2307 Pacific Ave., Alameda; CA 94501 Phone: 510-865-9503 Fax: 510-865-1889 E-mail: xtraoil@prodigy.net

## Xtra Oil Company

September 24, 2008

Mr. Steven Plunkett Alameda County Environmental Health Department 1131 Harbor Bay Parkway, Suite 250 Alameda, CA 94502

SUBJECT: QUARTERLY GROUNDWATER MONITORING AND SAMPLING REPORT (JUNE THROUGH AUGUST 2008) CERTIFICATION County Case # RO 191 Xtra Ol Company 1701 Park Street Alameda, CA

Dear Mr. Plunkett:

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

 Quarterly Groundwater Monitoring and Sampling Report (June Through August 2008) dated September 22, 2008 (document 0058.R9).

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.L26

Retail Fueling/Convenience Stores

#### RECEIVED

2:32 pm, Sep 26, 2008

Alameda County Environmental Health

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

55 Santa Clara Avenue, Suite 240 Oakland, CA 94610 (510) 658-6916

September 22, 2008 Report 0058.R9

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

SUBJECT: QUARTERLY GROUNDWATER MONITORING AND SAMPLING REPORT (JUNE THROUGH AUGUST 2008) 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 results of the most recent quarterly monitoring and sampling of the groundwater monitoring wells at the subject site. Field activities were performed on August 27, 2008. The monitoring and sampling was performed in conjunction with monitoring and sampling by Environmental Resolutions, Inc. (ERI) at the 1725 Park Street Exxon/Valero site. The reporting period is for June through August 2008. A Site Location Map (Figure 1) and Site Vicinity Map (Figure 2) are attached with this report.

#### BACKGROUND

The subject site is presently used as a retail gasoline station. In April 1994, the Xtra Oil Company site was expanded onto the adjacent property at 2329 Buena Vista Avenue. Three gasoline underground storage tanks (USTs) and one diesel UST were removed from the property. The UST volumes and construction details are unknown. The USTs were replaced with two 10,000 gallon and one 7,000 gallon double walled USTs. One UST, which had been used to store heating oil, was removed from 2329 Buena Vista Avenue. At the time of the UST removals in April and May 1994, Alisto Engineering Group (Alisto) personnel collected 12 soil samples from the former UST pit and dispenser island excavations. Petroleum hydrocarbons were detected in the soil at the time of tank removal. According to Alisto's Additional Investigation Report dated December 19, 2001 documentation of the UST removal and associated sample results are provided in Alisto's Tank Closure Report dated July 5, 1994.

Alisto performed a subsurface investigation in November 1994 to assess the nature and extent of petroleum hydrocarbons in soil and groundwater at the site. Soil borings B1, B2 and B3 were drilled onsite to a total depth of 20 feet, and later converted into monitoring wells MW-1, MW-2 and MW-3, respectively.

Laboratory analytical results indicated the presence of petroleum hydrocarbons in the soil from between 7 and 8 feet below grade (fbg) at the locations of wells MW-1 and MW-2.

Total Petroleum Hydrocarbons as Gasoline (TPH-G) were detected at concentrations of up to 12,000 milligrams per kilogram (mg/kg), Total Petroleum Hydrocarbons as Diesel (TPH-D) were detected at concentrations of up to 6,700 mg/kg, and benzene was detected at concentrations of up to 70 mg/kg in the soil. According to Alisto's Additional Investigation Report dated December 19, 2001, documentation of the subsurface investigation and associated sample results are provided in Alisto's Preliminary Site Assessment Report dated January 13, 1995.

A quarterly groundwater monitoring and sampling program was initiated by Alisto in November of 1994. The groundwater flow direction has historically ranged from northeasterly to southeasterly. Free product was observed in well MW-2 from the initiation of quarterly monitoring until the July 2000 event with a maximum thickness of 0.21 feet detected in May 1997 and August 1999. From November 1994 to June 2004, the depth to water at the site ranged from 3.51 to 9.12 feet below grade (fbg). TPH-G has been detected in the wells at a maximum concentration of 100,000 micrograms per liter ( $\mu$ g/l) in MW-1 (September 1997), TPH-D at a maximum concentration of 6,700,000  $\mu$ g/l in MW-2 (free product in May 1997), benzene at a maximum concentration of 22,000  $\mu$ g/l in MW-1 (November 1995), and MTBE at a maximum concentration of 19,000  $\mu$ g/l in MW-1 (June 1996).

In June 1996, Alisto performed a review of utility records at the County of Alameda Public Works Agency. A 10-inch diameter sanitary sewer was determined to be located in the center of Park Street at approximately 11 fbg. Due to groundwater depths of less than 11 fbg at the site, Alisto determined that the sanitary sewer trench may act as a preferential pathway for petroleum hydrocarbons migrating from the site toward Park Street. The report did not address site vicinity stratigraphy with respect to utility depths. According to Alisto's Additional Investigation Report dated December 19, 2001, documentation of the utility record review is provided in Alisto's Additional Investigation Report dated June 27, 1997.

Alisto performed an additional subsurface investigation in April 1997. The investigation included the installation of monitoring well MW-4 and the drilling of soil boring SB-1. The soil collected at the location of well MW-4 contained 5,300 mg/kg of TPH-G, 1,100 mg/kg of TPH-D and 15 mg/kg of methyl tertiary-butyl ether (MTBE). Total Organic Carbon (TOC) was detected in the soil at the location of boring SB-1 at a concentration of 830 mg/kg. According to Alisto's Additional Investigation Report dated December 19, 2001, documentation of the utility record review is provided in Alisto's Additional Investigation Report dated June 27, 1997.

In October 1999, Alisto prepared a Corrective Action Plan (CAP) to evaluate alternatives for site remediation and to develop a plan to address impacted soil and groundwater at the site. The CAP included a description of the soil types encountered during previous investigations at the site. Silty to gravelly clays predominate from the ground surface to approximately 8 fbg and are underlain by sandy silt and sandy clay to the total explored depth of 20 fbg. Alisto recommended a remediation plan that included air sparging and vapor extraction followed by thermal treatment of the extracted soil gas. Alisto also recommended performing vapor extraction and air sparging pilot tests to

confirm the feasibility of the recommended remedial methods. Details of the plan are presented in Alisto's October 14, 1999 Corrective Action Plan.

On April 5, 2000, Alisto installed air sparging wells ASP-1 through ASP-7 to depths of between 26 and 30 fbg. The air sparging well locations are shown on Figure 2. A soil vapor extraction test was performed on October 12, 2000 using a slotted horizontal vapor extraction pipe located at a depth of four feet in a trench at the site. Figure 2 shows that the trench surrounds the UST pit and dispenser islands on the northeast, southeast and southwest. The trench was installed at the time of site reconstruction in 1994. Vacuum pressure changes in monitoring wells MW-1, MW-2, and MW-4 were observed to determine the zone of influence during the test. An air sparging pilot test was performed on October 13, 2000 using wells MW-1 and MW-4 to monitor the influence of air injected air sparging wells on groundwater elevations and hydrocarbon concentrations in soil vapor and groundwater. Alisto concluded from the results of the tests that a combination of air sparging and vapor extraction can be effective in removing petroleum hydrocarbons from the subsurface materials. Documentation of the field activities and sample results are presented in Alisto's Remedial Investigation Report, dated February 8, 2001.

In November 2001, Alisto hand augered offsite borings TW-1, TW-2, and TW-3 to further assess the horizontal extent of petroleum hydrocarbon impact to soil and groundwater in the vicinity of the site. The locations of the borings are shown in Figure 2. Soil samples were collected at a depth of 7 fbg in each boring. The borings were subsequently converted into temporary groundwater monitoring wells and sampled. No TPH-G, TPH-D, benzene, toluene, ethylbenzene, xylenes, or MTBE were detected in any of the soil samples collected. Only MTBE at a concentration of 7.8  $\mu$ g/l in TW-2 was detected in the groundwater samples. Based on the results of the soil and groundwater sampling, Alisto concluded that the extent of petroleum hydrocarbon impact is limited to within 80 feet of the property. Documentation of the field activities and sample results are presented in Alisto's Additional Investigation Report, dated December 19, 2001.

Petroleum hydrocarbon subsurface investigation and remediation have historically been performed at the former Exxon station (presently operated as a Valero station) at 1725 Park Street, located approximately 100 feet northeast of the subject site. ERI provided the results of their sensitive receptor and well survey in their Sensitive Receptor Survey Update Report for the Exxon/Valero site at 1725 Park Street, dated August 2, 2002. Eight utility vaults and two catch basins were identified adjacent to the site. For surface water bodies, a tidal canal was identified 1,000 feet away. Within 1,000 feet, three basements were identified upgradient from the site. No wells were located within 2,000 feet and no tunnels or subways were located within 1,000 feet.

P&D submitted to the Alameda County Department of Environmental Health (ACDEH) a Subsurface Investigation Work Plan (document 0058.W1) dated September 1, 2006 for investigation of the horizontal extent of petroleum hydrocarbons in soil and groundwater in the vicinity of the subject site. In a letter dated September 22, 2006 titled, "Change In Consultant of Record" Xtra Oil Company identified P&D as the new consultant of record. Between November 3 and November 9, 2006, soil borings were drilled at five locations designated as B3 through B7 to evaluate stratigraphy and the subsurface distribution of petroleum hydrocarbons in the site vicinity. Documentation of the field activities and sample results are presented in P&D's Subsurface Investigation Report (B3 Through B7) dated March 6, 2007 (document 0058.R2).

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On September 8, 2006 Alisto performed quarterly monitoring and sampling of the wells at the subject site. The monitoring and sampling was performed in conjunction with monitoring and sampling by ERI at the 1725 Park Street Exxon/Valero site. Documentation of the monitoring and sampling is provided in Alisto's Third Quarter 2006 Groundwater Monitoring and Sampling Report dated November 3, 2006 (uploaded to GeoTracker on November 27, 2006). The fourth quarterly monitoring and sampling event for 2006 was performed by P&D on November 6, 2006.

#### FIELD ACTIVITIES

On August 27, 2008, P&D monitored wells MW1, MW2, MW3, and MW4 for depth to water to the nearest 0.01 foot using an electric water level indicator, and sampled wells MW1, MW2, MW3, and MW4. The monitoring and sampling was performed in conjunction with monitoring and sampling by ERI at the 1725 Park Street Exxon/Valero site. Historic monitoring and sampling data obtained by others for the subject site are attached with this report as Appendix A.

Following determination of depth to water, the wells were evaluated for the presence of free product or sheen by using a transparent bailer. No measurable free product was detected in any of the wells. Petroleum hydrocarbon odors were detected on the purge water from wells MW1, MW2 and MW4, and petroleum hydrocarbon sheen was detected on the purge water from well MW2. Petroleum hydrocarbon odor and sheen were absent from the purge water from well MW3.

Prior to sampling, all of the wells were purged of a minimum of three casing volumes of water or until the well dewatered. During purging operations, the field parameters of pH, electrical conductivity and temperature were monitored. Once a minimum of three casing volumes had been purged or the well dewatered, water samples were collected using a new disposable polypropylene bailer for each well. The water samples were transferred to 40-milliliter glass Volatile Organic Analysis (VOA) vials containing hydrochloric acid preservative and to one-liter amber glass bottles that were sealed with Teflon-lined screw caps. The VOA vials were overturned and tapped to ensure that no air bubbles were present.

The sample containers were then transferred to a cooler with ice, and later were transported to McCampbell Analytical, Inc. in Pittsburg, California. McCampbell Analytical, Inc. is a Stateaccredited hazardous waste testing laboratory. 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 in wells MW1, MW2, MW3, and MW4 were monitored once during the quarter. The measured depth to water on August 27, 2008 ranged from 7.91 to 8.40 feet. Since the previous monitoring and sampling event on May 28, 2008, groundwater elevations have decreased in all of the wells by amounts ranging from 0.68 to 0.94 feet. Based on the measured depth to water in groundwater monitoring wells MW1, MW2, and MW3, the apparent groundwater flow direction at the site on August 27, 2008 was calculated to be to the east-northeast with a gradient of 0.0044. During the previous monitoring event on May 28, 2008, the groundwater flow direction was calculated to be to the east-southeast with a gradient of 0.0054.

Since the previous monitoring and sampling event, the calculated groundwater flow direction has shifted northward and the gradient has decreased. The groundwater flow direction on August 27, 2008 and on February 27 and May 28, 2008 was not consistent with the historic 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. Depth to water level measurements and calculated groundwater surface elevation at the site on August 27, 2008 is shown on Figure 2. In addition, the approximate historic northeasterly groundwater flow direction obtained using the groundwater surface elevation at the site on August 27, 2008 is shown on Figure 2. In addition, the approximate historic 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 at the site on August 27, 2008 is shown in Figure 2.

#### LABORATORY RESULTS

The monitoring and sampling event was performed in conjunction with the monitoring and sampling event performed by ERI for the Exxon/Valero facility located at 1725 Park Street. The groundwater samples collected from wells MW1, MW2, MW3, and MW4 at the subject site were analyzed for Total Petroleum Hydrocarbons as Motor Oil (TPH-MO) and TPH-D using EPA Method 3510C in conjunction with EPA Method 8015C, and TPH-G and methyl tertiary-butyl ether (MTBE), benzene, toluene, ethylbenzene, and total xylenes (BTEX) using EPA Method 5030B in conjunction with modified EPA Method 8015C and EPA Method 8021B.

None of the analytes were detected in well MW3. In the remaining wells, TPH-MO was detected in well MW2 at a concentration of 2,200  $\mu$ g/L, and was not detected in wells MW1 and MW4. In wells MW1, MW2, and MW4, TPH-D was detected at concentrations of 5,200, 9,200, and 830  $\mu$ g/L, respectively; and TPH-G was detected at concentrations of 46,000, 13,000, and 9,300  $\mu$ g/L, respectively. MTBE was detected in well MW1 at a concentration of 1,300  $\mu$ g/L, and was not detected in wells MW2 and MW4. Benzene was detected in wells MW1, MW2, and MW4 at concentrations of 4,600, 990, and 260  $\mu$ g/L, respectively. Review of the laboratory analytical reports shows that the results reported as TPH-D for wells MW1, and MW4 are identified as containing both gasoline 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 28, 2008, all analyte concentrations in well MW3 have remained not detected. All analyte concentrations in well MW4 increased or remained not detected, with the exception of TPH-D, which decreased. All analyte concentrations in well MW1 decreased with the exceptions of TPH-G, benzene, and ethylbenzene, which increased. All analyte concentrations in well MW2 decreased or remained not detected, with the exceptions of TPH-G, benzene, and ethylbenzene, which increased. All

#### DISCUSSION AND RECOMMENDATIONS

The four groundwater monitoring wells at the subject site (MW1, MW2, MW3, and MW4) were monitored and sampled on August 27, 2008 in conjunction with the monitoring and sampling

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event performed by ERI for the Exxon/Valero facility located at 1725 Park Street. The measured depth to water at the subject site ranged from 7.91 to 8.40 feet. Groundwater elevations decreased in all of the wells by amounts ranging from 0.68 to 0.94 feet since the last sampling event.

Since the previous monitoring and sampling event, the calculated groundwater flow direction has shifted northward and the gradient has decreased. The groundwater flow direction on August 27, 2008 and on February 27 and May 28, 2008 was not consistent with the historic 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 odors were detected on the purge water from wells MW1, MW2 and MW4, and petroleum hydrocarbon sheen were detected on the purge water from well MW2. The sample results showed that no analytes were detected in well MW3. Based on the results of the groundwater sample analysis, P&D recommends that the present quarterly 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 recent 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.

#### **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

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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.

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

Sincerely,

P&D Environmental, Inc.

and H. Kring

Paul H. King Professional Geologist #5901 Expires 12/31/09



Attachments:Table 1: Well Monitoring Data<br/>Table 2: Summary of Laboratory Analytical Results<br/>Figure 1: Site Location Map<br/>Figure 2: Site Vicinity Map Showing Groundwater Surface Elevations<br/>Groundwater Monitoring/Well Purging Data Sheets<br/>Laboratory Analytical Reports and Chain of Custody Documentation<br/>Historic Water Level and Water Quality Data for the Subject Site (Appendix A)

PHK/sjc 0058.R9

## TABLES

	]	Cable 1.         Well Monitorin	ng Data	
Well Number	Date Monitored	Top of Casing Elevation	Depth to Water	Water Table Elevation
wen runder	Date Monitored	(ft-msl.)	(ft)	(ft-msl.)
MW1	8/27/2008	19.60	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	8/27/2008	20.31	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	8/27/2008	20.57	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	8/27/2008	19.69	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
Abbreviations ft-msl = feet ab ft = feet	and Notes: ove mean sea leve	1		

Well Number	Sample Date	TPH-MO	TPH-D	TPH-G	MTBE	Benzene	Toluene	Ethylbenzene	Total Xylenes
		•			μg/L ——				<b></b>
MW1	8/27/2008		5,200, c	46,000	1,300	4,600	1,800	2,000	5,200
	5/28/2008	290	6,100, c	40,000	1,600	4,200	2,600	1,700	5,900
	2/27/2008	310	4,900, c	45,000	2,600	6,200	3,100	1,300	5,100
	11/29/2007	ND<250	3,100, b, c	27,000	2,600	4,700	930	770	2,600
	8/29/2007	470	3,900, b, c	26,000	3,200	5,400	1,400	810	3,000
	5/30/2007	ND<250	3300, c	22,000	ND<750	400	380	1,100	3,600
	3/12/2007	300	3,500, b, c	38,000	3,500	5,400	2,900	1,300	5,100
	11/6/2006	360	3,400,a,c	44,000,a	3,900	5,600	2,300	920	3,000
MW2	8/27/2008	2,200	9,200, a,c,d	13,000, a	ND<200	990	14	93	19
	5/28/2008	7,200	25,000a,c,d	12,000, a	ND<210	2,000	77	77	90
	2/27/2008	6,800	21,000, a,c,d	11,000, a	ND<150	940	36	ND<10	22
	11/29/2007	11,000	32,000, a,c,d	11,000, a	ND<50	1,000	28	120	31
	8/29/2007	2,600	6,300, a, b, c	8,600, a	ND<100	1,300	36	48	48
	5/30/2007	5,800	22,000, a,c,d	14,000, a	ND<210	2,200	51	100	99
	3/12/2007	21,000	74,000, a, c,d	8,500, a	ND< 80	1,200	34	140	69
	11/6/2006	11,000	45,000, a,c	14,000,a	ND<120	1,400	27	200	37
MW3	8/27/2008	ND<250	ND<50	ND<50	ND<5.0	ND<0.5	ND<0.5	ND<0.5	ND<0.5
	5/28/2008	ND<250	ND<50	ND<50	ND<5.0	ND<0.5	ND<0.5	ND<0.5	ND<0.5
	2/27/2008	ND<250	ND<50	ND<50	15	ND<0.5	ND<0.5	ND<0.5	ND<0.5
	11/29/2007	ND<250	ND<50	ND<50	ND<5.0	ND<0.5	ND<0.5	ND<0.5	ND<0.5
	8/29/2007	ND<250	ND<50	ND<50	ND<5.0	ND<0.5	ND<0.5	ND<0.5	ND<0.5
	5/30/2007	ND< 250	ND<50	ND<50	ND< 5.0	ND<0.5	ND<0.5	ND<0.5	ND<0.5
	3/12/2007	ND< 250	ND< 50	ND< 50	ND< 5.0	ND<0.5	ND<0.5	ND<0.5	ND<0.5
	11/6/2006	ND<250	ND<50	ND<50	ND<5.0	ND<0.5	ND<0.5	ND<0.5	ND<0.5
MW4	8/27/2008	ND<250	830, c	9,300	ND<250	260	85	370	1,300
	5/28/2008	ND<250	1,400, c	2,200	ND<30	16	38	100	320
	2/27/2008	ND<250	1,900, c	8,000	ND<50	47	110	270	1,300
	11/29/2007	ND<250	2,800, c	12,000	ND<180	260	230	580	2,500
	8/29/2007	ND<250	560, c	12,000, a	660	910	200	750	2,200
	5/30/2007	610	4,500, c	43,000	3,600	5,800	3,700	1,400	5,400
	3/12/2007	ND< 250	3,100, c	19,000	370	560	450	1,100	4,400
	11/6/2006	850	4,300,c	23,000	ND<900	680	250	930	3,100

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

μg/L = Micrograms per liter ND = Not Detected.

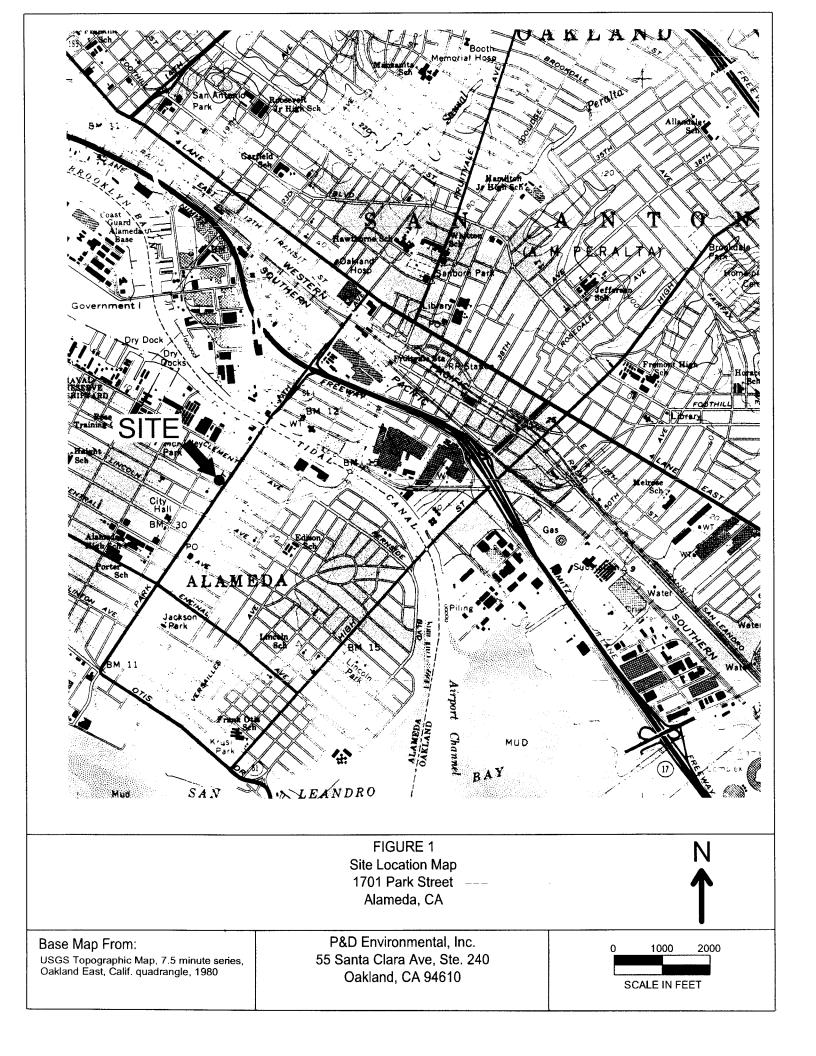
a = Laboratory Note: lighter than water immiscible sheen/ product is present

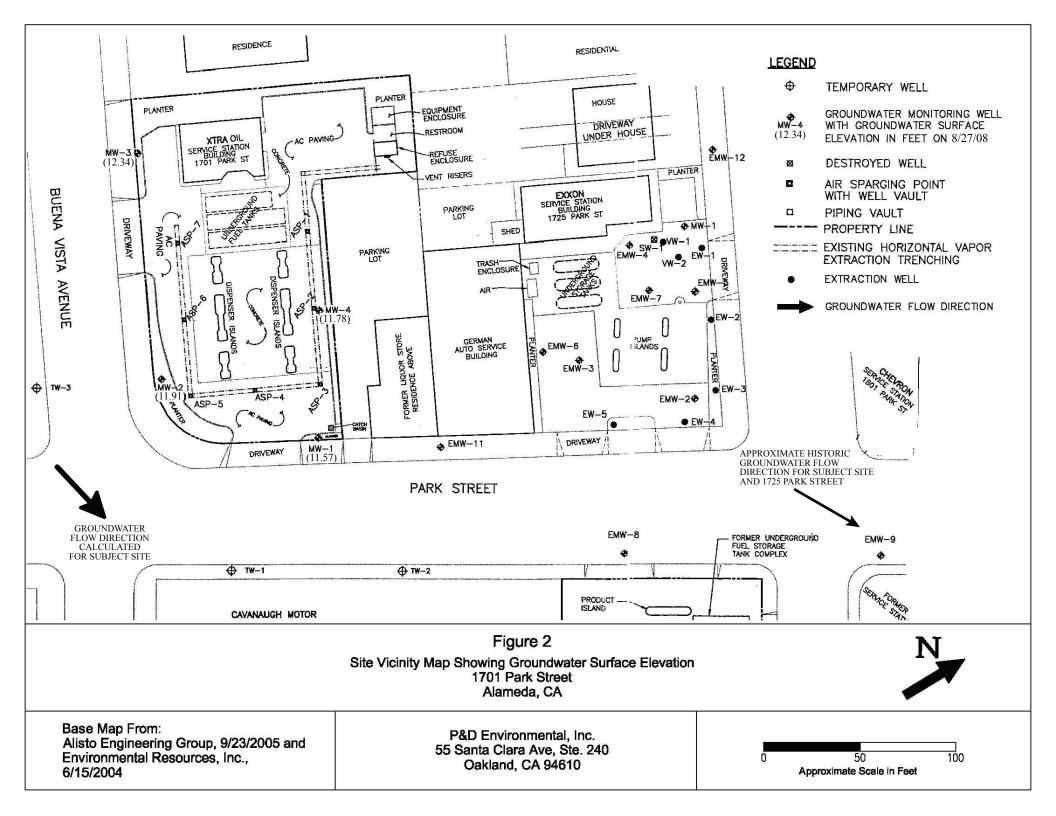
b = Laboratory Note: diesel range compounds are significant; no recognizable pattern

c = Laboratory Note: gasoline range compounds are significant

d = Laboratory Note: unmodified or weakly modified diesel range compounds are significant

**FIGURES** 





## WELL MONITORING AND PURGE DATA SHEETS

#### P&D ENVIRONMENTAL GROUNDWATER MONITORING/WELL PURGING DATA SHEET

Sice Name Xtra Oil/Park St. Alamida
JOD NO. 0058
TOC to Water (ft.) 8.03
Well Depth (ft.) 19.2
Well Diameter $\frac{\partial''(0.16)}{\partial}$
Gal./Casing Vol
711-54

Well NO. MW-1 107/08 Date\_ 4 No Sheen\_\_\_

Pree Product Thickness

Sample Collection Method\_\_\_\_\_ Disposable bailer

711-54			
GAL. PURGED	pH	TEMPERATURE °C	BLECTRICAL Lis/co
0.6	6.25	25.0	612
1.2	6.38	24.5	708
1.8	6.41	24.1	842
2.4	6.47	24.0	868
3.0	6.52	24.0	879
3.6	6.53	23.9	984
4,2	6.54	23.7	1,036
4.8	6.57	23.7	1,069
5,4	6,57	23.6	980
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Dox damaged for somet	ine; no boxfid .	or expandable plug	Mod-strong the oda-
Samelitan -	51430h~s		nosheen
	GAL. PURGED 0.6 1.2 1.8 2.4 3.0 3.6 4.8 5.4 	$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	GAL. PURGED       DH       TEMPERATURE $0.6$ $6.25$ $25.7$ $1.2$ $6.38$ $24.5$ $1.8$ $6.41$ $24.1$ $2.4$ $6.47$ $24.0$ $3.0$ $6.52$ $24.0$ $3.6$ $6.53$ $23.9$ $4.8$ $6.57$ $23.7$

PURGE10.92

# P&D ENVIRONMENTAL GROUNDWATER MONITORING/WELL PURGING DATA SHEET

Job No	XtraOil/Parkst.	- Incites	Well No Date8/2	7/08
	er (ft.) <u>8.40</u>		Sheen	les
	(ft.) 13.4			ct Thickness
Well Diame	ter_ <u>2" (0.16)</u>		Sample Col	lection Method_
Gal./Casin	g vol. 0.8 301=2.4		Dispos	able bailer
		<b></b>	TEMPERATURE °C	BLECTRICAL CONDUCTIVITY
TIME NSZ	GAL. PURGED	0H	- 2 51 3	591
IRSA	0.6	625	25.0	612
140 9	0.8	6.35	-24.7	665,672
101	111	6.38	24,5	708
1403	14	6.42	-24.2	7967
1404	1.16	6.46	24.1	756
	19			
	3/2			
	24			<u></u>
1437	0.3_	6.24	24.7	805
1438	0.6	6.29	24.5	798
1959	0.8	6.30	24.3	802
1440	<u> </u>	6.31	24.1	
1442	1.4	6.31	23.8	823
1444	1.6	6.32	23.8	831
1445	1.9	6,33	23.7	841
1448	2.4	6.34	23.7	<u> </u>
	<u> </u>	6.31		
NOTES :				·····
	Tode to strong, h	eodorij		time > 1500
	produ	et on bailing s	sheent very stro.	m pheodor

39. 2

PLD ENVIRONMENTAL GROUNDWATER MONITORING/WELL PURGING

Ŋ	4 mileia	DATA SH	IEET	11/1-3
	(tra Dil /Park St	Alameda	Well No	MW-3
Job No			Date 8/2	
	(ft.) <u>8.73</u>		Sheen/	6
Well Depth			Free Prod	luct Thickness
Well Diamete	er_ 2" (0.16)	)		llection Method
Gal./Casing	Vol. 1.8	<b></b>	Dispo.	uble bailer
MTND .	3001=5,4	<u>∕</u>	ے <u>TEMPERATURE</u>	BLECTRICAL MJA
TIME SIC	GAL. PURGED	5146.5.74	23,6	248
1998		5.59	21.9	238
1230	1.5	5.58	21.8	245
1231	2.4	5.59	21.7	246
1233	3.0	5,62	$\frac{1}{21.4}$	255
1234	3.6	5.66	21.2	268
1236	<u> </u>	Contraction of the second s	21.0	285
	<u> </u>	<u>5.73</u> 5.80	20,9	279
1237	5.4	5.85	21.0	268
1239		0105	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	
<u></u>	•	and the second s		
	4		and and the flat has the same second	
				<u>a na ana ao amin'ny amandra dia amin'ny amin'ny amin'ny amin'ny amin'ny amin'ny amin'ny amin'ny amin'ny amin'n</u>
		<del></del>		
		<del>ما البيبة الإستين، السجي</del>		
	والأستريب ويستري ويسترج ويتوجعون والاسترج فترجعهم	······		
		- <del>مراجع میں مرکز میں دور کر</del>		Latin Summing and a second
NOTES :	No sheen +	no odo-	Grass around we	U NOW.
<u></u>			(=) (250hrs	

PURGE10.92

#### P&D ENVIRONMENTAL GROUNDWATER MONITORING/WBLL PURGING DATA SHEET

site Name Xtra Oil / Park St. Alameda
sice Name Another Andread
JOB NO. UUSS
TOC to Water (ft.) 7.91
Well Depth (ft.) 10-9
24/216)
Gal./Casing Vol. $0.5$ 3v = 1.5
302=1.5

.

Well NO. MW-4 Date 8/27/08 Sheen No

Free Product Thickness\_\_\_\_\_

Sample Collection Method\_\_\_\_\_ PE Tubins & S/s check value

	5001=1.5	)	0	BLECTRICAL
TIME	GAL. PURGED	pH	TEMPERATURE °C	CONDUCTIVITY M/cm
1302	0.1	6.42	23.5	239
1305	0,3	6.38	21,8	232
1308	v. 5	6.38	21,8	231
1310	0.6	6.39	21.7	733
· · · · · · · · · · · · · · · · · · ·	0.8			
1312		6.41	<u> 21.5</u>	234
1314	1.0	6,39	21.4	239
1316	<u> </u>	6.39	21.3	242
1317	1.3	6.41	31.2	248
1319	1.5	6.42	21.4	255
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ay the last all shall shall strong				
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	+		and a star where the survey of the same	
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<del>-,</del>				
<u></u>				
<u></u>		· • • • • • • • • • • • • • • • • • • •	<del></del>	
NOTES:	mad stranghened	or No cheen	sample time => 1.	330h-s
(	Well box lid, but,			<u>Jon J</u>
		noexpandable	Wellping	
PURGE10.92	2			

## LABORATORY REPORTS AND CHAIN OF CUSTODY DOCUMENTATION

	Analytical, Inc.	Web: www.me	llow Pass Road, Pittsburg, ccampbell.com E-mail: m one: 877-252-9262 Fax:	ain@mccampbell.com
P & D Environmental	Client Project ID: #0058;	Xtra Oil/ Park St.,	Date Sampled:	08/27/08
55 Santa Clara, Ste.240	Alameda		Date Received:	08/28/08
Oakland, CA 94610	Client Contact: Paul King		Date Reported:	09/04/08
Carland, CA 94010	Client P.O.:		Date Completed:	09/04/08

#### WorkOrder: 0808816

September 04, 2008

Dear Paul:

Enclosed within are:

- 1) The results of the 4 analyzed samples from your project: #0058; Xtra Oil/ 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

McCampbell Analytical Laboratories for your analytical needs.

Best regards,

Angela Rydelius Laboratory Manager McCampbell Analytical, Inc.

	I, CA 94610 658-6916				0	CHAIN O	1 000	100		INC					7	εα
100	DOSS		P	ROJECT		0il/ , Alance	4		(Es).	K CED	Out				5	/
SA	MPLED BY: (PRI Steve Carmen		SIGNAT	URE)	h			NUMBER OF CONTAINERS	AWAL YSIS(ES).		//	//	1	PRESERVICE		REMAR
SAI	MPLE NUMBER	DATE	TIME	TYPE		SAMPLE LOCA	אסוד	NN	VÀ	13	/	/ /	//	ď	/	
I	nw-1	8/27/08	1430	Had				7	X	X	ſ		1	E	Normal -	Tunarun
- /	nw-2		1500					7	X	X						
	nw-3		1250					7	X	X	$\square$					
1	NW-4	¥	1330	V				7	X	4	+		-			-
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RECI	NOUISHED BY:	CHICKA IORE	01	DATE	TIME	RECEIVED BY	(SIGNATURE)		TOTAL	HD. OF	CONTRA	_	4		Campbel	
RELL	NOUISHED BY:	SIGNATUR	2/0	DATE	TIME		(SIGNATURE)			OPAT		CON	TACT		ORATORY	
<	20		20	128	415	RECEIVED BI	(SIGNATORE)			ngela					771252	
RELI	NQUISHED BY:	SICHATURE		DATE	TIME	RECEIVED FOR	R LABORATORY	r 8Y:	A	other Designation of the local division of t	SAMP	LE A	NALYS	SIS R	EQUEST S	HEET
Part	its and billing i Environmental,			1	1	REMARKS:		AILD	1				1			

P

1534 Willow Pass Rd Pittsburg, CA 94565-1701

## CHAIN-OF-CUSTODY RECORD

Page 1 of 1

	252-9262					Work	Order:	08088	816	Client	Code: PDE	0				
			WriteOn			Excel	I	Fax		Email	HardCop	ру [	ThirdF	Party	□ J-	flag
Report to:							Bill to:				F	Reque	sted T	AT:	5 0	days
Paul King P & D Envir 55 Santa C Oakland, C (510) 658-69	lara, Ste.240 A 94610	Email: cc: PO: ProjectNo:	lab@pdenviro #0058; Xtra Oi	.com il/ Park St., Alame	eda		Xtr 23	a Oil Co 07 Pacif	Payable ompany fic Avenue CA 94501				Receiv Printe		08/28/ 09/03/	
									Reque	sted Tests	(See legen	d belo	ow)			
Lab ID	Client ID		Matrix	Collection Date	Hold	1	2	3	4	56	7	8	9	10	11	12
0808816-001	MW-1		Water	8/27/2008 14:30		В	Α									
0808816-002	MW-2		Water	8/27/2008 15:00		В	Α		1						İ.	

В

в

8/27/2008 12:50

8/27/2008 13:30

Water

Water

А

А

#### Test Legend:

0808816-003

0808816-004

1	G-MBTEX_W
6	
11	

2	TPH(DMO)_W
7	
12	

MW-3

MW-4

3	
8	

4	
9	

5			
10			

Prepared by: Ana Venegas

#### **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.



"When Ouality Counts"

#### Sample Receipt Checklist

Client Name:	P & D Environme	ntal			Date	and Time Received:	8/28/2008	8:11:19 PM
Project Name:	#0058; Xtra Oil/ I	Park St., Alameda			Chec	klist completed and r	eviewed by:	Ana Venegas
WorkOrder N°:	0808816	Matrix <u>Water</u>			Carri	er: <u>Rob Pringle (M</u>	AI Courier)	
		<u>Chain</u>	of Cu	stody (C	OC) Inform	ation		
Chain of custody	present?		Yes	✓	No 🗆			
Chain of custody	signed when relinqui	shed and received?	Yes	✓	No 🗆			
Chain of custody	agrees with sample I	abels?	Yes	✓	No 🗌			
Sample IDs noted	by Client on COC?		Yes	✓	No 🗆			
Date and Time of	collection noted by Cl	ient on COC?	Yes	✓	No 🗆			
Sampler's name r	noted on COC?		Yes	✓	No 🗆			
		<u>S</u>	ample	Receipt	Informatio	<u>n</u>		
Custody seals int	tact on shipping conta	iner/cooler?	Yes		No 🗆		NA 🔽	
Shipping containe	er/cooler in good cond	lition?	Yes	✓	No 🗆			
Samples in prope	er containers/bottles?		Yes	✓	No 🗆			
Sample containe	rs intact?		Yes	✓	No 🗆			
Sufficient sample	e volume for indicated	test?	Yes	✓	No 🗌			
		Sample Prese	vation	and Ho	old Time (H	[) Information		
All samples recei	ived within holding tim	e?	Yes	✓	No 🗌			
Container/Temp E	Blank temperature		Coole	r Temp:	2.4°C		NA 🗆	
Water - VOA vial	ls have zero headspa	ce / no bubbles?	Yes	✓	No 🗆	No VOA vials subm	itted	
Sample labels ch	necked for correct pre	servation?	Yes	✓	No 🗌			
TTLC Metal - pH	acceptable upon rece	ipt (pH<2)?	Yes		No 🗆		NA 🗹	
Samples Receive	ed on Ice?		Yes	✓	No 🗆			
		(Ісе Тур	e: WE	T ICE	)			
* NOTE: If the "N	No" box is checked, se	ee comments below.						

Client contacted:

Date contacted:

Contacted by:

Comments:

	1	ell Ana en Oualitv Co	lytical, Inc.		Web: www.mcca	ampbell.com	Pittsburg, CA 9456 E-mail: main@mcc 52 Fax: 925-252-	ampbell.com			
P & D ]	Environmental		Client Project ID	): #0058; X	tra Oil/ Park	Date Sa	Date Sampled: 08/27/08				
55 Sant	ta Clara, Ste.240		St., Alameda			Date R	eceived: 08/2	28/08			
	,		Client Contact:	Date Extracted:08/29/08-08/30/08							
Oaklan	d, CA 94610		Client P.O.:	Date Analyzed 08/29/08-08/30/08							
Extraction	Gas method SW5030B	oline Rang	ge (C6-C12) Volatile H Analyti	•	<b>ns as Gasolin</b> W8021B/8015Cn		EX and MTBI	<b>∑*</b> Work Ore	ler: 080	08816	
Lab ID	Client ID	Matrix	TPH(g)	MTBE	Benzene	Toluene	Ethylbenzene	Xylenes	DF	% SS	
001B	MW-1	W	46,000,d1	1300	4600	1800	2000	5200	10	93	
002B	MW-2	W	13,000,d1,b6	ND<200	990	14	93	19	10	99	
003B	MW-3	W	ND	ND	ND	ND	ND	ND	1	94	
004B	MW-4	W	9300,d1	ND<250	260	85	370	1300	10	106	
										+	
	ing Limit for DF =1;	W	50	5.0	0.5	0.5	0.5	0.5	μ	g/L	
	ans not detected at or e the reporting limit	S	1.0	0.05	0.005	0.005	0.005	0.005		g/Kg	

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

# cluttered chromatogram; sample peak coelutes with surrogate peak.

+The following descriptions of the TPH chromatogram are cursory in nature and McCampbell Analytical is not responsible for their interpretation:

b6) lighter than water immiscible sheen/product is present d1) weakly modified or unmodified gasoline is significant



	Campbell Analyti	ical, Inc.	Web: www.mcc	ow Pass Road, Pittsburg, CA 945 ampbell.com E-mail: main@mc ne: 877-252-9262 Fax: 925-252	campbell.cor	n	
P & D Environ	mental	Client Project ID St., Alameda	#0058; Xtra Oil/ Park Date Sampled: 08/27/08				
55 Santa Clara,	Ste.240		D 1177	Date Received: 08/			
		Client Contact:	Paul King	Date Extracted: 09/			
Oakland, CA 94	4610	Client P.O.:		30/08-09/	03/08		
Extraction method:			Petroleum Hydrocarbons nethods: SW8015C		rk Order: 0	0808816	
Lab ID	Client ID	Matrix	TPH-Diesel     TPH-Motor Oil     DF     9       (C10-C23)     (C18-C36)     DF     9				
0808816-001A	MW-1	W	5200,e4	ND	1	119	
0808816-002A	MW-2	W	9200,e4,e1,b6	2200	1	117	
0808816-003A	MW-3	W	ND	ND	1	117	
0808816-004A	MW-4	W	830,e4	ND	1	101	

Reporting Limit for DF =1;	W	50	250	μg/L
ND means not detected at or	S	NΔ	NΔ	mg/Kg
above the reporting limit	5	1171	1171	ing/ixg

\* 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.

+The following descriptions of the TPH chromatogram are cursory in nature and McCampbell Analytical is not responsible for their interpretation:

b6) lighter than water immiscible sheen/product is present

e1) unmodified or weakly modified diesel is significant

e4) gasoline range compounds are significant.



"When Ouality Counts"

#### QC SUMMARY REPORT FOR SW8021B/8015Cm

QC Matrix: Water W.O. Sample Matrix: Water BatchID: 37885 WorkOrder: 0808816 EPA Method SW8021B/8015Cm Extraction SW5030B Spiked Sample ID: 0808814-006A MSD MS-MSD LCS LCSD LCS-LCSD Sample Spiked MS Acceptance Criteria (%) Analyte % RPD MS / MSD LCS/LCSD RPD µg/L µg/L % Rec. % Rec. % Rec. % Rec. % RPD RPD TPH(btex) 90.8 99.6 1.35 70 - 130 70 - 130 ND 60 98 7.64 101 20 20 10 109 MTBE ND 95 108 12.7 105 3.79 70 - 130 2.0 70 - 130 20 Benzene ND 10 94.5 90.4 4.43 96.6 98.2 1.71 70 - 130 20 70 - 130 20 Toluene ND 10 85.6 81.4 5.12 96.1 98.2 2.16 70 - 130 20 70 - 13020 Ethylbenzene ND 10 94.6 90.1 4.93 99.1 102 2.82 70 - 130 20 70 - 130 20 Xylenes ND 30 92.7 87.4 5.89 111 113 1.42 70 - 130 2.0 70 - 130 20 20 %SS: 106 10 98 97 0.344 97 99 2.4870 - 130 20 70 - 130 All target compounds in the Method Blank of this extraction batch were ND less than the method RL with the following exceptions: NONE

#### BATCH 37885 SUMMARY

Lab ID	Date Sampled	Date Extracted	Date Analyzed	Lab ID	Date Sampled	Date Extracted	Date Analyzed
0808816-001B	08/27/08 2:30 PM	08/29/08	08/29/08 1:25 AM	0808816-001B	08/27/08 2:30 PM	08/30/08	08/30/08 5:57 AM
0808816-002B	08/27/08 3:00 PM	08/30/08	08/30/08 6:58 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.





"When Ouality Counts"

#### QC SUMMARY REPORT FOR SW8021B/8015Cm

QC Matrix: Water W.O. Sample Matrix: Water BatchID: 37887 WorkOrder: 0808816 EPA Method SW8021B/8015Cm Extraction SW5030B Spiked Sample ID: 0808817-002A MSD MS-MSD LCS LCSD LCS-LCSD Sample Spiked MS Acceptance Criteria (%) Analyte % RPD MS / MSD LCS/LCSD RPD µg/L µg/L % Rec. % Rec. % Rec. % Rec. % RPD RPD TPH(btex) 94.4 114 18.9 100 102 2.25 70 - 130 70 - 130 ND 60 20 20 10 MTBE ND 102 103 0.688 107 111 70 - 130 2.0 70 - 130 20 3.36 Benzene ND 10 93.2 92.9 0.281 96.4 97.5 1.22 70 - 130 20 70 - 130 20 Toluene ND 10 85.6 85.4 0.186 87.4 87.7 0.302 70 - 130 20 70 - 13020 Ethylbenzene ND 10 85.5 93.5 8.99 95.2 97.1 1.96 70 - 130 20 70 - 130 20 Xylenes ND 30 92.2 94.2 2.18 93 88.3 5.19 70 - 130 2.0 70 - 130 20 20 %SS: 94 10 98 94 4.16 92 96 4.90 70 - 130 20 70 - 130 All target compounds in the Method Blank of this extraction batch were ND less than the method RL with the following exceptions: NONE

#### BATCH 37887 SUMMARY

Lab ID	Date Sampled	Date Extracted	Date Analyzed	Lab ID	Date Sampled	Date Extracted	Date Analyzed
0808816-003B	08/27/08 12:50 PM	08/29/08	08/29/08 12:23 AM	0808816-004B	08/27/08 1:30 PM	1 08/29/08	08/29/08 2:28 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.





"When Ouality Counts"

#### QC SUMMARY REPORT FOR SW8015C

W.O. Sample Matrix: Water QC Matrix: Water						BatchID: 37886			WorkOrder: 0808816		16	
EPA Method SW8015C Extraction SW3510C							Spiked Sample ID: N/A					
Analyte	Sample	Sample         Spiked         MS         MSD         MS-MSD           μg/L         μg/L         % Rec.         % Rec.         % RPD         %				LCS	LCSD	LCS-LCSD	Acceptance Criteria (%)			
	µg/L					% Rec.	% Rec.	% RPD	MS / MSD	RPD	LCS/LCSD	RPD
TPH-Diesel (C10-C23)	N/A	1000	N/A	N/A	N/A	110	111	0.408	N/A	N/A	70 - 130	30
%SS:	N/A	2500	N/A	N/A	N/A	119	119	0	N/A	N/A	70 - 130	30
%SS: All target compounds in the Metho NONE								Ţ		N/A	70 - 130	

#### BATCH 37886 SUMMARY

Lab ID	Date Sampled	Date Extracted	Date Analyzed	Lab ID	Date Sampled	Date Extracted	Date Analyzed
0808816-001A	08/27/08 2:30 PM	09/03/08	08/30/08 2:49 AM	0808816-002A	08/27/08 3:00 PM	09/03/08	08/30/08 3:56 AM
0808816-003A	08/27/08 12:50 PM	09/03/08	08/30/08 5:03 AM	0808816-004A	08/27/08 1:30 PM	09/03/08	09/03/08 5:59 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.

DHS ELAP Certification 1644



## **APPENDIX A**

								ALIST	O PROJECT	NO. 10-210									
VELL ID	MO	DATE OF NITORING/	CASING ELEVATIO (Feet)	N (a)	DEPTH TO WATER (Feet)	PRODUCT THICKNESS (Feet)	GROUNDWATER ELEVATION (b) (Feet)	TPH-G (ug/l)	TPH-D (ugA)	B (ug/l)	T (ugA)	E (ug/l)	X (ug/l)	MTBE (ug/l)	OTHER SVOCs (ug/l)	NAPTHALENE (ug/l)	BENZO- PYRENE (ug/l)	DO (ppm)	LAB
<b>IVV</b> -1		11/04/94	(Feel)		8.6		10.96	60000	6400	13000	4900	1300	5500	<u></u>			_		MCC
2C-1 ( IW-1		11/04/94 01/11/95	19.60		6.10	_	13.50	54000		12000	4500	1200	5200	_		Ξ	_	_	MCC
łW+1		02/24/95	19.60		6.57	-	13.03	56000	4400	13000	7000 4600	1400 970	5100 3300	_	-	Ξ	-		MCC MCC
2C-1 ( /W+1		02/24/95 05/25/95	19,60		6,54	_	13.06	43000 53000	4700	8900 11000	5700	1200	4000	_		-	_	4.3	MCC
QC-1 (	c) (	05/25/95	-		-		-	48000		11000	5300	1200	3800	_		_	_	2.8	MCC
/₩-1 2C-1 (	( c) (	08/30/95 08/30/95	19.60		8.15		11.45	14000 57000	3700	5000 17000	1100 7000	3900 1500	103 5200	_	_	_	_		MCC
100-1		11/16/95	19.60		8.79	_	10.81	100000	5900	22000	17000	2100	8500	-	-	_	_	Ξ	MCC MCC
2C-1 ( //W-1	c) (	11/16/95 03/20/96	 19.60		6.45	_	13.15	95000 46000	3300	20000 10000	15000 6200	1800 1100	7800 3200	_	_	_	_	_	MCC
	c) (	03/20/96	-		_	_	_	42000	_	9800	5800	970	3000		-	-	-		MCC
/₩-1 2C-1 (		06/13/96 06/13/96	19.60		7.14		12.46	44000 48000	5400	9500 9300	5500 5600	1100 1000	4000 3800	19000 17000	_	_	_	_	MCC MCC
⊒C-1 ( /W⊱1		09/23/96	19.60		7,56	*****	12.04	76000	14000	14000	11000	1600	7100	17000	-	_	-	6.1	MCC
AVV-1		12/19/96	19.60 19.60		7.08	_	12,52	46000 80000	7500	12000 14000	5500 12000	1200 1700	4100 7600	14000	ND	280	 ND<2	2.7	MCC MCC/CH
AVV+1 AVV+1		05/09/97 09/11/97	19.60		7.39	_	12.21	100000	7700	19000	19000	2400	11000	ND<2100				7.2	MCC
AVV-1		12/15/97	19.60		7.61	=	11,99	45000	3500	11000	5300	1500	5200	13000	_	_	_	6.8	MCC MCC
2C+1 ( //₩+1		12/15/97 03/11/98	19.60		5.35		14.25	45000 40000	3600	11000 5900	5400 3900	1400 1300	5100 4900	14000 8700	_	_	_	6	MCC
	c) (	03/11/98	_				-	43000	_	7200	5000	1400	5300	14000	-		-	-	MCC
/W-1		06/23/98	19.60		6.63	_	12,97	44000 47000	3700	5900 6000	6200 6400	1800 1800	6200 6300	870 1000		_		6.2	MCC MCC
2C-1 ( ////		06/23/98 12/01/98	19.60		6.48	_	13,12	57000		7400	12000	2100	8200	7200		Ξ		2.4	MCC
		12/01/98				_		57000	-	6800	11000	1900	7500 9400	8300 3200		-		2.1	MCC MCC
//₩-1 QC-1		03/30/99 03/30/99	19.60		5.74	_	13.86	67000 64000	6500 6400	5700 5500	9400 9000	2500 2400	9400	3200		_	_	-	MCC
WV⊬1		08/16/99	19.60		7.02	-	12.58	63000	-	3800	9100	2800	11000	ND<1700	-		-	1.3	MCC MCC
QC-1 /		08/16/99 12/31/99	19.60		7.45		12.15	64000 62000	5100	3700 2900	8800 9400	2800 2700	11000 11000	ND<1400 ND<100	_	_		8.3	MCC
	c)	12/31/99			_	-		67000	4900	2900	9700	2800	12000	ND<100	-	_	-	_	MCC
vlW⊱1		03/31/00	19,60		5,85		13.75	48000 54000	490 3300	3200 3500	5500 6000	2000 2300	6700 7300	520 730	_	_	_	7.9	MCC MCC
QC-1   WW-1		03/31/00 07/14/00	19.60		7.00	_	12.60	78000	5700	5600	14000	2300	9500	ND<200	-	_	_	3.2	MCC
		07/14/00				_	-	72000		4900 3800	14000 11000	2100 2400	9200 8200	ND<200 ND<100	_	-		1.4	MCC MCC
WW-1		10/04/00	19.60		7.60	_	12.00	65000 68000	2900	3800	13000	2400	8200 9300	ND<100 ND<100	_	_	_		MCC
WW-1	,	12/21/00	19.60		6.91	_	12.69	74000	2500	3800	17000	3400	15000	ND<200	-		_	1.3	MCC MCC
QC-1 WW-1		12/21/00 04/13/01	19,60		6.06	_	13.54	69000 55000	2400	2700 2900	12000 7800	2400 2400	11000 9400	ND<550 ND<900	_	_		0.8	MCC
	(c)	04/13/01	_		-	-	-	51000	_	2300	6100	2000	7900	ND<350	_	-	-		MCC
WW-1		06/27/01	19.60		6,54	-	13.06	80000 76000	3600	2800 3100	13000 13000	2300 2300	10000	ND<250 ND<250	_	_	_	1.1	MCC MCC
QC-1 MW-1		06/27/01 09/20/01	19.60		7.08	=	12.52	74000	6600	1600	7700	2500	10000	ND<200		_		0.8	MCC
QC-1	(c)	09/20/01	-				-	67000		1600	7800 11000	2600	10000	ND<200 ND<720	_		_	1.4	MCC MCC
MW-1 QC-1	(c)	12/21/01 12/21/01	19.60		5.71	_	13.89	58000 56000	5500	2100 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	MCC MCC
QC-1 MW-1		02/04/02 05/07/02	19,60		6,10	_	13.50	8000 41000	7900	90 1300	130 5200	270 1700	1800 6300	ND<500 ND<1000	_	_	_	4.3	MCC
		05/07/02	-		_	_		40000	-	1300	5200	1700	6400	ND<500	_	-	-	_	MCC
MW-1		08/22/02	19.60		6.91	-	12.69	42000 40000	4800	1100 1000	6300 6100	1900 1800	7900 7500	ND<500 ND<500	_	_		4.9	MCC MCC
QC-1 MW-1	(c)	08/22/02	19,60		6.46		13,14	38000	6800	770	4600	1600	6600	ND<1000	_		_		MCC
QC-1	(c)	11/08/02	_		_	-	-	49000	3700	880 1600	4800 6100	1800 2100	6700 9700	ND<1700 ND<500	_	-		1.1	MCC MCC
MW-1 MW-1		02/07/03 05/02/03	19.60 19.60		5.80 5.60	_	13.80 14.00	43000 48000	3700 4600	1600	5900	1800	9700 7300	ND<500 ND<1000	_	_	_	-	MCC
QC-1	(c)	05/02/03	_			_	-		_	1200	5800	1800	7100	ND<500	_	_		1.3	MCC
MW-1 QC-1	(c)	08/14/03 08/14/03	19.60		6.81	_	12.79	42000 43000	3800	1000	4700 4600	2000 2000	8100 7900	ND<500 ND<500	_	_	_		MCC
MW-1	101	11/14/03	19.60		6.71		12.89	40000	3000	610	4900	1900	7600	ND<500	-		-	0.8	MCC
MW-1		03/01/04	19.60		5.22		14.38	20000 39000	3000 3000	540 570	2500 2900	720 2100	2900 9200	ND<50 ND<500	_	_	_	0.01	MCC MCC
MW-1 QC-1	(c)	06/30/04 06/30/04	(e) 19,60		6.38	_	13.22	39000	6800	550	3200	2100	9100	ND<500	_	-	_	_	MCC
MW-1		10/26/04	19.60		6.00	_	13.60	35000	4400	510	2900	1600	5700	ND<150		-		2.7	MCC MCC
QC-1 MW-1	(c)	10/26/04 03/24/05	19,60		5.04	-	14.56	29000	3300	450 1300	2700 5500	1600 1200	5500 4900	ND<150 ND<500	_	_	_	2.7	MCC
QC-1	(c)	03/24/05	_		_	_		31000		830	3800	1000	4500	ND<210	-	-		_	MCC
MW-1		06/14/05 06/14/05	19.60		5,45	-	14.15	23000	4300	1300 1400	2700 3100	81D 810	2700 2900	ND<500 ND<250	_			2.9	MCC
QC-1 MW⊬1	(c)	06/14/05 09/12/05	19.60		7.89	_	11.71	60000	4600	4900	8200	1900	7300	2300	-		_	2,6	MCC
QC-1	(c)	09/12/05	-				_	58000	_	5000	8500	1900	7300	2200	-		_		MCC
MW-1 0C-1	(0)	01/04/06	(g) 19.60		6.09	_	13.51	54000 46000	2900	8800 8500	3500 3500	970 970	3700 3700	5400 5200	_	_			MCC
MW-1	(c)	04/04/06	(g) — (h) 19.60		5,71	<0.01	13.89	31000	2500	6700	2800	980	2800	5400	_	-	-	Ξ	MCC
QC-1	(c)	04/04/06	(h) —		_			31000	3100	6900 4800	2900 2200	1000 910	2800 2600	5800 3900	_	_	_	_	MCC
MW-1 QC-1	(c)	06/12/06 06/12/06	19.60		6.66	sheen	12.94	31000 31000	3100	4800 5700	2200	850	2400	4900	_		_		MCC
MW-1		09/08/06	19.60		7.78	sheen	11.82	34000	3000	7900	1800	760	2300	6200	-	-	-	-	MCC
QC-1		09/08/06			-	-		39000	_	6300	1600	680	2000	5200	-		-		MC

							XTRA OIL C	ARY OF GROU COMPANY SE TREET, ALAN	RVICE STAT	TION								
							ALIST		NO. 10-210									
WELL	DATE OF MONITORING SAMPLING	3 <i>1</i>	CASING ELEVATION ( (Feet)	DEPTH TO (a) WATER (Feet)	PRODUCT THICKNESS (Feet)	GROUNDWATER ELEVATION (b) (Feet)	TPH-G (ug/l)	TPH-D (ug4)	B (ug/l)	T (ug/t)	E (ug/l)	X (ug/l)	MTBE (ug/l)	OTHER SVOCs (ug/l)	NAPTHALENE (ug/l)	BENZO- PYRENE (ug/l)	DO (ppm)	LAB
MW-2	11/04/94		20.31	9.12	0.16	11,31				_	—			_	-	_	2	_
MW-2 MW-2	01/11/95 02/24/95		20.31 20.31	6.75 7.11	0.18	13.56 13.34	-	_	_	-	Ξ	_	_	_		_		_
MVV-2	05/25/95		20.31	7.01	0.01	13.31			-	-	-	-	-	-		-		****
MW-2	08/30/95		20.31	8.58 9.07	0.12	11.82 11.25		_	_		-	_	Ξ	_	_	_	_	_
MW-2 MW-2	11/16/95 03/20/96		20.31 20.31	6,79	0.01	13.53	_		_	_	_		_	-	_	-	_	
MW-2	06/13/96		20.31	7,41	0.01	12.91		-	_	_	-	4100	2600	_	_		5.5	MCC
MW-2 QC-1	(c) 09/23/96		20.31	7.83	0.01	12.49	30000 33000	19000	4600 4700	180 170	1500 1600	3900	2400	_	_	_		MCC
MV+2	12/19/96		20.31	7.37	0.01	12.95	29000		1800	240	1400	5400	-	(d)	420	ND<10	-	MCC
	(c) 12/19/96			6.11	0.21	14.36	29000 34000	6700000	580 4600	210 260	1300 1500	5100 4300	1600	Ξ	_	Ξ	3.7	MCC MCC
MW+2 MW+2	05/09/97 09/11/97		20.31 20.31	7.70	0.03	12.63	44000	1200000	3900	250	2400	7400	ND<610	-		-	6.5	MCC
	(c) 09/11/97		-	_			47000	1100000	4000	420	2700	8300	920 ND<470	Ξ	_	_	6	MCC MCC
M₩-2 M₩-2	12/15/97 03/11/98		20.31 20.31	7,87 5.61	0.03	12.46 14.84	32000 44000	68000 3800	4600 5200	130 220	2200 2000	5400 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
MW42	12/01/98		20.31	7.30 6.51	0.13	13.01 13.90	36000 23000	23000	3800 5000	73 100	1500 610	3900 870	2000 21000	_	_		1.9 1.7	MCC MCC
MW-2 MW-2	03/30/99 08/16/99		20,31 20,31	6.51 8.04	0.13	13,90	30000	-	5200	67	1100	1800	6000	_	_		2.6	MCC
MV/-2	12/31/99		20.31	8.20	0.01	12.12	43000	340000	7600	97	1400	2500	4300 13000		_		9.0 8.1	MCC MCC
MW+2 MW+2	03/31/00 07/14/00		20.31 20.31	6.29 8.02	0.01	14.03 12.29	26000 35000	200000 170000	4000 5000	58 76	1100 1100	1500 2500	4900				3.9	MCC
MVV-2 MVV-2	10/04/00		20.31	8.62	_	11.69	22000	67000	4700	97	1300	1000	1900	-		-	1.8	MCC
MW-2	12/21/00		20.31	7.70	-	12.61	23000 25000	16000 21000	7500 6400	65 79	770 790	490 670	8600 8300	_	220	ND<10	0.6 1.1	MCC
MW-2 MW-2	04/13/01 06/27/01		20.31 20.31	7.05 7.50	_	13.26 12.81	25000 34000	10000	5400	100	790 520	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 MCC
MV+2	12/21/01		20.31	6.66 6.75	-	13,65 13,56	30000 17000	18000 35000	3000 3600	52 ND<50	1700 960	970 500	ND<100 1200	_	_		0.9 1.3	MCC
MW-2 MW-2	02/04/02 05/07/02		20.31 20.31	7.20	_	13.11	16000	59000	3500	43	520	220	3100		-		1.0	MCC
MW-2	08/22/02		20.31	7,96	_	12.35	15000	60000	2700	30	460 1100	220 150	700 ND<250	=	-		4.2	MCC MCC
MW-2 MW-2	11/08/02		20.31 20.31	7.69 6.52	=	12.62 13.79	15000 11000	100000	2100 4400	60 24	1100 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 12000	4300 13000	1600 1700	21 29	450 600	80 100	ND<400 ND<600	=	_	_	0.9 0.7	MCC MCC
MV42 MV42	11/14/03		20.31 20.31	7.85 6.10	_	12.46 14.21	12000	43000	3900	100	670	430	1800		_	-	0.42	MCC
MW-2	06/30/04	(e		7.61	-	12.70	14000	12000	3800	33	390	72	1900 1700	-	Ξ		0.42	MCC
MW-2 MW-2	10/26/04 03/24/05		20.31 20.31	7.12 5.78	_	13.19 14.53	14000 15000	7900 57000	3700 3000	47 ND<25	300 400	100 58	1700 ND<900	Ξ	_		_	MCC
MVV-2 MVV-2	06/14/05		20.31	6,92	_	13.39	15000	53000	2100	31	310	49	530	-	-	-	0,8	MCC
MVV-2	09/12/05		20.31	8.25	0.01 <0.01	12.06 13.86	10000 7300	11000 14000	2600 1500	30 18	200 180	ND<10 47	660 ND<250		_	Ξ	2.6	MCC MCC
MV+2 MV+2	01/04/06	(g (h		6.45 6.14	<0.01	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 25	74 130	59 38	460 ND<300	_		_	_	MCC
MW-2	09/08/06		20.31	8.22	sheen	12.09	12000	7400	1800	•			ND<500		-	-		
MW-3 MW-3	11/04/94 01/11/95		20.57 20.57	8.92 5.67	-	11.65 14.90	ND<50	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5		_	_		_	MCC
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
MW43	05/25/95		20.57	6.24	-	14.33 12.30	91 ND<50	ND<50 ND<50	28.0 ND<0.5	12.0 ND<0.5	2.1 ND<0.5	6.5 ND<0.5	_	-	_	_	4,6	MCC
MW-3 MW-3	08/30/95 11/16/95		20.57 20,57	8.27 8.82	_	12.30	ND<50	ND<50 ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	_	_		_		MCC
MW43	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 ND<0.5	ND<0.5 ND<0.5		_		_		MCC MCC
MW43	06/13/96 09/23/96		20.57	6.17 6.57	-	14.40 14.00	ND<50 ND<50	ND<50 ND<50	ND<0.5 ND<0.5	ND<0.5 ND<0.5	ND<0.5 ND<0.5	ND<0.5 ND<0.5	ND<5.0 ND<5.0	_	_	_	4.9	MCC
MVV-3	12/19/96		20.57	6,59		13.98	ND<50		ND<0.5	ND<0.5	ND<0.5	ND<0.5	-	-	-	-	_	MCC
MW-3	05/09/97		20.57	7.00	-	13.57 13.65	ND<50 ND<50	59 82	ND<0.5 ND<0.5	ND<0.5 ND<0.5	ND<0.5 ND<0.5	ND<0.5 ND<0.5	ND<5.0 ND<5.0		_	-	3.3 7	MCC MCC
MV43 MV43	09/11/97 12/15/97		20,57 20,57	6.92 7.03	_	13.55	ND<50	82 ND<50	ND<0.5 ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0	_	_	_	6.5	MCC
MW43	03/11/98		20.57	4,71	-	15.86	ND<50	ND<50	ND<0.5	1.8 ND<0.5	0.6 ND<0.5	3.1 ND<0.5	ND<5.0 ND<5.0	_	_		6.1 5.7	MCC MCC
MW-3 MW-3	06/23/98 12/01/98		20.57 20.57	6.33 6.74	_	14.24 13.83	ND<50 ND<50	ND<50	ND<0.5 ND<0.5	ND<0.5 ND<0.5	ND<0.5 ND<0.5	ND<0.5 ND<0.5	ND<5.0 ND<5.0	=	-	_	4	MCC
MVV-3 MVV-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<50	ND<50	ND<0.5 ND<0.5	ND<0.5 ND<0.5	ND<0.5 ND<0.5	ND<0.5 ND<0.5	ND<5.0 ND<5.0	_	Ξ.	_	2.7 9.0	MCC MCC
MVV-3 MVV-3	12/31/99 03/31/00		20.57 20.57	8.07 5.59	-	12.50 14.98	ND<50 ND<50	ND<50 ND<50	ND<0.5 ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0	-	=	_	2.8	MCC
MV43	07/14/00		20.57	7.64	-	12.93	68	ND<50	0.89	1.7	2.1	9.5	ND<5.0				2.1 2.0	MCC
MW43 MW43	10/04/00		20.57 20.57	8.34 7.00	-	12.23 13.57	ND<50 ND<50	ND<50 ND<50	ND<0.5 ND<0.5	ND<0.5 ND<0.5	ND<0.5 ND<0.5	ND<0.5 ND<0.5	ND<5.0 ND<5.0		_	_	2.0	MCC
MVV-3	12/21/00 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
MVV-3	06/27/01		20.57	7.37	-	13.20	ND<50 ND<50	ND<50 ND<50	ND<0.5 ND<0.5	ND<0.5 ND<0.5	ND<0.5 ND<0.5	ND<0.5 ND<0.5	ND<5.0 ND<5.0	_	_	=	1.9 2.1	MCC
MW-3 MW-3	09/20/01 12/21/01		20.57 20.57	8.25 5.72	_	12.32 14,85	ND<50 ND<50	ND<50 ND<50	ND<0.5	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	_	_	Ξ	4.1 4.0	MCC MCC
MW43 MW43	05/07/02 08/22/02		20.57 20.57	6,49 7.93	_	14.08 12.64	ND<50 ND<50	ND<50 ND<50	ND<0.5 ND<0.5	ND<0.5 ND<0.5	ND<0.5 ND<0.5	ND<0.5 ND<0.5	ND<5.0 ND<5.0	_	_	_	4.0	MCC
MV43	11/08/02		20.57	7.67	_	12.90	ND<50	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0		-	-	_	MCC

							1			SERVICE STA AMEDA, CALI									
								ALIS	TO PROJEC	T NO. 10-210									
WELL ID	DATE OF MONITORING/ SAMPLING	_	CASING ELEVATION (Feet)	(a)	DEPTH TO WATER (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)	NAPTHALENE (ug/l)	BENZO- PYRENE (ug/l)	(ppm)	LAB
MW43 MW43	02/07/03		20.57 20.57		5.95 5.75		14.62 14.82	ND<50 ND<50		ND<0.5 ND<0.5	ND<0.5 ND<0.5	ND<0.5 ND<0.5	ND<0.5 ND<0.5	ND<5.0 ND<5.0	-	_	_	2.8	MCC MCC
MV+3 MV+3	05/02/03 08/14/03		20.57		5.75	_	12.83	ND<50	ND<50	1.6	ND<0.5	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
MVV-3 MVV-3	03/01/04 06/30/04 (i		20.57 20.57		5.17 7.48	-	15.40 13.09	ND<50 ND<50	ND<50	ND<0.5 ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5 ND<5.0		_	_	0.92 0.92	MCC
MVV-3 MVV-3	10/26/04 (1	e}	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
MVV-3 MVV-3	06/14/05 09/12/05		20,57 20,57		5,99 7.89	_	14.58 12.68	ND<50 ND<50	ND<50 ND<50	ND<0.5 ND<0.5	ND<0.5 ND<0.5	ND<0.5 ND<0.5	ND<0.5 ND<0.5	ND<5.0 ND<5.0	_	_	_	2.7 3.3	MCC
MVV-3 MVV-3		g)	20.57 20.57		7.89	_	12.66	ND<50 ND<50	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0	_	_	_		MCC
MW-3		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
MV4-3 MW-3	06/12/06 09/08/06		20.57 20,57		6.20 7,81	_	14.37 12.76	ND<50 ND<50	ND<50 ND<50	ND<0.5 ND<0.5	ND<0.5 ND<0.5	ND<0.5 ND<0.5	ND<0.5 ND<0.5	ND<5.0 ND<5.0	_	_	_	_	MCC MCC
MVV-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
MVV-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 16.18	14000 2800	2100 780	910 68	690 94	390 72	2700 430	1700 140	_	-	_	6 5.5	MCC
MVV-4	03/11/98 06/23/98		19.69 19.69		3.51 5.21	_	16.18	2800 15000	2800	240	94 630	720	2700	370		_		5.4	MCC
MVV-4	12/01/98		19.69		5.21	_	13.24	21000	-	580	1000	530	3600	1700	-	-	—	4.4	MCC
MVV-4	03/30/99		19,69		5,41	Ξ	14.28	41000	3600	3100	3400	1700	6700	5700	-	-	-	4.6	MCC
MVV-4	08/16/99		19,69		7,35	_	12.34	24000		4600	940	1200	2700	9700 3500		_	-	3.4 10.1	MCC
MW-4 MW-4	12/31/99 03/31/00		19.69 19.69		7.71 5.22	-	11.98 14.47	14000 14000	2000 1400	510 470	630 480	60D 580	3100 2200	2000	_	_	_	6.8	MCC
MVV-4 MVV-4	03/31/00		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		6.86	-	12.83	13000	1800	370	410	460	2300	1500 2300	_	88	ND<10	0.6 1.0	MCC
MW-4 MW-4	04/13/01 06/27/01		19.69 19.69		6.02 6.72	-	13.67 12.97	20000 23000	2800 2100	710 510	640 1100	620 1100	2900 4300	1400	_	_		1.0	MCC
MVV-4	09/20/01		19.69		7.30	_	12.39	36000	4400	460	1300	1700	6700	1000	-	_	-	2.0	MCC
MVV-4	12/21/01		19.69		4,55		15.14	11000	5600	130	250	480	2400	ND<320	—		-	1.6	MCC
MVV-4	02/04/02		19,69		5.82		13.87	50000	12000	3000	8100	1900	7600 3700	ND<500 ND<500	_	Ξ	_	2.0 2.6	MCC
MW-4	05/07/02 08/22/02		19.69 19.69		6.08 7.45	-	13.61 12.24	17000 26000	3200	270 720	820 920	870 1500	3700	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	Ξ	14.83	13000		520	1300	ND<25	3600	420	-	-	-	2.1	MCC
QC-1 (					_	_	_	13000	3600	510 280	1200 550	83 810	3100 3600	420 470	_	_	_	_	MCC MCC
MW-4 MW-4	05/02/03 08/14/03		19.69 19.69		5.45 7.20	-	14.24 12.49	19000 31000	4100	280	810	1300	6400	1100	=	_		1.2	MCC
MV44	11/14/03		19.69		6.92	Ξ	12.77	18000	3300	400	320	1000	4500	ND<1000	_	—	-	0.7	MCC
QC-1 (	c) 11/14/03				-	Ξ	-		-	440	310	1100	4500	ND<1000	-	-	-		MCC
MW-4 QC-1 (	03/01/04 c) 03/01/04		19.69		5,10	_	14.59	15000 15000	2500	110 110	210 220	580 610	2700 2800	240 250		-		0.61	MCC MCC
MW4		(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 23000	1900 5600	62 160	29 510	190 1200	960 4000	ND<120 ND<500	Ξ	_	_	2.0 2.1	MCC
MVV-4 MVV-4	06/14/05 09/12/05		19.69 19.69		5.58 7.84		14.11 11.85	23000	4000	1400	640	1400	3900	1400	_		_	2.2	MCC
MW44		(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 MCC
MW-4	06/12/06 09/08/06	(i)	19.69 19.69		6.07 7.42	sheen sheen	13.62	24000 20000	4500 3100	270 1700	390 240	1300 930	3600	340 1800	_	_	_	Ξ	MCC
		11	10,00		/.41	streett	12.27				ND<0.5		ND<0.5		_	_	_	_	мсс
QC-2 ( QC-2 (			_		_	_		ND<50 ND<50	_	ND<0.5 ND<0.5	ND<0.5 ND<0.5	ND<0.5 ND<0.5	ND<0.5 ND<0.5	_	_	_	_	=	MCC
	f) 05/25/95				_	=	_	ND<50	_	ND<0.5	ND<0.5	ND<0.5	ND<0.5	-	_		_	_	MCC
QC-2 (			_				-	ND<50		ND<0.5	ND<0.5	ND<0.5	ND<0.5		-		-		MCC
	f) 11/16/95		—		-	-	-	ND<50 ND<50	_	ND<0.5 ND<0.5	ND<0.5 ND<0.5	ND<0.5 ND<0.5	ND<0.5 ND<0.5	-			_	-	MCC MCC
QC-2 ( QC-2 (	n 03/20/96 n 06/13/96		_		Ξ			ND<50		ND<0.5	ND<0.5		ND<0.5	_	_		_		MCC
l î			*******						NOTES:										
ABBREVI TPH-G TPH-D	Total petroleum h						5		NOTES: (a) (b)				nean sea leve in feet above		el, and				
В	O Total petroleum hydrocarbons as diesel using EPA Methods 3510/8015 Benzene using EPA Methods 5030/8020 Toluene using EPA Methods 5030/8020 Euhytbenzene using EPA Methods 5030/8020								adjusted assuming a specific gravity of 0.75 for free product. (c) Blind duplicate.										
x	Total xylenes usin	ng f	EPA Methods 5	030/80	020				(d)	2-methylna	pthalene an	d 14 ug/l phe		- 8''					
MTBE SVOCs	Methyl tert butyl e Semivolatile orga					70			(e) (f)	Wells moni Travel blan	tored 6/15/0 k.	4.							
DO	Dissolved oxyger		oo nipourius us	ng cr	A RECIVE CZI	-			(g)	4th Quart	er 2005 san								
ug/l	Micrograms per li	liter							(h)		er 2006 san			and in more set					
ppm	Parts per million Not analyzed/app	ntie -	ble/measur-bl						61	Well rech	arge was ex	ceedingl slo	w; not to be	used in prepari	ing contours				
ND	Not analyzed/app Not detected abo				nit														
MCC	McCampbell Ana																		
CHR	Chromalab, Inc.																		
1																			

TABLE 1 - SUMMARY OF GROUNDWATER SAMPLING XTRA OIL COMPANY SERVICE STATION

- SVOCs DO ug/I Ppm \_\_\_\_\_ ND MCC CHR

- Travel blank. 4th Quarter 2005 sampling 1st Quarter 2006 sampling Well recharge was exceeding! slow; not to be used in preparing contours (f) (g) (h) []