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### **RECEIVED**

October 18, 2010

Mr. Paresh Khatri Alameda County Environmental Health Department 1131 Harbor Bay Parkway, Suite 250 Alameda, CA 94502 11:28 am, Oct 26, 2010

Alameda County
Environmental Health

SUBJECT:

QUARTERLY GROUNDWATER MONITORING AND SAMPLING REPORT

CERTIFICATION
County Case # RO 285
Xtra Oil Company
3495 Castro Valley Blvd.

Castro Valley, CA

Dear Mr. Khatri:

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

 Quarterly Groundwater Monitoring and Sampling Report (September Through November 2009) dated October 18, 2010 (document 0014.R76).

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

## P&D ENVIRONMENTAL, INC.

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

October 18, 2009 Report 0014.R76

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

SUBJECT: QUARTERLY GROUNDWATER MONITORING AND SAMPLING REPORT

(SEPTEMBER THROUGH NOVEMBER 2009)

County Case # RO 285 Xtra Oil Company 3495 Castro Valley Blvd. Castro Valley, California

### Gentlemen:

P&D Environmental, Inc. (P&D) is pleased to present this report documenting the results of this quarterly monitoring and sampling of both the on- and off-site wells for the subject property. This work was performed in accordance with P&D's proposal 020599.P1 dated February 5, 1999. Onsite wells MW1, MW3, MW4, and EW1, and offsite monitoring wells MW5 through MW12 were monitored on October 15, 2009, offsite observation wells OW1 and OW2 were monitored on October 16, 2009, and wells MW1, MW3, EW1, and MW5 through MW12 were sampled on October 15 and 16, 2009. The reporting period is for September through November 2009.

A Site Location Map (Figure 1), a Site Plan showing onsite well locations (Figure 2), and a Site Vicinity Map showing offsite well locations (Figure 3) are attached with this report. Figure 3 has been updated to show the correct location of OW2. Norbridge School shown on Figure 1 to the south of the subject site has been demolished and replaced with the Castro Valley BART station and associated parking lot.

### BACKGROUND

The site is currently used as a gasoline station. Four 12,000 gallon underground fuel storage tanks are present at the site. Three of the tanks contain gasoline and the fourth tank contains diesel fuel. A 550 gallon waste oil tank was removed from the site in November 1988. The fuel tanks were replaced during August 1992.

Three monitoring wells, designated MW1, MW2 and MW3, were installed at the site on February 14 and 15, 1990 by Western Geo-Engineers. The subsurface materials encountered in the boreholes consisted primarily of silt and clay. The locations of the monitoring wells are shown on Figure 2. Soil samples collected during drilling of the boreholes for the monitoring wells revealed the presence of total petroleum hydrocarbons as gasoline (TPH-G) and total petroleum hydrocarbons as diesel (TPH-D).

TPH-G was encountered in borehole MW1 at depths of 5 and 10 feet below grade at concentrations of 40 and 1,400 mg/kg, respectively; in borehole MW2 at depths of 10 and 15 feet below grade at concentrations of 230 and 95 mg/kg, respectively; and in borehole MW3 at depths of 5, 10, and 15 feet at concentrations of 140, 250 and 25 mg/kg, respectively. In addition, 120 mg/kg TPH-D was detected in borehole MW3 at a depth of 5 feet. Soil samples collected at a depth of 20 feet in borehole MW1 and at a depth of 18 feet in boreholes in MW2 and MW3 did not show any detectable concentration of TPH-G or TPH-D. Groundwater was encountered in the boreholes at depths of approximately 15 to 16 feet below grade.

On February 15, 1990 Western Geo-Engineers drilled three exploratory boreholes at the site designated as SB1, SB2 and SB3. The subsurface materials encountered in the boreholes consisted primarily of silt and clay. The approximate locations of the boreholes are shown on Figure 2. It is P&D's understanding that soil samples were collected from the exploratory boreholes at depths of 10 and 12 feet and evaluated in the field using a photoionization detector. In borehole SB1, TPH-G was detected at the depths of 10 and 12 feet at concentrations of 1,700 and 450 mg/kg, respectively. In boreholes SB2 and SB3, TPH-G was detected at the depths of 10 and 12 feet in both boreholes at concentrations of 800 mg/kg and greater than 2,000 mg/kg, respectively. A groundwater monitoring and sampling program was initiated at the site on February 20, 1990.

It is P&D's understanding that during fuel tank replacement activities in August, 1992 soil surrounding the tank pit was removed and disposed of offsite. An extraction well, designated as EW1, was designed and constructed in one corner of the new tank pit by K&B Environmental at the time of installation of the new tanks. The location of EW1 is shown on Figure 2.

On February 7, 1996 well MW2 was destroyed associated with the widening of Redwood Road. The destruction was overseen by ACC Environmental Consultants of Oakland, California.

On August 15, 1997 P&D personnel oversaw the installation of one groundwater monitoring well, designated as MW4, at the subject site. The location of the monitoring well is shown on the attached Site Plan, Figure 2. This work was performed in accordance with P&D's work plan 0014.W4 dated June 27, 1997. The work plan was approved by the Alameda County Department of Environmental Health (ACDEH) in a telephone conversation with Mr. Scott Seery on August 14, 1997. During the conversation, Mr. Seery indicated that he would record his approval of the work plan in the county file for the site. In accordance with an October 25, 2002 letter from Mr. Seery, groundwater samples are to be analyzed for fuel oxygenates methyl tertiary-butyl ether (MTBE), tertiary amyl methyl ether (TAME), ethyl tertiary-butyl ether (ETBE), diisopropyl ether (DIPE), and tertiary-butyl alcohol (TBA), and lead scavengers ethylene dibromide (EDB), 1,2-dichloroethane (1,2-DCA) using EPA Method 8260; and data for observation wells OW1 and OW2, located in Redwood Road, are to be incorporated into monitoring and sampling reports for the subject site. Documentation of the well installation is provided in P&D's Monitoring Well Installation Report dated September 30, 1997 (document 0014.R25).

On May 31, 2005, P&D submitted an Interim Source Area Remediation Plan (ISARP) to ACDEH proposing free product removal at the site (document 0014.W9). P&D proposed using existing extraction well EW1 in the existing UST pit to dewater the existing pit and the previous UST pit.

October 18, 2009 Report 0014.R76

Monitoring of existing wells MW1, MW3, and MW4 to evaluate the effectiveness of water table drawdown at the site for plume control and associated free product recovery was also proposed.

In January 2007, P&D installed a groundwater extraction system consisting of a pump in well EW1, associated piping for discharge of water from the well, and a carbon filtration system. System operation began in February 2007. Documentation of the system installation and operation is provided in P&D's Interim Source Area Remediation Plan Progress Evaluation Report dated October 25, 2007 (document 0014.R67).

In response to a February 6, 2007 letter request from the ACDEH, P&D submitted a Groundwater Monitoring Well Installation Work Plan (MW5 Through MW13) dated March 5, 2007 (document 0014.W10) to the ACDEH proposing the installation of nine offsite groundwater monitoring wells in the vicinity of the subject site designated as MW5 through MW13. The ACDEH conditionally approved the work plan in an April 4, 2007 letter. P&D subsequently submitted a Groundwater Monitoring Well Installation Work Plan Amendment (MW5 Through MW12) dated May 3, 2007 (document 0014.W10A) to the ACDEH proposing the installation of eight offsite groundwater monitoring wells in the vicinity of the subject site designated as MW5 through MW12. Documentation of the implementation of the work plan and work plan amendment is provided in P&D's Groundwater Monitoring Well Installation Report (MW5 Through MW12) dated January 30, 2008 (document 0014.R68).

The groundwater extraction system that pumped from well EW1 was shut off on April 29, 2009 so that the carbon vessel could be moved to a new location as part of an expansion of the site onto the adjacent parcel located to the west.

### FIELD ACTIVITIES

Onsite wells MW1, MW3, MW4, and EW1, and offsite monitoring wells MW5 through MW12 were monitored on October 15, 2009, offsite observation wells OW1 and OW2 were monitored on October 16, 2009, and wells MW1, MW3, EW1, and MW5 through MW12 were sampled on October 15 and 16, 2009. The monitoring and sampling was not performed in conjunction with monitoring and sampling by SOMA Environmental Engineering, Inc. of Pleasanton, California at the Former BP site at 3519 Castro Valley Boulevard as most monitoring and sampling programs have been reduced to a semiannual basis.

On October 15, 2009 the wells at the subject site were monitored for depth to water and the presence of free product or sheen. In well MW4 the depth to water and depth to free product were measured to the nearest 1/32-inch with a steel tape and water-finding and product-finding paste. The passive hydrocarbon collection device in well MW4 was removed by P&D personnel and placed in storage near MW1 during pressure transducer installation in well MW4 on November 2, 2006. In wells OW1, OW2, MW1, MW3, and EW1, the depth to water was measured to the nearest 0.01 foot using an electric water level indicator. The presence of free product and sheen was also evaluated using a transparent bailer in wells MW1, MW3, MW5 through MW12, and EW1. The measured free product thickness in well MW4 was 0.46 feet. No water or free product was encountered in observation wells OW1 and OW2 located in Redwood Road, and no sample was collected from MW4 due to the presence of free product in the well.

Prior to well sampling, onsite wells MW1, MW3, and EW1, and offsite wells MW5 through MW12 were purged of a minimum of three casing volumes of water or until the wells had been purged dry. Petroleum hydrocarbon odors were detected on the purge water from all three of the onsite sampled wells (MW1, MW3 and EW1), and petroleum hydrocarbon sheen was observed on the purge water from onsite wells MW1 and MW3. Petroleum hydrocarbon odors were also detected for the samples collected from offsite wells MW6, MW8, and MW12, and petroleum hydrocarbon sheen was observed on the sample collected from offsite well MW6.

During purging operations, the field parameters of electrical conductivity, temperature, and pH were monitored and recorded on a groundwater monitoring/well purging data sheet. Once the field parameters were observed to stabilize and a minimum of three casing volumes had been purged, or the wells had purged dry and partially recovered, water samples were collected using a clean, new disposable bailer. Records of the field parameters measured during well purging are included with this report.

The water samples were transferred to 40-milliliter glass VOA vials and 1-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 VOA vials and bottles were then transferred to a cooler with ice, until they were transported to McCampbell Analytical, Inc. in Pittsburg, California. McCampbell Analytical, Inc. is a State-accredited hazardous waste testing laboratory. Chain of custody documentation accompanied the samples to the laboratory.

### **HYDROGEOLOGY**

On January 7, 2008 Kier & Wright (State-licensed surveyors) surveyed the top of all of the wells, including onsite wells MW1, MW3, MW4 and EW1, and offsite observation wells OW1 and OW2. The new top of well casing elevations for the wells and the associated calculated groundwater surface elevations are shown in Table 1. Comparison of the previous top of well casing elevations for wells MW1, MW3 and MW4 with the January 7, 2008 elevations shows that the January 7, 2008 elevations are 2.85, 3.06, and 2.86 feet higher, respectively, than the previously surveyed elevations. The groundwater surface elevations and associated groundwater flow direction were calculated using the January 7, 2008 survey elevations for all of the wells.

The groundwater extraction system that pumped from well EW1 was shut off on April 29, 2009 so that the carbon vessel could be moved to a new location as part of an expansion of the site onto the adjacent parcel located to the west.

On October 15, 2009 the measured depth to water in wells MW1, MW3, MW4, and EW1 was 7.22, 7.55, 7.06, and 5.96 feet, respectively. A separate phase hydrocarbon layer measuring approximately 0.46 feet in thickness was measured in well MW4. Using a specific gravity of 0.75, the corrected depth to water in well MW4 is 6.71 feet. Since the previous monitoring event on July 7, 2009, the groundwater elevations (corrected for the presence of any detected free product) have increased in wells MW1, MW3, MW4, and EW1 by 1.22, 0.95, 1.28, and 2.33 feet, respectively. Since the previous monitoring and sampling event for the offsite wells on July 7, 2009 the groundwater elevations have increased in offsite groundwater monitoring wells MW5, MW6,

MW7, MW8, MW9, MW10, MW11, and MW12 by 1.14, 1.08, 1.22, 1.26, 1.12, 1.17, 1.14, and 1.29 feet, respectively. Although the measured change in the water level in well MW11 has historically been attributed to very slow recovery of the well during previous sampling episodes in 2007, the change in water level since the previous sampling event in well MW11of 1.14 feet is approximately comparable to the water level change in nearby well MW7 of 1.22 feet. The measured depth to water in the wells and the separate phase layer thickness measured in monitoring well MW4 are summarized in Table 1.

Based on the measured depth to groundwater (corrected for the presence of any detected free product) in the onsite groundwater monitoring wells MW1, MW3 and MW4, the apparent groundwater flow direction at the site on October 15, 2009 was calculated to be to the south-southeast with a gradient of 0.009. During the previous quarterly monitoring and sampling event on July 7, 2009, the groundwater flow direction was calculated to be to the south-southwest with a gradient of 0.010. The groundwater flow direction at the site on October 15, 2009 is shown on Figure 2. Although the easterly shift in the groundwater flow direction observed during the July 7, 2009 monitoring event suggested that a shift in groundwater flow direction was occurring that was more consistent with the historical groundwater flow direction observed at the site prior to the extraction of groundwater from well EW1, the groundwater flow direction calculated from water levels measured on both July 7 and October 15, 2009 remains southerly. Rose diagrams showing historical groundwater flow directions at the site before and after groundwater pumping at well EW1 are shown on Figure 2. The October 15, 2009 groundwater flow direction is shown on the rose diagram for the time period April 2007 through October 2009 (4/07 – 10/09).

Based on review of groundwater surface elevations in offsite groundwater monitoring wells MW5 through MW12, the groundwater flow direction in the vicinity of the site is southerly, ranging from the south-southeast with a gradient of 0.015 in the vicinity of Redwood Road to the south-southwest with a gradient of 0.013 in the vicinity of the west end of Redwood Court. These offsite groundwater flow directions and gradients are relatively consistent with groundwater flow directions and gradients observed during the previous monitoring and sampling episode. Groundwater surface elevations and contours and the approximate groundwater flow direction in the vicinity of the site based on October 15, 2009 water level measurements from the offsite wells are shown on Figure 3.

### **LABORATORY RESULTS**

All of the groundwater samples collected on October 15 and 16, 2009 were analyzed for TPH Multirange (TPH-G, TPH-D, and TPH-MO) using EPA Methods 5030B and 3510C in conjunction with modified EPA Method 8015C; and for benzene, toluene, ethylbenzene, and total xylenes (BTEX), fuel oxygenates (MTBE, TAME, ETBE, TAME, and TBA) and lead scavengers EDB and 1,2-DCA/EDC using EPA Method 5030B in conjunction with EPA Method 8260B.

The laboratory analytical results for the samples collected from onsite wells MW1, MW3, and EW1 show that TPH-D was detected at concentrations of 5,800, 10,000, and 10,000 micrograms per Liter ( $\mu$ g/L), respectively; TPH-G was detected at concentrations of 23,000, 84,000, and 1,600  $\mu$ g/L, respectively; benzene was detected at concentrations of 240, 33,000, and 470  $\mu$ g/L, respectively; and MTBE was detected in the groundwater samples collected from wells MW3 and EW1 at

October 18, 2009 Report 0014.R76

concentrations of 3,300 and 180  $\mu$ g/L, respectively. No fuel oxygenates or lead scavengers were detected in the groundwater samples collected from onsite wells MW1, MW3, and EW1, with the exception of MTBE mentioned above and TBA, which was detected in the sample collected from well EW1 at concentrations of 1,100  $\mu$ g/L, respectively.

The laboratory analytical results for the samples collected from offsite wells MW5 through MW12 shows that no analytes were detected in the sample collected from well MW9, and that only MTBE was detected in the samples collected from wells MW5, MW10, and MW11 at concentrations of 0.63, 0.61, and 36  $\mu$ g/L, respectively. In the samples collected from the remaining offsite wells (MW6, MW7, MW8, and MW12) TPH-D was detected at concentrations of 6,100, 60, 380, and 71,  $\mu$ g/L, respectively; and TPH-G was detected at concentrations of 53,000, 220, 1,500, and 230  $\mu$ g/L, respectively. Benzene was only detected in the samples collected from offsite wells MW6, MW7, and MW8 at concentrations of 7,400, 41, and 23  $\mu$ g/L, respectively. MTBE was only detected in the samples collected from the remaining offsite wells MW7, MW8, and MW12 at concentrations of 8.7, 4.4, and 7.0  $\mu$ g/L, respectively.

No other fuel oxygenates or lead scavengers were detected in any of the samples collected from any of offsite wells MW5 through MW12, except for TBA in the sample collected from well MW8 at a concentration of  $3.2 \,\mu g/L$ .

Review of the laboratory analytical reports shows that the TPH-D results for the samples collected from wells MW1, MW3, MW8, MW12, and EW1 are described as consisting of both diesel and gasoline range compounds, and the TPH-D results for the samples collected from well MW6 is described as consisting of gasoline-range compounds.

The laboratory analytical results for the groundwater samples are summarized in Table 2. Copies of the laboratory analytical reports and chain of custody documentation are included with this report.

### DISCUSSION AND RECOMMENDATIONS

Onsite wells MW1, MW3, MW4, and EW1, offsite observation wells OW1 and OW2, and offsite monitoring wells MW5 through MW12 were monitored on October 15, 2009 and wells MW1, MW3, EW1, and MW5 through MW12 were sampled on October 15 and 16, 2009. Separate phase hydrocarbons were measured in well MW4 at a thickness of 0.46 feet (changed from 0.22 feet on July 7, 2009). The passive hydrocarbon collection device in well MW4 was removed on November 2, 2006 by P&D personnel during pressure transducer installation associated with preparation for dewatering the former UST pit. Dewatering of the former UST pit began February 2007 in UST pit extraction well EW1. The groundwater extraction system that pumped from well EW1 was shut off on April 29, 2009 so that the carbon vessel could be moved to a new location as part of an expansion of the site onto the adjacent parcel located to the west.

The groundwater surface elevations and associated groundwater flow direction were calculated using the January 7, 2008 survey elevations for all of the wells. Rose diagrams showing historical groundwater flow directions at the site before and after groundwater pumping at well EW1 are shown on Figure 2. The October 15, 2009 groundwater flow direction is shown on the rose diagram for the time period April 2007 through October 2009 (4/07 - 10/09). Although the easterly

shift in the groundwater flow direction observed during the July 7, 2009 monitoring event suggested that a shift in groundwater flow direction was occurring that was more consistent with the historical groundwater flow direction observed at the site prior to the extraction of groundwater from well EW1, the groundwater flow direction calculated from water levels measured on both July 7 and October 15, 2009 remains southerly. Based on review of groundwater surface elevations in offsite groundwater monitoring wells MW5 through MW12, the groundwater flow direction in the vicinity of the site is southerly, ranging from the south-southeast with a gradient of 0.015 in the vicinity of Redwood Road to the south-southwest with a gradient of 0.013 in the vicinity of the west end of Redwood Court.

Review of changes in onsite water quality since the previous sampling event on July 7 and 8, 2009 shows that in well MW1 all analyte concentrations have increased or remained the same with the exception of TPH-D which decreased; in wells EW1 and MW3 all analyte concentrations have decreased with the exception of TPH-D and TPH-G in MW2 and TPH-D in EW1, which increased.

The decrease in petroleum hydrocarbon concentrations in well EW1 (with the exception of TPH-D) when compared to water quality data observed during pumping from well EW1 is attributed to the pump at well EW1 having been shut off. Since dewatering of the UST pit has been suspended, concentrations of petroleum hydrocarbons moving into the UST pit have decreased.

Review of changes in offsite water quality since the previous sampling event on July 7 and 8, 2009 shows that all analyte concentrations have decreased or remained not detected in wells MW5, MW9, MW10, and MW11. In wells MW8 and MW12 all analyte concentrations remained not detected or decreased, with the exceptions of MTBE and TBA in MW8, and TPH-D and TPH-G in well MW12, which increased. In wells MW6 and MW7 all analyte concentrations remained not detected or increased, with the exceptions of TPH-D and TPH-G in well MW6, and TPH-D and TBA in well MW7, which decreased.

Based on the laboratory analytical results of the water samples collected from the monitoring wells, P&D recommends that groundwater monitoring and sampling be continued on a quarterly basis, as required by the ACDEH. In addition, P&D recommends that future monitoring and sampling efforts be coordinated with the Former BP site located at 3519 Castro Valley Boulevard. In accordance with communications with the ACDEH, although future monitoring and sampling events will be performed in conjunction with the consultant for the Former BP site located at 3519 Castro Valley Boulevard, the results obtained by the other consultant 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 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 is 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.

October 18, 2009 Report 0014.R76

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

PAUL H. KING No. 5901

Sincerely,

P&D Environmental, Inc.

Paul H. King

Professional Geologist #5901

Expires: 12/31/11

Attachments:

Table 1 – Historical Water Level Data

Table 2 – Historical Water Quality Data

Figure 1 - Site Location Map

Figure 2 - Site Plan Showing October 15, 2009 Water Level Data

Figure 3 - Site Vicinity Map Showing October 15, 2009 Water Level Data

Well Monitoring and Purge Data Sheets

Laboratory Analytical Reports and Chain of Custody Documentation

PHK/ sjc 0014.R76

# **TABLES**

Well Number	<u>Date Monitored</u>	Top of Casing Elevation (Ft)	Depth to Water (Ft)	Water Table Elevation (Ft)
MW1	10/15/2009	180.22++	7.22	173.00
	7/7/2009		8.44	171.78
	4/6/2009		8.35	171.87
	1/6/2009		8.42	171.80
	10/22/2008		8.80	171.42
	7/16/2008		8.40	171.82
	4/15/2008		8.41	171.81
	1/17/2008	177.37*	8.01	169.36
	10/16/2007		8.65	168.72
	7/25/2007		8.49	168.88
	4/17/2007 1/18/2007		8.30	169.07
	1/18/2007		7.85 7.38	169.52 169.99
	6/29/2006		7.80	169.57
	2/3/2006	+	6.65	170.72
	11/18/2005		8.17	169.20
	7/28/2005		7.98	169.39
	4/13/2005		6.90	170.47
	1/31/2005		7.20	170.17
	10/15/2004		8.52	168.85
	7/13/2004		8.33	169.04
	4/6/2004		7.93	169.44
	12/18/2003		7.65	169.72
	9/18/2003		8.15	169.22
	6/19/2003		8.13	169.24
	3/18/2003		7.77	169.60
	12/21/2002		5.74	171.63
	9/10/2002		8.28	169.09
	3/30/2002		7.43	169.94
	12/21/2001		6.92	170.45
	9/23/2001		8.53	168.84
	6/22/2001		8.30	169.07
	4/22/2001		7.77	169.60
	12/14/2000		8.49	168.88
	9/18/2000		8.56	168.81
	6/8/2000 3/9/2000		7.97 6.68	169.40 170.69
	12/9/1999		8.15	169.22
	8/31/1999	+	8.36	169.01
	4/29/1999		7.68	169.69
	01/29/1999	177.37*	6.99	170.38
	4/26/1998	177.57	7.5	169.87
	1/24/1998		6.61	170.76
	11/6/1997		8.79	168.58
	8/26/1997	177.37*	8.51	168.86
	7/24/1997		8.71	168.72
	4/25/1997		7.98	169.45
	1/20/1997		7.12	170.31
	7/26/1996		8.39	169.04
	7/9/1996		8.16	169.27
	4/23/1996		7.47	169.96
	2/7/1996		6.09	171.34
	1/29/1996		6.17	171.26
	10/26/1995 7/28/1995		8.45	168.98
			8.27	169.16
	5/2/1995 2/23/1995		6.96 7.72	170.47 169.71
	11/18/1994		7.14	170.29
	8/22/1994		8.67	168.76
	5/19/1994	177.43**	8.05	169.38
	2/28/1994	111.73	7.44	169.99
	11/24/1993		8.74	168.69
	11/24/1993		8.74	168.69

Well Number	<u>Date Monitored</u>	Top of Casing Elevation (Ft)	Depth to Water (Ft)	Water Table Elevation (Ft)
MW1	8/30/1993		8.78	168.65
(Continued)	5/18/1993		8.12	169.31
	2/23/1993		7.34	170.09
	11/13/1992	200.00***	9.13	190.87
	5/29/1992	175.73	8.59	167.14
	1/14/1992		8.57	167.16
	12/23/1991		9.65	166.08
	11/25/1991 10/10/1991		9.41 9.7	166.32 166.03
	9/17/1991		9.5	166.23
	8/19/1991		9.31	166.42
				100.42
MW2		ROYED ON FEBRUARY 7, 199		170.24
	2/7/1996 1/29/1996	176.04**	5.70	170.34 170.88
	10/26/1995		5.16 8.21	167.83
	7/28/1995		7.99	168.05
	5/2/1995		6.79	169.25
	2/23/1995		7.51	168.53
	11/18/1994		6.92	169.12
	8/22/1994		8.59	167.45
	5/19/1994		7.70	168.34
	2/28/1994		6.99	169.05
	11/24/1993		8.47	167.57
	8/30/1993		8.64	167.40
	5/18/1993		7.73	168.31
	2/23/1993		6.39	169.65
	11/13/1992	198.61***	8.70	189.91
	5/29/1992 1/14/1992	175.45	9.31 8.97	166.14 166.48
	12/23/1991		10.39	165.06
	11/25/1991		9.81	165.64
	10/10/1991		10.39	165.06
	9/17/1991		10.23	165.22
	8/19/1991		9.60	165.85
MW3	10/15/2009	179.46++	7.55	171.91
	7/7/2009		8.50	170.96
	4/6/2009		8.73	170.73
	1/6/2009		8.88	170.58
	10/22/2008		9.29	170.17
	7/16/2008		9.03	170.43
	4/15/2008		9.19	170.27
	1/17/2008	176.40*	8.90	167.50
	11/16/2007		9.43	166.97
	7/25/2007 4/17/2007		9.35 8.88	167.05 167.52
	1/18/2007		7.32	167.52
	11/14/2006		7.53	168.87
	6/29/2006		7.58	168.82
	2/3/2006		6.10	170.30
	11/18/2005		7.63	168.77
	7/28/2005		7.58	168.82
	4/13/2005		6.35	170.05
	1/31/2005		6.79	169.61
	10/15/2004		8.28	168.12
	7/13/2004		8.11	168.29
	4/6/2004		7.41	168.99
	12/18/2003		6.99 7.91	169.41
	9/18/2003 6/19/2003		7.91	168.49 168.80
	3/18/2003		7.35	169.05
	12/21/2002		5.43	170.97
	09/10/2002		7.97	168.43
	03/30/2002		6.97	169.43
	12/22/2001		6.44	169.96

Well Number	Date Monitored	Top of Casing Elevation (Ft)	Depth to Water (Ft)	Water Table Elevation (Ft
MW3	09/23/2001		8.17	168.23
(Continued)	06/22/2001		8.06	168.34
(Continued)	04/22/2001		7.50	168.90
	12/14/2000		8.13	168.27
	9/18/2000		7.83	168.57
	09/26/2000		7.77	168.63
	6/8/2000		7.50	168.90
	03/09/2000		6.08	170.32
	12/9/1999		7.90	168.50
	8/31/1999	176.41**	7.95	168.45
	4/29/1999		7.09	169.31
	1/29/1999		6.42	169.98
	04/26/1998		6.85	169.55
	01/24/1998		5.90	170.50
	11/6/1997		7.80	168.80
	8/26/1997		7.67	168.93
	7/24/1997	176.41**	7.90	168.51
	4/25/1997		7.12	169.29
	01/20/1997		6.35	170.06
	7/26/1996		7.84	169.57
	7/9/1996		7.61	168.80
	04/23/1996		6.81	169.60
	2/7/1996		5.05	170.36
	01/29/1996		5.77	170.64
	10/26/1995		7.72	168.69
	07/28/1995		7.80	168.61
	05/02/1995		6.50	169.91
	2/23/1995		7.24	169.17
	11/18/1994		6.05	170.36
	8/22/1994	190.97***	7.65	168.76
	5/19/1994		7.15	169.26
	2/24/1994		6.68	169.73
	11/24/1993		7.55	168.86
	8/30/1993		7.64	168.77
	5/18/1993		7.12	169.29
	2/23/1993		8.01	168.40
	11/13/1992		7.86	191.12
	5/29/1992	175.00	8.45	166.55
	1/14/1992		8.24	166.55
	12/23/1991		9.37	165.63
	11/25/1991		9.19	165.81
	10/10/1991		9.43	165.57
	09/17/1991		9.20	165.80
	8/19/1991		8.95	166.05

		Top of Casing Elevation			
Well Number	Date Monitored	( <u>Ft)</u>	Depth to Water (Ft)	Water Table Elevation (Ft)	
MW4	10/15/2009	179.21++	7.06(0.46)#	172.50	
	7/7/2009		8.16(0.22)#	171.22	
	4/6/2009		7.90(0.16)#	171.43	
	1/6/2009		8.00(0.19)#	171.35	
	10/22/2008		8.46(0.08)#	170.81	
	7/16/2008 4/15/2008		8.04(0.21)# 8.00(0.25)#	171.33 171.40	
	1/17/2008	176.35*	7.50(0.17)#	168.98	
	10/16/2007	170.55	8.50(0.25)#	168.04	
	7/25/2007		8.04(0.17)#	168.44	
	4/17/2007		7.94(0.19)#	168.55	
	1/18/2007		7.38(0.21)#	169.13	
	11/14/2006		7.36(0.25)#	169.18	
	6/29/2006		Unknown	Unknown	
	2/3/2006		5.86	170.49	
	11/18/2005		7.99 (0.51)#	168.36	
	7/28/2005		7.59	168.76	
	4/13/2005		6.78 (0.01)#	169.58	
	1/31/2005 10/15/2004		7.34 (0.19)#	169.15	
	7/13/2004		8.73 (0.15)# 8.44 (0.03)#	167.73 167.93	
	4/6/2004		9.58 (2.83)#	168.89	
	2/11/2004		9.43 (2.70)#	168.95	
	12/18/2003		9.75 (1.51)#	167.73	
	9/18/2003		9.13 (1.80)#	168.57	
	6/19/2003		8.56 (0.31)#	168.02	
	3/18/2003		7.49 (0.06)#	168.91	
	12/21/2002		8.58 (4.39)#	171.06	
	9/10/2002		9.09 (1.60)#	168.46	
	03/30/2002		9.86 (2.49)#	168.36	
	12/22/2001		7.79 (1.75)#	169.87	
	9/23/2001		8.97 (1.17)#	168.26	
	06/22/2001		7.79	168.56	
	4/22/2001		9.07 (2.20)#	168.93	
	12/14/2000		8.87 (0.72)#	168.02	
	09/18/2000 6/8/2000		8.50 (0.45)# 7.34	168.19 169.01	
	3/9/2000		6.61 (0.46)#	170.08	
	12/9/1999		8.80	167.55	
	08/31/1999		8.28	168.07	
	4/29/1999		7.14	169.21	
	1/29/1999		6.68	169.67	
	04/26/1998		6.87	169.48	
	01/24/1998		6.61	169.74	
	11/6/1997		9.16	167.19	
	08/26/1997		8.92	167.43	
	08/20/1997		7.66^		
) (T***	10// # /2000	150.00	# O .	150.00	
MW5	10/15/2009	176.02++	5.04	170.98	
	7/7/2009		6.18	169.84	
	4/6/2009 1/6/2009		5.86 5.91	170.16 170.11	
	10/22/2008		6.55	169.47	
	7/16/2008		6.01	170.01	
	4/15/2008		5.90	170.01	
	12/17/2007		5.83	170.12	
	12/13/2007		5.83	170.19	
	12/12/2007		5.98	170.04	
MW6	10/15/2009	175.24++	4.92	170.32	
	7/709		6.00	169.24	
	4/6/2009		5.66	169.58	
	1/6/2009		5.72	169.52	
	10/22/2008		6.36	168.88	
	7/16/2008 4/15/2008		5.88 5.00	169.36 170.24	
	12/17/2007		5.69	169.55	
	12/17/2007		5.63	169.61	
	12/11/2007		6.17^	169.07	
	12,1112001		U.11	107.07	

		Top of Casing Elevation		
Well Number	Date Monitored	(Ft)	Depth to Water (Ft)	Water Table Elevation (Ft)
MW7	10/15/2009	170.34++	2.76	167.58
11117	7/7/2009	170.5111	3.98	166.36
	4/6/2009		3.57	166.77
	1/6/2009		3.62	166.72
	10/22/2008		4.24	166.10
	7/16/2008		4.06	166.28
	4/15/2008		3.60	166.74
	12/17/2007		3.68	166.66
	12/13/2007		4.74	165.60
	12/12/2007		5.49	164.85
	12/11/2007		5.98^	164.36
MW8	10/15/2009	176.00++	6.08	169.92
IVI W 8	7/7/2009	176.00++	7.34	168.66
	4/6/2009		6.84	169.16
	1/6/2009		6.88	169.12
	10/22/2008		7.91	168.09
	7/16/2008		7.20	168.80
	4/15/2008		6.76	169.24
	12/17/2007		6.73	169.27
	12/13/2007		6.52	169.48
	12/12/2007		6.56^	169.44
MW9	10/15/2009	175.09++	5.57	169.52
	7/7/2009		6.69	168.40
	4/6/2009		6.27	168.82
	1/6/2009		6.32	168.77
	10/22/2008		6.96	168.13
	7/16/2008		6.57	168.52
	4/15/2008		6.44	168.65
	12/17/2007		6.35	168.74
	12/13/2007 12/11/2007		6.31 11.21^	168.78 163.88
	12/11/2007		11.21	103.88
MW10	10/15/2009	176.03++	4.83	171.20
1411110	7/7/2009	170.0311	6.00	170.03
	4/6/2009		5.63	170.40
	1/6/2009		5.71	170.32
	10/22/2008		6.46	169.57
	7/16/2008		5.83	170.20
	4/15/2008		5.64	170.39
	12/17/2007		5.77	170.26
	12/13/2007		5.55	170.48
	12/12/2007		5.70^	170.33
MW11	10/15/2009	171.03++	3.26	167.77
	7/7/2009		4.40	166.63
	4/6/2009		3.97	167.06
	1/6/2009		4.04	166.99
	10/22/2008 7/16/2008		4.87	166.16 166.65
	4/15/2008		3.70	167.33
	12/17/2007		10.19	160.84
	12/17/2007		12.72	158.31
	12/12/2007		12.99	158.04
	12/11/2007		11.94^	159.09
MW12	10/15/2009	173.98++	7.02	166.96
	7/7/2009		8.31	165.67
	4/6/2009		7.70	166.28
	1/6/2009		7.61	166.37
	10/22/2008		9.02	164.96
	7/16/2008		8.47	165.51
	4/15/2008		7.77	166.21
	12/17/2007		7.71	166.27
	12/13/2007		7.66 7.67^	166.32
	12/12/2007		7.07"	166.31
	-1	1		_ I

Well Number	<u>Date Monitored</u>	Top of Casing Elevation (Ft)	Depth to Water (Ft)	Water Table Elevation (Ft)	
EW1	10/15/2009	179.27++	5.96	173.31	
	7/7/2009	57,712.7.7	8.29	170.98	
	4/6/2009		11.35	167.92	
	1/6/2009		11.41	167.86	
	10/22/2008		11.40	167.87	
	7/16/2008		11.40	167.87	
	4/15/2008		11.40	167.87	
	1/17/2008	Not Surveyed	11.41	167.86	
	11/16/2007		11.95	167.32	
	7/25/2007		11.57	167.70	
	4/17/2007		11.35	167.92	
	1/18/2007		6.60	172.67	
	11/14/2006		6.11	173.16	
	6/29/2006		6.88	172.39	
	2/3/2006		5.23	174.04	
	11/18/2005		6.63	172.64	
	7/28/2005		6.94	172.33	
	4/13/2005		5.23	174.04	
	1/31/2005		6.25	173.02	
	10/15/2004		7.65	171.62	
	7/13/2004	7.51		171.76	
	4/6/2004		6.63	172.64	
	12/18/2003		6.72	172.55	
	9/18/2003		7.29	171.98	
OW1	10/16/2009	178.93++	No Water or Product	7.17	
	7/7/2009		No Water or Product	7.17	
	4/6/2009		Not measured.		
	1/6/2009		No Water or Product	7.17	
	10/22/2008		No Water; (0.33)	7.17	
	7/16/2008		6.95	7.17	
	4/15/2008		7.11	7.17	
	1/17/2008		4.00	Not Measured	
	11/16/2007		No Water or Product	7.41	
	7/25/2007 4/17/2007		No Water or Product  No Water or Product	7.41 7.41	
	1/18/2007		No Water or Product No Water or Product	7.41	
	11/14/2007			7.41	
	6/29/2006	-	No Water (sheen) 7.13	7.41	
	2/3/2006	-	6.97	7.42	
	2/3/2006 11/18/2005		7.43 (0.13)#	7.45	
	7/28/2005		7.43 (0.13)#	7.45	
	4/13/2005		6.99	7.43	
	1/31/2005		7.03	7.44	
	10/15/2004		7.19 (0.08)#	7.44	
	7/14/2004		7.19 (0.08)#	7.44	
	4/6/2004		7.01	7.44	
	2/11/2004		7.01	7.44	
	10/6/2003		7.07 (0.01)#	7.44	
	11/2/2000		7.12,##	****	
	1/29/1999		7.12		
<u> </u>	12/9/1999		7.27		

Well Number	<u>Date Monitored</u>	Top of Casing Elevation (Ft)	Depth to Water (Ft)	Water Table Elevation (Ft)
OW2	10/16/2009	176.03++	No Water or Product	7.28
OWZ	7/7/2009	176.03++	No Water or Product	7.28
	4/6/2009		No water or Product  Not measured.	1.28
	1/6/2009		Not measured.  No Water or Product	7.28
	10/22/2009		No Water or Product	7.28
	7/16/2008		No Water or Product	7.28
	4/15/2008		No Water or Product	7.28
	1/17/2008		No Water or Product	Not Measured
	11/16/2007	Not Surveyed	No Water or Product	7.28
	7/25/2007	Not Surveyed	No Water or Product	7.28
	4/17/2007		No Water or Product	7.28
	1/18/2007		No Water or Product	7.28
	11/14/2007		7.27	7.28
	6/29/2006		7.30	7.33
			7.30	
	2/3/2006			7.35 7.35
	11/18/2005 7/28/2005		7.33 7.27	7.32
	4/13/2005		7.06	7.35
	1/31/2005		7.29	7.37
	10/15/2004		No Water or Product	7.35
	7/14/2004		No Water or Product	7.35
	4/6/2004		7.27	7.33
	2/11/2004		7.19	7.33
	10/6/2003		7.29	7.34
	11/2/2000		7.19	
	1/29/1999		7.19	
	12/9/1999		7.17	
NOTES:				
++ = Surveyed on January 7,	2008			
* = Surveyed on August 20, 1				
** = Surveyed on March 24,				
*** = Surveyed on December				
^ = Prior to well developmen				
	ckness in feet. The water table	e elevation has been		
	free product by assuming a fre		.75.	
	odor reported on probe for wat			
•	ring initial monitoring, purging		m 2nd half 2007 to present a	noly.
N/A = Not Applicable	ring midai momtoring, purging	s, and/or sample conection; fro	in 2nd han 2007 to present (	лиу.
**				

Date	TPH-D	ТРН-G	МТВЕ	Benzene	Toluene	Ethyl-benzene	Total Xylenes	Other Fuel Additives by 8260*
MW1								
10/16/2009	5,800, a,d	23,000, a	ND<25	240	170	1,800	2,200	ND<25, except TBA ND<100
7/8/2009	6,800, a,d	16,000, a	ND<17	99	100	880	1,100	ND<17, except TBA ND<67
1/7/2009	5,400, d	15000	ND<50	140	160	1,100	1,600	ND<50, except TBA ND<200
10/23/2008	3,800, c	18000	ND<50	180	200	1,400	1,900	ND<50, except TBA ND<200
7/17/2008	4,300, c	16000	ND<25	210	160	1,000	1,600	ND<25, except TBA ND<100
4/16/2008	3,200, с	13000	29	150	110	870	1,200	ND<17, except TBA ND<67
1/17/2008	3,800, d	22000	74	310	220	1,200	1,700	ND<50, except TBA ND<200
10/16/2007	2,500, a, d	23,000, a	130	480	230	1,100	1,700	ND<25, except TBA ND<250
7/25/2007	3,900, d	15,000, b	130	250	23	ND<10	1,500	ND<10, except TBA ND<100
4/17/2007	6,200, d	23000	260	780	320	1,100	2,000	ND<25, except TBA ND<250
1/18/2007	6,400, d	29000	ND<1,000	1800	870	1,600	3,300	ND<50, except TBA ND<500
11/14/2006	7,200, d	30000	440	2200	600	1,800	2,900	ND<50, except TBA ND<500, Ethanol ND<5,000, Methanol ND<50,000
6/29/2006	22,000,d	45000	1200	3100	940	2,000	3,900	ND<50, TBA ND<500
2/3/2006	9,700,c	37000	620	2200	1200	2,000	3,500	ND<50, TBA ND<500
11/18/2005	4,300,d	25000	140	1600	430	1,800	2,700	ND<50, TBA ND<500
7/28/2005	16,000,a,d	30,000,a	260,+	2500	760	2,100	4,800	ND<50, TBA ND<500
4/13/2005	9,300,d	30000	300	1900	600	1,700	3,000	ND<50, TBA ND<500
1/31/2005	14,000,d	29000	270	2200	1200	1,900	5,000	ND<50, TBA ND<500
10/15/2004	16,000,a,d	36,000,a	ND<50	1500	1000	2,100	5,100	ND<50, TBA ND<500
7/13/2004	22,000a,d	34,000,a	53	2100	590	2,100	4,400	ND<50, TBA ND<500
4/6/2004	18,000,a,d	28,000,a	110	2300	800	990	4,500	ND<100, TBA ND<1,000
12/18/2003	13,000,d	33,000	38	2,100	770	1,800	4,400	ND<5 TBA ND<50
9/18/2003	15,000,a,d	32000	52	2200	620	1,800	3,800	ND<17, TBA ND<170
6/26/2003	67,000,a,d	45,000	ND<50	2,100	720	2,300	5,500	ND
3/18/2003	7,300,a,d	33,000	ND<50	2,400	900	1,600	1,000	ND
12/21/2002	11,000,a,d	32,000	ND<100	2,600	980	2,200	5,500	ND
9/10/2002	18,000,c	31,000	ND<250	2,200	650	1,700	4,800	NA
3/30/2002	12,000,a,d	99,000	ND	4,100	1,200	2,500	6,400	NA
12/22/2001	22,000,a,d	60,000	ND	3,200	1,900	2,000	6,200	NA
9/23/2001	16,000,a,c	49,000	ND	4,000	1,400	2,200	6,200	NA
6/22/2001	85,000,a,d	35,000	ND	3,100	750	1,200	4,000	NA NA
4/22/2001	16,000,a	43,000	ND	3,600	1,200	1,600	5,800	NA
12/14/2000	11,000,a,e	49,000	ND	5,800	1,600	2,000	6,900	NA
9/18/2000	15,000,a,d	86,000	ND	7,200	2,000	3,200	13,000	NA

Date	TPH-D	TPH-G	MTBE	Benzene	Toluene	Ethyl-benzene	Total Xylenes	Other Fuel Additives by 8260*
MW1 (Cont.)								
6/8/2000	6,500,a,c	50,000	ND	5,700	1,500	1,800	7,000	NA
3/9/2000	7,400,a,d	48,000	ND	5,300	3,100	1,600	8,100	NA
12/9/1999	12,000,a,d	65,000	ND	9,300	2,900	2,200	8,800	NA
8/31/1999	22,000,d	66,000	710	8,700	2,700	2,400	10,000	NA
4/29/1999	22,000,d	48,000	ND	8,400	2,800	2,000	8,100	NA
1/29/1999	9,100,d	47,000	ND	9,000	2,900	1,900	8,000	NA
4/26/1998	7,800,c	60,000	ND	9,300	5,700	2,100	9,100	NA
1/24/1998	24,000,d	57,000	ND	6,900	5,500	2,000	8,700	NA
11/6/1997	17,000,c	63,000	ND	7,400	6,700	2,300	9,900	NA
7/27/1997	28,000,c	66,000	1,800	8,600	8,100	2,200	10,000	NA
4/25/1997	170,000,d	77,000	ND	7,400	7,900	2,100	9,800	NA
1/21/1997	57,000,c	80,000	250	7,800	8,300	1,900	8,900	NA
7/26/1996	11,000,c	76,000	ND	11,000	13,000	2,400	10,000	NA
4/23/1996	5,700,c	73,000	ND	8,600	12,000	2,200	9,800	NA
1/29/1996	6,600,c	81,000	250	7,600	13,000	1,900	8,900	NA
10/26/1995	62,000,c	89,000	ND	7,800	12,000	2,400	11,000	NA
7/28/1995	2,000,c	35,000	NA	3,800	8,700	1,100	6,500	NA
5/2/1995	6,500,c	86,000	NA	8,900	14,000	2,300	11,000	NA
2/24/1995	9,100	90,000	NA	7,500	12,000	1,500	11,000	NA
11/18/1994	10,000	96,000	NA	9,300	14,000	2,500	11,000	NA
8/22/1994	8,300	100,000	NA	9,000	11,000	2,100	9,400	NA
5/19/1994	30,000	100,000	NA	12,000	14,000	3,500	17,000	NA
2/28/1994	110,000	90,000	NA	11,000	9,600	2,100	9,900	NA
11/24/1993	8,200	66,000	NA	8,300	8,900	2,000	121,000	NA
8/30/1993	9,400	77,000	NA	6,400	11,000	2,200	12,000	NA
5/18/1993	30,000	92,000	NA	4,000	11,000	2,500	15,000	NA
2/23/1993	14,000	100,000	NA	4,500	11,000	2,100	12,000	NA
11/13/1992	4,400	120,000	NA	5,800	10,000	2,100	13,000	NA
5/27/1992	11,000	120,000	NA	8,800	16,000	2,300	15,000	NA
1/24/1992	19,000	39,000	NA	7,300	8,700	1,300	8,900	NA
12/23/1991	34,000	78,000	NA	9,300	7,300	540	13,000	NA
11/25/1991	36,000	170,000	NA	5,500	5,600	1,600	8,400	NA
10/10/1991	19,000	28,000	NA	4,100	4,700	1,000	4,800	NA
9/17/1991	19,000	39,000	NA	4,900	4,100	1,200	5,900	NA
8/19/1991	47,000	48,000	NA	13,000	8,400	990	29,000	NA
7/20/1991	49,000	100,000	NA	11,000	14,000	2,300	17,000	NA
6/20/1991	42,000	76,000	NA	4,700	7,100	1,500	9,800	NA
5/17/1991	26,000	72,000	NA	7,700	9,900	ND	11,000	NA
4/15/1991	NA	56,000	NA	6,500	8,500	410	9,900	NA
3/21/1991	NA	36,000	NA	4,500	5,700	87	7,300	NA
2/15/1991	NA	120,000	NA	7,400	6,600	ND	13,000	NA
1/15/1991	NA	33,000	NA	3,900	2,900	210	5,300	NA
9/27/1990	NA	28,000	NA	3,700	3,500	10	6,500	NA
8/23/1990	NA	40,000	NA	5,100	4,900	350	6,000	NA
7/20/1990	44,000	NA	NA	5,100	4,200	ND	9,100	NA
3/19/1990	NA	40,000	NA	3,700	1,100	ND	3,300	NA NA
02/20/90**	NA	7,600	NA	1,600	ND	ND	1,300	NA NA

Date	TPH-D	ТРН-G	МТВЕ	Benzene	Toluene	Ethyl-benzene	Total Xylenes	Other Fuel Additives by 8260*
MW2								
2/7/1996					MW2 Destroyed	1		
1/29/1996	4,600,c	38,000	7.1	1,900	5,700	1,100	5,900	NA
10/26/1995	900,000	74,000	ND	2,900	5,900	2,000	10,000	NA
7/28/1995	2,000,c	15,000	NA	1,400	2,300	620	3,200	NA
5/2/1995	6,600,d	55,000	NA	3,300	10,000	1,800	10,000	NA
2/24/1995	22,000	67,000	NA	4,900	11,000	1,800	11,000	NA
11/18/1994	5,000	86,000	NA	11,000	17,000	1,800	12,000	NA
8/22/1994	4,100	91,000	NA	10,000	13,000	1,500	9,000	NA NA
5/19/1994	5,800	62,000	NA	92,000	13,000	1,300	8,400	NA
2/28/1994	13,000	91,000	NA	13,000	16,000	1,500	9,000	NA NA
11/24/1993	79,000	12,000	NA	13,000	17,000	2,500	17,000	NA
8/30/1993	110,000	110,000	NA	11,000	14,000	1,800	11,000	NA NA
5/18/1993	44,000	67,000	NA	9,200	12,000	1,400	9,300	NA
2/23/1993	7,000	76,000	NA	12,000	17,000	1,600	9,600	NA
11/13/1992	8,200	79,000	NA	10,000	13,000	1,400	8,600	NA
5/27/1992	130,000	89,000	NA	18,000	19,000	1,700	14,000	NA NA
1/14/1992	1,600,000	59,000	NA NA	17,000	14,000	1,800	15,000	NA NA
12/23/1991	700,000	2,100,000	NA NA	36,000	130,000	79,000	560,000	NA NA
11/25/1991	130,000	230,000	NA	11,000	9,700	1,400	9,700	NA
10/10/1991	360,000	85,000	NA	21,000	25,000	2,100	14,000	NA
9/17/1991	56,000	74,000	NA	10,000	11,000	1,400	8,100	NA
8/19/1991	19,000	69,000	NA	26,000	22,000	2,100	18,000	NA
7/20/1991	100,000	51,000	NA	9,900	7,700	1,200	7,500	NA
6/20/1991	69,000	87,000	NA	8,100	8,400	1,100	8,900	NA NA
5/17/1991	33,000	62,000	NA	5,900	6,300	1,200	9,000	NA
4/15/1991	NA	82,000	NA	5,300	7,400	1,000	9,400	NA
3/21/1991	NA	62,000	NA	9,300	11,000	350	9,700	NA
2/15/1991	NA	200,000	NA	12,000	12,000	1,700	14,000	NA
1/14/1991	NA	78,000	NA	11,000	8,700	580	8,000	NA
9/27/1990	NA	59,000	NA	8,400	12,000	880	9,000	NA
8/23/1990	NA	96,000	NA	8,100	8,400	1,500	8,600	NA
7/20/1990	86,000	NA	NA	9,100	14,000	940	13,000	NA
3/19/1990	NA	50,000	NA	7,700	8,700	75	5,600	NA
2/20/90**	NA	38,000	NA	7,300	3,100	75	6,800	NA

Date	TPH-D	ТРН-G	MTBE	Benzene	Toluene	Ethyl-benzene	Total Xylenes	Other Fuel Additives by 8260*
MW3								
10/16/2009	10,000, a,d	84,000, a	3300	33000	ND<1,000	ND<1,000	7,300	ND<1,000, except TBA = 4,000
7/8/2009	7,400, d	82,000	3,300	37,000	ND<500	2,400	8,200	ND, except TBA= 5,000
1/7/2009	13,000, a, d	50,000, a	3,500	28,000	ND<500	1,300	3,200	ND, except TBA= 5,700
10/23/2008	7,800, d	87,000	4,700	26,000	ND<500	ND<500	8,200	ND, except TBA= 8,000
7/17/2008	19,000, a, d	63,000, a	5,100	24,000	ND<1,000	ND<1,000	4,100	ND, except TBA= 6,100
4/16/2008	14,000, a, d	52,000, a	6,700	24,000	ND<500	ND<500	5,100	ND, except TBA= 6,700
1/17/2008	9,900, a, d	110,000, a, h	9,300	34,000	ND<500	2,500	9,500	ND, except TBA= 8,000
10/16/2007	13,000, a, d	69,000, a	13,000	18,000	ND<500	ND<500	5,000	ND, except TBA= 10,000
7/25/2007	6,700, a, f	52,000, a	12,000	23,000	ND<250	ND<250	6,000	ND, except TBA= 8,600
4/17/2007	7,900, a, d	92,000, a	14,000	23,000	ND<500	1,500	5,900	ND<500, except TBA = 8,000
1/18/2007	6,400, d	94,000	22,000	29,000	1,300	2,100	9,600	ND<500, except TBA = 12,000
11/14/2006	21,000, a, d	100,000, a	23,000	37,000	1,000	2,200	11,000	ND<500 except, TBA= 16,000, Ethanol ND<5,000, Methanol ND<50,000
6/29/2006	12,000,d	36,000	27,000	14,000	ND<500	ND<500	ND<500	ND<500, except TBA = 11,000
2/3/2006	22,000,d	86,000	24,000	26,000	ND<500	1700	6000	ND<500, except TBA = 11,000
11/18/2005	32,000,a,d	87,000,a	22,000	35,000	ND<1,000	2000	11000	ND<1,000, except TBA ND<10,000
7/28/2005	77,000,a,d	100,000,a	32,000,+	30,000	1100	2300	12000	ND<500, except TBA = 13,000
4/13/2005	19,000,a,d	96,000,a	28,000	31,000	4000	2300	12000	ND<500, except TBA = 12,000
1/31/2005	13,000,a,d	93,000,a	31,000	36,000	1500	2500	11000	ND<1,000, except TBA = 24,000
10/15/2004	13,000,a,d	76,000,a	24,000	28,000	ND<500	1,100	3,600	ND<500, except TBA = 18,000
7/13/2004	57,000,a,d	98,000,a	15,000	28,000	2,900	1,700	8,900	ND<500, except TBA = 11,000
4/6/2004	32,000,a,d	81,000,a	17,000	34,000	5,900	1,500	9,900	ND<500, except TBA = 8,800
12/18/2003	32,000,a,d	130,000,a	32,000	33,000	5,400	720	11,000	ND<500, except TBA = 17,000
9/18/2003	140,000,a,d	130,000	23,000	34,000	11,000	2,500	14,000	ND<500, except TBA = 10,000
6/26/2003	27,000,a,d	96,000	21,000	29,000	5,200	2,000	10,000	ND, except TBA = 8,900

Date	TPH-D	TPH-G	МТВЕ	Benzene	Toluene	Ethyl-benzene	Total Xylenes	Other Fuel Additives by 8260*
MW3 (Cont.)								
3/18/2003	11,000,a,d	120,000	16,000	36,000	12,000	1,800	2,400	ND, except TBA = 5,100
12/21/2002	21,000,a,d	110,000	33,000	34,000	9,300	2,000	13,000	ND, except TBA = 14,000
9/10/2002	43,000,d	70,000	19,000	21,000	2,200	1,600	7,600	NA
3/30/2002	8,500,a,d	170,000	26,000	40,000	17,000	2,600	16,000	NA
12/22/2001	9,200,a,d	140,000	27,000	37,000	20,000	2,600	15,000	NA
9/23/2001	47,000,a,d	130,000	26,000	32,000	9,100	2,400	12,000	NA
6/22/2001	33,000,a,d	110,000	25,000	31,000	7,200	1,900	11,000	NA
4/22/2001	61,000,a	140,000	24,000	25,000	5,400	1,700	11,000	NA
12/14/2000	120,000,a,d	140,000	35,000	37,000	16,000	2,400	15,000	NA
9/18/2000	43,000,a,d	130,000	33,000	39,000	91,000	2,300	14,000	NA NA
7/26/2000	NA	NA	21,000	NA	NA	NA	NA	ND***, except tert-butanol = 19,000
6/8/2000	74,000,a,d	130,000	23,000	41,000	16,000	1,900	13,000	NA
3/9/2000	14,000,a,d	180,000	24,000	39,000	22,000	2,500	16,000	NA
12/9/1999	17,000,a,d	120,000	16,000	35,000	6,700	2,400	12,000	NA
8/31/1999	22,000,d	120,000	4,700	35,000	3,700	2,400	14,000	NA
4/29/1999	48,000,d	100,000	2,500	33,000	8,000	2,100	14,000	NA
1/29/1999	240,000,d	84,000	1,300	31,000	2,800	1,800	12,000	NA
4/26/1998	380,000,d	100,000	9,700	29,000	7,100	1,800	14,000	NA
1/24/1998	77,000,d	97,000	ND	28,000	7,100	1,800	11,000	NA
11/6/1997	120,000,d	140,000	ND	37,000	19,000	2,400	14,000	NA
7/24/1997	91,000,c	120,000	1,400	33,000	17,000	2,200	12,000	NA
4/25/1997	760,000,d	240,000	1,600	24,000	18,000	4,100	24,000	NA
1/21/1997	34,000,c	150,000	1,300	40,000	14,000	2,600	12,000	NA NA
7/26/1996	24,000,c	130,000	890	40,000	22,000	2,400	12,000	NA
4/23/1996	280,000,c	170,000	720	34,000	22,000	2,200	14,000	NA
1/29/1996	45,000,c	150,000	540	32,000	21,000	1,900	12,000	NA
10/26/1995	33,000	130,000	690	37,000	21,000	210	11,000	NA
7/28/1995	1,900,d	86,000	NA	1,400	2,300	620	3,200	NA
5/2/1995	9,700,d	170,000	NA	43,000	30,000	2,500	14,000	NA
2/24/1995	9,200	130,000	NA	31,000	19,000	1,800	10,000	NA NA
11/18/1994	23,000	140,000	NA	38,000	22,000	2,000	11,000	NA NA
7/22/1994	5,300	170,000	NA	35,000	20,000	1,800	10,000	NA NA
112211774	3,500	170,000	17/2	23,000	20,000	1,000	10,000	11/1

Date	TPH-D	TPH-G	MTBE	Benzene	Toluene	Ethyl-benzene	Total Xylenes	Other Fuel Additives by 8260*
MW3 (Cont.)								
5/19/1994	30,000	150,000	NA	38,000	25,000	2,400	14,000	NA
2/28/1994	210,000	110,000	NA	36,000	21,000	1,900	11,000	NA
11/24/1993	24,000	160,000	NA	48,000	26,000	2,200	12,000	NA
7/30/1993	32,000	130,000	NA	36,000	21,000	1,900	8,200	NA
5/18/1993	7,200	130,000	NA	36,000	21,000	2,100	12,000	NA
2/23/1993	8,100	110,000	NA	31,000	18,000	1,900	11,000	NA
11/13/1992	4,700	140,000	NA	38,000	24,000	2,000	12,000	NA
5/27/1992	27,000	370,000	NA	91,000	57,000	3,000	21,000	NA
7/14/1992	270,000	130,000	NA	76,000	30,000	3,400	21,000	NA
12/23/1991	540,000	740,000	NA	30,000	61,000	31,000	180,000	NA
11/25/1991	74,000	150,000	NA	65,000	31,000	3,400	18,000	NA
10/10/1991	39,000	140,000	NA	57,000	31,000	2,200	14,000	NA
9/17/1991	140,000	180,000	NA	47,000	25,000	2,600	15,000	NA
8/19/1991	150,000	170,000	NA	82,000	31,000	4,400	22,000	NA
7/20/1991	270,000	450,000	NA	46,000	29,000	3,500	21,000	NA
6/20/1991	210,000	920,000	NA	39,000	49,000	13,000	69,000	NA
5/17/1991	70,000	170,000	NA	32,000	22,000	2,200	18,000	NA
4/15/1991	NA	110,000	NA	31,000	15,000	880	7,400	NA
3/21/1991	NA	87,000	NA	30,000	14,000	690	5,400	NA
2/15/1991	NA	230,000	NA	44,000	40,000	ND	31,000	NA
1/14/1991	NA	160,000	NA	48,000	25,000	1,000	16,000	NA
9/27/1990	NA	25,000	NA	7,200	6,400	420	3,400	NA
8/23/1990	NA	220,000	NA	67,000	46,000	27,000	18,000	NA
7/20/1990	86,000	NA	NA	9,100	14,000	940	13,000	NA
3/19/1990	NA	210,000	NA	38,000	28,000	1,800	12,000	NA
02/20/90**	NA	46,000	NA	20,000	15,000	1,800	9,700	NA
		1	I		1	I		1

Date	TPH-D	TPH-G	МТВЕ	Benzene	Toluene	Ethyl-benzene	Total Xylenes	Other Fuel Additives by 8260*
MW4								
10/15/2009				Not Sampled	(Free Product Presen	t in Well)		
7/7/2009				Not Sampled	(Free Product Presen	t in Well)		
1/6/2009		l		Not Sampled	(Free Product Presen	t in Well)		
10/22/2008				Not Sampled	(Free Product Presen	t in Well)		
7/16/2008					(Free Product Presen	l		
4/16/2008					(Free Product Presen			
1/17/2008					(Free Product Presen			
10/16/2007					(Free Product Presen			
7/25/2007				Not Sampled	(Free Product Presen	t in Well)		
4/17/2007				Not Sampled	(Free Product Presen	t in Well)		
1/18/2007				Not Sampled	(Free Product Presen	t in Well)	1	
11/14/2006				Not Sampled	(Free Product Presen	t in Well)		
6/29/2006	83,000,a,d	140,000,a	31,000	44,000	13,000	2,600	19,000	ND<1,000, except TBA = ND<10,000
2/3/2006	83,000,a,d	150,000,a	22,000	35,000	12,000	3,200	14,000	ND<500, except TBA = 7000
11/18/2005 7/28/2005	94,000,a,d	130,000,a	27,000,+	Not Sampled 32,000	(Free Product Presen 8,900	t in Well) 2,900	14,000	ND<500, except TBA = 8,400
4/13/2005				Not Sampled	(Free Product Presen	t in Well)	1	
1/31/2005				Not Sampled	(Free Product Presen	t in Well)		
10/15/2004				Not Sampled	(Free Product Presen	t in Well)		
7/13/2004					(Free Product Presen			
2/11/2004		Free Product s	ampled. Laboratory		a pattern resembling		mificant gasoline-ran	ge pattern
12/18/2003					(Free Product Presen			s-r
9/18/2003								
					(Free Product Presen			
6/26/2003					(Free Product Presen			
3/18/2003					(Free Product Presen			
12/21/2002				Not Sampled	(Free Product Presen	t in Well)		
9/10/2002				Not Sampled	(Free Product Presen	t in Well)		
3/30/2002		I	·	Not Sampled	(Free Product Presen	t in Well)	· · · · · · · · · · · · · · · · · · ·	
12/22/2001				Not Sampled	(Free Product Presen	t in Well)		
9/23/2001		l		Not Sampled	(Free Product Presen	t in Well)	I	
6/22/2001	440,000,a,d	140,000	15,000	35,000	19,000	2,000	10,000	NA
4/22/2001				Not Sampled	(Free Product Presen	t in Well)		
12/14/2000				Not Sampled	(Free Product Presen	t in Well)		
9/18/2000					(Free Product Presen			
6/8/2000					(Free Product Presen			
0/0/2000		<u> </u>	I	140t Sampled	(1.cc Froduct Fresell	11011)	<u> </u>	

Date	ТРН-D	TPH-G	МТВЕ	Benzene	Toluene	Ethyl-benzene	Total Xylenes	Other Fuel Additives by 8260*
MW4 (Cont.)								
3/9/2000	2,100,000,a,d	130,000	6,900	35,000	13,000	2,100	11,000	NA
12/9/1999	9,000,000,a,d	120,000	8,100	33,000	6,000	2,400	12,000	NA
8/31/1999	9,400,d	190,000	4,400	46,000	30,000	2,800	15,000	NA
4/29/1999	9,400,d	210,000	3,200	42,000	35,000	2,800	15,000	NA
1/29/1999	7,300,d	190,000	2,400	44,000	40,000	3,100	17,000	NA
4/26/1998	13,000,d	190,000	ND	49,000	37,000	3,200	18,000	NA
1/24/1998	20,000,d	200,000	ND	50,000	40,000	3,100	17,000	NA
11/6/1997	110,000,d	160,000	ND	48,000	30,000	2,800	16,000	NA
8/26/1997	5,500,d	210,000	1,700	48,000	42,000	3,400	19,000	NA
8/15/1997					MW4 Installed	l		
MW5								
10/16/2009	ND<50	ND<50	0.63	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5, except TBA ND<2.0
7/8/2009	ND<50	ND<50	0.72	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5, except TBA ND<2.0
1/7/2009	ND<50	ND<50	0.97	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5, except TBA ND<2.0
10/23/2008	ND<50	ND<50	1.2	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5, except TBA ND<2.0
7/17/2008	ND<50	ND<50	2.2	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5, except TBA ND<2.0
4/16/2008	ND<50	ND<50	3.9	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5, except TBA ND<2.0
12/13/2007	ND<50	110	4.0	5.3	0.5	ND<0.5	5.1	ND<0.5, except TBA ND<5.0
MW6								
10/16/2009	6,100, c	53,000	ND<170	7,400	3,700	3,600	17,000	ND<170, except TBA ND<670
7/7/2009	8,400, c	60,000	ND<170	6,600	3,500	2,800	13,000	ND<170, except TBA ND<670
1/6/2009	6,200, c	51,000	ND<120	6,900	3,400	2,100	13,000	ND<120, except TBA ND<500
10/23/2008	4,100, c	82,000	ND<120	7,800	4,200	3,400	16,000	ND<120, except TBA ND<500
7/17/2008	5,700, c	88,000	ND<250	6,100	3,400	2,500	16,000	ND<250, except TBA ND<1,000
4/16/2008	6,500, c	51,000	ND<170	4,800	3,300	2,400	16,000	ND<170, except TBA ND<670
12/13/2007	6,200, c	66,000	ND<120	7,900	3,600	2,600	16,000	ND<120, except TBA ND<1,200
MW7								
10/15/2009	60	220	8.7	41	ND<1.0	16	ND<1.0	ND<1.0, except TBA ND<4.0
7/7/2009	62, d	150	4.8	38	ND<0.5	15	ND<0.5	ND<0.5, except TBA = 2.2
1/6/2009	87	52	3.2	18	ND<0.5	4.7	ND<0.5	ND<0.5, except TBA ND<2.0
10/22/2008	66, d	170	8.3	67	ND<1.7	20	ND<1.7	ND<1.7, except TBA ND<6.7
7/16/2008	78, d	280	7.0	59	ND<1.0	8.3	1.3	ND<1.0, except TBA ND<4.0
4/15/2008	77, d	170	4.8	48	1.5	13	5.0	ND<1.0, except TBA ND<4.0
12/13/2007	ND<50	ND<50	9.3	ND<0.5	ND<0.5	ND<0.5	0.83	ND<0.5, except TBA = 14

Date	TPH-D	трн-G	МТВЕ	Benzene	Toluene	Ethyl-benzene	Total Xylenes	Other Fuel Additives by 8260*
MW8								
10/15/2009	380, d	1,500	4.4	23	ND<0.5	3.1	0.92	ND<0.5, except; TBA = 3.2
7/7/2009	1,000, d	2,000	3.8	28	ND<1.2	30	1.9	ND<1.2, except TBA ND<5.0
1/7/2009	1,000, c	3,100	3.8	36	ND<1.7	74	2.7	ND<1.7, except TBA ND<6.7
10/22/2008	910, c	4,800	5.2	32	ND<1.0	41	2.6	ND<1.0, except; TBA = 5.0
7/16/2008	1,500, c	7,000	ND<5.0	53	ND<5.0	140	7.1	ND<5.0, except TBA ND<20
4/15/2008	2,000, c	4,300	6.5	63	ND<2.5	110	9.1	ND<2.5, except TBA ND<10
12/13/2007	1,500, c	6,200	11	57	ND<5.0	160	18	ND<5.0, except TBA ND<50
MW9								
10/16/2009	ND<50	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5, except TBA ND<2.0
7/7/2009	69	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5, except TBA ND<2.0
1/6/2009	ND<50	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5, except TBA ND<2.0
10/22/2008	ND<50	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5, except TBA ND<2.0
7/17/2008	ND<50	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5, except TBA ND<2.0
4/16/2008	ND<50	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5, except TBA ND<2.0
12/13/2007	ND<50	ND<50	ND<0.5	1.0	ND<0.5	ND<0.5	4.5	ND<0.5, except TBA ND<5.0
MW10								
10/16/2009	ND<50	ND<50	0.61	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5, except TBA ND<2.0
7/8/2009	ND<50	ND<50	0.71	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5, except TBA ND<2.0
1/7/2009	ND<50	ND<50	1.1	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5, except TBA ND<2.0
10/23/2008	ND<50	ND<50	1.6	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5, except TBA ND<2.0
7/17/2008	ND<50	ND<50	1.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5, except TBA ND<2.0
4/16/2008	ND<50	ND<50	1.7	ND<0.5	ND<0.5	0.6	0.56	ND<0.5, except TBA ND<2.0
12/13/2007	ND<50	ND<50	1.9	ND<0.5	ND<0.5	1.5	1.8	ND<0.5, except TBA ND<5.0
MW11								
10/15/2009	ND<50	ND<50	36	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5, except TBA ND<2.0
7/7/2009	ND<50	ND<50	37	ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND<1.0, except TBA ND<4.0
1/6/2009	ND<50	ND<50	32	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5, except TBA ND<2.0
10/22/2008	ND<50	ND<50	31	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5, except; TBA = 3.1
7/16/2008	ND<50	ND<50	23	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5, except TBA ND<2.0
4/15/2008	ND<50	ND<50	26	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5, except TBA ND<2.0
12/14/2007	ND<50	ND<50	21	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5, except TBA ND<5.0

						I		
Date	TPH-D	трн-G	МТВЕ	Benzene	Toluene	Ethyl-benzene	Total Xylenes	Other Fuel Additives by 8260*
MW12								
10/15/2009	71, d	230, b	7.0	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5, except TBA ND<2.0
7/7/2009	ND<50	76	7.8	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5, except TBA ND<2.0
1/7/2009	ND<50	110, b	8.2	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5, except TBA = 2.7
10/22/2008	54, c	200, b	11	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5, except TBA = 2.3
7/16/2008	89, d	440, b	8.2	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5, except TBA ND<2.0
4/15/2008	76, d	180, b	9.1	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5, except TBA ND<2.0
12/13/2007	200, c	320, b	11	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5, except TBA ND<5.0
EW1								
10/16/2009	10,000, a,d	1,600, a	180	470	ND<10	38	39	ND<10, except TBA = 1,100
7/8/2009	7,500, d	9,100	2,900	3,400	ND<50	290	290	ND<50, except TBA = 6,400
1/7/2009	7,900, a, d	33,000, a	16,000	10,000	1,900	1,700	3,300	ND, except TBA = 16,000
10/23/2008	7,600, d	21,000	7,700	4,500	ND<120	820	390	ND, except TBA = 10,000
7/17/2008	6,900, d	16,000	7,600	4,100	ND<100	ND<100	650	ND, except TBA = 15,000
4/16/2008	7,700, a, d	17,000, a	9,300	4,500	260	650	2,200	ND, except TBA = 15,000
1/17/2008	13,000, d	24,000	16,000	4,600	1,200	520	3,700	ND, except TBA = 19,000
10/16/2007	12,000, a, d	14,000, a	8,300	2,600	310	270	3,000	ND, except TBA = 15,000
7/25/2007	7,700, a, j	11,000, a	14,000	3,200	ND<25	ND<25	2,600	ND, except TBA = 17,000
4/17/2007	5,800, d	21,000	9,600	3,700	1,400	490	1,600	ND<100, except TBA = 18,000
1/18/2007	930, d	930, b	600	3.4	5.0	ND< 0.5	41	ND< 50, except TBA= 6,800
11/14/2006	1,800, d	870, b	170	ND<25	ND<25	ND<25	ND<25	ND<25, except TBA= 5,900, Ethanol ND<2,500, Methanol ND<25,000
6/29/2006	710,d	290	21	ND<10	ND<10	ND<10	ND<10	ND<10, Except TBA = 2,000
2/3/2006	1,200,d	790	3,100	ND<50	ND<50	ND<050	ND<050	ND<50, Except TBA = 13,000
11/18/2005	1,200,a	900	2,000	ND<50	ND<50	ND<050	ND<050	ND<50, Except TBA = 18,000
7/28/2005	1,800,d	1,200	17,000,+	33	5.1	0.56	5.9	ND<250, except TBA = 22,000
4/13/2005	2,200,d	380	2,700	ND<50	ND<50	ND<50	ND<50	ND<50, except TBA = 1,600
1/31/2005	3,400,d	1,900	38,000	ND<1,000	ND<1,000	ND<1,000	ND<1,000	ND<1,000, except TBA = 32,000

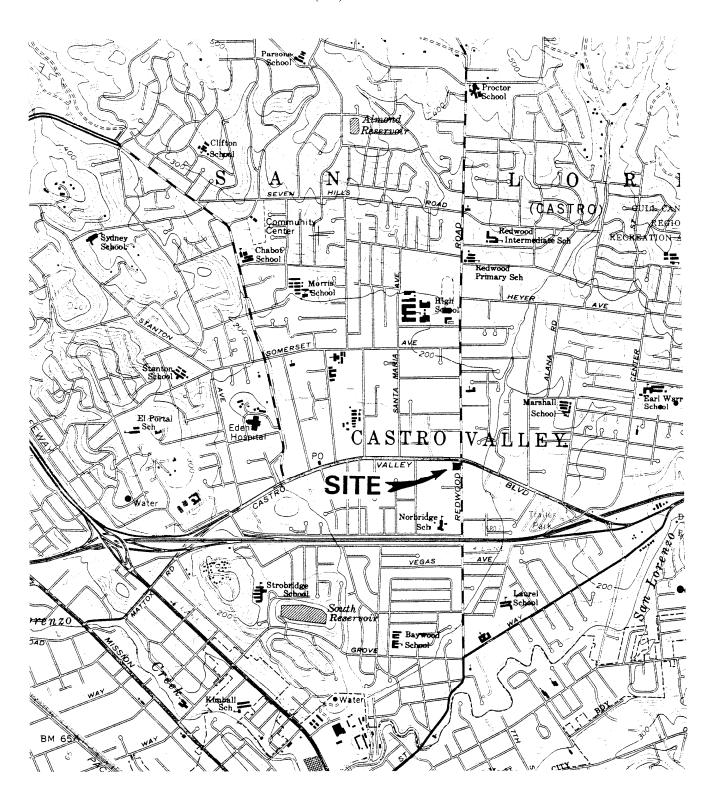
Date	TPH-D	ТРН-G	МТВЕ	Benzene	Toluene	Ethyl-benzene	Total Xylenes	Other Fuel Additives by 8260*
EW1 (Cont.)								
10/15/2004	4,100,a,d	ND<5,000,a,j	96,000	ND<1,700	ND<1,700	ND<1,700	ND<1,700	ND<1,700, except TBA = 97,000
7/13/2004	3,300,a,d	2,600,a	73,000	ND<1,200	ND<1,200	ND<1,200	ND<1,200	ND<1,200, except TBA = 40,000
4/6/2004	3,400,a,d	2,600,a	72,000	ND<1,000	ND<1,000	ND<1,000	ND<1,000	ND<1,000, except TBA = 34,000
12/18/2003	3,000,d	ND<5,000,j	160,000	220	ND<50,000	ND<50,000	73	ND<5,000, except TBA = 64,000
9/18/2003	8,200,a,d	7,500	220,000	330	ND<50	ND<50	ND<50	ND<2,500, except TBA = 51,000
2/23/1993	9,600	66,000	NA	14,000	8,500	1,400	9,800	NA
11/13/1992	13,000	62,000	NA	11,000	9,200	1,100	9,600	NA
8/1/1992					EW	1 Installed		
OW1								
10/16/2009					lo sample recovered			
7/8/2009				N	lo sample recovered	l		
1/7/2009				N	lo sample recovered	·		
10/22/2008				N	o sample recovered	I		
7/16/2008				N	o sample recovered	·		
4/15/2008				N	o sample recovered	I		
1/17/2008	29,000, a,d	6,900, a, h	8,800	480	ND<10	41	23	ND, except TBA = 97
10/16/2007				N	lo sample recovered			
7/25/2007				N	lo sample recovered	L		
4/17/2007				N	lo sample recovered			
1/18/2007				N	o sample recovered	I		
11/14/2006				N	lo sample recovered			
6/29/2006	290,000,d	24,000	NA	NA	NA	NA	NA	NA
2/3/2006	710,000a,g	31,000,a	210,000	NA	NA	NA	NA	NA
11/18/2005	820,000,d	370,000	NA	130	ND<25	400	290	ND<25, except TBA<250
7/28/2005	230,000,a,d	10,000,a	NA	1,300	30	190	72	ND<50, TBA ND<500
4/13/2005	590,000a,d,e	35,000,a	NA	2,000	ND<50	460	140	ND<50, TBA ND<500
1/31/2005		,,			o sample recovered			
10/15/2004 7/14/2004	240,000,a,d	66,000,a	ND<50	1,800	lo sample recovered ND<50	1,800	56	ND<50, TBA ND<500
4/6/2004	74,000,a,d	50,000,a	NA	3,100	ND<100	210	140	ND<100, TBA ND<1,000
2/11/2004	450,000,a,d	15,000,a	130,000	2,200	31	160	54	ND<25, TBA ND<250
11/21/2003	1,900,000,a,d	38,000	570,000	2,000	59	190	95	ND<50, TBA ND<500
6/10/1998	1,900,000,a,d	36,000	370,000	2,000	OW1 Installed	190	93	NDSJU, IDA NDSJUU
0/10/1998					Ow I Installed			

Date	TPH-D	ТРН-G	МТВЕ	Benzene	Toluene	Ethyl-benzene	Total Xylenes	Other Fuel Additives by 8260*
OW2								
10/16/2009				N	o sample recovered	L		
7/8/2009								
1/7/2009					o sample recovered o sample recovered			
10/22/2008					o sample recovered			
7/16/2008					o sample recovered			
4/15/2008				N-	o sample recovered	I		
1/17/2008	NA	140	NA	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND, Except MTBE = 2.2, TBA =
10/16/2007				N	o sample recovered			
7/25/2007				N.	o sample recovered	l		
					o sample recovered			
4/17/2007				N	o sample recovered			
1/18/2007				N	o sample recovered	l		
11/14/2006				N	o sample recovered	L		
6/29/2006				N	o sample recovered			
2/3/2006	370,d	140,i	ND<250	NA	NA	NA	NA	NA
11/18/2005					o sample recovered			
						l		
7/28/2005					o sample recovered			
4/13/2005	220,d	65	NA	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5, except MTBE = 9.7
1/31/2005				N	o sample recovered			
10/15/2004				N	o sample recovered			
7/14/2004				N	o sample recovered			
4/6/2004	NA	69,a	NA	ND<0.62	ND<0.62	ND<0.62	ND<0.62	NA
2/11/2004	NA	210	NA	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5, except MTBE = 6.4, TBA
11/21/2003				N <sub>i</sub>	sample recovered.			= 7.0
6/10/1998					OW2 Installed			
ESL	100	100	5.0	1.0	40	30	20	MTBE = 5.0
Notes:								TBA = 12.0
TPH-G = Total Petro	leum Hydrocarbons a							
TPH-D = Total Petro MTBE = Methyl-tert		ns Diesel.				<u> </u>		
ND = Not Detected.	- Butyl Ether							
NA = Not analyzed. a = Laboratory analytems	ical report note: ligh	ter than water immis	cible sheen/ product i	present on the sample	<u>.                                    </u>			
b = Laboratory analyt	ical report note: TP	H-G results have no	ecognizable pattern.					
d = Laboratory analyst d = Laboratory analyst	tical report note: TPI	H-D results consist of	gasoline range comp both diesel and gasol	ounus. line range compounds	i.			
e = Laboratory analyt	ical report note: TPI	I-D results consist of	both oil and gasoline	range compounds.				
f = Laboratory analyt g = Laboratory analyt			diesel, oil, and gasoli	ne range compounds.				
h = Laboratory analy	tical report note: rue	ngly aged gasoline or	diesel range compou	inds.				
i = Laboratory analyt	ical report note: heav	ier gasoline range co	mpounds are signific	ant (aged gasoline?)				
		orting limit raised du	e to high MTBE cont	ent.				
+ = analyzed by EPA * = This column sun	nmarizes results for a	nnalysis using EPA M	lethod 8260 for non-l	MTBE fuel oxygenate	s			
(TAME, DIPE, ETBI	E, and TBA) or lead	scavengers (EDB, 1,2	2-DCA/EDC).					
ESL = Environmenta	l Screening Level, de	eveloped by San Fran	cisco Bay - Regional	Water Quality Contro	ol Board (SF-RWQCI	B) updated May 2008	, from Table A - Sha	llow Soil Screening
All results in microgr		tial source of drinkin unless otherwise no						

# **FIGURES**

## P&D ENVIRONMENTAL, INC.

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



Base Map From: U.S. Geological Survey Hayward, Calif. 7.5 Minute Quadrangle Photorevised 1980

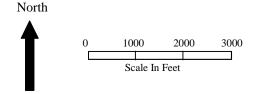
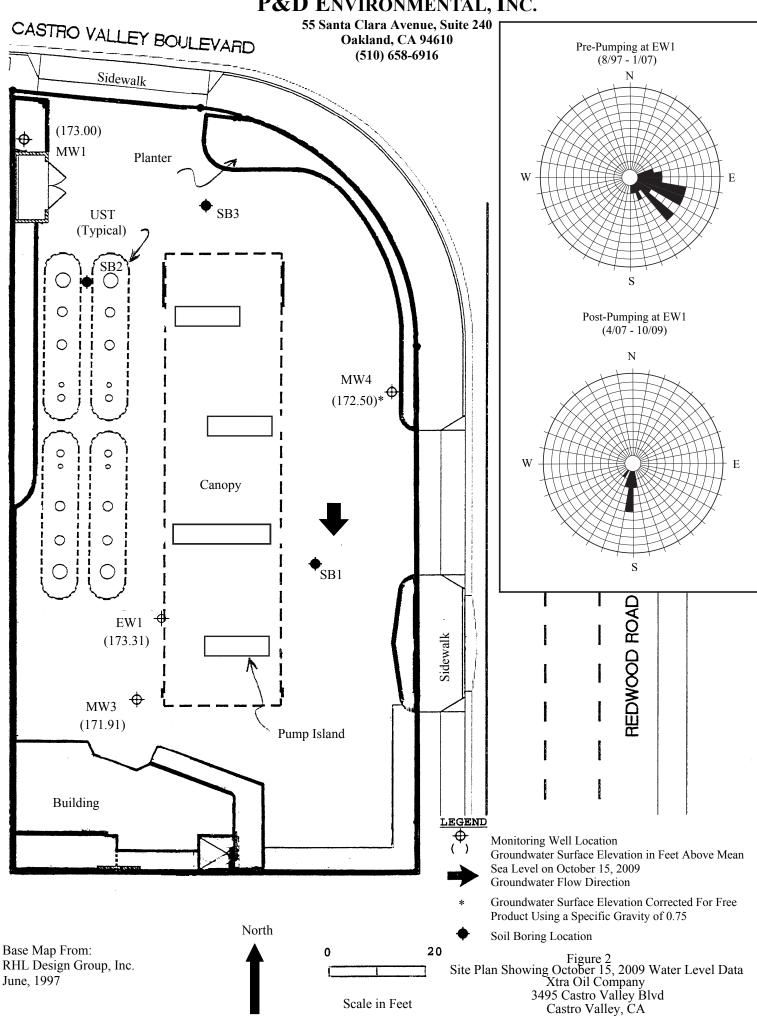
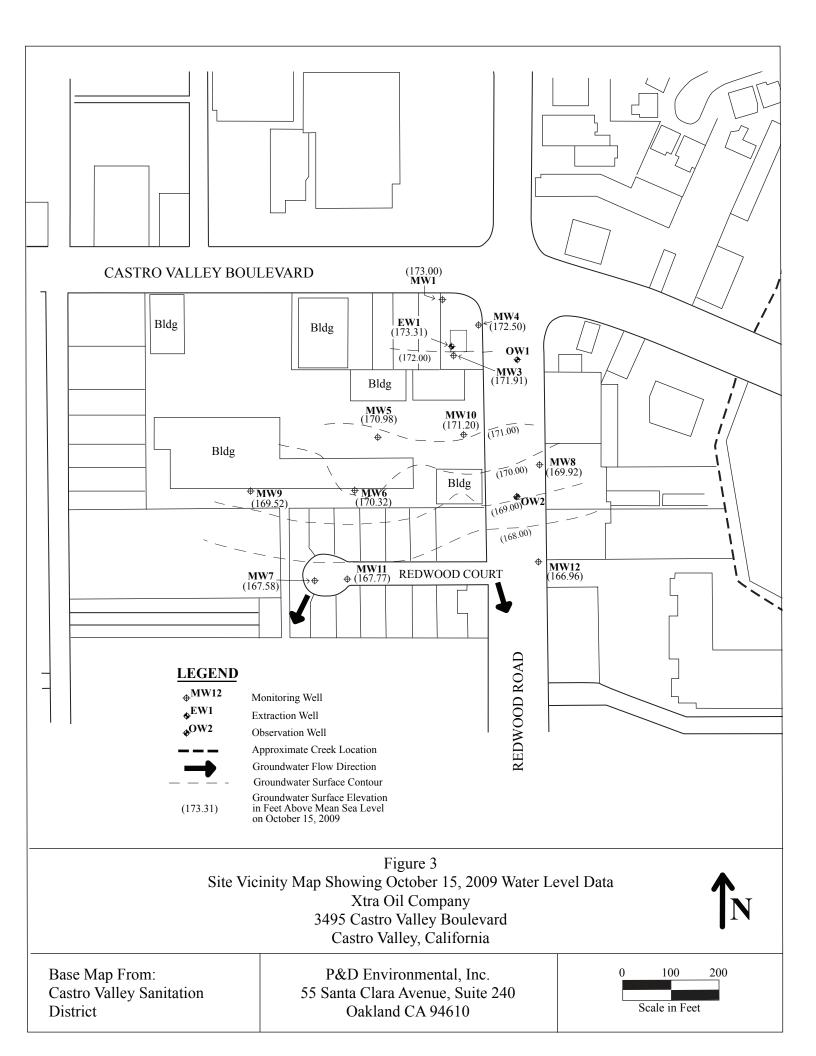


Figure 1 SITE LOCATION MAP Xtra Oil Company 3495 Castro Valley Blvd. Castro Valley, California

# P&D Environmental, Inc.





# WELL MONITORING AND PURGE DATA SHEETS

# P&D ENVIRONMENTAL GROUNDWATER MONITORING/WELL PURGING

	161 /-	DATA S	SHEET	
Site Name _	XtraOil/Castro	<u>Va</u> lley		MW1
Job No. C	014	, 	Date_10/1	
TOC to Wate	er (20.) 7.22		Sheen <u>Y</u> C	<u> </u>
Well Depth	(ft.) 20.0		Pree Prod	uct Thickness
Well Diamet	er <u>4"(0.646)</u>	-		llection Method
Gal./Casing	g vol. <u>8.3</u>		Disposa	He bailer
	3vol=24.	9	60	ELECTRICAL MALA
TIME	GAL. PURGED	DH 7	TEMPERATURE	CONDUCTIVITY
1447	3.8	6.75	23.4	762
1446	<u>5.5</u>	6.62	23,3	879
1448	883	6.63	23.6	849
1450	11.1	6.69	23,8	850
1452	12 8	6.65	24.0	894
1454	16.6	6.64	24 1	916
1157	19.4	6.16	$\frac{31.1}{220}$	900
17)7	22 15/6	6.65	<u> </u>	, <u>10 d</u>
1458	- 33.1 W	ell devate	ren e ~ 215a11	NAI.
	24.4	<del></del>		
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	-	-		
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			·	
<u> </u>		•		1-17-1
NOTES:	Mod-strong pho	odo-; Sh	reen	
			in = 1530	

## P&D ENVIRONMENTAL GROUNDWATER MONITORING/WBLL PURGING

	. ( )	DATA S	HEBT	
Site Name _	Xtra Oil/Castra	<u>. Valley</u>	Well No	MW3
Job No	0014		nonitoral Date 10/	15/07 410/16/09 6
TOC to Wate	r (ft.) 7.55	<u> </u>	Sheen/(	
Well Depth	(ft.) 18.6		Pree Prod	uct Thickness
Well Diamet	er 4"(0.646	<u>)                                    </u>	Sample Co	llection Method
Gal./Casing	1 vol. 7.2		Dispos	alle bailer
	3001=21	=	ſ°	ELECTRICAL MS/cm
TIME IUI\	GAL PURGED	6.45	TEMPERATURE C 23,8	1,690
1111	<u> </u>		23.4	1.712
1413	4.8	<u>6.48</u> 6.54	23.7	1775
1416		6.59	23.9	(722
1410	1,6	<del></del>	241	1722
1420	13,0	6.64 6.68	24/1	1,776
1401		6.58	10 10 7	4751
1121	16.8	Melldenat	ered @ ~15.3	9 10ns</td
	- ATTA		<u> </u>	
	31-6			And the Control of th
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				• • • • • • • • • • • • • • • • • • •
NOTES:	Shein + M	od-phc or	dor sample ti	ne => 1520
		(		

PURGE10.92

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## P&D ENVIRONMENTAL GROUNDWATER MONITORING/WELL PURGING

	\ f \ \ 1	data si	HEST	. 1	
Site Name _	Xtra Oil/Cau	to Valley	Well No	MWY	
Job No	0014'		Date_ (C/	15/09	
TOC to Wate:	r (ft.) 7.06		Sheen	N/A	
Well Depth	(ft.)		Pree Produ	uct Thickness 0.35	
Well Diamet	er 4 11			lection Method	
Gal./Casing	vo1. NA		No Sand	e Collected Sphencounter	cs(
TIME	GAL. PURGED	Hq	TEMPERATURE	ELECTRICAL CONDUCTIVITY	
	~	2 Total.	tape = 7.50		
Top of	10 75"				
- Sph	= 10.75"	Topol	= 5.25 = 0-44		
	= 0.70	Water	= <del>2.15 = 0.4</del> 9		
		4			
	1				
	10'= 6.60'				
7.50 - 0.4				Managary desired and the second secon	
FPthicknes	s = 0.46	- <del> </del>			
Freeric	n- 0.46 x 0.75	= 0.35			
Corrected	waterlevel =				
<u>7.06</u> - 0.	35 = 6.71 TOC	to H20			
			J	<del>Carlon Maria di Carlon della C</del>	
NOTES:					

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## P&D ENVIRONMENTAL GROUNDWATER MONITORING/WELL PURGING

	100	DATA	SHEBT	< / >
Site Name	Xtra Oil/Castro V	alley	Well No	SOKIO MUS
Job No	0014		Munitored Date	15/09 +10/16/09 €
TOC to Wat	er (ft.) \\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\	_5.04	Sheen N	0
Well Depth	(ft.) <u>216</u>	718	Pree Prod	uct Thickness
Well Diame	ter 211 (0.16)		Sample Co	llection Method
Gal./Casin	ig Vol. 3.7		Disposal	le bailer
<b></b>	3vol=8.1		CO	electrical pussion
1059	GAL. PURGED	6,33	TEMPERATURE 2	618
1021	(.8	6 45	14 2	613
1103	3.7	6.45	33.0	610
1105	3.6	6.46	22.8	608
1107	<u> </u>	6.45	32.7	/14
1108	54	6.47	22.1	611
1110	6.3	6.46	22.0	613
11(1	7.2	6.46	22.0	614
1112	8.1	6.45	319	612
		<u> </u>	<u> </u>	
				Administration (Security of the Color of the
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	**************************************	Control of the Contro		ARTICLE CONTROL OF A CONTROL OF THE
				**************************************
	•	<del>* - * * * * * * * * * * * * * * * * * *</del>	4-1M-Mir Free Strands and American	
<del></del>				to describe the second described to the second describ
NOTES:	۸/ ا		· 1 1.	• • • • • • • • • • • • • • • • • • •
	100 Sheen & 1	10 odoc	Sample time	=) 11'do

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

	V. N. 16	DATA S	HEBT	
Site Name	Xtra Dil/Castro Ve	lley	Well No.	MW6
Job No			natured Date 10/1	5/09 +10/16/09
TOC to Wate	er (ft.) 4.93	·	Sheen	,
Well Depth	(ft.) 10.5		Pree Produ	ct Thickness
	er_ 7"(0.16)			lection Method
Gal./Casing	vol. 0.9			ble bailer
	3vol=7.7		(0	
TIME	GAL. PURGED	DH	TEMPERATURE	CONDUCTIVITY POPCA
1615	0.3	6.58	<u> 28.3</u>	1.009
1616	0.6	6.53	28.0	1970
1617	0.9	6.50	27.8	1,004
1618	1.2	6.53	27,5	1,017
1619	1.5	6.55	27,3	1026
1620	1.8	6.53	27.2	(1015
1631	3.1	6.5 h	27.2	1.033
1622	2.4	6.54	<del>27</del> 1	1035
1623	2.7	1 5 4	26.9	1031
10 + 2	<u> </u>	6177	4011	17021
	**************************************			
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NOTES:	Sheeno mod- s	strong phe	edor	
		Sinny	letime => 163 chr.	ĵ
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## P&D ENVIRONMENTAL GROUNDWATER MONITORING/WBLL PURGING

	1/1 /6	DATA	SHEBT		
Site Name	Xtra Dil/Castro	<u>Vall</u> e j	Well No	MWY	
Job No	0014	,	Date 10/15	5/09	
TOC to Wate	er (ft.) <u>2.76</u>		Sheen No	,	
Well Depth	(Et.) 10.7		Pree Produ	ct Thickness	5
Well Diamet	er_ 7" (0.16)	)	Sample Col	lection Method_	
Gal./Casing	y vol. 1.7			ble bailer	
	310=3.	<u>.</u>			1.5/4.
TIME	GAL. PURGED	γ τ ∨ <b>p</b> #	TEMPERATURE Y	ELECTRICAL CONDUCTIVITY	Wich
1502	0.4	<u>6.52</u>	7 <b>457</b> 259	538	
1503	0.8	6.50	26.1	815	
1504	1.2	6,58	26.1	901	
1505	1.6	6-61	26.0	936	
1506	2.0	6.64	26.0	982	hell dewatering
1508	74	6.68	25.4	984	wew.resny
1510	3.8	6.71	25.1	977	
1517	3.2	672	75.8	989	
1514		,	ed 8 N3 49611.		
-12/-	V	cli Darmis	a 130 / 135 (1)		
	**************************************	<del> </del>			
	V	-			
April 1980	V				
		<del></del>	Access Control		
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···					
NOTES:	ΛÎ - i			>1011	
	Noshi	en Ansod	ear Sampletin	47/7/0hrs	-

# P&D ENVIRONMENTAL GROUNDWATER MONITORING/WELL PURGING

	1. 1. 1.	DATA SH	ebt		
	(tra011/Cestro	<u>V</u> a. lle y		Well No.	MW8
Job No. D	0014			Date 10/1.	5/09
TOC to Water	(et.) 7.526.	.08		Sheen N	<b>0</b>
Well Depth (	Ec.) 125 14.	1		Pree Produc	t Thickness Ø
Well Diamete	x 211(0.16)			Sample Coll	ection Method
Gal./Casing	Vol. 0111			Disposable	bailer
	3vol=4.2			00	BLECTRICAL / C/car
	GAL. PURGED	DH 4 - 7		RATURE	CONDUCTIVITY
161+	0.3	6.53	24.	. 0	925
1618	0.6	6.53	33.	9	902
1619	0.9	6.50	73.	6	941
1620	1.2	6.52	23.	5	972
1621	1.5	6.51	23,	Ψ	993
1622	1.8	6.52	23.	<u> </u>	998
1623	2.1	6.53	23.	3	1,001
1624	2.4	654	23.	3	1,004
1625	2.7	6.55	23.	3	1/010
MW8+A	nula purgeshed	J Mikedup;	punge	Continued	re sampled
1744	3.0	6,46	23	, 9	1,031
1746	3.6	6.44	23	3.3	1,013
1748	4.2	6.39	23.	, <u>a</u>	1,007
		<del></del>			
			4		
Annual Control of the			<del></del>		
		<del></del>		<del></del>	With the district and profession of the standings
NOTES:	. 1 1	. 1	1	•	
	No Sheen	moderate	phc	odor	
		/	San	npletime >	1755405
				(	

# P&D ENVIRONMENTAL GROUNDWATER MONITORING/WBLL PURGING

Site Name		161	DATA :	SHEBT		A	
Sheen   No   Sheen   Sheen   No   Sheen   No   Sheen   S	Site Name _	Atra Oil/Castrol	<u>wl</u> ley	,	Well No	MW9	
Sheen   No   Sheen   Sheen   No   Sheen   No   Sheen   S			_ ' '	honitores	Date 10/15	109 +10/16/0	56-5
Well Diameter 4" (0.16)  Gal./Casing Vol. 2.6  3vcl=7.8  TIME GAL. PURGED DH TEMPERATURE CONDUCTIVITY PS/cm  1 50	TOC to Wate	r (st.) 5.57			, v	7	
Well Diameter 3" (0.16)  Gal./Casing Vol. 2.6  \$\frac{3}{3}\tel=7.8\$  TIME GAL. PURGED DH TEMPERATURE CONDUCTIVITY PS/CM  \$\frac{1\frac{5}{2}}{2} \frac{3}{2} \frac{1}{2} \fra	Well Depth	(ft.) 21.3			Pree Produc	t Thickness	,
Gal. /Casing vol. 3.6  3 vol = 7.8  TIME GAL. FURGED DH TEMPERATURE CONDUCTIVITY postern  1 50	Well Diamet	er_7" (0.16)					
TIME GAL PURGED DH TEMPERATURE CONDUCTIVITY W/CM  1 50	Gal./Casing	vol. 2.6					
		3 vol=7.8				ELECTRICAL	
1151 1.7 6x46.51 24.4 62 1153 2.6 6.60 22.5 23.1 124156 3.5 6.54 22.1 534 1158 4.3 6.55 22.2 622 1200 5.2 6.1 6.58 22.1 797 1203 6.1 6.60 22.1 851 1205 7.8 6.60 22.0 875			<b>한</b> ( 리틱	TEMPER	ATURE	CONDUCTIVITY	N/CM
1153 3.6 6.60 22.5 23.1 454.156 3.5 6.54 22.1 534 1158 4.3 6.55 22.2 622 1200 5.2 6.56 22.2 733 1203 6.9 6.60 22.1 851 1205 7.8 6.60 22.0 875	1100	17	6.71 C	1 211	<u>. 8</u>	70	
156   3,5   6,54   22.1   534    158   4.3   6.55   22,2   627    200   5.2   6.56   22.2   733    202   6.1   6.58   22.1   797    203   6.9   6.60   22.1   851    205   7.8   6.60   22.0   875	1121	<u> </u>	y - 5	1 44	7	<u> </u>	
11.58	1123		6.60	44	15	<u> </u>	
1200 5.2 6.56 22.2 733 1203 6.1 6.58 22.1 797 1203 6.9 6.60 22.0 875	11 E &		6127	44	<u>' \</u>		
1303 6.1 6.58 22.1 797 1203 6.9 6.60 22.0 875 1205 7.8 6.60 22.0	11.70		· · · · · · · · · · · · · · · · · · ·	<u> </u>	<u> </u>		
1203 6.9 6.60 22.1 851 1205 7.8 6.60 22.0 875		7				753	
1205 7.8 6.60 22.0 875					<del></del>	77+	
			6.60			<u>851</u>	
NOTES: No Sheen + 10 ods - Sampletime > 1215h-1	1205	<u>7.X</u>	6.60	1) de	2	875	
NOTES: No Sheep + 10 oder Sangletime > (215h-c)					<del></del>		
NOTES: No Sheen & no oder Sangletime > 1215har	<del> </del>		<del></del>		<del></del>		
NOTES: No Sheen & 10 oder Sangletime > 1215har					- Charles Bardes		
NOTES: No Sheen + 10 oder Sangletine > (215h-1	V			<del></del>	<del></del>		
NOTES: No Sheen + 10 oder Sangletine > (215h-1							
Notes: No Sheen + 10 oder Sangletine > (215h-1							
Notes: No Sheen + 10 oder Sangletine > (215hor							
NOTES: No Sheen + 10 oder Sangletine > 1215h-1					<del></del>	·	
NOTES: No Sheen + 10 oder Sangletine > 1215h-1					· · · · · · · · · · · · · · · · · · ·		
No Sheen + 10 oder Sangletine > 1215h-1			-		-	-	
July July Dall Daller	NOTES:	No shares	- A -	Sand	1. 21	\C/ .	
		IN DIRECTOR IL	JULIA	JAMPI	-11m210	12401	•

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

	11 3 1-	DATA	Shebt	
Site Name _	Xtra Oil/Castro	<u>la</u> lky	Well No	MUSMUID
Job No	0014	- : : -	montered Date 10/1	5/09 +10/16/09 wanpled
TOC to Wate	r (ft.) 5.09	_4.83	Sheen $\mathcal{N}$	Ò
Well Depth	(ft.) 21.8	21.6	Pree Produ	ct Thickness
Well Diamet	er_ 2"(0.16)	_	Sample Col	lection Method
Gal./Casing			Disposa	He bailer
	3001=8.1		(	
TIME	GAL. PURGED	DH	TEMPERATURE	
6008	0.9	6.61	35,7	* 83
1011	1.8	6.08	249	79
1013	3.7	5.77	377 24.0	101
1015	3.6	579	23.8	158
1017	4.5	5,83	23.4	215
1019	5.4	5.90	23.3	383
1031	6.3	6.03	13/1	472
1023	7.2	6.08	13 1	59 a
	8.1	622	$\frac{67.00}{1}$	
1035	6.1	1 2 i	43.6	656
1076	1.9	6,06	23.2	668
1027	8.7	6.52	23.3	685
<del></del>	****	<del></del>		
				White Managed And Control of the Con
<del></del>				dament de de la competencia de la comp
	White the sales that	*******	<del></del>	
NOTES:	sh			<del>1 </del>
, ,	osnient hood	0.	Dample time > 10	Yohns

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## P&D ENVIRONMENTAL GROUNDWATER MONITORING/WELL PURGING

	11 11/6	DATA SI	HEBT		
Site Name _	Xtra Dil Castrol	lalley	Well No	MWII	
Job No	0014	, 	Date   0/15		
TOC to Wate	r (et.) 3,26	eville.	Sheen No		
Well Depth	(fc.) 14.4	-	Pree Produc	ct Thickness &	5
Well Diamet	er			lection Method	<del></del>
Gal./Casing	vol. 1.8		d weard	le bailer	
TIME	3 Vol = 5.4 GAL. PURGED	nV	TOWN DED & THE DE	ELECTRICAL	1. S/cm
1440	0.6	он 5,67	763	CONDUCTIVITY 7	107
1447	1.2	6.04	358	808	•
1444	1.8	6.30	25.1	<u>952</u>	
1446	2.4	6.36	249	861	
1448	3.0	640	24 4	852	
1450	3.6	6.50	34.1	859	dewatering
1452	4.2	6.55	24.0	855	de waste: no
1454			23.8	862	
1116	4.8	6.65			
1972	3.7 Malu	CHATCE CA	2~ 5 gallons		
		-			
	*				
	- Martin - Andrewson - Andrews	town was fished that the state.	4—Mi-Mir So. St Amidonido incolaren		
				***************************************	
· · · · · · · · · · · · · · · · · · ·					
		***************************************		<del></del>	
NOTES: N	Sheen I no va	Va- C.	al. time > 12	ral	
	Silver - 1000	)91	Will 111 6 7 17.0	JUNA (	-

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

Site Name	Xtra Oil Castr	o Valley	Well No	MUIZ
Job No	Λ α/	<b>,</b>		115/09
TOC to Wate	er (et.) 7.02	<del></del>	Sheen /	Jo
Well Depth		<del></del>		luct Thickness Ø
Well Diamet	er_ 211(0,16)		Sample Co	ollection Method
Gal./Casing	vol. 0.9	<del></del>		able bailer
1545	3vol=3.7  GAL. PURGED  0.5	рн 6.55	TEMPERATURE  25. 2	ELECTRICAL WAR CONDUCTIVITY
1546	0-1	627	$\frac{dq.f}{du}$	617
1548	1 · 1	6.58	747	6)d
1550		6.57	$\frac{d \cdot d}{d \cdot d}$	<u> 69 1</u>
1227	7.5	6.58	71.1	736
1555	2.8	6.60	29.1	70/
1555	3.5	6.62	34.0	700
1356	3.F	661	24.0	<u>+1+</u>
155 F	4.2	6.61	23.9	126
		<del></del>		
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NOTES:	Voshern light	t phoodor	Sample +	inc=> 1605
Purge De	Voshern, light	18+ MWIZ	Mixelup	

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## P&D ENVIRONMENTAL GROUNDWATER MONITORING/WBLL PURGING

		DATA	Sheet		
Site Name _	Xtra DiVCost	ro Vulley	Well No	EW1	°
Job No	0014		munitered Date 10/	5/09 \$10/16/096	ample)
TOC to Wate	r (ft.) 5,96	•	Sheen_	No	
Well Depth	(ft.) 13.2	-	Pree Produ	uct Thickness	
Well Diamet	er <u>8"(2.59</u>	<u>34)</u>	Sample Co.	llection Method	
Gal./Casing	vol. 18,8		Disposa	ble bailer	
40 at 1 a m	3vol=56	• •	(,0	ELECTRICAL M. (/	
TIME	GAL PURGED	DH .	TEMPERATURE C	CONDUCTIVITY MS/CA	
1310	6.3	6151	22.3	1,015	
1313	12.5	6,53	2(.8	1995	
1317	18.8	5- 15-56.4	t 22.0	1,031	
1331	<u> 25. l</u>	6.35	21.6	996	
1326	31.3	6.37	22.6	1,038	
1329	37.6	6.37	21.6	7999	
1332	43.9	6.38	21.5	997	N.
1338	Soil	jic 8 4 163	6 21,5	997	
1241	56.4	6.31	21.4	998	
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	· · · · · · · · · · · · · · · · · · ·	<del></del>		**************************************	
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				***************************************	
				National Control of the Control of t	
<u> </u>					
AVE-4-00-00-00-00-00-00-00-00-00-00-00-00-0		<del></del>			
		-			
NOTES:	light phe ada	- bubbles	No Shien		
	Sample time >	1355610			
	- Jan Contractor	1227112			

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

Job No TOC to Wate Well Depth Well Diamet	er (ft.) 7.37. (ft.) 55 7.2 7.	Alley	Sample Col		~;t
TIME	GAL. PURGED	рĦ	TEMPERATURE	CONDUCTIVITY	
,					
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NOTES:	nsufficient water	ring Sage	de collected.		
	•	1			

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

Site Name	Xtravil/Castro	Valley	Well No	ow2	
Job No	0014	, 	Date 10	1409	
TOC to Wate	er (ft.) 7.1 7	<u>7.2</u>	Sheen	NIA	_
	(fc. s) C 7.1 =	7-2	Pree Prod	uct Thickness	
Well Diamet	ter		Sample Co	ollection Method	,
	g vol. N/A		NAN	lo Sample Collected J.	<u>nsulficien</u>
TIME	GAL. PURGED	Hq	TEMPERATURE	ELECTRICAL CONDUCTIVITY	Water
				ARTHUR HARVING CONTRACTOR OF THE STATE OF TH	
		***************************************			
		570			
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NOTES:	Insufficient	Waterino	sample Collected		
		,	· ·		

## LABORATORY REPORTS AND CHAIN OF CUSTODY DOCUMENTATION

## McCampbell Analytical, Inc.

1534 Willow Pass Road, Pittsburg, CA 94565-1701 Web: www.mccampbell.com E-mail: main@mccampbell.com Telephone: 877-252-9262 Fax: 925-252-9269

P & D Environmental	Client Project ID: #0014; Xtra Oil/Castro	Date Sampled:	10/15/09-10/16/09
55 Santa Clara, Ste.240	Valley	Date Received:	10/19/09
Oakland, CA 94610	Client Contact: Steve Carmack	Date Reported:	10/26/09
Santaria, Cri 7 1010	Client P.O.:	Date Completed:	10/23/09

WorkOrder: 0910601

October 26, 2009

1	Dear	Steve	٠.

### Enclosed within are:

- 1) The results of the 11 analyzed samples from your project: #0014; Xtra Oil/Castro Valley,
- 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.

P & D ENVIRONMENTAL, INC. 55 Santa Clara Ave, Suite 240 PAGE ( OF / CHAIN OF CUSTODY RECORD Oakland, CA 94610 (510) 658-6916 PROJECT NUMBER: PROJECT NAME: Xtra Oil/ Castro Valley NUMBER OF CONTAINERS SAMPLED BY: (PRINTED AND SIGNATURE) REMARKS Tevel amack SAMPLE NUMBER DATE TIME TYPE SAMPLE LOCATION 1530 MW Varmal Turnarand Time 1520 MW 5 6 MW 1630 10/15/09 MWZ MW 8 10/15/09 1755/190 7160 MW9 1040 MWID MWI 10/15/0 1700 MWIT EW 10/16/09 HEAD SPACE ABSENT CONTAINERS VOAS | O. G | METALS | OTHER RELINQUISHED BY (SIGNATURE) TOTAL HO. OF SAMPLES DATE RECEIVED BY: (SIGNATURE) LABORATORY: (THIS SHIPMENT) TOTAL NO. OF CONTUNERS (THES SHIPMENT) Comptell Analytical Inc. RELINQUISHED BY: (SIGNATURE) DATE RECEIVED BY: (STONATURE) LABORATORY CONTACT: LABORATORY PHONE NUMBER: (877)252-9262 RELINQUISHED BY: (SIGNATURE) DATE TIME RECEIVED FOR LABORATORY BY: SAMPLE ANALYSIS REQUEST SHEET (SIGNATURE) ATTACHED: ( )YTS (X)NO Results and billing to: All bothles preserved w/ HCC REMARKS: P&D Environmental, Inc. lob@pdenviro.com

## McCampbell Analytical, Inc.

# 1534 Willow Pass Rd

## CHAIN-OF-CUSTODY RECORD

Page 1 of 1

—// <b>A</b> 2	g, CA 94565-1701 52-9262					Work	Order	0910	601	(	ClientC	ode: P	DEO				
		WaterTrax	WriteOn	☐ EDF		Excel		Fax	[	<b>✓</b> Email		Hard	Сору	Thi	rdParty	☐ J-	flag
Report to: Steve Carma P & D Enviro 55 Santa Cla Oakland, CA (510) 658-691	onmental ara, Ste.240 A 94610	cc: PO:	ab@pdenviro #0014; Xtra O	.com il/Castro Valley			Xtı 23	a Oil C 07 Paci	Payablo ompany ific Avei CA 945	y nue			Dat	uested e Rece e Prin	rived:	5 ( 10/19/ 10/19/	
									Req	uested	Tests	(See le	gend b	elow)			
Lab ID	Client ID		Matrix	<b>Collection Date</b>	Hold	1	2	3	4	5	6	7	8	9	10	11	12
0910601-001	MW1		Water	10/16/2009 15:30	ПП	Α	В	Α							1	Т	Ī
0910601-002	MW3		Water	10/16/2009 15:20	ĦĦ	A	В	- / (	1			1			<del>                                     </del>	+	
0910601-003	MW5		Water	10/16/2009 11:20	ΙĦ	Α	В		1			1					
0910601-004	MW6		Water	10/16/2009 16:30	Ī	Α	В										
0910601-005	MW7		Water	10/15/2009 17:10		Α	В										
0910601-006	MW8		Water	10/15/2009 17:55		Α	В										
0910601-007	MW9		Water	10/16/2009 12:15		Α	В										
0910601-008	MW10		Water	10/16/2009 10:40			В										
0910601-008	MW10		Water	10/16/2009 22:40		Α											
0910601-009	MW11		Water	10/15/2009 17:00		Α	В										
0910601-010	MW12		Water	10/15/2009 16:05		Α	В										
0910601-011	EW1		Water	10/16/2009 13:55		Α	В										
Test Legend:  1	TEX_W 2 7 12	MBTEXOXY-8	260B_W	3 PRE	EDF RE	EPORT		4	1					5 10			
The following San	mpIDs: 001A, 002A, 003A, 0	04A, 005A, 006A	A, 007A, 008A,	009A, 010A, 011A	contai	n testgr	oup.					P	repare	d by: S	amantl	ha Arbu	ıck

### **Comments:**

### **Sample Receipt Checklist**

Client Name:	P & D Environ	nental			Date a	and Time Received:	10/19/200	9 7:59:30 PM
Project Name:	#0014; Xtra Oi	I/Castro Valley			Check	klist completed and r	eviewed by:	Samantha Arbuckle
WorkOrder N°:	0910601	Matrix Water			Carrie	r: Rob Pringle (M	IAI Courier)	
		<u>Ch</u>	ain of Cu	ıstody (C	COC) Informa	ation		
Chain of custody	y present?		Yes	<b>V</b>	No 🗆			
Chain of custody	signed when relin	quished and received	? Yes	<b>V</b>	No 🗆			
Chain of custody	agrees with samp	le labels?	Yes	<b>✓</b>	No 🗌			
Sample IDs noted	d by Client on COC?		Yes	<b>V</b>	No 🗆			
Date and Time of	f collection noted by	Client on COC?	Yes	<b>✓</b>	No $\square$			
Sampler's name r	noted on COC?		Yes	<b>✓</b>	No 🗆			
			Sample	Receipt	t Information	<u>!</u>		
Custody seals in	tact on shipping co	ntainer/cooler?	Yes		No 🗆		NA 🔽	
Shipping contain	er/cooler in good co	ondition?	Yes	<b>✓</b>	No 🗆			
Samples in prope	er containers/bottle	s?	Yes	<b>~</b>	No 🗆			
Sample containe	ers intact?		Yes	<b>✓</b>	No 🗆			
Sufficient sample	e volume for indicat	ed test?	Yes	<b>✓</b>	No 🗌			
		Sample Pre	servatio	n and Ho	old Time (HT)	) Information		
All samples recei	ived within holding	time?	Yes	<b>✓</b>	No 🗌			
Container/Temp I	Blank temperature		Coole	er Temp:	7.2°C		NA 🗆	
Water - VOA via	ls have zero heads	pace / no bubbles?	Yes	<b>~</b>	No 🗆	No VOA vials subm	itted $\square$	
Sample labels ch	hecked for correct p	oreservation?	Yes	<b>✓</b>	No 🗌			
Metal - pH accep	table upon receipt	(pH<2)?	Yes		No 🗆		NA 🗹	
Samples Receive	ed on Ice?		Yes	<b>V</b>	No 🗆			
		(Ice 1	Гуре: WE	ET ICE	)			
* NOTE: If the "N	No" box is checked	, see comments belo	w.					
		======						======
Client contacted:		Date con	tacted:			Contacted	by:	
Comments:								

P & D Environmental	Client Project ID: #0014; Xtra Oil/Castro Valley	Date Sampled:	10/15/09-10/16/09
55 Santa Clara, Ste.240	On/Casuo vaney	Date Received:	10/19/09
55 Sunu Ciaru, 56.216	Client Contact: Steve Carmack	Date Extracted:	10/20/09-10/21/09
Oakland, CA 94610	Client P.O.:	Date Analyzed	10/20/09-10/21/09

### Gasoline Range (C6-C12) Volatile Hydrocarbons as Gasoline\*

	Gasonne K	ange (Co-C12) vo	Diame Hydrocardons as Gasoline"				
Extraction method SW5	030B	Analytic	al methods SW8015Bm	Wo	Work Order:		
Lab ID	Client ID	Matrix	TPH(g)	DF	% SS	Commen	
001A	MW1	W	23,000	20	99	d1,b6	
002A	MW3	W	84,000	200	103	d1,b6	
003A	MW5	W	ND	1	99		
004A	MW6	W	53,000	100	109	d1	
005A	MW7	W	220	1	116	d1	
006A	MW8	W	1500	1	109	d1	
007A	MW9	W	ND	1	96		
008A	MW10	W	ND	1	100		
009A	MW11	W	ND	1	108		
010A	MW12	W	230	1	92	d9	
011A	EW1	W	1600	10	109	d1,b6	
_	ng Limit for DF =1;	W	50		μg/L		
	ns not detected at or the reporting limit	S	NA		NA		

above the reporting limit	3	INA	NA
ND means not detected at or	C	NI A	NI A
1 0	VV	30	μg/L
Reporting Limit for DF = 1;	11/	50	110/

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

- b6) lighter than water immiscible sheen/product is present
- d1) weakly modified or unmodified gasoline is significant
- d9) no recognizable pattern



<sup>#</sup> cluttered chromatogram; sample peak coelutes w/surrogate peak; low surrogate recovery due to matrix interference.

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

		211 1 1 1 1 1				
P & D Environmental	Client Project ID: #0014; Xtra	Date Sampled: 10/15/09-10/16/09				
55 Santa Clara, Ste.240	Oil/Castro Valley	Date Received: 10/19/09				
	Client Contact: Steve Carmack	Date Extracted: 10/20/09-10/22/09				
Oakland, CA 94610	Client P.O.:	Date Analyzed: 10/20/09-10/22/09				
Owners and DTEV L., CC/MS*						

### Oxygenates and BTEX by GC/MS\*

Extraction Method: SW5030B Analytical Method: SW8260B Work Order: 0910601

Extraction Method: SW5030B	Anal	Work Order: 0910601							
Lab ID	0910601-001B	0910601-002B	0910601-003B	0910601-004B					
Client ID	MW1	MW3	MW5	MW6	Reporting DF				
Matrix	Matrix W W W								
DF	50	2000	1	330	S	W			
Compound		Conc	entration		ug/kg	μg/L			
tert-Amyl methyl ether (TAME)	ND<25	ND<1000	ND	ND<170	NA	0.5			
Benzene	240	33,000	ND	7400	NA	0.5			
t-Butyl alcohol (TBA)	ND<100	ND<4000	ND	ND<670	NA	2.0			
1,2-Dibromoethane (EDB)	ND<25	ND<1000	ND	ND<170	NA	0.5			
1,2-Dichloroethane (1,2-DCA)	ND<25	ND<1000	ND	ND<170	NA	0.5			
Diisopropyl ether (DIPE)	ND<25	ND<1000	ND	ND<170	NA	0.5			
Ethylbenzene	1800	ND<1000	ND	3600	NA	0.5			
Ethyl tert-butyl ether (ETBE)	ND<25	ND<1000	ND	ND<170	NA	0.5			
Methyl-t-butyl ether (MTBE)	ND<25	3300	0.63	ND<170	NA	0.5			
Toluene	170	ND<1000	ND	3700	NA	0.5			
Xylenes	2200	7300	ND	17,000	NA	0.5			
	Surrogate Recoveries (%)								
%SS1:	95	113	103	98					
%SS2:	112	109	116	117					
Comments	b6	b6							

\* water and vapor samples are reported in  $\mu g/L$ , 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  $\mu g/wipe$ .

ND means not detected above the reporting limit; N/A means analyte not applicable to this analysis.

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

b6) lighter than water immiscible sheen/product is present

	2230 p. 100 m. 10	277 7 7
P & D Environmental	Client Project ID: #0014; Xtra	Date Sampled: 10/15/09-10/16/09
55 Santa Clara, Ste.240	Oil/Castro Valley	Date Received: 10/19/09
,	Client Contact: Steve Carmack	Date Extracted: 10/20/09-10/22/09
Oakland, CA 94610	Client P.O.:	Date Analyzed: 10/20/09-10/22/09
	O L DEFENT CONTO	

### Oxygenates and BTEX by GC/MS\*

Extraction Method: SW5030B	Analytical Method: SW8260B				Work Order:	0910601
Lab ID	0910601-005B	0910601-006B	0910601-007B	0910601-008B		
Client ID	MW7	MW8	MW9	MW10	Reporting DF	
Matrix	W	W	W	W		-1
DF	DF 2 1 1 1					W
Compound		Conce	entration		ug/kg	μg/L
tert-Amyl methyl ether (TAME)	ND<1.0	ND	ND	ND	NA	0.5
Benzene	41	23	ND	ND	NA	0.5
t-Butyl alcohol (TBA)	ND<4.0	3.2	ND	ND	NA	2.0
1,2-Dibromoethane (EDB)	ND<1.0	ND	ND	ND	NA	0.5
1,2-Dichloroethane (1,2-DCA)	ND<1.0	ND	ND	ND	NA	0.5
Diisopropyl ether (DIPE)	ND<1.0	ND	ND	ND	NA	0.5
Ethylbenzene	16	3.1	ND	ND	NA	0.5
Ethyl tert-butyl ether (ETBE)	ND<1.0	ND	ND	ND	NA	0.5
Methyl-t-butyl ether (MTBE)	8.7	4.4	ND	0.61	NA	0.5
Toluene	ND<1.0	ND	ND	ND	NA	0.5
Xylenes	ND<1.0	0.92	ND	ND	NA	0.5
	Surr	ogate Recoveries	s (%)			
%SS1:	98	105	78	76		
%SS2:	117	117	103	103		
Comments						

\* water and vapor samples are reported in  $\mu g/L$ , 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  $\mu g/wipe$ .

ND means not detected above the reporting limit; N/A means analyte not applicable to this analysis.

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

b6) lighter than water immiscible sheen/product is present

"When Quality	Counts"		Telephone: 8	Telephone: 877-252-9262 Fax: 925-252-9269					
P & D Environmental		oject ID: #0014;	Xtra	Date Sampled:	10/15/09-1	0/16/09			
55 Santa Clara, Ste.240	Oil/Castr	o Valley		Date Received:	10/19/09				
33 Santa Ciara, Stc.240	Client Co	ontact: Steve Ca	rmack	Date Extracted:	10/20/09-1	0/22/09			
Oakland, CA 94610	Client P.0	O.:		Date Analyzed:	10/20/09-1	0/22/09			
	Oxygen	ates and BTEX b	y GC/MS*						
Extraction Method: SW5030B	Anal	ytical Method: SW826	0B		Work Order:	0910601			
Lab ID	0910601-009B	0910601-010B	0910601-011B						
Client ID	MW11	MW12	EW1			Limit for			
Matrix	W	W	W			=1			
DF	1	1	20		S	W			
Compound		Conce	entration	ug/kg µ					
tert-Amyl methyl ether (TAME)	ND	ND	ND<10		NA	0.5			
Benzene	ND	ND	470		NA	0.5			
t-Butyl alcohol (TBA)	ND	ND	1100		NA	2.0			
1,2-Dibromoethane (EDB)	ND	ND	ND<10		NA	0.5			
1,2-Dichloroethane (1,2-DCA)	ND	ND	ND<10		NA	0.5			
Diisopropyl ether (DIPE)	ND	ND	ND<10		NA	0.5			
Ethylbenzene	ND	ND	38		NA	0.5			
Ethyl tert-butyl ether (ETBE)	ND	ND	ND<10		NA	0.5			
Methyl-t-butyl ether (MTBE)	36	7.0	180		NA	0.5			
Toluene	ND	ND	ND<10		NA	0.5			
Xylenes	ND	ND	39		NA	0.5			
	Surr	ogate Recoveries	s (%)						
%SS1:	116	113	112						
%SS2:	110	113							
Comments			b6						

<sup>\*</sup> water and vapor samples are reported in  $\mu g/L$ , 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  $\mu g/wipe$ .

ND means not detected above the reporting limit; N/A means analyte not applicable to this analysis.

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

b6) lighter than water immiscible sheen/product is present

## McCampbell Analytical, Inc.

1534 Willow Pass Road, Pittsburg, CA 94565-1701 Web: www.mccampbell.com E-mail: main@mccampbell.com Telephone: 877-252-9262 Fax: 925-252-9269

P & D Environmental
Client Project ID: #0014; Xtra Oil/Castro
Valley
Date Sampled: 10/15/09-10/16/09
Date Received: 10/19/09
Client Contact: Steve Carmack
Date Extracted: 10/19/09

Oakland, CA 94610
Client P.O.:
Date Analyzed: 10/20/09-10/21/09

### **Total Extractable Petroleum Hydrocarbons\***

Extraction method: SW3510C Analytical methods: SW8015B Work Order: 0910601

Extraction method:	SW3510C	Analytica	l methods: SW8015B		W	ork Order:	0910601
Lab ID	Client ID	Matrix	TPH-Diesel (C10-C23)	TPH-Motor Oil (C18-C36)	DF	% SS	Comments
0910601-001A	MW1	W	5800	ND	1	103	e4,e2,b6
0910601-002A	MW3	W	10,000	ND<2500	10	96	e4,e1,b6
0910601-003A	MW5	W	ND	ND	1	99	
0910601-004A	MW6	W	6100	ND	1	100	e4
0910601-005A	MW7	W	60	ND	1	98	e2
0910601-006A	MW8	W	380	ND	1	96	e4,e2
0910601-007A	MW9	W	ND	ND	1	93	
0910601-008A	MW10	W	ND	ND	1	95	
0910601-009A	MW11	W	ND	ND	1	100	
0910601-010A	MW12	W	71	ND	1	94	e4,e2
0910601-011A	EW1	W	10,000	4300	1	93	e1,e4,b6
Re	porting Limit for DF =1;	W	50	250		μg/L	

ND	• • • • • • • • • • • • • • • • • • • •	30	230	μg E
ND means not detected at or	C	NT A	NT A	ma/Va
above the reporting limit	3	NA	NA	mg/Kg

<sup>\*</sup> water samples are reported in  $\mu g/L$ , wipe samples in  $\mu g/wipe$ , 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  $\mu g/L$ .

- +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
- e2) diesel range compounds are significant; no recognizable pattern
- e4) gasoline range compounds are significant.



<sup>#</sup> 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.

**QC SUMMARY REPORT FOR SW8260B** 

W.O. Sample Matrix: Water QC Matrix: Water BatchID: 46521 WorkOrder 0910601

EPA Method SW8260B Extraction SW5030B Spiked Sample ID: 0910500-001B										01B		
Analyte	Sample	Spiked	MS	MSD	MS-MSD	LCS	LCSD	LCS-LCSD	CSD Acceptance Crite			
7 mary to	μg/L	μg/L	% Rec.	% Rec.	% RPD	% Rec.	% Rec.	% RPD	MS / MSD	RPD	LCS/LCSD	RPD
tert-Amyl methyl ether (TAME)	ND	10	89.2	91.8	2.86	81.4	85.6	4.99	70 - 130	30	70 - 130	30
Benzene	ND	10	106	108	1.27	99.5	101	1.04	70 - 130	30	70 - 130	30
t-Butyl alcohol (TBA)	ND	50	86.5	87.1	0.726	82.2	88.2	7.10	70 - 130	30	70 - 130	30
1,2-Dibromoethane (EDB)	ND	10	102	104	1.78	96.3	99.4	3.21	70 - 130	30	70 - 130	30
1,2-Dichloroethane (1,2-DCA)	ND	10	101	101	0	89.3	91.6	2.59	70 - 130	30	70 - 130	30
Diisopropyl ether (DIPE)	ND	10	100	102	2.10	93.1	96.5	3.52	70 - 130	30	70 - 130	30
Ethyl tert-butyl ether (ETBE)	ND	10	99.6	102	2.61	90.3	93.4	3.38	70 - 130	30	70 - 130	30
Methyl-t-butyl ether (MTBE)	ND	10	98.6	99.9	1.31	89	92	3.37	70 - 130	30	70 - 130	30
Toluene	ND	10	111	111	0	106	111	4.33	70 - 130	30	70 - 130	30
%SS1:	94	25	92	95	3.42	90	90	0	70 - 130	30	70 - 130	30
%SS2:	96	25	97	97	0	100	99	1.26	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 46521 SUMMARY

Lab ID	Date Sampled	Date Extracted	Date Analyzed	Lab ID	Date Sampled	Date Extracted	Date Analyzed
0910601-004B	10/16/09 4:30 PM	10/21/09	10/21/09 2:51 PM	0910601-005B	10/15/09 5:10 PM	10/21/09	10/21/09 2:08 PM
0910601-006B	10/15/09 5:55 PM	10/21/09	10/21/09 12:43 PM	0910601-007B	10/16/09 12:15 PM	10/21/09	10/21/09 1:33 PM
0910601-008B	10/16/09 10:40 AM	10/21/09	10/21/09 12:54 PM	0910601-009B	10/15/09 5:00 PM	10/22/09	10/22/09 4:23 AM
0910601-010B	10/15/09 4:05 PM	10/21/09	10/21/09 1:02 PM	0910601-011B	10/16/09 1:55 PM	10/22/09	10/22/09 5:06 AM

MS = Matrix Spike; MSD = Matrix Spike Duplicate; LCS = Laboratory Control Sample; LCSD = Laboratory Control Sample Duplicate; RPD = Relative Percent Deviation.

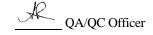
% Recovery = 100 \* (MS-Sample) / (Amount Spiked); RPD = 100 \* (MS - MSD) / ((MS + MSD) / 2).

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.

Laboratory extraction solvents such as methylene chloride and acetone may occasionally appear in the method blank at low levels.



QC SUMMARY REPORT FOR SW8260B

W.O. Sample Matrix: Water QC Matrix: Water BatchID: 46569 WorkOrder 0910601

EPA Method SW8260B	Extra	ction SW	5030B					5	Spiked San	nple ID	: 0910506-0	006A
Analyte	Sample	Spiked	MS	MSD	MS-MSD	LCS	LCSD	LCS-LCSD	Acce	eptance	Criteria (%)	1
7 may to	μg/L	μg/L	% Rec.	% Rec.	% RPD	% Rec.	% Rec.	% RPD	MS / MSD	RPD	LCS/LCSD	RPD
tert-Amyl methyl ether (TAME)	ND<5.0	10	90.2	94.7	4.86	91.8	87.4	4.89	70 - 130	30	70 - 130	30
Benzene	ND<5.0	10	91.2	99.5	8.67	105	99.1	5.38	70 - 130	30	70 - 130	30
t-Butyl alcohol (TBA)	ND<20	50	112	114	1.91	105	101	3.88	70 - 130	30	70 - 130	30
1,2-Dibromoethane (EDB)	ND<5.0	10	99.4	106	6.42	107	104	2.77	70 - 130	30	70 - 130	30
1,2-Dichloroethane (1,2-DCA)	ND<5.0	10	97.7	103	5.22	118	108	9.46	70 - 130	30	70 - 130	30
Diisopropyl ether (DIPE)	ND<5.0	10	96.6	103	6.71	110	108	2.00	70 - 130	30	70 - 130	30
Ethyl tert-butyl ether (ETBE)	ND<5.0	10	93.1	100	7.16	99.1	94.5	4.76	70 - 130	30	70 - 130	30
Methyl-t-butyl ether (MTBE)	ND<5.0	10	97.8	103	5.22	112	107	4.31	70 - 130	30	70 - 130	30
Toluene	ND<5.0	10	86	95.1	10.1	107	105	1.72	70 - 130	30	70 - 130	30
%SS1:	93	25	93	93	0	99	97	2.38	70 - 130	30	70 - 130	30
%SS2:	114	25	97	98	1.18	116	117	0.463	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 46569 SUMMARY**

Lab ID	Date Sampled	Date Extracted	Date Analyzed	Lab ID	Date Sampled	Date Extracted	Date Analyzed
0910601-001B	10/16/09 3:30 PM	10/21/09	10/21/09 2:38 AM	0910601-002B	10/16/09 3:20 PM	10/22/09	10/22/09 1:41 PM
0910601-003B	10/16/09 11:20 AM	10/20/09	10/20/09 10:22 PM				

MS = Matrix Spike; MSD = Matrix Spike Duplicate; LCS = Laboratory Control Sample; LCSD = Laboratory Control Sample Duplicate; RPD = Relative Percent Deviation.

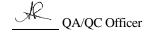
% Recovery = 100 \* (MS-Sample) / (Amount Spiked); RPD = 100 \* (MS - MSD) / ((MS + MSD) / 2).

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.

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: 46583 WorkOrder 0910601

EPA Method SW8021B/8015Bm Extraction SW5030B Spiked Sample ID: 091060										: 0910609-0	004A	
Analyte	Sample	Spiked	MS	MSD	MS-MSD	LCS	LCSD	LCS-LCSD Acceptance Criteria (%				1
/ way to	μg/L	μg/L	% Rec.	% Rec.	% RPD	% Rec.	% Rec.	% RPD	MS / MSD	RPD	LCS/LCSD	RPD
TPH(btex)	ND	60	96.3	112	15.3	97.5	97	0.526	70 - 130	20	70 - 130	20
MTBE	ND	10	107	107	0	98	102	4.03	70 - 130	20	70 - 130	20
Benzene	ND	10	107	107	0	104	104	0	70 - 130	20	70 - 130	20
Toluene	ND	10	94.8	95.2	0.443	93	92	1.07	70 - 130	20	70 - 130	20
Ethylbenzene	ND	10	95.2	95.9	0.739	92.8	92.8	0	70 - 130	20	70 - 130	20
Xylenes	ND	30	107	109	1.12	105	106	0.152	70 - 130	20	70 - 130	20
%SS:	102	10	104	103	0.790	104	100	3.97	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 46583 SUMMARY

Lab ID	Date Sampled	Date Extracted	Date Analyzed	Lab ID	Date Sampled	Date Extracted	Date Analyzed
0910601-001A	10/16/09 3:30 PM	10/20/09	10/20/09 7:16 PM	0910601-002A	10/16/09 3:20 PM	10/21/09	10/21/09 5:09 PM
0910601-003A	10/16/09 11:20 AM	10/20/09	10/20/09 10:14 PM	0910601-004A	10/16/09 4:30 PM	10/21/09	10/21/09 6:09 PM
0910601-005A	10/15/09 5:10 PM	10/20/09	10/20/09 10:43 PM	0910601-006A	10/15/09 5:55 PM	10/20/09	10/20/09 11:42 PM
0910601-007A	10/16/09 12:15 PM	10/21/09	10/21/09 12:41 AM	0910601-008A	10/16/09 10:40 AM	10/21/09	10/21/09 1:10 AM
0910601-009A	10/15/09 5:00 PM	10/21/09	10/21/09 1:39 AM	0910601-010A	10/15/09 4:05 PM	10/21/09	10/21/09 2:08 AM
0910601-011A	10/16/09 1:55 PM	10/20/09	10/20/09 9:44 PM				

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).

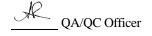
MS / MSD spike recoveries and / or %RPD may fall outside of laboratory acceptance criteria due to one or more of the following reasons: a) the sample is inhomogenous AND contains significant concentrations of analyte relative to the amount spiked, or b) the spiked sample's matrix interferes with the 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 SW8015B

W.O. Sample Matrix: Water QC Matrix: Water BatchID: 46581 WorkOrder 0910601

EPA Method SW8015B	B Extraction SW3510C 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	97.7	99.1	1.33	N/A	N/A	70 - 130	30
%SS:	N/A	2500	N/A	N/A	N/A	88	88	0	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 46581 SUMMARY

Lab ID	Date Sampled	Date Extracted	Date Analyzed	Lab ID	Date Sampled	Date Extracted	Date Analyzed
0910601-001A	10/16/09 3:30 PM	10/19/09	10/20/09 10:40 PM	0910601-002A	10/16/09 3:20 PM	10/19/09	10/20/09 11:48 PM
0910601-003A	10/16/09 11:20 AM	10/19/09	10/20/09 6:08 PM	0910601-004A	10/16/09 4:30 PM	10/19/09	10/20/09 8:24 PM
0910601-005A	10/15/09 5:10 PM	10/19/09	10/20/09 7:16 PM	0910601-006A	10/15/09 5:55 PM	10/19/09	10/21/09 12:56 AM
0910601-007A	10/16/09 12:15 PM	10/19/09	10/20/09 11:48 PM	0910601-008A	10/16/09 10:40 AM	10/19/09	10/20/09 10:40 PM
0910601-009A	10/15/09 5:00 PM	10/19/09	10/21/09 11:09 AM	0910601-010A	10/15/09 4:05 PM	10/19/09	10/21/09 4:20 AM
0910601-011A	10/16/09 1:55 PM	10/19/09	10/20/09 8:24 PM				

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.

