Groundwater Monitoring Report
Fall 2006 Semiannual Sampling Event
Municipal Service Center
7101 Edgewater Drive
Oakland, California

December 4, 2006
001-09225-22

Prepared for:
City of Oakland, Public Works Agency
Environmental Services Division
250 Frank H. Ogawa Plaza, Suite 5301
Oakland, California

LFR ENVIRONMENTAL MANAGEMENT & CONSULTING ENGINEERING

December 4, 2006 001-09225-22

Mr. Gopal Nair
City of Oakland, Public Works Department
Environmental Sciences Division
250 Frank H. Ogawa Plaza, Suite 5301
Oakland, California 94612

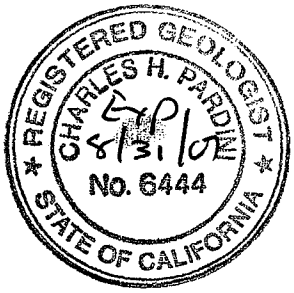
Subject: Groundwater Monitoring Report, Fall 2006 Semiannual Sampling Event, Municipal Service Center, 7101 Edgewater Drive, Oakland, California

Dear Mr. Nair:

LFR Inc. (LFR) is pleased to present this report summarizing data collected during the fall 2006 semiannual groundwater monitoring event at the Municipal Service Center, located at 7101 Edgewater Drive in Oakland, California ("the Site"). These activities were performed in a manner consistent with previous sampling events conducted at the Site.

If you have any questions regarding this report, please call me at (650) 469-7224 or Erica Kalve at (510) 596-9692.

Sincerely,



Charles H. Pardini, P.G. #6444
Principal Geologist

Attachment

510.652.4500 m
510.652.2246 f
1900 Powell Street, 12th Floor
Emeryville, California 94608-1814
Offices Nationwide
www.lfr.com

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1.0 INTRODUCTION

This report presents the results of the fall 2006 semiannual groundwater monitoring event conducted from September 6 through September 7, 2006 at the Municipal Service Center (MSC), located at 7101 Edgewater Drive in Oakland, California ("the Site"; Figure 1). LFR Inc. (LFR) conducted monitoring activities at the Site in accordance with consultant Assignment No. GO5-LFR-20.

Described below are the monitoring activities, analytical results, distribution of contaminants in groundwater, conclusions, recommendations, and anticipated semiannual monitoring activities tentatively scheduled for March/April 2007.

2.0 SITE BACKGROUND AND CORRECTIVE ACTION MEASURES

Eighteen 4-inch-diameter and four 2-inch-diameter test/observation wells were installed on site to depths ranging from 13 feet below ground surface (bgs) to 17 feet bgs, in December 2001 and January 2002 by others, according to Uribe & Associates' "Test/Observation Well Installation Report U & A Project 291-03," prepared in April 2002 (Uribe 2002). Seven of the wells (RW-Al, RW-A2, OB-A1, RW-B1, RW-B2, RW-B3, and RW-B4) were installed in the vicinity of Plumes A and B. Fifteen wells (RW-C1, RW-C2, RW-C3, RW-C4, RW-C5, RW-C6, RW-C7, OB-C1, RW-D1, RW-D2, RW-D3, RW-D4, RW-D5, OB-D1, and OB-D2) were installed in the vicinity of plumes C and D. Every well, except OB-A1, was surveyed subsequent to the installation event. The plume locations are shown on Figures 2 and 3. The well locations are shown on Figure 3.

According to the "Second Quarter 2003 Monitoring Report" (Uribe 2003), approximately 10,000 gallons of a groundwater/free product mixture were removed from on-site wells RW-B3 and RW-B4 (Plume B) in September and October 2002, using a trailer-mounted, dual-phase extraction unit with a 10-horsepower vacuum pump. Additionally, approximately 10,000 gallons of liquid were removed from wells RW-C3, RW-C4, RW-C5, and RW-C7 (Plume C) through five daily extractions over a two-month period. The liquid was pumped into a 21,000-gallon aboveground storage tank to allow separation of oil from water and drained through three 2,000-pound granular-activated carbon filters (in series). After filtration, the wastewater was discharged into a local storm drain. A National Pollutant Discharge Elimination System permit was issued prior to discharge.

Within the same time period, hydrogen peroxide, followed by water, was injected periodically into wells located in Plumes A, B, C, and D areas, to promote in situ bioremediation.

In addition, construction of an extraction system to remove separate-phase hydrocarbons (SPH) within the vicinity of Plume D began in January 2006. Seven

existing groundwater monitoring wells (RW-D1, RW-D2, RW-D3, RW-D4, RW-D5, TBW-5, and RW-1) were converted to extraction wells by URS. The extraction system was completed in April 2006, and the system began operation in mid-May 2006.

3.0 FALL 2006 SEMIANNUAL MONITORING ACTIVITIES

3.1 Field Activities

The field activities, which included depth to water/product measurement and well sampling, were conducted in accordance with the City of Oakland MSC Schedule and Protocol Table presented in Appendix A.

On September 6, 2006, LFR personnel measured depth to water and depth to SPH using an electric oil/water interface probe in the following wells: MW-1, MW-2, MW-5 through MW-17, TBW-1, TBW-3, TBW-4, TBW-6, RW-A1, RW-A2, OB-A1, RW-B1 through RW-B4, RW-C1 through RW-C7, OB-D1, and OB-D2. Monitoring wells MW-3 and MW-4 have been abandoned and sealed (Ninyo & Moore 2004) and are no longer included in the sampling plan. Wells TBW-2, OB-C1, RW-1, and RW-C8 were inaccessible and could not be measured. Wells RW-D1, RW-D2, RW-D3, RW-D4, RW-D5, TBW-5, and RW-1 were converted to extraction wells and could not be accessed for depth-to-water and depth-to-SPH measurements. The oil/water interface probe was decontaminated with hexanol when product was encountered, and rinsed with liquinox and distilled water before use in each well to avoid potential cross contamination. Current and historical product thickness measurements, depth-to-groundwater measurements, and groundwater elevations calculated from groundwater measurements are presented in Table 1. Monitoring well locations are shown on Figures 2 and 3.

On September 6 and 7, 2006, LFR personnel collected groundwater samples from wells MW-1, MW-5, MW-6, MW-8, MW-9, MW-10, MW-12, MW-13, MW-14, MW-15, and MW-17. Well MW-6 was sampled although approximately 0.01 foot of SPH was observed during depth-to-water and depth-to-SPH measurements. Using a clean, disposable polyethylene bailer for each well, a minimum of three well-casing volumes of water was purged from each of the 11 on-site wells before groundwater samples were collected. The wells were allowed to recover to at least 80 percent of their original static groundwater levels before sampling. Oxidation reduction potential, temperature, pH, and conductivity were measured for each well volume purged. Additionally, characteristics of the water (color, turbidity, odor, sheen) were noted on the field data sheets, which are included in Appendix B.

After purging the wells, samples were collected using the disposable, polyvinyl chloride, bottom-discharging bailer that was used to purge the well. The samples were transferred from the bailer to the appropriate sample containers, labeled, and placed in a “wet chilled” cooler containing ice, under chain-of-custody protocol. The samples

were secured in the cooler and transferred to Curtis & Tompkins, Ltd., Analytical Laboratories (C&T), a California Department of Health Services–certified environmental laboratory located in Berkeley, California. Purged and decontamination water generated during sampling activities was transferred into an on-site holding tank that was part of the on-site extraction and treatment system maintained by the City of Oakland.

3.2 Sample Analyses

The groundwater samples were analyzed by C&T for the following parameters:

- total petroleum hydrocarbons (TPH) as gasoline (TPH-g) using U.S. Environmental Protection Agency (U.S. EPA) Method 8260B; TPH as kerosene (TPH-k), diesel (TPH-d), and motor oil (TPH-mo) using U.S. EPA Method 8015B, using a silica gel cleanup
- the aromatic hydrocarbons benzene, toluene, ethylbenzene, and total xylenes (collectively known as BTEX) and methyl tertiary-butyl ether (MTBE) using U.S. EPA Method 8260B

4.0 MONITORING RESULTS

4.1 Shallow Groundwater Topography

Depth to groundwater was measured on September 6, 2006, using a Solinst oil/water interface meter (Table 1). Prior to groundwater measurement, the well caps were removed from all wells to allow the water column within each well to come into equilibrium with atmospheric pressure. Groundwater levels were allowed to equilibrate prior to groundwater measurement. Groundwater elevations were determined using well survey data from the "Second Quarter 2003 Monitoring Report" (Uribe 2003).

Groundwater elevations ranged from 6.57 feet mean sea level (msl) at RW-A1 to 0.01 foot msl at MW-17 (Figure 2). Wells MW-16 and MW-17 are located adjacent to San Leandro Bay in the southwestern portion of the Site, with MW-17 located farther downgradient. Groundwater flow direction, measured between wells TBW-6 and MW-12, is toward the west at 0.027 foot/foot (ft/ft) in the northern section of the Site, and toward the southwest (measured between wells MW-6 and MW-17) at 0.028 ft/ft in the southern portion of the Site. A groundwater high is observed in the vicinity of well TBW-3. This observed groundwater high may be due to the presence of coarse-grained backfill in the area. The variation in the groundwater gradient may be due to differences in lithologic characteristics in the subsurface, preferential pathways (possibly due to backfilled utility trenches and underground storage tank pits). The groundwater flow direction for this sampling period was similar to that reported by

Ninyo & Moore in its July 14, 2004 Spring Semiannual Monitoring Report for the Site, and in more recent LFR monitoring reports.

4.2 Occurrence of Separate-Phase Hydrocarbons

SPH was observed and thickness measured in the following on-site wells: TBW-1 (0.10 foot), RW-C2 (0.12 foot), and RW-C6 (0.18 foot). SPH was also measured in a thickness up to 0.01 foot at wells MW-6, TBW-4, RW-A2, RW-B1, RW-C3, and OB-D1. Sheen was observed at wells TBW-3, TBW-6, RW-C1, RW-C4, RW-C5, RW-C7, and OB-D2. These results are similar to previous results. SPH was previously observed and measured in wells TBW-5, RW-D1, RW-D2, RW-D3, RW-D4, and RW-D5 (Plume D) during the September 2005 monitoring event. However, SPH could not be assessed and measured in these wells during the current monitoring event because the wells had been converted to extraction wells and the access hole in each well was too small to accommodate the oil/water interface probe. The results of the SPH assessment are presented in Table 1. Plumes A and B show a significant decrease in the lateral extent of SPH, and Plume C shows a significant decrease in SPH thickness compared to previous monitoring events. The lateral extent of plume D could not be assessed, as noted above. The extent of SPH is presented on Figure 2. Figure 3 presents a detailed plume map of SPH.

4.3 Contaminant Distribution in Groundwater

The analytical data from this groundwater monitoring event are presented in Table 1 along with historical analytical results. Laboratory analytical data reports are included in Appendix C. Historical data for volatile organic compounds, semivolatile organic compounds, Leaking Underground Fuel Tank metals, and other metals are provided in Appendix D (in Tables D-1 through D-4, respectively).

For quality assurance/quality control (QA/QC), LFR collected a duplicate sample from well MW-6 and analyzed it for TPH-g, TPH-k, TPH-d, TPH-mo, BTEX, and MTBE. Analytical results for this duplicate sample were very similar for TPH-g, TPH-mo, BTEX, and MTBE to the analytical results for the sample from MW-6 (Table 1). However, analytical results for this duplicate sample were different than those in the primary sample for TPH-k and TPH-d, with a relative percent difference of 172 percent and 168 percent, respectively. The difference in concentrations for these two analytes between the primary and duplicate samples may be due to the presence of 0.01 foot of product measured during field activities and the heterogeneous distribution of product in the well caused by bailing. Such heterogeneity may have caused the primary sample to contain only dissolved concentrations of TPH while the duplicate sample contained an aliquot of SPH.

4.3.1 Benzene

Benzene concentrations detected above laboratory analytical detection limits (LADL) were reported in groundwater samples collected from four of the 11 monitoring wells sampled. The maximum benzene concentrations reported from groundwater samples collected during this monitoring event were 330 micrograms per liter (μg/l) in well MW-6 and 350 μg/l in the duplicate sample collected from MW-6. Historically, concentrations of benzene in well MW-6 have been as high as 430 μg/l.

In its July 2004 monitoring report (Ninyo & Moore 2004), Ninyo & Moore cited the following regulatory standards for benzene: acceptable risk threshold for the San Francisco Airport Ecological Protection Zone (SFAEPZ) Tier I Standard was 71 μg/l; the City of Oakland Tier I Carcinogenic Risk-Based Standard Level (RBSL) was also 71 μg/l. However, LFR has not included City of Oakland RBSLs in this report because they were promulgated in 1999 and are considered out of date. The San Francisco Bay Regional Water Quality Control Board (RWQCB) Environmental Screening Level (ESL) for Surface Water Bodies in a Marine Environment for benzene is 71 μg/l (RWQCB 2005, Table F). Benzene concentrations at the Site for this sampling event are above these levels at monitoring well MW-6.

Benzene was also reported in groundwater samples collected from wells MW-1 (4.2 μg/l), MW-5 (8.3 μg/l), and MW-9 (58 μg/l). These concentrations are generally consistent with historical concentrations for these wells and are below the above-referenced standards.

4.3.2 Toluene

Toluene was reported at very low concentrations in four of the 11 wells sampled: wells MW-1 (1.0 μg/l), MW-5 (1.1 μg/l), MW-6 (3.9/3.6 μg/l), and MW-9 (5.3 μg/l). Concentrations are well below regulatory action levels for toluene of 40 μg/l (RWQCB ESLs).

4.3.3 Ethylbenzene

Ethylbenzene was reported in a groundwater sample collected from one of the 11 wells sampled. Ethylbenzene was detected at a concentration of 8.2 μg/l in the sample collected from well MW-5. This concentration is below historical concentrations of ethylbenzene in this well. The concentration is below both the SFAEPZ Tier I Standard (29,000 μg/l) and the RWQCB ESL for Surface Water Bodies in a Marine Environment of 30 μg/l (RWQCB 2005).

4.3.4 Total Xylenes

Total xylenes were reported in groundwater samples collected from five of the 11 monitoring wells sampled. The maximum concentration of total xylenes was 6.8 μg/l

in a groundwater sample collected from well MW-5. Concentrations are below regulatory action levels for the RWQCB ESLs for Surface Water Bodies in a Marine Environment for total xylenes (100 µg/l).

Total xylenes were also reported in samples collected from wells MW-1 (1.9 µg/l), MW-6 (3.7/3.4 µg/l), MW-9 (5.68 µg/l), and MW-15 (2.06 µg/l). These concentrations are consistent with historical concentrations for these wells and are below RWQCB ESLs.

4.3.5 MTBE

MTBE concentrations above LADL were reported in groundwater samples collected from three of the 11 monitoring wells sampled. MTBE was detected in samples collected from wells MW-5 (50 µg/l), MW-6 (4.8/4.7 µg/l), and MW-14 (0.51 µg/l). The concentration in MW-5 is similar to historical concentrations previously detected in this well. All concentrations of MTBE detected in samples collected during this sampling event are below the RWQCB ESLs for Surface Water Bodies in a Marine Environment for MTBE (180 µg/l).

4.3.6 TPH-g

TPH-g was reported in groundwater samples collected from six of the 11 wells sampled. The maximum TPH-g concentration reported for this groundwater monitoring event was 2,000 µg/l in the groundwater sample collected from well MW-5. This concentration is consistent with historical concentrations for this well. It is less than the SFAEPZ Tier I Standard Acceptable Threshold of 3,700 µg/l for TPH-g (Ninyo & Moore 2004), and less than the RWQCB ESL for Surface Water Bodies in a Marine Environment for TPH-g, which is also 3,700 µg/l.

TPH-g was also detected in wells MW-1 (480 µg/l), MW-6 (1,300/1,200 µg/l), MW-9 (240 µg/l), MW-12 (120 µg/l), and MW-14 (60 µg/l). Concentrations of TPH-g are consistent with historical concentrations for these wells and are below the SFAEPZ Tier I Standard Acceptable Threshold for TPH-g and the RWQCB ESL for Surface Water Bodies in a Marine Environment for TPH-g.

4.3.7 TPH-d

TPH-d was reported in groundwater samples collected from nine of the 11 monitoring wells sampled. Analytical results presented in Table 1 indicated that all of the TPH-d concentrations contained a comment. Upon further review of the chromatograms by C&T, the analytical laboratory, it was noted that there was no diesel present in any of the samples collected. The samples either contained TPH-g range hydrocarbons (MW-1 and MW-6 [duplicate]) and/or TPH-mo (or heavier) range hydrocarbons (MW-1, MW-6 [duplicate], MW-10, MW-13, MW-14, and MW-15); and/or the sample

exhibited a chromatographic pattern that does not resemble the diesel standard (MW-5, MW-6, MW-9, MW-10, MW-12, MW-13, MW-14, and MW-15).

4.3.8 TPH-mo

TPH-mo was reported in groundwater samples collected from three of the 11 wells sampled. TPH-mo was detected at 730 µg/l in a sample from MW-13. This concentration is above both the SFAEPZ Tier I Standard Acceptable Threshold for TPH-mo of 640 µg/l (middle distillates; Uribe 2003) and the RWQCB ESL for Surface Water Bodies in a Marine Environment for residual fuels, which is also 640 µg/l (middle distillates). This concentration is consistent with historical concentrations of TPH-mo in this well. Also, TPH-mo was detected at 400 µg/l in the samples collected from wells MW-1 and MW-15.

4.3.9 TPH-k

TPH-k was reported in groundwater samples collected from seven of the 11 monitoring wells sampled. Analytical results presented in Table 1 indicated that all of the TPH-k concentrations contained a comment. Upon further review of the chromatograms by C&T, it was noted that there was no kerosene present in any of the samples collected. The samples either contained a heavier range hydrocarbon (MW-1, MW-6 [duplicate], MW-14, and MW-15), and/or the sample exhibited a chromatographic pattern that does not resemble the kerosene standard (MW-5, MW-6, MW-9, MW-12, MW-14, and MW-15).

4.4 Laboratory Analysis

Current laboratory analytical results and historical results are presented in Table 1. Copies of laboratory data sheets and chain-of-custody documents are included in Appendix C.

5.0 LABORATORY QUALITY ASSURANCE AND QUALITY CONTROL

A laboratory QA/QC review was performed on the laboratory analytical data to evaluate the quality and usability of the analytical results. The following sections summarize the QA/QC review.

5.1 Method Holding Times

Extraction and analyses performed on the collected samples were reviewed by LFR personnel and were found to be within the appropriate holding times.

5.2 Blanks

One field blank (MW-8-FB) was collected along with groundwater sample MW-8, and analyzed for TPH-g, TPH-k, TPH-d, TPH-mo, BTEX, and MTBE. Additionally, laboratory method blank results were reviewed for detection of target analytes. No target analytes were detected in MW-8-FB, indicating that sample collection methods and transportation and laboratory procedures were not a source of contamination.

5.3 Laboratory Control Samples

Laboratory Control Samples and MS, MSD and BS, BSD were conducted by C&T for TPH-g, TPH-d, TPH-k, TPH-mo, and BTEX. All samples were within the percentage recovery range required by the laboratory.

5.4 Surrogates

All surrogates, including hexacosane for TPH-d, TPH-k, and TPH-mo, and bromofluorobenzene, 1,2-dichloroethane-d4, toluene-d8, and bromofluorobenzene for TPHg, BTEX, and MTBE, were used for laboratory QA/QC analysis. All surrogates were within the laboratory recovery limits.

5.5 False-Positive Petroleum Hydrocarbon Identification

Qualifiers were reported in the laboratory analytical reports as noted in previous sections.

6.0 CONCLUSIONS AND RECOMMENDATIONS

- Groundwater elevations ranged from 0.01 foot msl at well MW-17 to 6.57 feet msl at well RW-A1, located on the southern portion of the Site. The direction of shallow groundwater flow is toward the southwest in the northern section of the Site at a 0.027 ft/ft gradient and toward the southwest at 0.028 ft/ft in the southern portion of the Site. A shallow groundwater high was observed in the vicinity of well TBW-3. This groundwater high is probably the result of higher subsurface permeability in areas of excavation backfill.
- SPH was observed in 16 wells, three of which had a measurable thickness of SPH (>0.01 foot): 0.18 foot in RW-C6, 0.12 foot in RW-C2, and 0.10 foot in TBW-1. Sheen was observed in seven wells (TBW-3, TBW-6, RW-C1, RW-C4, RW-C5, RW-C7, and OB-D2). Six wells exhibited SPH, more than just sheen but less than 0.01 foot (MW-6, TBW-4, RW-A2, RW-B1, RW-C3, and OB-D1).
- Benzene was detected above LADL in four of 11 wells sampled. The maximum concentration of benzene detected in shallow groundwater was 330 μg/l in well

MW-6 and 350 µg/l in the MW-6 duplicate. These concentrations are above both the SFAEPZ threshold and the RWQCB ESL for Surface Water Bodies in a Marine Environment of 71 µg/l. MW-6 is the only well with detected concentrations of benzene that exceed the RWQCB ESL.

- Toluene was detected above LADL in four of 11 wells sampled. The maximum concentration of toluene detected in shallow groundwater was 5.3 µg/l in well MW-9. This concentration is well below the RWQCB ESL for Surface Water Bodies in a Marine Environment of 40 µg/l.
- Ethylbenzene was detected above LADL in one of 11 wells sampled. The maximum concentration of ethylbenzene was detected in shallow groundwater at 82 µg/l in well MW-5. The concentration is below the SFAEPZ Tier I Standard (29,000 µg/l), but exceeds the RWQCB ESL for Surface Water Bodies in a Marine Environment of 30 µg/l (RWQCB 2005).
- Total xylenes were detected above LADL in five of 11 wells sampled. The maximum concentration of xylenes detected in shallow groundwater was 6.8 µg/l in well MW-5. Concentrations are well below regulatory action levels for the RWQCB ESL for Surface Water Bodies in a Marine Environment for total xylenes (100 µg/l).
- MTBE was detected above LADL in three of 11 wells sampled. The maximum concentration of MTBE detected in shallow groundwater was 50 µg/l in well MW-5. This concentration is below the RWQCB ESL for Surface Water Bodies in a Marine Environment for MTBE of 180 µg/l.
- TPH-g was detected in six of 11 wells sampled. The maximum concentration of TPH-g detected in shallow groundwater was 2,000 µg/l in well MW-5. This concentration is below both the SFAEPZ acceptable threshold and RWQCB ESL for middle petroleum distillates of 3,700 µg/l.
- TPH-k was not detected above laboratory analytical limits in any of the 11 wells sampled, as noted in Section 4.3.9.
- TPH-mo was detected in three of 11 wells sampled at a maximum concentration of 730 µg/l in well MW-13. This concentration is above both the SFAEPZ acceptable threshold and the RWQCB ESL for middle petroleum distillates of 640 µg/l. The other two samples were below these criteria.
- TPH-d was not detected above laboratory analytical detection limits in any of the 11 wells sampled as noted in Section 4.3.7.
- Petroleum hydrocarbon concentrations were similar to previous sampling event results in the 11 wells sampled.

Based on the results of the fall 2006 groundwater monitoring event, LFR has the following recommendations:

- Continue semiannual groundwater monitoring on site due to the elevated concentrations of benzene, ethylbenzene, and TPH-mo reported during this monitoring event.
- Continue monitoring SPH, which was detected in 16 monitoring wells at the Site, ranging from the presence of sheen to 0.18 foot.
- Continue in situ remediation using hydrogen peroxide, and continue groundwater extraction in the vicinity of Plume D.

7.0 LIMITATIONS

The environmental services described in this report have been conducted in general accordance with current regulatory guidelines and the standard-of-care exercised by environmental consultants performing similar work in the project area. No other warranty, expressed or implied, is made regarding the professional opinions presented in this report. Please note this study did not include an evaluation of geotechnical conditions or potential geologic hazards.

Our conclusions, recommendations, and opinions are based on an analysis of the observed site conditions and the referenced literature. It should be understood that the conditions of a site can change with time as a result of natural processes or the activities of man at the site or nearby sites. In addition, changes to the applicable laws, regulations, codes, and standards of practice may occur due to government action or the broadening of knowledge. The findings of this report may, therefore, be invalidated over time, in part or in whole, by changes over which LFR has no control.

This document is intended to be used only in its entirety. No portion of the document, by itself, is designed to completely represent any aspect of the project described herein. LFR should be contacted if the reader requires any additional information or has questions regarding the content, interpretations presented, or completeness of this document.

8.0 SELECTED REFERENCES

Ninyo & Moore. 2004. Groundwater Monitoring Report, Spring Semiannual, Municipal Service Center, 7101 Edgewater Drive, Oakland, California, Assignment No. G03-N&M-10. July 14.

Regional Water Quality Control Board (RWQCB). 2003. Screening for Environmental Concerned Sites with Contaminated Soil and Groundwater (Interim Final). July.

Uribe & Associates (Uribe). 2002. Test/Observation Well Installation Report U & A Project 291-03. April 2.

———. 2003. Final Report, Second Quarter 2003 Monitoring Report, City of Oakland Municipal Service Center. May.

Table 1
Summary of Groundwater Analytical Data, Petroleum Hydrocarbons
Municipal Service Center
7101 Edgewater Drive, Oakland, California
Concentrations expressed in micrograms per liter (µg/l)

Well ID/ Date	TOC Elevation (in feet)	Depth to Groundwater (in feet)	Groundwater Elevation (in feet)	BTEX Method	Notes	TPH-d (µg/l)	TPH-mo (µg/l)	TPH-k (µg/l)	TPH-g (µg/l)	Benzene (µg/l)	Toluene (µg/l)	Ethyl-benzene (µg/l)	Total Xylenes (µg/l)	MTBE (µg/l)
MW-1														
10/4/089	10.20	---	---	8020		---	---	---	540	65	26	14	22	---
10/4/89	10.20	---	---	8240		---	---	---	---	120	46	43	78	---
4/27/93	10.20	---	---	8020		---	---	---	<1,000	<1.0	<1.0	<1.0	<1.0	---
4/19/95	10.20	---	---	8020		---	---	---	3,200	880	15	23	21	---
7/27/95	10.20	4.62	5.58	8020		---	---	---	980	130	3.6	1.4	5.6	---
11/20/95	10.20	6.08	4.12	8020		---	---	---	400	99	2.8	1.1	4.6	---
2/21/96	10.20	4.62	5.58	8020		---	---	---	1,700	340	8.4	5.3	16	---
5/13/96	10.20	4.33	5.87	8020		---	---	---	7,300	2,000	30	42	38	---
8/27/96	10.20	5.25	4.95	8020		---	---	---	380	61	2.4	<0.5	4.2	---
2/23/98	10.20	1.75	8.45	8020		<50	<500	<50	820	160	4.9	3	9.7	---
8/19/98	10.20	4.78	5.42	8020	SGC	1,200	---	---	780	69	4.1	0.84	8.5	<5.0
11/11/98	10.20	5.64	4.56	---		---	---	---	---	---	---	---	---	---
2/23/99	10.20	3.41	6.79	8020	SGC	1,200	1,600	<50	1,100	190	5	3	12	<5.0
5/27/99	10.20	3.96	6.24	---		---	---	---	---	---	---	---	---	---
8/24/99	10.20	4.92	5.28	8020	SGC	640	1,900	<50	370	37	0.9	<0.5	1.9	<5.0
11/22/99	10.20	5.46	4.74	---		---								
1/18/00	10.05	5.41	4.64	---		---	---	---	---	---	---	---	---	---
1/19/00	10.05	---	---	8020	SGC	50	<200	<50	660	43	2.3	1.1	6	<5.0
5/11/00	10.05	4.63	5.42	---		---	---	---	---	---	---	---	---	---
8/24/00	10.05	5.07	4.98	---		---	---	---	---	---	---	---	---	---
8/25/00	10.05	---	---	8020	SGC	340	<250	290	480	53	1.4	<0.5	2.9	<5.0
11/28/00	10.05	5.60	4.45	---		---	---	---	---	---	---	---	---	---
2/27/01	10.05	3.95	6.10	8020	Filtered+SGC	270	<250	<61	1,500	110	6.3	<1.5	9.9	<15
5/17/01	10.05	4.00	6.05	---		---	---	---	---	---	---	---	---	---
8/16/01	10.05	4.17	5.88		Filtered+SGC	280	<B200	<100	4,000	640	9.7	5.7	13	<5.0
12/15/01	10.05	5.52	4.53	---		---	---	---	---	---	---	---	---	---
4/9/02	10.05	3.78	6.27	8021	SGC	1,100	1,000	---	2,000	320	5.38	3.08	6.24	<5
6/21/02	10.05	4.92	5.13	---		---	---	---	---	---	---	---	---	---
9/13/02	10.05	5.52	4.53	8021	SGC	88 b,c	<300	88	260	9.6	<0.5	<0.5	1.0	<2
4/22/03	10.05	4.41	5.64	8021B	SGC	570 L Y	<300	660	1,900 Z	400.0	9.6	5.4	8.1	<2.0
4/28/04	10.05	3.95	6.10	8260B	SGC	<100	<400	<100	154	20	<1.0	<1.0	2.3	<1.0
10/29/04	10.05	5.68	4.37	8260B	SGC	230 L Y	<300	240	340 H Z	6.4	0.6	<0.5	1.4	<0.5
9/2/05 [1]	10.05	4.35	5.70	8260B	SGC	140 L Y	<300	170	350	6.6	1.0	<0.5	2.3	<0.5
4/4/2006 [3]	10.05	2.24	7.81	8260B	SGC	830 L Y	<300	1,100 L Y	3,700	470	13	7.8	6.3	<3.6
9/6/06	10.05	4.98	5.07	8260B	SGC	3,400 H L	400 L	3,100 H	480	4.2	1.0	<0.5	1.9	<0.5
MW-2														
10/4/89	10.47	---	---	8020		---	---	---	<30	<0.3	<0.3	<0.3	<0.3	---
10/4/89	10.47	---	---	8240		---	---	---	---	2	<2.0	<2.0	<2.0	---

Table 1
Summary of Groundwater Analytical Data, Petroleum Hydrocarbons
Municipal Service Center
7101 Edgewater Drive, Oakland, California
Concentrations expressed in micrograms per liter (µg/l)

Well ID/ Date	TOC Elevation (in feet)	Depth to Groundwater (in feet)	Groundwater Elevation (in feet)	BTEX Method	Notes	TPH-d (µg/l)	TPH-mo (µg/l)	TPH-k (µg/l)	TPH-g (µg/l)	Benzene (µg/l)	Toluene (µg/l)	Ethyl-benzene (µg/l)	Total Xylenes (µg/l)	MTBE (µg/l)
4/27/93	10.47	---	---	8020		---	---	---	<1,000	<1.0	<1.0	<1.0	<1.0	---
4/19/95	10.47	---	---	8020		---	---	---	<50	1.8	<0.5	<0.5	<0.5	---
7/27/95	10.47	6.22	4.25	8020		---	---	---	<50	2.3	<0.5	<0.5	<0.5	---
11/20/95	10.47	7.49	2.98	8020		---	---	---	<50	2.2	<0.5	<0.5	<0.5	---
2/12/96	10.47	6.68	3.79	8020		---	---	---	<50	1.7	<0.5	<0.5	0.5	---
5/13/96	10.47	6.32	4.15	8020		---	---	---	---	2	<0.5	<0.5	<0.5	---
8/27/96	10.47	6.84	3.63	8020		---	---	---	---	2.4	<0.5	<0.5	<0.5	---
2/24/98	10.47	5.44	5.03	8020		<50	<500	<50	---	1.6	<0.5	<0.5	<0.5	---
8/19/98	10.47	6.56	3.91	8020	SGC	330	---	---	<50	4.1	3.4	0.8	2.6	<5.0
11/11/98	10.47	7.37	3.10	---		---	---	---	---	---	---	---	---	---
2/23/99	10.47	8.68	1.79	8020	SGC	200	900	<50	<50	3.5	0.6	0.6	1.2	<5.0
5/27/99	10.47	5.20	5.27	---		---	---	---	---	---	---	---	---	---
8/24/99	10.47	6.75	3.72	8020	SGC	140	700	<50	<50	2.6	<0.5	<0.5	<0.5	<5.0
11/22/99	10.47	7.58	2.89	---		---	---	---	---	---	---	---	---	---
1/18/00	10.47	7.41	3.06	8020	SGC	60 a	660	<50	<50	2.1	<0.5	<0.5	<0.5	<5.0
5/11/00	10.47	6.43	4.04	---		---	---	---	---	---	---	---	---	---
8/24/00	10.47	8.91	1.56	8020	SGC	170	440	130	<50	2.4	<0.5	<0.5	<0.5	<5.0
11/28/00	10.47	7.35	3.12	---		---	---	---	---	---	---	---	---	---
2/27/01	10.47	6.70	3.77	8020	Filtered+SGC	<59	<240	<59	<50	3.6	<0.5	<0.5	<0.5	<5
5/17/01	10.47	6.90	3.57	---		---	---	---	---	---	---	---	---	---
8/16/01	10.47	6.95	3.52		Filtered+SGC	<50	B200	<100	<50	<0.5	<0.5	<0.5	<0.5	<5.0
12/15/01	10.47	7.21	3.26	---		---	---	---	---	---	---	---	---	---
4/5/02	10.47	6.02	4.45	8021	SGC	200	400	---	<50	2.9	<0.5	<0.5	<0.5	<5
6/21/02	10.47	8.07	2.40	---		---	---	---	---	---	---	---	---	---
9/17/02	10.47	7.12	3.35	8021	SGC	<50	<300	<50	<50	2.1	<0.5	<0.5	<0.5	<2
4/23/03	10.47	6.36	4.11	8021B	SGC	<50	<300	<50	<50	1.6	<.50	<.50	<.50	<2.0
4/28/04	10.47	5.99	4.48	8260B	SGC	<100	<400	<100	<100	<0.5	<1.0	<1.0	1.3	<1.0
9/1/05 [1]	10.47	6.08	4.39	8260B	SGC	<50	<300	<50	<50	2.8	<0.5	<0.5	<0.5	0.8
4/4/2006 [3]	10.47	4.96	5.51	8260B	SGC	<50	<300	<50	<50	2.1	<0.5	<0.5	0.5	0.5
9/6/06	10.47	9.31	1.16	---	---	---	---	---	---	---	---	---	---	---
MW-3														
10/4/89	---	---	---	8020		---	---	---	<30	<0.3	<0.3	<0.3	<0.3	---
10/4/89	---	---	---	8240		---	---	---	---	<2.0	<2.0	<2.0	<2.0	---
2/23/98	---	---	---	---		<50	<500	<50	---	---	---	---	---	---
11/11/98	---	5.83	---	---		---	---	---	---	---	---	---	---	---
2/23/99	---	---	---	---	Submerged	---	---	---	---	---	---	---	---	---
5/27/99	---	1.68	---	---		---	---	---	---	---	---	---	---	---
8/24/99	---	4.76	---	---		---	---	---	---	---	---	---	---	---
11/22/99	---	6.46	---	---		---	---	---	---	---	---	---	---	---

Table 1
Summary of Groundwater Analytical Data, Petroleum Hydrocarbons
Municipal Service Center
7101 Edgewater Drive, Oakland, California
Concentrations expressed in micrograms per liter (µg/l)

Well ID/ Date	TOC Elevation (in feet)	Depth to Groundwater (in feet)	Groundwater Elevation (in feet)	BTEX Method	Notes	TPH-d (µg/l)	TPH-mo (µg/l)	TPH-k (µg/l)	TPH-g (µg/l)	Benzene (µg/l)	Toluene (µg/l)	Ethyl-benzene (µg/l)	Total Xylenes (µg/l)	MTBE (µg/l)
11/22/99	---	---	---	---	Destroyed	---	---	---	---	---	---	---	---	---
MW-4														
10/4/89	7.89	---	---	8020		---	---	---	<30	<0.3	<0.3	<0.3	<0.3	---
10/4/89	7.89	---	---	8240		---	---	---	---	<2.0	<2.0	<2.0	<2.0	---
11/11/98	7.89	6.25	1.64	---		---	---	---	---	---	---	---	---	---
2/23/99	7.89	3.10	4.79	---		---	---	---	---	---	---	---	---	---
5/27/99	7.89	4.03	3.86	---		---	---	---	---	---	---	---	---	---
8/24/99	7.89	5.07	2.82	---		---	---	---	---	---	---	---	---	---
11/22/99	7.89	6.32	1.57	---		---	---	---	---	---	---	---	---	---
11/22/99	---	---	---	---	Destroyed	---	---	---	---	---	---	---	---	---
MW-5														
12/13/91	11.15	---	---	8020		1,900	---	---	13,000	1,500	190	970	2,500	---
12/13/91	11.15	---	---	8020	Dup	---	---	---	16,000	1,400	180	870	2,500	---
12/13/91	11.15	---	---	8240		---	---	---	---	1,800	<250	1,000	3,800	---
12/13/91	11.15	---	---	8240	Dup	---	---	---	---	1,600	<250	980	3,500	---
4/27/93	11.15	---	---	8240		12,000	---	---	35,000	2,100	<1.0	1,800	2,700	---
4/19/95	11.15	---	---	8240		880	4,700	---	14,000	490	51	610	1,200	---
7/27/95	11.15	6.29	4.86	8240		590	5,000	---	22,000	1,300	54	1,500	2,400	---
11/20/95	11.15	6.98	4.17	8020		<50	<50	<50	8,900	430	31	610	880	---
2/21/96	11.15	5.97	5.18	8020		480	<50	<50	1,000	540	65	700	970	---
5/13/96	11.15	6.25	4.90	8020		<50	<50	<50	5,900	430	26	580	760	---
5/13/96	11.15	---	---	8020	Dup	<50	<50	<50	7,300	360	22	49	640	---
8/27/96	11.15	6.40	4.75	8020		2,000	<51	<51	6,600	430	27	600	650	---
8/27/96	11.15	---	---	8020	Dup	6,600	<51	<51	6,300	410	25	580	620	---
2/23/98	11.15	4.22	6.93	8020		<50	<500	<50	740	19	1.4	41	34	---
8/19/98	11.15	6.14	5.01	8020		1,400	<250	1700	5,800	500	25	730	300	5,900
8/19/98	11.15	6.14	5.01	8260	SGC	---	---	---	---	---	---	---	---	6,700
11/11/98	11.15	6.51	4.64	---		---	---	---	---	---	---	---	---	---
2/23/99	11.15	3.59	7.56	8020	SGC	2,000	700	<50	6,700	300	26	800	690	1,600
5/27/99	11.15	5.71	5.44	---		---	---	---	---	---	---	---	---	---
8/24/99	11.15	6.02	5.13	8020	SGC	220	2,000	<50	2,100 e	190 e	5.5	340 e	78	380 e
11/22/99	11.15	6.16	4.99	---		---	---	---	---	---	---	---	---	---
1/18/00	11.15	6.60	4.55	---		---	---	---	---	---	---	---	---	---
1/19/00	11.15	---	---	8020	SGC	100	320	<50	3,000	66 e	6.3	400 e	90	300 E (1,300)
5/11/00	11.15	5.62	5.53	---		---	---	---	---	---	---	---	---	---
8/24/00	11.15	6.32	4.83	8020	SGC	4,800	560	6,600	12,000	220	21	430	91	1,200 (1,400)
11/28/00	11.15	6.47	4.68	---		---	---	---	---	---	---	---	---	---
2/27/01	11.15	4.40	6.75	8020	Filtered+SGC	230	<250	<61	6,300	150	7	350	55	830
5/17/01	11.15	5.77	5.38	8020	Filtered+SGC	190	<200	<50	7,500	140	7	580	101	170

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Concentrations expressed in micrograms per liter (µg/l)

Well ID/ Date	TOC Elevation (in feet)	Depth to Groundwater (in feet)	Groundwater Elevation (in feet)	BTEX Method	Notes	TPH-d (µg/l)	TPH-mo (µg/l)	TPH-k (µg/l)	TPH-g (µg/l)	Benzene (µg/l)	Toluene (µg/l)	Ethyl-benzene (µg/l)	Total Xylenes (µg/l)	MTBE (µg/l)
8/16/01	11.15	4.87	6.28		Filtered+SGC	320	B500	<100	2,300	46	<5	110	24	850
12/15/01	11.15	5.50	5.65	---		---	---	---	---	---	---	---	---	---
4/9/02	11.15	5.15	6.00	8021	SGC	480	260	---	8,000	110	5.95	650	53.9	166
6/21/02	11.15	6.01	5.14	8021	SGC	200 a,b,c	<300	190	4,600	130	33	380	56	440
9/12/02	11.15	6.40	4.75	8021	SGC	620 b,c	<300	650	4,000 J	120	<0.5	260	16	580
4/22/03	11.15	4.69	6.46	8021B	SGC	1600 L Y	<300	1800	6000	91	<1.0	870	59.4	150 C
4/28/04	11.15	5.70	5.45	8260B	SGC	<650	<400	<810	4780	34	<1.0	560	44	47
10/29/04	11.15	5.73	5.42	8260B	SGC	840 L Y	<300	940	3000	18	2.1	280	16.1	94
9/2/05 [1]	11.15	6.08	5.07	8260B	SGC	510 L Y	<300	640	1600	13	1.4	55	8.6	92
4/5/2006 [3]	11.15	3.64	7.51	8260B	SGC	840 L Y	<300	850 H	3,400	14	2.1	280	13	31
9/6/06	11.15	6.21	4.94	8260B	SGC	340 Y	<300	400 Y	2,000	8.3	1.1	8.2	6.8	50
MW-6														
12/13/91	10.98	---	---	8020		520	---	---	780	110	2.7	<2.5	5.5	---
12/13/91	10.98	---	---	8240		---	---	---	---	95	5	<5	<5	---
4/27/93	10.98	---	---	8020		<1,000	---	---	<1,000	430	4	5	10	---
4/19/95	10.98	---	---	8020		6,700	---	---	5,700	40	<0.8	3.9	29	---
4/19/95	10.98	---	---	8020	Dup	3,700	---	---	3,000	310	3.1	2.7	100	---
7/27/95	10.98	7.09	3.89	8020		3,900	---	---	6,100	430	15	200	600	---
7/27/95	10.98	---	---	8020	Dup	2,600	---	---	6,300	420	15	200	600	---
11/20/95	10.98	7.89	3.09	8020		850	---	---	6,800	160	4.6	8	240	---
11/20/95	10.98	---	---	8020	Dup	---	---	---	3,600	130	11	4.4	200	---
2/21/96	10.98	7.40	3.58	8020	Filtered+SGC	1,700	---	---	2,800	230	2.8	3.8	44	---
2/21/96	10.98	---	---	8020	Dup	2,500	---	---	2,200	280	3	4	4.6	---
5/13/96	10.98	7.10	3.88	8020		400	<50	<50	3,100	430	12	5.2	67	---
8/27/96	10.98	7.42	3.56	8020		3,100	---	---	4,200	300	9.3	110	110	---
8/19/98	10.98	---	---	---	SPH: 0.125 ft.	---	---	---	---	---	---	---	---	---
11/11/98	10.98	7.09	3.93	---	SPH: 0.05 ft.	---	---	---	---	---	---	---	---	---
2/23/99	10.98	7.31	3.67	---	SPH: NM	---	---	---	---	---	---	---	---	---
5/27/99	10.98	6.91	4.25	---	SPH: 0.20 ft.	---	---	---	---	---	---	---	---	---
8/24/99	10.98	7.46	3.72	---	SPH: 0.03 ft.	---	---	---	---	---	---	---	---	---
11/22/99	10.98	7.96	3.15	---	SPH: 0.16 ft.	---	---	---	---	---	---	---	---	---
1/18/00	10.98	8.08	3.05	---	SPH: 0.19 ft.	---	---	---	---	---	---	---	---	---
5/11/00	10.98	7.52	4.47	---	SPH: 0.01 ft.	---	---	---	---	---	---	---	---	---
8/24/00	10.98	7.50	3.53	---	SPH: 0.06 ft.	---	---	---	---	---	---	---	---	---
11/28/00	10.98	6.39	4.62	---	SPH: 0.04 ft.	---	---	---	---	---	---	---	---	---
2/26/01	10.98	7.80	3.50	8020	SPH: 0.40 ft., f	820	<240	<60	6,100	181	<5	14.2	<5	<50
2/26/01	10.98	---	---	8260B		---	---	---	---	270	3	9	3	(19)
5/17/01	10.98	7.57	3.66	---	SPH: 0.32 ft.	---	---	---	---	---	---	---	---	---
8/16/01	10.98	7.75	3.49		SPH: 0.32 ft., f	740	B200	<100	4,200	360	4.6	13	12	14

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Municipal Service Center
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Concentrations expressed in micrograms per liter (µg/l)

Well ID/ Date	TOC Elevation (in feet)	Depth to Groundwater (in feet)	Groundwater Elevation (in feet)	BTEX Method	Notes	TPH-d (µg/l)	TPH-mo (µg/l)	TPH-k (µg/l)	TPH-g (µg/l)	Benzene (µg/l)	Toluene (µg/l)	Ethyl-benzene (µg/l)	Total Xylenes (µg/l)	MTBE (µg/l)
12/15/01	10.98	7.58	3.40	---	SPH: 0.07 ft.	---	---	---	---	---	---	---	---	---
4/3/02	10.98	6.92	4.06	---	SPH: 0.11 ft.	---	---	---	---	---	---	---	---	---
6/21/02	10.98	7.05	3.93	---	SPH: 0.19 ft.	---	---	---	---	---	---	---	---	---
9/12/02	10.98	7.22	4.02	---	SPH: 0.33 ft.	---	---	---	---	---	---	---	---	---
4/22/03	10.98	4.71	6.27	---	SPH: 0.16 ft.	---	---	---	---	---	---	---	---	---
4/28/04	10.98	5.09	5.89		SPH: 0.23 ft.	---	---	---	---	---	---	---	---	---
10/27/04	10.98	6.12	4.86	--	SPH: product on probe	---	---	---	---	---	---	---	---	---
8/31/05	10.98	6.11	4.87	--	SPH: 0.95 ft.	---	---	---	---	---	---	---	---	---
3/27/06	10.98	4.11	---	--	SPH: 0.57 ft.	---	---	---	---	---	---	---	---	---
9/6/06	10.98	5.42	5.56	8260B	SPH: 0.01 ft.	180 Y	<300	200 Y	1,300	330	3.9	<1.7	3.7	4.8
9/6/06	10.98	---	---	8260B	Dup	2,400 H L	<300	2,300 H	1,200	350	3.6	<1.3	3.4	4.7
MW-7														
12/13/91	11.51	---	---	8020		<50	---	---	<50	<0.5	<0.5	<0.5	<0.5	---
12/13/91	11.51	---	---	8240		---	---	---	---	<5	<5	<5	<5	---
4/27/93	11.51	---	---	8240		<1,000	---	---	<1,000	<1.0	<1.0	<1.0	<1.0	---
4/19/95	11.51	---	---	8240		<50	<1,000	---	<50	<2.0	<2.0	<2.0	<2.0	---
7/27/95	11.51	6.87	4.64	8240		<50	<1,000	---	<50	<2.0	<2.0	<2.0	<2.0	---
11/20/95	11.51	8.48	3.03	8020		<50	---	---	<50	<0.5	<0.5	<0.5	1.5	---
2/21/96	11.51	6.29	5.22	8020		<50	---	---	<50	<0.5	<0.5	<0.5	<0.5	---
5/13/96	11.51	6.95	4.56	8020		<50	---	---	---	<0.5	<0.5	<0.5	<0.5	---
8/27/96	11.51	6.80	4.71	8020		---	---	---	---	<0.5	<0.5	<0.5	<0.5	---
8/19/98	11.51	6.88	4.63	---		---	---	---	---	---	---	---	---	---
11/11/98	11.51	7.40	4.11	---		---	---	---	---	---	---	---	---	---
2/23/99	11.51	5.57	5.94	8020		<50	<200	<50	80	<0.5	<0.5	<0.5	1	<5.0
5/27/99	11.51	6.56	4.95	---		---	---	---	---	---	---	---	---	---
8/24/99	11.51	6.29	5.22	8020	SGC	<50	<200	<50	<50	<0.5	<0.5	<0.5	<0.5	5
11/22/99	11.51	6.80	4.71	---		---	---	---	---	---	---	---	---	---
1/18/00	11.51	7.31	4.20	---		---	---	---	---	---	---	---	---	---
1/19/00	11.51	---	---	8020	SGC	<50	<200	<50	54	1.5	1.5	2.4	3.8	<5.0
5/11/00	11.51	6.41	5.10	---		---	---	---	---	---	---	---	---	---
8/24/00	11.51	7.11	4.40	8020		<50	<250	<50	<50	<0.5	<0.5	<0.5	<0.5	<5.0
11/28/00	11.51	7.30	4.21	---		---	---	---	---	---	---	---	---	---
2/27/01	11.51	5.75	5.76	8020	Filtered+SGC	<50	<200	<50	<50	<0.5	<0.5	<0.5	<0.5	<5
5/17/01	11.51	6.65	4.86	---		---	---	---	---	---	---	---	---	---
8/16/01	11.51	5.97	5.54		Filtered+SGC	<50	B600	<100	<50	<0.5	<0.5	<0.5	<0.5	<5
12/15/01	11.51	6.43	5.08	---		---	---	---	---	---	---	---	---	---
4/8/02	11.51	6.17	5.34	8021	SGC	80	<200	---	<50	<0.5	0.5	0.6	<0.5	<5
6/21/02	11.51	6.75	4.76	8021	SGC	<50	<300	<50	<50	<0.5	<0.5	<0.5	<0.5	3.3
9/12/02	11.51	7.05	4.46	8021	SGC	<50	<300	<50	<50	<0.5	<0.5	<0.5	<0.5	2.6

Table 1
Summary of Groundwater Analytical Data, Petroleum Hydrocarbons
Municipal Service Center
7101 Edgewater Drive, Oakland, California
Concentrations expressed in micrograms per liter (µg/l)

Well ID/ Date	TOC Elevation (in feet)	Depth to Groundwater (in feet)	Groundwater Elevation (in feet)	BTEX Method	Notes	TPH-d (µg/l)	TPH-mo (µg/l)	TPH-k (µg/l)	TPH-g (µg/l)	Benzene (µg/l)	Toluene (µg/l)	Ethyl-benzene (µg/l)	Total Xylenes (µg/l)	MTBE (µg/l)
4/22/03	11.51	6.24	5.27	8021B	SGC	<50	<300	<50	<50	<0.5	<0.5	<0.5	<0.5	4 C
4/28/04	11.51	6.61	4.90	8260B	SGC	<100	<400	<100	<100	1.6	<1.0	<1.0	<1.0	<1.0
9/2/05 [1]	11.51	6.56	4.95	8260B	SGC	<50	<300	<50	<50	<0.5	<0.5	<0.5	<0.5	3.2
4/5/2006 [3]	11.51	4.58	6.93	8260B	SGC	<50	<300	<50	<50	2.7	<0.5	<0.5	<0.5	<0.5
9/6/06	11.51	6.67	4.84	---	---	---	---	---	---	---	---	---	---	---
MW-8														
11/20/96	12.22	---	---	8020		880	---	---	<50	0.66	<0.5	<0.5	<0.5	---
11/20/97	12.22	9.59	2.63	8020		200	---	---	<50	<0.5	<0.5	<0.5	<0.5	2
2/24/98	12.22	8.42	3.80	8020		<50	<500	<50	<50	<0.5	<0.5	<0.5	<0.5	---
6/8/98	12.22	9.57	2.65	8020		1,200	1,000	<50	<50	<0.5	<0.5	<0.5	<0.5	---
8/19/98	12.22	9.49	2.73	8020	SGC	<50	<250	<50	<50	1.6	3.4	1	2.8	<5.0
11/11/98	12.22	9.64	2.58	8020	SGC	<50	<200	<50	<50	0.9	0.8	0.6	2.3	<5.0
2/23/99	12.22	11.53	0.69	8020		700	1,500	<50	<50	<0.5	<0.5	<0.5	<0.5	<5.0
5/27/99	12.22	9.65	2.57	8020		<50	<200	<50	<50	<0.5	<0.5	<0.5	<0.5	<5.0
8/24/99	12.22	9.62	2.60	8020	SGC	70	<200	<50	<50	<0.5	<0.5	<0.5	<0.5	<5.0
11/22/99	12.22	9.64	2.58	8020	SGC	57	<200	<50	<50	<0.5	<0.5	<0.5	<0.5	<5.0
1/18/00	12.22	8.31	3.91	8020	SGC	<50	<200	<50	<50	<0.5	<0.5	<0.5	<0.5	<5.0
5/11/00	12.22	9.69	2.53	8020	SGC	<50	<200	<50	<50	<0.5	1.3	<0.5	2.1	<5.0
8/24/00	12.22	9.40	2.82	---		---	---	---	---	---	---	---	---	---
8/25/00	12.22	---	---	8020	SGC	85	<250	<50	<50					
11/28/00	12.22	9.40	2.83	8020	SGC	<50	910	<50	<50	<0.5	<0.5	<0.5	<0.5	<5.0
2/27/01	12.22	9.50	2.72	8020	Filtered+SGC	<50	<200	<50	<50	<0.5	<0.5	<0.5	<0.5	<5.0
5/17/01	12.22	9.71	2.51	---		---	---	---	---	---	---	---	---	---
5/18/01	12.22	---	---	8020	Filtered+SGC	<50	<200	<50	<50	<0.5	<0.5	<0.5	<0.5	<5.0
8/16/01	12.22	9.80	2.42		Filtered+SGC	<50	<200	<100	<50	<0.5	<0.5	<0.5	<0.5	<5
12/15/01	12.22	9.28	2.94	8021	SGC	390	1,300	<50	<50	<0.5	<0.5	<0.5	<0.5	<5
4/8/02	12.22	9.55	2.67	8021	SGC	440	800	---	<50	<0.5	<0.5	<0.5	<0.5	<5
6/21/02	12.22	9.71	2.51	---		---	---	---	---	---	---	---	---	---
9/18/02	12.22	9.86	2.36	8021	SGC	<50	<300	<50	<50	<0.5	<0.5	<0.5	<0.5	<2
4/22/03	12.22	9.54	2.68	8021B	SGC	<50	<300	<50	<50	<0.5	<0.5	<0.5	<0.5	<2
4/28/04	12.22	---	---	---		---	---	---	---	---	---	---	---	---
10/27/04	12.22	NM[4]	---	---		---	---	---	---	---	---	---	---	---
4/5/2006 [3]	12.22	8.73	3.49	8260B	SGC	54 Y	<300	<50	<50	<0.5	<0.5	<0.5	<0.5	<0.5
9/6/06	12.22	9.50	2.72	8260B	SGC	<50	<300	<50	<50	<0.5	<0.5	<0.5	<0.5	<0.5
MW-9														
11/20/96	10.77	---	---	8020		1,900	---	---	240	21	0.81	1.8	2.2	---
11/20/97	10.77	7.91	2.86	8020		---	---	---	300	20	<0.5	<0.5	1.8	<1.0
2/24/98	10.77	6.11	4.66	8020		<50	<500	<50	2,200	540	5.6	1.6	4.9	---

Table 1
Summary of Groundwater Analytical Data, Petroleum Hydrocarbons
Municipal Service Center
7101 Edgewater Drive, Oakland, California
Concentrations expressed in micrograms per liter (µg/l)

Well ID/ Date	TOC Elevation (in feet)	Depth to Groundwater (in feet)	Groundwater Elevation (in feet)	BTEX Method	Notes	TPH-d (µg/l)	TPH-mo (µg/l)	TPH-k (µg/l)	TPH-g (µg/l)	Benzene (µg/l)	Toluene (µg/l)	Ethyl-benzene (µg/l)	Total Xylenes (µg/l)	MTBE (µg/l)
6/8/98	10.77	7.14	3.63	8020		1,800	890	< 50	840	450	6.1	3.3	5.3	---
8/19/98	10.77	7.88	2.89	8020	SGC	190	< 250	160	740	370	8.6	0.99	7.3	< 5.0
11/11/98	10.77	8.23	2.54	8020	SGC	< 50	230	< 50	700	130	4.3	< 0.5	3.9	< 5.0
2/23/99	10.77	6.65	4.12	8020		1,100	3,700	< 50	1,100	620	9.7	1.5	7.7	< 5.0
5/27/99	10.77	7.70	3.07	8020	SGC	70	300	< 50	950	470	11	1.5	9.2	< 5.0
8/24/99	10.77	8.12	2.65	8020	SGC	890	1,700	< 50	290	45	2.8	< 0.5	3	< 5.0
11/22/99	10.77	8.33	2.44	8020	SGC	1,000	6,000	< 50	170	12	1.8	< 0.5	2	< 5.0
1/18/00	10.77	8.63	2.14	8020	SGC	200 a	2,300	< 50	160	5.7	1.9	0.6	4.2	< 5.0
5/11/00	10.77	7.70	3.07	8020	SGC	180 a	980	< 100	1,050	280	7.0	< 2.5	5.9	< 25
8/24/00	10.77	8.31	2.46	---		---	---	---	---	---	---	---	---	---
8/25/00	10.77	---	---	8020	SGC	580	2,200	170	180	23	2.4	< 0.5	2.7	< 5.0
11/28/00	10.77	8.45	2.32	8020	SGC	200	1,600	< 50	130	1.9	< 0.5	< 0.5	< 0.5	< 5.0
11/28/00	10.77	8.45	2.32	---	Filtered + SGC	< 50	< 200	< 50	---	---	---	---	---	---
2/26/01	10.77	6.40	4.37	8020	Filtered + SGC	120	< 200	< 50	142	33	1.8	< 0.5	< 0.5	< 5.0
5/17/01	10.77	9.88	0.89	---		---	---	---	---	---	---	---	---	---
5/18/01	10.77	---	---	8020	Filtered + SGC	< 50	< 200	< 50	74	4.6	< 0.5	< 0.5	< 0.5	< 5.0
8/16/01	10.77	8.05	2.72		Filtered + SGC	< 50	< 200	< 100	70	0.62	< 0.5	< 0.5	< 0.5	< 5
12/16/01	10.77	7.75	3.02	8021	SGC	1,400	4,100	< 50	210	15	1.6	< 0.5	2.2	< 5
4/5/02	10.77	7.50	3.27	8021	SGC	870	1,000	---	1,498	367	11	2.1	7.8	< 5
6/20/02	10.77	8.27	2.50	8021	SGC	< 50	< 300	< 50	430	180	5.7	2.4	4.15	< 2
9/18/02	10.77	8.25	2.52	8021	SGC	63 b,c	< 300	60	250	49	5.8	< 0.5	3.1	< 2
4/22/03	10.77	7.25	3.52	8021B	SGC	< 50	< 300	< 50	69	4.1 C	< 0.5	< 0.5	0.9	< 2
4/28/04	10.77	---	---	---		---	---	---	---	---	---	---	---	---
10/27/04	10.77	NM[4]	---	---		---	---	---	---	---	---	---	---	---
4/5/2006 [3]	10.77	6.01	4.76	8260B	SGC	140 H Y	320	64 H Y	160	140	5.2	< 1.0	4.1	< 1.0
9/6/06	10.77	8.44	2.33	8260B	SGC	210 Y	< 300	150 Y	240	58	5.3	< 0.5	5.68	< 0.5
MW-10														
11/20/96	10.59	---	---	8020		940	---	---	< 50	49	0.59	0.54	1.2	---
11/20/97	10.59	7.70	2.89	8020		---	---	---	< 50	< 0.5	< 0.5	< 0.5	< 0.5	---
2/24/98	10.59	4.39	6.20	8020		< 50	< 500	< 50	< 50	< 0.5	< 0.5	< 0.5	< 0.5	---
6/8/98	10.59	6.94	3.65	8020		500	< 500	< 50	< 50	7.3	< 0.5	< 0.5	< 0.5	---
8/19/98	10.59	6.99	3.60	8020	SGC	240	520	110	< 50	< 0.5	< 0.5	< 0.5	< 0.5	< 5.0
11/11/98	10.59	7.57	3.02	8020	SGC	< 50	< 200	< 50	< 50	< 0.5	< 0.5	< 0.5	< 0.5	< 5.0
2/23/99	10.59	5.51	5.08	8020		170	1,200	< 50	< 50	1.3	< 0.5	< 0.5	< 0.5	< 5.0
5/27/99	10.59	6.72	3.87	8020	SGC	< 50	< 200	< 50	350	170	1.5	0.5	2.3	< 5.0
8/24/99	10.59	7.27	3.32	8020	SGC	140	300	< 50	380	160 e	< 0.5	< 0.5	2.6	< 5.0
11/22/99	10.59	7.71	2.88	8020	SGC	570	3,400	< 50	110	5.1	< 0.5	< 0.5	0.72	< 5.0
1/18/00	10.59	7.77	2.82	---		---	---	---	---	---	---	---	---	---
1/19/00	10.59	---	---	8020	SGC	120 a,b	1,200	< 50	100	< 0.5	< 0.5	0.8	< 0.5	< 5.0

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Municipal Service Center
7101 Edgewater Drive, Oakland, California
Concentrations expressed in micrograms per liter (µg/l)

Well ID/ Date	TOC Elevation (in feet)	Depth to Groundwater (in feet)	Groundwater Elevation (in feet)	BTEX Method	Notes	TPH-d (µg/l)	TPH-mo (µg/l)	TPH-k (µg/l)	TPH-g (µg/l)	Benzene (µg/l)	Toluene (µg/l)	Ethyl-benzene (µg/l)	Total Xylenes (µg/l)	MTBE (µg/l)
5/11/00	10.59	7.00	3.59	8020	SGC	110 a	990	<50	145	1.62	0.5	0.5	0.9	<5.0
8/24/00	10.59	7.31	3.28	---		---	---	---	---	---	---	---	---	---
8/25/00	10.59	---	---	8020	SGC	430	1,300	110	<50	1.0	<0.5	<0.5	<0.5	<5.0
11/28/00	10.59	7.90	2.69	8020	SGC	220	1,500	<50	<50	<0.5	<0.5	<0.5	<0.5	<5.0
2/27/01	10.59	5.80	4.79	8020	Filtered+SGC	85	<230	<57	<50	1.3	<0.5	<0.5	<0.5	<5.0
5/17/01	10.59	6.27	4.32	---		---	---	---	---	---	---	---	---	---
5/18/01	10.59	---	---	8020	Filtered+SGC	<50	<200	<50	<50	0.7	<0.5	<0.5	<0.5	<5.0
8/16/01	10.59	8.75	1.84		Filtered+SGC	<50	<200	<100	<50	<0.5	<0.5	<0.5	<0.5	<5
12/16/01	10.59	6.97	3.62	8021	SGC	410	2,100	<50	<50	2.4	<0.5	<0.5	<0.5	<5
4/8/02	10.59	6.51	4.08	8021	SGC	220	300	---	<50	1.1	<0.5	<0.5	<0.5	<5
6/20/02	10.59	8.10	2.49	8021	SGC	1,100 a,c	6,200	<50	120	34	<0.5	<0.5	<0.5	<2
9/17/02	10.59	7.66	2.93	8021	SGC	150 a,c	880	<50	130 a,c,j	32	<0.5	2.3	<0.5	<2
4/22/03	10.59	6.81	3.78	8021B	SGC	<50	<300	<50	51	1.0 C	<.50	1.2	<.50	<2
4/28/04	10.59	6.70	3.89	8260B	SGC	<100	<400	<100	114	14	<1.0	6.9	5.2	3.5
10/28/04	10.59	6.98	3.61	8260B	SGC	<50	<300	<50	<50	<0.5	<0.5	<0.5	<0.5	<0.5
9/1/05 [1]	10.59	6.76	3.83	8260B	SGC	<50	<300	<50	110	2.4	<0.5	<0.5	0.7	<0.5
4/5/2006 [3]	10.59	4.86	5.73	8260B	SGC	<50	<300	<50	<50	2.1	<0.5	<0.5	<0.5	<0.5
9/6/06	10.59	9.01	1.58	8260B	SGC	98 H Y	<300	<50	<50	<0.5	<0.5	<0.5	<0.5	<0.5
MW-11														
1/18/00	11.60	7.08	4.52	---		---	---	---	---	---	---	---	---	---
1/19/00	11.60	---	---	8020	SGC	<50	500	<50	220	<0.5	<0.5	<0.5	<0.5	<5.0
5/11/00	11.60	5.95	5.65	8020	SGC	<50	430	<50	600	23	2.1	18	15	<5.0
8/24/00	11.60	6.58	5.02	8020		<50	<250	<50	110	5.9	<0.5	0.73	0.64	<5.0
11/28/00	11.60	6.91	4.69	8020	SGC	<50	<200	<50	180	4	<0.5	1.9	<0.5	<5.0
2/27/01	11.60	5.65	5.95	8020	Filtered+SGC	86	<240	<60	720	29	5.2	38	36	<5.0
5/17/01	11.60	6.85	4.75	8020	Filtered+SGC	<50	<200	<50	720	36	3.4	15	18	9.7
8/16/01	11.60	6.01	5.59		Filtered+SGC	<50	B500	<100	110	4.8	<0.5	1.4	<0.5	<5
12/15/01	11.60	6.26	5.34	8021	SGC	200	300	<50	170	1.7	0.6	2.4	1.8	<2
4/5/02	11.60	5.47	6.13	8021	SGC	160	<200	---	330	8.9	2.0	6.9	8.7	<5
6/21/02	11.60	6.17	5.43	8021	SGC	<50	<300	<50	280	16	1.8	8.7	9.6	3.6
9/12/02	11.60	6.60	5.00	8021	SGC	<50	<300	<50	93	<0.5	<0.5	1.1	<0.5	2.1
4/24/03	11.60	5.71	5.89	8021B	SGC	<50	<300	<50	320	21	2.1	12	6.13	8.9
4/28/04	11.60	5.92	5.68	8260B	SGC	<100	<400	<100	360	18	<1.0	6.5	4.5	4
10/27/04	11.60	6.59	5.01	8260B	SGC	---	---	---	---	---	---	---	---	---
9/2/05 [1]	11.60	6.22	5.38	8260B	SGC	<50	<300	<50	85	<0.5	<0.5	<0.5	<0.5	4.5
4/4/2006 [3]	11.60	4.17	7.43	8260B	SGC	71 L Y	<300	75 L Y	230	5.7	0.9	14	7.0	6.5
4/4/06	11.60	---	---	8260B	dup	<50	<300	55 L Y	220	6.5	1.0	15	7.3	7.4
9/6/06	11.60	6.46	5.14	---	---	---	---	---	---	---	---	---	---	---

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Municipal Service Center
7101 Edgewater Drive, Oakland, California
Concentrations expressed in micrograms per liter (µg/l)

Well ID/ Date	TOC Elevation (in feet)	Depth to Groundwater (in feet)	Groundwater Elevation (in feet)	BTEX Method	Notes	TPH-d (µg/l)	TPH-mo (µg/l)	TPH-k (µg/l)	TPH-g (µg/l)	Benzene (µg/l)	Toluene (µg/l)	Ethyl-benzene (µg/l)	Total Xylenes (µg/l)	MTBE (µg/l)
MW-12														
1/18/00	10.43	8.11	2.32	---		---	---	---	---	---	---	---	---	---
1/19/00	10.43	---	---	8020	SGC	1,800 a	11,000	<50	200	<0.5	3.4	1.5	8.4	<5.0
5/11/00	10.43	6.78	3.65	8020	SGC	2,400 a	4,900	<100	370	<0.5	<0.5	<0.5	0.9	<5.0
8/24/00	10.43	7.56	2.87	---		---	---	---	---	---	---	---	---	---
8/25/00	10.43	---	---	8020	SGC	3,500	5,000	3,700	170	<0.5	<0.5	<0.5	<0.5	<5.0
11/28/00	10.43	8.13	2.30	8020	SGC	2,100	14,000	<50	290	<0.5	<0.5	<0.5	<0.5	<5.0
11/28/00	10.43	8.13	2.30	---	Filtered+SGC	50	<200	<50	---	---	---	---	---	---
2/27/01	10.43	6.00	4.43	8020	Filtered+SGC	320	<250	66	110	1.4	<0.5	<0.5	<0.5	<5.0
5/17/01	10.43	7.01	3.42	8020	Filtered+SGC	<50	<200	<50	220	<0.5	<0.5	<0.5	<0.5	<5.0
8/16/01	10.43	8.47	1.96	8020	Filtered+SGC	200	B300	<100	160	<0.5	<0.5	<0.5	<0.5	<5
4/8/02	10.43	6.65	3.78	8021	SGC	500	500	---	180	<0.5	<0.5	0.7	<1.5	<5
6/21/02	10.43	7.10	3.33	8021	SGC	1,100 a,b,c	3,000 h	640	180	<0.5	<0.5	0.63	1.62	<2
9/17/02	10.43	7.75	2.68	8021	SGC	220 a,b,c	360	190	130	<0.5	<0.5	<0.5	<0.5	<2
4/22/03	10.43	6.60	3.83	8021B	SGC	140 L Y	<300	120	150	<0.5	<0.5	<0.5	<0.5	<2
4/28/04	10.43	6.60	3.83	8260B	SGC	<550	1,020	<100	<100	<0.5	<1.0	<1.0	<1.0	<1.0
10/29/04	10.43	7.87	2.56	8260B	SGC	240 H L Y	460	180	170 H	<0.5	<0.5	<0.5	<0.5	<0.5
9/2/05 [1]	10.43	7.04	3.39	8260B	SGC	<50	<300	<50	170	<0.5	<0.5	<0.5	<0.5	<0.5
9/2/05 [1]	10.43	7.04	3.39	8260B	SGC	110 L Y	<300	120	150	<0.5	<0.5	<0.5	<0.5	<0.5
4/4/2006 [3]	10.43	4.49	5.94	8260B	SGC	110 Y	<300	110 Y	110	<0.5	<0.5	<0.5	<0.5	<0.5
9/6/06	10.43	7.43	3.00	8260B	SGC	230 Y	<300	200 Y	120	<0.5	<0.5	<0.5	<0.5	<0.5
MW-13														
1/18/00	11.34	9.63	1.71	8020	SGC	8,800 a	120,000	<50	<50	<0.5	0.8	<0.5	<0.5	<5.0
5/11/00	11.34	10.12	1.22	8020	SGC	11,000 a	110,000	<500	70	1.6	5.4	1.2	7.6	<5.0
8/24/00	11.34	10.22	1.12	---		---	---	---	---	---	---	---	---	---
8/25/00	11.34	---	---	8020	SGC	3,100	13,000	1,200	<50	<0.5	<0.5	<0.5	<0.5	<5.0
11/28/00	11.34	10.50	0.84	8020	SGC	2,400	36,000	<1300	<50	<0.5	<0.5	<0.5	<0.5	<5.0
11/28/00	11.34	10.50	0.84	---	Filtered+SGC	280	1,100	<50	---	---	---	---	---	---
2/26/01	11.34	9.60	1.74	8020	Filtered+SGC	100	<260	<64	<50	<0.5	<0.5	<0.5	<0.5	<5.0
5/17/01	11.34	10.10	1.24	---		---	---	---	---	---	---	---	---	---
5/18/01	11.34	---	---	8020	Filtered+SGC	<50	<200	<50	<50	<0.5	<0.5	<0.5	<0.5	<5.0
8/16/01	11.34	10.50	0.84		Filtered+SGC	<50	B300	<100	<50	<0.5	<0.5	<0.5	<0.5	<5
12/16/01	11.34	9.43	1.91	8021	SGC	1,900	18,000	<250	<50	<0.5	<0.5	<0.5	<0.5	<5
4/8/02	11.34	10.24	1.10	8021	SGC	440	900	---	<50	<0.5	<0.5	<0.5	<0.5	<5
6/20/02	11.34	10.75	0.59	8021	SGC	270 a,c	1,500 h	<50	<50	<0.5	<0.5	<0.5	<0.5	<2
9/18/02	11.34	10.60	0.74	8021	SGC	<50	<300	<50	<50	<0.5	<0.5	<0.5	<0.5	<2
4/22/03	11.34	10.46	0.88	8021B	SGC	<50	<300	<50	<50	<0.5	<0.5	<0.5	<0.5	<2.0
4/28/04	11.34	10.22	1.12	8260B	SGC	<100	799	<100	<100	<0.5	<1.0	<1.0	<1.0	<1.0
10/28/04	11.34	9.50	1.84	8260B	SGC	<50	<300	<50	<50	<0.5	<0.5	<0.5	<0.5	<0.5

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Municipal Service Center
7101 Edgewater Drive, Oakland, California
Concentrations expressed in micrograms per liter (µg/l)

Well ID/ Date	TOC Elevation (in feet)	Depth to Groundwater (in feet)	Groundwater Elevation (in feet)	BTEX Method	Notes	TPH-d (µg/l)	TPH-mo (µg/l)	TPH-k (µg/l)	TPH-g (µg/l)	Benzene (µg/l)	Toluene (µg/l)	Ethyl-benzene (µg/l)	Total Xylenes (µg/l)	MTBE (µg/l)
9/1/05 [1]	11.34	9.56	1.78	8260B	SGC	<50	320	<50	<50	<0.5	<0.5	<0.5	<0.5	<0.5
4/5/2006 [3]	11.34	7.86	3.48	8260B	SGC	180 H Y	910	<50	<50	<0.5	<0.5	<0.5	<0.5	<0.5
9/6/06	11.34	10.53	0.81	8260B	SGC	150 H Y	730	<50	<50	<0.5	<0.5	<0.5	<0.5	<0.5
MW-14														
1/18/00	10.05	7.37	2.68	8020	SGC	1,700 a	22,000	<50	120	<0.5	<0.5	<0.5	<0.5	<5.0
5/11/00	10.05	6.73	3.32	8020	SGC	360 a	4,300	<100	120	<0.5	<0.5	<0.5	0.5	<5.0
8/24/00	10.05	7.30	2.75	---		---	---	---	---	---	---	---	---	---
8/25/00	10.05	---	---	8020	SGC	1,000	3,100	460	90	6.3	<0.5	<0.5	<0.5	<5.0
11/28/00	10.05	7.40	2.65	8020	SGC	380	6,400	<250	140	7.4	<0.5	<0.5	<0.5	<5.0
11/28/00	10.05	7.40	2.65	---	Filtered+SGC	<50	<200	<50	---	---	---	---	---	---
2/26/01	10.05	6.20	3.85	8020	Filtered+SGC	150	<230	<58	73	2.3	<0.5	<0.5	<0.5	<5.0
5/17/01	10.05	7.74	2.31	---		---	---	---	---	---	---	---	---	---
5/18/01	10.05	---	---	8020	Filtered+SGC	120	<200	<50	100	11	<0.5	<0.5	<0.5	<5.0
8/16/01	10.05	7.85	2.20		Filtered+SGC	<50	<200	<100	60	<0.5	<0.5	<0.5	<0.5	<5
12/16/01	10.05	6.60	3.45	8021	SGC	1,110	3,000	<50	<50	<0.5	<0.5	<0.5	<0.5	<5
4/9/02	10.05	6.58	3.47	8021	SGC	870	1,100	---	250	<0.5	<0.5	<0.5	<0.5	<5
6/20/02	10.05	7.52	2.53	8021	SGC	<50	310 h	<50	<50	<0.5	<0.5	<0.5	<0.5	<2
9/18/02	10.05	7.55	2.50	8021	SGC	<50	<300	<50	<50	1.3	<0.5	0.80	<0.5	<2
4/22/03	10.05	6.71	3.34	8021B	SGC	<50	<300	<50	61	4.2	<0.5	1.0	<0.5	12.0
4/28/04	10.05	6.81	3.24	8260B	SGC	<230	<400	<100	241	1.4	<1.0	<1.0	<1.0	<1.0
10/28/04	10.05	6.99	3.06	8260B	SGC	<50	<300	<50	56	3.5	<0.5	<0.5	<0.5	0.5
10/28/04	10.05	---	---	8260B	dup	<50	<300	<50	53	1.9	<0.5	<0.5	<0.5	<0.5
9/1/05 [1]	10.05	7.60	2.45	8260B	SGC	<50	<300	<50	79	6.7	<0.5	<0.5	<0.5	0.7
4/5/2006 [3]	10.05	5.91	4.14	8260B	SGC	50 Y	<300	<50	<50	1.7	<0.5	<0.5	<0.5	<0.5
9/6/06	10.05	7.70	2.35	8260B	SGC	140 H Y	<300	79 H Y	60	<0.5	<0.5	<0.5	<0.5	0.51
MW-15														
1/18/00	12.36	10.56	1.80	8020	SGC	12,000 a	89,000	<50	110	3.8	2.1	1	4.6	<5.0
5/11/00	12.36	10.03	2.33	8020	SGC	120 a	590	<50	90	0.9	0.9	<0.5	3.3	<5.0
8/24/00	12.36	10.22	2.14	---		---	---	---	---	---	---	---	---	---
8/25/00	12.36	---	---	8020	SGC	1,900	8,600	1,000	<50	1.9	<0.5	<0.5	1.5	<5.0
11/28/00	12.36	10.30	2.06	8020	SGC	2,500	36,000	<1300	80	1.7	<0.5	<0.5	1.6	<5.0
11/28/00	12.36	10.30	2.06	---	Filtered+SGC	73	<200	<50	---	---	---	---	---	---
2/26/01	12.36	9.30	3.06	8020	Filtered+SGC	190	<240	<60	55	0.6	<0.5	<0.5	0.5	<5.0
5/17/01	12.36	10.09	2.27	---		---	---	---	---	---	---	---	---	---
5/18/01	12.36	---	---	8020	Filtered+SGC	210	<230	<57	66	1.5	<0.5	<0.5	2.1	<5.0
8/16/01	12.36	10.20	2.16		Filtered+SGC	<50	B500	<100	<50	<0.5	<0.5	<0.5	2.4	<5
12/16/01	12.36	9.80	2.56	8021	SGC	3,800	15,000	<250	<50	<0.5	<0.5	<0.5	2	<5
4/5/02	12.36	9.58	2.78	8021	SGC	1,000	1,400	---	<50	<0.5	<0.5	<0.5	2.3	<5

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Well ID/ Date	TOC Elevation (in feet)	Depth to Groundwater (in feet)	Groundwater Elevation (in feet)	BTEX Method	Notes	TPH-d (µg/l)	TPH-mo (µg/l)	TPH-k (µg/l)	TPH-g (µg/l)	Benzene (µg/l)	Toluene (µg/l)	Ethyl-benzene (µg/l)	Total Xylenes (µg/l)	MTBE (µg/l)
6/20/02	12.36	10.24	2.12	8021	SGC	670 a,c	2,700 h	95 c,i	<50	0.83	<0.5	<0.5	2.20	<2
9/18/02	12.36	9.89	2.47	8021	SGC	70 a,c	<300	<50	<50	<0.5	<0.5	1.5	1.71	<2
4/22/03	12.36	9.55	2.81	8021B	SGC	<50	<300	<50	<50	1 C	<.50	1.4	1.9	<2
4/28/04	12.36	9.68	2.68	8260B	SGC	<250	567	<100	<100	<0.5	<1.0	<1.0	<1.0	2.8
10/28/04	12.36	9.58	2.78	8260B	SGC	<50	<300	<50	<50	<0.5	<0.5	<0.5	2.2	<0.5
9/1/05 (1)	12.36	9.56	2.80	8260B	SGC	420 Y	<300	120 H Y	55	<0.5	<0.5	<0.5	2.0	<0.5
4/5/2006 (3)	12.36	8.76	3.60	8260B	SGC	300 H Y	760	87 H Y	<50	<0.5	<0.5	<0.5	2.4	<0.5
9/6/06	12.36	9.98	2.38	8260B	SGC	220 H Y	400	80 H Y	<50	<0.5	<0.5	<0.5	2.1	<0.5
MW-16														
1/18/00	13.57	10.22	3.43	---	SPH: 0.1 ft.	---	---	---	---	---	---	---	---	---
5/11/00	13.57	13.31	0.27	---	SPH: 0.01 ft.	---	---	---	---	---	---	---	---	---
8/24/00	13.57	8.91	4.66	---	SPH: NM	---	---	---	---	---	---	---	---	---
11/28/00	13.57	13.05	0.86	---	SPH: 0.42 ft.	---	---	---	---	---	---	---	---	---
2/26/01	13.57	13.10	0.79	---	SPH: 0.40 ft.	---	---	---	---	---	---	---	---	---
5/17/01	13.57	12.62G	---	---	SPH: NM	---	---	---	---	---	---	---	---	---
8/16/01	13.57	11.94G	---	---	SPH: NM	---	---	---	---	---	---	---	---	---
12/15/01	13.57	NM	---	---	SPH: NM	---	---	---	---	---	---	---	---	---
4/3/02	13.57	12.88	0.69	---		---	---	---	---	---	---	---	---	---
6/21/02	12.22	NM	---	---	SPH: NM	---	---	---	---	---	---	---	---	---
4/22/03	12.22				Well cap stuck									
4/28/04	12.22	12.48	-0.26	8260B	SGC	<230	1030	<260	2000	150	<1.0	46	<1.0	<1.0
10/28/04	12.22	11.97	0.25	8260B	SGC	450 L Y	<300	480	1100	18	1.7	29	1.7	<0.5
8/31/05	12.22	12.09	0.13	---	SPH: None	---	---	---	---	---	---	---	---	---
4/5/2006 (3)	12.22	3.80	8.42	8260B	SGC	95 H Y	420	<50	<50	<0.5	<0.5	<0.5	<0.5	<0.5
9/6/06	12.22	---	---	---	Dry	---	---	---	---	---	---	---	---	---
MW-17														
1/18/00	9.86	5.35	4.51	8020	SGC	850 a	21,000	<50	<50	<0.5	<0.5	<0.5	<0.5	<5.0
5/11/00	9.86	9.85	0.01	8020	SGC	150 a	2,900	<100	<50	<0.5	<0.5	<0.5	<0.5	<5.0
8/24/00	9.86	8.59	1.27	---		---	---	---	---	---	---	---	---	---
8/25/00	9.86	---	---	8020	SGC	190	610	71	<50	0.58	<0.5	<0.5	<0.5	<5.0
11/28/00	9.86	9.25	0.61	8020	SGC	<250	2,400	<250	<50	<0.5	<0.5	<0.5	<0.5	<5.0
11/28/00	9.86	9.25	0.61	---	Filtered+SGC	<50	<200	<50	---	---	---	---	---	---
2/26/01	9.86	9.40	0.46	8020	Filtered+SGC	<50	<200	<50	<50	<0.5	<0.5	<0.5	<0.5	<5.0
5/17/01	9.86	8.32	1.54	---		---	---	---	---	---	---	---	---	---
5/18/01	9.86	---	---	8020	Filtered+SGC	<50	<200	<50	<50	<0.5	<0.5	<0.5	<0.5	<5.0
8/16/01	9.86	10.35	-0.49		Filtered+SGC	<50	B400	<100	<50	<0.5	<0.5	<0.5	<0.5	<5.0
12/16/01	9.86	8.01	1.85	8021	SGC	940	1,000	<50	<50	<0.5	<0.5	<0.5	<0.5	<5.0
4/9/02	9.86	9.76	0.10	8021	SGC	590	880	---	60	<0.5	<0.5	1.6	<0.5	<5.0

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Well ID/ Date	TOC Elevation (in feet)	Depth to Groundwater (in feet)	Groundwater Elevation (in feet)	BTEX Method	Notes	TPH-d (µg/l)	TPH-mo (µg/l)	TPH-k (µg/l)	TPH-g (µg/l)	Benzene (µg/l)	Toluene (µg/l)	Ethyl-benzene (µg/l)	Total Xylenes (µg/l)	MTBE (µg/l)
6/21/02	9.86	9.79	0.07	8021	SGC	99 a,c	650 h	<50	<50	<0.5	<0.5	<0.5	<0.5	<2
9/18/02	9.86	8.25	1.61	8021	SGC	<50	<300	<50	<50	<0.5	<0.5	<0.5	<0.5	<2
4/23/03	9.86	9.75	0.11	8021B	SGC	<50	<300	<50	<50	<0.5	<0.5	<0.5	<0.5	<2
4/28/04	9.86	8.90	0.96	8260B	SGC	<100	<400	<100	<100	<0.5	<1.0	2.4	<1.0	<1.0
10/28/04	9.86	8.32	1.54	`	SGC	<50	<300	<50	<50	<0.5	<0.5	<0.5	<0.5	<0.5
9/1/05 (1)	9.86	8.38	1.48	8260B	SGC	<50	<300	<50	<50	<0.5	<0.5	<0.5	<0.5	<0.5
4/5/2006 (3)	9.86	6.86	3.00	8260B	SGC	<50	<300	<50	<50	<0.5	<0.5	<0.5	<0.5	<0.5
9/6/06	9.86	9.85	0.01	8260B	SGC	<50	<300	<50	<50	<0.5	<0.5	<0.5	<0.5	<0.5
MW-18														
4/24/03	---	6.49		8021B	SGC	<50	<300	<50	<50	<0.5	<0.5	2.4	<0.5	<2
4/28/04	---				Developed to monitor a utility trench, not sampled									
8/31/05	---	---	---	---		---	---	---	---	---	---	---	---	---
3/27/06	---	---	---	---		---	---	---	---	---	---	---	---	---
9/6/06	---	---	---	---		---	---	---	---	---	---	---	---	---
TBW-1														
2/23/99	---	6.25	---	---	SPH: 0.10 ft.	---	---	---	---	---	---	---	---	---
5/27/99	---	5.29	---	---	SPH: 0.01 ft	---	---	---	---	---	---	---	---	---
8/24/99	---	6.99	---	---	SPH: 0.18 ft.	---	---	---	---	---	---	---	---	---
11/22/99	---	---	---	---	Inaccessible	---	---	---	---	---	---	---	---	---
1/18/00	---	---	---	---	Inaccessible	---	---	---	---	---	---	---	---	---
5/11/00	---	6.90	---	---	SPH: 0.10 ft.	---	---	---	---	---	---	---	---	---
8/24/00	---	7.12	---	---	SPH: NM	---	---	---	---	---	---	---	---	---
11/28/00	---	7.75	---	---	SPH: 0.36 ft.	---	---	---	---	---	---	---	---	---
2/27/01	---	9.06	---	---	SPH: 0.51 ft.	---	---	---	---	---	---	---	---	---
5/17/01	---	6.98	---	---	SPH: 0.28 ft.	---	---	---	---	---	---	---	---	---
8/16/01	---	6.62	---	---	SPH: 0.66 ft., f	1,100	B700	<100	17,000	2,100	75	730	850	<1
12/15/01	---	6.86	---	---	SPH 0.35 ft.	---	---	---	---	---	---	---	---	---
4/3/02	---	6.14	---	---	SPH: None	---	---	---	---	---	---	---	---	---
9/12/02	---	7.52	---	---	SPH: None	---	---	---	---	---	---	---	---	---
4/22/03	---	6.41	---	---	SPH: None	---	---	---	---	---	---	---	---	---
4/28/04	---	6.33	---	---	SPH: None	---	---	---	---	---	---	---	---	---
10/28/04	---	NM	---	---		---	---	---	---	---	---	---	---	---
8/31/05	---	6.50	---	---	Well cap smashed 6"	---	---	---	---	---	---	---	---	---
3/27/06	---	5.20	---	---	SPH: None	---	---	---	---	---	---	---	---	---
9/6/06	---	NM	---	---	SPH: None	---	---	---	---	---	---	---	---	---

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Well ID/ Date	TOC Elevation (in feet)	Depth to Groundwater (in feet)	Groundwater Elevation (in feet)	BTEX Method	Notes	TPH-d (µg/l)	TPH-mo (µg/l)	TPH-k (µg/l)	TPH-g (µg/l)	Benzene (µg/l)	Toluene (µg/l)	Ethyl-benzene (µg/l)	Total Xylenes (µg/l)	MTBE (µg/l)
TBW-2														
6/21/02	---	8.28	---	---		**---**	**---**	**---**	**---**	**---**	**---**	**---**	**---**	**---**
4/22/03	---	6.70	---	---	SPH globules	---	---	---	---	---	---	---	---	---
4/28/04	---	6.61	---	---	SPH: None	---	---	---	---	---	---	---	---	---
10/28/04	---	7.31	---	---	SPH: None	---	---	---	---	---	---	---	---	---
8/31/05	---	NM	---	---		---	---	---	---	---	---	---	---	---
3/27/06	---	NM[4]	---	---		---	---	---	---	---	---	---	---	---
9/6/06	---	NM[4]	---	---	SPH: None	---	---	---	---	---	---	---	---	---
TBW-3														
8/19/98	---	2.67	---	8020	SGC	810,000	---	---	920	3.2	<0.5	<0.5	0.77	<10
8/19/98	---	2.67	---	8260		---	---	---	---	---	---	---	---	<5.0
2/23/98	---	1.25	---	8020		3,800	3,000	<50	110	1.6	<0.5	<0.5	<0.5	<5.0
5/27/99	---	---	---	---	DTW: NM	---	---	---	---	---	---	---	---	---
8/24/99	---	3.25	---	---	SPH globules	---	---	---	---	---	---	---	---	---
11/22/99	---	3.68	---	---		---	---	---	---	---	---	---	---	---
1/18/00	9.92	3.73	6.19	---	SPH globules	---	---	---	---	---	---	---	---	---
5/11/00	9.92	2.07	7.85	---		---	---	---	---	---	---	---	---	---
8/24/00	9.92	2.82	7.10	---	SPH: sheen	44,000	13,000	34,000	570	4.7	<0.5	<0.5	<0.5	<5.0
11/28/00	9.92	---	---	---		---	---	---	---	---	---	---	---	---
2/27/01	9.92	1.29	8.63	8020	Filtered+SGC	560	<230	<57	120	1.5	<0.5	<0.5	<0.5	<5.0
5/17/01	9.92	2.47	7.45	---		---	---	---	---	---	---	---	---	---
8/16/01	9.92	1.81	8.11		Filtered+SGC	1,500	B400	<100	180	<0.5	<0.5	<0.5	<0.5	<1
12/15/01	9.92	2.52	---	---	SPH: 0.02 ft.	---	---	---	---	---	---	---	---	---
4/3/02	9.92	1.50	---	---	SPH: None	---	---	---	---	---	---	---	---	---
6/21/02	9.92	2.37	7.55	---	SPH: None	---	---	---	---	---	---	---	---	---
9/12/02	9.92	3.48	6.44	---	SPH: None	---	---	---	---	---	---	---	---	---
4/22/03	9.92	1.45	8.47	---	Sheen	---	---	---	---	---	---	---	---	---
4/28/04	9.92	2.26	7.66	---	SPH: None	---	---	---	---	---	---	---	---	---
10/28/04	9.92	3.42	6.50	---	Sheen	---	---	---	---	---	---	---	---	---
8/31/05	9.92	2.99	6.93	---	SPH: None	---	---	---	---	---	---	---	---	---
3/27/06	9.92	0.49	9.43	---	SPH: None	---	---	---	---	---	---	---	---	---
9/6/06	9.92	3.42	6.50	---	SPH:0.01 ft.	---	---	---	---	---	---	---	---	---
TBW-4														
2/27/01	---	1.35	---	8020	Filtered+SGC	410	<230	<57	250	1.9	<0.5	<0.5	<0.5	<5.0
5/17/01	---	2.52	---	---		**---**	**---**	**---**	**---**	**---**	**---**	**---**	**---**	**---**
8/16/01	---	1.88	---	---	Filtered+SGC	2,600	B700	<100	390	<0.5	<0.5	<0.5	<0.5	<5
6/21/02	---	2.32	---	---		---	---	---	---	---	---	---	---	---

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Municipal Service Center
7101 Edgewater Drive, Oakland, California
Concentrations expressed in micrograms per liter (µg/l)

Well ID/ Date	TOC Elevation (in feet)	Depth to Groundwater (in feet)	Groundwater Elevation (in feet)	BTEX Method	Notes	TPH-d (µg/l)	TPH-mo (µg/l)	TPH-k (µg/l)	TPH-g (µg/l)	Benzene (µg/l)	Toluene (µg/l)	Ethyl-benzene (µg/l)	Total Xylenes (µg/l)	MTBE (µg/l)
4/22/03	---	1.41	---	---	Sheen	---	---	---	---	---	---	---	---	---
4/28/04	---	2.21	---	---		---	---	---	---	---	---	---	---	---
10/27/04	---	3.37	---	---	Sheen	---	---	---	---	---	---	---	---	---
8/31/05	---	2.92	---	---		---	---	---	---	---	---	---	---	---
3/27/06	---	0.49	---	---	SPH: None	---	---	---	---	---	---	---	---	---
9/6/06	---	3.37	---	---	SPH:0.01 ft.	---	---	---	---	---	---	---	---	---
TBW-5														
2/23/99	---	9.72	---	---	SPH: 1.45 ft.	---	---	---	---	---	---	---	---	---
5/27/99	---	7.03	---	---	SPH: 1.13 ft.	---	---	---	---	---	---	---	---	---
8/24/99	---	6.52	---	---	SPH: 1.33 ft.	---	---	---	---	---	---	---	---	---
11/22/99	---	8.31	---	---	SPH: 1.29 ft.	---	---	---	---	---	---	---	---	---
1/18/00	10.22	6.20	4.74	---	SPH: 0.90 ft.	---	---	---	---	---	---	---	---	---
5/11/00	10.22	9.41	1.05	---	SPH: 0.30 ft.	---	---	---	---	---	---	---	---	---
8/24/00	10.22	9.62	0.81	---	SPH: 0.26 ft.	---	---	---	---	---	---	---	---	---
11/28/00	10.22	10.25	0.34	---	SPH: 0.46 ft.	---	---	---	---	---	---	---	---	---
2/27/01	10.22	9.06	1.45	---	SPH: 0.36 ft.	---	---	---	---	---	---	---	---	---
5/17/01	10.22	8.75	1.47	---	SPH: 0.67 ft.	---	---	---	---	---	---	---	---	---
8/16/01	10.22	8.32	2.51	8020	SPH: 0.76 ft., f	550	B400	< 100	30,000	2,900	100	1,500	5,100	< 1
12/15/01	10.22	9.09	1.13	---	SPH: 0.36 ft.	---	---	---	---	---	---	---	---	---
4/3/02	Well has active remediation unit/recovery													
6/21/02	10.22	7.87	2.35	---	SPH: 0.03 ft.	---	---	---	---	---	---	---	---	---
9/12/01	10.22	7.26	2.97	---	SPH: 0.01 ft.	---	---	---	---	---	---	---	---	---
4/22/03	10.22	6.22	4.00	---	SPH: 0.06 ft.	---	---	---	---	---	---	---	---	---
4/28/04	10.22	6.26	3.96	---	SPH: 0.21 ft.	---	---	---	---	---	---	---	---	---
10/27/04	10.22	3.62	6.60	---	SPH: None	---	---	---	---	---	---	---	---	---
8/31/05	10.22	6.41	---	---	SPH: 0.30 ft.	---	---	---	---	---	---	---	---	---
3/27/06	10.22	NM[(2)]	---	---		---	---	---	---	---	---	---	---	---
9/6/06	10.22	NM[(2)]	---	---	---	---	---	---	---	---	---	---	---	---
TBW-6														
2/23/99	---	2.09	---	8020		160	600	< 50	60	< 0.5	< 0.5	< 0.5	< 0.5	< 5.0
5/27/99	---	3.31	---	---		---	---	---	---	---	---	---	---	---
8/24/99	---	7.29	---	8020	SGC	180	400	< 50	130	< 0.5	< 0.5	< 0.5	< 0.5	< 5.0
11/22/99	---	4.37	---	---		---	---	---	---	---	---	---	---	---
1/18/00	9.49	3.83	5.66	---		---	---	---	---	---	---	---	---	---
1/19/00	9.49	---	---	8020	SGC	55 C	< 200	< 50	170	0.6	< 0.5	< 0.5	< 0.5	< 5.0
5/11/00	9.49	2.51	6.98	---		---	---	---	---	---	---	---	---	---
8/24/00	9.49	4.34	5.15	---		---	---	---	---	---	---	---	---	---
8/25/00	9.49	---	---	8020	SGC	320	< 250	200	< 50	< 0.5	< 0.5	< 0.5	< 0.5	< 5.0

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Concentrations expressed in micrograms per liter (µg/l)

Well ID/ Date	TOC Elevation (in feet)	Depth to Groundwater (in feet)	Groundwater Elevation (in feet)	BTEX Method	Notes	TPH-d (µg/l)	TPH-mo (µg/l)	TPH-k (µg/l)	TPH-g (µg/l)	Benzene (µg/l)	Toluene (µg/l)	Ethyl-benzene (µg/l)	Total Xylenes (µg/l)	MTBE (µg/l)
11/28/00	9.49	4.74	4.75	---		---	---	---	---	---	---	---	---	---
2/27/01	9.49	2.30	7.19	8020	Filtered+SGC	<57	<230	<57	<50	<0.5	<0.5	<0.5	<0.5	<5.0
5/17/01	9.49	3.35	6.14	---		---	---	---	---	---	---	---	---	---
8/16/01	9.49	3.85	5.64		Filtered+SGC	<50	<200	<100	<50	<0.5	<0.5	<0.5	<0.5	<5
12/15/01	9.49	3.96	5.53	---		---	---	---	---	---	---	---	---	---
4/3/02	9.49	2.51	6.98	---		---	---	---	---	---	---	---	---	---
6/21/02	9.49	3.58	5.91	---		---	---	---	---	---	---	---	---	---
9/12/02	9.49	6.07	4.56	---	SPH: 1.42 ft.	---	---	---	---	---	---	---	---	---
4/23/03	9.49	2.42	7.07	---		---	---	---	---	---	---	---	---	---
4/28/04	9.49	3.21	6.28	---		---	---	---	---	---	---	---	---	---
10/27/04	9.49	4.49	5.00	---	SPH: None	---	---	---	---	---	---	---	---	---
8/31/05	9.49	4.43	---	---	SPH: 0.52 ft.	---	---	---	---	---	---	---	---	---
3/27/06	9.49	1.90	7.59	---	SPH: None	---	---	---	---	---	---	---	---	---
9/6/06	9.49	4.33	5.16	---	SPH:0.01 ft.	---	---	---	---	---	---	---	---	---
RW-A1														
4/22/03	---	1.81	---	---		---	---	---	---	---	---	---	---	---
4/28/04	10.09	2.52	7.57	---		---	---	---	---	---	---	---	---	---
10/27/04	10.09	3.03	7.06	---	SPH: None	---	---	---	---	---	---	---	---	---
8/31/05	10.09	3.31	6.78	---	SPH: None	---	---	---	---	---	---	---	---	---
3/27/06	10.09	0.62	9.47	---	SPH: None	---	---	---	---	---	---	---	---	---
9/6/06	10.09	3.52	6.57	---	SPH: None	---	---	---	---	---	---	---	---	---
RW-A2														
4/22/03	---	1.22	---	---	Sheen	---	---	---	---	---	---	---	---	---
4/28/04	9.67	2.01	7.66	---		---	---	---	---	---	---	---	---	---
10/27/04	9.67	3.20	6.47	---	SPH: None	---	---	---	---	---	---	---	---	---
8/31/05	9.67	2.75	6.92	---	SPH: None	---	---	---	---	---	---	---	---	---
3/27/06	9.67	0.30	9.37	---	SPH: None	---	---	---	---	---	---	---	---	---
9/6/06	9.67	3.19	6.48	---	SPH: 0.01 ft.	---	---	---	---	---	---	---	---	---
OB-A1														
4/22/03	---	2.24	---	---	SPH: .01 ft.	---	---	---	---	---	---	---	---	---
4/28/04	---	3.01	---	---	SPH: None	---	---	---	---	---	---	---	---	---
10/27/04	---	5.11	---	---	SPH: None (strong odor)	---	---	---	---	---	---	---	---	---
8/31/05	---	4.10	---	---	SPH: None	---	---	---	---	---	---	---	---	---
3/27/06	---	1.25	---	---	SPH: None	---	---	---	---	---	---	---	---	---
9/7/06	---	4.49	---	---		---	---	---	---	---	---	---	---	---

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Concentrations expressed in micrograms per liter (µg/l)

Well ID/ Date	TOC Elevation (in feet)	Depth to Groundwater (in feet)	Groundwater Elevation (in feet)	BTEX Method	Notes	TPH-d (µg/l)	TPH-mo (µg/l)	TPH-k (µg/l)	TPH-g (µg/l)	Benzene (µg/l)	Toluene (µg/l)	Ethyl-benzene (µg/l)	Total Xylenes (µg/l)	MTBE (µg/l)
RW-B1														
4/22/03	---	7.26	---	---	Sheen	---	---	---	---	---	---	---	---	---
4/28/04	11.22	7.20	4.02	---		---	---	---	---	---	---	---	---	---
10/27/04	11.22	7.80	3.42	---	SPH: None	---	---	---	---	---	---	---	---	---
8/31/05	11.22	7.14	4.08	---	SPH: None	---	---	---	---	---	---	---	---	---
3/27/06	11.22	6.10	5.12	---	SPH: None	---	---	---	---	---	---	---	---	---
9/6/06	11.22	7.39	3.83	---	SPH:0.01 ft.	---	---	---	---	---	---	---	---	---
RW-B2														
4/22/03	---	7.29	---	---	Sheen, Odor	---	---	---	---	---	---	---	---	---
4/28/04	11.23	7.20	4.03	---		---	---	---	---	---	---	---	---	---
10/27/04	11.23	7.81	3.42	---	SPH: None	---	---	---	---	---	---	---	---	---
8/31/05	11.23	7.14	4.09	---	SPH: None	---	---	---	---	---	---	---	---	---
3/27/06	11.23	6.09	5.14	---	SPH: None	---	---	---	---	---	---	---	---	---
9/6/06	11.23	7.39	3.84	---	SPH: None	---	---	---	---	---	---	---	---	---
RW-B3														
4/22/03	---	9.90	---	---	visible Product	---	---	---	---	---	---	---	---	---
4/28/04	11.14	13.20	-2.06	---	SPH: 3.09	---	---	---	---	---	---	---	---	---
10/27/04	11.14	9.33	1.81	---	SPH: None	---	---	---	---	---	---	---	---	---
8/31/05	11.14	9.60	1.54	---	SPH: 0.01	---	---	---	---	---	---	---	---	---
3/27/06	11.14	9.08	2.06	---	SPH: None	---	---	---	---	---	---	---	---	---
9/6/06	11.14	9.61	1.53	---	SPH: None	---	---	---	---	---	---	---	---	---
RW-B4														
4/22/03	---	10.55	---	---	SPH: .55 ft.	---	---	---	---	---	---	---	---	---
4/28/04	11.29	10.22	1.07	---	SPH: None	---	---	---	---	---	---	---	---	---
10/27/04	11.29	9.55	1.74	---	SPH: None	---	---	---	---	---	---	---	---	---
8/31/05	11.29	9.70	1.59	---	SPH: None	---	---	---	---	---	---	---	---	---
3/27/06	11.29	9.23	2.06	---	SPH: None	---	---	---	---	---	---	---	---	---
9/6/06	11.29	9.69	1.60	---	SPH: None	---	---	---	---	---	---	---	---	---
RW-C1														
4/24/03	---	8.34	---	---		---	---	---	---	---	---	---	---	---
4/28/04	10.44	8.00	2.44	---		---	---	---	---	---	---	---	---	---
10/27/04	10.44	7.59	2.85	---	SPH: None	---	---	---	---	---	---	---	---	---
8/31/05	10.44	5.81	4.63	---	SPH: None	---	---	---	---	---	---	---	---	---
3/27/06	10.44	1.94	8.50	---	SPH: None	---	---	---	---	---	---	---	---	---
9/6/06	10.44	6.71	3.73	---	SPH: 0.01 ft.	---	---	---	---	---	---	---	---	---

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7101 Edgewater Drive, Oakland, California
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Well ID/ Date	TOC Elevation (in feet)	Depth to Groundwater (in feet)	Groundwater Elevation (in feet)	BTEX Method	Notes	TPH-d (µg/l)	TPH-mo (µg/l)	TPH-k (µg/l)	TPH-g (µg/l)	Benzene (µg/l)	Toluene (µg/l)	Ethyl-benzene (µg/l)	Total Xylenes (µg/l)	MTBE (µg/l)
RW-C2														
4/24/03	---	6.22	---	---	SPH: .03 ft.	---	---	---	---	---	---	---	---	---
4/28/04	10.58	6.19	4.39	---	SPH: 0.06 ft	---	---	---	---	---	---	---	---	---
10/27/04	10.58	7.00	3.58	---	SPH: Present	---	---	---	---	---	---	---	---	---
8/31/05	10.58	6.30	4.28	---	SPH: 0.01 ft.	---	---	---	---	---	---	---	---	---
3/27/06	10.58	5.10	5.48	---	SPH: None	---	---	---	---	---	---	---	---	---
9/6/06	10.58	8.19	2.39	---	SPH: 0.12 ft.	---	---	---	---	---	---	---	---	---
RW-C3														
4/24/03	---	6.36	---	---		---	---	---	---	---	---	---	---	---
4/28/04	10.71	6.25	4.46	---		---	---	---	---	---	---	---	---	---
10/27/04	10.71	7.10	3.61	---	SPH: None	---	---	---	---	---	---	---	---	---
8/31/05	10.71	6.39	4.32	---	SPH: None	---	---	---	---	---	---	---	---	---
3/27/06	10.71	5.30	5.41	---	SPH: None	---	---	---	---	---	---	---	---	---
9/6/06	10.71	8.10	2.61	---	SPH: 0.01 ft.	---	---	---	---	---	---	---	---	---
RW-C4														
4/22/03	---	7.15	---	---	Strong odor	---	---	---	---	---	---	---	---	---
4/28/04	11.32	6.95	4.37	---	SPH: 0.01 ft	---	---	---	---	---	---	---	---	---
10/27/04	11.32	7.45	3.87	---	SPH: None	---	---	---	---	---	---	---	---	---
8/31/05	11.32	6.71	4.61	---	SPH: None	---	---	---	---	---	---	---	---	---
3/27/06	11.32	6.47	4.85	---	SPH: None	---	---	---	---	---	---	---	---	---
9/6/06	11.32	8.16	3.16	---	SPH: 0.01 ft.	---	---	---	---	---	---	---	---	---
RW-C5														
4/22/03	---	6.46	---	---		---	---	---	---	---	---	---	---	---
4/28/04	10.79	6.39	4.40	---		---	---	---	---	---	---	---	---	---
10/27/04	10.79	7.21	3.58	---	SPH: Present	---	---	---	---	---	---	---	---	---
8/31/05	10.79	6.51	4.28	---	SPH: None	---	---	---	---	---	---	---	---	---
3/27/06	10.79	5.33	5.46	---	SPH: None	---	---	---	---	---	---	---	---	---
9/6/06	10.79	8.03	2.76	---	SPH: 0.01 ft.	---	---	---	---	---	---	---	---	---
RW-C6														
4/22/03	---	6.05	---	---	SPH: 0.07 ft.	---	---	---	---	---	---	---	---	---
4/28/04	10.31	6.30	4.01	---	SPH: 0.05 ft.	---	---	---	---	---	---	---	---	---
10/27/04	10.31	6.85	---	---	SPH: 0.15 ft.	---	---	---	---	---	---	---	---	---
8/31/05	10.31	6.81	---	---	SPH: 0.93 ft.	---	---	---	---	---	---	---	---	---
3/27/06	10.31	5.66	---	---	SPH: 0.96 ft.	---	---	---	---	---	---	---	---	---
9/6/06	10.31	7.96	2.35	---	SPH: 0.18ft.	---	---	---	---	---	---	---	---	---

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Well ID/ Date	TOC Elevation (in feet)	Depth to Groundwater (in feet)	Groundwater Elevation (in feet)	BTEX Method	Notes	TPH-d (µg/l)	TPH-mo (µg/l)	TPH-k (µg/l)	TPH-g (µg/l)	Benzene (µg/l)	Toluene (µg/l)	Ethyl-benzene (µg/l)	Total Xylenes (µg/l)	MTBE (µg/l)
RW-C7														
4/22/03	---	6.51	---	---	visible Product	---	---	---	---	---	---	---	---	---
4/28/04	10.12	6.60	3.52	---	SPH: 0.02 ft.	---	---	---	---	---	---	---	---	---
10/27/04	10.12	NM	---	---	---	---	---	---	---	---	---	---	---	---
8/31/05	10.12	NM	---	---	---	---	---	---	---	---	---	---	---	---
3/27/06	10.12	NM[4]	---	---	---	---	---	---	---	---	---	---	---	---
9/6/06	10.12	8.34	1.78	---	SPH: 0.01 ft.	---	---	---	---	---	---	---	---	---
OB-C1														
4/22/03	---	6.26	---	---		---	---	---	---	---	---	---	---	---
4/28/04	10.39	7.39	3.00	---	SPH: 1.27 ft.	---	---	---	---	---	---	---	---	---
10/27/04	10.39	8.06	2.33	---	SPH: 1.08 ft.	---	---	---	---	---	---	---	---	---
8/31/05	10.39	7.84	---	---	SPH: 1.55 ft.	---	---	---	---	---	---	---	---	---
3/27/06	10.39	6.15	---	---	SPH: 1.05 ft.	---	---	---	---	---	---	---	---	---
9/6/06	---	NM[4]	---	---	Buried	---	---	---	---	---	---	---	---	---
RW-D1														
4/22/03	---	6.97	---	---		---	---	---	---	---	---	---	---	---
4/28/04	10.18	5.62	4.56	---		---	---	---	---	---	---	---	---	---
10/27/04	10.18	6.67	3.51	---	SPH: Present	---	---	---	---	---	---	---	---	---
8/31/05	10.18	5.75	---	---	SPH: 0.02 ft.	---	---	---	---	---	---	---	---	---
3/27/06	10.18	NM[2]	---	---	---	---	---	---	---	---	---	---	---	---
9/6/06	10.18	NM[2]	---	---	No Access	---	---	---	---	---	---	---	---	---
RW-D2														
4/22/03	---	7.15	---	---	SPH 1.25 ft.	---	---	---	---	---	---	---	---	---
4/28/04	10.33	7.45	2.88	---	SPH: 0.1 ft.	---	---	---	---	---	---	---	---	---
10/27/04	10.33	6.41	3.92	---	SPH: Present	---	---	---	---	---	---	---	---	---
8/31/05	10.33	8.44	---	---	SPH: 3.12 ft.	---	---	---	---	---	---	---	---	---
3/27/06	10.33	NM[2]	---	---	---	---	---	---	---	---	---	---	---	---
9/6/06	10.33	NM[2]	---	---	No Access	---	---	---	---	---	---	---	---	---
RW-D3														
4/22/03	---	6.89	---	---	SPH: 1.58 ft.	---	---	---	---	---	---	---	---	---
4/28/04	10.07	8.18	1.89	---	SPH: 3.25 ft.	---	---	---	---	---	---	---	---	---
10/27/04	10.07	6.37	3.70	---	SPH: Present	---	---	---	---	---	---	---	---	---
8/31/05	10.07	7.72	---	---	SPH: 2.46	---	---	---	---	---	---	---	---	---
3/27/06	10.07	NM[2]	---	---	---	---	---	---	---	---	---	---	---	---
9/6/06	10.07	NM[2]	---	---	No Access	---	---	---	---	---	---	---	---	---

Table 1
Summary of Groundwater Analytical Data, Petroleum Hydrocarbons
Municipal Service Center
7101 Edgewater Drive, Oakland, California
Concentrations expressed in micrograms per liter (µg/l)

Well ID/ Date	TOC Elevation (in feet)	Depth to Groundwater (in feet)	Groundwater Elevation (in feet)	BTEX Method	Notes	TPH-d (µg/l)	TPH-mo (µg/l)	TPH-k (µg/l)	TPH-g (µg/l)	Benzene (µg/l)	Toluene (µg/l)	Ethyl-benzene (µg/l)	Total Xylenes (µg/l)	MTBE (µg/l)
RW-D4														
4/22/03	---	8.11	---	---	SPH: 1.98 ft.	---	---	---	---	---	---	---	---	---
4/28/04	10.22	7.99	2.23	---	SPH: 2.09 ft.	---	---	---	---	---	---	---	---	---
10/27/04	10.22	6.49	3.73	---	SPH: Present	---	---	---	---	---	---	---	---	---
8/31/05	10.22	8.09	---	---	SPH: 2.12 ft.	---	---	---	---	---	---	---	---	---
3/27/06	10.22	NM(2)	---	---	---	---	---	---	---	---	---	---	---	---
9/6/06	10.22	NM(2)	---	---	No Access	---	---	---	---	---	---	---	---	---
RW-D5														
4/22/03	---	6.04	---	---	SPH: 0.07 ft.	---	---	---	---	---	---	---	---	---
4/28/04	9.99	5.96	4.03	---	SPH: None	---	---	---	---	---	---	---	---	---
10/27/04	9.99	6.48	3.51	---	SPH: Present	---	---	---	---	---	---	---	---	---
8/31/05	9.99	7.02*	---	---	SPH: 1.01 ft.	---	---	---	---	---	---	---	---	---
3/27/06	9.99	NM(2)	---	---	---	---	---	---	---	---	---	---	---	---
9/6/06	9.99	NM(2)	---	---	No Access	---	---	---	---	---	---	---	---	---
OB-D1														
4/22/03	---	5.41	---	---	Strong Odor	---	---	---	---	---	---	---	---	---
4/28/04	9.46	5.31	4.15	---	Strong Odor	---	---	---	---	---	---	---	---	---
10/27/04	9.46	5.89	3.57	---	---	---	---	---	---	---	---	---	---	---
8/31/05	9.46	5.42	---	---	SPH: None	---	---	---	---	---	---	---	---	---
3/27/06	9.46	3.09	6.37	---	SPH: None	---	---	---	---	---	---	---	---	---
9/6/06	9.46	8.31	1.15	---	SPH: 0.01 ft.	---	---	---	---	---	---	---	---	---
OB-D2														
4/22/03	---	5.14	---	---		---	---	---	---	---	---	---	---	---
4/28/04	9.95	5.25	4.70	---		---	---	---	---	---	---	---	---	---
10/27/04	9.95	6.42	3.53	---	SPH: None	---	---	---	---	---	---	---	---	---
8/31/05	9.95	5.71	---	---	SPH: 0.01 ft.	---	---	---	---	---	---	---	---	---
3/27/06	9.95	2.32	7.63	---	SPH: None	---	---	---	---	---	---	---	---	---
9/6/06	9.95	8.39	1.56	---	SPH: 0.01 ft.	---	---	---	---	---	---	---	---	---
RW-1														
4/22/03	---	6.43	---	---		---	---	---	---	---	---	---	---	---
4/28/04	---	5.73	---	---		---	---	---	---	---	---	---	---	---
10/27/04	---	6.34	---	---	SPH: None	---	---	---	---	---	---	---	---	---
8/31/05	---	5.83	---	---	SPH: None	---	---	---	---	---	---	---	---	---
3/27/06	---	NM(2)	---	---	---	---	---	---	---	---	---	---	---	---
9/6/06	---	NM(2)	---	---	No Access	---	---	---	---	---	---	---	---	---

Table 1
Summary of Groundwater Analytical Data, Petroleum Hydrocarbons
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Concentrations expressed in micrograms per liter (µg/l)

Well ID/ Date	TOC Elevation (in feet)	Depth to Groundwater (in feet)	Groundwater Elevation (in feet)	BTEX Method	Notes	TPH-d (µg/l)	TPH-mo (µg/l)	TPH-k (µg/l)	TPH-g (µg/l)	Benzene (µg/l)	Toluene (µg/l)	Ethyl-benzene (µg/l)	Total Xylenes (µg/l)	MTBE (µg/l)
Field Blank														
10/28/04	---	---	---	8260B		---	---	---	<50	<0.5	<0.5	<0.5	<0.5	<0.5
9/1/05	---	---	---	8260B		<50	<300	<50	<50	<0.5	<0.5	<0.5	<0.5	<0.5
9/2/05	---	---	---	8260B		---	---	---	<50	---	---	---	---	---
4/4/06	---	---	---	8260B		<50	<300	<50	<50	<0.5	<0.5	<0.5	<0.5	<0.5
9/7/06	---	---	---	8260B		<50	<300	<50	<50	<0.5	<0.5	<0.5	<0.5	<0.5
Trip Blank														
8/19/98	---	---	---	8020		---	---	---	<50	<0.5	<0.5	<0.5	<0.5	<5.0
11/22/99	---	---	---	8020		---	---	---	<50	<0.5	<0.5	<0.5	<0.5	<5.0
11/28/00	---	---	---	8020		---	---	---	<50	<0.5	<0.5	<0.5	<0.5	<5.0
2/27/01	---	---	---	8020	Filtered+SGC	---	---	---	<50	<0.5	<0.5	<0.5	<0.5	<5.0
5/17/01	---	---	---	8020	SGC	---	---	---	<50	<0.5	<0.5	<0.5	<0.5	<5.0
12/16/01	---	---	---	8021		---	---	---	<50	<0.5	<0.5	<0.5	<0.5	<5.0
4/5/02	---	---	---	8021	Trip Blank 1	---	---	---	<50	<0.5	<0.5	<0.5	<0.5	<5
4/5/02	---	---	---	8021	Trip Blank 2	---	---	---	<50	<0.5	<0.5	<0.5	<0.5	<5
6/21/02	---	---	---	8021	Trip Blank 1	---	---	---	<50	<0.5	<0.5	<0.5	<0.5	<5
9/12/02	---	---	---	8021	Trip Blank 1	---	---	---	<50	<0.5	<0.5	<0.5	<0.5	<2
9/13/02	---	---	---	8021	Trip Blank 2	---	---	---	<50	<0.5	<0.5	<0.5	<0.5	<2
4/23/03	---	---	---	8021B	Trip Blank 1	---	---	---	<50	<0.5	<0.5	<0.5	<0.5	<2
4/28/04	---	---	---	8260B	Trip Blank 1	---	---	---	<100	<0.5	<1.0	<1.0	<1.0	<1.0
10/29/04	---	---	---	8260B	Trip Blank 2	---	---	---	<50	---	---	---	---	---

Notes:

Groundwater elevations corrected for the presence of free product according to the calculation: GW Elevation = TOC - DTW + (0.8 x SPH thickness)

(1) = Depth to groundwater measured on August 31, 2005.
(2) = Converted to an extraction well, and access port is too small for the oil/water probe.
(3) = Depth to groundwater measured on March 27, 2006.
(4) = Could not locate well.

--- = Not measured/analyzed
* = Product was thick; difficult to measure thickness.

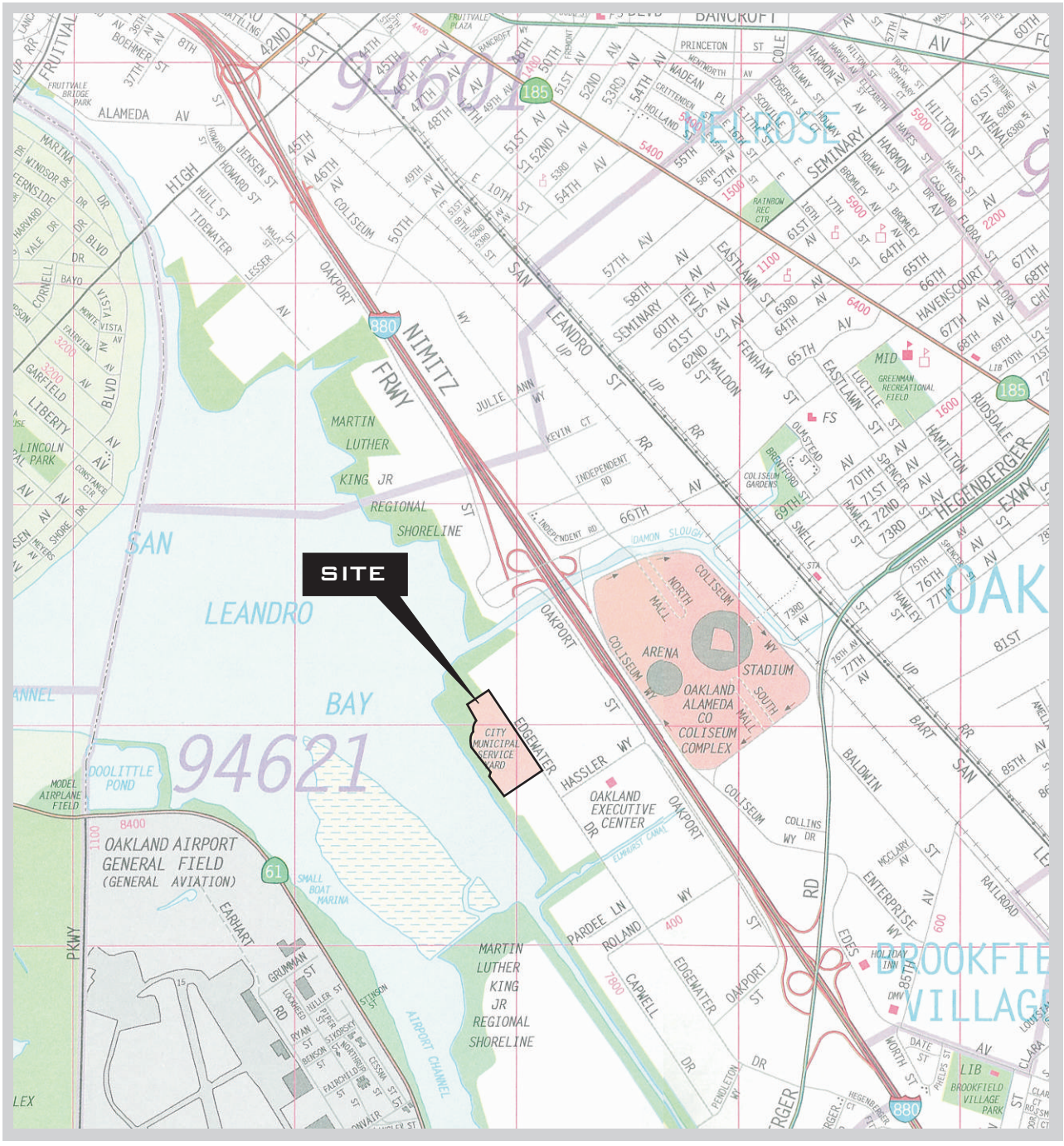
BTEX = Benzene, toluene, ethylbenzene, and xylenes by EPA Method 8020 or 8240/8260
DTW = Depth to water
Dup = Duplicate sample
Filtered = Groundwater samples were filtered through a 0.45-micron glass membrane filter.

Table 1
Summary of Groundwater Analytical Data, Petroleum Hydrocarbons
Municipal Service Center
7101 Edgewater Drive, Oakland, California
Concentrations expressed in micrograms per liter (µg/l)

Well ID/ Date	TOC Elevation (in feet)	Depth to Groundwater (in feet)	Groundwater Elevation (in feet)	BTEX Method	Notes	TPH-d (µg/l)	TPH-mo (µg/l)	TPH-k (µg/l)	TPH-g (µg/l)	Benzene (µg/l)	Toluene (µg/l)	Ethyl-benzene (µg/l)	Total Xylenes (µg/l)	MTBE (µg/l)

ID = Identification
MTBE = Methyl tertiary-butyl ether by EPA Method 8020 or 8260. Confirmation 8260 results shown in parentheses.
NM = Not measured. Well obstructed or could not be located.
SPH = Separate-phase hydrocarbons; measured thickness
SGC = Silica gel cleanup based on Method 3630B prior to TPH-d, TPH-k, or TPH-mo analysis, following California Regional Water Quality Control Board February 16, 1999 memorandum
TBW = Tank backfill well
TOC = Top of casing
TPH-d = Total petroleum hydrocarbons quantitated as diesel - analyzed by EPA Method 8015B
TPH-g = Total petroleum hydrocarbons quantitated as gasoline - analyzed by EPA Method 8015B
TPH-k = Total petroleum hydrocarbons quantitated as kerosene - analyzed by EPA Method 8015B
TPH-mo = Total petroleum hydrocarbons quantitated as motor oil - analyzed by EPA Method 8015B

a = The analytical laboratory reviewed the data and noted that petroleum hydrocarbons quantified in the diesel range actually resemble heavier fuels at the front end of the motor oil pattern.
b= The analytical laboratory reviewed the data and noted that petroleum hydrocarbons quantified in the diesel range actually resemble lighter fuels; the response looks like lower carbon chain compounds close to the gasoline range.
c= The analytical laboratory reviewed the data and noted that the sample exhibits a fuel pattern that does not resemble the standard.
e= Results are estimated due to concentrations exceeding the calibration range
f= Filtration with 0.45-micron glass membrane filter and silica gel treatment
g= Depth to product, depth to water could not be determined.
h= The analytical laboratory reviewed the data and noted that petroleum hydrocarbons quantified in the motor oil range are actually from the front end of the kerosene oil pattern.
i= The analytical laboratory reviewed the data and noted that petroleum hydrocarbons quantified in the motor oil range are actually from the back end of the kerosene oil pattern.
j= The analytical laboratory reviewed the data and noted that the sample exhibited an unknown peak or peaks.
B= Results flagged with "B" indicate motor oil was detected in the method blank.
C= Footnote assigned by Ninyo and Moore, not defined in their historical tables.
E= Footnote assigned by Ninyo and Moore, not defined in their historical tables.
H= Heavier hydrocarbons contributed to the quantitation.
J= Value qualified as "estimated"
L= Lighter hydrocarbons contributed to the quantitation.
Y= Sample exhibits chromatographic pattern that does not resemble standard.
Z= Sample exhibits unknown single peak or peaks



0 2400 4800

APPROXIMATE SCALE IN FEET

SOURCE: 2002 THOMAS GUIDE FOR ALAMEDA AND CONTRA COSTA COUNTIES

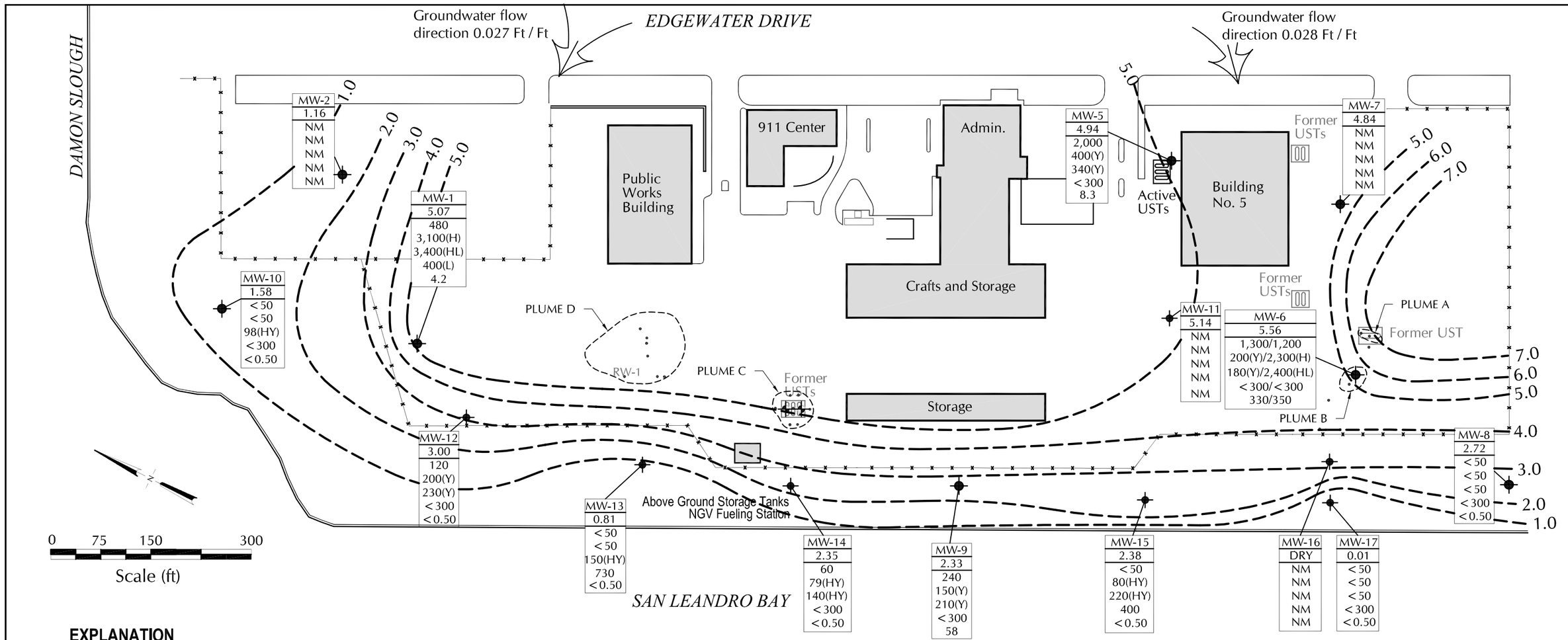
DESIGN\09225\11\000\09225 SiteVicinity.CDR

Site Vicinity Map

Municipal Service Center, 7101 Edgewater Drive, Oakland, California

LFR

Figure 1



EXPLANATION

MW-1	Monitoring well location
RW-1	Remediation well location
TBW-1	Tank Backfill Well
MW-3	Abandoned Well
NS	Not Sampled
NM	Not Measured / Inaccessible
L	Lighter hydrocarbons contributed to the quantitation
Y	Sample exhibits chromatographic pattern that does not resemble standard
H	Heavier hydrocarbons contributed to the quantitation
B	Benzene
FT / FT	Foot per foot
	Fence
3.0	Groundwater elevation contour; dashed where inferred

Well	Monitoring Well ID
ELEV	Groundwater elevation, feet above mean sea level (msl)
TPHg, TPHk, TPHd, TPHmo, B	TPHg, TPHk TPHd, TPHmo, and benzene concentrations in Micrograms per Liter (ug/L)

TPHg	Total Petroleum Hydrocarbons as Gasoline
TPHk	Total Petroleum Hydrocarbons as Kerosene
TPHd	Total Petroleum Hydrocarbons as Diesel
TPHmo	Total Petroleum Hydrocarbons as Motor Oil

Source: CAMBRIA

Groundwater Elevation Contour Map and Hydrocarbon Concentrations in Shallow Groundwater, September 2006

Municipal Service Center, Oakland, California

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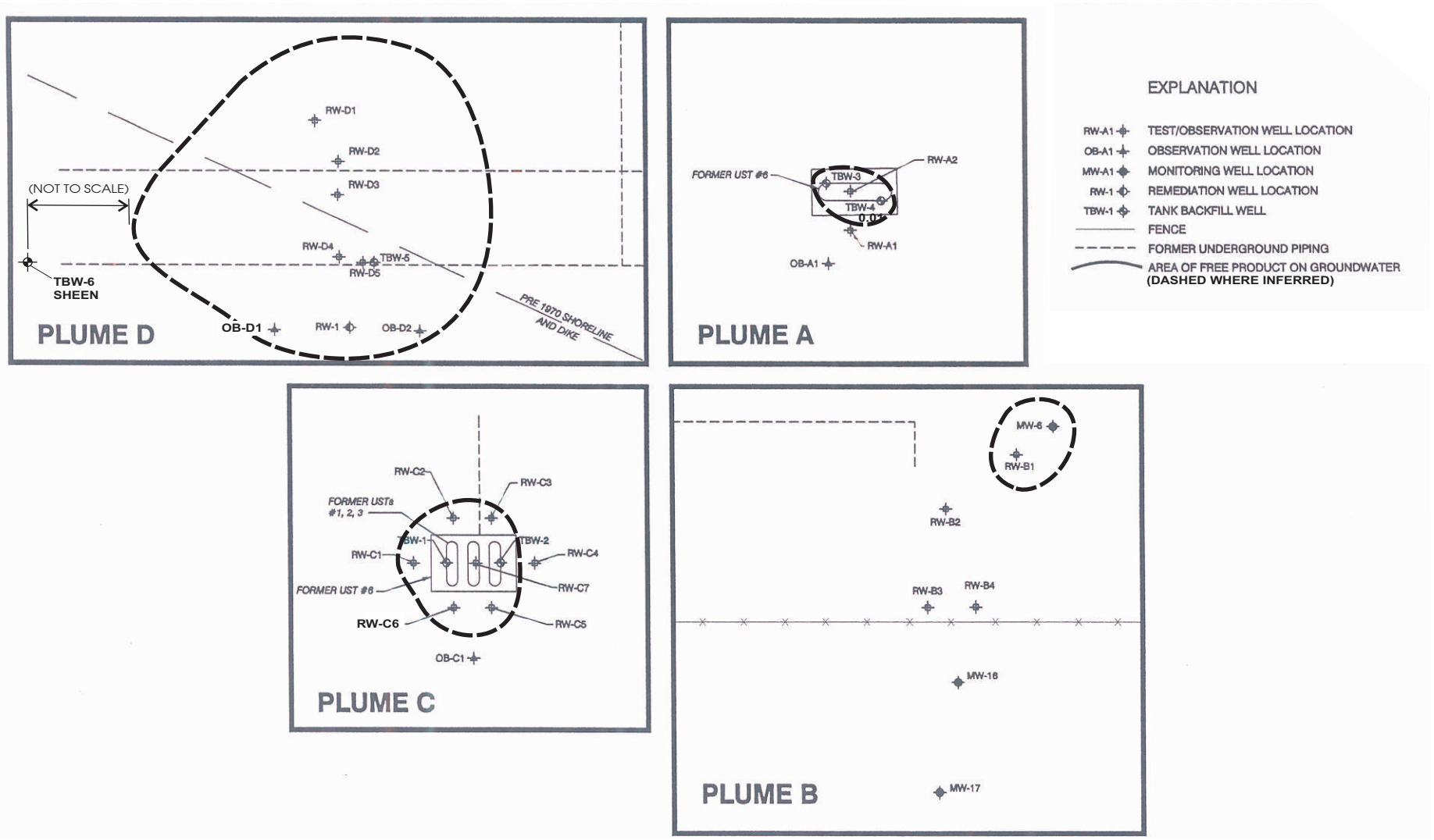
Figure 2

I:\Design\001\09225\11\000\dwg\GW Elev Sept 06, 2006.dwg Oct 24,2006-9:46am



NOTE: ALL DIMENSIONS, DIRECTIONS, AND LOCATIONS ARE APPROXIMATE
SOURCE: NINYO & MOORE - JULY 2004

DESIGN\001\09225\11\000\09225 Plume Detail rev1.CDR

Detail Plume Map

Municipal Service Center, 7101 Edgewater Drive, Oakland, California

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Figure 3

APPENDIX A

City of Oakland MSC Schedule and Protocol

Table A: Revised Well Sampling Schedule and Protocol

City of Oakland Municipal Service Center

Well ID	Monitoring Schedule		Parameters to Be Monitored							
	March	September	Elevation	Floating Product Thickness	PH	Dissolved Oxygen	Temperature	Specific Conductivity	TPH-gas BTEX & MTBE	TPH d/k/mo
MW-1	X	X	X	X	X	X	X	X	X	X
MW-2	X	gauge only	X	X	X	X	X	X	X	X
MW-3	Closed/ Destroyed									
MW-4	Closed/ Destroyed									
MW-5	X	X	X	X	X	X	X	X	X	X
MW-6	X	X	X	X	X	X	X	X	X	X
MW-7	X	gauge only	X	X	X	X	X	X	X	X
MW-8	X	X	X	X	X	X	X	X	X	X
MW-9	X	X	X	X	X	X	X	X	X	X
MW-10	X	X	X	X	X	X	X	X	X	X
MW-11	X	gauge only	X	X	X	X	X	X	X	X
MW-12	X	X	X	X	X	X	X	X	X	X
MW-13	X	X	X	X	X	X	X	X	X	X
MW-14	X	X	X	X	X	X	X	X	X	X
MW-15	X	X	X	X	X	X	X	X	X	X
MW-16	X	X	X	X	X	X	X	X	X	X
MW-17	X	X	X	X	X	X	X	X	X	X
MW-18	gauge only	gauge only	X	X						
TBW-1	gauge only	gauge only	X	X						
TBW-2	gauge only	gauge only	X	X						
TBW-3	gauge only	gauge only	X	X						
TBW-4	gauge only	gauge only	X	X						
TBW-5	gauge only	gauge only	X	X						
TBW-6	gauge only	gauge only	X	X						
RW-1	gauge only	gauge only	X	X						
RW-A1	gauge only	gauge only	X	X						
RW-A2	gauge only	gauge only	X	X						
OB-A1	gauge only	gauge only	X	X						
RW-B1	gauge only	gauge only	X	X						
RW-B2	gauge only	gauge only	X	X						
RW-B3	gauge only	gauge only	X	X						
RW-B4	gauge only	gauge only	X	X						
RW-C1	gauge only	gauge only	X	X						
RW-C2	gauge only	gauge only	X	X						
RW-C3	gauge only	gauge only	X	X						
RW-C4	gauge only	gauge only	X	X						
RW-C5	gauge only	gauge only	X	X						
RW-C6	gauge only	gauge only	X	X						
RW-C7	gauge only	gauge only	X	X						
OB-C1	gauge only	gauge only	X	X						
RW-D1	gauge only	gauge only	X	X						
RW-D2	gauge only	gauge only	X	X						
RW-D3	gauge only	gauge only	X	X						
RW-D4	gauge only	gauge only	X	X						
RW-D5	gauge only	gauge only	X	X						
OB-D1	gauge only	gauge only	X	X						
OB-D2	gauge only	gauge only	X	X						

Notes:

gauge only = measure groundwater elevation and floating product thickness only

TPH d/k/mo = total petroleum hydrocarbons as diesel, kerosene, and motor oil after silica gel cleanup

APPENDIX B

Groundwater Sampling Field Data Sheets

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WATER-LEVEL MEASUREMENTS LOG

Project No. 001-09225 Date 9/6/06 Page 1 of 2

Project Name MSC - 7101 EDGEWATER DR. Day: ☐ Sun ☐ Mon ☐ Tues ☒ Weds ☐ Thurs ☐ Fri ☐ Sat

Field Personnel M. Sullivan J. Gonzales

General Observations Cloudy

WELL NO.	WELL ELEVATION	DEPTH TO WATER 1	DEPTH TO WATER 2	DEPTH TO PRODUCT	WELL SECURE? Y	WELL SECURE? N	REMARKS (UNITS = FEET)
MW-1	1020	4.98	4.98	—	X		
2	905	9.31	9.31			X	No lock
3							Destroyed
4							Destroyed
5	1149	6.21	6.21	—	X		
6	~~1134~~	~~5.42~~	~~5.98~~	5.41	X		~~Product~~ Product
7	1144	6.67	6.67	—	X		
8	830	9.50	9.50	—	X		
9	840	8.44	8.44	—	X		
10	900	9.01	9.01	—	X		Water in vault above the cap
11	1152	6.46	6.40	—	X		
12	1022	7.43	7.43	—	X		
13	850	10.53	10.53		X		
14	844	7.70	7.70	—	X		
15	836	9.98	9.98		X		
16	834	— Dry				X	Cap not on well
17	832	9.85	9.85	—	X		
18							
TBW-1	1027	~~8.35~~	8.35	8.25	-	X	TD: 9.68 10/8/06 used bailer to record SPH thickness 0.10'
2							Inaccessable
3	1131	3.42	3.42	—	X		Sheen
4	1124	3.37	3.37	3.36			
5							Sample Port too small
6	1025	4.33	4.33	—	X		Sheen
RW-A1	1120	3.52	3.52	—	X		
A2	1129	3.17	3.17	3.18	X		Sheen
OB-A1	1118	4.49	4.49	—	X		TD = 15.95
RW-B1	1113	7.39	7.39	7.38	X		sheen
B2	1112	7.39	7.39		X		
B3	1110	9.61	9.61	—	X		
B4	1111	9.69	9.69	—	X		
RW-C1	1007	6.71	6.71	—		X	Sheen, Cap not on Properly

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WATER-LEVEL MEASUREMENTS LOG

Project No. 001-09225 Date 9/6/06 Page 2 of 2

Project Name Oakland Edgewater Day: ☐ Sun ☐ Mon ☐ Tues ☒ Weds ☐ Thurs ☐ Fri ☐ Sat

Field Personnel M. Sullivan & J. Gonzales

General Observations cloudy

WELL NO.	WELL ELEVATION	DEPTH TO WATER 1	DEPTH TO WATER 2	DEPTH TO PRODUCT	WELL SECURE? Y	WELL SECURE? N	REMARKS (UNITS = FEET)
RW-C2	1107	8.19	8.19	8.07	X		Product
C3	1105	8.10	8.10	8.09	X		sheen
C4	1100	8.16	8.16		X		sheen
C5	1052	8.03	8.03		X		sheen
C6	1040	7.96	7.96	7.78	X		Product
C7	1055	8.34	8.34	—	X		sheen
OB-C1	*1						*1 Buried
RW-D1	*2						*2 No Access, Sample Port
D2	*2						too small to let the Probe
D3	*2						into well casing
D4	*2						
D5	*2						
OB-D1	803	8.31	8.31	8.30	Y		
OB-D2	805	8.39	8.39	8.39	Y		sheen, water above cap
RW-1	*2						No Access

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WATER-QUALITY SAMPLING LOG

Project No. 001-09225-21 Date 9/6/06 Page 1 of 1

Project Name Oakland MSC Sampling Location 7101 Edgewater Drive

Sampler's Name Michael Sullivan and James Gonzales Sample No. MW-1 ☐ FB

Sampling Plan By Erica Kalve Dated 9/5/06 C.O.C. No. ☐ DUP

Purge Method: ☐ Centrifugal Pump ☒ Disposable Bailer ☒ Hand Bail ☐ Submersible Pump ☐ Teflon Bailer ☐ Other

Purge Water Storage Container Type 55 gal drum Storage Location —

Date Purge Water Disposed 9/6/06 Where Disposed purge-water disposed on-site

Analyses Requested	No. and Type of Bottles Used
8260 for TPHg/BTEX/MTBE	3 VOAs with HCl
8015 for TPHd/ TPHmo/TPHk	1L Amber, no-preservative

Lab Name Curtis and Tompkins, Emeryville; contact Tracy Babjar at 510-204-2223

Delivery By ☐ Courier ☒ Hand

Well No. MW-1 Well Depth / Depth of Water 15.78

Well Diameter: 2" ~~Well Depth~~ DTW 4.89

☒ 2" (0.16 gal/feet) ☐ 5" (1.02 gal/feet) Water Column Height 10.87

☐ 4" (0.65 gal/feet) ☐ 6" (1.47 gal/feet) Well Volume ≈ 1.74

80% DTW 7.07

Time	Inlet Depth	Depth to Water	Volume Purged (gal)	Totalizer Reading	Temperature (C°)	pH (SU)	Cond mS/cm ~~(umhos)~~	Turb (NTU)	Remarks
		4.90	—						
1340			1.75		24.47	6.60	10.44	cloudy	Turbid
1350			3.50		23.25	6.78	10.78	cloudy	slightly Turbid
1400			5.25		21.92	6.72	16.48	cloudy	Turbid
1405		13.29							wait for recharge
1515		8.38							[redacted]
1608									Sample

Continue remarks on reverse, if needed.

LFR LEVINE • FRICKE

WATER-QUALITY SAMPLING LOG

Project No. 001-09225-21 Date 9/6/06 Page 1 of 1

Project Name Oakland MSC Sampling Location 7101 Edgewater Drive

Sampler's Name Michael Sullivan and James Gonzales Sample No. MW-5 ☐ FB

Sampling Plan By Erica Kalve Dated 9/5/06 C.O.C. No. ☐ DUP

Purge Method: ☐ Centrifugal Pump ☒ Disposable Bailer ☒ Hand Bail ☐ Submersible Pump ☐ Teflon Bailer ☐ Other

Purge Water Storage Container Type 55-gal drum Storage Location

Date Purge Water Disposed 9/6/06 Where Disposed purge-water disposed on-site

Analyses Requested	No. and Type of Bottles Used
8260 for TPHg/BTEX/MTBE	3 VOAs with HCl
8015 for TPHd/ TPHmo/TPHk	1L Amber, no-preservative

Lab Name Curtis and Tompkins, Emeryville; contact Tracy Babjar at 510-204-2223

Delivery By ☐ Courier ☒ Hand

Well No. MW-5 Depth of Water 6.19

Well Diameter: 2" Well Depth 14.40

☒ 2" (0.16 gal/feet) ☐ 5" (1.02 gal/feet) Water Column Height 8.21

☐ 4" (0.65 gal/feet) ☐ 6" (1.47 gal/feet) Well Volume ~1.3

14.40
-6.19
8.21

8.21 ft × 0.16 gal / 1 foot = 1.31 gal

80% DTW

Time	Inlet Depth	Depth to Water	Volume Purged (gal)	Totalizer Reading	Temperature (C°)	pH (SU)	Cond (µmhos)	Turb (NTU)	Remarks
1445		6.19							Start
1450			1.3		24.07	6.83	2.06		slightly cloudy
1455			2.6		24.12	6.83	1.94		slightly cloudy
1458			3.9		24.17	6.76	2.18		slightly cloudy
1502		6.25							Sample at

Continue remarks on reverse, if needed.

LFR LEVINE•FRICKE

WATER-QUALITY SAMPLING LOG

Project No. 001-09225-21 Date 9/6/06 Page 1 of 1

Project Name Oakland MSC Sampling Location 7101 Edgewater Drive

Sampler's Name Michael Sullivan and James Gonzales Sample No. MW-6 ☐ FB

Sampling Plan By Erica Kalve Dated 9/5/06 C.O.C. No. ☒ DUP

Purge Method: ☐ Centrifugal Pump ☒ Disposable Bailer ☒ Hand Bail ☐ Submersible Pump ☐ Teflon Bailer ☐ Other

Purge Water Storage Container Type 55-gal drum Storage Location

Date Purge Water Disposed 9/6/06 Where Disposed purge-water disposed on-site

Analyses Requested	No. and Type of Bottles Used
8260 for TPHg/BTEX/MTBE	3 VOAs with HCl
8015 for TPHd/ TPHmo/TPHk	1L Amber, no-preservative

Lab Name Curtis and Tompkins, Emeryville; contact Tracy Babjar at 510-204-2223

Delivery By ☐ Courier ☒ Hand

Well No. MW-6 Depth of Water 5.42

Well Diameter: 2" Well Depth 14.15

☒ 2" (0.16 gal/feet) ☐ 5" (1.02 gal/feet) Water Column Height 8.73

☐ 4" (0.65 gal/feet) ☐ 6" (1.47 gal/feet) Well Volume ~ 1.4

80% DTW 6.12

8.73 × 16 = 5238, 873, 1396.8 ≈ 1.4

0.73 × 2 = 1.46 × 1000 = 1746, 5.38, 6.12

Time	Inlet Depth	Depth to Water	Volume Purged (gal)	Totalizer Reading	Temperature (C°)	pH (SU)	Cond (mS/cm or µmhos)	Turb (NTU)	Remarks
1425		5.38	—	—					Start
1430			1.5		24.49	7.20	3.00	cloudy	cloudy
1432			3.0		21.30	7.18	3.02		cloudy
1435			4.5		21.10	7.21	3.01		cloudy
1438		10.03							wait for recharge
1532		7.09							
1615		6.95							
1632									Sample

Continue remarks on reverse, if needed.

LFR LEVINE • FRICKE

WATER-QUALITY SAMPLING LOG

Project No. 001-09225-21 Date 9/7/06 Page 1 of 1

Project Name Oakland MSC Sampling Location 7101 Edgewater Drive

Sampler's Name Michael Sullivan and James Gonzales Sample No. MW-8 ☒ FB

Sampling Plan By Erica Kalve Dated 9/5/06 C.O.C. No. ☐ DUP

Purge Method: ☐ Centrifugal Pump ☒ Disposable Bailer ☒ Hand Bail ☐ Submersible Pump ☐ Teflon Bailer ☐ Other

Purge Water Storage Container Type 55 gal drum Storage Location —

Date Purge Water Disposed 9/7/06 Where Disposed purge-water disposed on-site

Analyses Requested	No. and Type of Bottles Used
8260 for TPHg/BTEX/MTBE	3 VOAs with HCl
8015 for TPHd/ TPHmo/TPHk	1L Amber, no-preservative

Lab Name Curtis and Tompkins, Emeryville; contact Tracy Babjar at 510-204-2223

Delivery By ☐ Courier ☒ Hand

Well No. MW-8 Depth of Water 9.41 Ft

Well Diameter: 2" Well Depth 15.31 Ft

☒ 2" (0.16 gal/feet) ☐ 5" (1.02 gal/feet) Water Column Height 5.90 Ft

☐ 4" (0.65 gal/feet) ☐ 6" (1.47 gal/feet) Well Volume 0.944 gal

(15.31 Ft) − (9.41 Ft) = 5.90 Ft

5.90 Ft × 0.16 gal / 1 Ft = .944

(4 bailers)

(9.41 Ft)(.20) = 1.88

(5.90) + (1.88) = ~~7.82~~

7.78

80% DTW ~~7.82~~ Ft

ms/cm

Time	Inlet Depth	Depth to Water	Volume Purged (gal)	Totalizer Reading	Temperature (C°)	pH (SU)	Cond ~~(µmhos)~~	Turb (NTU)	Remarks
0815		9.41							Start
0830			0.95		21.19	6.60	30.52	clear	
0838			1.9		20.80	6.69	31.03	clear	
0844			2.85		20.49	6.74	3031	clear	
0845		12.1							
0848		11.77							wait for recharge
0852		11.40							" "
1235		9.86							Removed (1) Bailer
									full, Sample

Continue remarks on reverse, if needed.

LFR LEVINE•FRICKE

WATER-QUALITY SAMPLING LOG

Project No. 001-09225-21 Date 9/7/06 Page 1 of 1

Project Name Oakland MSC Sampling Location 7101 Edgewater Drive

Sampler's Name Michael Sullivan and James Gonzales Sample No. MW-9 ☐ FB

Sampling Plan By Erica Kalve Dated 9/5/06 C.O.C. No. ☐ DUP

Purge Method: ☐ Centrifugal Pump ☒ Disposable Bailer ☒ Hand Bail ☐ Submersible Pump ☐ Teflon Bailer ☐ Other

Purge Water Storage Container Type 55 gal drum Storage Location

Date Purge Water Disposed 9/7/06 Where Disposed purge-water disposed on-site

Analyses Requested	No. and Type of Bottles Used
8260 for TPHg/BTEX/MTBE	3 VOAs with HCl
8015 for TPHd/ TPHmo/TPHk	1L Amber, no-preservative

Lab Name Curtis and Tompkins, Emeryville; contact Tracy Babjar at 510-204-2223

Delivery By ☐ Courier ☒ Hand

Well No. MW-9 Depth of Water 8.25

Well Diameter: 2" Well Depth 14.35

☒ 2" (0.16 gal/feet) ☐ 5" (1.02 gal/feet) Water Column Height 6.1

☐ 4" (0.65 gal/feet) ☐ 6" (1.47 gal/feet) Well Volume

(14.35 Ft − 8.25 Ft) = 6.1 Ft

$6.1\ ft \times \frac{0.16}{1\ ft}\ gal = .976$

(4 bails / well volume)

(14.35 × .20) = 2.87

(8.25 ft) + (2.87 ft) = 11.12

80% DTW 11.12 Ft

Time	Inlet Depth	Depth to Water	Volume Purged (gal)	Totalizer Reading	Temperature (C°)	pH (SU)	Cond mS/cm (~~µmhos~~)	Turb (NTU)	Remarks
1152		8.25							start
1158			1.0		21.41	6.95	496	cloudy	Dark-Black cloudy
1202			2.0		20.73	6.94	4.96		" "
1206			3.0		20.58	6.92	498	cloudy	" "
1210		9.24							Sample

JAG

Continue remarks on reverse, if needed.

LFR LEVINE•FRICKE

WATER-QUALITY SAMPLING LOG

Project No. 001-09225-21 Date 9/7/06 Page 1 of 1

Project Name Oakland MSC Sampling Location 7101 Edgewater Drive

Sampler's Name Michael Sullivan and James Gonzales Sample No. MW-10 ☐ FB

Sampling Plan By Erica Kalve Dated 9/5/06 C.O.C. No. ☐ DUP

Purge Method: ☐ Centrifugal Pump ☒ Disposable Bailer ☒ Hand Bail ☐ Submersible Pump ☐ Teflon Bailer ☐ Other

Purge Water Storage Container Type 55 gal drum Storage Location

Date Purge Water Disposed 9/7/06 Where Disposed purge-water disposed on-site

Analyses Requested	No. and Type of Bottles Used
8260 for TPHg/BTEX/MTBE	3 VOAs with HCl
8015 for TPHd/ TPHmo/TPHk	1L Amber, no-preservative

Lab Name Curtis and Tompkins, Emeryville; contact Tracy Babjar at 510-204-2223

Delivery By ☐ Courier ☒ Hand

Well No. MW-10 Depth of Water 8.91

Well Diameter: 2" Well Depth ~~14.15~~

☒ 2" (0.16 gal/feet) ☐ 5" (1.02 gal/feet) Water Column Height 5.6 FT

☐ 4" (0.65 gal/feet) ☐ 6" (1.47 gal/feet) Well Volume .896

80% DTW 10.69

(14.15 Ft) − (8.91 Ft) = 5.6 Ft

5.6 Ft × 0.16 gal / 1 Ft = .896

(4 bailers / well volume)

Time	Inlet Depth	Depth to Water	Volume Purged (gal)	Totalizer Reading	Temperature (C°)	pH (SU)	Cond (µmhos)	Turb (NTU)	Remarks
1448		8.91							Start
1458			0.896		21.20	7.08	2.44	Turbid	Black & Cloudy
1505					21.14	7.09	237	"	" "
1510					20.98	7.15	2.39	"	Very Black
1515		9.31							Sample

Continue remarks on reverse, if needed.

LFR LEVINE•FRICKE — WATER-QUALITY SAMPLING LOG

Project No. 001-09225-21 Date 9/6/06 Page 1 of 1

Project Name Oakland MSC Sampling Location 7101 Edgewater Drive

Sampler's Name Michael Sullivan and James Gonzales Sample No. MW-12 ☒ FB

Sampling Plan By Erica Kalve Dated 9/5/06 C.O.C. No. ☐ DUP

Purge Method: ☐ Centrifugal Pump ☒ Disposable Bailer ☒ Hand Bail ☐ Submersible Pump ☐ Teflon Bailer ☐ Other

Purge Water Storage Container Type 55-gal drum Storage Location

Date Purge Water Disposed 9/6/06 Where Disposed purge-water disposed on-site

Analyses Requested	No. and Type of Bottles Used
8260 for TPHg/BTEX/MTBE	3 VOAs with HCl
8015 for TPHd/ TPHmo/TPHk	1L Amber, no-preservative

Lab Name Curtis and Tompkins, Emeryville; contact Tracy Babjar at 510-204-2223

Delivery By ☐ Courier ☒ Hand

Well No. MW-12 Depth of Water 7.43

Well Diameter: 2" Well Depth 14.46

☒ 2" (0.16 gal/feet) ☐ 5" (1.02 gal/feet) Water Column Height 7.03

☐ 4" (0.65 gal/feet) ☐ 6" (1.47 gal/feet) Well Volume ~1.12

7.03
.16
421 8
703 x
1.124 8
~1.12

80% DTW

Time	Inlet Depth	Depth to Water	Volume Purged (gal)	Totalizer Reading	Temperature (C°)	pH (SU)	Cond (~~umhos~~ mS/cm)	Turb (NTU)	Remarks
1340		7.39	—	—					Start
1345			1.25		21.77	7.23	3.563	slightly turbid	
1350			2.50		21.25	7.22	3.811	"	
1355		7.61	3.75		21.02	7.22	4.68	"	
1400	—							→	Sample
1335	—	—	—	—	→	FB090606	—	—	Sample

Continue remarks on reverse, if needed.

LFR LEVINE•FRICKE — WATER-QUALITY SAMPLING LOG

Project No. 001-09225-21 Date 9/7/06 Page 1 of 1

Project Name Oakland MSC Sampling Location 7101 Edgewater Drive

Sampler's Name Michael Sullivan and James Gonzales Sample No. MW-13 ☐ FB

Sampling Plan By Erica Kalve Dated 9/5/06 C.O.C. No. ☐ DUP

Purge Method: ☐ Centrifugal Pump ☒ Disposable Bailer ☒ Hand Bail ☐ Submersible Pump ☐ Teflon Bailer ☐ Other

Purge Water Storage Container Type 55-gal drum Storage Location

Date Purge Water Disposed 9/7/06 Where Disposed purge-water disposed on-site

Analyses Requested	No. and Type of Bottles Used
8260 for TPHg/BTEX/MTBE	3 VOAs with HCl
8015 for TPHd/ TPHmo/TPHk	1L Amber, no-preservative

Lab Name Curtis and Tompkins, Emeryville; contact Tracy Babjar at 510-204-2223

Delivery By ☐ Courier ☒ Hand

Well No. MW-13 Depth of Water 9.03

Well Diameter: 2" Well Depth 19.55

☒ 2" (0.16 gal/feet) ☐ 5" (1.02 gal/feet) Water Column Height 10.52

☐ 4" (0.65 gal/feet) ☐ 6" (1.47 gal/feet) Well Volume 1.68 gal or 1.7 gal

(19.55 Ft) − (9.03 Ft) = 10.52 Ft

10.52 Ft × 0.16 gal / (Ft bailer/well volume) 1 Ft = 1.68 gal

(19.55 Ft) × (.20) = 3.91 Ft

(9.03 Ft) + (3.91 Ft) = 12.94 Ft

80% DTW 12.94 Ft

Time	Inlet Depth	Depth to Water	Volume Purged (gal)	Totalizer Reading	Temperature (C°)	pH (SU)	Cond (umhos)	Turb (NTU)	Remarks
1348		9.03							Start
1358			1.7		20.05	7.00	5.85	Cloudy	Brown Turbid
1403			3.4		19.65	6.96	5.86	Cloudy	Dark Brown Cloudy
1408			5.1		19.49	6.94	5.83	"	" "
1411		10.65							Sample

Continue remarks on reverse, if needed.

WATER-QUALITY SAMPLING LOG

LFR LEVINE•FRICKE

Project No. 001-09225-21 Date 9/7/06 Page 1 of 1

Project Name Oakland MSC Sampling Location 7101 Edgewater Drive

Sampler's Name Michael Sullivan and James Gonzales Sample No. MW-14 ☐ FB

Sampling Plan By Erica Kalve Dated 9/5/06 C.O.C. No. ☐ DUP

Purge Method: ☐ Centrifugal Pump ☒ Disposable Bailer ☐ Hand Bail ☐ Submersible Pump ☐ Teflon Bailer ☐ Other

Purge Water Storage Container Type 9/7/06 55-gal drum Storage Location

Date Purge Water Disposed Where Disposed purge-water disposed on-site

Analyses Requested	No. and Type of Bottles Used
8260 for TPHg/BTEX/MTBE	3 VOAs with HCl
8015 for TPHd/ TPHmo/TPHk	1L Amber, no-preservative

Lab Name Curtis and Tompkins, Emeryville; contact Tracy Babjar at 510-204-2223

Delivery By ☐ Courier ☒ Hand

Well No. MW-14 Depth of Water 7.52

Well Diameter: 2" Well Depth 14.62

☒ 2" (0.16 gal/feet) ☐ 5" (1.02 gal/feet) Water Column Height 7.1 ft

☐ 4" (0.65 gal/feet) ☐ 6" (1.47 gal/feet) Well Volume ~1.14

14.62 (ft) − (7.52 ft) = 7.1 ft

7.1 ft × 0.16 gal/1 ft = 1.136

4.5 bailers/well volume

(14.62 ft)(.20) = 2.92 ft

(7.52 ft) + (2.92 ft) = 10.4

80% DTW 10.4

Time	Inlet Depth	Depth to Water	Volume Purged (gal)	Totalizer Reading	Temperature (C°)	pH (SU)	Cond (~~umhos~~) mS/cm	Turb (NTU)	Remarks
1305		7.52							Start
1312			1.14		21.65	7.28	10.15	Very Cloudy	Dark-Black Cloudy
1317			2.28		21.60	7.30	10.19	Dark Cloudy	" "
1320			3.42		21.51	7.30	10.22	"	Bleed "
1322		7.85							Sample

Continue remarks on reverse, if needed.

LFR LEVINE•FRICKE

WATER-QUALITY SAMPLING LOG

Project No. 001-09225-21 Date 9/7/06 Page 1 of 1

Project Name Oakland MSC Sampling Location 7101 Edgewater Drive

Sampler's Name Michael Sullivan and James Gonzales Sample No. MW-15 ☐ FB

Sampling Plan By Erica Kalve Dated 9/5/06 C.O.C. No. ☐ DUP

Purge Method: ☐ Centrifugal Pump ☒ Disposable Bailer ☒ Hand Bail ☐ Submersible Pump ☐ Teflon Bailer ☐ Other

Purge Water Storage Container Type 55 gal drums Storage Location

Date Purge Water Disposed 9/7/06 Where Disposed purge-water disposed on-site

Analyses Requested	No. and Type of Bottles Used
8260 for TPHg/BTEX/MTBE	3 VOAs with HCl
8015 for TPHd/ TPHmo/TPHk	1L Amber, no-preservative

Lab Name Curtis and Tompkins, Emeryville; contact Tracy Babjar at 510-204-2223

Delivery By ☐ Courier ☒ Hand

Well No. MW-15 Depth of Water 9.90 ft

Well Diameter: 2" Well Depth 20.35 ft

☒ 2" (0.16 gal/feet) ☐ 5" (1.02 gal/feet) Water Column Height 10.45 ft

☐ 4" (0.65 gal/feet) ☐ 6" (1.47 gal/feet) Well Volume ~1.7 gal

(20.35 ft) − (9.90 ft) = 10.45 ft

10.45 ft × 0.16 gal/ft = 1.7

(7 bails / 1 well volume)

(10.45 ft) × (.20) = 2.09

(9.90 ft) + (2.09) = ~~25.51~~

11.99 ft

80% DTW ~~7.81~~ ft

Time	Inlet Depth	Depth to Water	Volume Purged (gal)	Totalizer Reading	Temperature (C°)	pH (SU)	Cond ~~(µmhos)~~ mS/cm	Turb (NTU)	Remarks
1030		9.90							Start
1040			1.7		20.69	7.04	9.64	cloudy	
1045			3.4		20.37	7.01	9.54	cloudy	Dark-Black Cloudy
1050			5.1		20.46	7.05	9.34	cloudy	"
1055		10.04							Sample

Continue remarks on reverse, if needed.

LFR LEVINE•FRICKE

WATER-QUALITY SAMPLING LOG

Project No. 001-09225-21 Date 9/7/06 Page 1 of 1

Project Name Oakland MSC Sampling Location 7101 Edgewater Drive

Sampler's Name Michael Sullivan and James Gonzales Sample No. MW-17 ☐ FB

Sampling Plan By Erica Kalve Dated 9/5/06 C.O.C. No. ☐ DUP

Purge Method: ☐ Centrifugal Pump ☒ Disposable Bailer ☒ Hand Bail ☐ Submersible Pump ☐ Teflon Bailer ☐ Other

Purge Water Storage Container Type 55-gal drum Storage Location

Date Purge Water Disposed 9/7/06 Where Disposed purge-water disposed on-site

Analyses Requested	No. and Type of Bottles Used
8260 for TPHg/BTEX/MTBE	3 VOAs with HCl
8015 for TPHd/ TPHmo/TPHk	1L Amber, no-preservative

Lab Name Curtis and Tompkins, Emeryville; contact Tracy Babjar at 510-204-2223

Delivery By ☐ Courier ☐ Hand

Well No. MW-17 Depth of Water 9.73

Well Diameter: 2" Well Depth 17.49

☒ 2" (0.16 gal/feet) ☐ 5" (1.02 gal/feet) Water Column Height 7.76

☐ 4" (0.65 gal/feet) ☐ 6" (1.47 gal/feet) Well Volume ~1.25

(17.49 ft) − (9.73 ft) = 7.76 ft

0.16 gal/1 ft × 7.76 ft = 1.25 (5 bails)

(9.73 ft) × (.20) = 1.95

~~(7.76 ft) + (1.95 ft)~~

9.73 − 1.95 = 11.68 ft

80% DTW

Time	Inlet Depth	Depth to Water	Volume Purged (gal)	Totalizer Reading	Temperature (C°)	pH (SU)	Cond (µmhos) mS/cm	Turb (NTU)	Remarks
0915		9.73							Start
0920			1.25		21.14	6.84	25.30	Turbid	Dark-Black Cloudy
0927			2.50		20.89	6.91	25.50	Very Turbid	Black & Very Cloudy
0931			3.75		20.78	7.01	25.83	" "	Sulphur Odor, " "
0940		9.70							Sample

JAG

Continue remarks on reverse, if needed.

APPENDIX C

Laboratory Results and Chain-of-Custody Documentation

Curtis & Tompkins, Ltd., Analytical Laboratories, Since 1878
2323 Fifth Street, Berkeley, CA 94710, Phone (510) 486-0900

A N A L Y T I C A L R E P O R T

Prepared for:

LFR Levine Fricke
1900 Powell Street
12th Floor
Emeryville, CA 94608

Date: 29-SEP-06
Lab Job Number: 189242
Project ID: 001-09225-21
Location: Oakland Edgewater

This data package has been reviewed for technical correctness and completeness. Release of this data has been authorized by the Laboratory Manager or the Manager's designee, as verified by the following signatures. The results contained in this report meet all requirements of NELAC and pertain only to those samples which were submitted for analysis.

Reviewed by: _____
Project Manager

Reviewed by: _____
Operations Manager

Curtis & Tompkins, Ltd.

CASE NARRATIVE

Laboratory number:	**189242**
Client:	**LFR Levine Fricke**
Project:	**001-09225-21**
Location:	**Oakland Edgewater**
Request Date:	**09/07/06**
Samples Received:	**09/07/06**

This hardcopy data package contains sample and QC results for thirteen water samples, requested for the above referenced project on 09/07/06. The samples were received cold and intact. All data were e-mailed to Erica Kalve on 09/18/06.

TPH-Extractables by GC (EPA 8015B):
No analytical problems were encountered.

Volatile Organics by GC/MS (EPA 8260B):
No analytical problems were encountered.

109292

CHAIN OF CUSTODY / ANALYSES REQUEST FORM

SAMPLE COLLECTOR: LFR LEVINE•FRICKE
1900 Powell Street, 12th Floor
Emeryville, California 94608-1827
(510) 652-4500 Fax: (510) 652-2246

PROJECT NO.: 001-09225-21
SECTION NO.:
PROJECT NAME: Oakland Edgewater
DATE: 9/6/06
SAMPLER'S INITIALS: MWS JAG
SAMPLER (Signature):
SERIAL NO.: № 201303

SAMPLE							ANALYSES														REMARKS
				TYPE												TAT					* VOCs: ** Metals:
Sample ID.	Date	Time	Lab Sample No.	No. of Containers	Soil	Water	TPHd (EPA 8015M)	TPHg (EPA 8015M)	BTEX (EPA 8021/602)	VOCs (EPA 8260/624)*	Metals (EPA 6010/7000)**	MTBE (8260)	TPH-mo (8015)	TPH-k (8015)				Standard	RUSH:	HOLD	☒ 8260 List ☐ CAM17 ☐ 8240 List ☐ RCRA ☐ 8010 List ☐ LUFT ☐ 624 List
1 MW-12	9/6/06	1400		4		X	X	X	X			X	X	X				X			* Use Silica Gel
2 MW-1	"	1605		4		X	X	X	X			X	X	X				X			Cleanup on TPH
3 MW-6	"	1632		4		X	X	X	X			X	X	X				X			samples
4 MW-5	"	1502		4		X	X	X	X			X	X	X				X			
5 EB090606	↓	1325		4		X	X	X	X			X	X	X					X		* Use 8260 List for BTEX
6 MW-6D	9/6/06	1640		4		X	X	X	X			X	X	X				X			and MTBE
7 MW-8-FB	9/7/06	0805		4		X	X	X	X			X	X	X				X			
8 MW-17	9/7/06	0940		4		X	X	X	X			X	X	X				X			* Change Sample name
9 MW-15	9/7/06	1055		4		X	X	X	X			X	X	X				X			EB090606 To
10 MW-9	9/7/06	1210		4		X	X	X	X			X	X	X				X			MW-12-FB
11 MW-8	9/7/06	1235		4		X	X	X	X			X	X	X				X			
12 MW-14	9/7/06	1322		4		X	X	X	X			X	X	X				X			
13 MW-13	9/7/06	1411		4		X	X	X	X			X	X	X				X			
14 MW-10 MW-16	9/7/06	1515		4		X	X	X	X			X	X	X				X			
trip blank	Held																				
No sample	received	for	MW-16																		

SAMPLE RECEIPT:	Cooler Temp:	METHOD OF SHIPMENT:	RELINQUISHED BY: 1	RELINQUISHED BY: 2	RELINQUISHED BY: 3
☑ Intact ☑ Cold			(SIGNATURE) James Gonzalez (DATE) 9/7/06	(SIGNATURE) (DATE)	(SIGNATURE) (DATE)
☑ On Ice ☐ Ambient	Cooler No:	LAB REPORT NO.:	(PRINTED NAME) LFR (TIME) 1652	(PRINTED NAME) (TIME)	(PRINTED NAME) (TIME)
Preservative Correct? ☐ Yes ☐ No ☐ N/A		FAX COC CONFIRMATION TO: Erica Kalve	(COMPANY)	(COMPANY)	(COMPANY)
ANALYTICAL LABORATORY: CoT		FAX RESULTS TO: "	RECEIVED BY: 1	RECEIVED BY: 2	RECEIVED BY (LABORATORY): 3
		SEND HARDCOPY TO: "	(SIGNATURE) (DATE) 9/7/06	(SIGNATURE) (DATE)	(SIGNATURE) (DATE)
		SEND EDD TO: EMV.LABEDDS.COM	(PRINTED NAME) Joel Ingram (TIME) 1652	(PRINTED NAME) (TIME)	(PRINTED NAME) (TIME)
			(COMPANY) CoT	(COMPANY)	(LABORATORY)

Lab/Shipping Copy (White) File Copy (Yellow) Field Copy (Pink)

FORM NO: 2001/COC/SXS

Curtis & Tompkins, Ltd.

COOLER RECEIPT CHECKLIST

Login#: 189242 Date Received: 9/7/06 Number of Coolers: 2
Client: LFR Project: Oakland Edgewater

A. Preliminary Examination Phase
Date Opened: 9/7/06 By (print): Patricia P (sign) [signature]

1. Did cooler come with a shipping slip (airbill, etc.)? ..... YES (NO)
   If YES, enter carrier name and airbill number: _____
2. Were custody seals on outside of cooler? ..... YES (NO)
   How many and where? _____ Seal date: _____ Seal name: _____
3. Were custody seals unbroken and intact at the date and time of arrival? ..... YES NO N/A
4. Were custody papers dry and intact when received? ..... (YES) NO
5. Were custody papers filled out properly (ink, signed, etc.)? ..... (YES) NO
6. Did you sign the custody papers in the appropriate place? ..... (YES) NO
7. Was project identifiable from custody papers? ..... (YES) NO
   If YES, enter project name at the top of this form.
8. If required, was sufficient ice used? Samples should be 2-6 degrees C. ..... YES NO N/A
   Type of ice: Wet Temperature: No temp blank

B. Login Phase
Date Logged In: 9/7/06 By (print): Patricia P. (sign) [signature]

1. Describe type of packing in cooler: Zip lock bags ; foam
2. Did all bottles arrive unbroken? ..... (YES) NO
3. Were labels in good condition and complete (ID, date, time, signature, etc.)? ..... (YES) NO
4. Did bottle labels agree with custody papers? ..... (YES) NO
5. Were appropriate containers used for the tests indicated? ..... (YES) NO
6. Were correct preservatives added to samples? ..... (YES) NO
7. Was sufficient amount of sample sent for tests indicated? ..... (YES) NO
8. Were bubbles absent in VOA samples? If NO, list sample Ids below ..... (YES) NO
9. Was the client contacted concerning this sample delivery? ..... YES NO
   If YES, give details below.
   Who was called? _____ By whom? _____ Date: _____

Additional Comments:

Curtis & Tompkins, Ltd.

Total Extractable Hydrocarbons

Lab #:	189242	Location:	Oakland Edgewater
Client:	LFR Levine Fricke	Prep:	EPA 3520C
Project#:	001-09225-21	Analysis:	EPA 8015B
Matrix:	Water	Batch#:	117269
Units:	ug/L	Received:	09/07/06
Diln Fac:	1.000	Prepared:	09/11/06

Field ID:	MW-12	Sampled:	09/06/06
Type:	SAMPLE	Analyzed:	09/13/06
Lab ID:	189242-001	Cleanup Method:	EPA 3630C

Analyte	Result	RL
Kerosene C10-C16	200 Y	50
Diesel C10-C24	230 Y	50
Motor Oil C24-C36	ND	300

Surrogate	%REC	Limits
Hexacosane	108	65-130

Field ID:	MW-1	Sampled:	09/06/06
Type:	SAMPLE	Analyzed:	09/13/06
Lab ID:	189242-002	Cleanup Method:	EPA 3630C

Analyte	Result	RL
Kerosene C10-C16	3,100 H	50
Diesel C10-C24	3,400 H L	50
Motor Oil C24-C36	400 L	300

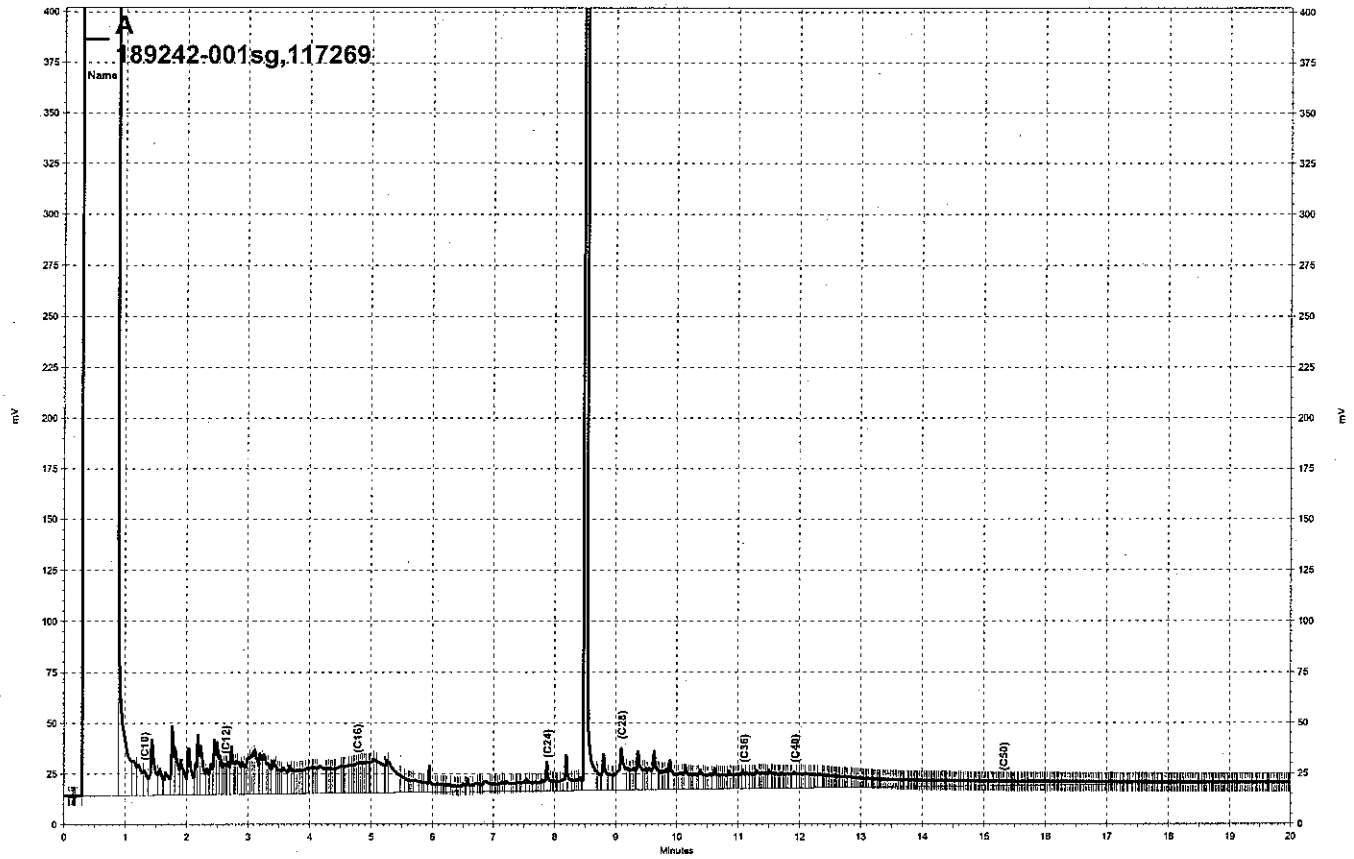
Surrogate	%REC	Limits
Hexacosane	124	65-130

Field ID:	MW-6	Sampled:	09/06/06
Type:	SAMPLE	Analyzed:	09/13/06
Lab ID:	189242-003	Cleanup Method:	EPA 3630C

Analyte	Result	RL
Kerosene C10-C16	200 Y	50
Diesel C10-C24	180 Y	50
Motor Oil C24-C36	ND	300

Surrogate	%REC	Limits
Hexacosane	117	65-130

H= Heavier hydrocarbons contributed to the quantitation
L= Lighter hydrocarbons contributed to the quantitation
Y= Sample exhibits chromatographic pattern which does not resemble standard
ND= Not Detected
RL= Reporting Limit



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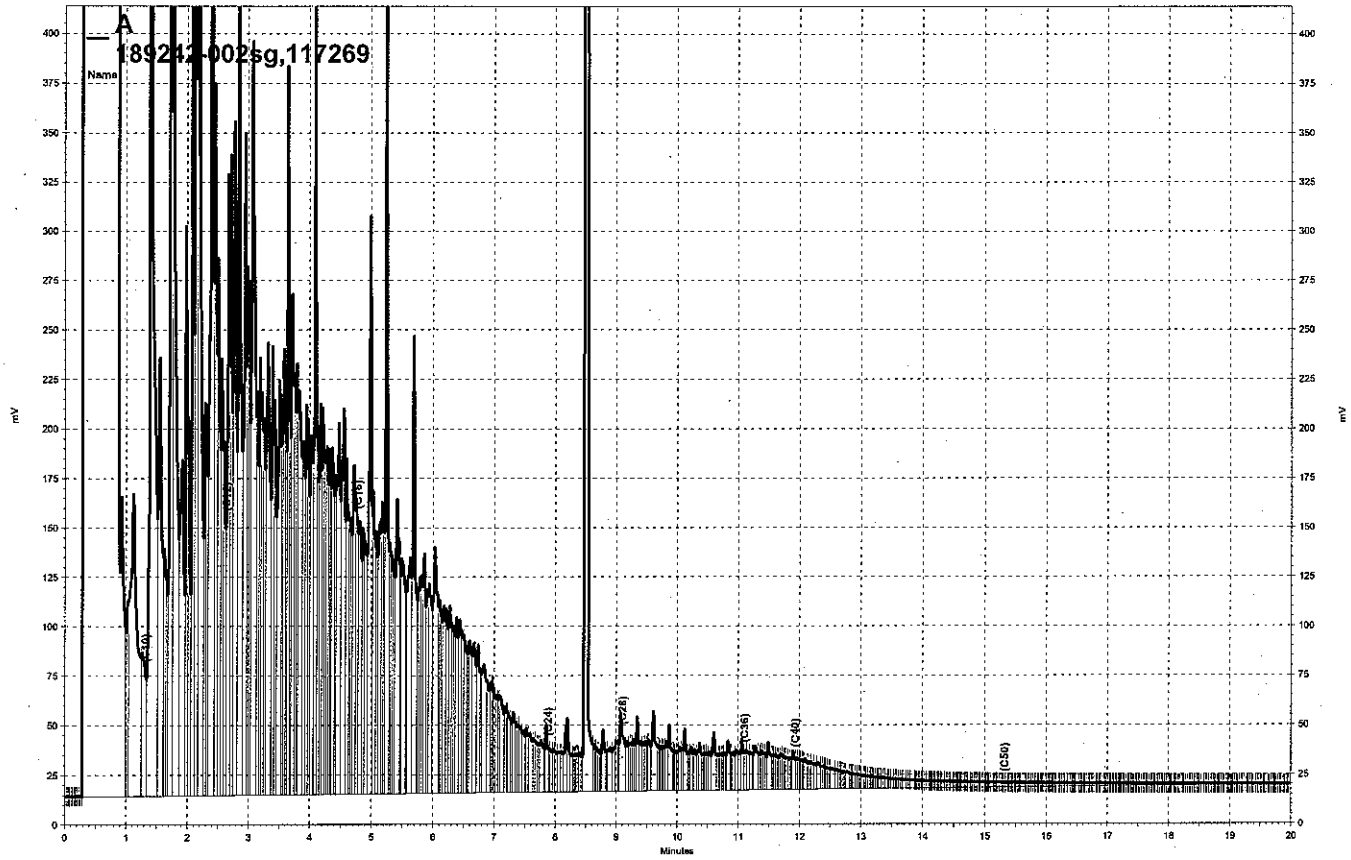
MW-12



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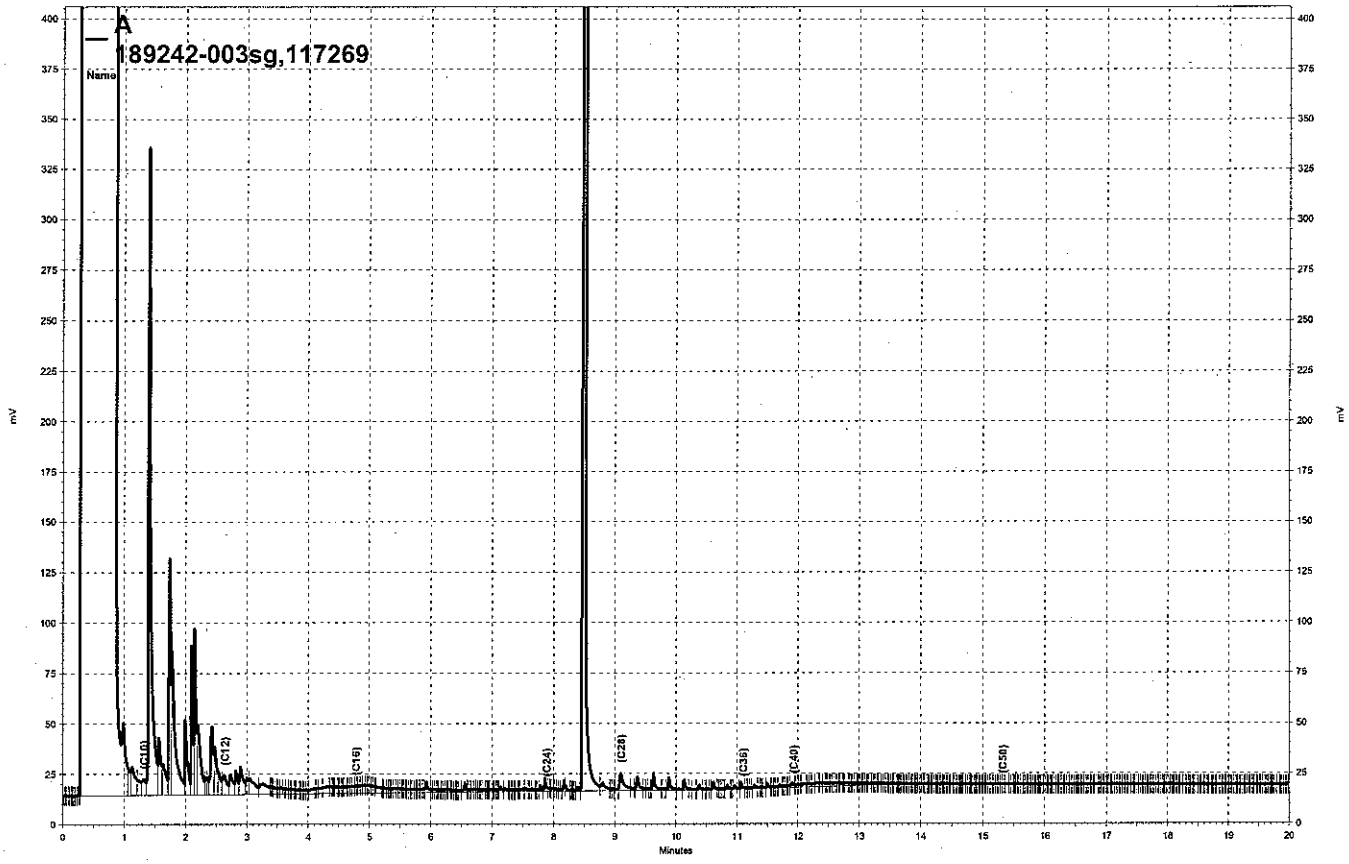
MW-1



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MW-6

Curtis & Tompkins, Ltd.

Total Extractable Hydrocarbons

Lab #:	189242	Location:	Oakland Edgewater
Client:	LFR Levine Fricke	Prep:	EPA 3520C
Project#:	001-09225-21	Analysis:	EPA 8015B
Matrix:	Water	Batch#:	117269
Units:	ug/L	Received:	09/07/06
Diln Fac:	1.000	Prepared:	09/11/06

Field ID:	MW-5	Sampled:	09/06/06
Type:	SAMPLE	Analyzed:	09/13/06
Lab ID:	189242-004	Cleanup Method:	EPA 3630C

Analyte	Result	RL
Kerosene C10-C16	400 Y	50
Diesel C10-C24	340 Y	50
Motor Oil C24-C36	ND	300

Surrogate	%REC	Limits
Hexacosane	95	65-130

Field ID:	MW-6D	Sampled:	09/06/06
Type:	SAMPLE	Analyzed:	09/13/06
Lab ID:	189242-006	Cleanup Method:	EPA 3630C

Analyte	Result	RL
Kerosene C10-C16	2,300 H	50
Diesel C10-C24	2,400 H L	50
Motor Oil C24-C36	ND	300

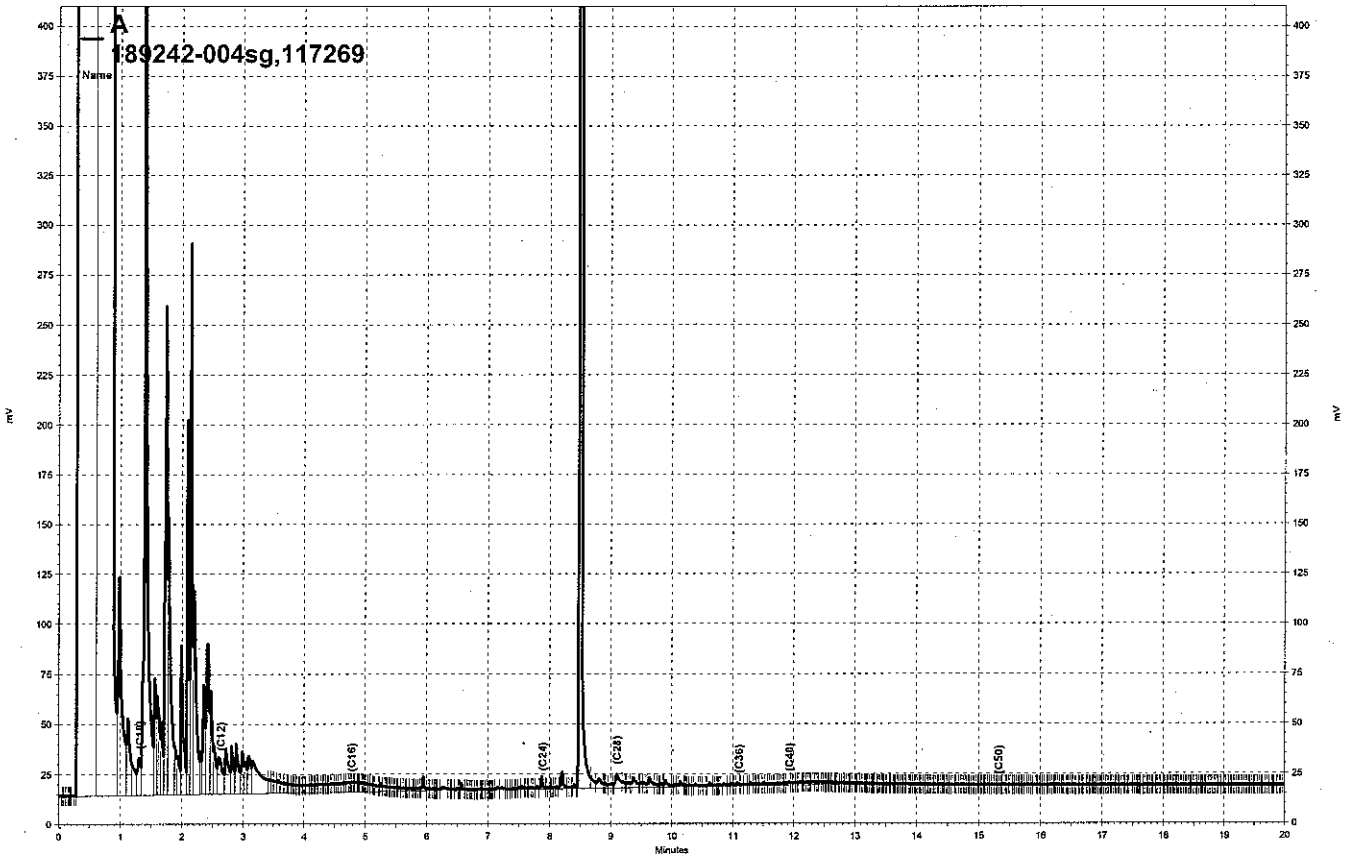
Surrogate	%REC	Limits
Hexacosane	124	65-130

Field ID:	MW-8-FB	Sampled:	09/07/06
Type:	SAMPLE	Analyzed:	09/13/06
Lab ID:	189242-007	Cleanup Method:	EPA 3630C

Analyte	Result	RL
Kerosene C10-C16	ND	50
Diesel C10-C24	ND	50
Motor Oil C24-C36	ND	300

Surrogate	%REC	Limits
Hexacosane	100	65-130

H= Heavier hydrocarbons contributed to the quantitation
L= Lighter hydrocarbons contributed to the quantitation
Y= Sample exhibits chromatographic pattern which does not resemble standard
ND= Not Detected
RL= Reporting Limit



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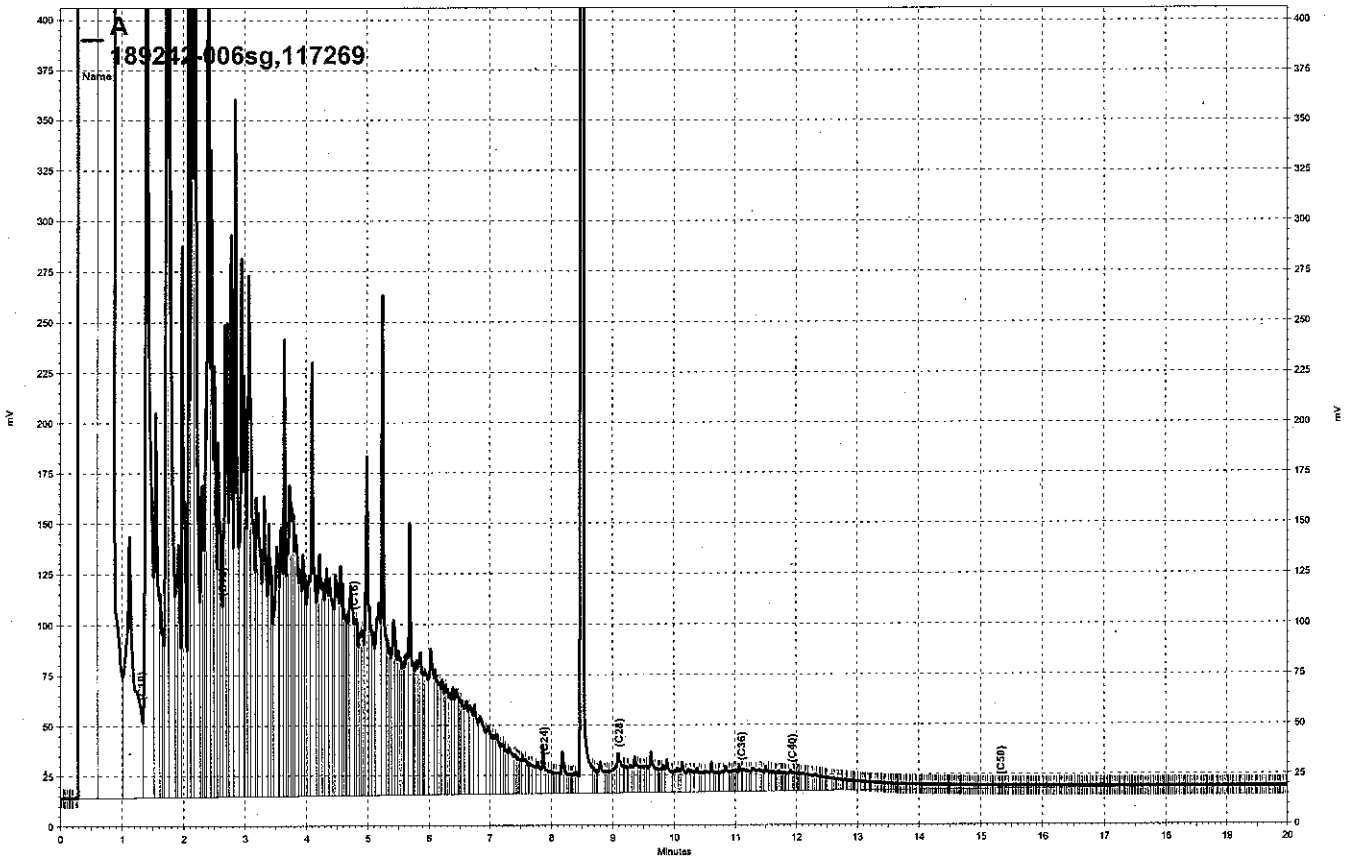
MW-5



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MW-6D

Curtis & Tompkins, Ltd.

Total Extractable Hydrocarbons

Lab #:	189242	Location:	Oakland Edgewater
Client:	LFR Levine Fricke	Prep:	EPA 3520C
Project#:	001-09225-21	Analysis:	EPA 8015B
Matrix:	Water	Batch#:	117269
Units:	ug/L	Received:	09/07/06
Diln Fac:	1.000	Prepared:	09/11/06

Field ID:	MW-17	Sampled:	09/07/06
Type:	SAMPLE	Analyzed:	09/13/06
Lab ID:	189242-008	Cleanup Method:	EPA 3630C

Analyte	Result	RL
Kerosene C10-C16	ND	50
Diesel C10-C24	ND	50
Motor Oil C24-C36	ND	300

Surrogate	%REC	Limits
Hexacosane	97	65-130

Field ID:	MW-15	Sampled:	09/07/06
Type:	SAMPLE	Analyzed:	09/13/06
Lab ID:	189242-009	Cleanup Method:	EPA 3630C

Analyte	Result	RL
Kerosene C10-C16	80 H Y	50
Diesel C10-C24	220 H Y	50
Motor Oil C24-C36	400	300

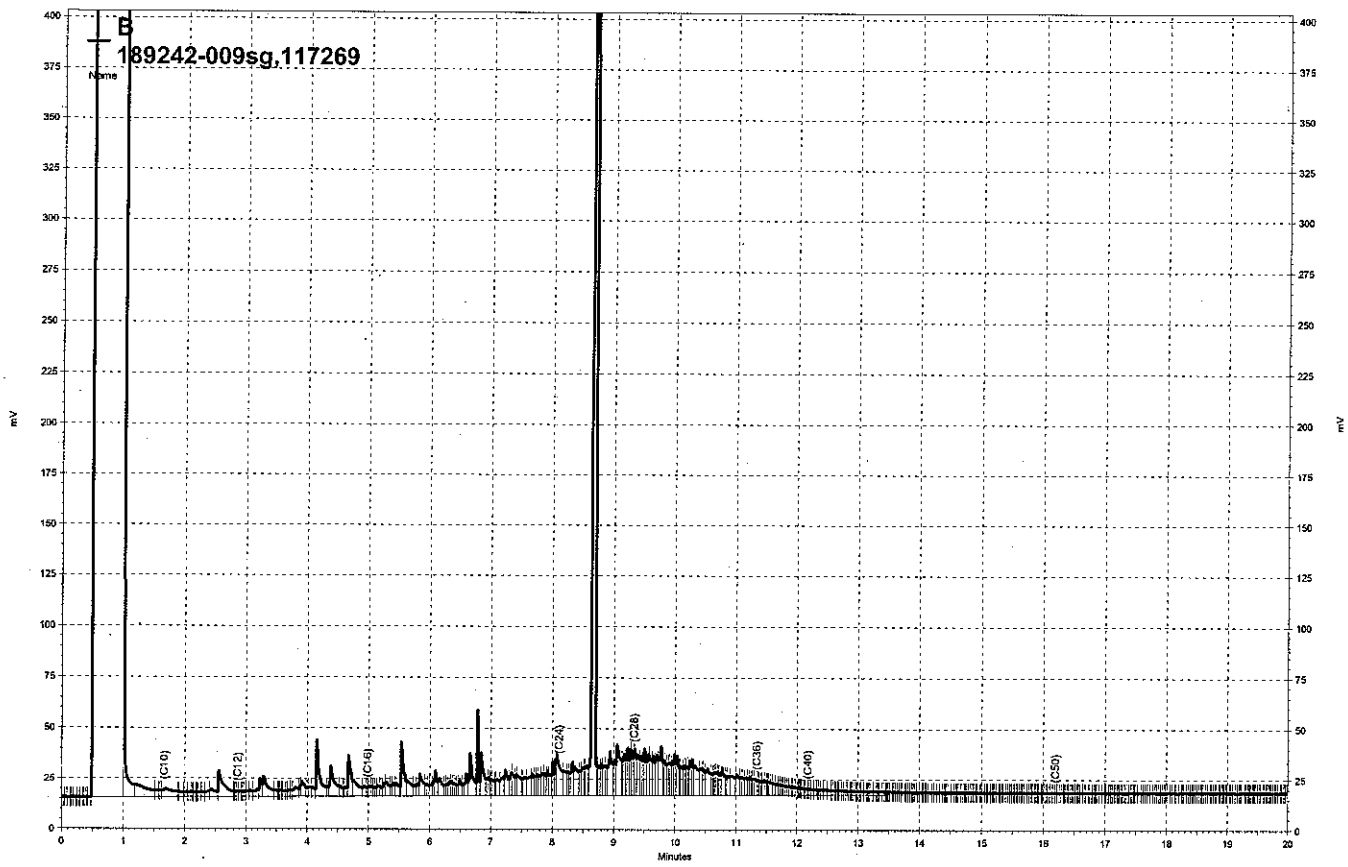
Surrogate	%REC	Limits
Hexacosane	105	65-130

Field ID:	MW-9	Sampled:	09/07/06
Type:	SAMPLE	Analyzed:	09/13/06
Lab ID:	189242-010	Cleanup Method:	EPA 3630C

Analyte	Result	RL
Kerosene C10-C16	150 Y	50
Diesel C10-C24	210 Y	50
Motor Oil C24-C36	ND	300

Surrogate	%REC	Limits
Hexacosane	127	65-130

H= Heavier hydrocarbons contributed to the quantitation
L= Lighter hydrocarbons contributed to the quantitation
Y= Sample exhibits chromatographic pattern which does not resemble standard
ND= Not Detected
RL= Reporting Limit



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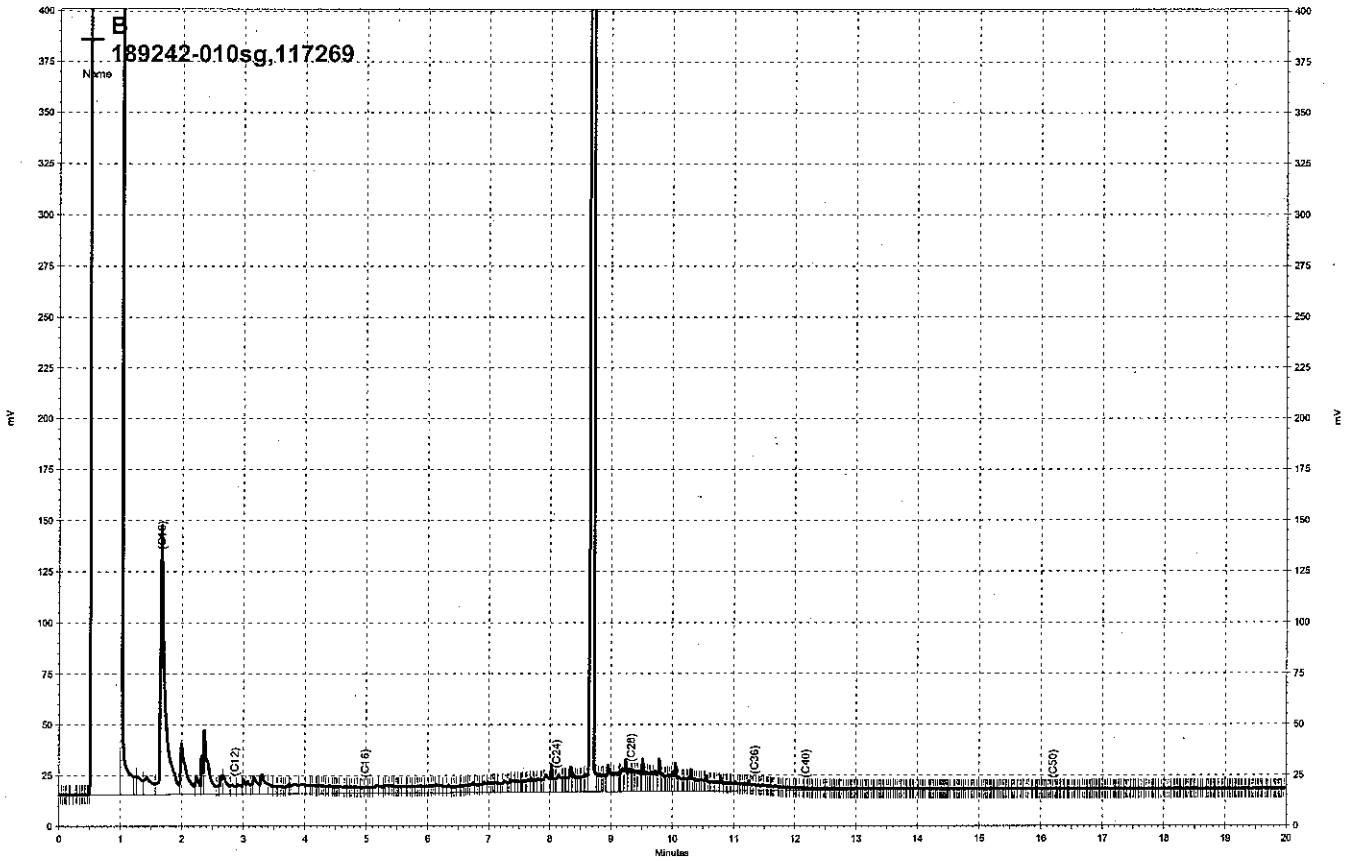
MW-15



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MW-9

Curtis & Tompkins, Ltd.

Total Extractable Hydrocarbons

Lab #:	189242	Location:	Oakland Edgewater
Client:	LFR Levine Fricke	Prep:	EPA 3520C
Project#:	001-09225-21	Analysis:	EPA 8015B
Matrix:	Water	Batch#:	117269
Units:	ug/L	Received:	09/07/06
Diln Fac:	1.000	Prepared:	09/11/06

Field ID: MW-8 Sampled: 09/07/06
Type: SAMPLE Analyzed: 09/13/06
Lab ID: 189242-011 Cleanup Method: EPA 3630C

Analyte	Result	RL
Kerosene C10-C16	ND	50
Diesel C10-C24	ND	50
Motor Oil C24-C36	ND	300

Surrogate	%REC	Limits
Hexacosane	97	65-130

Field ID: MW-14 Sampled: 09/07/06
Type: SAMPLE Analyzed: 09/13/06
Lab ID: 189242-012 Cleanup Method: EPA 3630C

Analyte	Result	RL
Kerosene C10-C16	79 H Y	50
Diesel C10-C24	140 H Y	50
Motor Oil C24-C36	ND	300

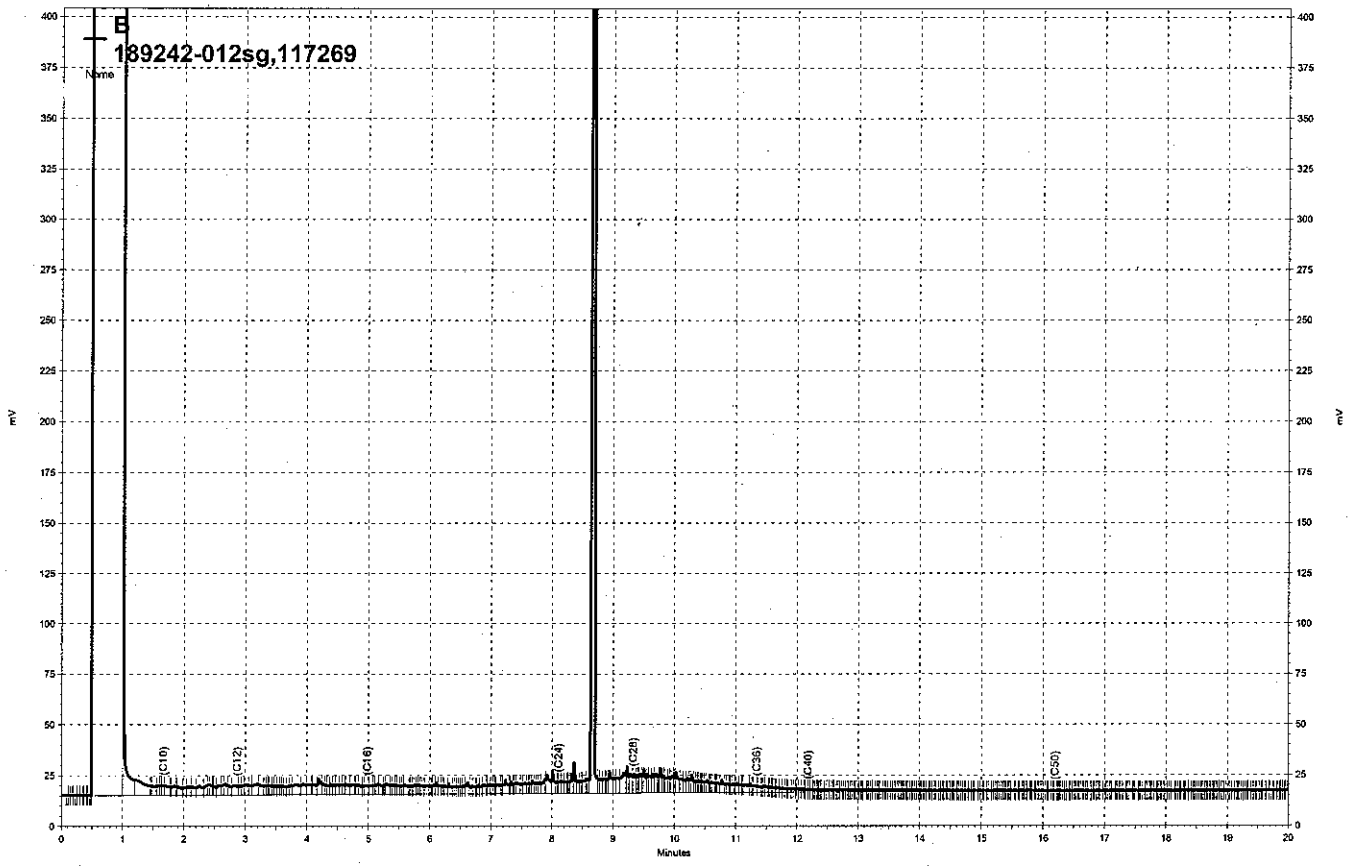
Surrogate	%REC	Limits
Hexacosane	96	65-130

Field ID: MW-13 Sampled: 09/07/06
Type: SAMPLE Analyzed: 09/13/06
Lab ID: 189242-013 Cleanup Method: EPA 3630C

Analyte	Result	RL
Kerosene C10-C16	ND	50
Diesel C10-C24	150 H Y	50
Motor Oil C24-C36	730	300

Surrogate	%REC	Limits
Hexacosane	103	65-130

H= Heavier hydrocarbons contributed to the quantitation
L= Lighter hydrocarbons contributed to the quantitation
Y= Sample exhibits chromatographic pattern which does not resemble standard
ND= Not Detected
RL= Reporting Limit



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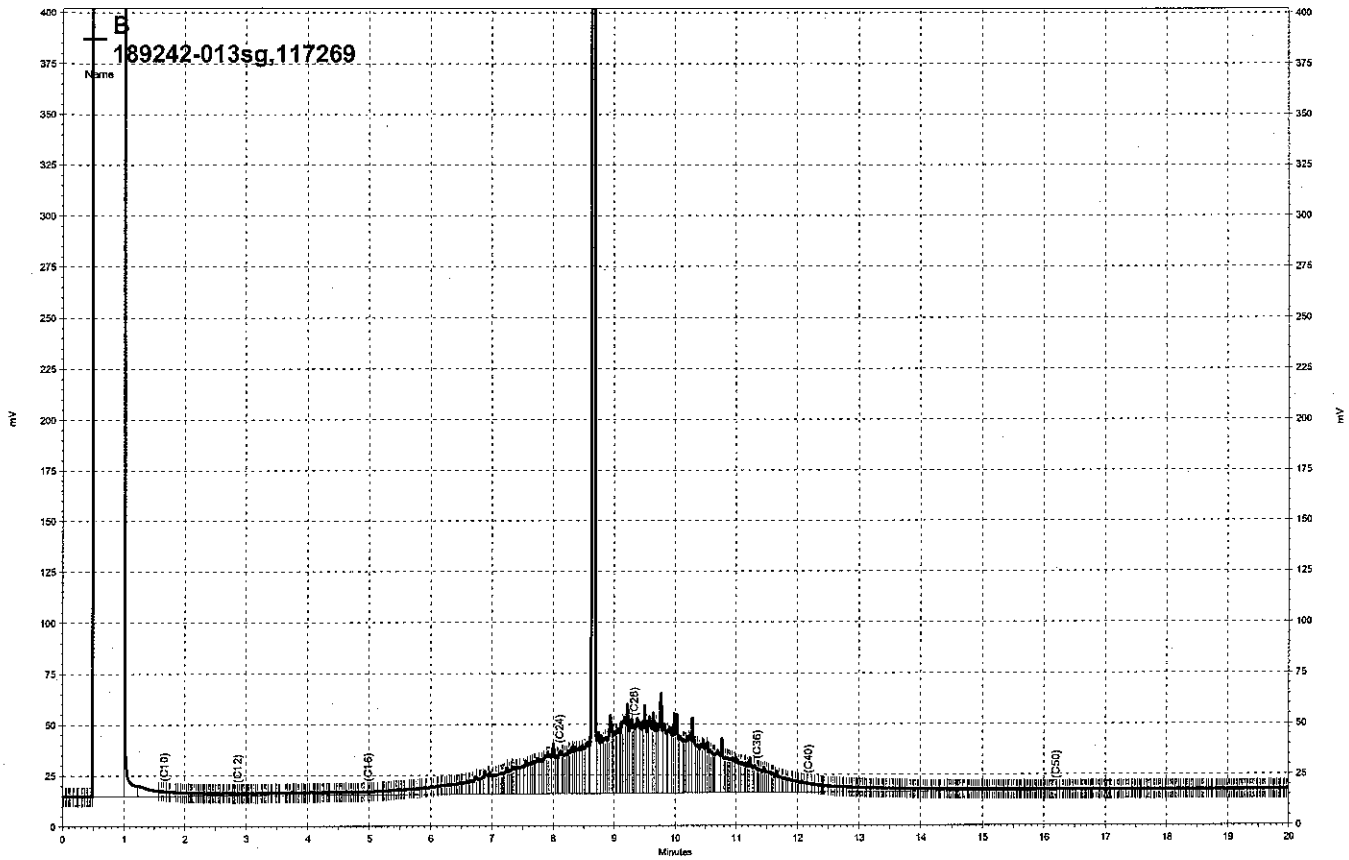

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MW-13

Curtis & Tompkins, Ltd.

Total Extractable Hydrocarbons

Lab #:	189242	Location:	Oakland Edgewater
Client:	LFR Levine Fricke	Prep:	EPA 3520C
Project#:	001-09225-21	Analysis:	EPA 8015B
Matrix:	Water	Batch#:	117269
Units:	ug/L	Received:	09/07/06
Diln Fac:	1.000	Prepared:	09/11/06

Field ID:	MW-10	Sampled:	09/07/06
Type:	SAMPLE	Analyzed:	09/13/06
Lab ID:	189242-014	Cleanup Method:	EPA 3630C

Analyte	Result	RL
Kerosene C10-C16	ND	50
Diesel C10-C24	98 H Y	50
Motor Oil C24-C36	ND	300

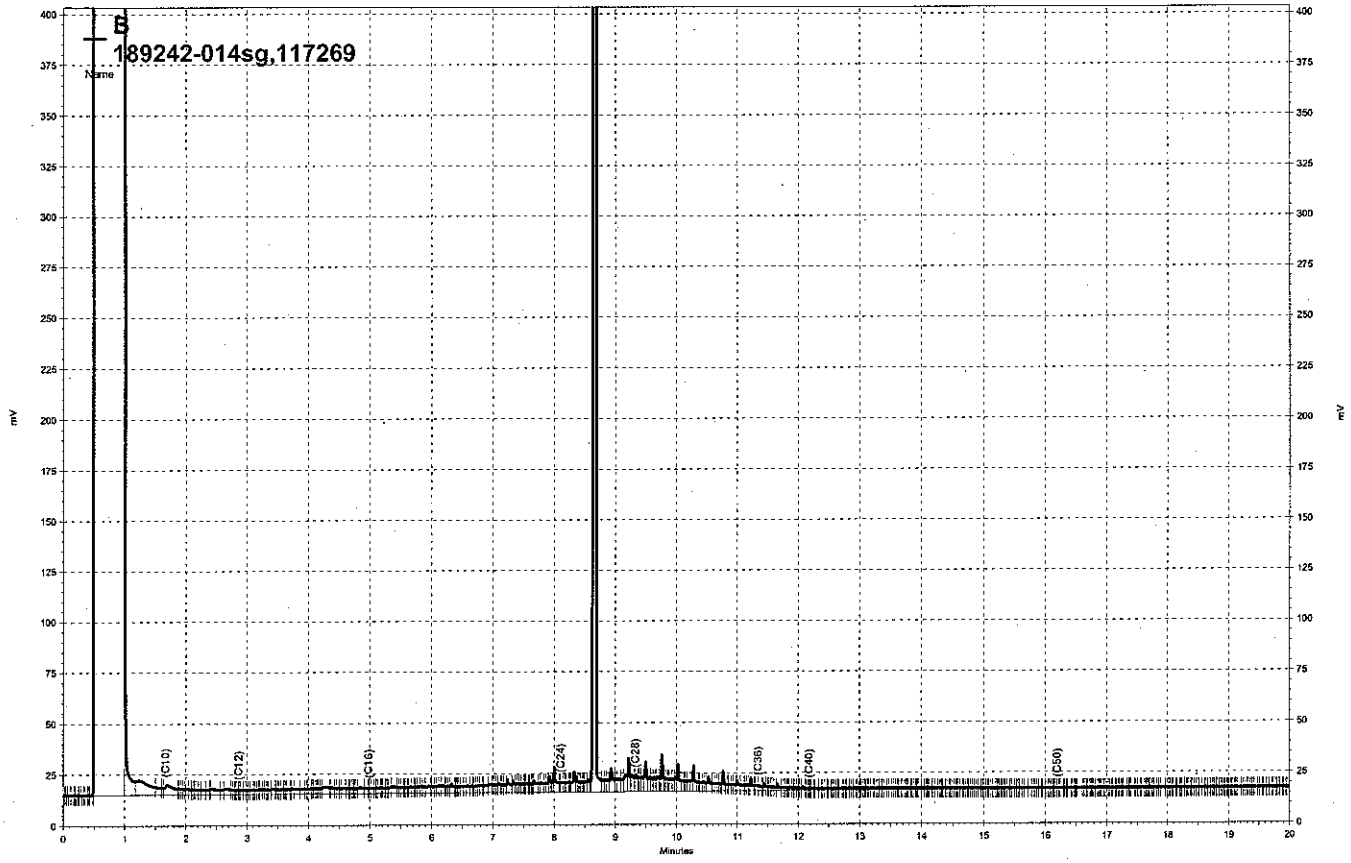
Surrogate	%REC	Limits
Hexacosane	120	65-130

Type:	BLANK	Analyzed:	09/12/06
Lab ID:	QC355425	Cleanup Method:	EPA 3630C

Analyte	Result	RL
Kerosene C10-C16	ND	50
Diesel C10-C24	ND	50
Motor Oil C24-C36	ND	300

Surrogate	%REC	Limits
Hexacosane	104	65-130

H= Heavier hydrocarbons contributed to the quantitation
L= Lighter hydrocarbons contributed to the quantitation
Y= Sample exhibits chromatographic pattern which does not resemble standard
ND= Not Detected
RL= Reporting Limit



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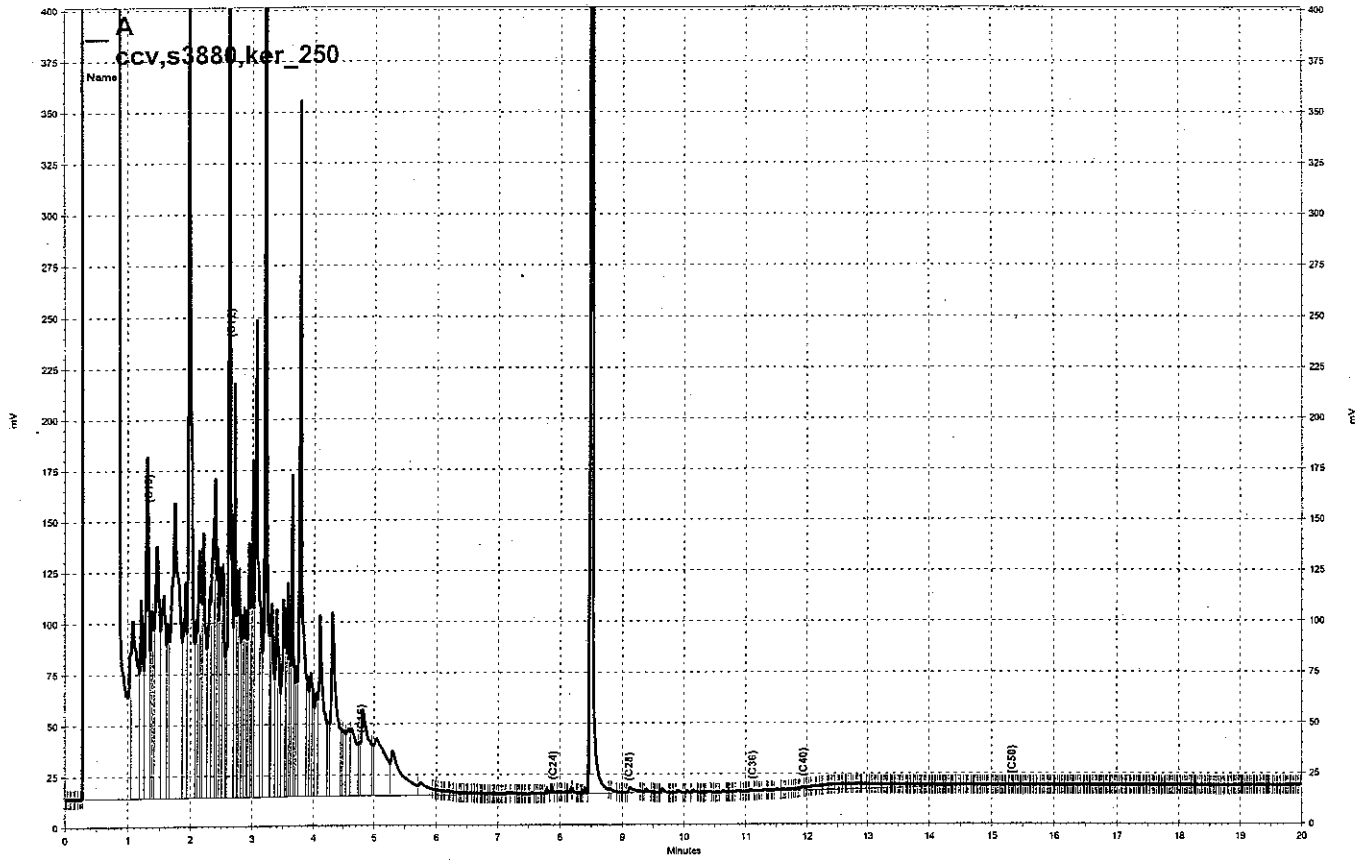
MW-10



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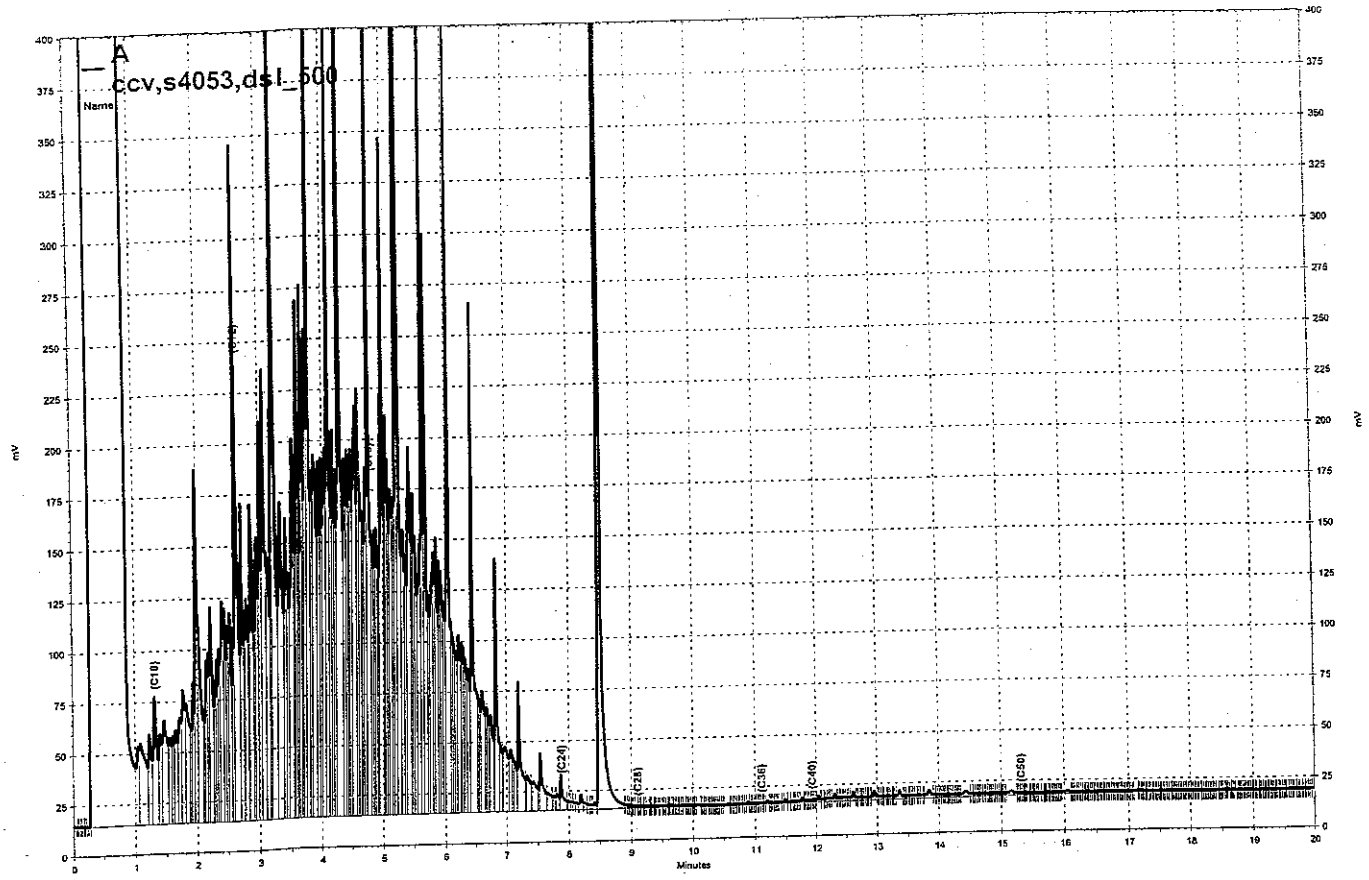
Kerosene



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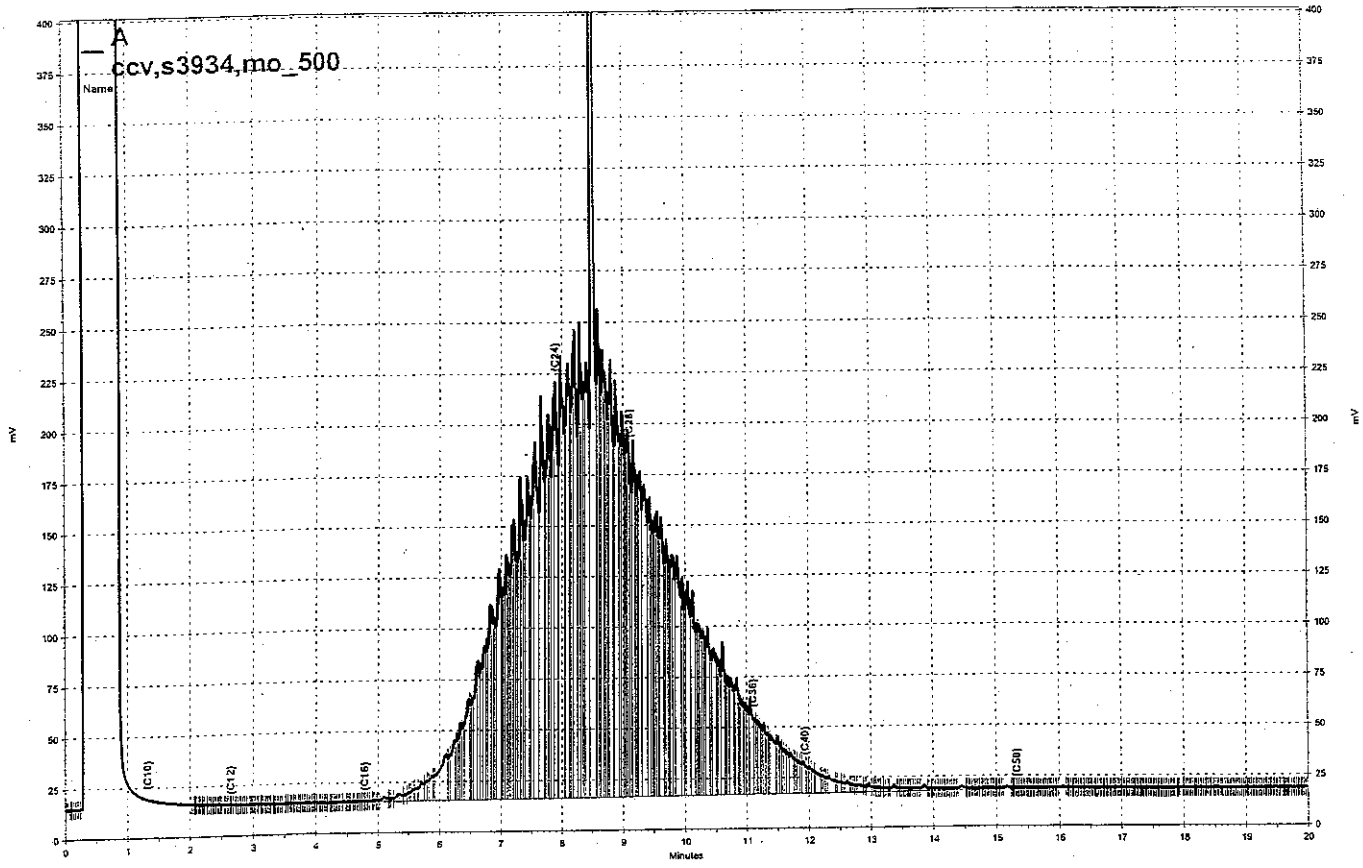
Diesel



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Motor Oil

Curtis & Tompkins, Ltd.

Batch QC Report

Total Extractable Hydrocarbons

Lab #:	189242	Location:	Oakland Edgewater
Client:	LFR Levine Fricke	Prep:	EPA 3520C
Project#:	001-09225-21	Analysis:	EPA 8015B
Matrix:	Water	Batch#:	117269
Units:	ug/L	Prepared:	09/11/06
Diln Fac:	1.000	Analyzed:	09/12/06

Type: BS Cleanup Method: EPA 3630C
Lab ID: QC355426

Analyte	Spiked	Result	%REC	Limits
Diesel C10-C24	2,500	2,153	86	61-133

Surrogate	%REC	Limits
Hexacosane	97	65-130

Type: BSD Cleanup Method: EPA 3630C
Lab ID: QC355427

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
Diesel C10-C24	2,500	2,223	89	61-133	3	31

Surrogate	%REC	Limits
Hexacosane	102	65-130

RPD= Relative Percent Difference

Curtis & Tompkins, Ltd.

Gasoline by GC/MS

Lab #:	189242	Location:	Oakland Edgewater
Client:	LFR Levine Fricke	Prep:	EPA 5030B
Project#:	001-09225-21	Analysis:	EPA 8260B
Matrix:	Water	Received:	09/07/06
Units:	ug/L		

Field ID:	MW-12	Batch#:	117379
Type:	SAMPLE	Sampled:	09/06/06
Lab ID:	189242-001	Analyzed:	09/14/06
Diln Fac:	1.000		

Analyte	Result	RL
Gasoline C7-C12	120	50
MTBE	ND	0.50
Benzene	ND	0.50
Toluene	ND	0.50
Ethylbenzene	ND	0.50
m,p-Xylenes	ND	0.50
o-Xylene	ND	0.50

Surrogate	%REC	Limits
Dibromofluoromethane	108	80-120
1,2-Dichloroethane-d4	107	80-130
Toluene-d8	97	80-120
Bromofluorobenzene	103	80-122

Field ID:	MW-1	Batch#:	117379
Type:	SAMPLE	Sampled:	09/06/06
Lab ID:	189242-002	Analyzed:	09/14/06
Diln Fac:	1.000		

Analyte	Result	RL
Gasoline C7-C12	480	50
MTBE	ND	0.50
Benzene	4.2	0.50
Toluene	1.0	0.50
Ethylbenzene	ND	0.50
m,p-Xylenes	1.9	0.50
o-Xylene	ND	0.50

Surrogate	%REC	Limits
Dibromofluoromethane	110	80-120
1,2-Dichloroethane-d4	107	80-130
Toluene-d8	96	80-120
Bromofluorobenzene	100	80-122

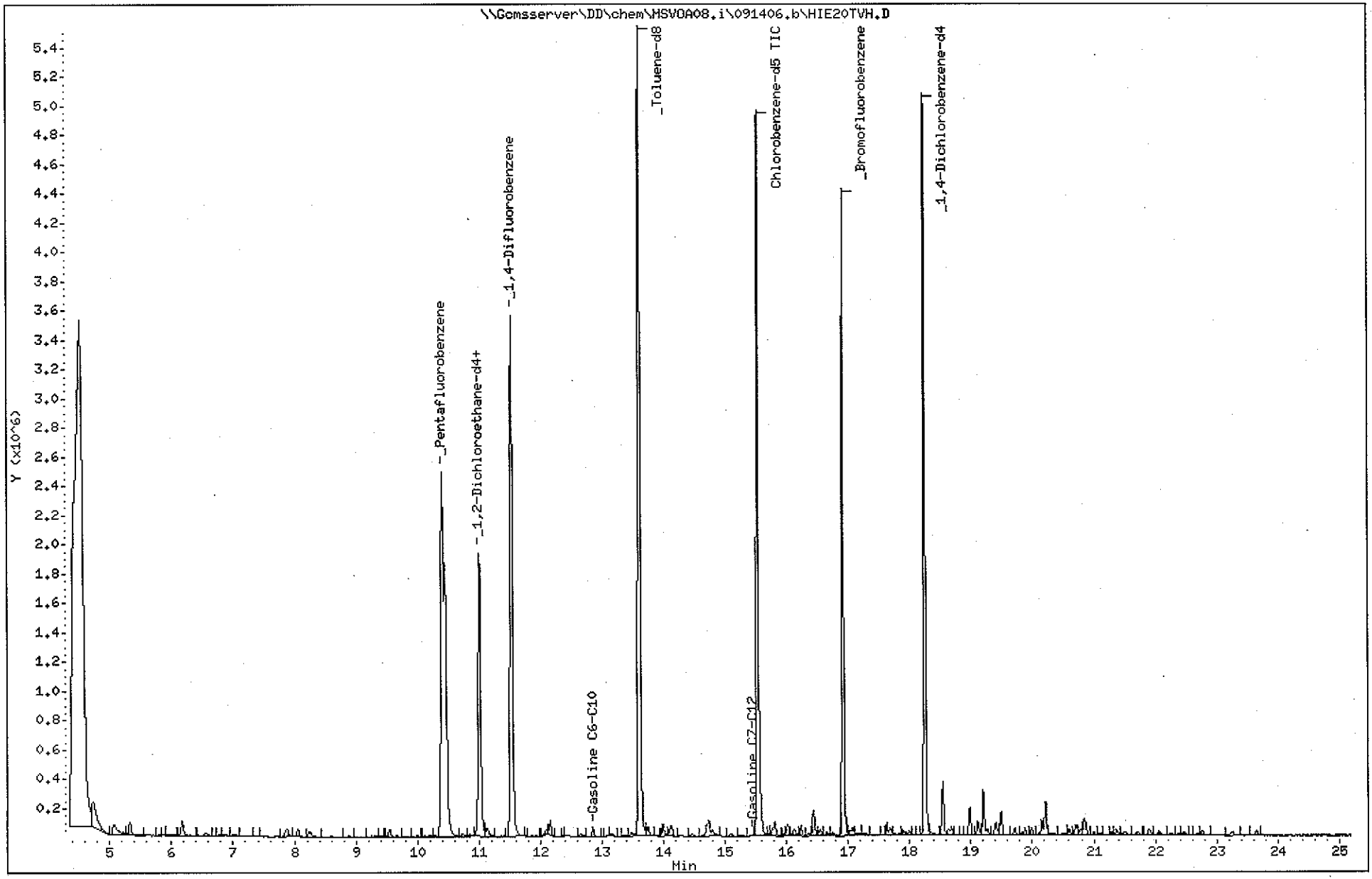
NA= Not Analyzed
ND= Not Detected
RL= Reporting Limit

Data File: \\Gcmsserver\DD\chem\MSVOA08.i\091406.b\HIE20TVH.D
Date : 14-SEP-2006 20:03
Client ID: DYNA P&T
Sample Info: S,189242-001

Column phase:

Instrument: MSVOA08.i

Operator: BO
Column diameter: 2.00



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Date : 14-SEP-2006 20:40
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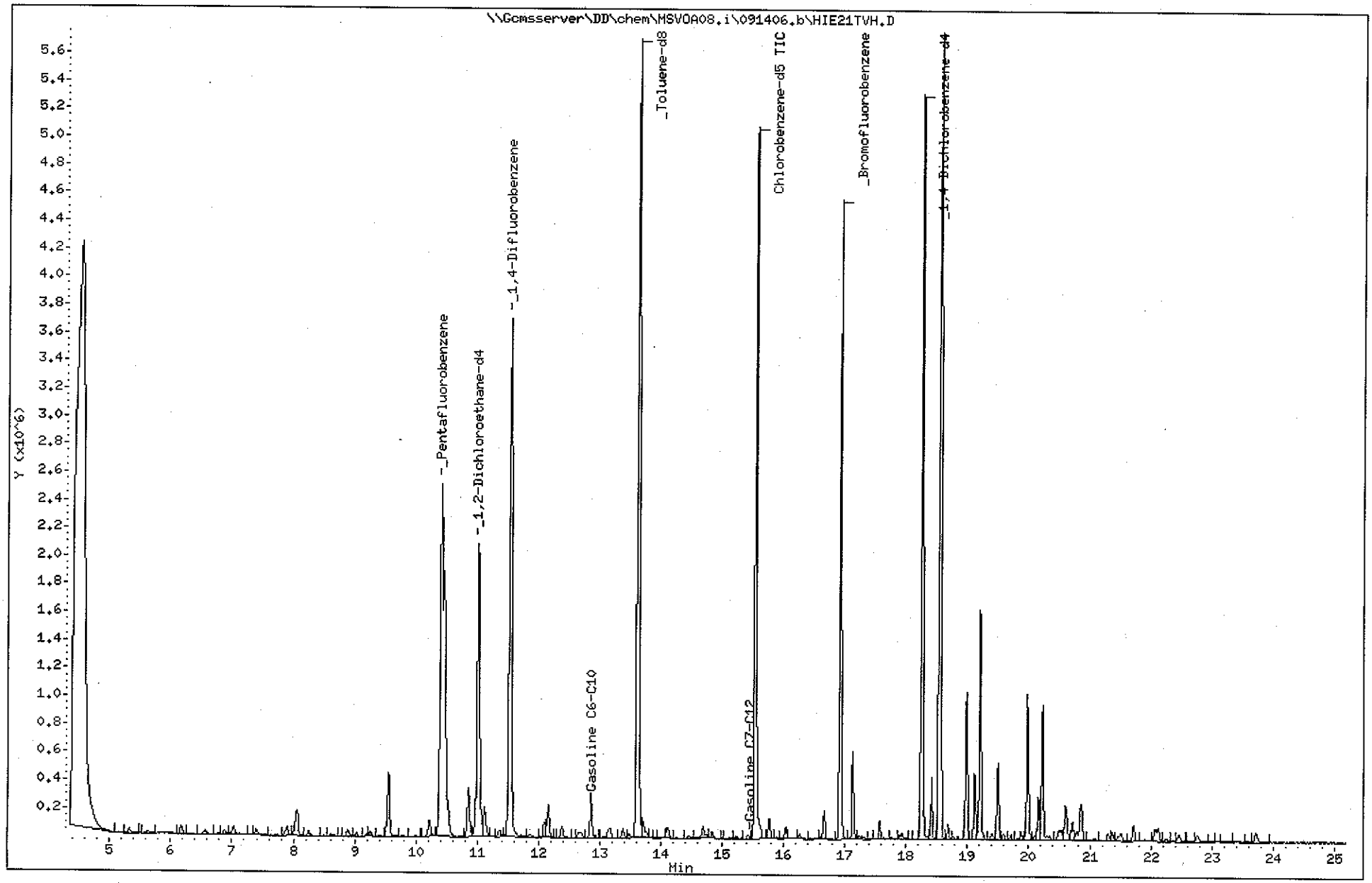
Sample Info: S,189242-002

Instrument: MSVOA08.i

Operator: BO
Column diameter: 2.00

Column phase:



Curtis & Tompkins, Ltd.

Gasoline by GC/MS

Lab #:	189242	Location:	Oakland Edgewater
Client:	LFR Levine Fricke	Prep:	EPA 5030B
Project#:	001-09225-21	Analysis:	EPA 8260B
Matrix:	Water	Received:	09/07/06
Units:	ug/L		

Field ID:	MW-6	Batch#:	117379
Type:	SAMPLE	Sampled:	09/06/06
Lab ID:	189242-003	Analyzed:	09/15/06
Diln Fac:	3.333		

Analyte	Result	RL
Gasoline C7-C12	1,300	170
MTBE	4.8	1.7
Benzene	330	1.7
Toluene	3.9	1.7
Ethylbenzene	ND	1.7
m,p-Xylenes	3.7	1.7
o-Xylene	ND	1.7

Surrogate	%REC	Limits
Dibromofluoromethane	112	80-120
1,2-Dichloroethane-d4	107	80-130
Toluene-d8	98	80-120
Bromofluorobenzene	104	80-122

Field ID:	MW-5	Batch#:	117435
Type:	SAMPLE	Sampled:	09/06/06
Lab ID:	189242-004	Analyzed:	09/15/06
Diln Fac:	1.000		

Analyte	Result	RL
Gasoline C7-C12	2,000	50
MTBE	50	0.50
Benzene	8.3	0.50
Toluene	1.1	0.50
Ethylbenzene	82	0.50
m,p-Xylenes	6.2	0.50
o-Xylene	0.60	0.50

Surrogate	%REC	Limits
Dibromofluoromethane	105	80-120
1,2-Dichloroethane-d4	104	80-130
Toluene-d8	95	80-120
Bromofluorobenzene	98	80-122

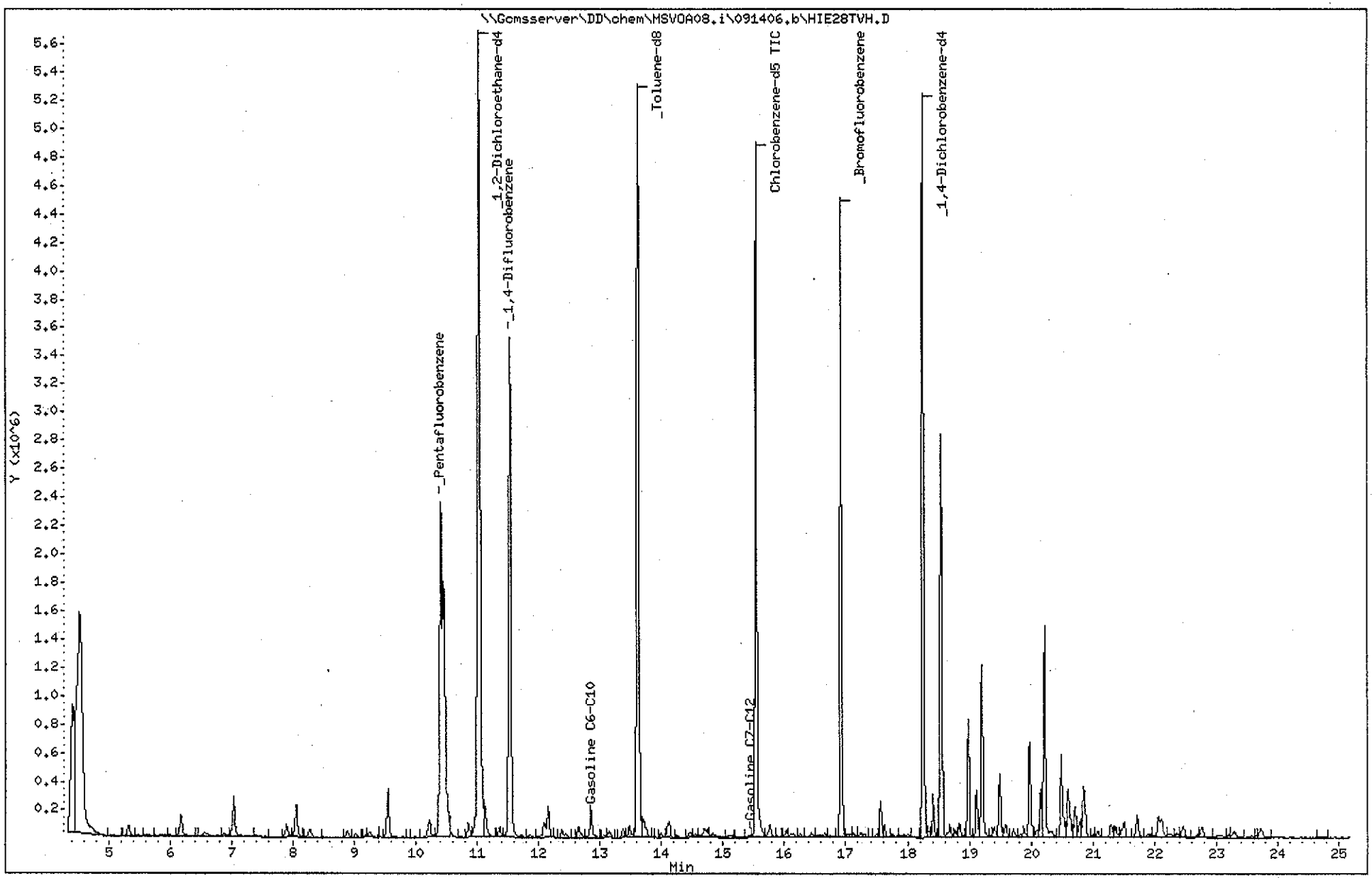
NA= Not Analyzed
ND= Not Detected
RL= Reporting Limit

Data File: \\Gcmsserver\DD\chem\MSVOA08.i\091406.b\HIE28TVH.D
Date : 15-SEP-2006 01:03
Client ID: DYNA P&T
Sample Info: S,189242-003

Instrument: MSVOA08.i

Operator: BO
Column diameter: 2.00

Column phase:



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Sample Info: S,189242-004

Instrument: MSVOA08.i

Operator: BO
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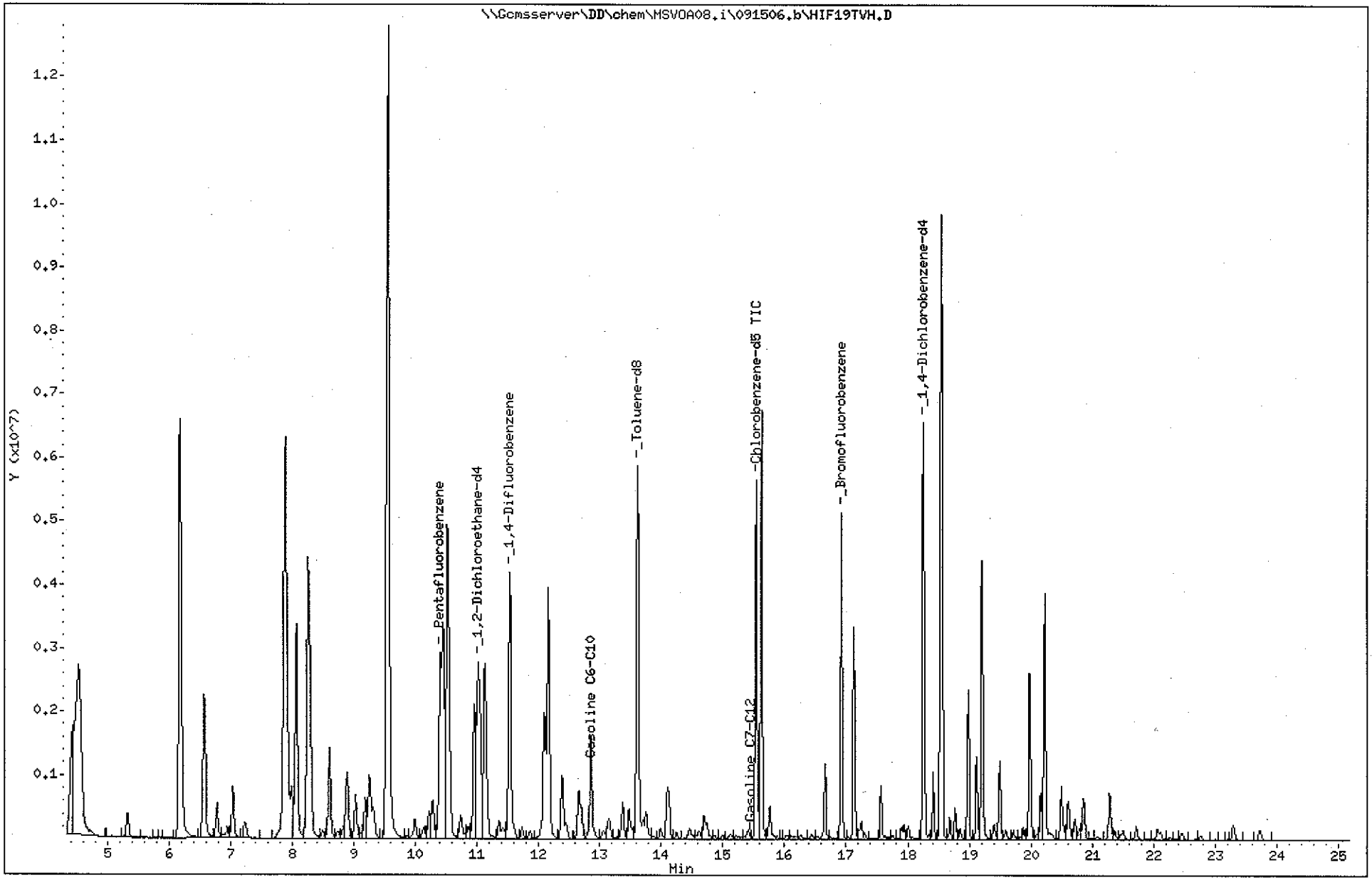


Curtis & Tompkins, Ltd.

Gasoline by GC/MS

Lab #:	189242	Location:	Oakland Edgewater
Client:	LFR Levine Fricke	Prep:	EPA 5030B
Project#:	001-09225-21	Analysis:	EPA 8260B
Matrix:	Water	Received:	09/07/06
Units:	ug/L		

Field ID:	MW-6D	Sampled:	09/06/06
Type:	SAMPLE	Analyzed:	09/15/06
Lab ID:	189242-006		

Analyte	Result	RL	Diln Fac	Batch#
Gasoline C7-C12	1,200	130	2.500	117379
MTBE	4.7	1.3	2.500	117379
Benzene	350	2.5	5.000	117435
Toluene	3.6	1.3	2.500	117379
Ethylbenzene	ND	1.3	2.500	117379
m,p-Xylenes	3.4	1.3	2.500	117379
o-Xylene	ND	1.3	2.500	117379

Surrogate	%REC	Limits	Diln Fac	Batch#
Dibromofluoromethane	107	80-120	2.500	117379
1,2-Dichloroethane-d4	98	80-130	2.500	117379
Toluene-d8	96	80-120	2.500	117379
Bromofluorobenzene	101	80-122	2.500	117379

Field ID:	MW-8-FB	Batch#:	117379
Type:	SAMPLE	Sampled:	09/07/06
Lab ID:	189242-007	Analyzed:	09/14/06
Diln Fac:	1.000		

Analyte	Result	RL
Gasoline C7-C12	ND	50
MTBE	ND	0.50
Benzene	ND	0.50
Toluene	ND	0.50
Ethylbenzene	ND	0.50
m,p-Xylenes	ND	0.50
o-Xylene	ND	0.50

Surrogate	%REC	Limits
Dibromofluoromethane	109	80-120
1,2-Dichloroethane-d4	108	80-130
Toluene-d8	97	80-120
Bromofluorobenzene	102	80-122

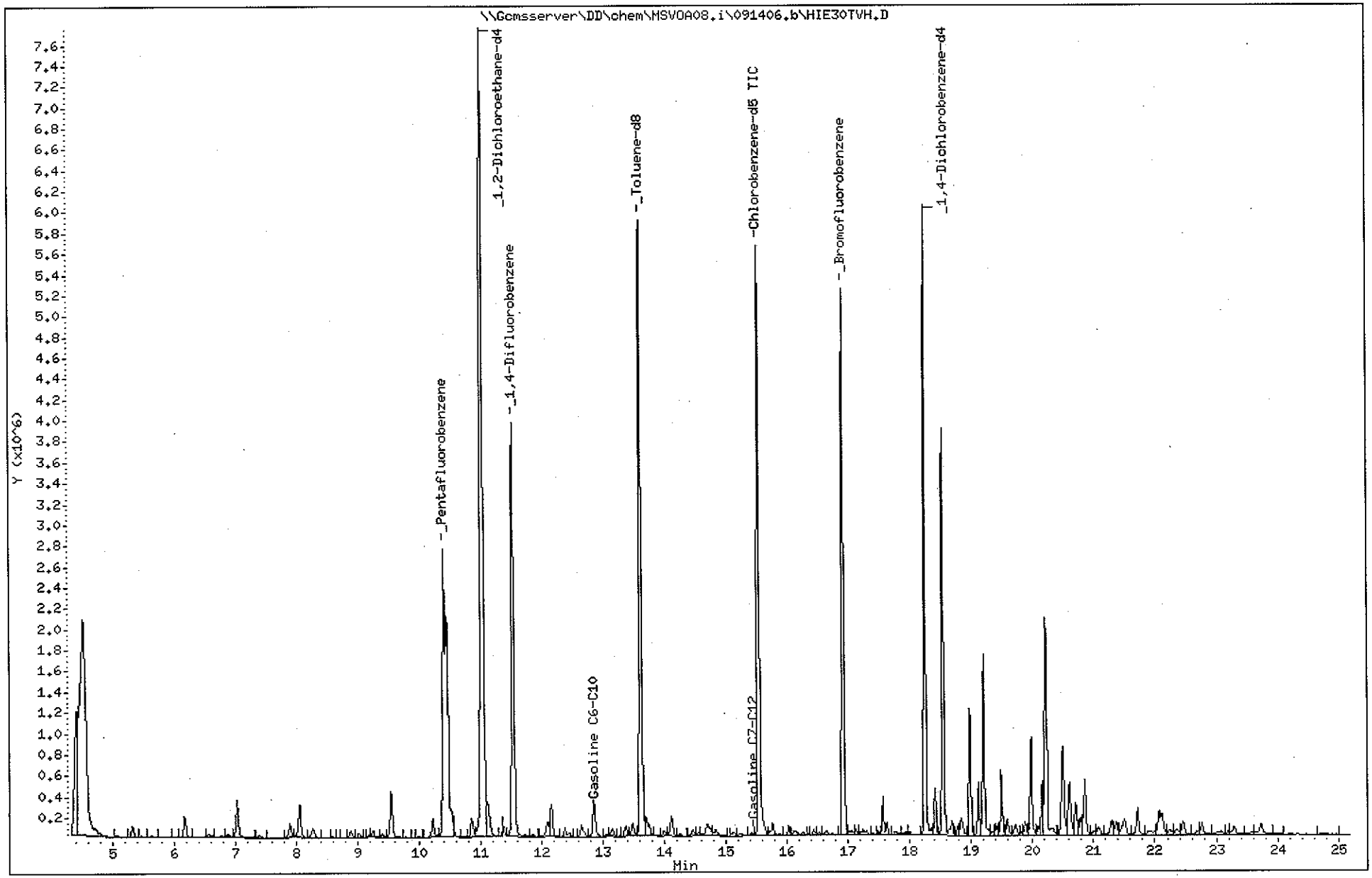
NA= Not Analyzed
ND= Not Detected
RL= Reporting Limit

Data File: \\Gcmsserver\DD\chem\MSVOA08.i\091406.b\HIE30TVH.D
Date : 15-SEP-2006 02:18
Client ID: DYNA P&T
Sample Info: S,189242-006

Instrument: MSVOA08.i

Operator: BO
Column diameter: 2.00

Column phase:



Curtis & Tompkins, Ltd.

Gasoline by GC/MS

Lab #:	189242	Location:	Oakland Edgewater
Client:	LFR Levine Fricke	Prep:	EPA 5030B
Project#:	001-09225-21	Analysis:	EPA 8260B
Matrix:	Water	Received:	09/07/06
Units:	ug/L		

Field ID:	MW-17	Batch#:	117379
Type:	SAMPLE	Sampled:	09/07/06
Lab ID:	189242-008	Analyzed:	09/14/06
Diln Fac:	1.000		

Analyte	Result	RL
Gasoline C7-C12	ND	50
MTBE	ND	0.50
Benzene	ND	0.50
Toluene	ND	0.50
Ethylbenzene	ND	0.50
m,p-Xylenes	ND	0.50
o-Xylene	ND	0.50

Surrogate	%REC	Limits
Dibromofluoromethane	111	80-120
1,2-Dichloroethane-d4	109	80-130
Toluene-d8	99	80-120
Bromofluorobenzene	103	80-122

Field ID:	MW-15	Batch#:	117379
Type:	SAMPLE	Sampled:	09/07/06
Lab ID:	189242-009	Analyzed:	09/14/06
Diln Fac:	1.000		

Analyte	Result	RL
Gasoline C7-C12	ND	50
MTBE	ND	0.50
Benzene	ND	0.50
Toluene	ND	0.50
Ethylbenzene	ND	0.50
m,p-Xylenes	1.3	0.50
o-Xylene	0.76	0.50

Surrogate	%REC	Limits
Dibromofluoromethane	113	80-120
1,2-Dichloroethane-d4	114	80-130
Toluene-d8	98	80-120
Bromofluorobenzene	104	80-122

NA= Not Analyzed
ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Gasoline by GC/MS

Lab #:	189242	Location:	Oakland Edgewater
Client:	LFR Levine Fricke	Prep:	EPA 5030B
Project#:	001-09225-21	Analysis:	EPA 8260B
Matrix:	Water	Received:	09/07/06
Units:	ug/L		

Field ID:	MW-9	Batch#:	117487
Type:	SAMPLE	Sampled:	09/07/06
Lab ID:	189242-010	Analyzed:	09/18/06
Diln Fac:	1.000		

Analyte	Result	RL
Gasoline C7-C12	240	50
MTBE	ND	0.50
Benzene	58	0.50
Toluene	5.3	0.50
Ethylbenzene	ND	0.50
m,p-Xylenes	5.0	0.50
o-Xylene	0.68	0.50

Surrogate	%REC	Limits
Dibromofluoromethane	104	80-120
1,2-Dichloroethane-d4	99	80-130
Toluene-d8	93	80-120
Bromofluorobenzene	99	80-122

Field ID:	MW-8	Batch#:	117435
Type:	SAMPLE	Sampled:	09/07/06
Lab ID:	189242-011	Analyzed:	09/15/06
Diln Fac:	1.000		

Analyte	Result	RL
Gasoline C7-C12	ND	50
MTBE	ND	0.50
Benzene	ND	0.50
Toluene	ND	0.50
Ethylbenzene	ND	0.50
m,p-Xylenes	ND	0.50
o-Xylene	ND	0.50

Surrogate	%REC	Limits
Dibromofluoromethane	106	80-120
1,2-Dichloroethane-d4	101	80-130
Toluene-d8	96	80-120
Bromofluorobenzene	99	80-122

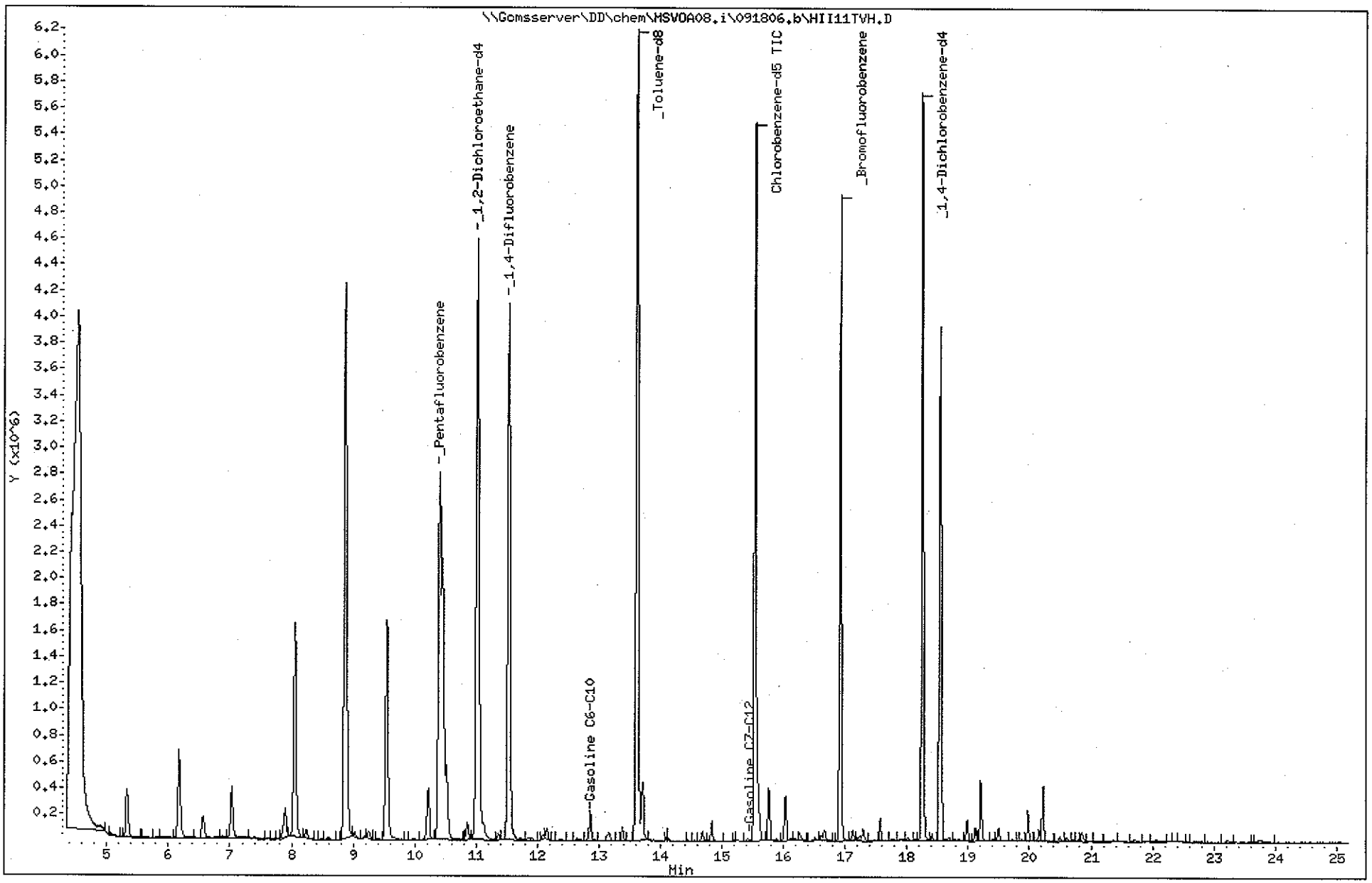
NA= Not Analyzed
ND= Not Detected
RL= Reporting Limit

Data File: \\Gcmsserver\DD\chem\MSVOA08.i\091806.b\HII11TVH.D
Date : 18-SEP-2006 14:38
Client ID: DYNA P&T
Sample Info: S,189242-010

Instrument: MSVOA08.i

Operator: BO
Column diameter: 2.00

Column phase:



Curtis & Tompkins, Ltd.

Gasoline by GC/MS

Lab #:	189242	Location:	Oakland Edgewater
Client:	LFR Levine Fricke	Prep:	EPA 5030B
Project#:	001-09225-21	Analysis:	EPA 8260B
Matrix:	Water	Received:	09/07/06
Units:	ug/L		

Field ID:	MW-14	Batch#:	117435
Type:	SAMPLE	Sampled:	09/07/06
Lab ID:	189242-012	Analyzed:	09/15/06
Diln Fac:	1.000		

Analyte	Result	RL
Gasoline C7-C12	60	50
MTBE	0.51	0.50
Benzene	ND	0.50
Toluene	ND	0.50
Ethylbenzene	ND	0.50
m,p-Xylenes	ND	0.50
o-Xylene	ND	0.50

Surrogate	%REC	Limits
Dibromofluoromethane	104	80-120
1,2-Dichloroethane-d4	103	80-130
Toluene-d8	95	80-120
Bromofluorobenzene	98	80-122

Field ID:	MW-13	Batch#:	117435
Type:	SAMPLE	Sampled:	09/07/06
Lab ID:	189242-013	Analyzed:	09/15/06
Diln Fac:	1.000		

Analyte	Result	RL
Gasoline C7-C12	ND	50
MTBE	ND	0.50
Benzene	ND	0.50
Toluene	ND	0.50
Ethylbenzene	ND	0.50
m,p-Xylenes	ND	0.50
o-Xylene	ND	0.50

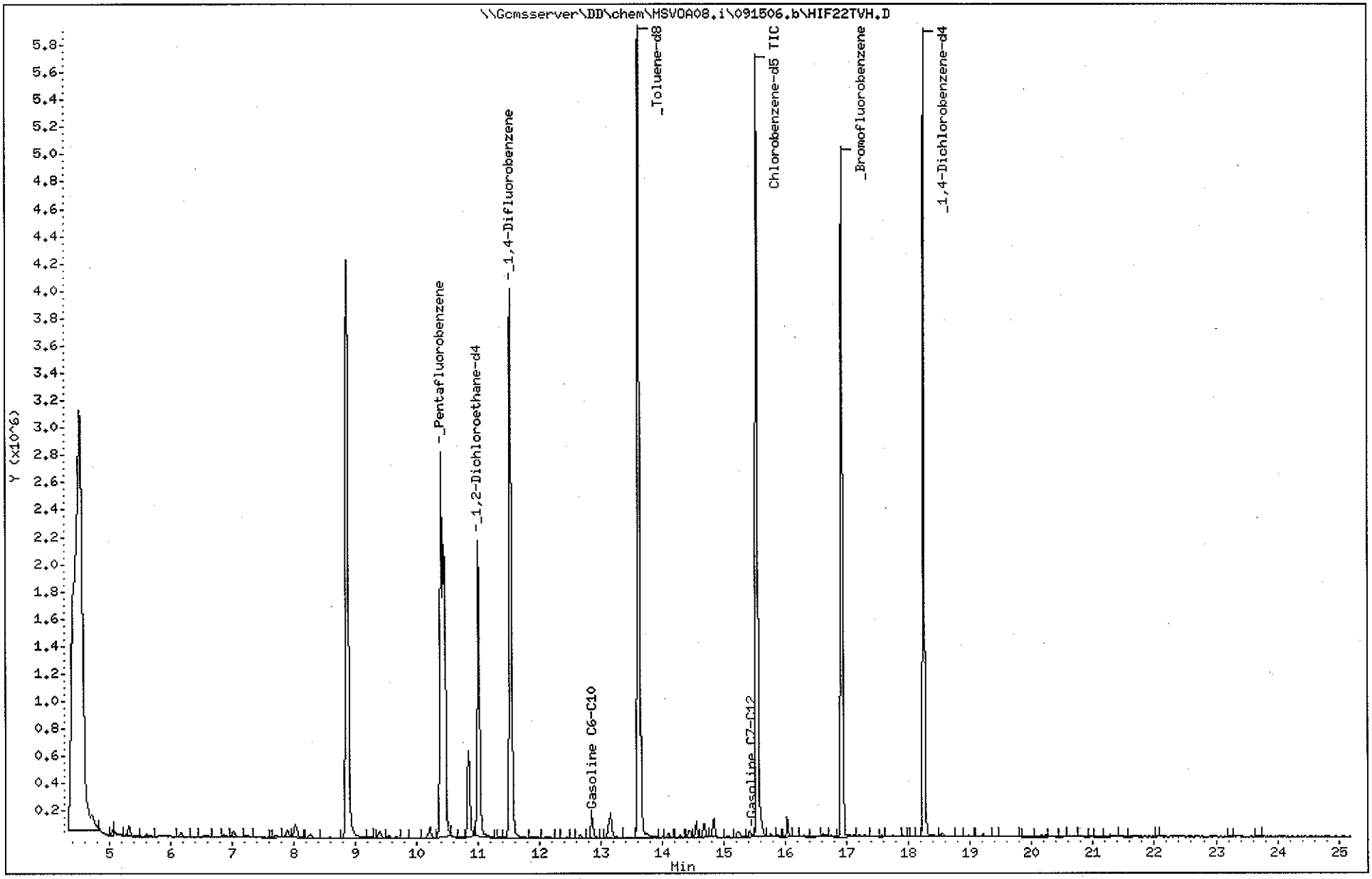
Surrogate	%REC	Limits
Dibromofluoromethane	105	80-120
1,2-Dichloroethane-d4	105	80-130
Toluene-d8	96	80-120
Bromofluorobenzene	100	80-122

NA= Not Analyzed
ND= Not Detected
RL= Reporting Limit

Data File: \\Gcmsserver\DD\chem\MSVOA08.i\091506.b\HIF22TVH.D
Date : 15-SEP-2006 21:22
Client ID: DYNA P&T
Sample Info: S,189242-012

Instrument: MSVOA08.i
Operator: BO
Column diameter: 2.00

Column phase:

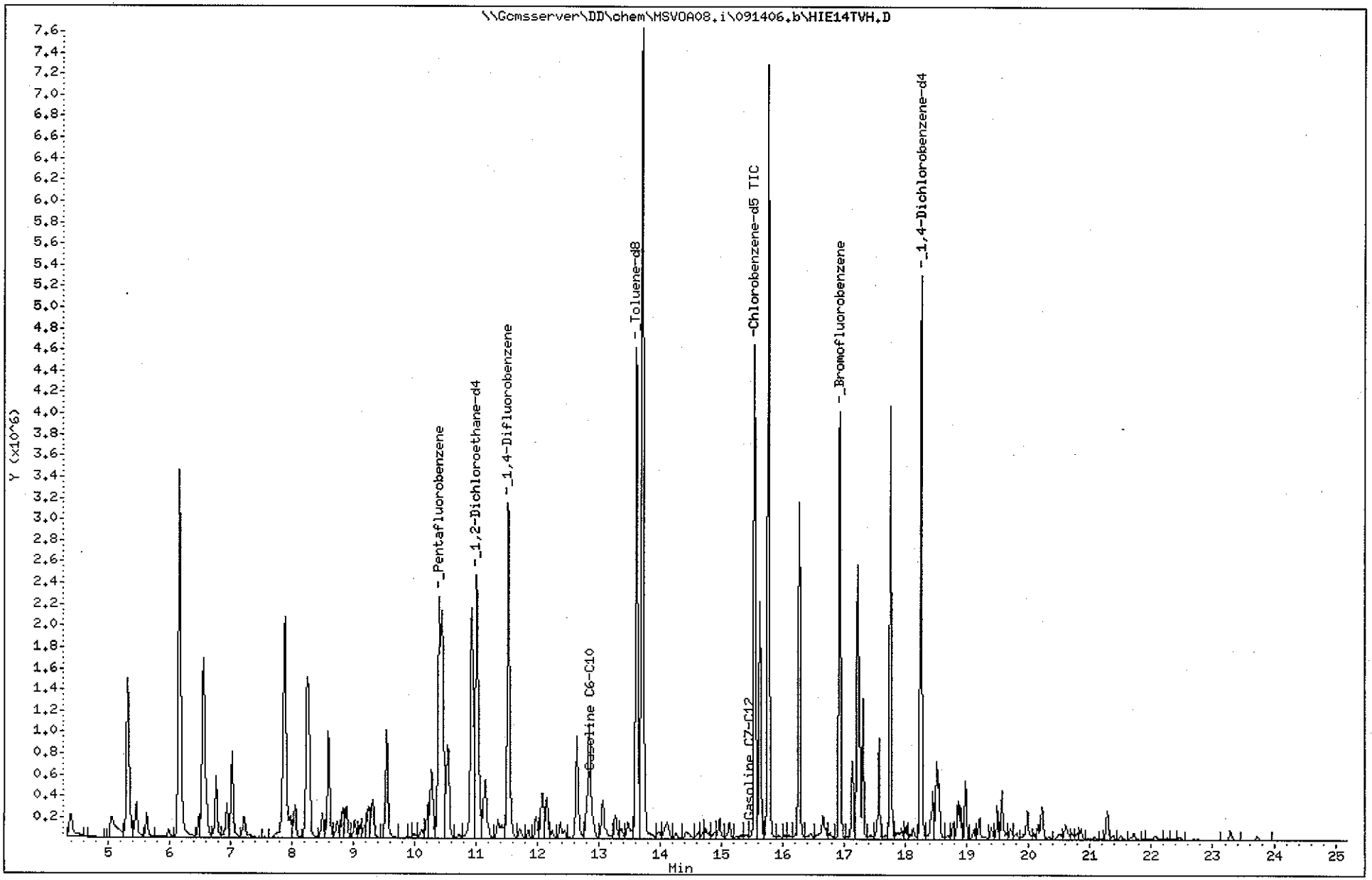


Data File: \\Gcmsserver\DD\chem\MSVOA08.i\091406.b\HIE14TVH.D
Date : 14-SEP-2006 16:18
Client ID: DYNA P&T
Sample Info: CCV,S4120,0.02/100

Instrument: MSVOA08.i

Operator: BO
Column diameter: 2.00

Column phase:



Curtis & Tompkins, Ltd.

Gasoline by GC/MS

Lab #:	189242	Location:	Oakland Edgewater
Client:	LFR Levine Fricke	Prep:	EPA 5030B
Project#:	001-09225-21	Analysis:	EPA 8260B
Matrix:	Water	Received:	09/07/06
Units:	ug/L		

Field ID:	MW-10	Batch#:	117435
Type:	SAMPLE	Sampled:	09/07/06
Lab ID:	189242-014	Analyzed:	09/15/06
Diln Fac:	1.000		

Analyte	Result	RL
Gasoline C7-C12	ND	50
MTBE	ND	0.50
Benzene	ND	0.50
Toluene	ND	0.50
Ethylbenzene	ND	0.50
m,p-Xylenes	ND	0.50
o-Xylene	ND	0.50

Surrogate	%REC	Limits
Dibromofluoromethane	105	80-120
1,2-Dichloroethane-d4	106	80-130
Toluene-d8	98	80-120
Bromofluorobenzene	102	80-122

Type:	BLANK	Batch#:	117379
Lab ID:	QC355877	Analyzed:	09/14/06
Diln Fac:	1.000		

Analyte	Result	RL
Gasoline C7-C12	NA	
MTBE	ND	0.50
Benzene	ND	0.50
Toluene	ND	0.50
Ethylbenzene	ND	0.50
m,p-Xylenes	ND	0.50
o-Xylene	ND	0.50

Surrogate	%REC	Limits
Dibromofluoromethane	109	80-120
1,2-Dichloroethane-d4	110	80-130
Toluene-d8	100	80-120
Bromofluorobenzene	101	80-122

NA= Not Analyzed
ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Gasoline by GC/MS

Lab #:	189242	Location:	Oakland Edgewater
Client:	LFR Levine Fricke	Prep:	EPA 5030B
Project#:	001-09225-21	Analysis:	EPA 8260B
Matrix:	Water	Received:	09/07/06
Units:	ug/L		

Type:	BLANK	Batch#:	117379
Lab ID:	QC355878	Analyzed:	09/14/06
Diln Fac:	1.000		

Analyte	Result	RL
Gasoline C7-C12	ND	50
MTBE	ND	0.50
Benzene	ND	0.50
Toluene	ND	0.50
Ethylbenzene	ND	0.50
m,p-Xylenes	ND	0.50
o-Xylene	ND	0.50

Surrogate	%REC	Limits
Dibromofluoromethane	102	80-120
1,2-Dichloroethane-d4	97	80-130
Toluene-d8	95	80-120
Bromofluorobenzene	99	80-122

Type:	BLANK	Batch#:	117435
Lab ID:	QC356109	Analyzed:	09/15/06
Diln Fac:	1.000		

Analyte	Result	RL
Gasoline C7-C12	ND	50
MTBE	ND	0.50
Benzene	ND	0.50
Toluene	ND	0.50
Ethylbenzene	ND	0.50
m,p-Xylenes	ND	0.50
o-Xylene	ND	0.50

Surrogate	%REC	Limits
Dibromofluoromethane	101	80-120
1,2-Dichloroethane-d4	99	80-130
Toluene-d8	97	80-120
Bromofluorobenzene	97	80-122

NA= Not Analyzed
ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Gasoline by GC/MS

Lab #:	189242	Location:	Oakland Edgewater
Client:	LFR Levine Fricke	Prep:	EPA 5030B
Project#:	001-09225-21	Analysis:	EPA 8260B
Matrix:	Water	Received:	09/07/06
Units:	ug/L		

Type:	BLANK	Batch#:	117487
Lab ID:	QC356317	Analyzed:	09/18/06
Diln Fac:	1.000		

Analyte	Result	RL
Gasoline C7-C12	ND	50
MTBE	ND	0.50
Benzene	ND	0.50
Toluene	ND	0.50
Ethylbenzene	ND	0.50
m,p-Xylenes	ND	0.50
o-Xylene	ND	0.50

Surrogate	%REC	Limits
Dibromofluoromethane	100	80-120
1,2-Dichloroethane-d4	100	80-130
Toluene-d8	95	80-120
Bromofluorobenzene	98	80-122

NA= Not Analyzed
ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Batch QC Report

Gasoline by GC/MS

Lab #:	189242	Location:	Oakland Edgewater
Client:	LFR Levine Fricke	Prep:	EPA 5030B
Project#:	001-09225-21	Analysis:	EPA 8260B
Matrix:	Water	Batch#:	117379
Units:	ug/L	Analyzed:	09/14/06
Diln Fac:	1.000		

Type: BS Lab ID: QC355875

Analyte	Spiked	Result	%REC	Limits
MTBE	25.00	25.07	100	72-120
Benzene	25.00	23.59	94	80-120
Toluene	25.00	24.68	99	80-120
Ethylbenzene	25.00	25.80	103	80-120
m,p-Xylenes	50.00	49.97	100	80-121
o-Xylene	25.00	24.77	99	80-120

Surrogate	%REC	Limits
Dibromofluoromethane	110	80-120
1,2-Dichloroethane-d4	110	80-130
Toluene-d8	100	80-120
Bromofluorobenzene	100	80-122

Type: BSD Lab ID: QC355876

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
MTBE	25.00	24.52	98	72-120	2	20
Benzene	25.00	22.27	89	80-120	6	20
Toluene	25.00	23.53	94	80-120	5	20
Ethylbenzene	25.00	24.92	100	80-120	3	20
m,p-Xylenes	50.00	47.29	95	80-121	5	20
o-Xylene	25.00	23.80	95	80-120	4	20

Surrogate	%REC	Limits
Dibromofluoromethane	110	80-120
1,2-Dichloroethane-d4	111	80-130
Toluene-d8	101	80-120
Bromofluorobenzene	100	80-122

RPD= Relative Percent Difference

Curtis & Tompkins, Ltd.

Batch QC Report

Gasoline by GC/MS

Lab #:	189242	Location:	Oakland Edgewater
Client:	LFR Levine Fricke	Prep:	EPA 5030B
Project#:	001-09225-21	Analysis:	EPA 8260B
Matrix:	Water	Batch#:	117379
Units:	ug/L	Analyzed:	09/14/06
Diln Fac:	1.000		

Type: BS Lab ID: QC356006

Analyte	Spiked	Result	%REC	Limits
Gasoline C7-C12	2,000	2,184	109	70-130

Surrogate	%REC	Limits
Dibromofluoromethane	105	80-120
1,2-Dichloroethane-d4	99	80-130
Toluene-d8	97	80-120
Bromofluorobenzene	101	80-122

Type: BSD Lab ID: QC356007

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
Gasoline C7-C12	2,000	2,170	109	70-130	1	20

Surrogate	%REC	Limits
Dibromofluoromethane	104	80-120
1,2-Dichloroethane-d4	99	80-130
Toluene-d8	95	80-120
Bromofluorobenzene	100	80-122

RPD= Relative Percent Difference

Curtis & Tompkins, Ltd.

Batch QC Report

Gasoline by GC/MS

Lab #:	189242	Location:	Oakland Edgewater
Client:	LFR Levine Fricke	Prep:	EPA 5030B
Project#:	001-09225-21	Analysis:	EPA 8260B
Matrix:	Water	Batch#:	117435
Units:	ug/L	Analyzed:	09/15/06
Diln Fac:	1.000		

Type: BS Lab ID: QC356105

Analyte	Spiked	Result	%REC	Limits
MTBE	25.00	23.36	93	72-120
Benzene	25.00	25.62	102	80-120
Toluene	25.00	24.69	99	80-120
Ethylbenzene	25.00	27.25	109	80-120
m,p-Xylenes	50.00	53.65	107	80-121
o-Xylene	25.00	26.47	106	80-120

Surrogate	%REC	Limits
Dibromofluoromethane	103	80-120
1,2-Dichloroethane-d4	99	80-130
Toluene-d8	97	80-120
Bromofluorobenzene	101	80-122

Type: BSD Lab ID: QC356106

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
MTBE	25.00	22.40	90	72-120	4	20
Benzene	25.00	23.90	96	80-120	7	20
Toluene	25.00	23.92	96	80-120	3	20
Ethylbenzene	25.00	25.17	101	80-120	8	20
m,p-Xylenes	50.00	49.67	99	80-121	8	20
o-Xylene	25.00	24.68	99	80-120	7	20

Surrogate	%REC	Limits
Dibromofluoromethane	103	80-120
1,2-Dichloroethane-d4	96	80-130
Toluene-d8	94	80-120
Bromofluorobenzene	100	80-122

RPD= Relative Percent Difference

Curtis & Tompkins, Ltd.

Batch QC Report

Gasoline by GC/MS

Lab #:	189242	Location:	Oakland Edgewater
Client:	LFR Levine Fricke	Prep:	EPA 5030B
Project#:	001-09225-21	Analysis:	EPA 8260B
Matrix:	Water	Batch#:	117435
Units:	ug/L	Analyzed:	09/15/06
Diln Fac:	1.000		

Type: BS Lab ID: QC356107

Analyte	Spiked	Result	%REC	Limits
Gasoline C7-C12	2,500	2,905	116	70-130

Surrogate	%REC	Limits
Dibromofluoromethane	102	80-120
1,2-Dichloroethane-d4	101	80-130
Toluene-d8	94	80-120
Bromofluorobenzene	99	80-122

Type: BSD Lab ID: QC356108

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
Gasoline C7-C12	2,500	2,816	113	70-130	3	20

Surrogate	%REC	Limits
Dibromofluoromethane	102	80-120
1,2-Dichloroethane-d4	103	80-130
Toluene-d8	97	80-120
Bromofluorobenzene	98	80-122

RPD= Relative Percent Difference

Curtis & Tompkins, Ltd.

Batch QC Report

Gasoline by GC/MS

Lab #:	189242	Location:	Oakland Edgewater
Client:	LFR Levine Fricke	Prep:	EPA 5030B
Project#:	001-09225-21	Analysis:	EPA 8260B
Matrix:	Water	Batch#:	117487
Units:	ug/L	Analyzed:	09/18/06
Diln Fac:	1.000		

Type: BS Lab ID: QC356315

Analyte	Spiked	Result	%REC	Limits
MTBE	25.00	22.68	91	72-120
Benzene	25.00	25.16	101	80-120
Toluene	25.00	25.06	100	80-120
Ethylbenzene	25.00	27.00	108	80-120
m,p-Xylenes	50.00	51.95	104	80-121
o-Xylene	25.00	25.99	104	80-120

Surrogate	%REC	Limits
Dibromofluoromethane	106	80-120
1,2-Dichloroethane-d4	100	80-130
Toluene-d8	94	80-120
Bromofluorobenzene	100	80-122

Type: BSD Lab ID: QC356316

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
MTBE	25.00	23.38	94	72-120	3	20
Benzene	25.00	25.84	103	80-120	3	20
Toluene	25.00	25.68	103	80-120	2	20
Ethylbenzene	25.00	26.50	106	80-120	2	20
m,p-Xylenes	50.00	50.72	101	80-121	2	20
o-Xylene	25.00	25.86	103	80-120	0	20

Surrogate	%REC	Limits
Dibromofluoromethane	108	80-120
1,2-Dichloroethane-d4	106	80-130
Toluene-d8	98	80-120
Bromofluorobenzene	98	80-122

RPD= Relative Percent Difference

Curtis & Tompkins, Ltd.

Batch QC Report

Gasoline by GC/MS

Lab #:	189242	Location:	Oakland Edgewater
Client:	LFR Levine Fricke	Prep:	EPA 5030B
Project#:	001-09225-21	Analysis:	EPA 8260B
Matrix:	Water	Batch#:	117487
Units:	ug/L	Analyzed:	09/18/06
Diln Fac:	1.000		

Type: BS Lab ID: QC356331

Analyte	Spiked	Result	%REC	Limits
Gasoline C7-C12	2,000	2,492	125	70-130

Surrogate	%REC	Limits
Dibromofluoromethane	102	80-120
1,2-Dichloroethane-d4	101	80-130
Toluene-d8	95	80-120
Bromofluorobenzene	99	80-122

Type: BSD Lab ID: QC356332

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
Gasoline C7-C12	2,000	2,327	116	70-130	7	20

Surrogate	%REC	Limits
Dibromofluoromethane	100	80-120
1,2-Dichloroethane-d4	100	80-130
Toluene-d8	94	80-120
Bromofluorobenzene	101	80-122

RPD= Relative Percent Difference

APPENDIX D

Historical Tables

Table D-1
Summary of Groundwater Analytical Data, VOCs
Municipal Service Center, 7101 Edgewater Drive, Oakland, California

Concentrations expressed in micrograms per liter (µg/l)

Well ID/ Date	Benzene (µg/l)	n-Butyl-benzene (µg/l)	sec-Butyl-benzene (µg/l)	tert-Butyl-benzene (µg/l)	Chloro-ethane (µg/l)	Chloro-form (µg/l)	Methyl Chloride (µg/l)	1,2-DCA (µg/l)	cis-1,2-DCE (µg/l)	1,2-DCP (µg/l)	Ethyl-benzene (µg/l)	Isopropyl-benzene (µg/l)	p-Isopropyl-toluene (µg/l)	MTBE (µg/l)	Napthalene (µg/l)	n-Propyl-benzene (µg/l)	Toluene (µg/l)	1,2,4-TMB (µg/l)	1,3,5-TMB (µg/l)	Xylenes (µg/l)
MW-5																				
2/27/01	180	9	4	ND	3	ND	ND	7	ND	3	260	23	6	1,100	43	68	7	1	11	53
MW-6																				
2/27/01	270	11	3	ND	< 1	ND	ND	7	ND	< 1	9	6.0	1.0	19.0	62	21	3	1	< 1	3
8/20/01	E280	14	< 1	< 1	< 1	3	2	< 1	< 1	< 1	11	4.0	< 1	14.0	E82	14	4	< 1	< 1	9
TBW-1																				
8/20/01	E530	30	< 1	54	< 1	4	10	< 1	2	< 1	E540	36	54	< 1	E300	E120	79	E430	< 1	E790
TBW-3																				
8/20/01	10	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	6	< 1	< 1	< 1	5	< 1	< 1	< 1	< 1	3
TBW-5																				
8/20/01	E620	< 1	< 1	E160	< 1	3	< 1	< 1	< 1	< 1	E730	40	E160	< 1	E450	E140	E110	< 1	< 1	E3100

Notes:

cis-1,2-DCE = cis-1,2-dichloroethene
E = estimated concentration
MTBE = methyl tertiary-butyl ether
ND = Not detected
VOCs = Volatile organic compounds by EPA Method 8260. Sample not subject to silica gel cleanup or filtration prior to analysis.
1,2-DCA = 1,2-dichloroethane
1,2-DCP = 1,2-dichloropropane
1,2,4-TMB = 1,2,4-trimethylbenzene
1,3,5-TMB = 1,3,5-trimethylbenzene

Table D-2
Summary of Groundwater Analytical Data, SVOCs
Municipal Service Center, 7101 Edgewater Drive, Oakland, California

Concentrations expressed in micrograms per liter (µg/l)

Well ID/ Date	Napthalene (µg/l)	Pyrene (µg/l)	Other SVOCs (µg/l)
MW-6			
2/27/01	19	ND	ND
8/20/01	52	<5	39
MW-9			
11/28/00	ND	ND	ND
MW-13			
11/28/00	ND	10	ND
MW-17			
11/28/00	ND	ND	ND
TBW-1			
8/20/01	140	8	387
TBW-3			
8/20/01	<5	<5	5
TBW-5			
8/20/01	220	<5	73

Notes:

SVOCs = Semivolatile organic compounds by EPA Method 8270
ND = Not detected

Samples not subject to silica gel cleanup or filtration before analysis.

Table D-3
Summary of Groundwater Analytical Data, LUFT Metals
Municipal Service Center, 7101 Edgewater Drive, Oakland, California

Concentrations expressed in milligrams per liter (mg/l)

Well ID/ Date	Cadmium (mg/l)	Chromium (mg/l)	Lead (mg/l)	Nickel (mg/l)	Zinc (mg/l)	Notes
MW-2						
8/19/98	---	---	< 100	---	---	a
MW-6						
2/28/01	< 0.001	0.035	0.23	0.046	0.19	non-filtered
8/16/01	< 0.001	0.020	0.12	0.032	0.11	
TBW-1						
8/16/01	< 0.001	0.017	0.042	0.034	0.10	0.1
TBW-3						
8/16/01	< 0.001	0.008	0.01	0.019	< 0.02	
TBW-5						
8/16/01	< 0.001	< 0.005	0.01	0.008	0.03	

Notes:

LUFT metals by EPA Method 6010. Samples filtered in lab before analysis, unless noted otherwise.

--- = not measured/analyzed

a = analyzed for organic lead

LUFT = Leaking Underground Fuel Tank

Table D-4
Summary of Groundwater Analytical Data, Additional Metals
Municipal Service Center, 7101 Edgewater Drive, Oakland, California

Sample ID/ Date	Antimony (mg/l)	Arsenic (mg/l)	Beryllium (mg/l)	Copper (mg/l)	Selenium (mg/l)	Silver (mg/l)	Thallium (mg/l)
MW-6							
8/16/01	<0.01	0.033	<0.001	0.025	<0.01	<0.003	<0.01
TBW-1							
8/16/01	<0.01	0.015	<0.001	0.017	<0.01	<0.003	<0.01
TBW-3							
8/16/01	<0.01	0.009	<0.001	0.008	<0.01	<0.003	<0.01
TBW-5							
8/16/01	<0.01	0.020	<0.001	<0.005	<0.01	<0.003	<0.01

Notes:

Metals by EPA Method 6010. Samples filtered in lab before analysis, unless noted otherwise.
mg/l = milligrams per liter