P & D ENVIRONMENTAL
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April 15, 2004
Report 0014.R51

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

SUBJECT: GROUNDWATER MONITORING AND SAMPLING REPORT
(JANUARY THROUGH APRIL 2004)
Xtra Oil Company
3495 Castro Valley Blvd.
Castro Valley, California

Gentlemen:

P&D Environmental, a division of Paul H. King, Inc. (P&D) is pleased to present this report documenting the results of 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. Offsite observation wells OW1 and OW2 and onsite groundwater monitoring well MW4 were monitored and sampled on February 11, 2004. Offsite observation wells OW1 and OW2 and onsite wells MW1, MW3, MW4, and EW1 were monitored on April 6, 2004. In addition, all of the offsite and onsite wells were sampled on April 6, 2004, with the exception of well MW4. The reporting period for this report is for January through April 2004. A Site Location Map (Figure 1), a Site Plan showing onsite well locations (Figure 2), and a Site Vicinity Map showing offsite observation well locations (Figure 3) are attached with this report.

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 as 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 in 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 concentrations 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 photo ionization 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 for the purpose of widening 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 (MTBE, TAME, ETBE, TAME and TBA), and lead scavengers (EDB, 1,2-DCA/EDC) 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.

FIELD ACTIVITIES

Offsite observation wells OW1 and OW2 and onsite groundwater monitoring well MW4 were monitored and sampled on February 11, 2004. In well MW4, only the separate phase hydrocarbon layer was sampled. Offsite observation wells OW1 and OW2 and onsite wells MW1, MW3, MW4, and EW1 were monitored on April 6, 2004. In addition, all of the offsite and onsite wells were sampled on April 6, 2004, with the exception of well MW4. A joint groundwater monitoring with Allisto Engineering, Inc. was not performed.

The wells were monitored for depth to water and the presence of free product or sheen. In wells MW4, OW1 and OW2 the depth to water and depth to free product was measured to the nearest 1/32-inch with a steel tape and water-finding or product-finding paste. In wells 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 evaluated using a transparent bailer in wells MW1, MW3, and EW1.

On February 11, 2004 offsite observation wells OW1 and OW2 and onsite monitoring well MW4 were monitored for depth to water and the presence of free product prior to sampling. No free product was detected in either of the observation wells. A 2.70-foot thick separate phase petroleum hydrocarbon layer was measured in well MW4 on February 11, 2004.

On April 6, 2004 offsite observation wells OW1 and OW2 and onsite wells MW1, MW3 and EW1 were monitored prior to sampling. Well MW4 was also monitored but not sampled. No free product was observed in any of the wells with the exception of well MW4 where 2.70 feet of free product was encountered.

The passive hydrocarbon collection device in well MW4 was accidentally disconnected and sank in the well during the monitoring and sampling event on June 19, 2003 and was not present in well MW4 at the time of the sampling event on February 11, 2004 or the monitoring event on April 6, 2004. Depth to water level and free product layer thickness measurements are presented in Table 1.

On February 11, 2004, and again on April 6, 2004 offsite observation wells OW1 and OW2 were sampled using a vacuum pump and 0.25-inch diameter polyethylene tubing. On February 11, 2004, the floating separate phase layer in well MW4 was sampled using the same method. Based on the small sample volumes in wells OW1 and OW2, the wells were not purged prior to sample collection. Similarly, well MW4 was not purged prior to sampling the floating separate phase layer. The water samples from the wells were decanted to sample bottles and managed as described below. Because of the small sample volume obtained from well OW2, only one VOA vial was partially filled with sample from well OW2.

Prior to well sampling on April 6, 2004, onsite wells MW1, MW3, and EW1 were purged of a minimum of three casing volumes of water, or until the wells had been purged dry. During purging operations, the field parameters of electrical conductivity, temperature, and pH were monitored. 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 Teflon bailer.

The water samples were transferred to 40-milliliter glass Volatile Organic Analysis (VOA) vials and 1-liter amber glass bottles that were sealed with Teflon-lined screw caps. The VOA vials were overturned and tapped to assure 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 Pacheco, California. McCampbell Analytical, Inc. is a State-certified hazardous waste testing laboratory. Chain of custody documentation accompanied the samples to the laboratory. Records of the field parameters measured during well purging are attached with this report.

HYDROGEOLOGY

Water levels were measured in all of the wells once during the quarter, and in wells OW1, OW2 and MW4 twice during the quarter. The measured depth to water in offsite observation wells OW1 and OW2 on February 11, 2004 was 7.01 and 7.19 feet, respectively. The measured depth to water in well MW4 on February 11, 2004 was 9.75 feet. The floating separate phase layer in well MW4

on February 11, 2004 was measured as 2.70 feet in thickness. The measured depth to water for onsite wells MW1, MW3, MW4 and EW1 on April 6, 2004 was 7.93, 7.41, 9.58 and 6.63 feet, respectively. The floating separate phase layer in MW4 on April 6, 2004 was 2.83 feet in thickness. Using a specific gravity of 0.75, the corrected depth to water in well MW4 on April 6, 2004 is 7.46 feet. Since the previous quarter, the measured depth to water on April 6, 2004 has decreased in wells MW1 and MW3 by 0.28 and 0.42 feet, respectively and increased in well EW1 by 0.09 feet. In well MW4, the separate phase layer thickness has increased 1.32 feet from 1.51 feet in thickness on December 18, 2003 to 2.83 feet in thickness on April 6, 2004. The corrected groundwater elevation in well MW4 has increased by 1.16 feet since the previous quarter.

Based on the groundwater surface elevations in monitoring wells MW1 and MW3 and the corrected groundwater surface elevation in well MW4, the groundwater flow direction at the site on April 6, 2004 was calculated to be to the southeast east with a gradient of 0.0060. Since the previous monitoring event the groundwater flow direction at the site has shifted from the east toward the southeast and the gradient has increased from 0.0053. The groundwater flow direction on April 6, 2003 is shown on Figure 2.

LABORATORY RESULTS

The groundwater sample collected from offsite observation well OW1 on February 11, 2004 was analyzed for TPH-Multirange using Modified EPA Method 8015; and for benzene, toluene, ethylbenzene, and total xylenes (BTEX), as well as, fuel oxygenates (MTBE, TAME, ETBE, TAME, and TBA) and lead scavengers (EDB, 1,2-DCA/EDC). Because of the limited sample volume collected from well OW2 on February 11, 2004, the sample from well OW2 was analyzed for TPH-G, MTBE and BTEX using EPA Method 8021 and Modified EPA Method 8015. Adequate sample volume remained after the initial analysis to also analyze the sample for BTEX, fuel oxygenates and lead scavengers using EPA Method 8260. The floating separate phase layer collected from well MW4 on February 11, 2004 was analyzed for fuel finger print evaluation using EPA Method 8015C.

The groundwater samples collected from offsite well OW1 and onsite monitoring wells MW1, MW3, and EW1 on April 6, 2004 were analyzed for TPH-D and TPH-G using Modified EPA Method 8015; BTEX, fuel oxygenates, and lead scavengers using EPA Method 8260. Because of the limited sample volume collected from well OW2 on April 6, 2004, the sample from well OW2 was analyzed for TPH-G, MTBE and BTEX using EPA Method 8021 and Modified EPA Method 8015.

The laboratory analytical results for the groundwater sample from well OW1 show that TPH-G, TPH-D and TPH-MO were detected at concentrations of 38, 1900, and 570 mg/L, respectively. In addition benzene was detected at a concentration of 2 mg/L. None of the fuel oxygenates or lead scavengers were detected. Review of the laboratory analytical reports shows that the results reported as TPH-D are identified by the laboratory as consisting of both gasoline and diesel-range compounds. Review of the fuel finger print results shows that the sample is identified as diesel, with a small amount of gasoline present.

The laboratory analytical results of the samples collected February 11, 2004 from wells OW1 and OW2 showed that TPH-G, TPH-D, and TPH-MO were detected in well OW1 at concentrations of 15, 450 and 130 mg/L, respectively. Review of the laboratory analytical reports shows that the results reported

as TPH-D are identified by the laboratory as consisting of both gasoline and diesel-range compounds. Benzene was detected at a concentration of 2.2 mg/L, and MTBE was not detected. In well OW1, the only analytes detected were TPH-G, MTBE and TBA at concentrations of 0.21, 0.0064 and 0.007 mg/L, respectively (MTBE was also detected using EPA Method 8021 at a concentration of 0.0059 mg/L).

Review of the fuel finger print analysis for the sample of the floating separate phase layer collected from well MW4 on February 11, 2004 shows that the laboratory identified the sample as consisting predominantly of diesel, with a less significant amount of gasoline present.

The laboratory analytical results of the samples collected April 6, 2004 from wells OW1 and OW2 showed that TPH-G and TPH-D were detected in well OW1 at concentrations of 50 and 74 mg/L, respectively. Review of the laboratory analytical reports shows that the results reported as TPH-D are identified by the laboratory as consisting of both gasoline and diesel-range compounds. Benzene was detected at a concentration of 3.1 mg/L, and MTBE was not detected. In well OW1, the only analyte detected was TPH-G at a concentration of 0.069 mg/L.

The laboratory analytical results for the samples collected on April 6, 2004 from wells MW1, MW3 and EW1 show TPH-D concentrations of 18, 32, and 3.4 mg/L, respectively. Review of the laboratory analytical reports indicates that the TPH-D results for each of the wells consist of both diesel- and gasoline-range compounds. In addition, laboratory results from MW1, MW3, and EW1 show TPH-G concentrations of 28, 81 and 2.6 mg/L, respectively, and benzene was detected at concentrations of 2.3, 34 mg/L and not detected, respectively. MTBE was detected at concentrations of 0.11, 17 and 72 mg/L, respectively. No other fuel oxygenates or lead scavengers were detected except for t-butyl alcohol (TBA) at concentrations of 8.8 and 34 mg/L in wells MW3 and EW1, respectively.

Since the previous sampling of wells MW1, MW3 and EW1 on December 18, 2003, TPH-D concentrations have increased in wells MW1 and EW1, benzene concentrations have increased in wells MW1 and MW3, and TPH-G and MTBE concentrations have increased in wells EW1 and MW1, respectively. 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 attached with this report.

DISCUSSION AND RECOMMENDATIONS

Wells OW1 and OW2 were monitored and sampled twice during the quarter. Wells MW1, MW3, EW1 were monitored and sampled once during the quarter. Well MW4 was monitored twice and sampled once during the quarter. No separate phase hydrocarbon layer was observed in wells OW1 or OW2. Based on the small sample volumes associated with well OW2, it is suspected that the water detected in the bottom of the well was water that had accumulated in the bottom cap of the well.

A floating separate phase layer was measured in well MW4 on February 11, 2004 and April 6, 2004 with a thickness of 2.70 and 2.83 feet, respectively. A sample of the separate phase layer showed the petroleum hydrocarbons to consist predominantly of diesel, with a small amount of gasoline. The passive hydrocarbon collection device in well MW4 was accidentally disconnected and sank in the well during the previous monitoring and sampling event on June 19, 2003 and was not present in well MW4

at the time of the monitoring and sampling event on February 11, 2004 and the monitoring event on April 6, 2004. The separate phase layer thickness in well MW4 has increased from 1.51 feet in thickness on December 18, 2003 to 2.83 feet in thickness on April 6, 2004.

It is P&D's understanding that the hydrocarbon collection device in well MW4 is maintained by Xtra Oil Company personnel. P&D recommends that the collection device be repaired for use, and a log be maintained of product removed. P&D recommends that use of petroleum hydrocarbon absorbent socks in well MW1 be continued. The sock in MW1 needs to be replaced, and socks should be checked periodically and replaced as needed.

The laboratory analytical results of the water samples collected from well OW1 show that TPH-G, TPH-D and benzene were detected on April 6, 2004 at concentrations of 0.050, 0.074, and 3.1 mg/L, respectively. The TPH-D detected in well OW1 was identified as consisting of both gasoline- and diesel-range compounds. In well OW2, based on the very small sample volume in the observation well, less than one VOA vial of sample was collected during each of the sampling events on February 11 and April 6, 2004. Review of the sample results shows that the sample collected on February 11 contained TPH-G, MTBE and TBA at concentrations of 0.21, 0.0064 and 0.0070 mg/L, respectively, and that the sample collected on April 6, 2004 contained 0.069 mg/L TPH-G. Because of the small sample volume, TPH-D analysis was not possible for either of the sampling events, and EPA 8260 analysis was not possible for the April 6, 2004 sampling event. The presence of petroleum hydrocarbons in both observation wells suggests that petroleum hydrocarbons could be preferentially migrating in the sanitary sewer trench where the observation wells are located.

The laboratory analytical results for the groundwater samples collected on April 6, 2004 from wells MW1, MW3, and EW1 showed that TPH-D concentrations ranged from 3.4 to 32 mg/L, TPH-G concentrations ranged from 2.6 to 81 mg/L, and benzene concentrations ranged from not detected to 34 mg/L. Review of the results for the fuel oxygenate and lead scavenger analysis shows that only MTBE and TBA were detected with MTBE detected in all of the wells at concentrations ranging from 0.11 to 72 mg/L and TBA detected in wells MW3 and EW1 at concentrations of 8.8 and 34 mg/L, respectively.

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. In addition, P&D recommends that future monitoring and sampling efforts be coordinated with other sites in the vicinity of the subject site that are presently being monitored and sampled.

DISTRIBUTION

Copies of this report should be sent to Mr. Scott Seery at the Alameda County Department of Environmental Health. Copies of the report should be accompanied by a transmittal letter signed by an authorized representative of Xtra Oil Company.

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.

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

Sincerely,

P&D Environmental

Paul H. King

Paul H. King
President
California Registered Geologist
Registration No. 5901
Expires: 12/31/05

Attachments: Tables 1 & 2
Site Location Map (Figure 1)
Site Plan (Figure 2)
Site Vicinity Map (Figure 3)
Field Parameter Forms
Laboratory Analytical Results
Chain of Custody Documentation

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TABLE 1
WELL MONITORING DATA

Well No.	Date Monitored	Top of Casing Elev. (ft.)	Depth to Water (ft.)	Water Table Elev. (ft.)
MW1	04/06/04	177.37*	7.93	169.44
	12/18/03		7.65	169.72
	09/18/03		8.15	169.22
	06/19/03		8.13	169.24
	03/18/03		7.77	169.60

NOTES:
* = Surveyed on August 20, 1997

TABLE 1
WELL MONITORING DATA

Well No.	Date Monitored	Top of Casing Elev. (ft.)	Depth to Water (ft.)	Water Table Elev. (ft.)
MW1	12/21/02	177.37*	5.74	171.63
(Continued)	9/10/02		8.28	169.09
	3/30/02		7.43	169.94
	12/22/01		6.92	170.45
	9/23/01		8.53	168.84
	6/22/01		8.30	169.07
	4/22/01		7.77	169.60
	12/14/00		8.49	168.88
	9/18/00		8.56	168.81
	6/08/00		7.97	169.40
	3/09/00		6.68	170.69
	12/09/99		8.15	169.22
	8/31/99		8.36	169.01
	4/29/99		7.68	169.69
	1/29/99		6.99	170.38
	4/26/98		7.50	169.87
	1/24/98		6.61	170.76
	11/06/97		8.79	168.58
	8/26/97		8.51	168.86
	7/24/97	177.43**	8.71	168.72
	4/25/97		7.98	169.45
	1/20/97		7.12	170.31
	7/26/96		8.39	169.04
	7/09/96		8.16	169.27
	4/23/96		7.47	169.96
	2/07/96		6.09	171.34
	1/29/96		6.17	171.26
	10/26/95		8.45	168.98
	7/28/95		8.27	169.16
	5/02/95		6.96	170.47
	2/23/95		7.72	169.71
	11/18/94		7.14	170.29
	8/22/94		8.67	168.76

NOTES:
* = Surveyed on August 20, 1997
** = Surveyed on March 24, 1993
*** = Surveyed on December 5, 1992

TABLE 1
WELL MONITORING DATA

Well No.	Date Monitored	Top of Casing Elev. (ft.)	Depth to Water (ft.)	Water Table Elev. (ft.)
MW1 (Continued)	5/19/94	177.43**	8.05	169.38
	2/28/94		7.44	169.99
	11/24/93		8.74	168.69
	8/30/93		8.78	168.65
	5/18/93		8.12	169.31
	2/23/93		7.34	170.09
	11/13/92	200.00***	9.13	190.87
	5/29/92	175.73	8.59	167.14
	1/14/92		8.57	167.16
	12/23/91		9.65	166.08
	11/25/91		9.41	166.32
	10/10/91		9.70	166.03
	9/17/91		9.50	166.23
	8/19/91		9.31	166.42

NOTES:
* = Surveyed on August 20, 1997
** = Surveyed on March 24, 1993
*** = Surveyed on December 5, 1992

TABLE 1
WELL MONITORING DATA

Well No.	Date Monitored	Top of Casing Elev. (ft.)	Depth to Water (ft.)	Water Table Elev. (ft.)
MW2	NOT MEASURED (DESTROYED ON FEBRUARY 7, 1996)			
	2/07/96	176.04**	5.70	170.34
	1/29/96		5.16	170.88
	10/26/95		8.21	167.83
	7/28/95		7.99	168.05
	5/02/95		6.79	169.25
	2/23/95		7.51	168.53
	11/18/94		6.92	169.12
	8/22/94		8.59	167.45
	5/19/94		7.70	168.34
	2/28/94		6.99	169.05
	11/24/93		8.47	167.57
	8/30/93		8.64	167.40
	5/18/93		7.73	168.31
	2/23/93		6.39	169.65
	11/13/92	198.61***	8.70	189.91
	5/29/92	175.45	9.31	166.14
	1/14/92		8.97	166.48
	12/23/91		10.39	165.06
	11/25/91		9.81	165.64
	10/10/91		10.39	165.06
	9/17/91		10.23	165.22
	8/19/91		9.60	165.85

NOTES:
* = Surveyed on August 20, 1997
** = Surveyed on March 24, 1993
*** = Surveyed on December 5, 1992

TABLE 1
WELL MONITORING DATA

Well No.	Date Monitored	Top of Casing Elev. (ft.)	Depth to Water (ft.)	Water Table Elev. (ft.)
MW3	04/06/04	176.40*	7.41	168.99
	12/18/03		6.99	169.41
	09/18/03		7.91	168.49
	06/19/03		7.60	168.80
	03/18/03		7.35	169.05
	12/21/02		5.43	170.97
	9/10/02		7.97	168.43
	3/30/02		6.97	169.43
	12/22/01		6.44	169.96
	9/23/01		8.17	168.23
	6/22/01		8.06	168.34
	4/22/01		7.50	168.90
	12/14/00		8.13	168.27
	9/18/00		7.83	168.57
	9/26/00		7.77	168.63
	6/08/00		7.50	168.90
	3/09/00		6.08	170.32
	12/09/99		7.90	168.50
	8/31/99		7.95	168.45
	4/29/99		7.09	169.31
	1/29/99		6.42	169.98
	4/26/98		6.85	169.55
	1/24/98		5.90	170.50

NOTES:
* = Surveyed on August 20, 1997
** = Surveyed on March 24, 1993
*** = Surveyed on December 5, 1992

TABLE 1
WELL MONITORING DATA

Well No.	Date Monitored	Top of Casing Elev. (ft.)	Depth to Water (ft.)	Water Table Elev. (ft.)
MW3 (Continued)	11/06/97		7.80	168.80
	8/26/97		7.67	168.93
	7/24/97	176.41**	7.90	168.51
	4/25/97		7.12	169.29
	1/20/97		6.35	170.06
	7/26/96		7.84	169.57
	7/09/96		7.61	168.80
	4/23/96		6.81	169.60
	2/07/96		5.05	170.36
	1/29/96		5.77	170.64
	10/26/95		7.72	168.69
	7/28/95		7.80	168.61
	5/02/95		6.50	169.91
	2/23/95		7.24	169.17
	11/18/94		6.05	170.36
	8/22/94	190.97***	7.65	168.76
	5/19/94		7.15	169.26
	2/24/94		6.68	169.73
	11/24/93		7.55	168.86
	8/30/93		7.64	168.77
	5/18/93		7.12	169.29
	2/23/93		8.01	168.40
	11/13/92		7.86	191.12
	5/29/92	175.00	8.45	166.55
	1/14/92		8.24	166.55
	12/23/91		9.37	165.63
	11/25/91		9.19	165.81
	10/10/91		9.43	165.57
	9/17/91		9.20	165.80
	8/19/91		8.95	166.05

NOTES:
* = Surveyed on August 20, 1997
** = Surveyed on March 24, 1993
*** = Surveyed on December 5, 1992

TABLE 1
WELL MONITORING DATA

Well No.	Date Monitored	Top of Casing Elev. (ft.)	Depth to Water (ft.)	Water Table Elev. (ft.)
MW4	04/06/04	176.35*	9.58 (2.83)#	168.89
	02/11/04		9.43 (2.70)#	168.95
	12/18/03		9.75 (1.51)#	167.73
	9/18/03		9.13 (1.80)#	168.57
	6/19/03		8.56 (0.31)#	168.02
	3/18/03		7.49 (0.06)#	168.91
	12/21/02		8.58 (4.39)#	171.06
	9/10/02		9.09 (1.60)#	168.46
	3/30/02		9.86 (2.49)#	168.36
	12/22/01		7.79 (1.75)#	169.87
	9/23/01		8.97 (1.17)#	168.26
	6/22/01		7.79	168.56
	4/22/01		9.07 (2.20)#	168.93
	12/14/00		8.87 (0.72)#	168.02
	9/18/00		8.50 (0.45)#	168.19
	6/08/00		7.34	169.01
	3/09/00		6.61 (0.46)#	170.08
	12/09/99		8.80	167.55
	8/31/99		8.28	168.07
	4/29/99		7.14	169.21
	1/29/99		6.68	169.67
	4/26/98		6.87	169.48
	1/24/98		6.61	169.74
	11/06/97		9.16	167.19
	8/26/97		8.92	167.43
	8/20/97		7.66 (prior to development)	

NOTES:
* = Surveyed on August 20, 1997
# = Indicates free product thickness in feet. The water table elevation has been corrected for the presence of free product by assuming a free product specific gravity of 0.75.

TABLE 1
WELL MONITORING DATA

Well No.	Date Monitored	Top of Casing Elev. (ft.)	Depth to Water (ft.)
EW1	04/06/04	Not Surveyed	6.63
	12/18/03		6.72
	9/18/03		7.29

TABLE 1
WELL MONITORING DATA

Well No.	Date Monitored	Top of Casing Elev. (ft.)	Depth to Water (ft.)	Total Well Depth (ft.)
OW1	04/06/04	Not Surveyed	7.01	7.44
	02/11/04		7.01	7.44
	10/06/03		7.07 (0.01)#	7.44
	11/02/00		7.12,+	
	12/09/99		7.27	
	01/29/99		7.12	
OW2	04/06/04	Not Surveyed	7.27	7.33
	02/11/04		7.19	7.33
	10/06/03		7.29	7.34
	11/02/00		7.19	
	12/09/99		7.17	
	01/29/99		7.19	

NOTES:
= Indicates free product thickness in feet.
+ = Petroleum hydrocarbon odor reported on probe for water level indicator.

TABLE 2
SUMMARY OF LABORATORY ANALYTICAL RESULTS
Well MW1

Date	TPH-D	TPH-G	MTBE	Benzene	Toluene	Ethyl-benzene	Total Xylenes	Other Fuel Additives by 8260*
4/6/04	18,a,b	28,a	0.11	2.3	0.8	0.99	4.5	ND<0.1 TBA ND<1
12/18/03	13,b	33	0.038	2.1	0.77	1.8	4.4	ND<0.005 TBA ND<0.05
9/18/03	15,a,b	32	0.052	2.2	0.62	1.8	3.8	ND<0.017, TBA ND<0.17
6/26/03	67,a,b	45	ND<0.05	2.1	0.72	2.3	5.5	ND
3/18/03	7.3,a,b	33	ND<0.05	2.4	0.9	1.6	1.0	ND
12/21/02	11,a,b	32	ND<0.1	2.6	0.98	2.2	5.5	ND
9/10/02	18,c	31	ND<0.25	2.2	0.65	1.7	4.8	--
3/30/02	12,a,b	99	ND	4.1	1.2	2.5	6.4	--
12/22/01	22,a,b	60	ND	3.2	1.9	2	6.2	--
9/23/01	16,a,c	49	ND	4	1.4	2.2	6.2	--
6/22/01	85,a,b	35	ND	3.1	0.75	1.2	4.0	--
4/22/01	16,a	43	ND	3.6	1.2	1.6	5.8	--
12/14/00	11,a,d	49	ND	5.8	1.6	2	6.9	--
9/18/00	15,a,b	86	ND	7.2	2	3.2	13	--
6/8/00	6.5,a,c	50	ND	5.7	1.5	1.8	7	--
3/9/00	7.4,a,b	48	ND	5.3	3.1	1.6	8.1	--
12/9/99	12,a,b	65	ND	9.3	2.9	2.2	8.8	--
8/31/99	22,b	66	0.71	8.7	2.7	2.4	10	--
4/29/99	22,b	48	ND	8.4	2.8	2.0	8.1	--
1/29/99	9.1,b	47	ND	9.0	2.9	1.9	8.0	--
4/26/98	7.8,c	60	ND	9.3	5.7	2.1	9.1	--

NOTES:
TPH-G = Total Petroleum Hydrocarbons as Gasoline.
TPH-D = Total Petroleum Hydrocarbons as Diesel.
MTBE = Methyl tert-Butyl Ether.
ND = Not Detected.
-- = Not Analyzed.
a = Lighter than water immiscible sheen present on the sample.
b = TPH-D results consist of both diesel-range and gasoline-range compounds.
c = TPH-D results consist of both gasoline-range compounds.
d = TPH-D results consist of both oil-range and gasoline-range compounds.
* = This column summarizes results for analysis using EPA Method 8260 for non-MTBE fuel oxygenates (TAME, ETBE, and TBA) and lead scavengers (EDB, 1,2-DCA/EDC).
Results in milligrams per liter (mg/L), unless otherwise indicated.

TABLE 2
SUMMARY OF LABORATORY ANALYTICAL RESULTS
Well MW1 (Continued)

Date	TPH-D	TPH-G	MTBE	Benzene	Toluene	Ethyl-benzene	Total Xylenes	Other Fuel Additives by 8260*
1/24/98	24,b	57	ND	6.9	5.5	2.0	8.7	--
11/6/97	17,c	63	ND	7.4	6.7	2.3	9.9	--
7/27/97	28,c	66	1.8	8.6	8.1	2.2	10	--
4/25/97	170,b	77	ND	7.4	7.9	2.1	9.8	--
1/21/97	57,c	80	0.25	7.8	8.3	1.9	8.9	--
7/26/96	11,c	76	ND	11	13	2.4	10	--
4/23/96	5.7,c	73	ND	8.6	12	2.2	9.8	--
1/29/96	6.6,c	81	0.25	7.6	13	1.9	8.9	--
10/26/95	62,c	89	ND	7.8	12	2.4	11	--
7/28/95	2.0,c	35	--	3.8	8.7	1.1	6.5	--
5/2/95	6.5,c	86	--	8.9	14	2.3	11	--
2/24/95	9.1	90	--	7.5	12	1.5	11	--
11/18/94	10	96	--	9.3	14	2.5	11	--
8/22/94	8.3	100	--	9.0	11	2.1	9.4	--
5/19/94	30	100	--	12	14	3.5	17	--
2/28/94	110	90	--	11	9.6	2.1	9.9	--
11/24/93	8.2	66	--	8.3	8.9	2.0	121	--
8/30/93	9.4	77	--	6.4	11	2.2	12	--
5/18/93	30	92	--	4.0	11	2.5	15	--

NOTES:
TPH-G = Total Petroleum Hydrocarbons as Gasoline.
TPH-D = Total Petroleum Hydrocarbons as Diesel.
MTBE = Methyl tert-Butyl Ether.
ND = Not Detected.
-- = Not Analyzed.
b = TPH-D results consist of both diesel-range and gasoline-range compounds.
c = TPH-D results consist of both gasoline-range compounds.
* = This column summarizes results for analysis using EPA Method 8260 for non-MTBE fuel oxygenates (TAME, ETBE, and TBA) and lead scavengers (EDB, 1,2-DCA/EDC).
Results in milligrams per liter (mg/L), unless otherwise indicated.

TABLE 2
SUMMARY OF LABORATORY ANALYTICAL RESULTS
Well MW1 (Continued)

Date	TPH-D	TPH-G	MTBE	Benzene	Toluene	Ethyl-benzene	Total Xylenes	Other Fuel Additives by 8260*
2/23/93	14	100	--	4.5	11	2.1	12	--
11/13/92	4.4	120	--	5.8	10	2.1	13	--
5/27/92	11	120	--	8.8	16	2.3	15	--
1/24/92	19	39	--	7.3	8.7	1.3	8.9	--
12/23/91	34	78	--	9.3	7.3	0.54	13	--
11/25/91	36	170	--	5.5	5.6	1.6	8.4	--
10/10/91	19	28	--	4.1	4.7	1.0	4.8	--
9/17/91	19	39	--	4.9	4.1	1.2	5.9	--
8/19/91	47	48	--	13	8.4	0.99	29	--
7/20/91	49	100	--	11	14	2.3	17	--
6/20/91	42	76	--	4.7	7.1	1.5	9.8	--
5/17/91	26	72	--	7.7	9.9	ND	11	--
4/15/91	--	56	--	6.5	8.5	0.41	9.9	--
3/21/91	--	36	--	4.5	5.7	0.087	7.3	--
2/15/91	--	120	--	7.4	6.6	ND	13	--
1/15/91	--	33	--	3.9	2.9	0.21	5.3	--
9/27/90	--	28	--	3.7	3.5	0.01	6.5	--
8/23/90	--	40	--	5.1	4.9	0.35	6.0	--
7/20/90	44	--	--	5.1	4.2	ND	9.1	--

NOTES:
TPH-G = Total Petroleum Hydrocarbons as Gasoline.
TPH-D = Total Petroleum Hydrocarbons as Diesel.
MTBE = Methyl tert-Butyl Ether.
ND = Not Detected.
-- = Not Analyzed.
* = This column summarizes results for analysis using EPA Method 8260 for non-MTBE fuel oxygenates (TAME, ETBE, and TBA) and lead scavengers (EDB, 1,2-DCA/EDC).
Results in milligrams per liter (mg/L), unless otherwise indicated.

TABLE 2
SUMMARY OF LABORATORY ANALYTICAL RESULTS
Well MW1 (Continued)

Date	TPH-D	TPH-G	MTBE	Benzene	Toluene	Ethyl-benzene	Total Xylenes	Other Fuel Additives by 8260*
3/19/90	--	40	--	3.7	1.1	ND	3.3	--
2/20/90**	--	7.6	--	1.6	ND	ND	1.3	--

NOTES:
TPH-G = Total Petroleum Hydrocarbons as Gasoline.
TPH-D = Total Petroleum Hydrocarbons as Diesel.
MTBE = Methyl tert-Butyl Ether.
ND = Not Detected.
-- = Not Analyzed.
* = This column summarizes results for analysis using EPA Method 8260 for non-MTBE fuel oxygenates (TAME, ETBE, and TBA) and lead scavengers (EDB, 1,2-DCA/EDC).
** Inorganic lead not detected in sample.
Results in milligrams per liter (mg/L), unless otherwise indicated.

TABLE 2
SUMMARY OF LABORATORY ANALYTICAL RESULTS
Well MW2

Date	TPH-D	TPH-G	MTBE	Benzene	Toluene	Ethyl-benzene	Total Xylenes	Other Fuel Additives by 8260*
2/7/96	MW2 Destroyed							
1/29/96	4.6,c	38	0.0071	1.9	5.7	1.1	5.9	--
10/26/95	900	74	ND	2.9	5.9	2.0	10	--
7/28/95	2.0,c	15	--	1.4	2.3	0.62	3.2	--
5/2/95	6.6,b	55	--	3.3	10	1.8	10	--
2/24/95	22	67	--	4.9	11	1.8	11	--
11/18/94	5.0	86	--	11	17	1.8	12	--
8/22/94	4.1	91	--	10	13	1.5	9.0	--
5/19/94	5.8	62	--	92	13	1.3	8.4	--
2/28/94	13	91	--	13	16	1.5	9.0	--
11/24/93	79	12	--	13	17	2.5	17	--
8/30/93	110	110	--	11	14	1.8	11	--
5/18/93	44	67	--	9.2	12	1.4	9.3	--
2/23/93	7.0	76	--	12	17	1.6	9.6	--
11/13/92	8.2	79	--	10	13	1.4	8.6	--
5/27/92	130	89	--	18	19	1.7	14	--
1/14/92	1600	59	--	17	14	1.8	15	--
12/23/91	700	2100	--	36	130	79	560	--
11/25/91	130	230	--	11	9.7	1.4	9.7	--

NOTES:
TPH-G = Total Petroleum Hydrocarbons as Gasoline.
TPH-D = Total Petroleum Hydrocarbons as Diesel.
MTBE = Methyl tert-Butyl Ether.
ND = Not Detected.
-- = Not Analyzed.
b = TPH-D results consist of both diesel-range and gasoline-range compounds.
c = TPH-D results consist of both gasoline-range compounds.
* = This column summarizes results for analysis using EPA Method 8260 for non-MTBE fuel oxygenates (TAME, ETBE, and TBA) and lead scavengers (EDB, 1,2-DCA/EDC).
Results in milligrams per liter (mg/L), unless otherwise indicated.

TABLE 2
SUMMARY OF LABORATORY ANALYTICAL RESULTS
Well MW2 (Continued)

Date	TPH-D	TPH-G	MTBE	Benzene	Toluene	Ethyl-benzene	Total Xylenes	Other Fuel Additives by 8260*
10/10/91	360	85	--	21	25	2.1	14	--
9/17/91	56	74	--	10	11	1.4	8.1	--
8/19/91	19	69	--	26	22	2.1	18	--
7/20/91	100	51	--	9.9	7.7	1.2	7.5	--
6/20/91	69	87	--	8.1	8.4	1.1	8.9	--
5/17/91	33	62	--	5.9	6.3	1.2	9.0	--
4/15/91	--	82	--	5.3	7.4	1.0	9.4	--
3/21/91	--	62	--	9.3	11	0.35	9.7	--
2/15/91	--	200	--	12	12	1.7	14	--
1/14/91	--	78	--	11	8.7	0.58	8.0	--
9/27/90	--	59	--	8.4	12	0.88	9.0	--
8/23/90	--	96	--	8.1	8.4	1.5	8.6	--
7/20/90	86	--	--	9.1	14	0.94	13	--
3/19/90	--	50	--	7.7	8.7	0.075	5.6	--
2/20/90**	--	38	--	7.3	3.1	0.075	6.8	--

NOTES:
TPH-G = Total Petroleum Hydrocarbons as Gasoline.
TPH-D = Total Petroleum Hydrocarbons as Diesel.
MTBE = Methyl tert-Butyl Ether.
ND = Not Detected.
-- = Not Analyzed.
* = This column summarizes results for analysis using EPA Method 8260 f

TABLE 2
SUMMARY OF LABORATORY ANALYTICAL RESULTS
Well MW3

Date	TPH-D	TPH-G	MTBE	Benzene	Toluene	Ethyl-benzene	Total Xylenes	Other Fuel Additives by 8260*
4/6/04	32,a,b	81,a	17	34	5.9	1.5	9.9	ND<0.5, except TBA = 8.8

NOTES:
TPH-G = Total Petroleum Hydrocarbons as Gasoline.
TPH-D = Total Petroleum Hydrocarbons as Diesel.
MTBE = Methyl tert-Butyl Ether.
ND = Not Detected.
-- = Not Analyzed.
a = Lighter than water immiscible sheen present on the sample.
b = TPH-D results consist of both diesel-range and gasoline-range compounds.
* = This column summarizes results for analysis using EPA Method 8260 for non-MTBE fuel oxygenates (TAME, ETBE, and TBA) and lead scavengers (EDB, 1,2-DCA/EDC).
Results in milligrams per liter (mg/L), unless otherwise indicated.

TABLE 2
SUMMARY OF LABORATORY ANALYTICAL RESULTS
Well MW3 (Continued)

Date	TPH-D	TPH-G	MTBE	Benzene	Toluene	Ethyl-benzene	Total Xylenes	Other Fuel Additives by 8260*
12/18/03	32,a,b	130,a	32	33	5.4	0.72	11	ND<0.5, except TBA = 17
9/18/03	140,a,b	130	23	34	11	2.5	14	ND<0.5, except TBA = 10
6/26/03	27,a,b	96	21	29	5.2	2.0	10	ND, except TBA = 8.9
3/18/03	11,a,b	120	16	36	12	1.8	2.4	ND, except TBA = 5.1
12/21/02	21,a,b	110	33	34	9.3	2.0	13	ND, except TBA = 14
9/10/02	43,b	70	19	21	2.2	1.6	7.6	--
3/30/02	8.5,a,b	170	26	40	17	2.6	16	--
12/22/01	9.2,a,b	140	27	37	20	2.6	15	--
9/23/01	47,a,b	130	26	32	9.1	2.4	12	--
6/22/01	33,a,b	110	25	31	7.2	1.9	11	--
4/22/01	61,a	140	24	25	5.4	1.7	11	--
12/14/00	120,a,b	140	35	37	16	2.4	15	--
9/18/00	43,a,b	130	33	39	91	2.3	14	--
7/26/00	--	--	21	--	--	--	--	ND***, except tert-butanol = 19
6/8/00	74,a,b	130	23	41	16	1.9	13	--
3/9/00	14,a,b	180	24	39	22	2.5	16	--
12/9/99	17,a,b	120	16	35	6.7	2.4	12	--

NOTES:
TPH-G = Total Petroleum Hydrocarbons as Gasoline.
TPH-D = Total Petroleum Hydrocarbons as Diesel.
MTBE = Methyl tert-Butyl Ether.
ND = Not Detected.
-- = Not Analyzed.
a = Lighter than water immiscible sheen present on the sample.
b = TPH-D results consist of both diesel-range and gasoline-range compounds.
* = This column summarizes results for analysis using EPA Method 8260 for non-MTBE fuel oxygenates (TAME, ETBE, and TBA) and lead scavengers (EDB, 1,2-DCA/EDC).
***Review of laboratory analytical reports indicate that oxygenated volatile organic compounds (including DIPE, ETBE, TAME, methanol, ethanol, EDB, and 1,2-DCA) were not detected except MTBE at 21 ppm and tert-butanol at 19 ppm.
Results in milligrams per liter (mg/L), unless otherwise indicated.

TABLE 2
SUMMARY OF LABORATORY ANALYTICAL RESULTS
Well MW3 (Continued)

Date	TPH-D	TPH-G	MTBE	Benzene	Toluene	Ethyl-benzene	Total Xylenes	Other Fuel Additives by 8260*
8/31/99	22,b	120	4.7	35	3.7	2.4	14	--
4/29/99	48,b	100	2.5	33	8.0	2.1	14	--
1/29/99	240,b	84	1.3	31	2.8	1.8	12	--
4/26/98	380,b	100	9.7	29	7.1	1.8	14	--
1/24/98	77,b	97	ND	28	7.1	1.8	11	--
11/6/97	120,b	140	ND	37	19	2.4	14	--
7/24/97	91,c	120	1.4	33	17	2.2	12	--
4/25/97	760,b	240	1.6	24	18	4.1	24	--
1/21/97	34,c	150	1.3	40	14	2.6	12	--
7/26/96	24,c	130	0.89	40	22	2.4	12	--
4/23/96	280,c	170	0.72	34	22	2.2	14	--
1/29/96	45,c	150	0.54	32	21	1.9	12	--
10/26/95	33	130	0.69	37	21	0.21	11	--
7/28/95	1.9,b	86	--	1.4	2.3	0.62	3.2	--
5/2/95	9.7,b	170	--	43	30	2.5	14	--
2/24/95	9.2	130	--	31	19	1.8	10	--
11/18/94	23	140	--	38	22	2.0	11	--
7/22/94	5.3	170	--	35	20	1.8	10	--
5/19/94	30	150	--	38	25	2.4	14	--
2/28/94	210	110	--	36	21	1.9	11	--
11/24/93	24	160	--	48	26	2.2	12	--
7/30/93	32	130	--	36	21	1.9	8.2	--

NOTES:
TPH-G = Total Petroleum Hydrocarbons as Gasoline.
TPH-D = Total Petroleum Hydrocarbons as Diesel.
MTBE = Methyl tert-Butyl Ether.
ND = Not Detected.
-- = Not Analyzed.
b = TPH-D results consist of both diesel-range and gasoline-range compounds.
c = TPH-D results consist of gasoline-range compounds.
* = This column summarizes results for analysis using EPA Method 8260 for non-MTBE fuel oxygenates (TAME, ETBE, and TBA) and lead scavengers (EDB, 1,2-DCA/EDC).
Results in milligrams per liter (mg/L), unless otherwise indicated.

TABLE 2
SUMMARY OF LABORATORY ANALYTICAL RESULTS
Well MW3 (Continued)

Date	TPH-D	TPH-G	MTBE	Benzene	Toluene	Ethyl-benzene	Total Xylenes	Other Fuel Additives by 8260*
5/18/93	7.2	130	--	36	21	2.1	12	--
2/23/93	8.1	110	--	31	18	1.9	11	--
11/13/92	4.7	140	--	38	24	2.0	12	--
5/27/92	27	370	--	91	57	3.0	21	--
7/14/92	270	130	--	76	30	3.4	21	--
12/23/91	540	740	--	30	61	31	180	--
11/25/91	74	150	--	65	31	3.4	18	--
10/10/91	39	140	--	57	31	2.2	14	--
9/17/91	140	180	--	47	25	2.6	15	--
8/19/91	150	170	--	82	31	4.4	22	--
7/20/91	270	450	--	46	29	3.5	21	--
6/20/91	210	920	--	39	49	13	69	--
5/17/91	70	170	--	32	22	2.2	18	--
4/15/91	--	110	--	31	15	0.88	7.4	--
3/21/91	--	87	--	30	14	0.69	5.4	--
2/15/91	--	230	--	44	40	ND	31	--
1/14/91	--	160	--	48	25	1.0	16	--
9/27/90	--	25	--	7.2	6.4	0.42	3.4	--
8/23/90	--	220	--	67	46	27	18	--
7/20/90	86	--	--	9.1	14	0.94	13	--
3/19/90	--	210	--	38	28	1.8	12	--
2/20/90**	--	46	--	20	15	1.8	9.7	--

NOTES:
TPH-G = Total Petroleum Hydrocarbons as Gasoline.
TPH-D = Total Petroleum Hydrocarbons as Diesel.
MTBE = Methyl tert-Butyl Ether.
ND = Not Detected.
-- = Not Analyzed.
* = This column summarizes results for analysis using EPA Method 8260 for non-MTBE fuel oxygenates (TAME, ETBE, and TBA) and lead scavengers (EDB, 1,2-DCA/EDC).
** Inorganic lead not detected in sample.
Results in milligrams per liter (mg/L), unless otherwise indicated.

TABLE 2
SUMMARY OF LABORATORY ANALYTICAL RESULTS
Well MW4

Date	TPH-D	TPH-G	MTBE	Benzene	Toluene	Ethyl-benzene	Total Xylenes	Other Fuel Additives by 8260*
2/11/04	Free Product sampled. Laboratory fuel finger print notes pattern resembling diesel, with less significant gasoline-range pattern.							
12/18/03	Not Sampled (Free Product Present in Well)							
9/18/03	Not Sampled (Free Product Present in Well)							
6/26/03	Not Sampled (Free Product Present in Well)							
3/18/03	Not Sampled (Free Product Present in Well)							
12/21/02	Not Sampled (Free Product Present in Well)							
9/10/02	Not Sampled (Free Product Present in Well)							
3/30/02	Not Sampled (Free Product Present in Well)							
12/22/01	Not Sampled (Free Product Present in Well)							
9/23/01	Not Sampled (Free Product Present in Well)							
6/22/01	440,a,b	140	15	35	19	2.0	10	--
4/22/01	Not Sampled (Free Product Present in Well)							
12/14/00	Not Sampled (Free Product Present in Well)							
9/18/00	Not Sampled (Free Product Present in Well)							
6/8/00	Not Sampled (Free Product Present in Well)							
3/9/00	2,100,a,b	130	6.9	35	13	2.1	11	--
12/9/99	9,000,a,b	120	8.1	33	6	2.4	12	--
8/31/99	9.4,b	190	4.4	46	30	2.8	15	--
4/29/99	9.4,b	210	3.2	42	35	2.8	15	--
1/29/99	7.3,b	190	2.4	44	40	3.1	17	--
4/26/98	13,b	190	ND	49	37	3.2	18	--

NOTES:
TPH-G = Total Petroleum Hydrocarbons as Gasoline.
TPH-D = Total Petroleum Hydrocarbons as Diesel.
MTBE = Methyl tert-Butyl Ether.
ND = Not Detected.
-- = Not Analyzed.
a = Lighter than water immiscible sheen present on the sample.
b = TPH-D results consist of both diesel-range and gasoline-range compounds.
* = This column summarizes results for analysis using EPA Method 8260 for non-MTBE fuel oxygenates (TAME, ETBE, and TBA) and lead scavengers (EDB, 1,2-DCA/EDC).
Results in milligrams per liter (mg/L), unless otherwise indicated.

TABLE 2
SUMMARY OF LABORATORY ANALYTICAL RESULTS
Well MW4 (Continued)

Date	TPH-D	TPH-G	MTBE	Benzene	Toluene	Ethyl-benzene	Total Xylenes	Other Fuel Additives by 8260*
1/24/98	20,b	200	ND	50	40	3.1	17	--
11/6/97	110,b	160	ND	48	30	2.8	16	--
8/26/97	5.5,b	210	1.7	48	42	3.4	19	--
8/15/97	MW4 Installed							

NOTES:
TPH-G = Total Petroleum Hydrocarbons as Gasoline.
TPH-D = Total Petroleum Hydrocarbons as Diesel.
MTBE = Methyl tert-Butyl Ether.
ND = Not Detected.
-- = Not Analyzed.
b = TPH-D results consist of both diesel-range and gasoline-range compounds.
* = This column summarizes results for analysis using EPA Method 8260 for non-MTBE fuel oxygenates (TAME, ETBE, and TBA) and lead scavengers (EDB, 1,2-DCA/EDC).
Results in milligrams per liter (mg/L), unless otherwise indicated.

TABLE 2
SUMMARY OF LABORATORY ANALYTICAL RESULTS
Well EW1

Date	TPH-D	TPH-G	MTBE	Benzene	Toluene	Ethyl-benzene	Total Xylenes	Other Fuel Additives by 8260*
4/6/04	3.4,a,b	2.6,a	72	ND<1	ND<1	ND<1	ND<1	ND<1, except TBA = 34
12/18/03	3.0,b	ND<5.0,e	160	0.22	ND<50	ND<50	0.073	ND<5, except TBA = 64
9/18/03	8.2,a,b	7.5	220	0.33	ND<0.05	ND<0.05	ND<0.05	ND<2.5, except TBA = 51
2/23/93	9.6	66	--	14	8.5	1.4	9.8	--
11/13/92	13	62	--	11	9.2	1.1	9.6	--
8/92	EW1 Installed							

NOTES:
TPH-G = Total Petroleum Hydrocarbons as Gasoline.
TPH-D = Total Petroleum Hydrocarbons as Diesel.
MTBE = Methyl tert-Butyl Ether.
ND = Not Detected.
– = Not Analyzed.
a = Lighter than water immiscible sheen present on the sample.
b = TPH-D results consist of both diesel-range and gasoline-range compounds.
e = reporting limit raised due to high MTBE content
* = This column summarizes results for analysis using EPA Method 8260 for non-MTBE fuel oxygenates (TAME, ETBE, and TBA) and lead scavengers (EDB, 1,2-DCA/EDC).
Results in milligrams per liter (mg/L), unless otherwise indicated.

TABLE 2
SUMMARY OF LABORATORY ANALYTICAL RESULTS
Well OW1

Date	TPH-D	TPH-G	TPH-MO	Benzene	Toluene	Ethyl-benzene	Total Xylenes	Other Fuel Additives by 8260, incl. MTBE**
4/6/04	74,a,b	50,a	--	3.1	ND<0.1	0.21	0.14	ND<0.1, TBA ND<1
2/11/04	450,a,b	15,a	130	2.2	0.031	0.16	0.054	ND<0.025, TBA ND<0.25
11/21/03	1,900,a,b	38,e	570	2.0	0.059	0.19	0.095	ND<0.05, TBA ND<0.5
6/10/98	OW1 Installed							

NOTES:
TPH-G = Total Petroleum Hydrocarbons as Gasoline.
TPH-D = Total Petroleum Hydrocarbons as Diesel.
MTBE = Methyl tert-Butyl Ether.
ND = Not Detected.
-- = Not Analyzed.
a = Laboratory analytical report note: lighter than water immiscible sheen present on the sample.
b = Laboratory analytical report note: TPH-D results consist of both diesel-range and gasoline-range compounds.
e = Laboratory analytical report note: unmodified or weakly modified gasoline is significant.
** = This column summarizes results for analysis using EPA Method 8260 for fuel oxygenates (MTBE, TAME, ETBE, and TBA) and lead scavengers (EDB, 1,2-DCA/EDC).
Results in milligrams per liter (mg/L), unless otherwise indicated.

TABLE 2
SUMMARY OF LABORATORY ANALYTICAL RESULTS
Well OW2

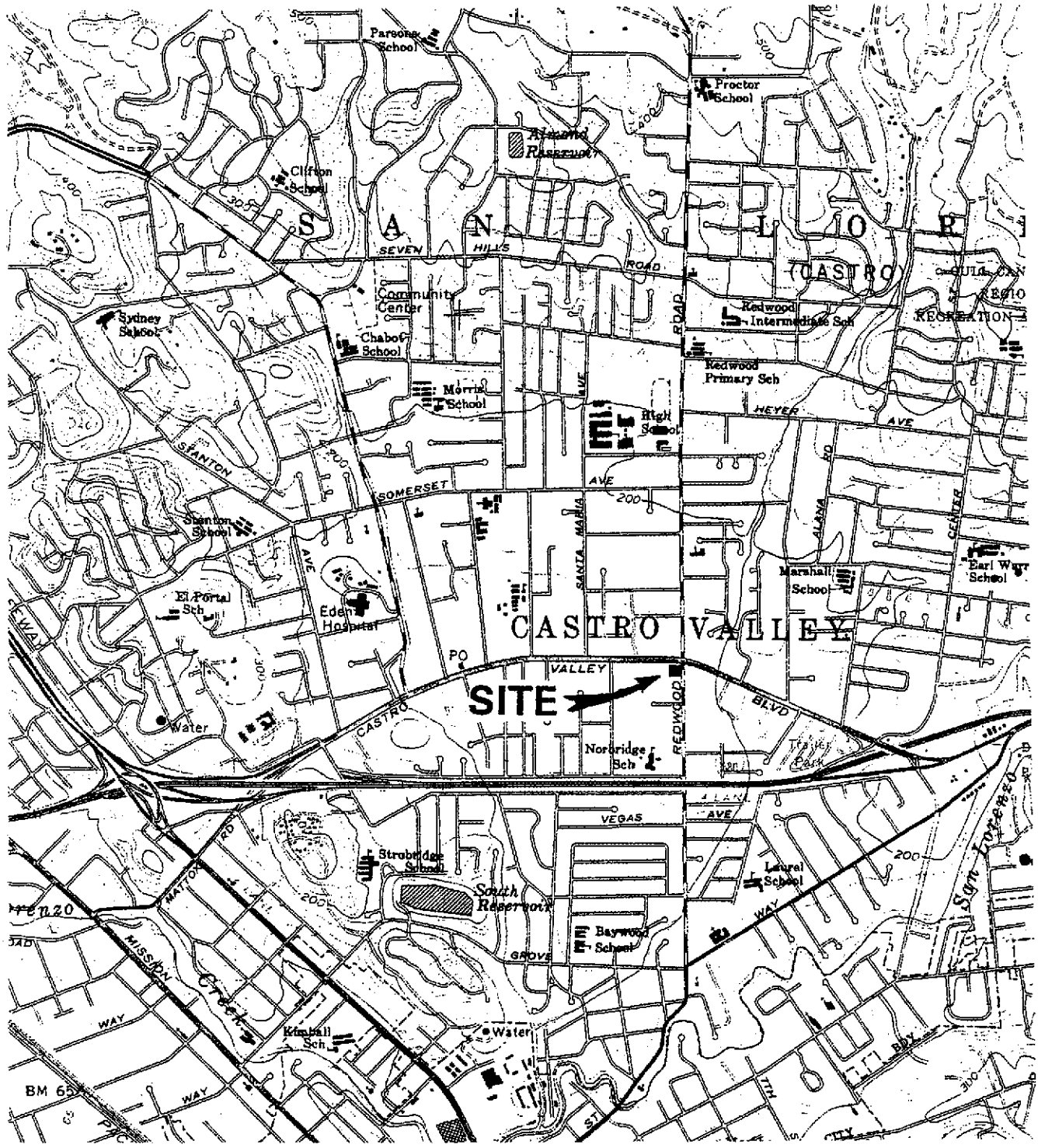
Date	TPH-D	TPH-G	TPH-MO	Benzene	Toluene	Ethyl-benzene	Total Xylenes	Other Fuel Additives by 8260, incl. MTBE**
4/6/04	--	0.069,a	--	ND <0.00062	ND <0.00062	ND <0.00062	ND <0.00062	--
2/11/04	--	0.21	--	ND <0.0005	ND <0.0005	ND <0.0005	ND <0.0005	ND<0.0005, except MTBE = 0.0064*** TBA = 0.0070
11/21/03	No sample recovered.							
6/10/98	OW2 Installed							

NOTES:
TPH-G = Total Petroleum Hydrocarbons as Gasoline.
TPH-D = Total Petroleum Hydrocarbons as Diesel.
MTBE = Methyl tert-Butyl Ether.
ND = Not Detected.
-- = Not Analyzed.
a = Laboratory analytical report note: lighter than water immiscible sheen present on the sample.
** = This column summarizes results for analysis using EPA Method 8260 for fuel oxygenates (MTBE, TAME, ETBE, and TBA) and lead scavengers (EDB, 1,2-DCA/EDC).
*** = MTBE was detected at a concentration of 0.0059 mg/L by EPA Method 5030/8021/8015 modified.
Results in milligrams per liter (mg/L), unless otherwise indicated.

4/19/05 0014.R57

Please print
report dated 4/15/04.
on 1st page R+D.
P.lse check ~~footer~~ page
numbering for text
& tables.

P & D ENVIRONMENTAL
A Division of Paul H. King, Inc.
4020 Panama Court
Oakland, CA 94611
(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

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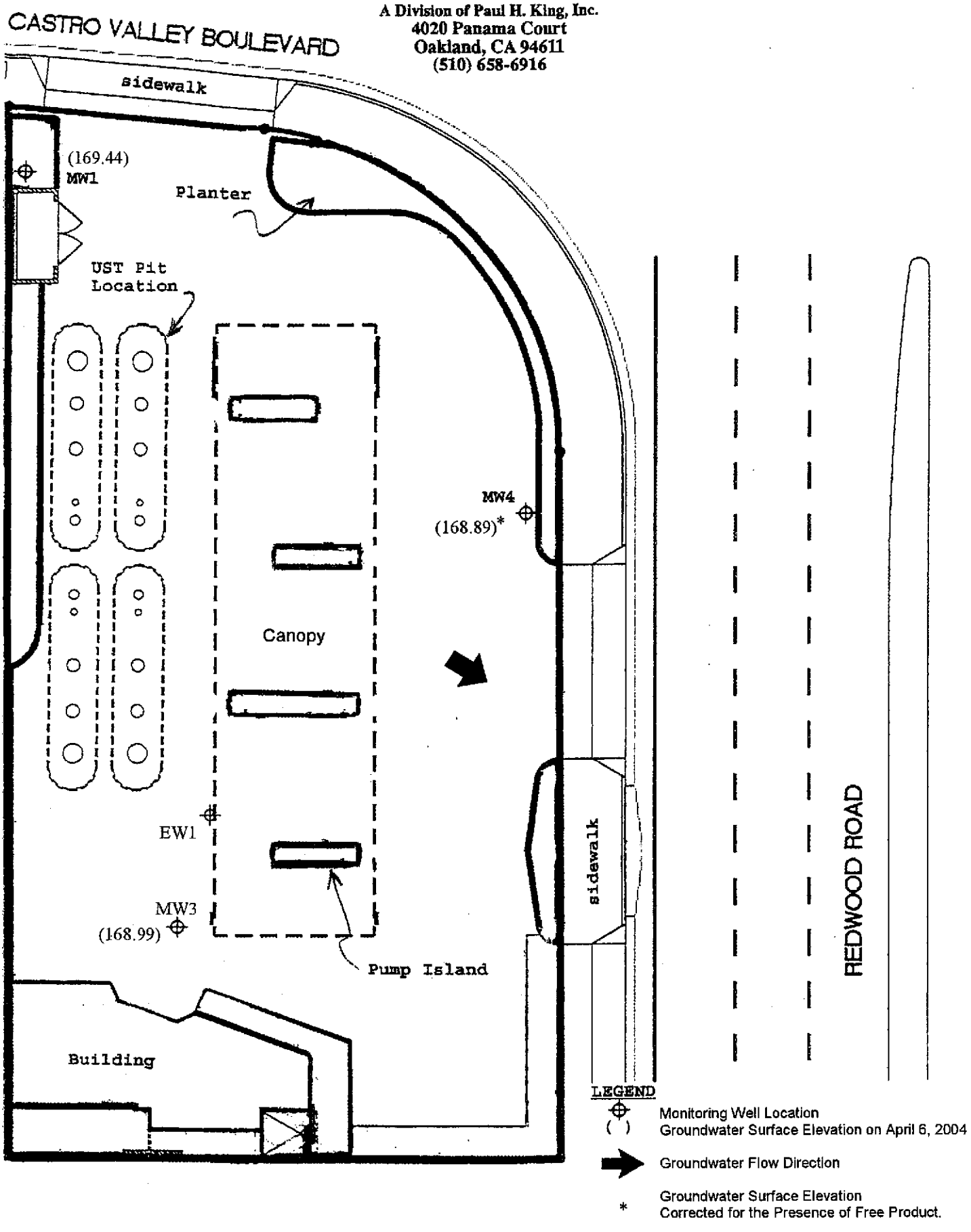
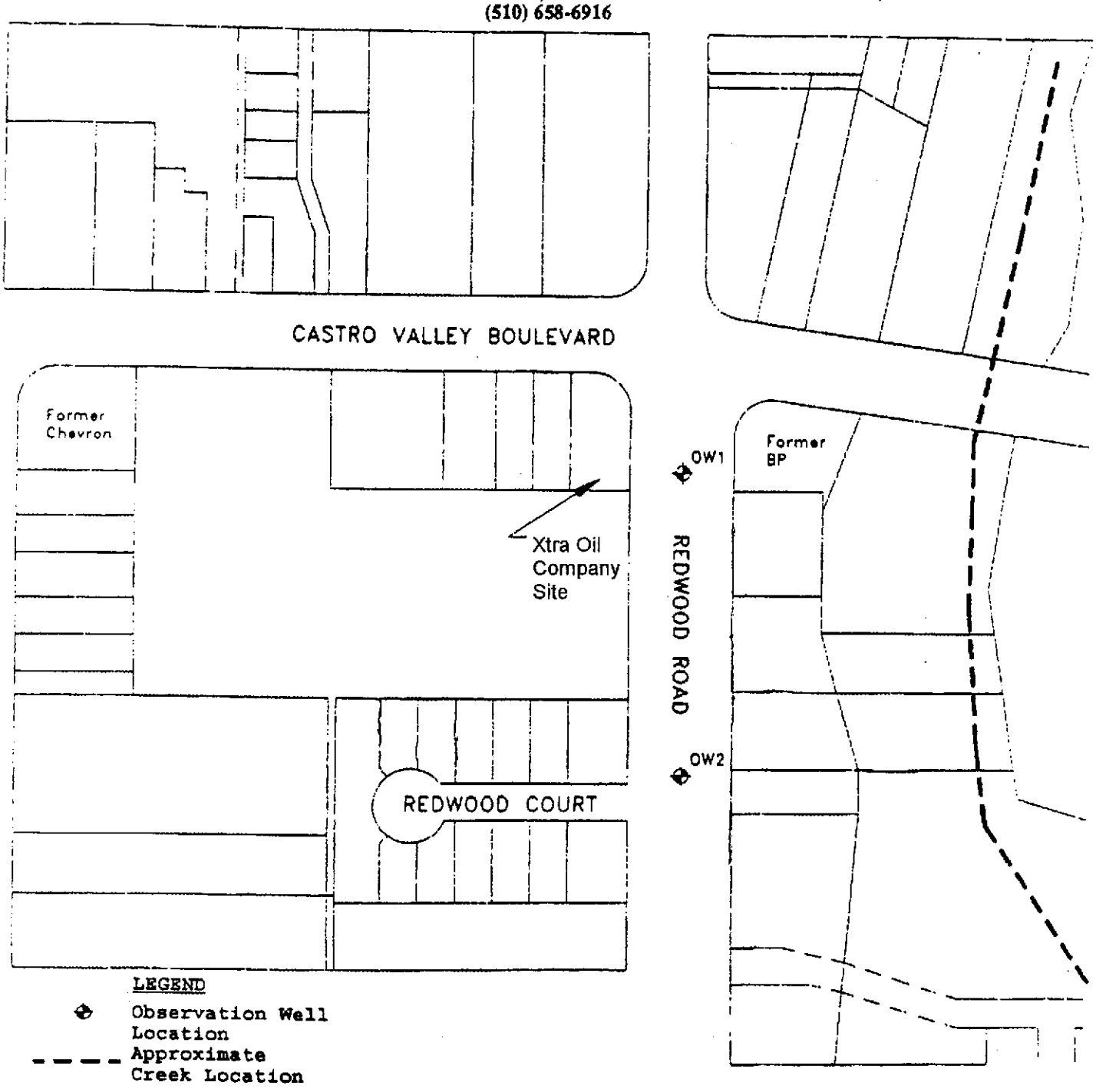


Base Map From:
RHL Design Group, Inc.
June, 1997

Figure 2
SITE PLAN
Xtra Oil Company
3495 Castro Valley Blvd
Castro Valley, CA

P & D ENVIRONMENTAL
A Division of Paul H. King, Inc.
4020 Panama Court
Oakland, CA 94611
(510) 658-6916



Base Map From:
Castro Valley Sanitation District
Undated

0 100 200
Scale In Feet

North

Figure 3
SITE VICINITY MAP
Xtra Oil Company
3495 Castro Valley Blvd.
Castro Valley, CA

P&D ENVIRONMENTAL
GROUNDWATER MONITORING/WELL PURGING
DATA SHEET

Site Name Xtra Oil - Castro Valley
Job No. 0014
TOC to Water (ft.) ~~7.00~~ 7.01
Well Depth (ft.) 89 1/4" = 7.44
Well Diameter
Gal./Casing Vol.

Well No. OW1
Date 2/11/04
Sheen
Free Product Thickness NA (verbally verified to mean "none")
Sample Collection Method

TIME	GAL. PURGED	pH	TEMPERATURE	ELECTRICAL CONDUCTIVITY
		T.O.C		
	89 1/4" (total depth)			
7.01' = 7.44'				
0.43'	5 1/8" (water thickness)			

NOTES: Water in christie box above T.O.C.
7/8" of water in well immediately after sampling (12:10 pm).

PURGE10.92

P&D ENVIRONMENTAL
GROUNDWATER MONITORING/WELL PURGING
DATA SHEET

Site Name Xtra Oil - Castro Valley
Job No. 0014
TOC to Water (ft.) ~~NA~~ 86 3/8" = 7.19'
Well Depth (ft.) 88"
Well Diameter 1"
Gal./Casing Vol. NA

Well No. OW2
Date 2/11/04
Sheen
Free Product Thickness ~~1 5/8"~~ NA
Sample Collection Method
Vacuum pump w Teflon tubing

TIME	GAL. PURGED	pH	TEMPERATURE	ELECTRICAL CONDUCTIVITY
			T.O.C	

88"
7.33' (total depth)
7.19'
= 0.14
~~Product~~ 1 5/8" Bottom of well

NOTES: No ~~product~~ water, only ~~water~~ product in well. (measured with paste and steel tape) (MRW, 3/17/04)

PURGE10.92

Water in Christie box below T.O.C
water sampled 11:40 am,
water level @ 1 17/16" (from bottom of well), 11:45 am

P&D ENVIRONMENTAL
GROUNDWATER MONITORING/WELL PURGING
DATA SHEET

Site Name Xtra Oil - Castro Valley
Job No. 0014
TOC to Water (ft.) (0'6" - 1'⅜") = 9.43'
Well Depth (ft.)
Well Diameter 2in.
Gal./Casing Vol.

Well No. MW4
Date 2/11/09
Sheen NA
Free Product Thickness 2'8 5/16" = ~~2.6~~ 2.70
Sample Collection Method
Vacuum pump w/ Teflon Tubing

TIME	GAL. PURGED	pH	TEMPERATURE	ELECTRICAL CONDUCTIVITY
			T.O.C.	

10'6" (total tape length)
10.50'
3'9 3/16"
3.77'
1.07'
1'⅜"
PRODUCT
~~3.67~~ 2.70'
water = (~~bottom of steel tape~~)
10.50
- 1.07
9.43

NOTES: Steel tape, water, and gasoline - finding pastes used.
Water in Christie box above T.O.C.

PURGE10.92

FP correction 2.70 x 0.75 = 2.03
Corrected Depth to water = 9.43 - 2.03 = 7.40

P&D ENVIRONMENTAL
GROUNDWATER MONITORING/WELL PURGING
DATA SHEET

Site Name Xtra Oil-Castro Valley
Job No. 0014
TOC to Water (ft.)
Well Depth (ft.) 89 ± " = 7.44
Well Diameter
Gal./Casing Vol.

Well No. OW1
Date 4/16/04
Sheen
Free Product Thickness
Sample Collection Method
Vacuum Pump

TIME	GAL. PURGED	pH	TEMPERATURE	ELECTRICAL CONDUCTIVITY
	T.O.C. 89 ± "			
			7.44	
			-0.43	
			= 7.01	7.44
	Top of Water 5 ⅛"		= 5.13"	
	Bottom of well ∅"		= 0.43	

NOTES: Water in christie box above T.O.C.
Inside of well moist. Sheen on Sample.
surface

PURGE10.92

P&D ENVIRONMENTAL
GROUNDWATER MONITORING/WELL PURGING
DATA SHEET

Site Name Xtra Oil - Castro Valley
Job No. 0014
TOC to Water (ft.)
Well Depth (ft.) 88"
Well Diameter 1 in
Gal./Casing Vol.

Well No. OW2
Date 4/6/04
Sheen
Free Product Thickness
Sample Collection Method

TIME	GAL. PURGED	pH	TEMPERATURE	ELECTRICAL CONDUCTIVITY
	T.O.C.	88"		
				7.53
			7.33 - 0.06 = 7.27	
	Top of ~~tube~~	3/4"		
	Bottom of well	8"	0.06'	

NOTES: Water in christie box @ T.O.C.

PURGE10.92

P&D ENVIRONMENTAL
GROUNDWATER MONITORING/WELL PURGING
DATA SHEET

Site Name Xtra Oil - Castro Valley
Well No. MW1
Job No. 0014
Date 4/6/04
TOC to Water (ft.) 7.93
Sheen None
Well Depth (ft.) 20
Free Product Thickness Ø
Well Diameter 4in.
Sample Collection Method Teflon bailer
Gal./Casing Vol. 7.81
E = 23.4

TIME	GAL. PURGED	pH	TEMPERATURE °F	ELECTRICAL CONDUCTIVITY (mS/cm)
2:08	2	2.90	73.2	7.61
2:10	5	3.09	70.2	10.04
2:11	~~10~~	well pumped dry.		
	~~15~~			
	~~20~~			
	~~24~~			

NOTES: Strong PHC odor, but no sheen on purge water.

PURGE10.92

P&D ENVIRONMENTAL
GROUNDWATER MONITORING/WELL PURGING
DATA SHEET

Site Name Xtra Oil - Castro Valley
Well No. MW3
Job No. 0014
Date 4/6/04
TOC to Water (ft.) 7.41
Sheen None
Well Depth (ft.) 18.7
Free Product Thickness 0
Well Diameter 4 in.
Sample Collection Method
Gal./Casing Vol. 6.2
Teflon bailer
E: 18.6

TIME	GAL. PURGED	pH	TEMPERATURE (°F)	ELECTRICAL CONDUCTIVITY (mS/cm)
2:48	2	3.07	69.4	10.68
2:49	5	3.05	69.8	11.58
2:52	8	3.11	68.7	11.34
2:58	12	3.00	69.0	11.28
~~3:00~~	~~+5~~	pumped dry.		
3:05	~~+9~~	Sampling time.		

NOTES: PHC odor + sheen on purge water.

PURGE10.92

P&D ENVIRONMENTAL
GROUNDWATER MONITORING/WELL PURGING
DATA SHEET

Site Name Xtra Oil - Castro Valley
Well No. MW4
Job No. 0014
Date 4/6/04
TOC to Water (ft.)
Sheen
Well Depth (ft.)
Free Product Thickness 2'10"
Well Diameter 2 in.
Sample Collection Method Teflon bailer
Gal./Casing Vol.

TIME	GAL. PURGED	pH	TEMPERATURE	ELECTRICAL CONDUCTIVITY
T.O.C. 10'6"			10.50'	
Top of product 3'9"			3.75'	
Bottom of product / Top of water 11"			0.92'	
Bottom of well tape				

PRODUCT 2.83'
9.58

NOTES: Depths measured w steel tape and water + product finding pastes.

PURGE10.92

FP Correction = 2.83' x 0.75 = 2.12'
Corrected depth to water = 9.58 - 2.12 = 7.46

P&D ENVIRONMENTAL
GROUNDWATER MONITORING/WELL PURGING
DATA SHEET

Site Name Xtra Oil - Castro Valley
Job No. 0014
TOC to Water (ft.) 6.63
Well Depth (ft.) 13.2
Well Diameter 8 in.
Gal./Casing Vol. 17.1
Σ = 51

Well No. EW1
Date 4/6/04
Sheen NONE
Free Product Thickness 0
Sample Collection Method
Teflon bailer

TIME	GAL. PURGED	pH	TEMPERATURE (°F)	ELECTRICAL CONDUCTIVITY (mS/cm)
1:28	5	5.22	67.7	5.27
1:30	15	5.02	67.1	5.51
1:32	25	5.23	67.2	5.33
1:34	35	5.31	67.1	5.36
1:35	45	5.32	67.1	5.36
1:37	52	5.34	67.1	5.36
1:45	Sampling time			

NOTES: No PHC sheen, but slight odor on purge water. Sheen on sample.

PURGE10.92

McCampbell Analytical, Inc.

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Website: www.mccampbell.com E-mail: main@mccampbell.com

P & D Environmental 4020 Panama Court Oakland, CA 94611-4931	Client Project ID: #0014; Xtra Oil-Castro Valley	Date Sampled: 02/11/04
		Date Received: 02/12/04
	Client Contact: Paul King	Date Extracted: 02/20/04
	Client P.O.:	Date Analyzed: 02/20/04

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

Extraction method: SW5030B Analytical methods: SW8015Cm Work Order: 0402178

Lab ID	Client ID	Matrix	TPH(g)	DF	% SS
001A	OW1	W	15,000,a,h	10	119

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

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

cluttered chromatogram; sample peak coelutes with surrogate peak.

+The following descriptions of the TPH chromatogram are cursory in nature and McCampbell Analytical is not responsible for their interpretation: a) unmodified or weakly modified gasoline is significant; b) heavier gasoline range compounds are significant(aged gasoline?); c) lighter gasoline range compounds (the most mobile fraction) are significant; d) gasoline range compounds having broad chromatographic peaks are significant; biologically altered gasoline?; e) TPH pattern that does not appear to be derived from gasoline (stoddard solvent / mineral spirit?); f) one to a few isolated non-target peaks present; g) strongly aged gasoline or diesel range compounds are significant; h) lighter than water immiscible sheen/product is present; i) liquid sample that contains greater than ~2 vol. % sediment; j) reporting limit raised due to high MTBE content; k) TPH pattern that does not appear to be derived from gasoline (aviation gas). m) no recognizable pattern.

DHS Certification No. 1644

Angela Rydelius, Lab Manager

McCampbell Analytical, Inc.

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Telephone : 925-798-1620 Fax : 925-798-1622
Website: www.mccampbell.com E-mail: main@mccampbell.com

P & D Environmental 4020 Panama Court Oakland, CA 94611-4931	Client Project ID: #0014; Xtra Oil-Castro Valley	Date Sampled: 02/11/04
		Date Received: 02/12/04
	Client Contact: Paul King	Date Extracted: 02/12/04
	Client P.O.:	Date Analyzed: 02/12/04-02/13/04

Diesel (C10-23) and Oil (C18+) Range Extractable Hydrocarbons as Diesel and Motor Oil*

Extraction method: SW3510C Analytical methods: SW8015C Work Order: 0402178

Lab ID	Client ID	Matrix	TPH(d)	TPH(mo)	DF	% SS
0402178-001A	OW1	W	450,000,a,d,h	130,000	100	--#

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

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

cluttered chromatogram resulting in coeluted surrogate and sample peaks, or; surrogate peak is on elevated baseline, or; surrogate has been diminished by dilution of original extract.

+The following descriptions of the TPH chromatogram are cursory in nature and McCampbell Analytical is not responsible for their interpretation: a) unmodified or weakly modified diesel is significant; b) diesel range compounds are significant; no recognizable pattern; c) aged diesel? is significant); d) gasoline range compounds are significant; e) unknown medium boiling point pattern that does not appear to be derived from diesel; f) one to a few isolated peaks present; g) oil range compounds are significant; h) lighter than water immiscible sheen/product is present; i) liquid sample that contains greater than ~2 vol. % sediment; k) kerosene/kerosene range; l) bunker oil; m) fuel oil; n) stoddard solvent/mineral spirit.

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Angela Rydelius, Lab Manager

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P & D Environmental	Client Project ID: #0014; Xtra Oil-Castro Valley	Date Sampled: 02/11/04
4020 Panama Court		Date Received: 02/12/04
Oakland, CA 94611-4931	Client Contact: Paul King	Date Extracted: 02/14/04
	Client P.O.:	Date Analyzed: 02/14/04

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

Extraction method: SW5030B Analytical methods: SW8021B/8015Cm Work Order: 0402178

Lab ID	Client ID	Matrix	TPH(g)	MTBE	Benzene	Toluene	Ethylbenzene	Xylenes	DF	% SS
002A	OW2	W	210,b	5.9	ND	ND	ND	ND	1	108
Reporting Limit for DF =1; ND means not detected at or above the reporting limit	W	50	5.0	0.5	0.5	0.5	0.5	1	µg/L
	S	NA	NA	NA	NA	NA	NA	1	mg/Kg

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

cluttered chromatogram; sample peak coelutes with surrogate peak.

+The following descriptions of the TPH chromatogram are cursory in nature and McCampbell Analytical is not responsible for their interpretation: a) unmodified or weakly modified gasoline is significant; b) heavier gasoline range compounds are significant(aged gasoline?); c) lighter gasoline range compounds (the most mobile fraction) are significant; d) gasoline range compounds having broad chromatographic peaks are significant; biologically altered gasoline?; e) TPH pattern that does not appear to be derived from gasoline (stoddard solvent / mineral spirit?); f) one to a few isolated non-target peaks present; g) strongly aged gasoline or diesel range compounds are significant; h) lighter than water immiscible sheen/product is present; i) liquid sample that contains greater than ~2 vol. % sediment; j) reporting limit raised due to high MTBE content; k) TPH pattern that does not appear to be derived from gasoline (aviation gas). m) no recognizable pattern.

DHS Certification No. 1644

Angela Rydelius, Lab Manager

McCampbell Analytical, Inc.

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Telephone : 925-798-1620 Fax : 925-798-1622
Website: www.mccampbell.com E-mail: main@mccampbell.com

P & D Environmental 4020 Panama Court Oakland, CA 94611-4931	Client Project ID: #0014; Xtra Oil-Castro Valley	Date Sampled: 02/11/04
		Date Received: 02/12/04
	Client Contact: Paul King	Date Extracted: 02/13/04
	Client P.O.:	Date Analyzed: 02/13/04

Oxygenates and BTEX by GC/MS*

Extraction Method: SW5030B | Analytical Method: SW8260B | Work Order: 0402178

						Reporting Limit for DF =1	
Lab ID	0402178-001B	0402178-002B					
Client ID	OW1	OW2					
Matrix	W	W					
DF	50	1				S	W
Compound	**Concentration**					ug/kg	µg/L
tert-Amyl methyl ether (TAME)	ND<25	ND				NA	0.5
Benzene	2200	ND				NA	0.5
t-Butyl alcohol (TBA)	ND<250	7.0				NA	5.0
1,2-Dibromoethane (EDB)	ND<25	ND				NA	0.5
1,2-Dichloroethane (1,2-DCA)	ND<25	ND				NA	0.5
Diisopropyl ether (DIPE)	ND<25	ND				NA	0.5
Ethylbenzene	160	ND				NA	0.5
Ethyl tert-butyl ether (ETBE)	ND<25	ND				NA	0.5
Methyl-t-butyl ether (MTBE)	ND<25	6.4				NA	0.5
Toluene	31	ND				NA	0.5
Xylenes	54	ND				NA	0.5
Surrogate Recoveries (%)							
%SS1:	105	111					
%SS2:	96.4	95.4					
%SS3:	113	115					
Comments	h						

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

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

surrogate diluted out of range or surrogate coelutes with another peak.

h) lighter than water immiscible sheen/product is present; i) liquid sample that contains greater than ~2 vol. % sediment; j) sample diluted due to high organic content.

DHS Certification No. 1644

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Website: www.mccampbell.com E-mail: main@mccampbell.com

P & D Environmental 4020 Panama Court Oakland, CA 94611-4931	Client Project ID: #0014; Xtra Oil-Castro Valley	Date Sampled: 02/11/04
		Date Received: 02/12/04
	Client Contact: Paul King	Date Extracted: 02/12/04
	Client P.O.:	Date Analyzed: 02/13/04

Fuel FingerPrint *

Extraction method: SW3550C Analytical methods: SW8015C Work Order: 0402178

Lab ID	Client ID	Matrix	Fuel Fingerprint
0402178-003A	MW4	O	This sample shows a significant hydrocarbon pattern between C10 and C23 that resembles diesel. It also contains a less significant gas range pattern. Chromatograms enclosed.

DHS Certification No. 1644

Angela Rydelius, Lab Manager

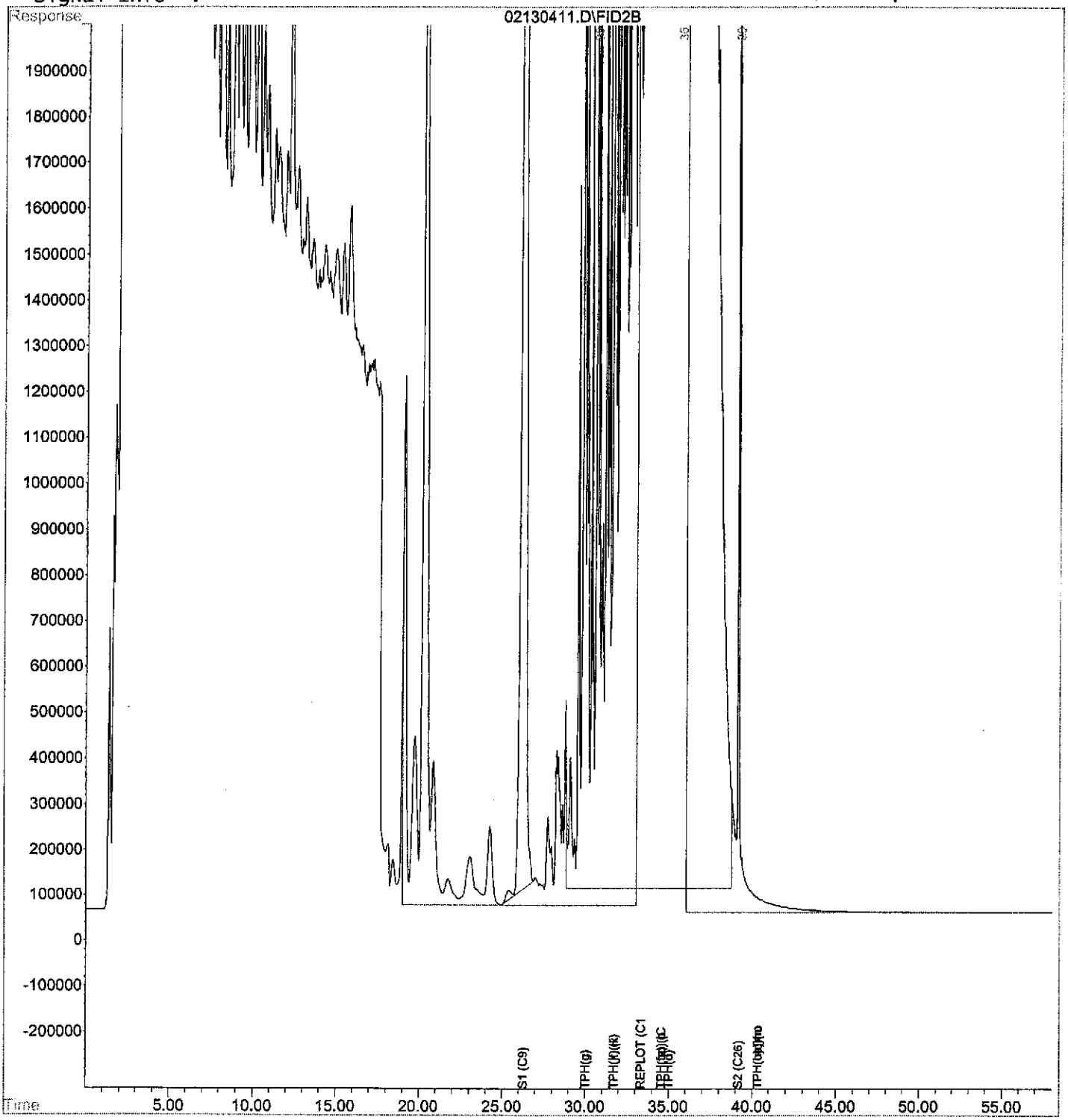
Quantitation Report (Not Reviewed)

Data File : D:\HPCHEM\GC11\DATAB\02130411.D Vial: 56
Acq On : 13 Feb 2004 3:59 pm Operator: Thu
Sample : 0402178-003A O Inst : GC-11
Misc : TPH(D)_OIL Multiplr: 1.0
IntFile : EVENTS.E
Quant Time: Feb 13 17:05 2004 Quant Results File: GC11BR.RES

Quant Method : D:\HPCHEM\GC11\METHODS\GC11BR.M (Chemstation Integrator)
Title : GC-11A
Last Update : Mon Dec 29 15:56:55 2003
Response via : Multiple Level Calibration
DataAcq Meth : GC11AR.M

Volume Inj. :
Signal Phase :
Signal Info :

"MW-4"



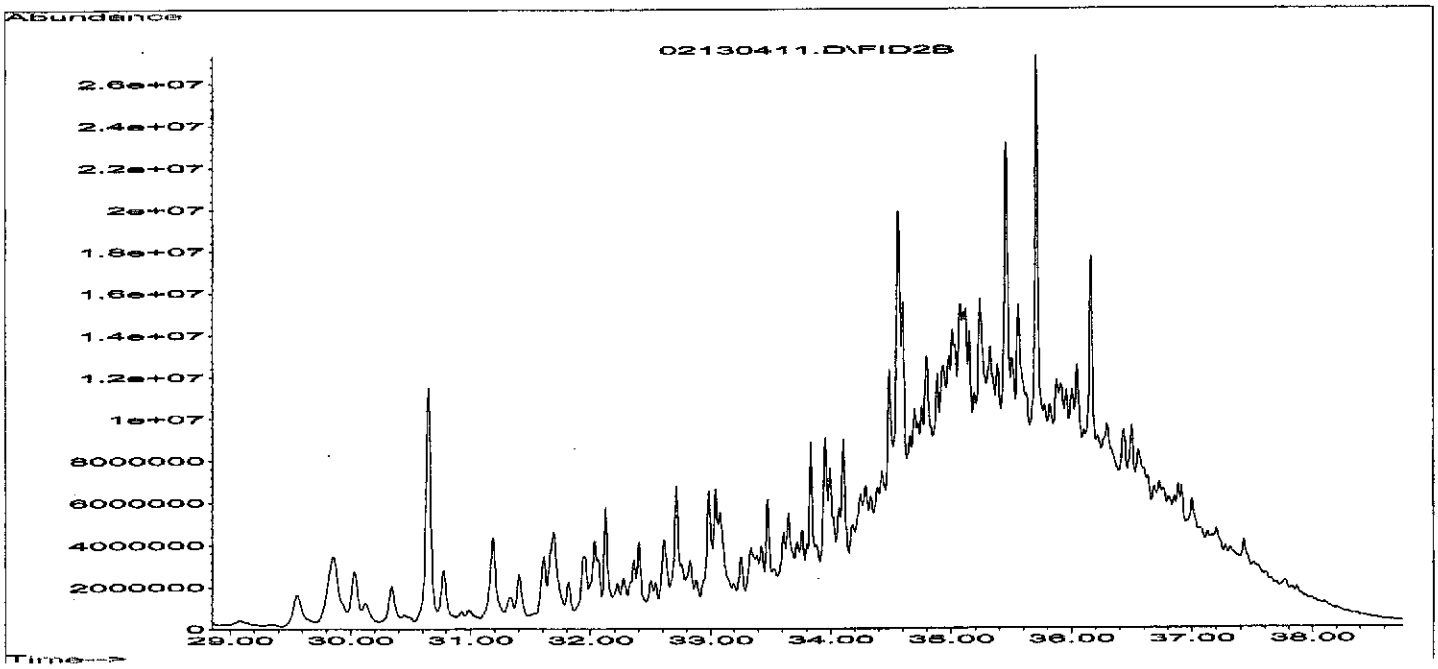
Instrument Name	GC-11	DETECTOR B	
Data File Name	02130411.D	Sample Name	0402178-003A O
Date Acquired	2/13/2004 3:59	Data File Path	D:\HPCHEM\GC11\DATAB\
Acq. Method File	GC11AR.M	Misc Info	TPH(D)_OIL
Vial Number	56	Sample Multiplier	1

"MW-4"

NOTE: THE MULTIPLIER IS THE DILUTION FACTOR ONLY, NOT WITH THE EXTRACTION FACTOR
NOTE: S1 & S2 % recoveries are based on dilution without SS
NOTE: TPH(d,bo) and TPH(mo) values are based on diesel & motor oil calibrations, TPH(bo) and TPH(mo) use the same RL
NOTE: Ignore TPH(g) & TPH(k) values from Chem Station; after that they are based on the diesel RF & area

Name	Ret Time	CS (mg/Ls)	Area	Amount Using D & MO RFs only (mg/Ls)	Soil mg/kg)	Water (ug/L)
S1 (C9)	26.27	104.5	749470090	104.5	105%	105%
S2 (C26)	39.16	115.9	648343664	115.9	116%	116%
TPH(d)	C10-C23	657.5	23730730519	657.5	328.7	16437
TPH(mo)	C18+	178.5	6622728368	178.5	89.3	4463
TPH(k)(K)	C10-C18	741.4	18886484833	523.3	261.6	13081
TPH(g)	<C12	1609.6	5037212674	139.6	69.8	3489
TPH(bo) (C10+)	C10+	682.4	24763498928	682.4	341.2	17061

REPLOT (C10-C25)



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QC SUMMARY REPORT FOR SW8021B/8015Cm

Matrix: W WorkOrder: 0402178

EPA Method: SW8021B/8015Cm Extraction: SW5030B BatchID: 10358 Spiked Sample ID: 0402177-027A

	Sample	Spiked	MS*	MSD*	MS-MSD*	LCS	LCSD	LCS-LCSD	Acceptance Criteria (%)	
	µg/L	µg/L	% Rec.	% Rec.	% RPD	% Rec.	% Rec.	% RPD	Low	High
TPH(btex)£	ND	60	105	102	3.37	106	104	2.07	70	130
MTBE	ND	10	96.4	94.7	1.81	102	99.9	1.83	70	130
Benzene	ND	10	110	110	0	106	103	2.99	70	130
Toluene	ND	10	106	106	0	102	97.6	4.49	70	130
Ethylbenzene	ND	10	110	112	1.39	108	105	2.28	70	130
Xylenes	ND	30	100	100	0	100	96.3	3.74	70	130
%SS:	106	10	103	104	1.37	105	99.7	5.29	70	130

All target compounds in the Method Blank of this extraction batch were ND less than the method RL with the following exceptions:

NONE

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 and / or MSD spike recoveries may not be near 100% or the RPDs near 0% If: a) the sample is inhomogenous AND contains significant concentrations of analyte relative to the amount spiked, or b) if that specific sample matrix interferes with 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 = analyte concentration in sample exceeds spike amount for soil matrix or exceeds 2x spike amount for water matrix or sample diluted due to high matrix or analyte content.

DHS Certification No. 1644

TL ✓ QA/QC Officer

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QC SUMMARY REPORT FOR SW8015C

Matrix: O WorkOrder: 0402178

EPA Method: SW8015C Extraction: SW3550C BatchID: 10354 Spiked Sample ID: 0402175-002A

	Sample	Spiked	MS*	MSD*	MS-MSD*	LCS	LCSD	LCS-LCSD	Acceptance Criteria (%)	
	mg/L	mg/L	% Rec.	% Rec.	% RPD	% Rec.	% Rec.	% RPD	Low	High
TPH(d)	N/A	150	N/A	N/A	N/A	93.6	95.4	1.90	70	130
%SS:	N/A	50	N/A	N/A	N/A	93.7	95	1.42	70	130

All target compounds in the Method Blank of this extraction batch were ND less than the method RL with the following exceptions:

NONE

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 and / or MSD spike recoveries may not be near 100% or the RPDs near 0% if: a) the sample is inhomogenous AND contains significant concentrations of analyte relative to the amount spiked, or b) if that specific sample matrix interferes with 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.

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QC SUMMARY REPORT FOR SW8015C

Matrix: W WorkOrder: 0402178

EPA Method: SW8015C	Extraction: SW3510C	BatchID: 10360	Spiked Sample ID: N/A

	Sample	Spiked	MS*	MSD*	MS-MSD*	LCS	LCSD	LCS-LCSD	Acceptance Criteria (%)	
	µg/L	µg/L	% Rec.	% Rec.	% RPD	% Rec.	% Rec.	% RPD	Low	High
TPH(d)	N/A	7500	N/A	N/A	N/A	94.9	97.1	2.27	70	130
%SS:	N/A	2500	N/A	N/A	N/A	90.4	92	1.70	70	130

All target compounds in the Method Blank of this extraction batch were ND less than the method RL with the following exceptions:

NONE

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 and / or MSD spike recoveries may not be near 100% or the RPDs near 0% if: a) the sample is inhomogenous AND contains significant concentrations of analyte relative to the amount spiked, or b) if that specific sample matrix interferes with spike recovery.

N/A = not enough sample to perform matrix spike and matrix spike duplicate.
NR = analyte concentration in sample exceeds spike amount for soil matrix or exceeds 2x spike amount for water matrix or sample diluted due to high matrix or analyte content.

DHS Certification No. 1644

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QC SUMMARY REPORT FOR SW8260B

Matrix: W WorkOrder: 0402178

EPA Method: SW8260B	Extraction: SW5030B	BatchID: 10361	Spiked Sample ID: 0402186-001A

	Sample	Spiked	MS*	MSD*	MS-MSD*	LCS	LCSD	LCS-LCSD	Acceptance Criteria (%)	
	µg/L	µg/L	% Rec.	% Rec.	% RPD	% Rec.	% Rec.	% RPD	Low	High
tert-Amyl methyl ether (TAME)	ND	10	120	112	7.28	103	105	2.40	70	130
Benzene	ND	10	127	120	5.70	119	122	1.81	70	130
t-Butyl alcohol (TBA)	ND	50	97.7	88.6	9.77	101	105	3.74	70	130
Diisopropyl ether (DIPE)	ND	10	121	116	4.13	99.8	102	2.18	70	130
Ethyl tert-butyl ether (ETBE)	ND	10	119	112	5.89	99.4	102	2.79	70	130
Methyl-t-butyl ether (MTBE)	ND	10	117	109	7.28	100	102	2.28	70	130
Toluene	ND	10	116	106	8.74	91.8	93.3	1.68	70	130
%SS1:	104	10	109	107	1.86	100	99.9	0.536	70	130
%SS2:	95.8	10	106	103	2.44	98.2	98.3	0.0923	70	130
%SS3:	99.7	10	110	107	2.79	99.5	101	1.20	70	130

All target compounds in the Method Blank of this extraction batch were ND less than the method RL with the following exceptions:

NONE

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 and / or MSD spike recoveries may not be near 100% or the RPDs near 0% if: a) the sample is inhomogenous AND contains significant concentrations of analyte relative to the amount spiked, or b) if that specific sample matrix interferes with 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.

DHS Certification No. 1644

TL QA/QC Officer

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CHAIN-OF-CUSTODY RECORD

WorkOrder: 0402178

Report to:
Paul King
P & D Environmental
4020 Panama Court
Oakland, CA 94611-4931

TEL: (510) 658-6916
FAX: 510-834-0152
ProjectNo: #0014; Xtra Oil-Castro Valley
PO:

Bill to:
Accounts Payable
P & D Environmental
4020 Panama Court
Oakland, CA 94611-4931

Requested TAT: 5 days
Date Received: 2/12/04
Date Printed: 2/12/04

Sample ID	ClientSampID	Matrix	Collection Date	Hold	Requested Tests (See legend below)														
					1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
0402178-001	OW1	Water	2/11/04	☐		A	B												
0402178-002	OW2	Water	2/11/04	☐		A	B												
0402178-003	MW4	Oil	2/11/04	☐	A														

Test Legend:

1	G-MBTEX_Oil	2	G-MBTEX_W	3	MBTEXOXY-8260B_W	4		5	
6		7		8		9		10	
11		12		13		14		15	

Prepared by: Melissa Valles

Comments:

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

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P & D Environmental 4020 Panama Court Oakland, CA 94611-4931	Client Project ID: #0014; Xtra Oil-Castro Valley	Date Sampled: 04/06/04
		Date Received: 04/07/04
	Client Contact: Paul King	Date Extracted: 04/07/04
	Client P.O.:	Date Analyzed: 04/08/04-04/09/04

Diesel Range (C10-C23) Extractable Hydrocarbons as Diesel*

Extraction method: SW3510C Analytical methods: SW8015C Work Order: 0404075

Lab ID	Client ID	Matrix	TPH(d)	DF	% SS
0404075-001A	MW-1	W	18,000,d,a,h	10	104
0404075-002A	MW3	W	32,000,a,d,h	10	102
0404075-003A	EW1	W	3400,a,d,h	10	82.0
0404075-004A	OW1	W	74,000,a,d,h	10	104

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

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

cluttered chromatogram resulting in coeluted surrogate and sample peaks, or; surrogate peak is on elevated baseline, or; surrogate has been diminished by dilution of original extract.

+The following descriptions of the TPH chromatogram are cursory in nature and McCampbell Analytical is not responsible for their interpretation: a) unmodified or weakly modified diesel is significant; b) diesel range compounds are significant; no recognizable pattern; c) aged diesel? is significant); d) gasoline range compounds are significant; e) unknown medium boiling point pattern that does not appear to be derived from diesel; f) one to a few isolated peaks present; g) oil range compounds are significant; h) lighter than water immiscible sheen/product is present; i) liquid sample that contains greater than ~2 vol. % sediment; k) kerosene/kerosene range/jet fuel range; l) bunker oil; m) fuel oil; n) stoddard solvent/mineral spirit.

DHS Certification No. 1644

Angela Rydelius, Lab Manager

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P & D Environmental 4020 Panama Court Oakland, CA 94611-4931	Client Project ID: #0014; Xtra Oil-Castro Valley	Date Sampled: 04/06/04
		Date Received: 04/07/04
	Client Contact: Paul King	Date Extracted: 04/08/04-04/09/04
	Client P.O.:	Date Analyzed: 04/08/04-04/09/04

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

Extraction method: SW5030B Analytical methods: SW8015Cm Work Order: 0404075

Lab ID	Client ID	Matrix	TPH(g)	DF	% SS
001A	MW-1	W	28,000,a,h	100	105
002A	MW3	W	81,000,a,h	100	106
003A	EW1	W	2600,a,h	50	99.3
004A	OW1	W	50,000,a,h	50	83.3

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

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

cluttered chromatogram; sample peak coelutes with surrogate peak.

+The following descriptions of the TPH chromatogram are cursory in nature and McCampbell Analytical is not responsible for their interpretation: a) unmodified or weakly modified gasoline is significant; b) heavier gasoline range compounds are significant(aged gasoline?); c) lighter gasoline range compounds (the most mobile fraction) are significant; d) gasoline range compounds having broad chromatographic peaks are significant; biologically altered gasoline?; e) TPH pattern that does not appear to be derived from gasoline (stoddard solvent / mineral spirit?); f) one to a few isolated non-target peaks present; g) strongly aged gasoline or diesel range compounds are significant; h) lighter than water immiscible sheen/product is present; i) liquid sample that contains greater than ~2 vol. % sediment; j) reporting limit raised due to high MTBE content; k) TPH pattern that does not appear to be derived from gasoline (aviation gas). m) no recognizable pattern.

DHS Certification No. 1644

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P & D Environmental	Client Project ID: #0014; Xtra Oil-Castro Valley	Date Sampled: 04/06/04
4020 Panama Court		Date Received: 04/07/04
Oakland, CA 94611-4931	Client Contact: Paul King	Date Extracted: 04/09/04
	Client P.O.:	Date Analyzed: 04/09/04

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

Extraction method: SW5030B Analytical methods: SW8021B/8015Cm Work Order: 0404075

Lab ID	Client ID	Matrix	TPH(g)	MTBE	Benzene	Toluene	Ethylbenzene	Xylenes	DF	% SS
005A	OW2	W	69,b,h	ND<6.2	ND<0.62	ND<0.62	ND<0.62	ND<0.62	1.2	96.9
Reporting Limit for DF =1; ND means not detected at or above the reporting limit	W	50	5.0	0.5	0.5	0.5	0.5	1	µg/L
	S	NA	NA	NA	NA	NA	NA	1	mg/Kg

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

cluttered chromatogram; sample peak coelutes with surrogate peak.

+The following descriptions of the TPH chromatogram are cursory in nature and McCampbell Analytical is not responsible for their interpretation: a) unmodified or weakly modified gasoline is significant; b) heavier gasoline range compounds are significant(aged gasoline?); c) lighter gasoline range compounds (the most mobile fraction) are significant; d) gasoline range compounds having broad chromatographic peaks are significant; biologically altered gasoline?; e) TPH pattern that does not appear to be derived from gasoline (stoddard solvent / mineral spirit?); f) one to a few isolated non-target peaks present; g) strongly aged gasoline or diesel range compounds are significant; h) lighter than water immiscible sheen/product is present; i) liquid sample that contains greater than ~2 vol. % sediment; j) reporting limit raised due to high MTBE content; k) TPH pattern that does not appear to be derived from gasoline (aviation gas). m) no recognizable pattern.

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P & D Environmental 4020 Panama Court Oakland, CA 94611-4931	Client Project ID: #0014; Xtra Oil-Castro Valley	Date Sampled: 04/06/04
		Date Received: 04/07/04
	Client Contact: Paul King	Date Extracted: 04/07/04-04/08/04
	Client P.O.:	Date Analyzed: 04/07/04-04/08/04

Oxygenates and BTEX by GC/MS*

Extraction Method: SW5030B | Analytical Method: SW8260B | Work Order: 0404075

Lab ID	0404075-001B	0404075-002B	0404075-003B	0404075-004B	Reporting Limit for DF =1	
Client ID	MW-1	MW3	EW1	OW1		
Matrix	W	W	W	W		
DF	200	1000	2000	200	S	W
Compound	**Concentration**				ug/kg	µg/L
tert-Amyl methyl ether (TAME)	ND<100	ND<500	ND<1000	ND<100	NA	0.5
Benzene	2300	34,000	ND<1000	3100	NA	0.5
t-Butyl alcohol (TBA)	ND<1000	8800	34,000	ND<1000	NA	5.0
1,2-Dibromoethane (EDB)	ND<100	ND<500	ND<1000	ND<100	NA	0.5
1,2-Dichloroethane (1,2-DCA)	ND<100	ND<500	ND<1000	ND<100	NA	0.5
Diisopropyl ether (DIPE)	ND<100	ND<500	ND<1000	ND<100	NA	0.5
Ethylbenzene	990	1500	ND<1000	210	NA	0.5
Ethyl tert-butyl ether (ETBE)	ND<100	ND<500	ND<1000	ND<100	NA	0.5
Methyl-t-butyl ether (MTBE)	110	17,000	72,000	ND<100	NA	0.5
Toluene	800	5900	ND<1000	ND<100	NA	0.5
Xylenes	4500	9900	ND<1000	140	NA	0.5
Surrogate Recoveries (%)						
%SS1:	94.3	94.1	96.0	91.1		
%SS2:	93.0	93.1	92.6	94.2		
%SS3:	105	105	105	107		
Comments	h	h	h	h		

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

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

surrogate diluted out of range or surrogate coelutes with another peak.

h) lighter than water immiscible sheen/product is present; i) liquid sample that contains greater than ~2 vol. % sediment; j) sample diluted due to high organic content.

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QC SUMMARY REPORT FOR SW8015Cm

Matrix: W WorkOrder: 0404075

EPA Method: SW8015Cm Extraction: SW5030B BatchID: 11036 Spiked Sample ID: 0404074-004A

	Sample	Spiked	MS*	MSD*	MS-MSD*	LCS	LCSD	LCS-LCSD	Acceptance Criteria (%)	
	µg/L	µg/L	% Rec.	% Rec.	% RPD	% Rec.	% Rec.	% RPD	Low	High
TPH(btex)£	ND	60	99.7	102	2.65	103	103	0	70	130
MTBE	ND	10	89.3	92.3	3.26	97	95.8	1.16	70	130
Benzene	ND	10	93.1	110	16.3	111	111	0	70	130
Toluene	ND	10	90.4	99.1	9.24	113	112	0.445	70	130
Ethylbenzene	ND	10	113	108	4.29	115	113	1.34	70	130
Xylenes	ND	30	93.3	107	13.3	107	100	6.45	70	130
%SS:	99.9	10	106	107	0.746	103	103	0	70	130

All target compounds in the Method Blank of this extraction batch were ND less than the method RL with the following exceptions:

NONE

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 and / or MSD spike recoveries may not be near 100% or the RPDs near 0% if: a) the sample is inhomogenous AND contains significant concentrations of analyte relative to the amount spiked, or b) if that specific sample matrix interferes with 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 = analyte concentration in sample exceeds spike amount for soil matrix or exceeds 2x spike amount for water matrix or sample diluted due to high matrix or analyte content.

DHS Certification No. 1644

TL QA/QC Officer

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QC SUMMARY REPORT FOR SW8015C

Matrix: W WorkOrder: 0404075

EPA Method: SW8015C	Extraction: SW3510C			BatchID: 11001		Spiked Sample ID: N/A				
	Sample	Spiked	MS*	MSD*	MS-MSD	LCS	LCSD	LCS-LCSD	Acceptance Criteria (%)	
	µg/L	µg/L	% Rec.	% Rec.	% RPD	% Rec.	% Rec.	% RPD	Low	High
TPH(d)	N/A	7500	N/A	N/A	N/A	91.8	94.4	2.80	70	130
%SS:	N/A	2500	N/A	N/A	N/A	98.5	101	2.50	70	130

All target compounds in the Method Blank of this extraction batch were ND less than the method RL with the following exceptions:

NONE

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 and / or MSD spike recoveries may not be near 100% or the RPDs near 0% if: a) the sample is inhomogenous AND contains significant concentrations of analyte relative to the amount spiked, or b) if that specific sample matrix interferes with spike recovery.

N/A = not enough sample to perform matrix spike and matrix spike duplicate.
NR = analyte concentration in sample exceeds spike amount for soil matrix or exceeds 2x spike amount for water matrix or sample diluted due to high matrix or analyte content.

DHS Certification No. 1644

QA/QC Officer

McCampbell Analytical, Inc.

110 2nd Avenue South, #D7, Pacheco, CA 94553-5560
Telephone : 925-798-1620 Fax : 925-798-1622
Website: www.mccampbell.com E-mail: main@mccampbell.com

QC SUMMARY REPORT FOR SW8260B

Matrix: W WorkOrder: 0404075

EPA Method: SW8260B	Extraction: SW5030B	BatchID: 11009	Spiked Sample ID: 0404065-001C

	Sample	Spiked	MS*	MSD*	MS-MSD*	LCS	LCSD	LCS-LCSD	Acceptance Criteria (%)	
	µg/L	µg/L	% Rec.	% Rec.	% RPD	% Rec.	% Rec.	% RPD	Low	High
tert-Amyl methyl ether (TAME)	ND	10	101	101	0	89.8	91.5	1.86	70	130
Benzene	ND	10	128	129	0.515	119	119	0	70	130
t-Butyl alcohol (TBA)	ND	50	75.3	75.5	0.216	75.8	76.3	0.607	70	130
1,2-Dibromoethane (EDB)	ND	10	102	104	2.17	92	93.8	1.99	70	130
1,2-Dichloroethane (1,2-DCA)	ND	10	114	114	0	104	105	0.712	70	130
Diisopropyl ether (DIPE)	ND	10	108	107	0.731	100	99.6	0.600	70	130
Ethyl tert-butyl ether (ETBE)	ND	10	99	99	0	89.5	90.2	0.779	70	130
Methyl-t-butyl ether (MTBE)	ND	10	98.6	100	1.46	87.8	89	1.32	70	130
Toluene	ND	10	107	108	0.711	96	96.9	0.867	70	130
%SS1:	103	10	99.6	99.2	0.383	98.4	97.8	0.606	70	130
%SS2:	100	10	91.8	91.9	0.148	92.4	93.4	1.02	70	130
%SS3:	108	10	96.9	96	0.932	94.2	97.1	2.99	70	130

All target compounds in the Method Blank of this extraction batch were ND less than the method RL with the following exceptions:

NONE

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 and / or MSD spike recoveries may not be near 100% or the RPDs near 0% if: a) the sample is inhomogenous AND contains significant concentrations of analyte relative to the amount spiked, or b) if that specific sample matrix interferes with 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.

DHS Certification No. 1644

TL QA/QC Officer

P & D ENVIRONMENTAL
A Division of Paul H. King, Inc.
4020 Panama Court
Oakland, CA 94611
(510) 658-6916

PdeC

0402178

CHAIN OF CUSTODY RECORD

PAGE 1 OF 1

PROJECT NUMBER:	PROJECT NAME:
0014	Xtra Oil - Castro Valley

SAMPLED BY: (PRINTED AND SIGNATURE)
Wilhelm Welzenbach Wilhelm Welzenbach

SAMPLE NUMBER	DATE	TIME	TYPE	SAMPLE LOCATION	NUMBER OF CONTAINERS	ANALYSIS(ES): Fuel Fingerprint	TPH-mo Nitrates	TPH-G + BTEX + MTBE by 8020	BTEX + fuel oxygenates by 8260	PRESERVATIVE	REMARKS
+ OW1	2/1/04		water		6		X	X		ICE	Normal Turnaround
+ OW2	↓		↓		1		X	X		"	" "
MW4	↓		↓		3	X				"	" "

ICE/T ✓
GOOD CONDITION ✓
HEAD SPACE ABSENT
DECHLORINATED IN LAB
PRESERVATION

	VOAs	O&G	METALS	OTHER
APPROPRIATE CONTAINERS	✓			
PRESERVED IN LAB	✓			

RELINQUISHED BY: (SIGNATURE)	DATE	TIME	RECEIVED BY: (SIGNATURE)
Wilhelm Welzenbach	2/12	2:00	
RELINQUISHED BY: (SIGNATURE)	DATE	TIME	RECEIVED BY: (SIGNATURE)
	2/12	4:45	2/12
RELINQUISHED BY: (SIGNATURE)	DATE	TIME	RECEIVED FOR LABORATORY BY: (SIGNATURE)

TOTAL NO. OF SAMPLES (THIS SHIPMENT)	3
TOTAL NO. OF CONTAINERS (THIS SHIPMENT)	10
LABORATORY:	McCampbell Analytical
LABORATORY CONTACT:	Angela Rydelius
LABORATORY PHONE NUMBER:	(925) 798-1620
SAMPLE ANALYSIS REQUEST SHEET ATTACHED:	( )YES (X)NO

REMARKS: Analyze OW2 by 8020 first, then follow with 8260, if possible.
VOAs preserved w HCl.

P & D ENVIRONMENTAL
A Division of Paul H. King, Inc.
4020 Panama Court
Oakland, CA 94611
(510) 658-6916

CHAIN OF CUSTODY RECORD

0404075

PAGE 1 OF 1

PROJECT NUMBER: 00 14

PROJECT NAME: Xtra Oil - Castro Valley

SAMPLED BY: (PRINTED AND SIGNATURE) Wilhelm Welzenbach

SAMPLE NUMBER	DATE	TIME	TYPE	SAMPLE LOCATION	NUMBER OF CONTAINERS	ANALYSIS(ES): TPH-Gas + Diesel	TPH-G + MTBE + BTEX by 8020	BTEX, Fuel Oxy's + Lead Scavengers by 8260	PRESERVATIVE	REMARKS
MW1	4/6/04		water		7	X	X		ICE	Normal Turnaround
MW3					7	X	X			
EW1					7	X	X			
OW1					4	X	X			
OW2					1	X				Voa(1) 1/3 Full *

RELINQUISHED BY: (SIGNATURE) Wilhelm Welzenbach	DATE 4/7	TIME 10:30	RECEIVED BY: (SIGNATURE) UPS EX #280	TOTAL NO. OF SAMPLES (THIS SHIPMENT) 5	LABORATORY: McCampbell Analytical
RELINQUISHED BY: (SIGNATURE) UPS EX #280	DATE 4/7	TIME 14:00	RECEIVED BY: (SIGNATURE)	TOTAL NO. OF CONTAINERS (THIS SHIPMENT) 26	LABORATORY CONTACT: Angela Rydelins
RELINQUISHED BY: (SIGNATURE)	DATE	TIME	RECEIVED FOR LABORATORY BY: (SIGNATURE)	SAMPLE ANALYSIS REQUEST SHEET ATTACHED: ( )YES (X)NO	LABORATORY PHONE NUMBER: (925)798-1620

ICE/t° ✓
GOOD CONDITION ✓
* HEAD SPACE ABSENT ___ APPROPRIATE CONTAINERS ✓
DECHLORINATED IN LAB ___ PRESERVED IN LAB ___
VOAS ___ OAG ___ METALS ___

REMARKS: VOAs preserved w HCl.

McCampbell Analytical, Inc.
110 Second Avenue South, #D7
Pacheco, CA 94553-5560
(925) 798-1620

CHAIN-OF-CUSTODY RECORD

WorkOrder: 0404075

Report to:
Paul King
P & D Environmental
4020 Panama Court
Oakland, CA 94611-4931

TEL: (510) 658-6916
FAX: 510-834-0152
ProjectNo: #0014; Xtra Oil-Castro Valley
PO:

Bill to:
Accounts Payable
P & D Environmental
4020 Panama Court
Oakland, CA 94611-4931

Requested TAT: **5 days**
Date Received: **4/7/04**
Date Printed: **4/7/04**

Sample ID	ClientSampID	Matrix	Collection Date	Hold	Requested Tests (See legend below)														
					1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
0404075-001	MW-1	Water	4/6/04	☐	A	B													
0404075-002	MW3	Water	4/6/04	☐	A	B													
0404075-003	EW1	Water	4/6/04	☐	A	B													
0404075-004	OW1	Water	4/6/04	☐	A	B													
0404075-005	OW2	Water	4/6/04	☐	A														

Test Legend:

1	G-MBTEX_W	2	MBTEXOXY-8260B_W	3		4		5	
6		7		8		9		10	
11		12		13		14		15	

Prepared by: Maria Venegas

Comments:

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