/A	70 - 130	30
%SS:	N/A	625	N/A	N/A	N/A	97	96	0.796	N/A	N/A	70 - 130	30

All target compounds in the Method Blank of this extraction batch were ND less than the method RL with the following exceptions:  
 NONE

#### BATCH 63063 SUMMARY

Lab ID	Date Sampled	Date Extracted	Date Analyzed	Lab ID	Date Sampled	Date Extracted	Date Analyzed
1111844-001B	11/29/11 10:30 AM	11/29/11	11/30/11 5:15 AM	1111844-002B	11/29/11 11:15 AM	11/29/11	11/30/11 3:30 PM
1111844-003B	11/28/11 12:10 PM	11/29/11	11/30/11 2:44 AM	1111844-004B	11/28/11 1:50 PM	11/29/11	11/30/11 6:26 AM
1111844-005B	11/29/11 12:00 PM	11/29/11	11/30/11 8:52 AM	1111844-006B	11/28/11 3:10 PM	11/29/11	11/30/11 9:41 PM
1111844-007B	11/28/11 2:35 PM	11/29/11	11/30/11 12:08 PM	1111844-008B	11/28/11 1:00 PM	11/29/11	11/30/11 1:30 AM

MS = Matrix Spike; MSD = Matrix Spike Duplicate; LCS = Laboratory Control Sample; LCSD = Laboratory Control Sample Duplicate; RPD = Relative Percent Deviation.  
 % Recovery = 100 \* (MS-Sample) / (Amount Spiked); RPD = 100 \* (MS - MSD) / ((MS + MSD) / 2).  
 MS / MSD spike recoveries and / or %RPD may fall outside of laboratory acceptance criteria due to one or more of the following reasons: a) the sample is inhomogenous AND contains significant concentrations of analyte relative to the amount spiked, or b) the spiked sample's matrix interferes with the spike recovery.  
 N/A = not enough sample to perform matrix spike and matrix spike duplicate.  
 NR = analyte concentration in sample exceeds spike amount for soil matrix or exceeds 2x spike amount for water matrix or sample diluted due to high matrix or analyte content.



**QC SUMMARY REPORT FOR SW8260B**

W.O. Sample Matrix: Water

QC Matrix: Water

BatchID: 63064

WorkOrder: 1111844

EPA Method: SW8260B		Extraction: SW5030B							Spiked Sample ID: 1111867-003A			
Analyte	Sample	Spiked	MS	MSD	MS-MSD	LCS	LCSD	LCS-LCSD	Acceptance Criteria (%)			
	µg/L	µg/L	% Rec.	% Rec.	% RPD	% Rec.	% Rec.	% RPD	MS / MSD	RPD	LCS/LCSD	RPD
tert-Amyl methyl ether (TAME)	ND	10	76.3	94.7	21.5	92.9	90.6	2.57	70 - 130	30	70 - 130	30
t-Butyl alcohol (TBA)	ND	50	90.6	116	24.4	84	89	5.84	70 - 130	30	70 - 130	30
1,2-Dibromoethane (EDB)	ND	10	82.2	93.9	13.2	103	99.2	3.47	70 - 130	30	70 - 130	30
1,2-Dichloroethane (1,2-DCA)	ND	10	82.9	91.1	9.42	100	96.8	3.35	70 - 130	30	70 - 130	30
Diisopropyl ether (DIPE)	ND	10	92.5	103	11.2	105	101	4.12	70 - 130	30	70 - 130	30
Ethyl tert-butyl ether (ETBE)	ND	10	81.1	96.1	16.9	103	101	2.02	70 - 130	30	70 - 130	30
Methyl-t-butyl ether (MTBE)	ND	10	92	112	19.9	97.8	99.1	1.34	70 - 130	30	70 - 130	30
%SS1:	99	25	100	100	0	91	89	1.52	70 - 130	30	70 - 130	30
%SS2:	103	25	106	101	4.03	113	114	0.233	70 - 130	30	70 - 130	30

All target compounds in the Method Blank of this extraction batch were ND less than the method RL with the following exceptions:  
 NONE

**BATCH 63064 SUMMARY**

Lab ID	Date Sampled	Date Extracted	Date Analyzed	Lab ID	Date Sampled	Date Extracted	Date Analyzed
1111844-005C	11/29/11 12:00 PM	11/30/11	11/30/11 9:34 PM	1111844-006C	11/28/11 3:10 PM	11/30/11	11/30/11 10:12 PM
1111844-007C	11/28/11 2:35 PM	11/30/11	11/30/11 10:49 PM	1111844-008C	11/28/11 1:00 PM	11/30/11	11/30/11 11:27 PM

MS = Matrix Spike; MSD = Matrix Spike Duplicate; LCS = Laboratory Control Sample; LCSD = Laboratory Control Sample Duplicate; RPD = Relative Percent Deviation.  
 $\% \text{ Recovery} = 100 * (\text{MS-Sample}) / (\text{Amount Spiked}); \text{RPD} = 100 * (\text{MS} - \text{MSD}) / ((\text{MS} + \text{MSD}) / 2).$   
 MS / MSD spike recoveries and / or %RPD may fall outside of laboratory acceptance criteria due to one or more of the following reasons: a) the sample is inhomogenous AND contains significant concentrations of analyte relative to the amount spiked, or b) the spiked sample's matrix interferes with the spike recovery.  
 N/A = not enough sample to perform matrix spike and matrix spike duplicate.  
 NR = analyte concentration in sample exceeds spike amount for soil matrix or exceeds 2x spike amount for water matrix or sample diluted due to high matrix or analyte content.  
 Laboratory extraction solvents such as methylene chloride and acetone may occasionally appear in the method blank at low levels.



**QC SUMMARY REPORT FOR SW8021B/8015Bm**

W.O. Sample Matrix: Water

QC Matrix: Water

BatchID: 63044

WorkOrder: 1111844

EPA Method: SW8021B/8015Bm		Extraction: SW5030B							Spiked Sample ID: 1111828-014A			
Analyte	Sample	Spiked	MS	MSD	MS-MSD	LCS	LCSD	LCS-LCSD	Acceptance Criteria (%)			
	µg/L	µg/L	% Rec.	% Rec.	% RPD	% Rec.	% Rec.	% RPD	MS / MSD	RPD	LCS/LCSD	RPD
TPH(btex) £	ND	60	125	127	1.07	128	125	2.00	70 - 130	20	70 - 130	20
MTBE	ND	10	98.8	105	6.02	102	110	7.28	70 - 130	20	70 - 130	20
Benzene	ND	10	112	116	3.97	117	110	5.74	70 - 130	20	70 - 130	20
Toluene	ND	10	110	113	2.69	116	109	6.32	70 - 130	20	70 - 130	20
Ethylbenzene	ND	10	112	114	1.64	117	109	6.34	70 - 130	20	70 - 130	20
Xylenes	ND	30	116	117	0.735	119	113	5.66	70 - 130	20	70 - 130	20
%SS:	106	10	91	99	7.91	101	96	4.85	70 - 130	20	70 - 130	20

All target compounds in the Method Blank of this extraction batch were ND less than the method RL with the following exceptions:  
 NONE

BATCH 63044 SUMMARY

Lab ID	Date Sampled	Date Extracted	Date Analyzed	Lab ID	Date Sampled	Date Extracted	Date Analyzed
1111844-001A	11/29/11 10:30 AM	11/30/11	11/30/11 2:44 PM	1111844-002A	11/29/11 11:15 AM	12/01/11	12/01/11 12:30 PM
1111844-003A	11/28/11 12:10 PM	11/30/11	11/30/11 3:43 PM	1111844-004A	11/28/11 1:50 PM	12/03/11	12/03/11 3:19 AM
1111844-005A	11/29/11 12:00 PM	12/03/11	12/03/11 3:49 AM				

MS = Matrix Spike; MSD = Matrix Spike Duplicate; LCS = Laboratory Control Sample; LCSD = Laboratory Control Sample Duplicate; RPD = Relative Percent Deviation.  
 % Recovery = 100 \* (MS-Sample) / (Amount Spiked); RPD = 100 \* (MS - MSD) / ((MS + MSD) / 2).  
 MS / MSD spike recoveries and / or %RPD may fall outside of laboratory acceptance criteria due to one or more of the following reasons: a) the sample is inhomogenous AND contains significant concentrations of analyte relative to the amount spiked, or b) the spiked sample's matrix interferes with the spike recovery.  
 £ TPH(btex) = sum of BTEX areas from the FID.  
 # cluttered chromatogram; sample peak coelutes with surrogate peak.  
 N/A = not enough sample to perform matrix spike and matrix spike duplicate.  
 NR = matrix interference and/or analyte concentration in sample exceeds spike amount for soil matrix or exceeds 2x spike amount for water matrix or sample diluted due to high matrix or analyte content, or inconsistency in sample containers.



**QC SUMMARY REPORT FOR SW8021B/8015Bm**

W.O. Sample Matrix: Water

QC Matrix: Water

BatchID: 63061

WorkOrder: 1111844

EPA Method: SW8021B/8015Bm		Extraction: SW5030B							Spiked Sample ID: 1111880-055A			
Analyte	Sample	Spiked	MS	MSD	MS-MSD	LCS	LCSD	LCS-LCSD	Acceptance Criteria (%)			
	µg/L	µg/L	% Rec.	% Rec.	% RPD	% Rec.	% Rec.	% RPD	MS / MSD	RPD	LCS/LCSD	RPD
TPH(btex) <sup>£</sup>	ND	60	92.7	95.3	2.71	92.4	91.2	1.22	70 - 130	20	70 - 130	20
MTBE	ND	10	102	110	7.47	104	101	3.07	70 - 130	20	70 - 130	20
Benzene	ND	10	122	123	1.00	121	118	2.61	70 - 130	20	70 - 130	20
Toluene	ND	10	105	108	2.30	106	104	2.00	70 - 130	20	70 - 130	20
Ethylbenzene	ND	10	107	109	1.19	106	107	0.194	70 - 130	20	70 - 130	20
Xylenes	ND	30	122	123	1.20	121	121	0	70 - 130	20	70 - 130	20
%SS:	103	10	103	106	2.62	106	104	1.52	70 - 130	20	70 - 130	20

All target compounds in the Method Blank of this extraction batch were ND less than the method RL with the following exceptions:  
 NONE

BATCH 63061 SUMMARY

Lab ID	Date Sampled	Date Extracted	Date Analyzed	Lab ID	Date Sampled	Date Extracted	Date Analyzed
1111844-006A	11/28/11 3:10 PM	12/03/11	12/03/11 5:18 AM	1111844-007A	11/28/11 2:35 PM	11/30/11	11/30/11 7:07 PM
1111844-008A	11/28/11 1:00 PM	11/30/11	11/30/11 7:36 PM				

MS = Matrix Spike; MSD = Matrix Spike Duplicate; LCS = Laboratory Control Sample; LCSD = Laboratory Control Sample Duplicate; RPD = Relative Percent Deviation.  
 $\% \text{ Recovery} = 100 * (\text{MS-Sample}) / (\text{Amount Spiked}); \text{RPD} = 100 * (\text{MS} - \text{MSD}) / ((\text{MS} + \text{MSD}) / 2).$   
 MS / MSD spike recoveries and / or %RPD may fall outside of laboratory acceptance criteria due to one or more of the following reasons: a) the sample is inhomogenous AND contains significant concentrations of analyte relative to the amount spiked, or b) the spiked sample's matrix interferes with the spike recovery.  
 £ TPH(btex) = sum of BTEX areas from the FID.  
 # cluttered chromatogram; sample peak coelutes with surrogate peak.  
 N/A = not enough sample to perform matrix spike and matrix spike duplicate.  
 NR = matrix interference and/or analyte concentration in sample exceeds spike amount for soil matrix or exceeds 2x spike amount for water matrix or sample diluted due to high matrix or analyte content, or inconsistency in sample containers.

# **APPENDIX A**

TABLE 1 - SUMMARY OF GROUNDWATER SAMPLING  
 XTRA OIL COMPANY SERVICE STATION  
 1701 PARK STREET, ALAMEDA, CALIFORNIA

ALISTO PROJECT NO. 10-210

WELL ID	DATE OF MONITORING/SAMPLING	CASING ELEVATION (Feet)	DEPTH TO WATER (Feet)	PRODUCT THICKNESS (Feet)	GROUNDWATER ELEVATION (Feet)	TPH-G (ug/l)	TPH-D (ug/l)	B (ug/l)	T (ug/l)	E (ug/l)	X (ug/l)	MTBE (ug/l)	OTHER SVOCs (ug/l)	NAPHTHALENE (ug/l)	BENZO-PYRENE (ug/l)	DO (ppm)	LAB
MW-1	11/04/94	19.60	8.6	---	10.96	60000	6400	13000	4900	1300	5500	---	---	---	---	---	MCC
QC-1 (c)	11/04/94	---	---	---	---	54000	---	12000	4500	1200	5200	---	---	---	---	---	MCC
MW-1	01/11/95	19.60	6.10	---	13.50	---	---	---	---	---	---	---	---	---	---	---	---
MW-1	02/24/95	19.60	6.57	---	13.03	56000	4400	13000	7000	1400	5100	---	---	---	---	---	MCC
QC-1 (c)	02/24/95	---	---	---	---	43000	---	8900	4600	970	3300	---	---	---	---	---	MCC
MW-1	05/25/95	19.60	6.54	---	13.06	53000	4700	11000	5700	1200	4000	---	---	---	---	---	MCC
QC-1 (c)	05/25/95	---	---	---	---	48000	---	11000	5300	1200	3800	---	---	---	---	---	4.3
MW-1	08/30/95	19.60	8.15	---	11.45	14000	3700	5000	1100	3900	103	---	---	---	---	---	MCC
QC-1 (c)	08/30/95	---	---	---	---	57000	---	17000	7000	1500	5200	---	---	---	---	---	2.8
MW-1	11/18/95	19.60	8.79	---	10.81	100000	5900	22000	17000	2100	8500	---	---	---	---	---	MCC
QC-1 (c)	11/18/95	---	---	---	---	95000	---	20000	15000	1800	7800	---	---	---	---	---	MCC
MW-1	03/20/96	19.60	6.45	---	13.15	46000	3300	10000	6200	1100	3200	---	---	---	---	---	MCC
QC-1 (c)	03/20/96	---	---	---	---	42000	---	8800	5800	970	3000	---	---	---	---	---	MCC
MW-1	06/13/96	19.60	7.14	---	12.46	44000	5400	9500	5500	1100	4000	19000	---	---	---	---	MCC
QC-1 (c)	06/13/96	---	---	---	---	45000	---	8500	5300	1000	3800	---	---	---	---	---	MCC
MW-1	09/23/96	19.60	7.56	---	12.04	76000	14000	14000	11000	1600	7100	17000	---	---	---	---	6.1
MW-1	12/19/96	19.60	7.08	---	12.52	46000	---	12000	5500	1200	4100	---	---	---	---	---	MCC
MW-1	05/09/97	19.60	7.39	---	12.21	80000	7500	14000	12000	1700	7600	14000	ND	280	ND<2	2.7	MCC/CHR
MW-1	09/11/97	19.60	7.50	---	12.10	100000	7700	19000	19000	2400	11000	ND<2100	---	---	---	---	7.2
MW-1	12/15/97	19.60	7.61	---	11.99	45000	3500	11000	5300	1500	5200	13000	---	---	---	---	6.8
QC-1 (c)	12/15/97	---	---	---	---	45000	---	11000	5400	1400	5100	14000	---	---	---	---	MCC
MW-1	03/11/98	19.60	6.35	---	14.25	40000	3800	5900	3500	1300	4900	8700	---	---	---	---	6
QC-1 (c)	03/11/98	---	---	---	---	43000	---	7200	5000	1400	5300	14000	---	---	---	---	MCC
MW-1	06/23/98	19.60	5.63	---	12.97	44000	3700	5900	6200	1800	6200	870	---	---	---	---	6.2
QC-1 (c)	06/23/98	---	---	---	---	47000	---	6000	6400	1800	6300	1000	---	---	---	---	MCC
MW-1	12/01/98	19.60	6.48	---	13.12	57000	---	7400	12000	2100	8200	7200	---	---	---	---	2.4
QC-1 (c)	12/01/98	---	---	---	---	57000	---	6800	11000	1900	7500	8300	---	---	---	---	MCC
MW-1	03/30/99	19.60	5.74	---	13.86	67000	6500	5700	9400	2500	9400	3200	---	---	---	---	2.1
QC-1 (c)	03/30/99	---	---	---	---	64000	6400	5500	9000	2400	9100	3100	---	---	---	---	MCC
MW-1	08/16/99	19.60	7.02	---	12.58	63000	---	3800	9100	2800	11000	ND<1700	---	---	---	---	1.3
QC-1 (c)	08/16/99	---	---	---	---	64000	---	3700	8800	2800	11000	ND<1400	---	---	---	---	MCC
MW-1	12/31/99	19.60	7.45	---	12.15	62000	5100	2900	9400	2700	11000	ND<100	---	---	---	---	8.3
QC-1 (c)	12/31/99	---	---	---	---	67000	4900	2900	9700	2800	12000	ND<100	---	---	---	---	MCC
MW-1	03/31/00	19.60	5.85	---	13.75	48000	490	3200	5500	2000	6700	520	---	---	---	---	7.9
QC-1 (c)	03/31/00	---	---	---	---	54000	3300	3500	6000	2300	7300	730	---	---	---	---	MCC
MW-1	07/14/00	19.60	7.00	---	12.60	79000	5700	5600	4900	2300	9500	ND<200	---	---	---	---	3.2
QC-1 (c)	07/14/00	---	---	---	---	72000	---	4900	14000	2100	9200	ND<200	---	---	---	---	MCC
MW-1	10/04/00	19.60	7.60	---	12.00	65000	2900	3800	11000	2400	8200	ND<100	---	---	---	---	1.4
QC-1 (c)	10/04/00	---	---	---	---	68000	---	3900	13000	2400	9300	ND<100	---	---	---	---	MCC
MW-1	12/21/00	19.60	6.91	---	12.99	74000	2500	3800	17000	3400	15000	ND<200	---	---	---	---	1.3
QC-1 (c)	12/21/00	---	---	---	---	69000	---	2700	12000	2400	11000	ND<550	---	---	---	---	MCC
MW-1	04/13/01	19.60	6.06	---	13.54	55000	2400	2900	7800	2400	9400	ND<900	---	---	---	---	0.8
QC-1 (c)	04/13/01	---	---	---	---	51000	---	2300	8000	2900	7900	ND<350	---	---	---	---	MCC
MW-1	06/27/01	19.60	6.54	---	13.06	80000	3600	2800	13000	2300	10000	ND<250	---	---	---	---	1.1
QC-1 (c)	06/27/01	---	---	---	---	76000	---	3100	13000	2300	10000	ND<250	---	---	---	---	MCC
MW-1	09/20/01	19.60	7.08	---	12.52	74000	6600	1600	7700	2500	10000	ND<200	---	---	---	---	0.8
QC-1 (c)	09/20/01	---	---	---	---	67000	---	1600	7800	2600	10000	ND<200	---	---	---	---	MCC
MW-1	12/21/01	19.60	5.71	---	13.89	58000	5500	2100	11000	2400	10000	ND<720	---	---	---	---	1.4
QC-1 (c)	12/21/01	---	---	---	---	56000	---	2100	11000	2300	10000	ND<620	---	---	---	---	MCC
MW-1	02/04/02	19.60	5.01	---	14.59	6500	1800	74	100	230	1500	140	---	---	---	---	4.1
QC-1 (c)	02/04/02	---	---	---	---	8000	---	90	130	270	1800	ND<500	---	---	---	---	MCC
MW-1	05/07/02	19.60	6.10	---	13.50	41000	7900	1300	5200	1700	6300	ND<1000	---	---	---	---	4.3
QC-1 (c)	05/07/02	---	---	---	---	40000	---	1300	5200	1700	6400	ND<500	---	---	---	---	MCC
MW-1	09/22/02	19.60	6.91	---	12.89	42000	4800	1100	6300	1900	7900	ND<500	---	---	---	---	4.9
QC-1 (c)	09/22/02	---	---	---	---	40000	---	1000	6100	1800	7500	ND<500	---	---	---	---	MCC
MW-1	11/08/02	19.60	6.46	---	13.14	39000	6800	770	4600	1600	6600	ND<1000	---	---	---	---	MCC
QC-1 (c)	11/08/02	---	---	---	---	49000	---	880	4800	1800	6700	ND<1700	---	---	---	---	MCC
MW-1	02/07/03	19.60	5.80	---	13.80	43000	3700	1600	5100	2100	9700	ND<500	---	---	---	---	1.1
MW-1	05/02/03	19.60	5.60	---	14.00	48000	4600	1100	5900	1800	7300	ND<1000	---	---	---	---	MCC
QC-1 (c)	05/02/03	---	---	---	---	---	---	1200	5800	1800	7100	ND<500	---	---	---	---	MCC
MW-1	08/14/03	19.60	6.81	---	12.79	42000	3800	1000	4700	2000	8100	ND<500	---	---	---	---	1.3
QC-1 (c)	08/14/03	---	---	---	---	43000	---	1000	4600	2000	7900	ND<500	---	---	---	---	MCC
MW-1	11/14/03	19.60	6.71	---	12.88	40000	3000	610	4900	1900	7600	ND<500	---	---	---	---	MCC
MW-1	03/01/04	19.60	5.22	---	14.38	20000	3000	540	2500	720	2900	ND<50	---	---	---	---	0.8
MW-1	06/30/04	19.60	6.38	---	13.22	38000	3000	570	2900	2100	8200	ND<500	---	---	---	---	MCC
QC-1 (c)	06/30/04	---	---	---	---	---	---	6800	550	3200	2100	9100	ND<500	---	---	---	MCC
MW-1	10/26/04	19.60	6.00	---	13.60	35000	4400	510	2900	1900	5700	ND<150	---	---	---	---	2.7
QC-1 (c)	10/26/04	---	---	---	---	---	---	450	2700	1600	5500	ND<150	---	---	---	---	MCC
MW-1	03/24/05	19.60	5.04	---	14.56	29000	3300	1300	5500	1200	4900	ND<500	---	---	---	---	2.7
QC-1 (c)	03/24/05	---	---	---	---	31000	---	830	3800	1900	4500	ND<210	---	---	---	---	MCC
MW-1	06/14/05	19.60	5.45	---	14.15	23000	4300	1300	2700	810	2700	ND<500	---	---	---	---	2.9
QC-1 (c)	06/14/05	---	---	---	---	---	---	1400	3100	810	2900	ND<250	---	---	---	---	MCC
MW-1	09/12/05	19.60	7.89	---	11.71	60000	4600	4900	8200	1900	7300	2300	---	---	---	---	2.6
QC-1 (c)	09/12/05	---	---	---	---	58000	---	5000	8500	1900	7300	2200	---	---	---	---	MCC
MW-1	01/04/06	19.60	6.09	---	13.51	54000	2900	8800	3500	970	3700	5400	---	---	---	---	MCC
QC-1 (c)	01/04/06	---	---	---	---	46000	---	8500	3500	970	3700	5200	---	---	---	---	MCC
MW-1	04/04/06	19.60	5.71	<0.01	13.89	31000	2500	6700	2800	1600	6600	5400	---	---	---	---	MCC
QC-1 (c)	04/04/06	---	---	---	---	31000	---	6900	2900	1000	2800	5800	---	---	---	---	MCC
MW-1	06/12/06	19.60	6.66	sheen	12.94	31000	3100	4800	2200	910	2600	3900	---	---	---	---	MCC
QC-1 (c)	06/12/06	---	---	---	---	31000	---	5700	2300	850	2400	4900	---	---	---	---	MCC
MW-1	09/08/06	19.60	7.78	sheen	11.82	34000	3000	7900	1800	780	2300	6200	---	---	---	---	MCC
QC-1 (c)	09/08/06	---	---	---	---	39000	---	6300	1600	680	2000	5200	---	---	---	---	MCC

TABLE 1 - SUMMARY OF GROUNDWATER SAMPLING  
 XTRA OIL COMPANY SERVICE STATION  
 1701 PARK STREET, ALAMEDA, CALIFORNIA

ALISTO PROJECT NO. 10-210

WELL ID	DATE OF MONITORING/ SAMPLING	CASING ELEVATION (Feet)	DEPTH TO WATER (a) (Feet)	PRODUCT THICKNESS (Feet)	GROUNDWATER ELEVATION (b) (Feet)	TPH-G (ug/l)	TPH-D (ug/l)	B (ug/l)	T (ug/l)	E (ug/l)	X (ug/l)	MTBE (ug/l)	OTHER SVOCs (ug/l)	NAPHTHALENE (ug/l)	BENZO-PYRENE (ug/l)	DO (ppm)	LAB	
MW-2	11/04/84	20.31	9.12	0.16	11.31	—	—	—	—	—	—	—	—	—	—	—	—	
MW-2	01/11/95	20.31	6.75	—	13.56	—	—	—	—	—	—	—	—	—	—	—	—	
MW-2	02/24/95	20.31	7.11	0.18	13.34	—	—	—	—	—	—	—	—	—	—	—	—	
MW-2	05/25/95	20.31	7.01	0.01	13.31	—	—	—	—	—	—	—	—	—	—	—	—	
MW-2	08/30/95	20.31	6.58	0.12	11.82	—	—	—	—	—	—	—	—	—	—	—	—	
MW-2	11/16/95	20.31	6.07	0.01	11.26	—	—	—	—	—	—	—	—	—	—	—	—	
MW-2	03/20/96	20.31	6.79	0.01	13.53	—	—	—	—	—	—	—	—	—	—	—	—	
MW-2	06/13/96	20.31	7.41	0.01	12.91	—	—	—	—	—	—	—	—	—	—	—	—	
MW-2	09/23/96	20.31	7.83	0.01	12.49	30000	19000	4600	180	1500	4100	2600	—	—	—	5.5	MCC	
QC-1 (c)	09/23/96	—	—	—	—	33000	—	4700	170	1600	3900	2400	—	—	—	—	MCC	
MW-2	12/19/96	20.31	7.37	0.01	12.95	29000	—	1800	240	1400	5400	(d)	—	—	ND<10	—	MCC	
QC-1 (c)	12/19/96	—	—	—	—	29000	—	580	210	1300	5100	—	—	—	—	—	MCC	
MW-2	05/09/97	20.31	6.11	0.21	14.36	34000	6700000	4600	260	1500	4300	1600	—	—	—	3.7	MCC	
MW-2	09/11/97	20.31	7.70	0.03	12.63	44000	1200000	3900	250	2400	7400	ND<610	—	—	—	6.5	MCC	
QC-1 (c)	09/11/97	—	—	—	—	47000	1100000	4000	420	2700	8300	920	—	—	—	—	MCC	
MW-2	12/15/97	20.31	7.87	0.03	12.46	32000	68000	4600	130	2200	5400	ND<470	—	—	—	6	MCC	
MW-2	03/11/98	20.31	5.61	0.18	14.84	44000	3800	5200	220	2000	5000	1100	—	—	—	6.2	MCC	
MW-2	06/23/98	20.31	6.74	0.02	13.59	75000	570000	5900	390	3100	8300	8400	—	—	—	6.3	MCC	
MW-2	12/01/98	20.31	7.30	—	13.01	36000	—	3800	73	1500	3900	2000	—	—	—	1.9	MCC	
MW-2	03/30/99	20.31	6.51	0.13	13.90	23000	23000	5000	100	610	870	21000	—	—	—	1.7	MCC	
MW-2	08/16/99	20.31	8.04	0.21	12.43	30000	—	5200	67	1100	1800	6000	—	—	—	2.6	MCC	
MW-2	12/31/99	20.31	8.20	0.01	12.12	43000	340000	7600	97	1400	2500	4300	—	—	—	9.0	MCC	
MW-2	03/31/00	20.31	6.29	0.01	14.03	26000	200000	4000	58	1100	1500	13000	—	—	—	8.1	MCC	
MW-2	07/14/00	20.31	8.02	—	12.29	35000	170000	5000	76	1100	2500	4900	—	—	—	3.9	MCC	
MW-2	10/04/00	20.31	8.62	—	11.89	22000	67000	4700	97	1300	1000	1900	—	—	—	1.8	MCC	
MW-2	12/21/00	20.31	7.70	—	12.61	23000	16000	3700	85	770	490	8600	—	220	ND<10	0.6	MCC	
MW-2	04/13/01	20.31	7.05	—	13.26	25000	21000	6400	79	790	670	8300	—	—	—	1.1	MCC	
MW-2	06/27/01	20.31	7.50	—	12.81	34000	10000	5400	100	520	370	6800	—	—	—	0.7	MCC	
MW-2	09/20/01	20.31	8.10	—	12.21	28000	64000	4600	78	670	500	2000	—	—	—	0.4	MCC	
MW-2	12/21/01	20.31	6.66	—	13.65	30000	18000	3000	52	1700	970	ND<100	—	—	—	0.9	MCC	
MW-2	02/04/02	20.31	6.75	—	13.56	17000	35000	3600	ND<50	960	500	1200	—	—	—	1.3	MCC	
MW-2	05/07/02	20.31	7.20	—	13.11	16000	59000	3500	43	520	220	3100	—	—	—	1.0	MCC	
MW-2	08/22/02	20.31	7.98	—	12.35	15000	60000	2700	30	460	220	700	—	—	—	4.2	MCC	
MW-2	11/08/02	20.31	7.66	—	12.62	15000	100000	2100	60	1100	150	ND<250	—	—	—	—	MCC	
MW-2	02/07/03	20.31	6.52	—	13.79	11000	—	4400	24	ND<12	77	1900	—	—	—	0.7	MCC	
MW-2	05/02/03	20.31	6.40	—	13.91	16000	79000	1800	23	860	210	ND<350	—	—	—	—	MCC	
MW-2	08/14/03	20.31	7.77	—	12.54	13000	4300	1600	21	450	80	ND<400	—	—	—	0.9	MCC	
MW-2	11/14/03	20.31	7.85	—	12.46	12000	13000	1700	29	600	100	ND<600	—	—	—	0.7	MCC	
MW-2	03/01/04	20.31	6.10	—	14.21	17000	43000	3900	100	670	430	1800	—	—	—	0.42	MCC	
MW-2	06/30/04	20.31	7.61	—	12.70	14000	12000	3800	33	390	72	1900	—	—	—	—	MCC	
MW-2	10/20/04	20.31	7.12	—	13.19	14000	7900	3700	47	300	100	1700	—	—	—	—	MCC	
MW-2	03/24/05	20.31	5.78	—	14.63	15000	57000	3000	ND<25	400	58	ND<900	—	—	—	—	MCC	
MW-2	06/14/05	20.31	6.92	—	13.39	15000	53000	2100	31	310	49	530	—	—	—	0.8	MCC	
MW-2	09/12/05	20.31	8.25	0.01	12.06	10000	11000	2600	30	200	ND<10	660	—	—	—	2.6	MCC	
MW-2	01/04/06	(g)	20.31	6.45	<0.01	13.86	7300	14000	1500	18	180	47	ND<250	—	—	—	—	MCC
MW-2	04/04/06	(h)	20.31	6.14	—	14.17	9500	130000	2200	35	170	52	ND<250	—	—	—	—	MCC
MW-2	06/12/06	20.31	7.15	0.01	13.16	10000	29000	2200	46	74	59	460	—	—	—	—	MCC	
MW-2	09/08/06	20.31	8.22	sheen	12.09	12000	7400	1800	25	130	38	ND<300	—	—	—	—	MCC	
MW-3	11/04/84	20.57	8.92	—	11.65	ND<50	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	—	—	—	—	—	MCC	
MW-3	01/11/95	20.57	5.67	—	14.90	—	—	—	—	—	—	—	—	—	—	—	—	
MW-3	02/24/95	20.57	6.11	—	14.46	ND<50	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	—	—	—	—	—	MCC	
MW-3	05/25/95	20.57	6.24	—	14.33	91	ND<50	28.0	12.0	2.1	6.5	—	—	—	—	—	MCC	
MW-3	08/30/95	20.57	8.27	—	12.30	ND<50	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	—	—	—	—	—	4.6	MCC
MW-3	11/16/95	20.57	8.82	—	11.75	ND<50	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	—	—	—	—	—	MCC	
MW-3	03/20/96	20.57	5.44	—	15.13	ND<50	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	—	—	—	—	—	MCC	
MW-3	06/13/96	20.57	6.17	—	14.40	ND<50	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0	—	—	—	—	MCC	
MW-3	09/23/96	20.57	6.57	—	14.00	ND<50	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0	—	—	—	—	4.9	MCC
MW-3	12/19/96	20.57	6.59	—	13.98	ND<50	—	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	—	—	—	—	MCC	
MW-3	05/09/97	20.57	7.00	—	13.57	ND<50	59	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0	—	—	—	—	3.3	MCC
MW-3	09/11/97	20.57	6.92	—	13.95	ND<50	82	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0	—	—	—	—	7	MCC
MW-3	12/15/97	20.57	7.03	—	13.54	ND<50	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0	—	—	—	—	6.5	MCC
MW-3	03/11/98	20.57	4.71	—	15.86	ND<50	ND<50	ND<0.5	1.8	0.6	3.1	ND<5.0	—	—	—	—	6.1	MCC
MW-3	06/23/98	20.57	6.33	—	14.24	ND<50	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0	—	—	—	—	5.7	MCC
MW-3	12/01/98	20.57	6.74	—	13.83	ND<50	—	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0	—	—	—	—	4	MCC
MW-3	03/30/99	20.57	5.68	—	14.89	ND<50	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0	—	—	—	—	4.6	MCC
MW-3	08/16/99	20.57	7.67	—	12.90	ND<50	—	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0	—	—	—	—	2.7	MCC
MW-3	12/31/99	20.57	8.07	—	12.50	ND<50	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0	—	—	—	—	9.0	MCC
MW-3	03/31/00	20.57	5.99	—	14.98	ND<50	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0	—	—	—	—	2.8	MCC
MW-3	07/14/00	20.57	7.84	—	12.93	68	ND<50	0.89	1.7	2.1	9.5	ND<5.0	—	—	—	—	2.1	MCC
MW-3	10/04/00	20.57	8.34	—	12.23	ND<50	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0	—	—	—	—	2.0	MCC
MW-3	12/21/00	20.57	7.00	—	13.57	ND<50	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0	—	—	—	—	1.4	MCC
MW-3	04/13/01	20.57	6.38	—	14.19	ND<50	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0	—	—	—	—	1.3	MCC
MW-3	06/27/01	20.57	7.37	—	13.20	ND<50	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0	—	—	—	—	1.9	MCC
MW-3	09/20/01	20.57	8.25	—	12.52	ND<50	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0	—	—	—	—	2.1	MCC
MW-3	12/21/01	20.57	5.72	—	14.85	ND<50	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0	—	—	—	—	2.9	MCC
MW-3	02/04/02	20.57	5.85	—	14.72	ND<50	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0	—	—	—	—	4.1	MCC

TABLE 1 - SUMMARY OF GROUNDWATER SAMPLING  
XTRA OIL COMPANY SERVICE STATION  
1701 PARK STREET, ALAMEDA, CALIFORNIA

ALISTO PROJECT NO. 10-210

WELL ID	DATE OF MONITORING/SAMPLING	CASING ELEVATION (Feet)	DEPTH TO WATER (Feet) (a)	PRODUCT THICKNESS (Feet)	GROUNDWATER ELEVATION (Feet) (b)	TPH-G (ug/l)	TPH-D (ug/l)	B (ug/l)	T (ug/l)	E (ug/l)	X (ug/l)	MTBE (ug/l)	OTHER SVOCs (ug/l)	NAPHTHALENE (ug/l)	BENZO-PYRENE (ug/l)	DO (ppm)	LAB
MW-3	02/07/03	20.57	5.85	---	14.52	ND<50	---	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0	---	---	---	2.8	MCC
MW-3	05/02/03	20.57	5.75	---	14.82	ND<50	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0	---	---	---	---	MCC
MW-3	08/14/03	20.57	7.74	---	12.83	ND<50	ND<50	1.6	0.82	3.2	ND<5.0	---	---	---	---	2.1	MCC
MW-3	11/14/03	20.57	7.75	---	12.82	ND<50	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0	---	---	---	0.8	MCC
MW-3	03/01/04	20.57	5.17	---	15.40	ND<50	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0	---	---	---	0.92	MCC
MW-3	06/30/04	(e) 20.57	7.48	---	13.09	ND<50	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0	---	---	---	0.92	MCC
MW-3	10/26/04	20.57	6.47	---	14.10	ND<50	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0	---	---	---	3.0	MCC
MW-3	03/24/05	20.57	4.70	---	15.87	ND<50	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0	---	---	---	3.0	MCC
MW-3	06/14/05	20.57	5.99	---	14.58	ND<50	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0	---	---	---	2.7	MCC
MW-3	09/12/05	20.57	7.89	---	12.68	ND<50	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0	---	---	---	3.3	MCC
MW-3	01/04/06	(g) 20.57	5.10	---	15.47	ND<50	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0	---	---	---	---	MCC
MW-3	04/04/06	(h) 20.57	4.93	---	15.64	ND<50	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0	---	---	---	---	MCC
MW-3	06/12/06	20.57	6.20	---	14.37	ND<50	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0	---	---	---	---	MCC
MW-3	09/08/06	20.57	7.81	---	12.76	ND<50	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0	---	---	---	---	MCC
MW-4	05/09/97	19.69	7.17	---	12.52	31000	15000	540	1300	1000	4500	1900	ND	2.1	ND<2	3.1	MCC/CHR
MW-4	09/11/97	19.69	7.71	---	11.98	40000	6500	2000	3100	1700	7700	3400	---	---	---	6.4	MCC
MW-4	12/15/97	19.69	7.87	---	11.82	14000	2100	910	690	390	2700	1700	---	---	---	5.5	MCC
MW-4	03/11/98	19.69	3.51	---	16.18	2800	780	68	94	72	430	140	---	---	---	6	MCC
MW-4	06/23/98	19.69	5.21	---	14.48	15000	2800	240	630	720	2700	370	---	---	---	5.4	MCC
MW-4	12/01/98	19.69	6.45	---	13.24	21000	---	580	1000	530	3600	1700	---	---	---	4.4	MCC
MW-4	03/20/99	19.69	5.41	---	14.28	41000	3600	3100	3400	1700	6700	5700	---	---	---	4.6	MCC
MW-4	08/16/99	19.69	7.35	---	12.34	24000	---	4600	940	1200	2700	9700	---	---	---	3.4	MCC
MW-4	12/31/99	19.69	7.71	---	11.98	14000	2000	510	630	600	3100	3500	---	---	---	10.1	MCC
MW-4	03/31/00	19.69	5.22	---	14.47	14000	1400	470	480	580	2200	2000	---	---	---	6.8	MCC
MW-4	07/14/00	19.69	7.31	---	12.38	37000	4300	770	1500	1800	7200	1700	---	---	---	3.3	MCC
MW-4	10/04/00	19.69	7.11	---	12.58	47000	3200	870	2000	2600	9800	ND<1500	---	---	---	1.7	MCC
MW-4	12/21/00	19.69	6.66	---	12.83	13000	1800	370	410	460	1500	---	---	88	ND<10	0.6	MCC
MW-4	04/13/01	19.69	6.02	---	13.67	20000	2800	710	640	620	2900	2300	---	---	---	1.0	MCC
MW-4	06/27/01	19.69	6.72	---	12.97	23000	2100	510	1100	1100	4300	1400	---	---	---	1.0	MCC
MW-4	09/20/01	19.69	7.30	---	12.39	36000	4400	460	1300	1700	6700	1000	---	---	---	2.0	MCC
MW-4	12/21/01	19.69	4.55	---	15.14	11000	5600	130	250	480	2400	ND<320	---	---	---	1.6	MCC
MW-4	02/04/02	19.69	5.82	---	13.87	50000	12000	3000	8100	1900	7600	ND<500	---	---	---	2.0	MCC
MW-4	05/07/02	19.69	6.08	---	13.61	17000	3200	270	820	870	3700	ND<500	---	---	---	2.6	MCC
MW-4	08/22/02	19.69	7.45	---	12.24	26000	3800	720	920	1500	6500	2100	---	---	---	4.6	MCC
MW-4	11/08/02	19.69	6.74	---	12.95	20000	3600	290	630	1200	5100	670	---	---	---	---	MCC
MW-4	02/07/03	19.69	4.86	---	14.83	13000	---	520	1300	ND<25	3600	420	---	---	---	2.1	MCC
QC-1 (c)	02/07/03	---	---	---	---	13000	---	510	1200	83	3100	420	---	---	---	---	MCC
MW-4	05/02/03	19.69	5.45	---	14.24	18000	3800	280	550	810	3600	470	---	---	---	---	MCC
MW-4	08/14/03	19.69	7.20	---	12.49	31000	4100	720	810	1300	6400	1100	---	---	---	1.2	MCC
MW-4	11/14/03	19.69	6.92	---	12.77	18000	3300	450	320	1000	4500	ND<1000	---	---	---	0.7	MCC
QC-1 (e)	11/14/03	---	---	---	---	---	---	440	310	1100	4500	ND<1000	---	---	---	---	MCC
MW-4	03/01/04	19.69	5.10	---	14.59	15000	2500	110	210	580	2700	240	---	---	---	0.61	MCC
QC-1 (e)	03/01/04	---	---	---	---	15000	---	110	220	610	2800	250	---	---	---	---	MCC
MW-4	06/30/04	(e) 19.69	6.70	---	12.99	23000	5800	330	550	1300	5200	ND<900	---	---	---	0.61	MCC
MW-4	10/26/04	19.69	6.05	---	13.64	19000	3800	150	380	950	3800	ND<300	---	---	---	2.0	MCC
MW-4	03/24/05	19.69	4.23	---	15.46	6600	1900	62	28	190	950	ND<120	---	---	---	2.0	MCC
MW-4	06/14/05	19.69	5.58	---	14.11	23000	5600	160	510	1200	4000	ND<500	---	---	---	2.1	MCC
MW-4	09/12/05	19.69	7.84	---	11.95	24000	4000	1400	640	1400	3900	1400	---	---	---	2.2	MCC
MW-4	01/04/06	(g) 19.69	4.65	---	15.04	20000	2800	740	350	930	2900	1100	---	---	---	---	MCC
MW-4	04/04/06	(h) 19.69	4.62	---	15.07	8100	2000	300	64	490	1200	530	---	---	---	---	MCC
MW-4	06/12/06	19.69	6.07	sheen	13.62	24000	4500	270	390	1300	3600	340	---	---	---	---	MCC
MW-4	09/08/06	(i) 19.69	7.42	sheen	12.27	20000	3100	1700	240	930	2000	1800	---	---	---	---	MCC
QC-2 (f)	11/04/94	---	---	---	---	ND<50	---	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	---	---	---	---	MCC
QC-2 (f)	02/24/95	---	---	---	---	ND<50	---	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	---	---	---	---	MCC
QC-2 (f)	05/25/96	---	---	---	---	ND<50	---	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	---	---	---	---	MCC
QC-2 (f)	08/30/95	---	---	---	---	ND<50	---	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	---	---	---	---	MCC
QC-2 (f)	11/16/95	---	---	---	---	ND<50	---	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	---	---	---	---	MCC
QC-2 (f)	03/20/96	---	---	---	---	ND<50	---	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	---	---	---	---	MCC
QC-2 (f)	06/13/96	---	---	---	---	ND<50	---	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	---	---	---	---	MCC

**ABBREVIATIONS:**

TPH-G	Total petroleum hydrocarbons as gasoline using EPA Methods 5030/8015
TPH-D	Total petroleum hydrocarbons as diesel using EPA Methods 3510/8015
B	Benzene using EPA Methods 5030/8020
T	Toluene using EPA Methods 5030/8020
E	Ethylbenzene using EPA Methods 5030/8020
X	Total xylenes using EPA Methods 5030/8020
MTBE	Methyl tert butyl ether using EPA Methods 5030/8020
SVOCs	Semivolatile organic compounds using EPA Method 8270
DO	Dissolved oxygen
ug/l	Micrograms per liter
ppm	Parts per million
---	Not analyzed/applicable/measurable
ND	Not detected above reported detection limit
MCC	McCampbell Analytical, Inc.
CHR	Chromatlab, Inc.

**NOTES:**

(a)	Top of casing surveyed relative to mean sea level.
(b)	Groundwater elevations expressed in feet above mean sea level, and adjusted assuming a specific gravity of 0.75 for free product.
(c)	Blind duplicate.
(d)	Other SVOCs detected at concentrations of 200 ug/l 2-methylnaphthalene and 14 ug/l phenanthrene
(e)	Wells monitored 6/15/04.
(f)	Travel blank.
(g)	4th Quarter 2005 sampling
(h)	1st Quarter 2006 sampling
(i)	Well recharge was exceeding slow; not to be used in prepaying contours