

IES

IMPACT ENVIRONMENTAL SERVICES

June 19, 2012

Mr. Ross Wickham
Alameda County Health Care Services
Environmental Health Services
Environmental Protection
1131 Harbor Bay Parkway, Suite 250
Alameda, CA 94502-6577

RECEIVED

4:20 pm, Jun 28, 2012

Alameda County
Environmental Health

Subject: Third & Fourth Quarter 2009 Groundwater Monitoring Report _RO0002933
1409 – 1417 12th Street, Oakland, California

Dear Mr. Wickman:

On behalf of Mrs. Shirley E. Thompson (property owner), Impact Environmental Services (IES) is pleased to submit this Third & Fourth Quarter 2009 Groundwater Monitoring Report for the property located at 1409 – 1417 12th Street, Oakland, California.

Funding for this project has been provided by a grant from the Orphan Site Cleanup Fund through an agreement with California State Water Resources Control Board.

Certification

I certify under penalty of law that this document and attachments are prepared under my direction or supervision in accordance with the system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who managed the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing the violations.

Please contact Joseph Cotton at (510)703-5420 if you have questions or comments.

Sincerely
Impact Environmental Services

Joseph Cotton, P.G.
Principal Geologist



June 19, 2012

Mr. Ross Wickham
Alameda County Health Care Services
Environmental Health Services
Environmental Protection
1131 Harbor Bay Parkway, Suite 250
Alameda, CA 94502-6577

Subject: Third & Fourth Quarter 2009 Groundwater Monitoring Report _RO0002933
1409 – 1417 12th Street, Oakland, California

Dear Mr. Wickman:

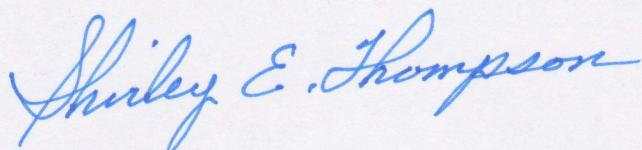
Attached is the Third & Fourth Quarter 2009 Groundwater Monitoring Report for the property located at 1409 – 1417 12th Street, Oakland, California.

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Please contact Joseph Cotton at (510)703-5420 if you have questions or comments.

Sincerely,



Shirley E. Thompson
Property Owner

THIRD & FOURTH QUARTER 2009 GROUNDWATER MONITORING REPORT

**1409 – 1417 12th Street
OAKLAND, CALIFORNIA**

Prepared for

**Shirley Thompson
1155 Hopkins Street
Berkeley, CA 94702**

January 10, 2011

Prepared by

**IES
Impact Environmental Services**

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Fremont, California 94538

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IES

**THIRD AND FOURTH QUARTER 2009
GROUNDWATER MONITORING REPORT
1409-1417 12TH STREET
OAKLAND CALIFORNIA
ACEH File No. RO2933**

On behalf of Mrs. Shirley E. Thompson, Impact Environmental Services (IMPACT) is presenting this Third and Fourth Quarter 2009 Groundwater Monitoring Report for the property located at 1409-1417 12th Street in Oakland, California (Figure 1). This report presents results of groundwater monitoring conducted at the subject property on July 26, 2009 and November 6, 2009. This document is being prepared at the request of Alameda County Environmental Health (ACEH) for a groundwater monitoring for the unauthorized release of fuel at the subject property¹.

SITE CONTACT INFORMATION

The site address and contact information is as follows:

Site Address:

1409-1417 12th Street
Oakland, CA
APN 004-063-06

Contact Information:

Mrs. Shirley Thompson
Edward C. and Shirley E. Thompson Trust
1155 Hopkins Street, Berkeley, CA 94702-1359

SITE BACKGROUND

The Subject Property is located in a predominately residential area in the western section of the city of Oakland, Alameda County, California (Figure 1). The subject Property comprises the Alameda County assessor parcel 004-063-06 and is bordered to the north by 12th Street and

¹ Alameda County Environmental Health Services Letter_Fuel Leak Case No. RO2933 Global ID T0600158621, Thompson Property, 1409-1417 12th Street, Oakland, CA 94607-2003, dated July 31, 2008.

residential development, to the south by a vacant lot, on the east by Mandela Parkway, and to the west by a residential development (Figure 2). The property is located approximately 1-mile southeast of San Francisco Bay and 1-mile north of Oakland Inner Harbor. The elevation of the site is approximately 17 feet above mean sea level (USGS West Oakland 7.5 Minute Quadrangle). Portions of the site are paved with asphalt and the remainder is covered by grass and soil.

Historical records indicate that the property was occupied by a service station from circa 1957 to circa 1969. The subject property was either vacant or occupied by residential dwellings from at least 1902 to circa 1956. Sanborn maps from 1957 to 1967 appear to show three underground fuel storage tanks (USTs) located in the southeast corner of the service station. The 1961 Sanborn map appears to show a fourth UST or AST along the west property boundary. According to a previous report, a magnetometer survey performed at the subject property (circa 1999) revealed no magnetic anomalies indicative of buried underground storage tanks. However, communications with the Oakland Fire Department Hazardous Materials Division, confirmed that no records exist of UST removal from the Subject Property².

Geologic Setting

The Subject Property is located in the East Bay Plain of the San Francisco Bay Area. This region is dominated by northwest trending topography enclosed in the Coast Range Province of California. The site is located in the “Merritt Sand Outcrop” groundwater subarea, which has a maximum thickness of 65 feet, and the regional gradient is directed toward the west to southwest³. Based on information provided by a previous investigation, soil beneath the property consists primarily of silty-sand to at least 20 feet bgs. Groundwater is first encountered between 10 and 13 feet below ground surface (bgs) and stabilizes between approximately 9 to 11 feet bgs.

² Verbal Communication, LeRoy Griffin, Oakland Fire Department Hazardous Materials Division, May 25, 2006.

³ Hickenbottom and Muir, *Geohydrology and Groundwater Quality Overview of the East Bay Plain Area, Alameda County, California, 205 (J) Report*, 1988.

Previous Phased Environmental Investigations

The 1409-1417 12th Street site has been the subject of numerous environmental investigations^{4,5,6,7,8} beginning in 1999. The suspected source of on-site contamination is believed to be from residual fuel from former underground storage tanks (USTs) associated with service station operations. Petroleum hydrocarbons have been detected in on-site soil, soil-vapor, and groundwater samples at concentrations that exceed environmental screening levels (ESLs)⁹ for residential land-use. Significant concentrations of (total petroleum hydrocarbons (TPH) as gasoline (TPHg) up to 20,000 milligrams per kilogram (mg/kg) and volatile organic compounds (VOCs) to 120 mg/kg were detected in soil samples collected from the site. TPHg was detected in groundwater samples at a maximum concentration of 52,000 μ g/L. Benzene, toluene, ethylbenzene, and total xylenes (BTEX) were detected in groundwater at maximum concentrations of 8,700 μ g/L, 2,200 μ g/L, 2,000 μ g/L, 7,200 μ g/L, respectively. 1,2-Dichloroethane was detected at a maximum concentration of 570 μ g/L. Soil-vapor samples collected from the site were found to contain TPHg at a maximum concentration of 52,000ug/m³, benzene as high as 1,200 ug/m³, and vinyl chloride to 260ug/m³.

In March 2008, eleven groundwater-monitoring wells (MW-1 through MW-8 and GW-1 through GW-3) were installed at the subject property. Shallow groundwater elevations occur from 9 to 11 feet below ground surface. In general, shallow groundwater flow is toward the south towards San Francisco Bay.

A dual-phase vacuum extraction (DPE) pilot test was conducted at the subject property in October 2008. The pilot test was conducted to evaluate DPE technology as a viable method to cleanup petroleum hydrocarbons from soil and groundwater at the site. The results of pilot test

⁴ Blymer Engineers, Inc., *Subsurface Investigation Vacant Parcel 1409-1417 12th Street, Oakland, California*, August 25, 1999.

⁵ Impact Environmental Services, Phase I Environmental Site Assessment 1409-1417 12th Street Oakland California, August 25, 2006 (revised December 13, 2006).

⁶ Impact Environmental Services, Site Characterization Report 1409-1417 12th Street Oakland California, June 5, 2007.

⁷ Impact Environmental Services, Remediation Workplan Site 1409-1417 12th Street Oakland California, October 17, 2007.

⁸ Impact Environmental Services, Groundwater Well Installation & Initial Quarterly Groundwater Monitoring Report for 1409 - 1417 Street, Oakland, California, October 9, 2008.

⁹ San Francisco Bay Regional Water Quality Control Board, *Screening For Environmental Concerns at Sites with Contaminated Soil and Groundwater-Interim Final*, May 2008.

indicated that DPE was a viable technology for mitigating petroleum hydrocarbons from unsaturated soil and groundwater from the subject property.

THIRD AND FOURTH QUARTER 2009 GROUNDWATER MONITORING EVENTS

On July 26, 2009 and November 6, 2009, Impact conducted groundwater monitoring at the subject property. During both groundwater-monitoring events, groundwater samples were collected from groundwater monitoring wells MW-1 through MW-8 and GW-1 through GW-3. Prior to collecting groundwater samples, depth-to-water (DTW) measurements were collected from all eleven wells.

Groundwater samples were collected from groundwater monitoring and extraction/treatment wells in accordance with standard industry practices. Wells were purged of at least three casing volumes using a disposable bailer or a suction pump. During the purging of each well, field parameters (temperature, conductivity, pH, dissolved oxygen, and turbidity) were monitored and recorded on Groundwater Monitoring Data Sheets for the third and fourth quarter of 2009 are presented in Appendix A. Each well was purged until temperature, conductivity, and pH stabilized. Samples were collected using a disposable bailer, placed in laboratory-supplied containers, and properly preserved in an ice-cooled container. Chain-of-custody documentation accompanied the samples through collection and delivery to the analytical laboratory. Purge water was contained in a 55-gallon drum, which was left at the subject site pending disposal in accordance with groundwater analytical results. Groundwater samples were submitted to Torrent Laboratory and analyzed for several constituents of concern (COCs) including TPHd and TPHmo by EPA Method 8015; and TPHg, BTEX, and oxygenates methyl tert-butyl ether (MTBE), diisopropyl ether (DIPE), ethyl tert-butyl ether (ETBE), tert-Amyl methyl ether (TAME), and t-butyl alcohol (t-Butanol) by EPA Method 8260. During the third quarter 2009, silica-gel cleanup applied during analysis of samples analyzed for TPHd.

Groundwater Elevations and Gradient

DTW measurements were recorded on the Well Gauging Data Sheet for both the third and fourth quarters of 2009 are included in Appendix A. Groundwater elevation data for wells for both quarters are also presented on Table 1. Groundwater elevations were calculated by subtracting

the measured depth to water from the surveyed top of well casings elevations. Groundwater elevations for wells MW-8, GW-1, GW-2, and GW-3 were not used in developing groundwater contour maps because these wells were screened and constructed at deeper depths than monitoring wells MW-1 through MW-7. As a result, only groundwater elevations for wells MW-1 through MW-7 were used to calculate and construct groundwater contour maps and gradients.

Groundwater contour maps for July 2009 and November 2009 are presented as Figures 3 and 4, respectively. The groundwater elevation contour map for the third quarter (July) 2009 indicates that the direction of shallow groundwater flow is to the northwest at an approximate gradient of 0.0009. The groundwater elevation contour map for the fourth quarter (November) 2009 indicates that the direction of shallow groundwater flow is to the northwest at an approximate gradient of 0.0015.

Groundwater Sample Results

Groundwater sample results for the third and fourth quarter 2009 groundwater monitoring events are summarized in Table 2 and certified laboratory analytical reports (CARs) are presented in Appendix B. Maps showing the concentrations of TPHg/TPHd/TPHmo and benzene detected in groundwater samples during the third quarter 2009 are presented in Figures 5 and 6, respectively. Maps showing the concentrations of TPHg/TPHd/TPHmo and benzene detected in groundwater samples during the fourth quarter 2009 are presented in Figures 7 and 8, respectively.

Third Quarter 2009

During the third quarter 2009, constituents of concern were not detected at or above method detection limits (MDLs) in groundwater samples collected from wells MW-1 through MW-8, and well GW-3. The groundwater sample from well GW-1 contained 5,700 $\mu\text{g}/\text{L}$ TPHg, 540 $\mu\text{g}/\text{L}$ TPHd, 1,100 $\mu\text{g}/\text{L}$ benzene, 54 $\mu\text{g}/\text{L}$ toluene, 120 $\mu\text{g}/\text{L}$ ethylbenzene, and 100 $\mu\text{g}/\text{L}$ total xylenes. The groundwater sample collected from well GW-2 was found to contain 550 $\mu\text{g}/\text{L}$ TPHg, 0.740 $\mu\text{g}/\text{L}$ of benzene, 9.5 $\mu\text{g}/\text{L}$ toluene, 12 $\mu\text{g}/\text{L}$ ethylbenzene, and 79 $\mu\text{g}/\text{L}$ total xylenes.

Fourth Quarter 2009

During the fourth quarter 2009, constituents of concern were not detected at or above method detection limits (MDLs) in groundwater samples collected from wells MW-1 through MW-7,

and GW-2. The groundwater sample collected from well MW-8 was found to contain 220 μ g/L TPHg. The groundwater sample from well GW-1 contained 120 μ g/L TPHg, 138 μ g/L TPHd, 3.9 μ g/L benzene, 2.1 μ g/L ethylbenzene, and 12 μ g/L total xylenes. The groundwater sample collected from well GW-3 was found to contain 0.72 μ g/L MTBE.

QUALITY CONTROL RESULTS

Quality control (QC) sample results and laboratory QC data for soil and groundwater samples were evaluated to assess the acceptability of the analytical data. Laboratory QC results are included with the CARs presented in Appendix B. All laboratory analyses occurred within EPA recommended sample holding times and all sample containers were received in acceptable condition by the laboratory. Based on the laboratory QA/QC summaries, all method blanks, laboratory control samples (LCS), matrix spikes (MS), and matrix spike duplicates (MSD) were within laboratory control limits, with the following exceptions.

During the third quarter 2009, the TPHg detected in groundwater samples collected from wells GW-2 and GW-3 contained TPH as gasoline, but also contained significant portions of heavier hydrocarbons non-gasoline hydrocarbons within the C5-C12 range that were quantified as gasoline. As a result, the TPHg value reported at these samples may be biased. The sample chromatogram for TPHd detected in the sample collected from well GW-1 does not resemble the typical diesel pattern due to detections of fuel lighter than diesel. However, hydrocarbons within the diesel range were quantified as diesel.

During the fourth quarter 2009, the sample chromatograms for TPHg detected in groundwater sample collected from wells MW-8 and GW-3 did not resemble the standard gasoline pattern. The sample chromatogram for TPHd detected in the sample collected from well GW-1 does not resemble the typical diesel pattern due to detections of fuel lighter than diesel. However, hydrocarbons within the diesel range were quantified as diesel.

MANUAL IN-SITU CHEMICAL OXIDATION TREATMENT OF GROUNDWATER

From July 2009 to November 2009, groundwater wells MW-8, GW-1, and GW-3 were treated with a total of 205 gallons of 8% hydrogen peroxide. On July 3rd wells MW-8, GW-1, and GW-

3 were treated with approximately 7 gallons, 12 gallons, and 16 gallons, respectively. On September 12th wells MW-8, GW-1, and GW-3 were treated with approximately 22 gallons, 26 gallons, and 18 gallons, respectively. On October 10th wells MW-8, GW-1, and GW-3 were treated with approximately 13 gallons, 17 gallons, and 20 gallons, respectively. On November 7th wells MW-8, GW-1, and GW-3 were treated with approximately 13 gallons, 17 gallons, and 24 gallons, respectively. Field Log Sheets for Hydrogen Peroxide injection are included in Appendix C.

DISCUSSION OF RESULTS

The results of groundwater samples collected during the third and fourth quarters of 2009 were compared to RWQCB ESLs for a residential land-use where shallow groundwater is a source of drinking water. The RWQCB developed ESLs for commercial/industrial and residential land-use scenarios to provide a measure of whether additional investigation, remedial action, or a more detailed risk assessment should be pursued.

Third Quarter 2009

During the third quarter 2009, no constituents of concern were detected above their respective ESLs in groundwater samples collected from wells MW-1 through MW-8 and GW-3. The groundwater sample collected from well GW-1 contained concentrations of TPHg (ESL of 100µg/L), TPHd (ESL of 100µg/L), benzene (ESL of 1µg/L), toluene (ESL of 40µg/L), ethylbenzene (ESL of 30µg/L), and total xylenes (20µg/L) above their respective ESLs. The groundwater sample total collected from wells GW-2 was found to contain concentrations of TPHg, benzene, and total xylenes above their respective ESLs.

Fourth Quarter 2009

During the fourth quarter 2009, no constituents of concern were detected above their respective ESLs in groundwater samples collected from wells MW-1 through MW-7 and wells GW-2 and GW-3. The groundwater sample collected from well GW-1 contained concentrations of TPHg, TPHd and benzene above their respective ESLs. The groundwater sample total collected from well MW-8 was found to contain TPHg at a concentration above its respective ESLs.

It should be noted that during the third and fourth quarter 2009, concentrations of constituents of concern in wells MW-8, GW-1, and GW-3 have decreased significantly from previous sampling events. However, groundwater in wells MW-8, GW-1, and GW-3 were treated with 8% hydrogen peroxide on November 7, 2009, five days before groundwater samples were collected from these wells. It is possible that the hydrogen peroxide introduced into these wells had not dissipated within the five days and as a result to reported values of TPH and VOCs in these well may have been biased low during this sampling episode.

Based on the comparison of site data with ESLs it appears the potential human health risks at the site include exposure from direct-contact with petroleum-impacted soils (i.e., during construction activities) and intrusion and subsequent inhalation (indoor) of petroleum-related vapors from impacted soil and groundwater in at and near wells MW-8 and GW-1.

CONCLUSIONS

Based on the results of soil and groundwater results collected from the wells and confirmation exploratory borings, the following are IMPACTs conclusions regarding the subject property.

- During the third quarter of 2009, groundwater samples collected from wells GW-1 and GW-2 contained at least one COCs above respective residential ESLs.
- During the fourth quarter of 2009, groundwater samples collected from wells MW-8 and GW-1 contained at least one COCs above respective residential ESLs.
- It should be noted that during the third and fourth quarter 2009, concentrations of constituents of concern in wells MW-8, GW-1, and GW-3 have decreased significantly from previous sampling events. However, groundwater in wells MW-8, GW-1, and GW-3 were treated with 8% hydrogen peroxide on November 7, 2009, five days before groundwater samples were collected from these wells. It is possible that the hydrogen peroxide introduced into these wells had not dissipated within the five days and as a result to reported values of TPH and VOCs in these well may have been biased low during this sampling episode.

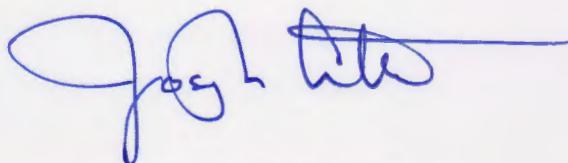
- The groundwater elevation contour map for the third quarter (July) 2009 indicates that the direction of shallow groundwater flow is to the northwest at an approximate gradient of 0.0009. The groundwater elevation contour map for the fourth quarter (November) 2009 indicates that the direction of shallow groundwater flow is to the northwest at an approximate gradient of 0.0015.
- Based on the comparison of site data with ESLs it appears the potential human health risks at the site include exposure from direct-contact with petroleum-impacted soils (i.e., during construction activities) and intrusion and subsequent inhalation (indoor) of petroleum-related vapors from impacted soil and groundwater in and near wells MW-8 and GW-1.
- Construction of the DPE system and soil-vapor and groundwater remediation systems were completed at the site during the fourth quarter 2009. System testing and full-scale operation of the DPE system commenced during the first quarter 2010.

RECOMMENDATIONS

IMPACT recommends continuing quarterly groundwater monitoring to evaluate temporal changes in groundwater quality and to monitor groundwater plume migration. Impact further recommends instituting full-scale operation of the dual-phase vacuum-enhanced extraction (DPE) to remove petroleum hydrocarbons from soil and groundwater at the subject property.

PERJURY STATEMENT

I declare, under penalty of perjury, that the information and/or recommendations contained in this document or report is true and correct to the best of my knowledge.



Joseph A. Cotton, P.G.7378
Principal Environmental Geologist



Distribution:

- (1) Copies – Mrs. Shirley E. Thompson, 1155 Hopkins Way, Berkeley, CA
(1) Copies – Mr. Steven Plunkett, Alameda County Environmental Health

Attachments:

Tables

Table 1 –Summary of Groundwater Elevations Measurements

Table 2 –Summary of Groundwater Analytical Results

Figures

Figure 1 -- Site Location Map

Figure 2 – Site Plan

Figure 3 – Groundwater Elevation Contour Map (July 26, 2009)

Figure 4 – Groundwater Elevation Contour Map (November 6, 2009)

Figure 5 – Map of TPHg/TPHd/TPHmo in Groundwater (July 2009)

Figure 6 – Map of Benzene in Groundwater (July 2009)

Figure 7 – Map of TPHg/TPHd/TPHmo in Groundwater (November 2009)

Figure 8 – Map of Benzene in Groundwater (November 2009)

Appendices

Appendix A – Well Sampling Data Sheets

Appendix B – Certified Laboratory Analytical Report

Appendix C – Manual Hydrogen Peroxide Well Treatment Data Sheets

LIMITATIONS

Impact Environmental's actions on this project were performed in accordance with current generally accepted environmental consulting principles and practices. This warranty is in lieu of all others, be it expressed or implied. Environmental conditions may exist at the site that could not be observed. Where the scope of services was limited to observations made during site reconnaissance, interviews, and/or review of readily available reports and literature, our conclusions and recommendations are necessarily based largely on information supplied by others, the accuracy and sufficiency of which may not have been independently reviewed by us. Our professional analyses are based in part on interpretation of data from discrete sampling locations that may not represent actual conditions between such sampling points. Additional data from future work or changing conditions may lead to modifications to our professional opinions and recommendations. Any reliance on this report, or portions thereof, by a third party shall be at such party's sole risk.

Table 1
Groundwater Elevations_Third & Fourth Quarter 2009
1409-1417 12th Street
Oakland, California

Well No.	Top-of-Casing Elevation (feet, MSL) ¹	Date Measured	Floating Product Thickness (feet)	Depth to Water (feet)	Groundwater Elevation (feet, MSL) ¹
MW-1	21.49	11/06/09	0.0	11.79	9.70
		07/26/09	0.0	11.81	9.68
		04/29/09	0.0	10.00	11.49
		01/25/09	0.0	12.40	9.09
		10/25/08	0.0	12.68	8.81
		07/27/08	0.0	11.99	9.50
		04/30/08	0.0	10.52	10.97
MW-2	20.61	11/06/09	0.0	11.01	9.60
		07/26/09	0.0	10.99	9.62
		04/29/09	0.0	9.51	11.10
		01/25/09	0.0	11.54	9.07
		10/25/08	0.0	11.90	8.71
		07/27/08	0.0	11.20	9.41
		04/30/08	0.0	9.64	10.97
MW-3	21.09	11/06/09	0.0	11.44	9.65
		07/26/09	0.0	11.42	9.67
		04/29/09	0.0	9.70	11.39
		01/25/09	0.0	12.00	9.09
		10/25/08	0.0	12.36	8.73
		07/27/08	0.0	11.65	9.44
		04/30/08	0.0	10.20	10.89
MW-4	20.35	11/06/09	0.0	10.69	9.66
		07/26/09	0.0	10.65	9.70
		04/29/09	0.0	8.88	11.47
		01/25/09	0.0	11.22	9.13
		10/25/08	0.0	11.55	8.80
		07/27/08	0.0	10.85	9.50
		04/30/08	0.0	9.43	10.92
MW-5	20.05	11/06/09	0.0	10.41	9.64
		07/26/09	0.0	10.42	9.63
		04/29/09	0.0	9.00	11.05
		01/25/09	0.0	10.98	9.07
		10/25/08	0.0	11.37	8.68
		07/27/08	0.0	10.68	9.37
		04/30/08	0.0	9.10	10.95
MW-6	19.67	11/06/09	0.0	10.02	9.65
		07/26/09	0.0	10.03	9.64
		04/29/09	0.0	8.25	11.42
		01/25/09	0.0	10.58	9.09
		10/25/08	0.0	10.92	8.75
		07/27/08	0.0	10.25	9.42
		04/30/08	0.0	8.60	11.07
MW-7	19.88	11/06/09	0.0	10.23	9.65
		07/26/09	0.0	10.21	9.67
		04/29/09	0.0	8.45	11.43
		01/25/09	0.0	10.79	9.09
		10/25/08	0.0	11.11	8.77
		07/27/08	0.0	10.41	9.47
		04/30/08	0.0	8.96	10.92

Table 1
Groundwater Elevations_Third & Fourth Quarter 2009
1409-1417 12th Street
Oakland, California

Well No.	Top-of-Casing Elevation (feet, MSL) ¹	Date Measured	Floating Product Thickness (feet)	Depth to Water (feet)	Groundwater Elevation (feet, MSL) ¹
MW-8	20.71	11/06/09	NM	NM	NM
		07/26/09	0.0	11.07	9.64
		04/29/09	0.0	10.68	10.03
		01/25/09	0.0	11.63	9.08
		10/25/08	0.0	12.00	8.71
		07/27/08	0.0	11.29	9.42
		04/30/08	0.0	9.82	10.89
GW-1	20.23	11/06/09	NM	NM	NM
		07/26/09	0.0	10.59	9.64
		04/29/09	0.0	8.86	11.37
		01/25/09	0.0	11.15	9.08
		10/25/08	0.0	11.51	8.72
		07/27/08	0.0	10.81	9.42
		04/30/08	0.0	9.34	10.89
GW-2	20.57	11/06/09	0.0	10.93	9.64
		07/26/09	0.0	11.21	9.36
		04/29/09	0.0	8.80	11.77
		01/25/09	0.0	11.50	9.07
		10/25/08	0.0	11.82	8.75
		07/27/08	0.0	11.16	9.41
		04/30/08	0.0	9.70	10.87
GW-3	20.57	11/06/09	0.0	10.64	9.93
		07/26/09	0.0	10.89	9.68
		04/29/09	0.0	9.16	11.41
		01/25/09	0.0	11.49	9.08
		10/25/08	0.0	11.92	8.65
		07/27/08	0.0	11.12	9.45
		04/30/08	0.0	9.60	10.97

MSL= Mean Sea Level

NM= Not measured or gauged

Table 2
Third and Fourth Quarter 2009
Groundwater Analytical Results
1409-1417 12th Street,
Oakland, California

Sample ID	Date Sampled	TPHg (ug/L)	TPHd (ug/L)	TPHmo (ug/L)	Benzene (ug/L)	Toluene (ug/L)	Ethylbenzene (ug/L)	Xylenes (ug/L)	MtBE (ug/L)	t-Butanol (ug/L)	ETBE (ug/L)	DIPE (ug/L)	TAME (ug/L)
MW-1	11/06/09	<55	<100	<200	<0.55	<0.55	<0.55	<1.6	<0.55	<5.5	<0.55	<0.55	<0.55
	07/26/09	<50	<100	<200	<0.50	<0.50	<0.50	<1.5	<0.50	<10	<0.50	<0.50	<0.50
	04/29/09	<50	<100	<200	<0.50	<0.50	<0.50	<1.5	<0.50	<10	<0.50	<0.50	<0.50
	01/25/09	<50	<100	<200	<0.500	<0.500	<0.500	<1.5	<0.500	<10	<0.500	<0.500	<0.500
	10/25/08	95x	<100	<200	1.68	1.17	<0.500	<1.5	<0.500	<10	<0.500	<0.500	<0.500
	07/27/08	<64	<100	<200	<0.645	<0.645	<0.645	<1.94	<0.645	<12.9	<0.645	<0.645	<0.645
	04/30/08	54	<100	<200	<0.500	<0.500	<0.500	<1.5	<0.500	NA	NA	NA	NA
MW-2	11/06/09	<50	<100	<200	<0.50	<0.50	<0.50	<1.5	<0.50	<5.0	<0.50	<0.50	<0.50
	07/26/09	<50	<100	<200	<0.50	<0.50	<0.50	<1.5	<0.50	<10	<0.50	<0.50	<0.50
	04/29/09	<50	<100	<200	<0.50	<0.50	<0.50	<1.5	<0.50	<10	<0.50	<0.50	<0.50
	01/25/09	<50	<100	<200	<0.500	<0.500	<0.500	<1.5	<0.500	<10	<0.500	<0.500	<0.500
	10/25/08	71x	<100	<200	<0.500	<0.500	<0.500	<1.5	<0.500	<10	<0.500	<0.500	<0.500
	07/27/08	<50	<100	<200	<0.500	<0.500	<0.500	<1.5	<0.500	<10	<0.500	<0.0500	<0.500
	04/30/08	<50	<100	<200	<0.500	<0.500	<0.500	<1.5	<0.500	NA	NA	NA	NA
MW-3	11/06/09	<50	<100	<200	<0.50	<0.50	<0.50	<1.5	<0.50	<5.0	<0.50	<0.50	<0.50
	07/26/09	<50	<120	<230	<0.50	<0.50	<0.50	<1.5	<0.50	<10	<0.50	<0.50	<0.50
	04/29/09	<50	<100	<200	<0.50	<0.50	<0.50	<1.5	<0.50	<10	<0.50	<0.50	<0.50
	01/25/09	<50	<100	<200	<0.500	<0.500	<0.500	<1.5	<0.500	<10	<0.500	<0.500	<0.500
	10/25/08	<50	<100	<200	<0.500	<0.500	<0.500	<1.5	<0.500	<10	<0.500	<0.500	<0.500
	07/27/08	<58	<100	<200	<0.580	<0.580	<0.580	<1.74	<0.580	<11.6	<0.580	<0.580	<0.580
	04/30/08	<50	<100	<200	<0.500	<0.500	<0.500	<1.5	<0.500	NA	NA	NA	NA
MW-4	11/06/09	<50	<100	<200	<0.50	<0.50	<0.50	<1.5	<0.50	<5.0	<0.50	<0.50	<0.50
	07/26/09	<50	<110	<220	<0.50	<0.50	<0.50	<1.5	<0.50	<10	<0.50	<0.50	<0.50
	04/29/09	<50	<100	<200	<0.50	<0.50	<0.50	<1.5	<0.50	<10	<0.50	<0.50	<0.50
	01/25/09	<50	<100	<200	<0.500	<0.500	<0.500	<1.5	<0.500	<10	<0.500	<0.500	<0.500
	10/25/08	61x	<100	<200	<0.500	<0.500	<0.500	<1.5	<0.500	<10	<0.500	<0.500	<0.500
	07/27/08	<50	<100	<200	<0.500	<0.500	<0.500	<1.5	<0.500	<10	<0.500	<0.0500	<0.500
	04/30/08	<50	<100	<200	<0.500	<0.500	<0.500	<1.5	<0.500	NA	NA	NA	NA
<i>Residential ESL (DWS)</i>		100	100	100	1	40	30	20	5	12	na	na	na
<i>Residential ESL (NDWS)</i>		500	640	640	46	130	290	100	1,800	18,000	na	na	na

Table 2
Third and Fourth Quarter 2009
Groundwater Analytical Results
1409-1417 12th Street,
Oakland, California

Sample ID	Date Sampled	TPHg (ug/L)	TPHd (ug/L)	TPHmo (ug/L)	Benzene (ug/L)	Toluene (ug/L)	Ethylbenzene (ug/L)	Xylenes (ug/L)	MtBE (ug/L)	t-Butanol (ug/L)	ETBE (ug/L)	DIPE (ug/L)	TAME (ug/L)
MW-5	11/06/09	<50	<100	<200	<0.50	<0.50	<0.50	<1.5	<0.50	<5.0	<0.50	<0.50	<0.50
	07/26/09	<50	<100	<200	<0.50	<0.50	<0.50	<1.5	<0.50	<10	<0.50	<0.50	<0.50
	04/29/09	<50	<100	<200	<0.50	<0.50	<0.50	<1.5	<0.50	<10	<0.50	<0.50	<0.50
	01/25/09	<50	<100	<200	<0.500	<0.500	<0.500	<1.5	<0.500	<10	<0.500	<0.500	<0.500
	10/25/08	71x	<100	<200	<0.500	<0.500	<0.500	<1.5	<0.500	<10	<0.500	<0.500	<0.500
	07/27/08	<50	<100	<200	<0.500	<0.500	<0.500	<1.5	<0.500	<10	<0.500	<0.0500	<0.500
	04/30/08	<50	<100	<200	<0.500	<0.500	<0.500	<1.5	<0.500	NA	NA	NA	NA
MW-6	11/06/09	<50	<100	<200	<0.50	<0.50	<0.50	<1.5	<0.50	<5.0	<0.50	<0.50	<0.50
	07/26/09	<50	<100	<200	<0.50	<0.50	<0.50	<1.5	<0.50	<10	<0.50	<0.50	<0.50
	04/29/09	<50	<100	<200	<0.50	<0.50	<0.50	<1.5	<0.50	<10	<0.50	<0.50	<0.50
	01/25/09	<50	<100	<200	<0.500	<0.500	<0.500	<1.5	<0.500	<10	<0.500	<0.500	<0.500
	10/25/08	72x	<100	<200	<0.500	<0.500	<0.500	<1.5	<0.500	<10	<0.500	<0.500	<0.500
	07/27/08	<50	<100	<200	<0.500	<0.500	<0.500	<1.5	<0.500	<10	<0.500	<0.0500	<0.500
	04/30/08	53	<100	<200	<0.500	<0.500	<0.500	<1.5	<0.500	NA	NA	NA	NA
MW-7	11/06/09	<50	<100	<200	<0.50	<0.50	<0.50	<1.5	<0.50	<5.0	<0.50	<0.50	<0.50
	07/26/09	<50	<100	<200	<0.50	<0.50	<0.50	<1.5	<0.50	<10	<0.50	<0.50	<0.50
	04/29/09	<50	<100	293x	<0.50	<0.50	<0.50	<1.5	<0.50	<10	<0.50	<0.50	<0.50
	01/25/09	<50	<100	<200	<0.500	<0.500	<0.500	<1.5	<0.500	<10	<0.500	<0.500	<0.500
	10/25/08	71x	<100	<200	<0.500	<0.500	<0.500	<1.5	<0.500	<10	<0.500	<0.500	<0.500
	07/27/08	<50	<100	<200	<0.500	<0.500	<0.500	<1.5	<0.500	<10	<0.500	<0.0500	<0.500
	04/30/08	<50	<100	<200	<0.500	<0.500	<0.500	<1.5	<0.500	NA	NA	NA	NA
MW-8	11/12/09	220x	<100	<200	<0.50	<0.50	<0.50	<1.5	<0.50	<5.0	<0.50	<0.50	<0.50
	07/26/09	<50	<100	<200	<0.50	<0.50	<0.50	<1.5	<0.50	<10	<0.50	<0.50	<0.50
	04/29/09	110	156x	909x	1.4	0.81	2.4	6.1	<0.50	<10	<0.50	<0.50	<0.50
	01/25/09	190x	<100	<200	2.10	1.47	4.94	11.8	<0.500	<10	<0.500	<0.500	<0.500
	10/25/08	240x	<100	<200	1.41	<0.500	<0.500	3.13	<0.500	<10	<0.500	<0.500	<0.500
	07/27/08	198	<100	<200	5.37	1.25	3.77	13.3	<0.500	<10	<0.500	<0.0500	<0.500
	04/30/08	1,049	161	<200	13.9	12.4	9.76	160	<0.500	NA	NA	NA	NA
<i>Residential ESL (DWS)</i>		100	100	100	1	40	30	20	5	12	na	na	na
<i>Residential ESL (NDWS)</i>		500	640	640	46	130	290	100	1,800	18,000	na	na	na

Table 2
Third and Fourth Quarter 2009
Groundwater Analytical Results
1409-1417 12th Street,
Oakland, California

Sample ID	Date Sampled	TPHg (ug/L)	TPHd (ug/L)	TPHmo (ug/L)	Benzene (ug/L)	Toluene (ug/L)	Ethylbenzene (ug/L)	Xylenes (ug/L)	MtBE (ug/L)	t-Butanol (ug/L)	ETBE (ug/L)	DIPE (ug/L)	TAME (ug/L)
GW-1	11/12/09	120x	138x	<200	3.9	<0.50	2.1	12	<0.50	<5.0	<0.50	<0.50	<0.50
	07/26/09	5,700	540x	<200	1,100	54	120	100	<0.50	<10	<0.50	<0.50	<0.50
	04/29/09	22,000	3,010x	<800	3,000	580	830	2,100	<22	<440	<22	<22	<22
	01/25/09	9,900	767	<200	1,600	174	315	915	<4.40	<88.0	<4.40	<4.40	<4.40
	10/25/08	7200x	1020x	296x	1,010	161	89.8	693	<2.20	<44.0	<2.20	<2.20	<2.20
	07/27/08	18,000	1,060	<200	3,360	146	533	1,450	<22.0	<440	<22.0	<22.0	<22.0
	04/30/08	37,000	7.25	<200	2,400	769	378	3,450	<0.500	NA	NA	NA	NA
GW-2	11/06/09	<50	<100	<200	<0.50	<0.50	<0.50	<1.5	<0.50	<5.0	<0.50	<0.50	<0.50
	07/26/09	550	<110	<230	25	9.5	12	79	<0.50	<10	<0.50	<0.50	<0.50
	04/29/09	82	<100	205x	1.7	1.1	1.2	4.5	<0.50	<10	<0.50	<0.50	<0.50
	01/25/09	<50	<100	<200	<0.500	<0.500	<0.500	<0.500	<0.500	<10	<0.500	<0.0500	<0.500
	10/25/08	100x	126x	338x	<0.500	<0.500	<0.500	<1.5	<0.500	<10	<0.500	<0.500	<0.500
	07/27/08	61	<100	<200	<0.500	<0.500	<0.500	<1.5	<0.500	15.3	<0.500	<0.500	<0.500
	04/30/08	<50	<100	<200	<0.500	<0.500	<0.500	<0.500	<0.500	NA	NA	NA	NA
GW-3	11/12/09	<50	<100	<200	<0.50	<0.50	<0.50	<1.5	0.72	<5.0	<0.50	<0.50	<0.50
	07/26/09	<50	<100	<200	<0.50	<0.50	<0.50	<1.5	<0.50	<10	<0.50	<0.50	<0.50
	04/29/09	500x	<100	206x	63	0.63	<0.50	2.9	<0.50	<10	<0.50	<0.50	<0.50
	01/25/09	<50	<100	<200	0.740	<0.500	<0.500	<1.5	<0.500	<10	<0.500	<0.0500	<0.500
	10/25/08	100x	<100	<200	8.47	<0.500	<0.500	<1.5	<0.500	<10	<0.500	<0.500	<0.500
	07/27/08	63	<100	200	3.27	<0.500	<0.500	<1.5	<0.500	<10	<0.500	<0.500	<0.500
	04/30/08	250	<100	<200	46.5	1.36	2.16	<1.5	<0.500	NA	NA	NA	NA
<i>Residential ESL (DWS)</i>		100	100	100	1	40	30	20	5	12	na	na	na
<i>Residential ESL (NDWS)</i>		500	640	640	46	130	290	100	1,800	18,000	na	na	na

Abbreviations and Methods:

NA = Not analyzed for particular constituent of concern

na = Not applicable

x = Chromatogram does not resemble typical pattern for specific TPH compound or other non-targeted hydrocarbons causing potentially biasing data

TPHg = Total petroleum hydrocarbons as gasoline by EPA Method 8260

TPHd= Total Petroleum Hydrocarbons as diesel by EPA Method 8015

TPHmo= Total Petroleum Hydrocarbons as motor oil by EPA Method 8015

DIPE= Diisopropyl Ether

ETBE= Ethyl tert-butyl ether

MTBE = methyl-tert-butyl ether (MTBE)

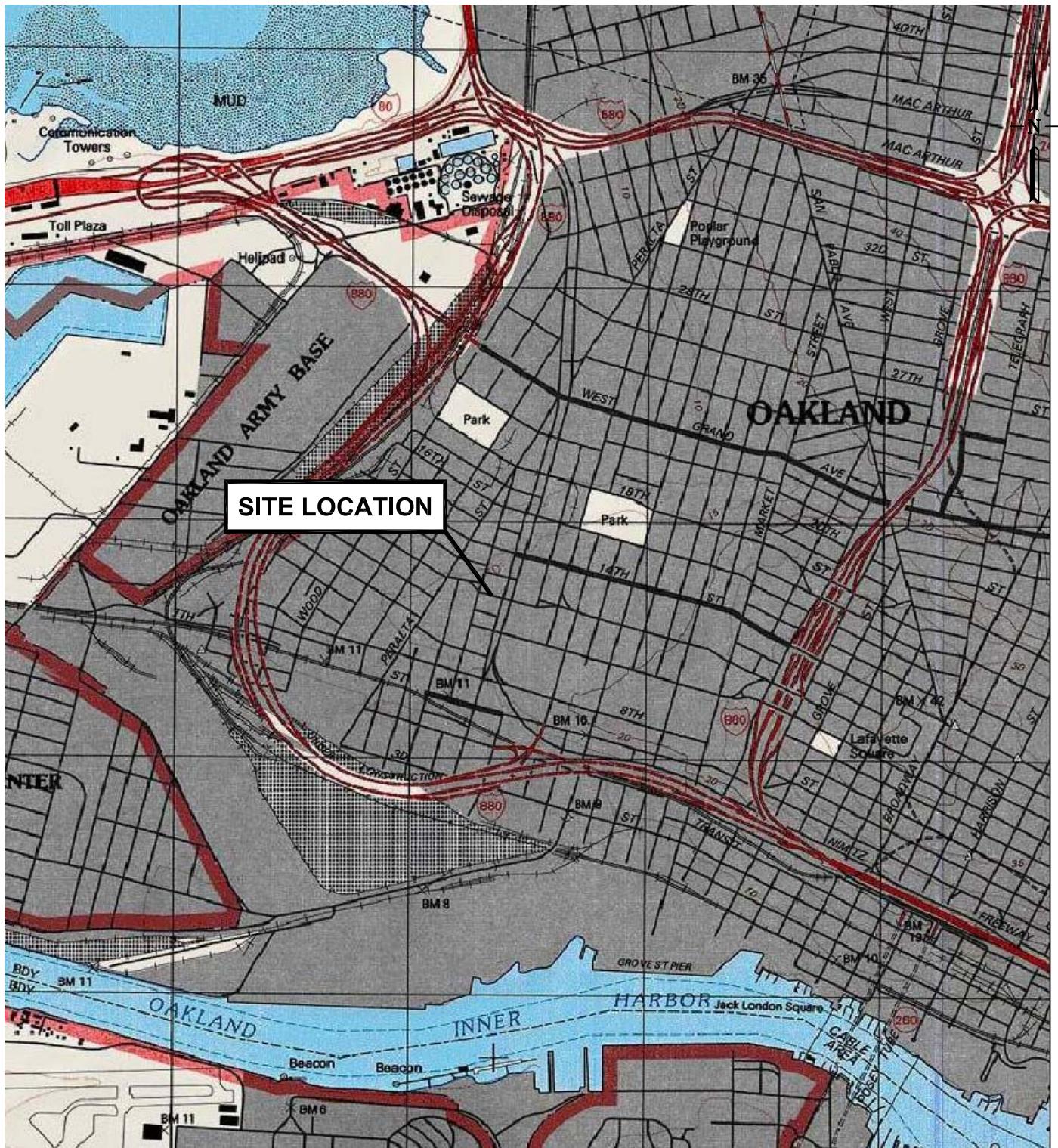
t-Butanol= t-Butyl Alcohol

TAME= tert-Amyl methyl ether

Benzene, , toluene, ethylbenzene, xylenes, MTBE, DIPE, ETBE, TAME, and t-Butanol by EPA Method 8260

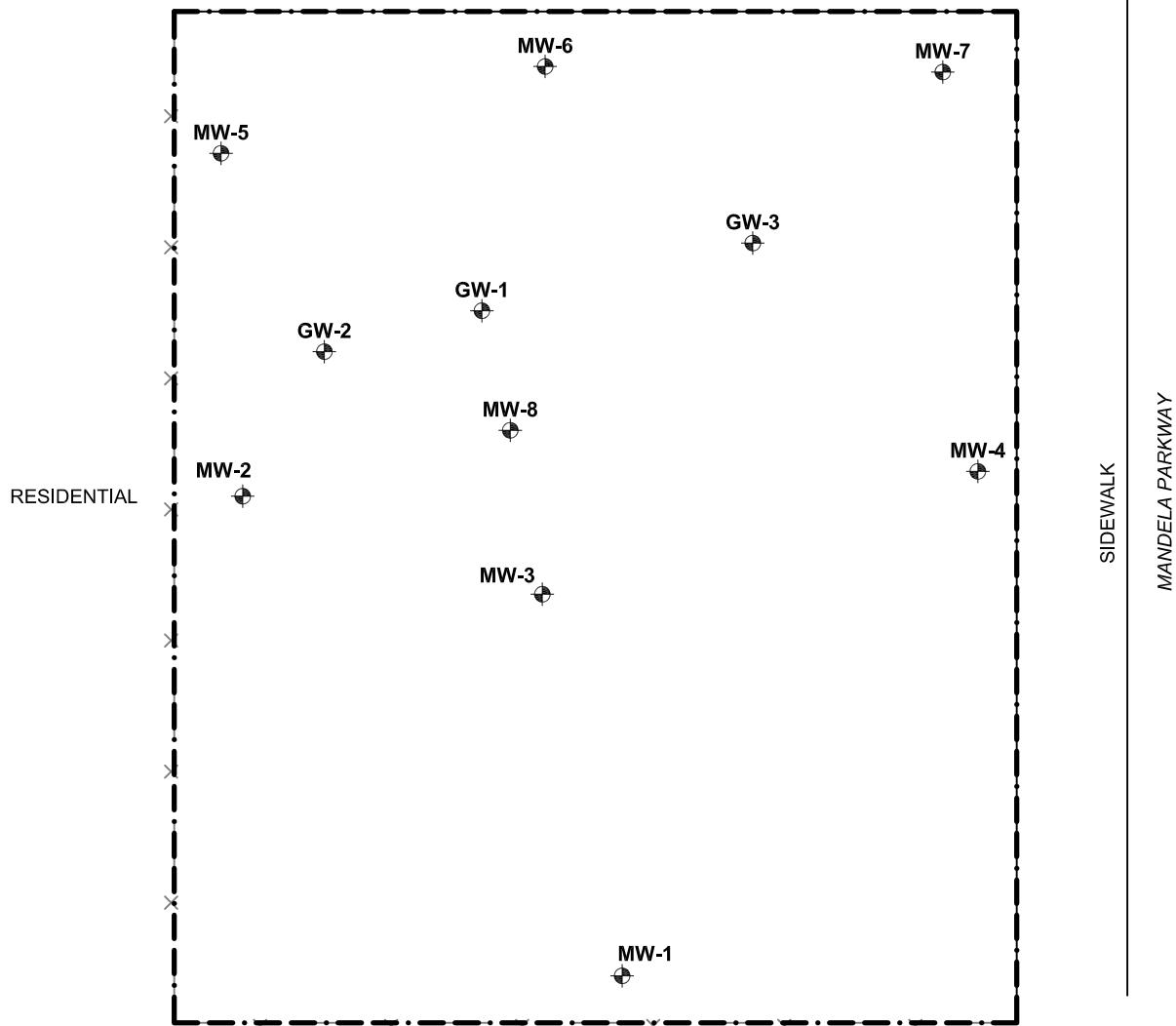
ESL= San Francisco Bay Regional Water Quality Control Board, Screening For Environmental Concerns at Sites With Contaminated Soil and Groundwater, May 2008.

DWS- Groundwater beneath site is a drinking water source NDWS- Groundwater beneath site is not a drinking water source



12TH STREET

SIDEWALK



EXPLANATION:

— · — Approximate Property Boundary

MW-1 ♦ Monitoring Well Location

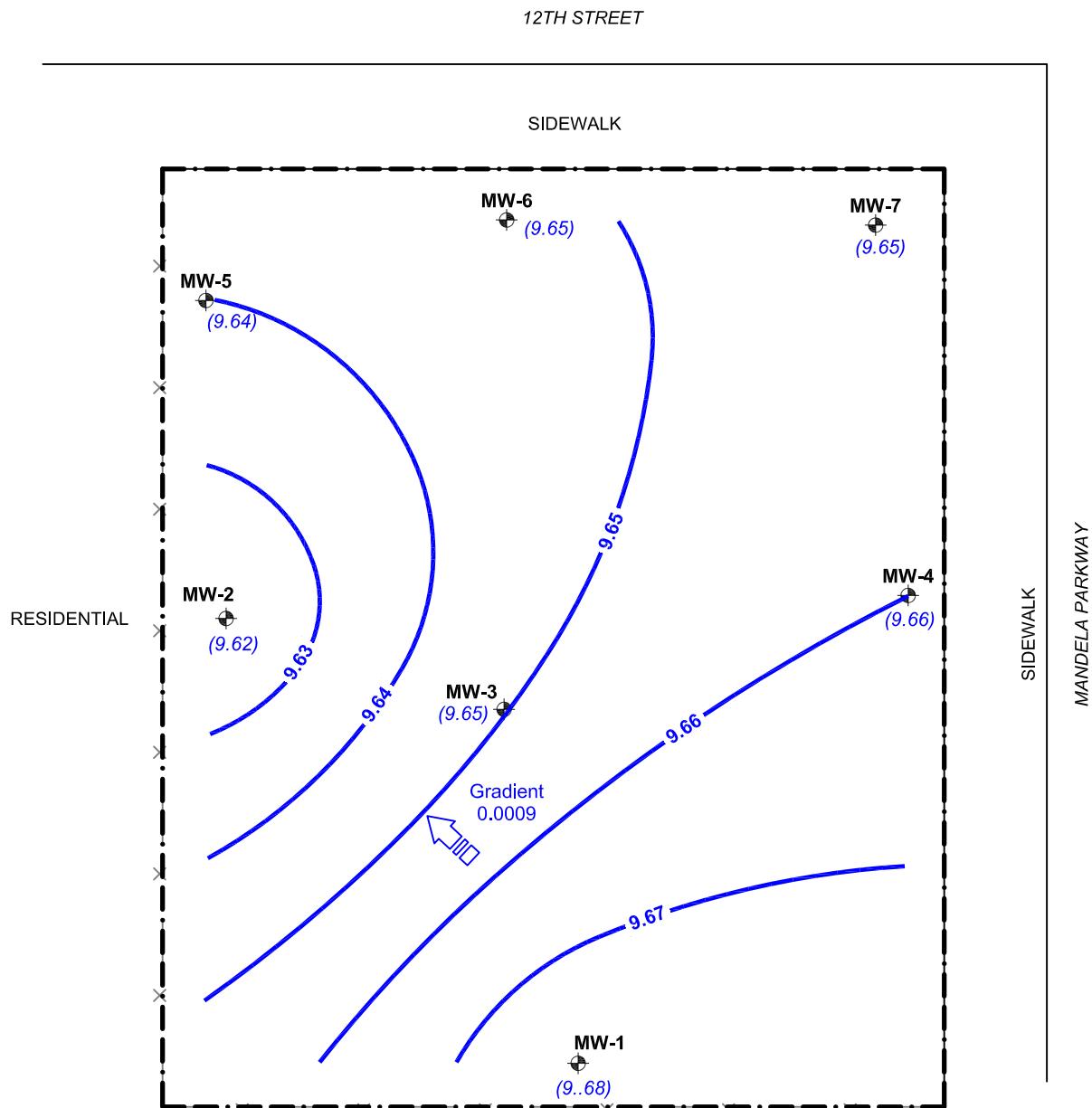
0 10 20

Scale (Feet)



Figure 2
1409 to 1417 12TH STREET
OAKLAND, CALIFORNIA

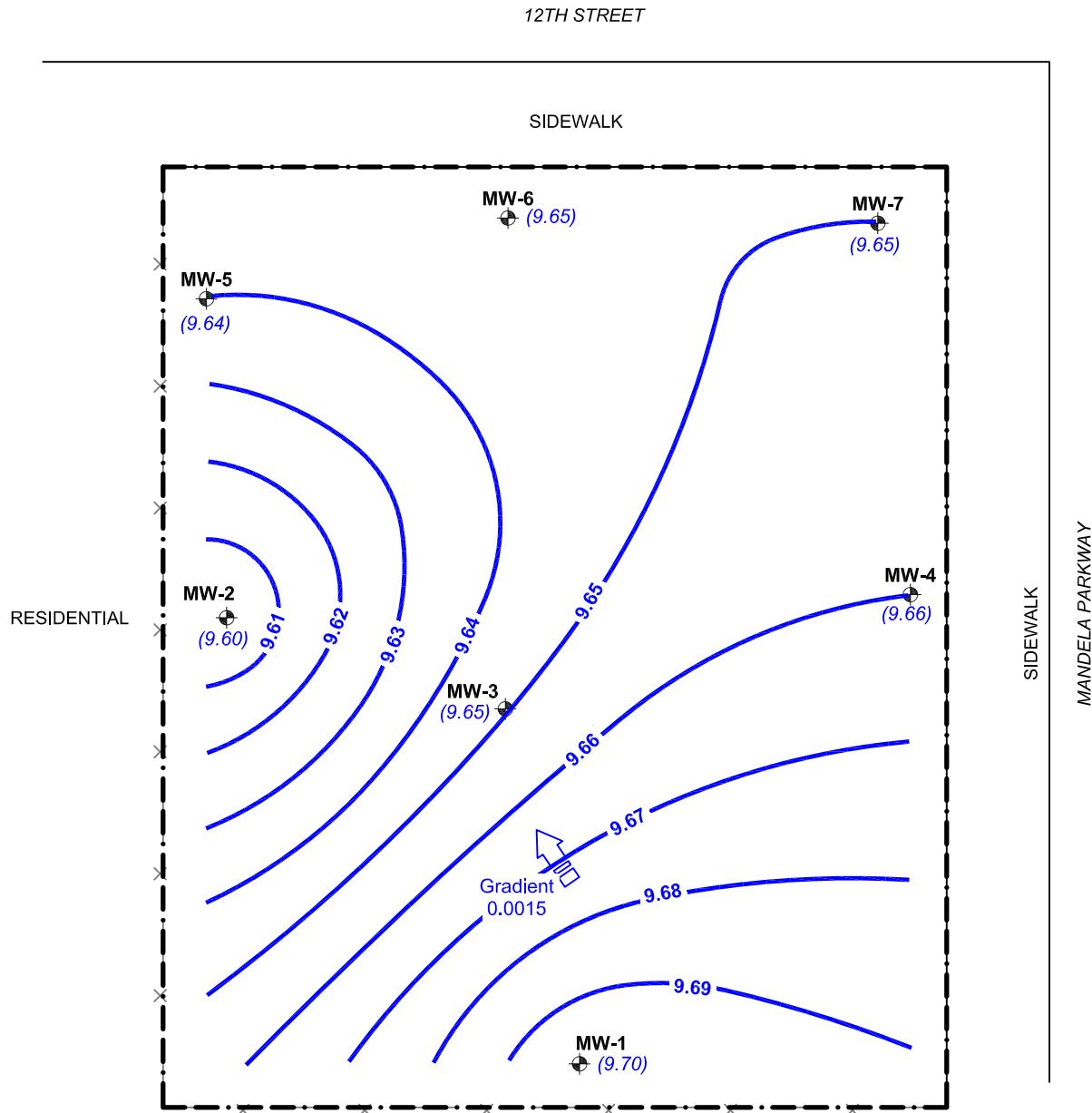
SITE PLAN



EXPLANATION:

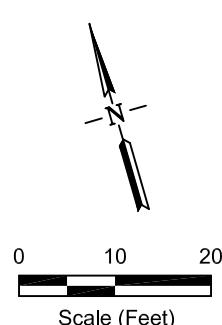
- · — Approximate Property Boundary
- MW-1 • Monitoring Well Location
- 9.67 — Groundwater Elevation Contour (ft.-MSL)
- (9.68) Groundwater Elevation (ft.-MSL);
- □ □ → Groundwater Gradient





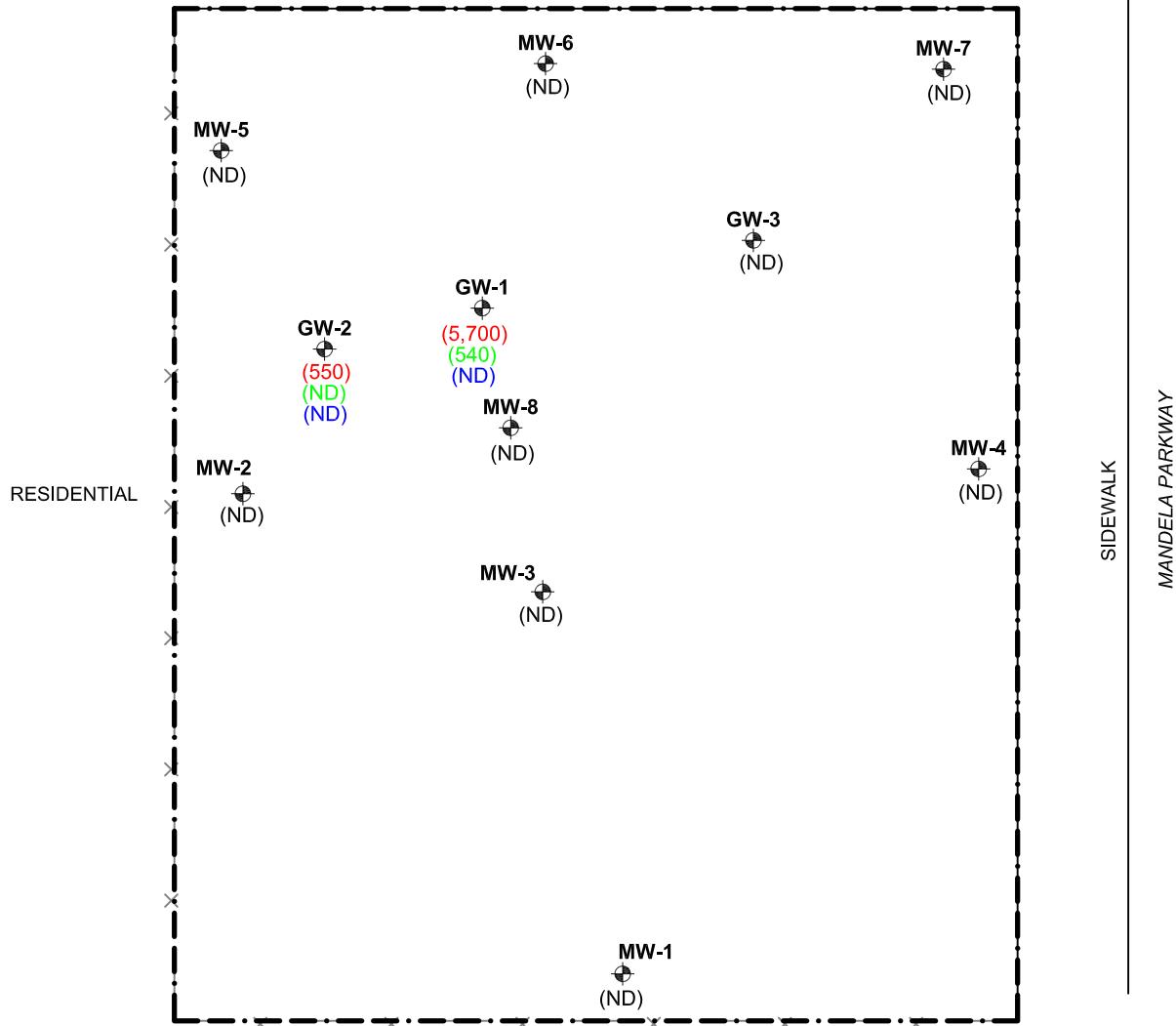
EXPLANATION:

- · — Approximate Property Boundary
- MW-1 • Monitoring Well Location
- 9.68 — Groundwater Elevation Contour (ft.-MSL)
- (9.65) Groundwater Elevation (ft.-MSL);
- ↗ Groundwater Gradient



12TH STREET

SIDEWALK



EXPLANATION:

— · — Approximate Property Boundary

MW-8 • Monitoring Well Location

(5,700) TPHg Results in micrograms per liter ($\mu\text{g/L}$)

(540) TPHd Results in micrograms per liter ($\mu\text{g/L}$)

(ND) TPHmo non-detect

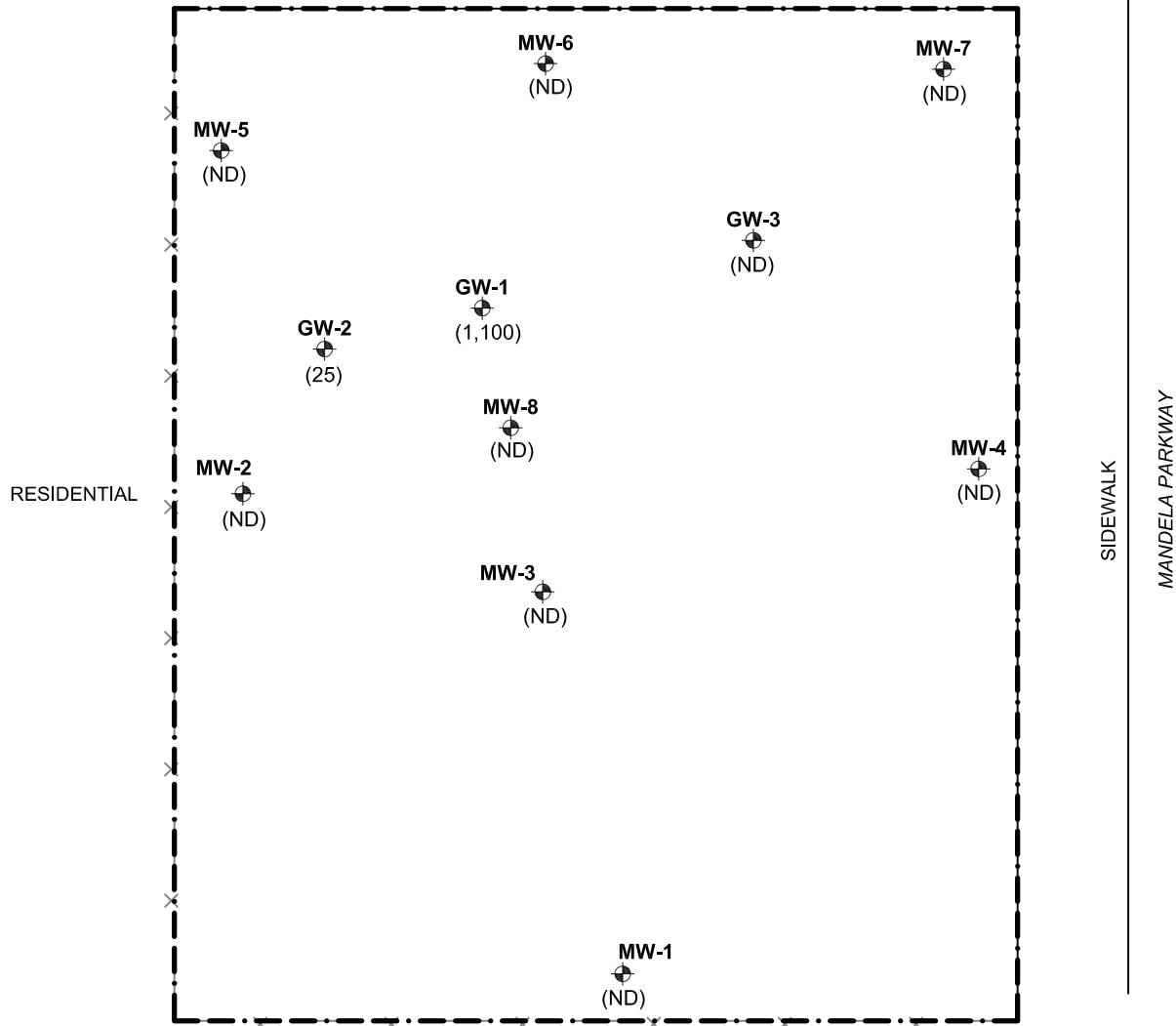
(ND) TPHg, TPHd, and TPHmo all non-detect



0 10 20
Scale (Feet)

12TH STREET

SIDEWALK

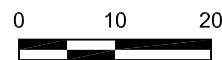


EXPLANATION:

— · — Approximate Property Boundary

MW-8 Monitoring Well Location

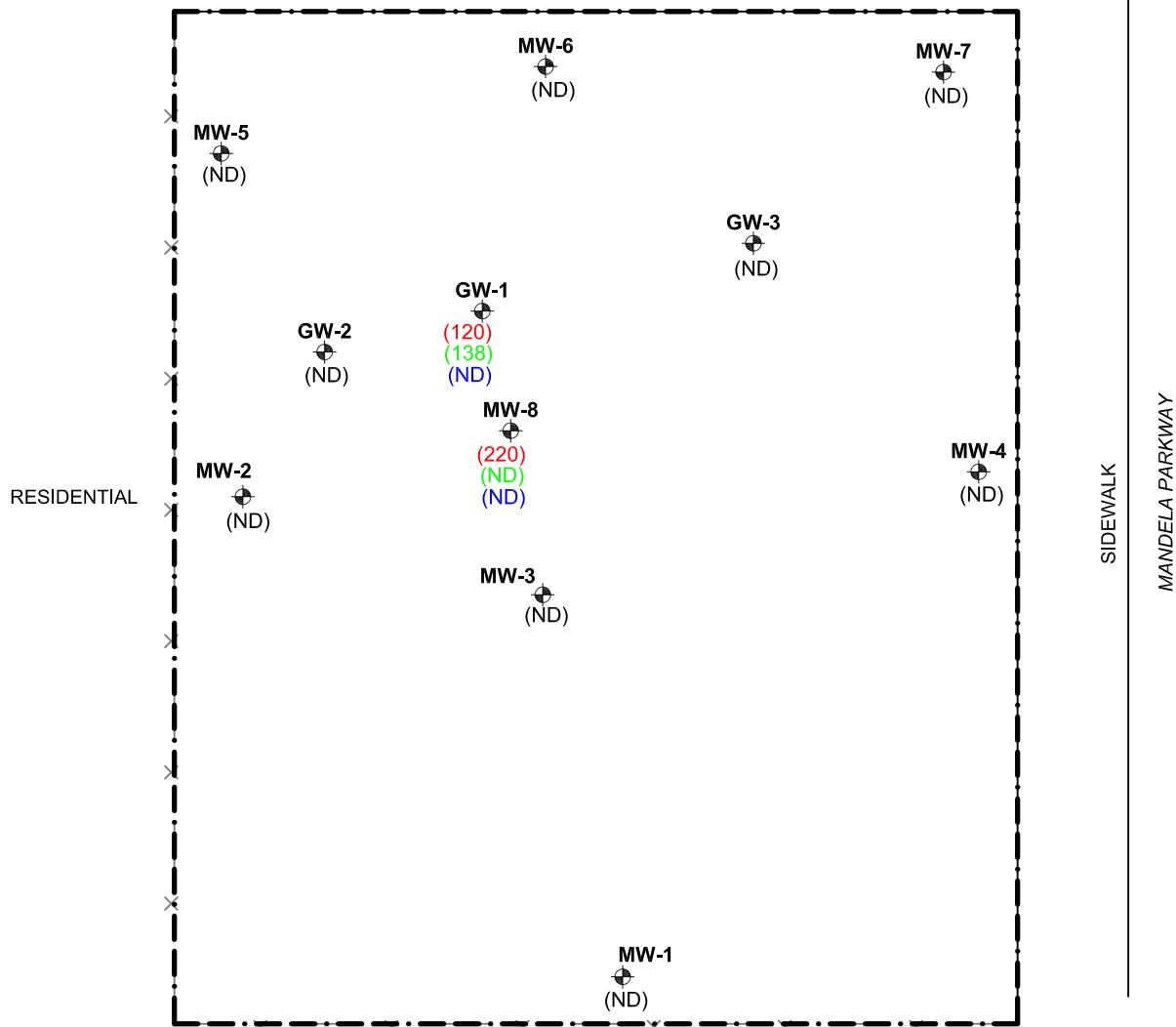
(1,100) Benzene Results in micrograms per liter (ug/L)



Scale (Feet)

12TH STREET

SIDEWALK



EXPLANATION:

— · — Approximate Property Boundary

MW-8 • Monitoring Well Location

(120) TPHg Results in micrograms per liter ($\mu\text{g/L}$)

(138) TPHd Results in micrograms per liter ($\mu\text{g/L}$)

(ND) TPHmo non-detect

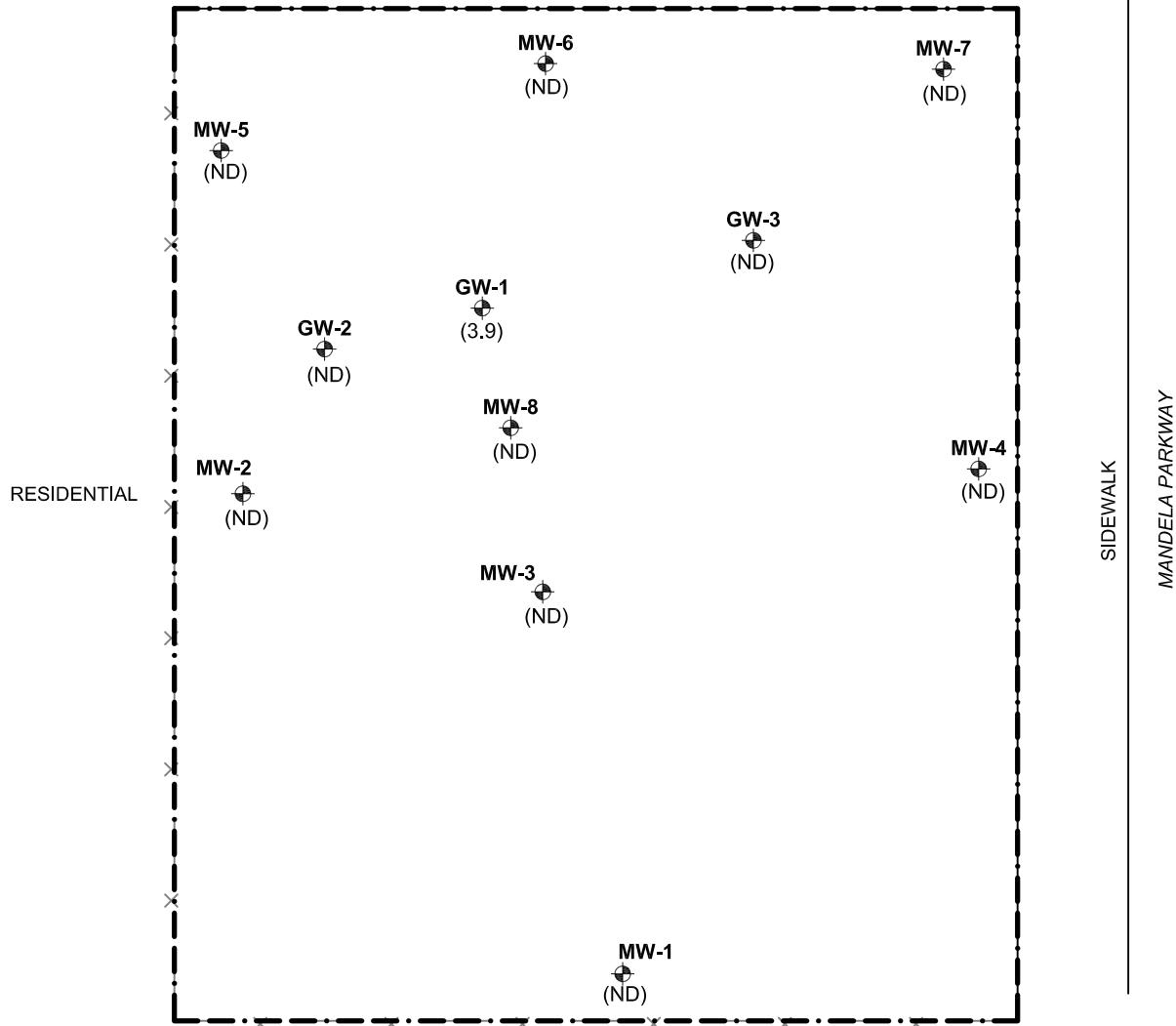
(ND) TPHg, TPHd, and TPHmo all non-detect



0 10 20
Scale (Feet)

12TH STREET

SIDEWALK

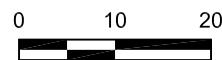


EXPLANATION:

— · — Approximate Property Boundary

MW-8 Monitoring Well Location

(3.9) Benzene Results in micrograms per liter ($\mu\text{g/L}$)



Scale (Feet)



APPENDIX A

Well Sampling Data Sheets & Groundwater Elevation Measurements Sheets (Third and Fourth Quarters 2009)

GROUNDWATER SAMPLING DATA SHEET

Project Name: 1409 12th Street, Oakland, CA
 Project Number: 1409_QGWM
Well Number: Mw-1
 Well Location: 1409-1417 12th Street, Oakland, CA
 Date: July 26, 2009
 Sampler: Joseph Cotton
 Weather:

<u>Well Construction</u>	<u>Sampling Equipment & Cleaning</u>		
Date Completed: <u>See Previous Data</u>	Sampler Type:	Disposable Bailer or Peristaltic Pump	
Total Depth of Well: <u>13.92</u>	Method of Cleaning:	Alconox and D.I. Water	
Diameter: <u>2"</u>	Pump/Bailer Type:	Disposable Bailer or Peristaltic Pump	
Well Elevation and Reference:	Method of Cleaning:	Alconox and D.I. Water	
	pH Meter:	HANNA	
	Conductivity Meter:	HANNA	
<u>Ground Water Levels:</u>	Comments:		
Initial Water Level: <u>11.81</u>	2" Well = 0.163 gallons per foot -CONVERSION FACTOR		
Final Water Level: <u>13.62</u>	4" Well = 0.653 gallons per foot- CONVERSION FACTOR		
Reference Point: <u>Black Mark on Top of Casing</u>			
Well Volume of Water: <u>$13.92 - 11.81 = 2.11 \times .163 = 3.44 \times 3 = 1.03$</u>			

PURGE MEASUREMENTS

Time	Discharge (gal.)		pH	Temp (°C)	Spec. Conductance (mmhos/cm)		Color/ Turbidity	Odor
	Per Time Period	Cumulative			Field	Dissolved Oxygen		
10:52	start	0	6.64	22.0	1752		Clear/	No
11:21		0.5	6.79	22.7	1695		Cloudy Brown	No
11:27		1.5	6.80	22.4	1638		Clear	No

Total Discharge: 1.5 gallons Comments: _____

Casing Volumes Removed: plus 3

Method of Disposal: Drummed pending analysis and disposal or recycling

IMPACT ENVIRONMENTAL	GROUNDWATER SAMPLING DATA SHEET		
	1300 Filbert Street, Richmond, California		
	Project No.	Date	Well
	<u>1409_QGWM</u>	<u>July 26, 2009</u>	<u>Mw-1</u>

GROUNDWATER SAMPLING DATA SHEET

Project Name: 1409 12th Street, Oakland, CA
 Project Number: 1409_QGWM
Well Number: MW-2
 Well Location: 1409-1417 12th Street, Oakland, CA

Date: July 26, 2009
 Sampler: Joseph Cotton
 Weather:

Well Construction

Date Completed:	See Previous Data	Sampler Type:	Disposable Bailer or Peristaltic Pump
Total Depth of Well:	13.91	Method of Cleaning:	Alconox and D.I. Water
Diameter:	2"	Pump/Bailer Type:	Disposable Bailer or Peristaltic Pump
Well Elevation and Reference:		Method of Cleaning:	Alconox and D.I. Water
		pH Meter:	HANNA
		Conductivity Meter:	HANNA
		Comments:	

Ground Water Levels:

Initial Water Level: 10.99
 Final Water Level:
 Reference Point: Black Mark on Top of Casing
 Well Volume of Water: $13.91 - 10.99 = 2.92 \times .163 = [0.475] \times 3 = 1.42$

PURGE MEASUREMENTS

Time	Discharge (gal.)		pH	Temp (°C)	Spec. Conductance (mmhos/cm)		Color/Turbidity	Odor
	Per Time Period	Cumulative			Field	Dissolved Oxygen		
11:04	start	0	6.68	22.0	537		Clear	No
11:24		0.75	6.88	21.5	524		Murky/Grey	No
11:33		1.5	6.71	20.9	502		Murky/Grey	No

Total Discharge: 1.5 gallons Comments:

Casing Volumes Removed: plus 3

Method of Disposal: Drummed pending analysis and disposal or recycling

IMPACT ENVIRONMENTAL	GROUNDWATER SAMPLING DATA SHEET		
	1300 Filbert Street, Richmond, California		
	Project No.	Date	Well
	1409_QGWM	July 26, 2009	MW-2

GROUNDWATER SAMPLING DATA SHEET

Project Name: 1409 12th Street, Oakland, CA Date: July 26, 2009
 Project Number: 1409_QGWM Sampler: Joseph Cotton
Well Number: Mw-3 Weather:
 Well Location: 1409-1417 12th Street, Oakland, CA

Well Construction

Date Completed:	\$ See Previous Data	Sampler Type:	Disposable Bailer or Peristaltic Pump
Total Depth of Well:	13.59	Method of Cleaning:	Alconox and D.I. Water
Diameter:	2"	Pump/Bailer Type:	Disposable Bailer or Peristaltic Pump
Well Elevation and Reference:		Method of Cleaning:	Alconox and D.I. Water
		pH Meter:	HANNA
		Conductivity Meter:	HANNA
Ground Water Levels:		Comments:	
Initial Water Level:	11.42	2" Well = 0.163 gallons per foot -CONVERSION FACTOR	
Final Water Level:		4" Well = 0.653 gallons per foot- CONVERSION FACTOR	

Reference Point: Black Mark on Top of Casing
 Well Volume of Water: $13.59 - 11.42 = 2.17 \times 0.163 = 0.354$ $\times 3 = 1.06$

PURGE MEASUREMENTS

Time	Discharge (gal.)		pH	Temp (°C)	Spec. Conductance (mmhos/cm)		Color/Turbidity	Odor
	Per Time Period	Cumulative			Field	Dissolved Oxygen		
12:37	start	Ø	7.08	22.1	809		Clear	No
12:41		0.5	7.15	22.4	814		Murky	No
12:50		1.5	7.22	22.6	839		Murky	No

Total Discharge: 1.5 gallons Comments: _____

Casing Volumes Removed: plus 3

Method of Disposal: Drummed pending analysis and disposal or recycling

IMPACT ENVIRONMENTAL	GROUNDWATER SAMPLING DATA SHEET		
	1300 Filbert Street, Richmond, California		
	Project No.	Date	Well
	1409_QGWM	July 26, 2009	Mw-3

GROUNDWATER SAMPLING DATA SHEET

Project Name: 1409 12th Street, Oakland, CA Date: July 26, 2009
 Project Number: 1409 QGWM Sampler: Joseph Cotton
Well Number: MW-4 Weather:
 Well Location: 1409-1417 12th Street, Oakland, CA

<u>Well Construction</u>	<u>Sampling Equipment & Cleaning</u>		
Date Completed:	See Previous Data		
Total Depth of Well:	13.90	Sampler Type:	Disposable Bailer or Peristaltic Pump
Diameter:	2"	Method of Cleaning:	Alconox and D.I. Water
Well Elevation and Reference:		Pump/Bailer Type:	Disposable Bailer or Peristaltic Pump
		Method of Cleaning:	Alconox and D.I. Water
		pH Meter:	HANNA
		Conductivity Meter:	HANNA
		Comments:	
		2" Well = 0.163 gallons per foot -CONVERSION FACTOR	
		4" Well = 0.653 gallons per foot- CONVERSION FACTOR	
Initial Water Level:	10.65		
Final Water Level:			
Reference Point:	Black Mark on Top of Casing		
Well Volume of Water:	$13.90 - 10.65 = 3.25 \times .163 = 0.530 \times 3 = 1.59$		

PURGE MEASUREMENTS

Time	Discharge (gal.)		pH	Temp (°C)	Spec. Conductance (mmhos/cm)		Color/ Turbidity	Odor
	Per Time Period	Cumulative			Field	Dissolved Oxygen		
11:34	start	Ø	6.89	21.3	390		Clear	No
11:45		1.0	7.15	22.9	440		Murky	No
11:56		1.75	7.17	22.3	426		Lt. Cloudy	No

Total Discharge: 1.75 Comments: _____

Casing Volumes Removed: plus 3

Method of Disposal: Drummed pending analysis and disposal or recycling

IMPACT ENVIRONMENTAL	GROUNDWATER SAMPLING DATA SHEET		
	1300 Filbert Street, Richmond, California		
	Project No.	Date	Well
	1409 QGWM	July 26, 2009	MW-4

GROUNDWATER SAMPLING DATA SHEET

Project Name: 1409 12th Street, Oakland, CA
 Project Number: 1409_QGWM
Well Number: MW-5
 Well Location: 1409-1417 12th Street, Oakland, CA

Date: July 26, 2009
 Sampler: Joseph Cotton
 Weather:

Well Construction

Date Completed: See Previous Data
 Total Depth of Well: 13.87
 Diameter: 2"
 Well Elevation and Reference:

Sampler Type: Disposable Bailer or Peristaltic Pump
 Method of Cleaning: Alconox and D.I. Water
 Pump/Bailer Type: Disposable Bailer or Peristaltic Pump
 Method of Cleaning: Alconox and D.I. Water
 pH Meter: HANNA
 Conductivity Meter: HANNA
 Comments:

Ground Water Levels:

Initial Water Level: 10.42
 Final Water Level:

Reference Point: Black Mark on Top of Casing
 Well Volume of Water: $13.87 - 10.42 = 3.45 \times 0.163 = 0.562 \times 3 = 1.70$

PURGE MEASUREMENTS

Time	Discharge (gal.)		pH	Temp (°C)	Spec. Conductance (mmhos/cm)		Color/Turbidity	Odor
	Per Time Period	Cumulative			Field	Dissolved Oxygen		
12:30	start	0	6.83	23.4	986		Clear	No
12:40		1.0	6.82	22.5	943		Cloudy Brown	No
12:47		2.0	6.81	22.3	981		Cloudy	No

Total Discharge: 3.0 gallons Comments:

Casing Volumes Removed: plus 3

Method of Disposal: Drummed pending analysis and disposal or recycling

IMPACT ENVIRONMENTAL	GROUNDWATER SAMPLING DATA SHEET		
	1300 Filbert Street, Richmond, California		
	Project No.	Date	Well
	1409_QGWM	July 26, 2009	MW-5

GROUNDWATER SAMPLING DATA SHEET

Project Name: 1409 12th Street, Oakland, CA Date: July 26, 2009
 Project Number: 1409_QGWM Sampler: Joseph Cotton
Well Number: MW-6 Weather:
 Well Location: 1409-1417 12th Street, Oakland, CA

<u>Well Construction</u>	<u>Sampling Equipment & Cleaning</u>
Date Completed: See Previous Data	Sampler Type: Disposable Bailer or Peristaltic Pump
Total Depth of Well: 14.44	Method of Cleaning: Alconox and D.I. Water
Diameter: 2"	Pump/Bailer Type: Disposable Bailer or Peristaltic Pump
Well Elevation and Reference:	Method of Cleaning: Alconox and D.I. Water
	pH Meter: HANNA
	Conductivity Meter: HANNA
	Comments: 2" Well = 0.163 gallons per foot -CONVERSION FACTOR 4" Well = 0.653 gallons per foot- CONVERSION FACTOR

Initial Water Level: 10.03
 Final Water Level:
 Reference Point: Black Mark on Top of Casing
 Well Volume of Water: $14.44 - 10.03 = 4.41 \times 0.163 = [0.719] \times 3 = 2.16$

PURGE MEASUREMENTS

Time	Discharge (gal.)		pH	Temp (°C)	Spec. Conductance (mmhos/cm)		Color/ Turbidity	Odor
	Per Time Period	Cumulative			Field	Dissolved Oxygen		
11:45	start	0	6.93	22.6	512		Clear	No
11:55		1.0	6.96	23.6	577		Murky	No
12:06		2.5	7.10	23.5	610		Murky	No

Total Discharge: 2.5 gallons Comments:
 Casing Volumes Removed: plus 3
 Method of Disposal: Drummed pending analysis and disposal or recycling

IMPACT ENVIRONMENTAL	GROUNDWATER SAMPLING DATA SHEET		
	1300 Filbert Street, Richmond, California		
	Project No.	Date	Well
	1409_QGWM	July 26, 2009	MW-6

GROUNDWATER SAMPLING DATA SHEET

Project Name: 1409 12th Street, Oakland, CA Date: July 26, 2009
 Project Number: 1409_QGWM Sampler: Joseph Cotton
Well Number: MW-7 Weather:
 Well Location: 1409-1417 12th Street, Oakland, CA

<u>Well Construction</u>	<u>Sampling Equipment & Cleaning</u>		
Date Completed:	See Previous Data		
Total Depth of Well:	13.81	Sampler Type:	Disposable Bailer or Peristaltic Pump
Diameter:	2"	Method of Cleaning:	Alconox and D.I. Water
Well Elevation and Reference:		Pump/Bailer Type:	Disposable Bailer or Peristaltic Pump
		Method of Cleaning:	Alconox and D.I. Water
		pH Meter:	HANNA
		Conductivity Meter:	HANNA
Ground Water Levels:	Comments: 2" Well = 0.163 gallons per foot -CONVERSION FACTOR 4" Well = 0.653 gallons per foot- CONVERSION FACTOR		
Initial Water Level: 10.21			
Final Water Level:			
Reference Point: Black Mark on Top of Casing			
Well Volume of Water: $13.81 - 10.21 = 3.60 \times 0.163 = 0.587 \times 3 = 1.76$			

PURGE MEASUREMENTS

Time	Discharge (gal.)		pH	Temp (°C)	Spec. Conductance (mmhos/cm)		Color/ Turbidity	Odor
	Per Time Period	Cumulative			Field	Dissolved Oxygen		
1:06	start	0	6.77	23.0	531		Clear	No
1:17		1.0	6.88	25.1	510		Brown Cloudy	No
1:25		2.0	6.87	23.9	496		Lt. Brown Cloudy	No

Total Discharge: 2 gallons Comments: _____
 Casing Volumes Removed: plus 3
 Method of Disposal: Drummed pending analysis and disposal or recycling

IMPACT ENVIRONMENTAL	GROUNDWATER SAMPLING DATA SHEET		
	1300 Filbert Street, Richmond, California		
	Project No.	Date	Well
	1409_QGWM	July 26, 2009	MW-7

GROUNDWATER SAMPLING DATA SHEET

Project Name: 1409 12th Street, Oakland, CA Date: July 26, 2009
 Project Number: 1409 QGWM Sampler: Joseph Cotton
Well Number: MW-8
 Well Location: 1409-1417 12th Street, Oakland, CA Weather:

Well Construction

Date Completed:	<u>See Previous Data</u>	Sampler Type:	Disposable Bailer or Peristaltic Pump
Total Depth of Well:	<u>27.55'</u>	Method of Cleaning:	Alconox and D.I. Water
Diameter:	<u>2"</u>	Pump/Bailer Type:	Disposable Bailer or Peristaltic Pump
Well Elevation and Reference:		Method of Cleaning:	Alconox and D.I. Water
		pH Meter:	HANNA
		Conductivity Meter:	HANNA

Ground Water Levels:

Initial Water Level:	<u>11.07'</u>	Comments:
		2" Well = 0.163 gallons per foot -CONVERSION FACTOR
		4" Well = 0.653 gallons per foot- CONVERSION FACTOR

Final Water Level:	<u>11.07'</u>
Reference Point:	Black Mark on Top of Casing
Well Volume of Water:	<u>$27.55 - 11.07 = 16.48 \times .163 = 2.69$</u> $\times 3 = 8.07$

PURGE MEASUREMENTS

Time	Discharge (gal.)		pH	Temp (°C)	Spec. Conductance (mmhos/cm)		Color/ Turbidity	Odor
	Per Time Period	Cumulative			Field	Dissolved Oxygen		
2:03	start	0	7.14	23.2	366		Clear	
2:30		4	7.12	22.9	508		Murky Browns	
2:52		8	7.09	22.7	555		Lt. Browns	

Total Discharge: _____ Comments: _____

Casing Volumes Removed: _____ plus 3

Method of Disposal: Drummed pending analysis and disposal or recycling

IMPACT ENVIRONMENTAL	GROUNDWATER SAMPLING DATA SHEET		
	1300 Filbert Street, Richmond, California		
	Project No.	Date	Well
	1409_QGWM	July 26, 2009	MW-8

GROUNDWATER SAMPLING DATA SHEET

Project Name: 1409 12th Street, Oakland, CA Date: July 26, 2009
 Project Number: 1409 QGWM Sampler: Joseph Cotton
Well Number: GW-1 Weather:
 Well Location: 1409-1417 12th Street, Oakland, CA

<u>Well Construction</u>	<u>Sampling Equipment & Cleaning</u>	
Date Completed: <u>See Previous Data</u>	Sampler Type:	Disposable Bailer or Peristaltic Pump
Total Depth of Well: <u>17.05</u>	Method of Cleaning:	Alconox and D.I. Water
Diameter: <u>4"</u>	Pump/Bailer Type:	Disposable Bailer or Peristaltic Pump
Well Elevation and Reference:	Method of Cleaning:	Alconox and D.I. Water
	pH Meter:	HANNA
	Conductivity Meter:	HANNA
	Comments:	
	2" Well = 0.163 gallons per foot -CONVERSION FACTOR	
	4" Well = 0.653 gallons per foot- CONVERSION FACTOR	
Initial Water Level: <u>10.59</u>		
Final Water Level:		
Reference Point: Black Mark on Top of Casing		
Well Volume of Water: <u>$17.05 - 10.59 = 6.46 \times 0.653 = 4.22 \times 3 = 12.66$</u>		

PURGE MEASUREMENTS

Time	Discharge (gal.)		pH	Temp (°C)	Spec. Conductance (mmhos/cm)		Color/ Turbidity	Odor
	Per Time Period	Cumulative			Field	Dissolved Oxygen		
3:06	start	<u>Ø</u>	<u>6.45</u>	<u>22.7</u>	<u>550</u>		<u>Clear</u>	<u>Yes</u>
3:34		<u>7</u>	<u>6.54</u>	<u>21.7</u>	<u>556</u>		<u>Cloudy</u>	<u>Yes</u>
4:02		<u>13</u>	<u>6.67</u>	<u>22.1</u>	<u>519</u>		<u>Cloudy</u>	<u>Yes</u>

Total Discharge: 13 Comments: _____
 Casing Volumes Removed: plus 3
 Method of Disposal: Drummed pending analysis and disposal or recycling

IMPACT ENVIRONMENTAL	GROUNDWATER SAMPLING DATA SHEET		
	1300 Filbert Street, Richmond, California		
	Project No.	Date	Well
	1409 QGWM	July 26, 2009	<u>GW-1</u>

GROUNDWATER SAMPLING DATA SHEET

Project Name: 1409 12th Street, Oakland, CA
 Project Number: 1409_QGWM
Well Number: GW-2
 Well Location: 1409-1417 12th Street, Oakland, CA

Date: July 26, 2009
 Sampler: Joseph Cotton
 Weather:

Well Construction

Date Completed:	See Previous Data	Sampler Type:	Disposable Bailer or Peristaltic Pump
Total Depth of Well:	17.00	Method of Cleaning:	Alconox and D.I. Water
Diameter:	4"	Pump/Bailer Type:	Disposable Bailer or Peristaltic Pump
Well Elevation and Reference:		Method of Cleaning:	Alconox and D.I. Water
		pH Meter:	HANNA
		Conductivity Meter:	HANNA
		Comments:	

Ground Water Levels:

2" Well = 0.163 gallons per foot -CONVERSION FACTOR
4" Well = 0.653 gallons per foot- CONVERSION FACTOR

Initial Water Level: 11.21

Final Water Level:

Reference Point: Black Mark on Top of Casing

Well Volume of Water: $17.00 - 11.21 = 5.79 \times 0.653 = 3.78 \times 3 = 11.34$

PURGE MEASUREMENTS

Time	Discharge (gal.)		pH	Temp (°C)	Spec. Conductance (mmhos/cm)		Color/Turbidity	Odor
	Per Time Period	Cumulative			Field	Dissolved Oxygen		
11:07	start	Ø	6.52	23.0	1168		Clear	Yes
11:19		6	6.55	21.9	1141		Murky	Yes
11:38		12	6.56	22.8	1129		Murky	Yes

Total Discharge: 12 gallons Comments:

Casing Volumes Removed: plus 3

Method of Disposal: Drummed pending analysis and disposal or recycling

IMPACT ENVIRONMENTAL	GROUNDWATER SAMPLING DATA SHEET		
	1300 Filbert Street, Richmond, California		
	Project No.	Date	Well 2
	1409_QGWM	July 26, 2009	GW-2

GROUNDWATER SAMPLING DATA SHEET

Project Name: 1409 12th Street, Oakland, CA
 Project Number: 1409_QGWM
Well Number: Gw-B3
 Well Location: 1409-1417 12th Street, Oakland, CA

Date: July 26, 2009
 Sampler: Joseph Cotton
 Weather:

<u>Well Construction</u>	<u>Sampling Equipment & Cleaning</u>
Date Completed: See Previous Data	Sampler Type: Disposable Bailer or Peristaltic Pump
Total Depth of Well: 17.98	Method of Cleaning: Alconox and D.I. Water
Diameter: 4"	Pump/Bailer Type: Disposable Bailer or Peristaltic Pump
Well Elevation and Reference:	Method of Cleaning: Alconox and D.I. Water
Ground Water Levels:	pH Meter: HANNA
	Conductivity Meter: HANNA
	Comments: 2" Well = 0.163 gallons per foot -CONVERSION FACTOR
Initial Water Level: 10.89	4" Well = 0.653 gallons per foot- CONVERSION FACTOR
Final Water Level:	
Reference Point: Black Mark on Top of Casing	
Well Volume of Water: $17.98 - 10.89 = 7.09 \times .653 = [4.63] \times 3 = 13.89$	

PURGE MEASUREMENTS

Time	Discharge (gal.)		pH	Temp (°C)	Spec. Conductance (mmhos/cm)		Color/ Turbidity	Odor
	Per Time Period	Cumulative			Field	Dissolved Oxygen		
1:05	start	0	6.29	23.3	341		Clear	No
1:20		7	6.51	22.5	355		Opaque Brown	No
1:30		14	6.54	23.3	396		Opaque Tan	No

Total Discharge: 14 gallons Comments:
 Casing Volumes Removed: plus 3
 Method of Disposal: Drummed pending analysis and disposal or recycling

IMPACT ENVIRONMENTAL	GROUNDWATER SAMPLING DATA SHEET		
	1300 Filbert Street, Richmond, California		
	Project No.	Date	Well
	1409_QGWM	July 26, 2009	Gw-3

WELL GAUGING DATA

Project # OEMOC6-RMI Date 11/16/09 Client Impact Env

Site 1409 17th St. Oakland

Well ID	Time	Well Size (in.)	Sheen / Odor	Depth to Immiscible Liquid (ft.)	Thickness of Immiscible Liquid (ft.)	Volume of Immiscibles Removed (ml)	Depth to water (ft.)	Depth to well bottom (ft.)	Survey Point: TOB or <u>TOC</u>	Notes
MW-1	0813	2					11.79	13.85		
MW-2	0824	2					11.01	13.83		
MW-3	0815	2					11.44	13.91		
MW-4	0810	2					10.69	13.84		
MW-5	0827	2				1041 1093	13.82 14.04			
MW-6	0833	2					10.02	14.38		
MW-7	0836	2					10.23	13.76		
MW-8			Not gauged							
GW-1			Not gauged							
GW-2	0830	4					10.93	17.01		
GW-3	1249	4	1/4"	Port open			10.64	—	▼	



WELL GAUGING DATA

Project # 091112-1W-2 Date 11/12/09 Client IMPACT

Site 1409 12th STREET, OAKLAND, CA

Well ID	Time W Time W	Well Size (in.)	Sheen / Odor	Depth to Immiscible Liquid (ft.)	Thickness of Immiscible Liquid (ft.)	Volume of Immiscibles Removed (ml)	Depth to water (ft.)	Depth to well bottom (ft.)	Survey Point: TOB or <u>TOC</u>	Notes
MW-1	2	1225					12.02	13.85		
MW-2	2	1246					11.04	13.90		
MW-3	2	1231					11.53	13.90		
MW-4	2	1310					10.78	13.86		
MW-5	2	1248					10.45	13.81		
MW-6	2	1252					10.03	14.46		
MW-7	2	1305					10.45	13.83		
MW-8	4	1320					10.21	26.69	EXT. SYS.	
GW-1	4	1315					10.62	16.96	EXT. SYS.	
GW-2	4	1238					11.18	16.98		
GW-3	4	1326					10.65	17.62	EXT. SYS.	

WELL MONITORING DATA SHEET

Project #: CA1106-RM1	Client: Impact Env	
Sampler: R.M.	Date: 11/16/09	
Well I.D.: MW-1	Well Diameter: (2) 3 4 6 8	
Total Well Depth (TD): 13.85	Depth to Water (DTW): 11.79	
Depth to Free Product:	Thickness of Free Product (feet):	
Referenced to: PVC	Grade	D.O. Meter (if req'd): YSI HACH
DTW with 80% Recharge [(Height of Water Column x 0.20) + DTW]: 12.20		

Purge Method:	Bailer	Waterra	Sampling Method:	Bailer
	Disposable Bailer			Disposable Bailer
	Positive Air Displacement	Peristaltic		Extraction Port
	Electric Submersible	Extraction Pump		Dedicated Tubing
		Other _____		Other: _____

.4	(Gals.) X	3	=	1.2	Gals.
1 Case Volume	Specified Volumes		Calculated Volume		

Well Diameter	Multiplier	Well Diameter	Multiplier
1"	0.04	4"	0.65
2"	0.16	6"	1.47
3"	0.37	Other	radius ² * 0.163

Time	Temp (°F or °C)	pH	Cond. (mS or µS)	Turbidity (NTUs)	Gals. Removed	Observations
0916	19.2	6.38	1224	>1000	.4	Brown
0917	19.2	6.38	1219	>1000	.8	↓
0918	18.9	6.42	1219	>1000	1.2	↓

Did well dewater?	Yes	No	Gallons actually evacuated:	1.2
Sampling Date:	11/16/09	Sampling Time:	0925	Depth to Water: 12.03

Sample I.D.: MW-1	Laboratory:	Kiff	CalScience	Other: Torrent-Malak
Analyzed for: TPH-G BTEX MTBE TPH-D	Oxygenates (5)	Other:	SEE CCR	
EB I.D. (if applicable):	@ Time	Duplicate I.D. (if applicable):		
Analyzed for: TPH-G BTEX MTBE TPH-D	Oxygenates (5)	Other:		
D.O. (if req'd): Pre-purge:	1.45	mg/L	Post-purge:	mg/L
O.R.P. (if req'd): Pre-purge:	mV		Post-purge:	mV

WELL MONITORING DATA SHEET

Project #: 041106-RM1	Client: Impact Env		
Sampler: R.M.	Date: 11/16/09		
Well I.D.: MW-2	Well Diameter: (2) 3 4 6 8		
Total Well Depth (TD): 13.83	Depth to Water (DTW): 11.01 2.82		
Depth to Free Product:	Thickness of Free Product (feet):		
Referenced to: PVC	Grade	D.O. Meter (if req'd): YSI	HACH
DTW with 80% Recharge [(Height of Water Column x 0.20) + DTW]: 11.57			

Purge Method:	Bailer	Waterra	Sampling Method:	Bailer
<input checked="" type="checkbox"/> Disposable Bailer		Peristaltic	<input checked="" type="checkbox"/> Disposable Bailer	
Positive Air Displacement		Extraction Pump	Extraction Port	
Electric Submersible		Other _____	Dedicated Tubing	
			Other: _____	

0.5 (Gals.) X	3	=	1.5 Gals.	
1 Case Volume	Specified Volumes	Calculated Volume		

Well Diameter	Multiplier	Well Diameter	Multiplier
1"	0.04	4"	0.65
2"	0.16	6"	1.47
3"	0.37	Other	radius ² * 0.163

Time	Temp (°F or °C)	pH	Cond. (mS or µS)	Turbidity (NTUs)	Gals. Removed	Observations
0935	18.9	6.91	453.7	68	.5	114
0936	19.3	6.78	437.9	502	1.0	Brown 123
0937	19.1	6.76	434.1	71000	1.5	" "

Did well dewater? Yes Gallons actually evacuated: 1.5

Sampling Date: 11/16/09 Sampling Time: 0945 Depth to Water: 11.36

Sample I.D.: MW-2 Laboratory: Kiff CalScience Other Torrent - Matal

Analyzed for: TPH-G BTEX MTBE TPH-D Oxygenates (5) Other: SEE COE

EB I.D. (if applicable): @ Time Duplicate I.D. (if applicable):

Analyzed for: TPH-G BTEX MTBE TPH-D Oxygenates (5) Other:

D.O. (if req'd): Pre-purge: 2.84 mg/L Post-purge: mg/L

O.R.P. (if req'd): Pre-purge: mV Post-purge: mV

WELL MONITORING DATA SHEET

Project #: OAH06-RM1	Client: Impact Env
Sampler: R.M.	Date: 11/6/09
Well I.D.: MW-3	Well Diameter: (2) 3 4 6 8
Total Well Depth (TD): 13.91	Depth to Water (DTW): 11.44
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: PVC	D.O. Meter (if req'd): YSI HACH
DTW with 80% Recharge [(Height of Water Column x 0.20) + DTW]: 11.93	

Purge Method:	Bailer Disposable Bailer Positive Air Displacement Electric Submersible	Waterra Peristaltic Extraction Pump Other _____	Sampling Method:	Bailer Disposable Bailer Extraction Port Dedicated Tubing																
$\frac{0.4 \text{ (Gals.)} \times 3}{1 \text{ Case Volume}} = \frac{1.2}{\text{Calculated Volume}}$		Other:																		
		<table border="1"> <thead> <tr> <th>Well Diameter</th> <th>Multiplier</th> <th>Well Diameter</th> <th>Multiplier</th> </tr> </thead> <tbody> <tr> <td>1"</td> <td>0.04</td> <td>4"</td> <td>0.65</td> </tr> <tr> <td>2"</td> <td>0.16</td> <td>6"</td> <td>1.47</td> </tr> <tr> <td>3"</td> <td>0.37</td> <td>Other</td> <td>$\text{radius}^2 * 0.163$</td> </tr> </tbody> </table>			Well Diameter	Multiplier	Well Diameter	Multiplier	1"	0.04	4"	0.65	2"	0.16	6"	1.47	3"	0.37	Other	$\text{radius}^2 * 0.163$
Well Diameter	Multiplier	Well Diameter	Multiplier																	
1"	0.04	4"	0.65																	
2"	0.16	6"	1.47																	
3"	0.37	Other	$\text{radius}^2 * 0.163$																	

Time	Temp (°F or °C)	pH	Cond. (mS or µS)	Turbidity (NTUs)	Gals. Removed	Observations
1005	19.4	6.88	727.7	502	1.4	
1006	19.7	7.02	721.0	710	0.8	cloudy
1007	19.6	7.04	719.1	>1000	1.2	down

Did well dewater? Yes No Gallons actually evacuated: 15

Sampling Date: 11/6/09 Sampling Time: 1015 Depth to Water: 11.79

Sample I.D.: MW-3 Laboratory: Kiff CalScience Other Torrent-Mulat

Analyzed for: TPH-G BTEX MTBE TPH-D Oxygenates (5) Other: SEE CSE

EB I.D. (if applicable): @ _____ Duplicate I.D. (if applicable):

Analyzed for: TPH-G BTEX MTBE TPH-D Oxygenates (5) Other:

D.O. (if req'd): Pre-purge: 2.52 mg/L Post-purge: _____ mg/L

O.R.P. (if req'd): Pre-purge: mV Post-purge: mV

WELL MONITORING DATA SHEET

Project #: CA1106-RM1	Client: Impact Env		
Sampler: R.M.	Date: 11/16/09		
Well I.D.: MW-4	Well Diameter: <u>23</u> 3 4 6 8		
Total Well Depth (TD): 13.84	Depth to Water (DTW): 10.69 3.15		
Depth to Free Product:	Thickness of Free Product (feet):		
Referenced to: PVC	Grade	D.O. Meter (if req'd): YSI	HACH
DTW with 80% Recharge [(Height of Water Column x 0.20) + DTW]: 11.32			

Purge Method:	Bailer	Waterra	Sampling Method:	Bailer
	Disposable Bailer	Peristaltic		Disposable Bailer
	Positive Air Displacement	Extraction Pump		Extraction Port
	Electric Submersible	Other _____		Dedicated Tubing
.5	(Gals.) X 3	= 1.5 Gals.	Well Diameter Multiplier	Well Diameter Multiplier
1 Case Volume	Specified Volumes	Calculated Volume	1" 0.04	4" 0.65
			2" 0.16	6" 1.47
			3" 0.37	Other radius ² * 0.163

Time	Temp (°F or °C)	pH	Cond. (mS or µS)	Turbidity (NTUs)	Gals. Removed	Observations
1047	20.5	7.23	392.6	289	.5	CRP
1048	20.7	7.03	397.3	702	1.0	MB
1049	20.8	6.98	399.7	71000	1.5	123
						MLA

Did well dewater? Yes No Gallons actually evacuated: 1.5

Sampling Date: 11/16/09 Sampling Time: 1055 Depth to Water: 11.21

Sample I.D.: MW-4 Laboratory: Kiff CalScience Other Torrent-Mulab

Analyzed for: TPH-G BTEX MTBE TPH-D Oxygenates (5) Other: SEE CO

EB I.D. (if applicable): @ Time Duplicate I.D. (if applicable):

Analyzed for: TPH-G BTEX MTBE TPH-D Oxygenates (5) Other:

D.O. (if req'd): Pre-purge: 2.76 mg/L Post-purge: mg/L

O.R.P. (if req'd): Pre-purge: mV Post-purge: mV

WELL MONITORING DATA SHEET

Project #: OAH06-RM1	Client: Impact Env	
Sampler: R.M.	Date: 11/6/09	
Well I.D.: Mw-5	Well Diameter: ② 3 4 6 8	
Total Well Depth (TD): 13.82	Depth to Water (DTW): 10.41	
Depth to Free Product:	Thickness of Free Product (feet):	
Referenced to: PVC	Grade	D.O. Meter (if req'd): YSI HACH
DTW with 80% Recharge [(Height of Water Column x 0.20) + DTW]: 11.09		

Purge Method:	Bailer Disposable Bailer Positive Air Displacement Electric Submersible	Waterra Peristaltic Extraction Pump Other _____	Sampling Method:	Bailer Disposable Bailer Extraction Port Dedicated Tubing
.6	(Gals.) X 3 = 1.8 Gals.	1 Case Volume Specified Volumes Calculated Volume	Well Diameter Multiplier Well Diameter Multiplier	1" 0.04 4" 0.65 2" 0.16 6" 1.47 3" 0.37 Other radius ² * 0.163

Time	Temp (°F or °C)	pH	Cond. (mS or µS)	Turbidity (NTUs)	Gals. Removed	Observations
1027	20.1	7.04	875.0	129	.6	
1028	20.1	7.01	922.7	741	1.2	cloudy
1029	20.2	6.98	931.2	71000	1.8	brown

Did well dewater?	Yes	No	Gallons actually evacuated:	1.8
Sampling Date:	11/6/09	Sampling Time:	1035	Depth to Water: 11.06
Sample I.D.:	Mw-5	Laboratory:	Kiff CalScience Other	Torrent - Mutual
Analyzed for:	TPH-G BTEX MTBE TPH-D	Oxygenates (5)	Other:	SEE COC
EB I.D. (if applicable):	@ Time	Duplicate I.D. (if applicable):		
Analyzed for:	TPH-G BTEX MTBE TPH-D	Oxygenates (5)	Other:	
D.O. (if req'd):	Pre-purge:	1.98 mg/L	Post-purge:	mg/L
O.R.P. (if req'd):	Pre-purge:	mV	Post-purge:	mV

WELL MONITORING DATA SHEET

Project #: OAH06-RM1	Client: Impact Env		
Sampler: R.M.	Date: 11/6/09		
Well I.D.: MW-6	Well Diameter: (2) 3 4 6 8		
Total Well Depth (TD): 14.38	Depth to Water (DTW): 10.02 4.36		
Depth to Free Product:	Thickness of Free Product (feet):		
Referenced to: PVC	Grade	D.O. Meter (if req'd): YSI	HACH
DTW with 80% Recharge [(Height of Water Column x 0.20) + DTW]: 10.89			

Purge Method:	Bailer Disposable Bailer Positive Air Displacement Electric Submersible	Waterra Peristaltic Extraction Pump Other _____	Sampling Method: Bailer Disposable Bailer Extraction Port Dedicated Tubing Other: _____
.7	(Gals.) X 3 = 2.1 Gals.	1 Case Volume Specified Volumes Calculated Volume	Well Diameter Multiplier Well Diameter Multiplier 1" 0.04 4" 0.65 2" 0.16 6" 1.47 3" 0.37 Other radius ² * 0.163

Time	Temp (°F or °C)	pH	Cond (mS or µS)	Turbidity (NTUs)	Gals. Removed	Observations
1107	20.9	7.20	477.4	491	.7	0RP
1108	21.4	7.03	466.6	579	1.4	117
1109	21.1	6.98	461.3	71000	2.1	132
						141

Did well dewater? Yes No Gallons actually evacuated: 2.1

Sampling Date: 11/6/09 Sampling Time: 1115 Depth to Water: 10.74

Sample I.D.: MW-6 Laboratory: Kiff CalScience Other Torrent-Malak

Analyzed for: TPH-G BTEX MTBE TPH-D Oxygenates (5) Other: SEE COE

EB I.D. (if applicable): @ Time Duplicate I.D. (if applicable):

Analyzed for: TPH-G BTEX MTBE TPH-D Oxygenates (5) Other:

D.O. (if req'd): Pre-purge: 2.80 mg/L Post-purge: mg/L

O.R.P. (if req'd): Pre-purge: mV Post-purge: mV

WELL MONITORING DATA SHEET

Project #: CA1106-RM1	Client: Impact Env	
Sampler: R.M.	Date: 11/6/09	
Well I.D.: MW-7	Well Diameter: (2) 3 4 6 8	
Total Well Depth (TD): 13.76	Depth to Water (DTW): 10.23 3.53	
Depth to Free Product:	Thickness of Free Product (feet):	
Referenced to: PVC	Grade	D.O. Meter (if req'd): YSI HACH
DTW with 80% Recharge [(Height of Water Column x 0.20) + DTW]: 10.93		

Purge Method:	Bailer Disposable Bailer Positive Air Displacement Electric Submersible	Waterra Peristaltic Extraction Pump Other _____	Sampling Method: Bailer Disposable Bailer Extraction Port Dedicated Tubing
.6 (Gals.) X 3 = 1.8 Gals.	1 Case Volume Specified Volumes Calculated Volume		
			Well Diameter Multiplier Well Diameter Multiplier 1" 0.04 4" 0.65 2" 0.16 6" 1.47 3" 0.37 Other radius ² * 0.163

Time	Temp (°F or °C)	pH	Cond. (mS or µS)	Turbidity (NTUs)	Gals. Removed	Observations
1131	21.4	7.00	407.2	103	.6	
1132	21.4	6.91	403.1	131	1.2	
1133	21.4	6.89	400.4	578	1.8	cloudy

Did well dewater? Yes No Gallons actually evacuated: 1.8

Sampling Date: 11/6/09 Sampling Time: 1140 Depth to Water:

Sample I.D.: MW-7 Laboratory: Kiff CalScience Other Torrent-Malp

Analyzed for: TPH-G BTEX MTBE TPH-D Oxygenates (5) Other: SEE CSE

EB I.D. (if applicable): @ Time Duplicate I.D. (if applicable):

Analyzed for: TPH-G BTEX MTBE TPH-D Oxygenates (5) Other:

D.O. (if req'd): Pre-purge: 1.43 mg/L Post-purge: mg/L

O.R.P. (if req'd): Pre-purge: mV Post-purge: mV

WELL MONITORING DATA SHEET

Project #: 091112-1W-2	Client: IMPACT		
Sampler: 1W	Date: 11/12/09		
Well I.D.: MW-8	Well Diameter: 2 3 4 6 8		
Total Well Depth (TD): 26.67	Depth to Water (DTW): 10.21		
Depth to Free Product:	Thickness of Free Product (feet):		
Referenced to: PVC	Grade	D.O. Meter (if req'd): YSI	HACH
DTW with 80% Recharge [(Height of Water Column x 0.20) + DTW]: 13.51			

Purge Method: Bailer
 Disposable Bailer
 Positive Air Displacement
 Electric Submersible

Waterra
Peristaltic
Extraction Pump
Other _____

Sampling Method: Bailer
 Disposable Bailer
 Extraction Port
 Dedicated Tubing

Other: _____

Well Diameter	Multiplier	Well Diameter	Multiplier
1"	0.04	4"	0.65
2"	0.16	6"	1.47
3"	0.37	Other	radius ² * 0.163

10.7 (Gals.) X 3 = 32.1 Gals.
1 Case Volume Specified Volumes Calculated Volume

Time	Temp (°F or °C)	pH	Cond. (mS or µS)	Turbidity (NTUs)	Gals. Removed	Observations
1429	18.8	6.57	729	39	11.0	
1431	19.3	6.73	699	47	22.0	
1432	19.5	6.76	678	48	32.1	DTW = 12.68

Did well dewater? Yes No Gallons actually evacuated: 32.1

Sampling Date: 11/12/09 Sampling Time: 1440 Depth to Water: 12.68

Sample I.D.: MW-8 Laboratory: Kiff CalScience Other TORRENT

Analyzed for: TPH-G BTEX MTBE TPH-D Oxygenates (5) Other: SEE COC

EB I.D. (if applicable): @ Time Duplicate I.D. (if applicable):

Analyzed for: TPH-G BTEX MTBE TPH-D Oxygenates (5) Other:

D.O. (if req'd):	Pre-purge:	0.82 mg/L	Post-purge:	mg/L
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O.R.P. (if req'd):	Pre-purge:	mV	Post-purge:	mV
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WELL MONITORING DATA SHEET

Project #: 091112-1W-2	Client: IMPACT
Sampler: 1W	Date: 11/12/09
Well I.D.: GW-1	Well Diameter: 2 3 <u>4</u> 6 8
Total Well Depth (TD): 16.98	Depth to Water (DTW): 10.62
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: PVC Grade	D.O. Meter (if req'd): YSI HACH
DTW with 80% Recharge [(Height of Water Column x 0.20) + DTW]: 11.89	

Purge Method: Bailer
 Disposable Bailer
 Positive Air Displacement
 Electric Submersible

Waterra Sampling Method: Bailer
 Peristaltic
 Extraction Pump
 Other _____

Extraction Port
 Dedicated Tubing

Other: _____

$$\frac{4.2 \text{ (Gals.)} \times 3}{1 \text{ Case Volume} \quad \text{Specified Volumes}} = \frac{12.6}{\text{Calculated Volume}} \text{ Gals.}$$

Well Diameter	Multiplier	Well Diameter	Multiplier
1"	0.04	4"	0.65
2"	0.16	6"	1.47
3"	0.37	Other	radius ² * 0.163

Time	Temp (°F or °C)	pH	Cond. (mS or µS)	Turbidity (NTUs)	Gals. Removed	Observations
1416	19.2	6.69	471	37	4.2	
1417	19.5	6.63	474	97	8.4	
1417	WELL DEWATERED		@ 8.5	8.5 gallons		DTW = 14.80
1450	19.7	6.72	581	263	GRAB	

Did well dewater? Yes No Gallons actually evacuated: 8.5

Sampling Date: 11/12/09 Sampling Time: 1450 Depth to Water: 11.70

Sample I.D.: GW-1 Laboratory: Kiff CalScience Other TORRENT

Analyzed for: TPH-G BTEX MTBE TPH-D Oxygenates (5) Other: SEE COC

EB I.D. (if applicable): @ Time Duplicate I.D. (if applicable):

Analyzed for: TPH-G BTEX MTBE TPH-D Oxygenates (5) Other:

D.O. (if req'd):	Pre-purge:	<u>27.16</u>	mg/L
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O.R.P. (if req'd):	Pre-purge:	mV	Post-purge:
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WELL MONITORING DATA SHEET

Project #: OAH06-RM	Client: Impact Env		
Sampler: R.M.	Date: 11/16/09		
Well I.D.: GW-2	Well Diameter: 2 3 (4) 6 8		
Total Well Depth (TD): 17.01	Depth to Water (DTW): 10.93 6.08		
Depth to Free Product:	Thickness of Free Product (feet):		
Referenced to: PVC	Grade	D.O. Meter (if req'd): YSI	HACH
DTW with 80% Recharge [(Height of Water Column x 0.20) + DTW]: 12.14			

Purge Method: Bailer
 Disposable Bailer
 Positive Air Displacement
 Electric Submersible

Waterra
 Peristaltic
 Extraction Pump
 Other _____

Sampling Method: Bailer
 Disposable Bailer
 Extraction Port
 Dedicated Tubing

Other: _____

$$\frac{4 \text{ (Gals.)} \times 3}{1 \text{ Case Volume}} = \frac{12.0 \text{ Gals.}}{\text{Specified Volumes}} \text{ Calculated Volume}$$

Well Diameter	Multiplier	Well Diameter	Multiplier
1"	0.04	4"	0.65
2"	0.16	6"	1.47
3"	0.37	Other	radius ² * 0.163

Time	Temp (°F or °C)	pH	Cond. (mS or µS)	Turbidity (NTUs)	Gals. Removed	Observations
1155	20.2	7.07	517.4	84	4	ORF
1156	20.5	6.85	491.4	153	8	111
1157						116
1205						

Did well dewater? Yes No Gallons actually evacuated: 8

Sampling Date: 11/16/09 Sampling Time: 1205 Depth to Water: 12.10

Sample I.D.: GW-2 Laboratory: Kiff CalScience Other Torrent-Malat

Analyzed for: TPH-G BTEX MTBE TPH-D Oxygenates (5) Other: SEE CCE

EB I.D. (if applicable): @ Time Duplicate I.D. (if applicable):

Analyzed for: TPH-G BTEX MTBE TPH-D Oxygenates (5) Other:

D.O. (if req'd): Pre-purge: 0.20 mg/L Post-purge: _____ mg/L

O.R.P. (if req'd): Pre-purge: mV Post-purge: mV

WELL MONITORING DATA SHEET

Project #: 091112-1W-2	Client: IMPACT
Sampler: 1W	Date: 11/12/09
Well I.D.: GW-3	Well Diameter: 2 3 <u>4</u> 6 8
Total Well Depth (TD): 17.62	Depth to Water (DTW): 10.65
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: PVC	D.O. Meter (if req'd): YSI HACH
DTW with 80% Recharge [(Height of Water Column x 0.20) + DTW]: 12.05	

Purge Method: Bailer
 Disposable Bailer
 Positive Air Displacement
 Electric Submersible

Waterra Peristaltic Extraction Pump Other _____

Sampling Method: Bailer
 Disposable Bailer
 Extraction Port
 Dedicated Tubing

Other: _____

Well Diameter	Multiplier	Well Diameter	Multiplier
1"	0.04	4"	0.65
2"	0.16	6"	1.47
3"	0.37	Other	radius ² * 0.163

4.6 (Gals.) X 3 = 13.8 Gals.
 1 Case Volume Specified Volumes Calculated Volume

Time	Temp (°F or °C)	pH	Cond. (mS or µS)	Turbidity (NTUs)	Gals. Removed	Observations
1350	19.3	7.56	354	67	4.6	ODOR
1351	19.9	7.00	364	514	9.2	"
1352	20.2	6.98	362	623	13.8	"
1455	19.7	6.94	388	514	GRAB	DTW = 15.78

Did well dewater? Yes No Gallons actually evacuated: 13.8

Sampling Date: 11/12/09 Sampling Time: 1455 Depth to Water: 11.96

Sample I.D.: GW-3 Laboratory: Kiff CalScience Other TORRENT

Analyzed for: TPH-G BTEX MTBE TPH-D Oxygenates (5) Other: SEE COC

EB I.D. (if applicable): @ Time Duplicate I.D. (if applicable):

Analyzed for: TPH-G BTEX MTBE TPH-D Oxygenates (5) Other:

D.O. (if req'd):	Pre-purge:	<u>34.24</u>	mg/L
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O.R.P. (if req'd):	Pre-purge:	mV	mV
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APPENDIX B

Certified Laboratory Analytical Reports
Third and Fourth Quarters 2009



August 03, 2009

Mr. Joseph Cotton
Impact Environmental Services
39120 Aragonat Way, Suite 223
Fremont, CA 94538

TEL: 510-703-5420
FAX 510-713-7790

RE: 1409 12th St Oakland

Order No.: 0907184

Dear Mr. Joseph Cotton:

Torrent Laboratory, Inc. received 11 samples on 7/27/2009 for the analyses presented in the following report.

All data for associated QC met EPA or laboratory specification(s) except where noted in the case narrative.

Reported data is applicable for only the samples received as part of the order number referenced above.

Torrent Laboratory, Inc. is certified by the State of California, ELAP #1991. If you have any questions regarding these tests results, please feel free to contact the Project Management Team at (408)263-5258;ext: 204.

Sincerely,


Laboratory Director

8/3/09
Date

Patti Sandrock
QA Officer

Torrent Laboratory, Inc.**Date:** 03-Aug-09

CLIENT: Impact Environmental Services
Project: 1409 12th St Oakland
Lab Order: 0907184

CASE NARRATIVE

Analytical Comments, General, Note: Based on historical data and discussion with the client, the sample IDs for sample 0907184-009 and -010 have been reversed from those listed on the received CoC. Sample -009 was changed from "GW-1" to "GW-2" and sample -010 from "GW-2" to "GW-1". All historical data indicates that the sample IDs were erroneously switched in the field and confirmation of that likelihood was made with the client's concurrence.



TORRENT LABORATORY, INC.

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Visit us at www.torrentlab.com email: analysis@torrentlab.com

Report prepared for: Mr. Joseph Cotton
Impact Environmental Services

Date Received: 7/27/2009
Date Reported: 8/3/2009

Client Sample ID: MW-1 **Lab Sample ID:** 0907184-001
Sample Location: 1409 12th St Oakland **Date Prepared:**
Sample Matrix: GROUNDWATER
Date/Time Sampled: 7/26/2009 11:35:00 AM

Parameters	Analysis Method	Date Analyzed	RL	Dilution Factor	MRL	Result	Units	Analytical Batch
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TPH (Diesel-SG)	SW8015B	7/31/2009	0.1	1	0.10	ND	mg/L	R20492
TPH (Motor Oil-SG)	SW8015B	7/31/2009	0.2	1	0.20	ND	mg/L	R20492
Surr: Pentacosane	SW8015B	7/31/2009	0	1	64.2-123	90.0	%REC	R20492

Benzene	SW8260B	7/28/2009	0.5	1	0.50	ND	µg/L	R20441
Toluene	SW8260B	7/28/2009	0.5	1	0.50	ND	µg/L	R20441
Ethylbenzene	SW8260B	7/28/2009	0.5	1	0.50	ND	µg/L	R20441
Methyl tert-butyl ether (MTBE)	SW8260B	7/28/2009	0.5	1	0.50	ND	µg/L	R20441
Diisopropyl ether (DIPE)	SW8260B	7/28/2009	0.5	1	0.50	ND	µg/L	R20441
Ethyl tert-butyl ether (ETBE)	SW8260B	7/28/2009	0.5	1	0.50	ND	µg/L	R20441
tert-Amyl methyl ether (TAME)	SW8260B	7/28/2009	0.5	1	0.50	ND	µg/L	R20441
t-Butyl alcohol (t-Butanol)	SW8260B	7/28/2009	10	1	10	ND	µg/L	R20441
Xylenes, Total	SW8260B	7/28/2009	1.5	1	1.5	ND	µg/L	R20441
Surr: Dibromofluoromethane	SW8260B	7/28/2009	0	1	61.2-131	80.5	%REC	R20441
Surr: 4-Bromofluorobenzene	SW8260B	7/28/2009	0	1	64.1-120	107	%REC	R20441
Surr: Toluene-d8	SW8260B	7/28/2009	0	1	75.1-127	97.8	%REC	R20441

TPH (Gasoline)	SW8260B(TPH)	7/28/2009	50	1	50	ND	µg/L	G20441
Surr: 4-Bromofluorobenzene	SW8260B(TPH)	7/28/2009	0	1	53-118	98.3	%REC	G20441

Report prepared for: Mr. Joseph Cotton
Impact Environmental Services

Date Received: 7/27/2009

Date Reported: 8/3/2009

Client Sample ID:	MW-2	Lab Sample ID:	0907184-002
Sample Location:	1409 12th St Oakland	Date Prepared:	7/28/2009-7/30/2009
Sample Matrix:	GROUNDWATER		
Date/Time Sampled	7/26/2009 11:38:00 AM		

Parameters	Analysis Method	Date Analyzed	RL	Dilution Factor	MRL	Result	Units	Analytical Batch
TPH (Diesel-SG)	SW8015B	7/31/2009	0.1	1	0.10	ND	mg/L	R20492
TPH (Motor Oil-SG)	SW8015B	7/31/2009	0.2	1	0.20	ND	mg/L	R20492
Surr: Pentacosane	SW8015B	7/31/2009	0	1	64.2-123	87.0	%REC	R20492
Benzene	SW8260B	7/28/2009	0.5	1	0.50	ND	µg/L	R20441
Toluene	SW8260B	7/28/2009	0.5	1	0.50	ND	µg/L	R20441
Ethylbenzene	SW8260B	7/28/2009	0.5	1	0.50	ND	µg/L	R20441
Methyl tert-butyl ether (MTBE)	SW8260B	7/28/2009	0.5	1	0.50	ND	µg/L	R20441
Diisopropyl ether (DIPE)	SW8260B	7/28/2009	0.5	1	0.50	ND	µg/L	R20441
Ethyl tert-butyl ether (ETBE)	SW8260B	7/28/2009	0.5	1	0.50	ND	µg/L	R20441
tert-Amyl methyl ether (TAME)	SW8260B	7/28/2009	0.5	1	0.50	ND	µg/L	R20441
t-Butyl alcohol (t-Butanol)	SW8260B	7/28/2009	10	1	10	ND	µg/L	R20441
Xylenes, Total	SW8260B	7/28/2009	1.5	1	1.5	ND	µg/L	R20441
Surr: Dibromofluoromethane	SW8260B	7/28/2009	0	1	61.2-131	85.0	%REC	R20441
Surr: 4-Bromofluorobenzene	SW8260B	7/28/2009	0	1	64.1-120	101	%REC	R20441
Surr: Toluene-d8	SW8260B	7/28/2009	0	1	75.1-127	104	%REC	R20441
TPH (Gasoline)	SW8260B(TPH)	7/28/2009	50	1	50	ND	µg/L	G20441
Surr: 4-Bromofluorobenzene	SW8260B(TPH)	7/28/2009	0	1	53-118	87.1	%REC	G20441

Report prepared for: Mr. Joseph Cotton
Impact Environmental Services

Date Received: 7/27/2009

Date Reported: 8/3/2009

Client Sample ID:	MW-3	Lab Sample ID:	0907184-003
Sample Location:	1409 12th St Oakland	Date Prepared:	7/28/2009-7/30/2009
Sample Matrix:	GROUNDWATER		
Date/Time Sampled	7/26/2009 12:50:00 PM		

Parameters	Analysis Method	Date Analyzed	RL	Dilution Factor	MRL	Result	Units	Analytical Batch
TPH (Diesel-SG)	SW8015B	7/31/2009	0.1	1	0.12	ND	mg/L	R20492
TPH (Motor Oil-SG)	SW8015B	7/31/2009	0.2	1	0.23	ND	mg/L	R20492
Surr: Pentacosane	SW8015B	7/31/2009	0	1	64.2-123	83.0	%REC	R20492
Note: Reporting limits of increased due to limited sample volume available (sediment present).								
Benzene	SW8260B	7/28/2009	0.5	1	0.50	ND	µg/L	R20441
Toluene	SW8260B	7/28/2009	0.5	1	0.50	ND	µg/L	R20441
Ethylbenzene	SW8260B	7/28/2009	0.5	1	0.50	ND	µg/L	R20441
Methyl tert-butyl ether (MTBE)	SW8260B	7/28/2009	0.5	1	0.50	ND	µg/L	R20441
Diisopropyl ether (DIPE)	SW8260B	7/28/2009	0.5	1	0.50	ND	µg/L	R20441
Ethyl tert-butyl ether (ETBE)	SW8260B	7/28/2009	0.5	1	0.50	ND	µg/L	R20441
tert-Amyl methyl ether (TAME)	SW8260B	7/28/2009	0.5	1	0.50	ND	µg/L	R20441
t-Butyl alcohol (t-Butanol)	SW8260B	7/28/2009	10	1	10	ND	µg/L	R20441
Xylenes, Total	SW8260B	7/28/2009	1.5	1	1.5	ND	µg/L	R20441
Surr: Dibromofluoromethane	SW8260B	7/28/2009	0	1	61.2-131	81.1	%REC	R20441
Surr: 4-Bromofluorobenzene	SW8260B	7/28/2009	0	1	64.1-120	110	%REC	R20441
Surr: Toluene-d8	SW8260B	7/28/2009	0	1	75.1-127	109	%REC	R20441
TPH (Gasoline)	SW8260B(TPH)	7/28/2009	50	1	50	ND	µg/L	G20441
Surr: 4-Bromofluorobenzene	SW8260B(TPH)	7/28/2009	0	1	53-118	96.6	%REC	G20441

Report prepared for: Mr. Joseph Cotton
Impact Environmental Services

Date Received: 7/27/2009

Date Reported: 8/3/2009

Client Sample ID:	MW-4	Lab Sample ID:	0907184-004
Sample Location:	1409 12th St Oakland	Date Prepared:	7/28/2009-7/30/2009
Sample Matrix:	GROUNDWATER		
Date/Time Sampled	7/26/2009 11:49:00 AM		

Parameters	Analysis Method	Date Analyzed	RL	Dilution Factor	MRL	Result	Units	Analytical Batch
TPH (Diesel-SG)	SW8015B	7/31/2009	0.1	1	0.11	ND	mg/L	R20492
TPH (Motor Oil-SG)	SW8015B	7/31/2009	0.2	1	0.22	ND	mg/L	R20492
Surr: Pentacosane	SW8015B	7/31/2009	0	1	64.2-123	104	%REC	R20492
Note: Reporting limits of increased due to limited sample volume available (sediment present).								
Benzene	SW8260B	7/28/2009	0.5	1	0.50	ND	µg/L	R20441
Toluene	SW8260B	7/28/2009	0.5	1	0.50	ND	µg/L	R20441
Ethylbenzene	SW8260B	7/28/2009	0.5	1	0.50	ND	µg/L	R20441
Methyl tert-butyl ether (MTBE)	SW8260B	7/28/2009	0.5	1	0.50	ND	µg/L	R20441
Diisopropyl ether (DIPE)	SW8260B	7/28/2009	0.5	1	0.50	ND	µg/L	R20441
Ethyl tert-butyl ether (ETBE)	SW8260B	7/28/2009	0.5	1	0.50	ND	µg/L	R20441
tert-Amyl methyl ether (TAME)	SW8260B	7/28/2009	0.5	1	0.50	ND	µg/L	R20441
t-Butyl alcohol (t-Butanol)	SW8260B	7/28/2009	10	1	10	ND	µg/L	R20441
Xylenes, Total	SW8260B	7/28/2009	1.5	1	1.5	ND	µg/L	R20441
Surr: Dibromofluoromethane	SW8260B	7/28/2009	0	1	61.2-131	90.7	%REC	R20441
Surr: 4-Bromofluorobenzene	SW8260B	7/28/2009	0	1	64.1-120	95.2	%REC	R20441
Surr: Toluene-d8	SW8260B	7/28/2009	0	1	75.1-127	102	%REC	R20441
TPH (Gasoline)	SW8260B(TPH)	7/28/2009	50	1	50	ND	µg/L	G20441
Surr: 4-Bromofluorobenzene	SW8260B(TPH)	7/28/2009	0	1	53-118	92.2	%REC	G20441

Report prepared for: Mr. Joseph Cotton
Impact Environmental Services

Date Received: 7/27/2009

Date Reported: 8/3/2009

Client Sample ID:	MW-5	Lab Sample ID:	0907184-005
Sample Location:	1409 12th St Oakland	Date Prepared:	7/28/2009-7/30/2009
Sample Matrix:	GROUNDWATER		
Date/Time Sampled	7/26/2009 12:50:00 PM		

Parameters	Analysis Method	Date Analyzed	RL	Dilution Factor	MRL	Result	Units	Analytical Batch
TPH (Diesel-SG)	SW8015B	7/31/2009	0.1	1	0.10	ND	mg/L	R20492
TPH (Motor Oil-SG)	SW8015B	7/31/2009	0.2	1	0.20	ND	mg/L	R20492
Surr: Pentacosane	SW8015B	7/31/2009	0	1	64.2-123	95.0	%REC	R20492
Benzene	SW8260B	7/28/2009	0.5	1	0.50	ND	µg/L	R20441
Toluene	SW8260B	7/28/2009	0.5	1	0.50	ND	µg/L	R20441
Ethylbenzene	SW8260B	7/28/2009	0.5	1	0.50	ND	µg/L	R20441
Methyl tert-butyl ether (MTBE)	SW8260B	7/28/2009	0.5	1	0.50	ND	µg/L	R20441
Diisopropyl ether (DIPE)	SW8260B	7/28/2009	0.5	1	0.50	ND	µg/L	R20441
Ethyl tert-butyl ether (ETBE)	SW8260B	7/28/2009	0.5	1	0.50	ND	µg/L	R20441
tert-Amyl methyl ether (TAME)	SW8260B	7/28/2009	0.5	1	0.50	ND	µg/L	R20441
t-Butyl alcohol (t-Butanol)	SW8260B	7/28/2009	10	1	10	ND	µg/L	R20441
Xylenes, Total	SW8260B	7/28/2009	1.5	1	1.5	ND	µg/L	R20441
Surr: Dibromofluoromethane	SW8260B	7/28/2009	0	1	61.2-131	78.6	%REC	R20441
Surr: 4-Bromofluorobenzene	SW8260B	7/28/2009	0	1	64.1-120	102	%REC	R20441
Surr: Toluene-d8	SW8260B	7/28/2009	0	1	75.1-127	98.0	%REC	R20441
TPH (Gasoline)	SW8260B(TPH)	7/28/2009	50	1	50	ND	µg/L	G20441
Surr: 4-Bromofluorobenzene	SW8260B(TPH)	7/28/2009	0	1	53-118	75.0	%REC	G20441

Report prepared for: Mr. Joseph Cotton
Impact Environmental Services

Date Received: 7/27/2009

Date Reported: 8/3/2009

Client Sample ID:	MW-6	Lab Sample ID:	0907184-006
Sample Location:	1409 12th St Oakland	Date Prepared:	7/28/2009-7/30/2009
Sample Matrix:	GROUNDWATER		
Date/Time Sampled	7/26/2009 11:59:00 AM		

Parameters	Analysis Method	Date Analyzed	RL	Dilution Factor	MRL	Result	Units	Analytical Batch
TPH (Diesel-SG)	SW8015B	7/31/2009	0.1	1	0.10	ND	mg/L	R20492
TPH (Motor Oil-SG)	SW8015B	7/31/2009	0.2	1	0.20	ND	mg/L	R20492
Surr: Pentacosane	SW8015B	7/31/2009	0	1	64.2-123	101	%REC	R20492
Benzene	SW8260B	7/28/2009	0.5	1	0.50	ND	µg/L	R20441
Toluene	SW8260B	7/28/2009	0.5	1	0.50	ND	µg/L	R20441
Ethylbenzene	SW8260B	7/28/2009	0.5	1	0.50	ND	µg/L	R20441
Methyl tert-butyl ether (MTBE)	SW8260B	7/28/2009	0.5	1	0.50	ND	µg/L	R20441
Diisopropyl ether (DIPE)	SW8260B	7/28/2009	0.5	1	0.50	ND	µg/L	R20441
Ethyl tert-butyl ether (ETBE)	SW8260B	7/28/2009	0.5	1	0.50	ND	µg/L	R20441
tert-Amyl methyl ether (TAME)	SW8260B	7/28/2009	0.5	1	0.50	ND	µg/L	R20441
t-Butyl alcohol (t-Butanol)	SW8260B	7/28/2009	10	1	10	ND	µg/L	R20441
Xylenes, Total	SW8260B	7/28/2009	1.5	1	1.5	ND	µg/L	R20441
Surr: Dibromofluoromethane	SW8260B	7/28/2009	0	1	61.2-131	74.6	%REC	R20441
Surr: 4-Bromofluorobenzene	SW8260B	7/28/2009	0	1	64.1-120	99.6	%REC	R20441
Surr: Toluene-d8	SW8260B	7/28/2009	0	1	75.1-127	113	%REC	R20441
TPH (Gasoline)	SW8260B(TPH)	7/28/2009	50	1	50	ND	µg/L	G20441
Surr: 4-Bromofluorobenzene	SW8260B(TPH)	7/28/2009	0	1	53-118	72.4	%REC	G20441

Report prepared for: Mr. Joseph Cotton
Impact Environmental Services

Date Received: 7/27/2009

Date Reported: 8/3/2009

Client Sample ID:	MW-7	Lab Sample ID:	0907184-007
Sample Location:	1409 12th St Oakland	Date Prepared:	7/28/2009-7/30/2009
Sample Matrix:	GROUNDWATER		
Date/Time Sampled	7/26/2009 11:25:00 AM		

Parameters	Analysis Method	Date Analyzed	RL	Dilution Factor	MRL	Result	Units	Analytical Batch
TPH (Diesel-SG)	SW8015B	7/31/2009	0.1	1	0.10	ND	mg/L	R20492
TPH (Motor Oil-SG)	SW8015B	7/31/2009	0.2	1	0.20	ND	mg/L	R20492
Surr: Pentacosane	SW8015B	7/31/2009	0	1	64.2-123	95.0	%REC	R20492
Benzene	SW8260B	7/28/2009	0.5	1	0.50	ND	µg/L	R20441
Toluene	SW8260B	7/28/2009	0.5	1	0.50	ND	µg/L	R20441
Ethylbenzene	SW8260B	7/28/2009	0.5	1	0.50	ND	µg/L	R20441
Methyl tert-butyl ether (MTBE)	SW8260B	7/28/2009	0.5	1	0.50	ND	µg/L	R20441
Diisopropyl ether (DIPE)	SW8260B	7/28/2009	0.5	1	0.50	ND	µg/L	R20441
Ethyl tert-butyl ether (ETBE)	SW8260B	7/28/2009	0.5	1	0.50	ND	µg/L	R20441
tert-Amyl methyl ether (TAME)	SW8260B	7/28/2009	0.5	1	0.50	ND	µg/L	R20441
t-Butyl alcohol (t-Butanol)	SW8260B	7/28/2009	10	1	10	ND	µg/L	R20441
Xylenes, Total	SW8260B	7/28/2009	1.5	1	1.5	ND	µg/L	R20441
Surr: Dibromofluoromethane	SW8260B	7/28/2009	0	1	61.2-131	79.3	%REC	R20441
Surr: 4-Bromofluorobenzene	SW8260B	7/28/2009	0	1	64.1-120	107	%REC	R20441
Surr: Toluene-d8	SW8260B	7/28/2009	0	1	75.1-127	106	%REC	R20441
TPH (Gasoline)	SW8260B(TPH)	7/28/2009	50	1	50	ND	µg/L	G20441
Surr: 4-Bromofluorobenzene	SW8260B(TPH)	7/28/2009	0	1	53-118	80.2	%REC	G20441

Report prepared for: Mr. Joseph Cotton
Impact Environmental Services

Date Received: 7/27/2009

Date Reported: 8/3/2009

Client Sample ID:	MW-8	Lab Sample ID:	0907184-008
Sample Location:	1409 12th St Oakland	Date Prepared:	7/28/2009-7/30/2009
Sample Matrix:	GROUNDWATER		
Date/Time Sampled	7/26/2009 12:57:00 PM		

Parameters	Analysis Method	Date Analyzed	RL	Dilution Factor	MRL	Result	Units	Analytical Batch
TPH (Diesel-SG)	SW8015B	7/31/2009	0.1	1	0.10	ND	mg/L	R20492
TPH (Motor Oil-SG)	SW8015B	7/31/2009	0.2	1	0.20	ND	mg/L	R20492
Surr: Pentacosane	SW8015B	7/31/2009	0	1	64.2-123	94.0	%REC	R20492
Benzene	SW8260B	7/28/2009	0.5	1	0.50	ND	µg/L	R20441
Toluene	SW8260B	7/28/2009	0.5	1	0.50	ND	µg/L	R20441
Ethylbenzene	SW8260B	7/28/2009	0.5	1	0.50	ND	µg/L	R20441
Methyl tert-butyl ether (MTBE)	SW8260B	7/28/2009	0.5	1	0.50	ND	µg/L	R20441
Diisopropyl ether (DIPE)	SW8260B	7/28/2009	0.5	1	0.50	ND	µg/L	R20441
Ethyl tert-butyl ether (ETBE)	SW8260B	7/28/2009	0.5	1	0.50	ND	µg/L	R20441
tert-Amyl methyl ether (TAME)	SW8260B	7/28/2009	0.5	1	0.50	ND	µg/L	R20441
t-Butyl alcohol (t-Butanol)	SW8260B	7/28/2009	10	1	10	ND	µg/L	R20441
Xylenes, Total	SW8260B	7/28/2009	1.5	1	1.5	ND	µg/L	R20441
Surr: Dibromofluoromethane	SW8260B	7/28/2009	0	1	61.2-131	82.5	%REC	R20441
Surr: 4-Bromofluorobenzene	SW8260B	7/28/2009	0	1	64.1-120	104	%REC	R20441
Surr: Toluene-d8	SW8260B	7/28/2009	0	1	75.1-127	91.9	%REC	R20441
TPH (Gasoline)	SW8260B(TPH)	7/28/2009	50	1	50	ND	µg/L	G20441
Surr: 4-Bromofluorobenzene	SW8260B(TPH)	7/28/2009	0	1	53-118	80.2	%REC	G20441

Client Sample ID:	GW-2	Lab Sample ID:	0907184-009
Sample Location:	1409 12th St Oakland	Date Prepared:	7/29/2009-7/30/2009
Sample Matrix:	GROUNDWATER		
Date/Time Sampled	7/26/2009 11:55:00 AM		

Parameters	Analysis Method	Date Analyzed	RL	Dilution Factor	MRL	Result	Units	Analytical Batch
TPH (Diesel-SG)	SW8015B	7/31/2009	0.1	1	0.11	ND	mg/L	R20492
TPH (Motor Oil-SG)	SW8015B	7/31/2009	0.2	1	0.23	ND	mg/L	R20492
Surr: Pentacosane	SW8015B	7/31/2009	0	1	64.2-123	84.0	%REC	R20492
Note: Reporting limits of increased due to limited sample volume available (sediment present).								
Benzene	SW8260B	7/29/2009	0.5	1	0.50	25	µg/L	R20455
Toluene	SW8260B	7/29/2009	0.5	1	0.50	9.5	µg/L	R20455
Ethylbenzene	SW8260B	7/29/2009	0.5	1	0.50	12	µg/L	R20455
Methyl tert-butyl ether (MTBE)	SW8260B	7/29/2009	0.5	1	0.50	ND	µg/L	R20455
Diisopropyl ether (DIPE)	SW8260B	7/29/2009	0.5	1	0.50	ND	µg/L	R20455
Ethyl tert-butyl ether (ETBE)	SW8260B	7/29/2009	0.5	1	0.50	ND	µg/L	R20455
tert-Amyl methyl ether (TAME)	SW8260B	7/29/2009	0.5	1	0.50	ND	µg/L	R20455
t-Butyl alcohol (t-Butanol)	SW8260B	7/29/2009	10	1	10	ND	µg/L	R20455
Xylenes, Total	SW8260B	7/29/2009	1.5	1	1.5	79	µg/L	R20455
Surr: Dibromofluoromethane	SW8260B	7/29/2009	0	1	61.2-131	103	%REC	R20455
Surr: 4-Bromofluorobenzene	SW8260B	7/29/2009	0	1	64.1-120	103	%REC	R20455
Surr: Toluene-d8	SW8260B	7/29/2009	0	1	75.1-127	110	%REC	R20455
TPH (Gasoline)	SW8260B(TPH)	7/29/2009	50	1	50	550	µg/L	G20455
Surr: 4-Bromofluorobenzene	SW8260B(TPH)	7/29/2009	0	1	53-118	99.1	%REC	G20455

Note: Although TPH as Gasoline constituents are present, TPH value includes a significant portion of heavier hydrocarbons within range of C5-C12 quantified as Gasoline that biases the quantitation.

Client Sample ID:	GW-1	Lab Sample ID:	0907184-010
Sample Location:	1409 12th St Oakland	Date Prepared:	7/29/2009-7/30/2009
Sample Matrix:	GROUNDWATER		
Date/Time Sampled	7/26/2009 1:40:00 PM		

Parameters	Analysis Method	Date Analyzed	RL	Dilution Factor	MRL	Result	Units	Analytical Batch
TPH (Diesel-SG)	SW8015B	7/31/2009	0.1	1	0.10	0.54x	mg/L	R20492
TPH (Motor Oil-SG)	SW8015B	7/31/2009	0.2	1	0.20	ND	mg/L	R20492
Surr: Pentacosane	SW8015B	7/31/2009	0	1	64.2-123	85.0	%REC	R20492
Note: x- Sample chromatogram does not resemble typical diesel pattern (possibly fuel lighter than diesel). Hydrocarbons within diesel range quantitated as diesel.								
Benzene	SW8260B	7/29/2009	0.5	44	22	1100	µg/L	R20455
Toluene	SW8260B	7/28/2009	0.5	1	0.50	54	µg/L	R20441
Ethylbenzene	SW8260B	7/28/2009	0.5	1	0.50	120	µg/L	R20441
Methyl tert-butyl ether (MTBE)	SW8260B	7/28/2009	0.5	1	0.50	ND	µg/L	R20441
Diisopropyl ether (DIPE)	SW8260B	7/28/2009	0.5	1	0.50	ND	µg/L	R20441
Ethyl tert-butyl ether (ETBE)	SW8260B	7/28/2009	0.5	1	0.50	ND	µg/L	R20441
tert-Amyl methyl ether (TAME)	SW8260B	7/28/2009	0.5	1	0.50	ND	µg/L	R20441
t-Butyl alcohol (t-Butanol)	SW8260B	7/28/2009	10	1	10	ND	µg/L	R20441
Xylenes, Total	SW8260B	7/28/2009	1.5	1	1.5	100	µg/L	R20441
Surr: Dibromofluoromethane	SW8260B	7/29/2009	0	44	61.2-131	97.1	%REC	R20455
Surr: Dibromofluoromethane	SW8260B	7/28/2009	0	1	61.2-131	70.2	%REC	R20441
Surr: 4-Bromofluorobenzene	SW8260B	7/29/2009	0	44	64.1-120	97.6	%REC	R20455
Surr: 4-Bromofluorobenzene	SW8260B	7/28/2009	0	1	64.1-120	104	%REC	R20441
Surr: Toluene-d8	SW8260B	7/29/2009	0	44	75.1-127	112	%REC	R20455
Surr: Toluene-d8	SW8260B	7/28/2009	0	1	75.1-127	134 S	%REC	R20441

Note: S - Out of acceptance limits. Matrix effect suspected.

TPH (Gasoline)	SW8260B(TPH)	7/29/2009	50	44	2200	5700	µg/L	G20455
Surr: 4-Bromofluorobenzene	SW8260B(TPH)	7/29/2009	0	44	53-118	97.4	%REC	G20455

Note: Although TPH as Gasoline constituents are present, TPH value includes a significant portion of non-gasoline hydrocarbons within range of C5-C12 quantified as Gasoline that biases the quantitation.

Report prepared for: Mr. Joseph Cotton
Impact Environmental Services

Date Received: 7/27/2009

Date Reported: 8/3/2009

Client Sample ID: GW-3
Sample Location: 1409 12th St Oakland
Sample Matrix: GROUNDWATER
Date/Time Sampled 7/26/2009 1:35:00 PM

Lab Sample ID: 0907184-011
Date Prepared: 7/29/2009-7/30/2009

Parameters	Analysis Method	Date Analyzed	RL	Dilution Factor	MRL	Result	Units	Analytical Batch
TPH (Diesel-SG)	SW8015B	7/31/2009	0.1	1	0.10	ND	mg/L	R20492
TPH (Motor Oil-SG)	SW8015B	7/31/2009	0.2	1	0.20	ND	mg/L	R20492
Surr: Pentacosane	SW8015B	7/31/2009	0	1	64.2-123	97.0	%REC	R20492
Benzene	SW8260B	7/29/2009	0.5	1	0.50	ND	µg/L	R20455
Toluene	SW8260B	7/29/2009	0.5	1	0.50	ND	µg/L	R20455
Ethylbenzene	SW8260B	7/29/2009	0.5	1	0.50	ND	µg/L	R20455
Methyl tert-butyl ether (MTBE)	SW8260B	7/29/2009	0.5	1	0.50	ND	µg/L	R20455
Diisopropyl ether (DIPE)	SW8260B	7/29/2009	0.5	1	0.50	ND	µg/L	R20455
Ethyl tert-butyl ether (ETBE)	SW8260B	7/29/2009	0.5	1	0.50	ND	µg/L	R20455
tert-Amyl methyl ether (TAME)	SW8260B	7/29/2009	0.5	1	0.50	ND	µg/L	R20455
t-Butyl alcohol (t-Butanol)	SW8260B	7/29/2009	10	1	10	ND	µg/L	R20455
Xylenes, Total	SW8260B	7/29/2009	1.5	1	1.5	ND	µg/L	R20455
Surr: Dibromofluoromethane	SW8260B	7/29/2009	0	1	61.2-131	95.6	%REC	R20455
Surr: 4-Bromofluorobenzene	SW8260B	7/29/2009	0	1	64.1-120	101	%REC	R20455
Surr: Toluene-d8	SW8260B	7/29/2009	0	1	75.1-127	100	%REC	R20455
TPH (Gasoline)	SW8260B(TPH)	7/29/2009	50	1	50	ND	µg/L	G20455
Surr: 4-Bromofluorobenzene	SW8260B(TPH)	7/29/2009	0	1	53-118	114	%REC	G20455

Definitions, legends and Notes

Note	Description
ug/kg	Microgram per kilogram (ppb, part per billion).
ug/L	Microgram per liter (ppb, part per billion).
mg/kg	Milligram per kilogram (ppm, part per million).
mg/L	Milligram per liter (ppm, part per million).
LCS/LCSD	Laboratory control sample/laboratory control sample duplicate.
MDL	Method detection limit.
MRL	Modified reporting limit. When sample is subject to dilution, reporting limit times dilution factor yields MRL.
MS/MSD	Matrix spike/matrix spike duplicate.
N/A	Not applicable.
ND	Not detected at or above detection limit.
NR	Not reported.
QC	Quality Control.
RL	Reporting limit.
% RPD	Percent relative difference.
a	pH was measured immediately upon the receipt of the sample, but it was still done outside the holding time.
sub	Analyzed by subcontracting laboratory, Lab Certificate #

CLIENT: Impact Environmental Services
Work Order: 0907184
Project: 1409 12th St Oakland

ANALYTICAL QC SUMMARY REPORT**BatchID: G20441**

Sample ID	MBG-G20441	SampType:	MBLK	TestCode:	TPH_GAS_W	Units:	µg/L	Prep Date:	7/28/2009	RunNo:	20441	
Client ID:	ZZZZZ	Batch ID:	G20441	TestNo:	SW8260B(TP)		Analysis Date:	7/28/2009	SeqNo:	296228		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
TPH (Gasoline)		ND	50									
Surr: 4-Bromofluorobenzene		11.70	0	11.36	0	103	53	118				
Sample ID	LCSG-G20441	SampType:	LCS	TestCode:	TPH_GAS_W	Units:	µg/L	Prep Date:	7/28/2009	RunNo:	20441	
Client ID:	ZZZZZ	Batch ID:	G20441	TestNo:	SW8260B(TP)		Analysis Date:	7/28/2009	SeqNo:	296233		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
TPH (Gasoline)		238.0	50	227	0	105	52.4	127				
Surr: 4-Bromofluorobenzene		10.60	0	11.36	0	93.3	53	118				
Sample ID	LCSDG-G20441	SampType:	LCSD	TestCode:	TPH_GAS_W	Units:	µg/L	Prep Date:	7/28/2009	RunNo:	20441	
Client ID:	ZZZZZ	Batch ID:	G20441	TestNo:	SW8260B(TP)		Analysis Date:	7/28/2009	SeqNo:	296234		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
TPH (Gasoline)		262.0	50	227	0	115	52.4	127	238	9.60	20	
Surr: 4-Bromofluorobenzene		11.30	0	11.36	0	99.5	53	118	0	0	0	

Qualifiers: E Value above quantitation range
 ND Not Detected at the Reporting Limit

H Holding times for preparation or analysis exceeded
 R RPD outside accepted recovery limits

J Analyte detected below quantitation limits
 S Spike Recovery outside accepted recovery limits

CLIENT: Impact Environmental Services
Work Order: 0907184
Project: 1409 12th St Oakland

ANALYTICAL QC SUMMARY REPORT

BatchID: G20455

Sample ID	MBG-G20455	SampType	MBLK	TestCode	TPH_GAS_W	Units	µg/L	Prep Date	7/29/2009	RunNo	20455	
Client ID	ZZZZZ	Batch ID	G20455	TestNo	SW8260B(TP)			Analysis Date	7/29/2009	SeqNo	296087	
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
TPH (Gasoline)		ND	50									
Surr: 4-Bromoflurobenzene		8.800	0	11.36	0	77.5	53	118				
Sample ID	LCSG-G20455	SampType	LCS	TestCode	TPH_GAS_W	Units	µg/L	Prep Date	7/29/2009	RunNo	20455	
Client ID	ZZZZZ	Batch ID	G20455	TestNo	SW8260B(TP)			Analysis Date	7/29/2009	SeqNo	296088	
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
TPH (Gasoline)		191.7	50	227	0	84.4	52.4	127				
Surr: 4-Bromoflurobenzene		8.200	0	11.36	0	72.2	53	118				
Sample ID	LCSDG-G20455	SampType	LCSD	TestCode	TPH_GAS_W	Units	µg/L	Prep Date	7/29/2009	RunNo	20455	
Client ID	ZZZZZ	Batch ID	G20455	TestNo	SW8260B(TP)			Analysis Date	7/29/2009	SeqNo	296089	
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
TPH (Gasoline)		187.6	50	227	0	82.6	52.4	127	191.7	2.16	20	
Surr: 4-Bromoflurobenzene		8.800	0	11.36	0	77.5	53	118	0	0	0	

Qualifiers: E Value above quantitation range
ND Not Detected at the Reporting Limit

H Holding times for preparation or analysis exceeded
R RPD outside accepted recovery limits

J Analyte detected below quantitation limits
S Spike Recovery outside accepted recovery limits

CLIENT: Impact Environmental Services
Work Order: 0907184
Project: 1409 12th St Oakland

ANALYTICAL QC SUMMARY REPORT

BatchID: R20441

Sample ID	MB-R20441	SampType:	MBLK	TestCode:	8260B_W_PE	Units:	µg/L	Prep Date:	7/28/2009	RunNo:	20441	
Client ID:	ZZZZZ	Batch ID:	R20441	TestNo:	SW8260B			Analysis Date:	7/28/2009	SeqNo:	295916	
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene		ND	0.50									
Toluene		ND	0.50									
Ethylbenzene		ND	0.50									
Methyl tert-butyl ether (MTBE)		ND	0.50									
Diisopropyl ether (DIPE)		ND	0.50									
Ethyl tert-butyl ether (ETBE)		ND	0.50									
tert-Amyl methyl ether (TAME)		ND	0.50									
t-Butyl alcohol (t-Butanol)		ND	10									
Xylenes, Total		ND	1.5									
Surr: Dibromofluoromethane		11.62	0	11.36	0	102	61.2	131				
Surr: 4-Bromofluorobenzene		11.52	0	11.36	0	101	64.1	120				
Surr: Toluene-d8		11.96	0	11.36	0	105	75.1	127				

Sample ID	LCS-R20441	SampType:	LCS	TestCode:	8260B_W_PE	Units:	µg/L	Prep Date:	7/28/2009	RunNo:	20441	
Client ID:	ZZZZZ	Batch ID:	R20441	TestNo:	SW8260B			Analysis Date:	7/28/2009	SeqNo:	295917	
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene		16.28	0.50	17.04	0	95.5	66.9	140				
Toluene		17.79	0.50	17.04	0	104	76.6	123				
Surr: Dibromofluoromethane		11.25	0	11.36	0	99.0	61.2	131				
Surr: 4-Bromofluorobenzene		11.57	0	11.36	0	102	64.1	120				
Surr: Toluene-d8		13.35	0	11.36	0	118	75.1	127				

Sample ID	LCSD-R20441	SampType:	LCSD	TestCode:	8260B_W_PE	Units:	µg/L	Prep Date:	7/28/2009	RunNo:	20441	
Client ID:	ZZZZZ	Batch ID:	R20441	TestNo:	SW8260B			Analysis Date:	7/28/2009	SeqNo:	295918	
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene		17.04	0.50	17.04	0	100	66.9	140	16.28	4.56	20	
Toluene		18.15	0.50	17.04	0	107	76.6	123	17.79	2.00	20	
Surr: Dibromofluoromethane		11.48	0	11.36	0	101	61.2	131	0	0	0	
Surr: 4-Bromofluorobenzene		11.45	0	11.36	0	101	64.1	120	0	0	0	

Qualifiers: E Value above quantitation range
ND Not Detected at the Reporting Limit

H Holding times for preparation or analysis exceeded
R RPD outside accepted recovery limits

J Analyte detected below quantitation limits
S Spike Recovery outside accepted recovery limits

CLIENT: Impact Environmental Services
Work Order: 0907184
Project: 1409 12th St Oakland

ANALYTICAL QC SUMMARY REPORT

BatchID: R20441

Sample ID	LCSD-R20441	SampType:	LCSD	TestCode:	8260B_W_PE	Units:	µg/L	Prep Date:	7/28/2009	RunNo:	20441	
Client ID:	ZZZZZ	Batch ID:	R20441	TestNo:	SW8260B			Analysis Date:	7/28/2009	SeqNo:	295918	
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Surr: Toluene-d8		12.77	0	11.36	0	112	75.1	127	0	0	0	

Qualifiers: E Value above quantitation range
ND Not Detected at the Reporting Limit

H Holding times for preparation or analysis exceeded
R RPD outside accepted recovery limits

J Analyte detected below quantitation limits
S Spike Recovery outside accepted recovery limits

CLIENT: Impact Environmental Services
Work Order: 0907184
Project: 1409 12th St Oakland

ANALYTICAL QC SUMMARY REPORT

BatchID: R20455

Sample ID	MB-R20455	SampType:	MBLK	TestCode:	8260B_W_PE	Units:	µg/L	Prep Date:	7/29/2009	RunNo:	20455	
Client ID:	ZZZZZ	Batch ID:	R20455	TestNo:	SW8260B			Analysis Date:	7/29/2009	SeqNo:	296068	
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene		ND	0.50									
Toluene		ND	0.50									
Ethylbenzene		ND	0.50									
Methyl tert-butyl ether (MTBE)		ND	0.50									
Diisopropyl ether (DIPE)		ND	0.50									
Ethyl tert-butyl ether (ETBE)		ND	0.50									
tert-Amyl methyl ether (TAME)		ND	0.50									
t-Butyl alcohol (t-Butanol)		ND	10									
Xylenes, Total		ND	1.5									
Surr: Dibromofluoromethane		10.06	0	11.36	0	88.6	61.2	131				
Surr: 4-Bromofluorobenzene		12.09	0	11.36	0	106	64.1	120				
Surr: Toluene-d8		12.48	0	11.36	0	110	75.1	127				

Sample ID	LCS-R20455	SampType:	LCS	TestCode:	8260B_W_PE	Units:	µg/L	Prep Date:	7/29/2009	RunNo:	20455	
Client ID:	ZZZZZ	Batch ID:	R20455	TestNo:	SW8260B			Analysis Date:	7/29/2009	SeqNo:	296069	
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene		15.69	0.50	17.04	0	92.1	66.9	140				
Toluene		17.78	0.50	17.04	0	104	76.6	123				
Surr: Dibromofluoromethane		10.21	0	11.36	0	89.9	61.2	131				
Surr: 4-Bromofluorobenzene		13.54	0	11.36	0	119	64.1	120				
Surr: Toluene-d8		13.30	0	11.36	0	117	75.1	127				

Sample ID	LCSD-R20455	SampType:	LCSD	TestCode:	8260B_W_PE	Units:	µg/L	Prep Date:	7/29/2009	RunNo:	20455	
Client ID:	ZZZZZ	Batch ID:	R20455	TestNo:	SW8260B			Analysis Date:	7/29/2009	SeqNo:	296070	
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene		15.11	0.50	17.04	0	88.7	66.9	140	15.69	3.77	20	
Toluene		19.43	0.50	17.04	0	114	76.6	123	17.78	8.87	20	
Surr: Dibromofluoromethane		9.310	0	11.36	0	82.0	61.2	131	0	0	0	
Surr: 4-Bromofluorobenzene		13.24	0	11.36	0	117	64.1	120	0	0	0	

Qualifiers: E Value above quantitation range
ND Not Detected at the Reporting Limit

H Holding times for preparation or analysis exceeded
R RPD outside accepted recovery limits

J Analyte detected below quantitation limits
S Spike Recovery outside accepted recovery limits

CLIENT: Impact Environmental Services
Work Order: 0907184
Project: 1409 12th St Oakland

ANALYTICAL QC SUMMARY REPORT

BatchID: R20455

Sample ID	LCSD-R20455	SampType:	LCSD	TestCode:	8260B_W_PE	Units:	µg/L	Prep Date:	7/29/2009	RunNo:	20455
Client ID:	ZZZZZ	Batch ID:	R20455	TestNo:	SW8260B			Analysis Date:	7/29/2009	SeqNo:	296070
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit
Surr: Toluene-d8		13.61	0	11.36	0	120	75.1	127	0	0	0

Qualifiers: E Value above quantitation range
ND Not Detected at the Reporting Limit

H Holding times for preparation or analysis exceeded
R RPD outside accepted recovery limits

J Analyte detected below quantitation limits
S Spike Recovery outside accepted recovery limits

CLIENT: Impact Environmental Services
Work Order: 0907184
Project: 1409 12th St Oakland

ANALYTICAL QC SUMMARY REPORT

BatchID: R20492

Sample ID	WDSG090730A-MB	SampType:	MBLK	TestCode:	TPHDOSG_	Units:	mg/L	Prep Date:	7/30/2009	RunNo:	20492		
Client ID:	ZZZZZ	Batch ID:	R20492	TestNo:	SW8015B			Analysis Date:	7/31/2009	SeqNo:	296613		
Analyte		Result		PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
TPH (Diesel-SG)		ND		0.10									
TPH (Motor Oil-SG)		ND		0.20									
Surr: Pentacosane		0.1040		0	0.1	0	104	64.2	123				
Sample ID	WDSG090730A-LCS	SampType:	LCS	TestCode:	TPHDOSG_	Units:	mg/L	Prep Date:	7/30/2009	RunNo:	20492		
Client ID:	ZZZZZ	Batch ID:	R20492	TestNo:	SW8015B			Analysis Date:	7/31/2009	SeqNo:	296614		
Analyte		Result		PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
TPH (Diesel-SG)		0.5840		0.10	1	0	58.4	34.5	95.6				
Surr: Pentacosane		0.09700		0	0.1	0	97.0	64.2	123				
Sample ID	WDSG090730A-LCS	SampType:	LCSD	TestCode:	TPHDOSG_	Units:	mg/L	Prep Date:	7/30/2009	RunNo:	20492		
Client ID:	ZZZZZ	Batch ID:	R20492	TestNo:	SW8015B			Analysis Date:	7/31/2009	SeqNo:	296615		
Analyte		Result		PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
TPH (Diesel-SG)		0.4620		0.10	1	0	46.2	34.5	95.6	0.584	23.3	30	
Surr: Pentacosane		0.1010		0	0.1	0	101	64.2	123	0	0	0	

Qualifiers: E Value above quantitation range
ND Not Detected at the Reporting Limit

H Holding times for preparation or analysis exceeded
R RPD outside accepted recovery limits

J Analyte detected below quantitation limits
S Spike Recovery outside accepted recovery limits



483 Sinclair Frontage Road
Milpitas, CA 95035
Phone: 408.263.5258
FAX: 408.263.8293
www.torrentlab.com

CHAIN OF CUSTODY

• NOTE: SHADED AREAS ARE FOR TORRENT LAB USE ONLY.

LAB WORK ORDER NO

0907184

Company Name: IMPACT ENVIRONMENTAL	Location of Sampling: 1409 12TH ST, OAKLAND, CA		
Address: 39120 ARGONAUT WAY, #223	Purpose: QUARTERLY GW MONITORING		
City: FREMONT	State: CA	Zip Code: 94538	Special Instructions / Comments: Email results to jac21462@aol.com
Telephone: (510) 763-5420 FAX (510) 791-0271			
REPORT TO: Joseph Cotton SAMPLER: Joseph Cotton	P.O. #:	EMAIL: jac21462@aol.com	

TURNAROUND TIME:

- 10 Work Days 3 Work Days Noon - Nxt Day
- 7 Work Days 2 Work Days 2 - 8 Hours
- 5 Work Days 1 Work Day Other

SAMPLE TYPE:

- Storm Water Air
- Waste Water Other
- Ground Water Soil

REPORT FORMAT:

- QC Level IV
- EDF
- Excel / EDD

- EPA 8260B - Full List
- EPA 8260B - 8010 List
- THP gas
- BTEX
- MTBE
- Si-Gel
- THP Diesel
- Motor Oil

- Pesticide - 8081
- PCB - 8082

- Metals
- CAM - 17
- LUFT 5
- LUFT 7 Metals
- 8270 Full List
- PAHs Only

ANALYSIS REQUESTED

LAB ID	CLIENT'S SAMPLE I.D.	DATE / TIME SAMPLED	MATRIX	# OF CONT	CONT TYPE	REMARKS					
001A	MW-1	7-26-9 11:35	W	5	VODS AMBER	X	X				
002A	MW-2	7-26-9 11:38	?	2		X	X				
003A	MW-3	7-26-9 12:50	?	2		X	X				
004A	MW-4	7-26-9 11:49	?	2		X	X				
005A	MW-5	7-26-9 12:50	?	2		X	X				
006A	MW-6	7-26-9 11:51	?	2		X	X				
007A	MW-7	7-26-9 11:52	?	2		X	X				
008A	MW-8	7-26-9 12:57	?	2		X	X				
009A	Gw-1	7-26-9 11:55	?	2		X	X				
010A	Gw-2	7-26-9 1:40	?	2		X	X				

Temp 4°C

1 Relinquished By:	Print: Joseph Cotton	Date: 7-27-09 3:15	Time:	Received By: J. G. Madagara	Print: NAVING	Date: 7-27-09	Time: 1515
2 Relinquished By:	Print:	Date:	Time:	Received By:	Print:	Date:	Time:

Were Samples Received in Good Condition? Yes No Samples on Ice? Yes No Method of Shipment

Samples are discarded by the laboratory 30 days from date of receipt unless other arrangements are made.

Date: Log In Reviewed By: Date:

Sample seals intact? Yes No N/A

Page 15 of 2



483 Sinclair Frontage Road
Milpitas, CA 95035
Phone: 408.263.5258
FAX: 408.263.8293
www.torrentlab.com

CHAIN OF CUSTODY

LAB WORK ORDER NO

0907184

• NOTE: SHADED AREAS ARE FOR TORRENT LAB USE ONLY.

Company Name: IMPACT ENVIR ONMENTAL	Location of Sampling: 1409 12th St, OAKLAND, CA		
Address: 39120 ORGANIC WAY, #223	Purpose: QUARTERLY GW MONITORING		
City: FREMONT	State: CA Zip Code: 94538		
Telephone: FAX (510) 791-0271	Special Instructions / Comments:		
REPORT TO:	SAMPLER:	P.O. #:	EMAIL:

TURNAROUND TIME:

- 10 Work Days 3 Work Days Noon - Nxt Day
 7 Work Days 2 Work Days 2-8 Hours
 5 Work Days 1 Work Day Other

SAMPLE TYPE:

- Storm Water Air
 Waste Water Other
 Ground Water
 Soil

REPORT FORMAT:

- QC Level IV
 EDF
 Excel / EDD

- EPA 8260B - Full List
 EPA 8260B - 8010 List
 BTEX
 THP gas
 Oxygenates
 MTBE
 THP Diesel
 Si-Gel
 Motor Oil
 Pesticide - 8081
 PCB - 8082

- Metals
 LUFT 5
 7 Metals
 8270 Full List
 PAHs Only

ANALYSIS REQUESTED

LAB ID	CLIENT'S SAMPLE I.D.	DATE / TIME SAMPLED	MATRIX	# OF CONT	CONT TYPE	REMARKS					
011A	GW-3	7-26-09 11:35P	W	5	VOR5 TL AMBER	X	X				

Temp. 4°C

Relinquished By:	Print: JOSEPH COTTER	Date: 7-27-09	Time: 1515	Received By: SITI G. GHODSSARA	Print: NAVIN G.	Date: 7-27-09	Time: 1515
2 Relinquished By:	Print:	Date:	Time:	Received By:	Print:	Date:	Time:

Were Samples Received in Good Condition? Yes NO Samples on Ice? Yes NO Method of Shipment D/o Sample seals intact? Yes NO N/A

NOTE: Samples are discarded by the laboratory 30 days from date of receipt unless other arrangements are made.

Log In By: Date: Log In Reviewed By: Date:



November 16, 2009

Mr. Joseph Cotton
Impact Environmental Services
39120 Argonaut Way, Suite 223
Fremont, CA 94538
TEL: 510-703-5420
FAX 510-713-7790

RE: BTS/091106-RM

Order No.: 0911040

Dear Mr. Joseph Cotton:

Torrent Laboratory, Inc. received 8 samples on 11/6/2009 for the analyses presented in the following report.

All data for associated QC met EPA or laboratory specification(s) except where noted in the case narrative.

Reported data is applicable for only the samples received as part of the order number referenced above.

Torrent Laboratory, Inc, is certified by the State of California, ELAP #1991. If you have any questions regarding these tests results, please feel free to contact the Project Management Team at (408)263-5258;ext: 204.

Sincerely,


Laboratory Director

11/16/09
Date

Patti Sandrock
QA Officer




TORRENT LABORATORY, INC.

483 Sinclair Frontage Road • Milpitas, CA • Phone: (408) 263-5258 • Fax: (408) 263-8293

Visit us at www.torrentlab.com email: analysis@torrentlab.com

Report prepared for: Mr. Joseph Cotton
Impact Environmental Services

Date Received: 11/6/2009

Date Reported: 11/16/2009

Client Sample ID:	MW-1	Lab Sample ID:	0911040-001
Sample Location:	1409-1417 12th St. Oakland,CA	Date Prepared:	11/10/2009
Sample Matrix:	WATER		
Date/Time Sampled	11/6/2009 9:25:00 AM		

Parameters	Analysis Method	Date Analyzed	RL	Dilution Factor	MRL	Result	Units	Analytical Batch
TPH (Diesel)	SW8015B	11/13/2009	0.1	1	0.10	ND	mg/L	R21727
TPH (Motor Oil)	SW8015B	11/13/2009	0.2	1	0.20	ND	mg/L	R21727
Surr: Pentacosane	SW8015B	11/13/2009	0	1	57.9-125	99.0	%REC	R21727
Benzene	SW8260B	11/10/2009	0.5	1.1	0.55	ND	µg/L	R21712
Toluene	SW8260B	11/10/2009	0.5	1.1	0.55	ND	µg/L	R21712
Ethylbenzene	SW8260B	11/10/2009	0.5	1.1	0.55	ND	µg/L	R21712
Methyl tert-butyl ether (MTBE)	SW8260B	11/10/2009	0.5	1.1	0.55	ND	µg/L	R21712
Diisopropyl ether (DIPE)	SW8260B	11/10/2009	0.5	1.1	0.55	ND	µg/L	R21712
Ethyl tert-butyl ether (ETBE)	SW8260B	11/10/2009	0.5	1.1	0.55	ND	µg/L	R21712
tert-Amyl methyl ether (TAME)	SW8260B	11/10/2009	0.5	1.1	0.55	ND	µg/L	R21712
t-Butyl alcohol (t-Butanol)	SW8260B	11/10/2009	5	1.1	5.5	ND	µg/L	R21712
Xylenes, Total	SW8260B	11/10/2009	1.5	1.1	1.6	ND	µg/L	R21712
Surr: Dibromofluoromethane	SW8260B	11/10/2009	0	1.1	61.2-131	74.1	%REC	R21712
Surr: 4-Bromofluorobenzene	SW8260B	11/10/2009	0	1.1	64.1-120	90.7	%REC	R21712
Surr: Toluene-d8	SW8260B	11/10/2009	0	1.1	75.1-127	107	%REC	R21712
TPH (Gasoline)	SW8260B(TPH)	11/10/2009	50	1.1	55	ND	µg/L	G21712
Surr: 4-Bromofluorobenzene	SW8260B(TPH)	11/10/2009	0	1.1	53-118	52.6	%REC	G21712

Report prepared for: Mr. Joseph Cotton
Impact Environmental Services

Date Received: 11/6/2009
Date Reported: 11/16/2009

Client Sample ID:	MW-2	Lab Sample ID:	0911040-002
Sample Location:	1409-1417 12th St. Oakland, CA	Date Prepared:	11/10/2009
Sample Matrix:	WATER		
Date/Time Sampled	11/6/2009 9:45:00 AM		

Parameters	Analysis Method	Date Analyzed	RL	Dilution Factor	MRL	Result	Units	Analytical Batch
TPH (Diesel)	SW8015B	11/13/2009	0.1	1	0.10	ND	mg/L	R21727
TPH (Motor Oil)	SW8015B	11/13/2009	0.2	1	0.20	ND	mg/L	R21727
Surr: Pentacosane	SW8015B	11/13/2009	0	1	57.9-125	90.0	%REC	R21727
Benzene	SW8260B	11/10/2009	0.5	1	0.50	ND	µg/L	R21712
Toluene	SW8260B	11/10/2009	0.5	1	0.50	ND	µg/L	R21712
Ethylbenzene	SW8260B	11/10/2009	0.5	1	0.50	ND	µg/L	R21712
Methyl tert-butyl ether (MTBE)	SW8260B	11/10/2009	0.5	1	0.50	ND	µg/L	R21712
Diisopropyl ether (DIPE)	SW8260B	11/10/2009	0.5	1	0.50	ND	µg/L	R21712
Ethyl tert-butyl ether (ETBE)	SW8260B	11/10/2009	0.5	1	0.50	ND	µg/L	R21712
tert-Amyl methyl ether (TAME)	SW8260B	11/10/2009	0.5	1	0.50	ND	µg/L	R21712
t-Butyl alcohol (t-Butanol)	SW8260B	11/10/2009	5	1	5.0	ND	µg/L	R21712
Xylenes, Total	SW8260B	11/10/2009	1.5	1	1.5	ND	µg/L	R21712
Surr: Dibromofluoromethane	SW8260B	11/10/2009	0	1	61.2-131	90.2	%REC	R21712
Surr: 4-Bromofluorobenzene	SW8260B	11/10/2009	0	1	64.1-120	103	%REC	R21712
Surr: Toluene-d8	SW8260B	11/10/2009	0	1	75.1-127	104	%REC	R21712
TPH (Gasoline)	SW8260B(TPH)	11/10/2009	50	1	50	ND	µg/L	G21712
Surr: 4-Bromofluorobenzene	SW8260B(TPH)	11/10/2009	0	1	53-118	73.3	%REC	G21712

Report prepared for: Mr. Joseph Cotton
Impact Environmental Services

Date Received: 11/6/2009
Date Reported: 11/16/2009

Client Sample ID:	MW-3	Lab Sample ID:	0911040-003
Sample Location:	1409-1417 12th St. Oakland, CA	Date Prepared:	11/10/2009
Sample Matrix:	WATER		
Date/Time Sampled	11/6/2009 10:15:00 AM		

Parameters	Analysis Method	Date Analyzed	RL	Dilution Factor	MRL	Result	Units	Analytical Batch
TPH (Diesel)	SW8015B	11/13/2009	0.1	1	0.10	ND	mg/L	R21727
TPH (Motor Oil)	SW8015B	11/13/2009	0.2	1	0.20	ND	mg/L	R21727
Surr: Pentacosane	SW8015B	11/13/2009	0	1	57.9-125	109	%REC	R21727
Benzene	SW8260B	11/10/2009	0.5	1	0.50	ND	µg/L	R21712
Toluene	SW8260B	11/10/2009	0.5	1	0.50	ND	µg/L	R21712
Ethylbenzene	SW8260B	11/10/2009	0.5	1	0.50	ND	µg/L	R21712
Methyl tert-butyl ether (MTBE)	SW8260B	11/10/2009	0.5	1	0.50	ND	µg/L	R21712
Diisopropyl ether (DIPE)	SW8260B	11/10/2009	0.5	1	0.50	ND	µg/L	R21712
Ethyl tert-butyl ether (ETBE)	SW8260B	11/10/2009	0.5	1	0.50	ND	µg/L	R21712
tert-Amyl methyl ether (TAME)	SW8260B	11/10/2009	0.5	1	0.50	ND	µg/L	R21712
t-Butyl alcohol (t-Butanol)	SW8260B	11/10/2009	5	1	5.0	ND	µg/L	R21712
Xylenes, Total	SW8260B	11/10/2009	1.5	1	1.5	ND	µg/L	R21712
Surr: Dibromofluoromethane	SW8260B	11/10/2009	0	1	61.2-131	82.9	%REC	R21712
Surr: 4-Bromofluorobenzene	SW8260B	11/10/2009	0	1	64.1-120	95.6	%REC	R21712
Surr: Toluene-d8	SW8260B	11/10/2009	0	1	75.1-127	105	%REC	R21712
TPH (Gasoline)	SW8260B(TPH)	11/10/2009	50	1	50	ND	µg/L	G21712
Surr: 4-Bromofluorobenzene	SW8260B(TPH)	11/10/2009	0	1	53-118	59.5	%REC	G21712

Report prepared for: Mr. Joseph Cotton
Impact Environmental Services

Date Received: 11/6/2009
Date Reported: 11/16/2009

Client Sample ID:	MW-4	Lab Sample ID:	0911040-004
Sample Location:	1409-1417 12th St. Oakland, CA	Date Prepared:	11/10/2009
Sample Matrix:	WATER		
Date/Time Sampled	11/6/2009 10:55:00 AM		

Parameters	Analysis Method	Date Analyzed	RL	Dilution Factor	MRL	Result	Units	Analytical Batch
TPH (Diesel)	SW8015B	11/13/2009	0.1	1	0.10	ND	mg/L	R21727
TPH (Motor Oil)	SW8015B	11/13/2009	0.2	1	0.20	ND	mg/L	R21727
Surr: Pentacosane	SW8015B	11/13/2009	0	1	57.9-125	99.0	%REC	R21727
Benzene	SW8260B	11/10/2009	0.5	1	0.50	ND	µg/L	R21712
Toluene	SW8260B	11/10/2009	0.5	1	0.50	ND	µg/L	R21712
Ethylbenzene	SW8260B	11/10/2009	0.5	1	0.50	ND	µg/L	R21712
Methyl tert-butyl ether (MTBE)	SW8260B	11/10/2009	0.5	1	0.50	ND	µg/L	R21712
Diisopropyl ether (DIPE)	SW8260B	11/10/2009	0.5	1	0.50	ND	µg/L	R21712
Ethyl tert-butyl ether (ETBE)	SW8260B	11/10/2009	0.5	1	0.50	ND	µg/L	R21712
tert-Amyl methyl ether (TAME)	SW8260B	11/10/2009	0.5	1	0.50	ND	µg/L	R21712
t-Butyl alcohol (t-Butanol)	SW8260B	11/10/2009	5	1	5.0	ND	µg/L	R21712
Xylenes, Total	SW8260B	11/10/2009	1.5	1	1.5	ND	µg/L	R21712
Surr: Dibromofluoromethane	SW8260B	11/10/2009	0	1	61.2-131	89.8	%REC	R21712
Surr: 4-Bromofluorobenzene	SW8260B	11/10/2009	0	1	64.1-120	99.5	%REC	R21712
Surr: Toluene-d8	SW8260B	11/10/2009	0	1	75.1-127	116	%REC	R21712
TPH (Gasoline)	SW8260B(TPH)	11/10/2009	50	1	50	ND	µg/L	G21712
Surr: 4-Bromofluorobenzene	SW8260B(TPH)	11/10/2009	0	1	53-118	52.6	%REC	G21712

Report prepared for: Mr. Joseph Cotton
Impact Environmental Services

Date Received: 11/6/2009
Date Reported: 11/16/2009

Client Sample ID:	MW-5	Lab Sample ID:	0911040-005
Sample Location:	1409-1417 12th St. Oakland, CA	Date Prepared:	11/10/2009
Sample Matrix:	WATER		
Date/Time Sampled	11/6/2009 10:35:00 AM		

Parameters	Analysis Method	Date Analyzed	RL	Dilution Factor	MRL	Result	Units	Analytical Batch
TPH (Diesel)	SW8015B	11/13/2009	0.1	1	0.10	ND	mg/L	R21727
TPH (Motor Oil)	SW8015B	11/13/2009	0.2	1	0.20	ND	mg/L	R21727
Surr: Pentacosane	SW8015B	11/13/2009	0	1	57.9-125	101	%REC	R21727
Benzene	SW8260B	11/10/2009	0.5	1	0.50	ND	µg/L	R21712
Toluene	SW8260B	11/10/2009	0.5	1	0.50	ND	µg/L	R21712
Ethylbenzene	SW8260B	11/10/2009	0.5	1	0.50	ND	µg/L	R21712
Methyl tert-butyl ether (MTBE)	SW8260B	11/10/2009	0.5	1	0.50	ND	µg/L	R21712
Diisopropyl ether (DIPE)	SW8260B	11/10/2009	0.5	1	0.50	ND	µg/L	R21712
Ethyl tert-butyl ether (ETBE)	SW8260B	11/10/2009	0.5	1	0.50	ND	µg/L	R21712
tert-Amyl methyl ether (TAME)	SW8260B	11/10/2009	0.5	1	0.50	ND	µg/L	R21712
t-Butyl alcohol (t-Butanol)	SW8260B	11/10/2009	5	1	5.0	ND	µg/L	R21712
Xylenes, Total	SW8260B	11/10/2009	1.5	1	1.5	ND	µg/L	R21712
Surr: Dibromofluoromethane	SW8260B	11/10/2009	0	1	61.2-131	81.7	%REC	R21712
Surr: 4-Bromofluorobenzene	SW8260B	11/10/2009	0	1	64.1-120	104	%REC	R21712
Surr: Toluene-d8	SW8260B	11/10/2009	0	1	75.1-127	109	%REC	R21712
TPH (Gasoline)	SW8260B(TPH)	11/10/2009	50	1	50	ND	µg/L	G21712
Surr: 4-Bromofluorobenzene	SW8260B(TPH)	11/10/2009	0	1	53-118	56.0	%REC	G21712

Report prepared for: Mr. Joseph Cotton
Impact Environmental Services

Date Received: 11/6/2009
Date Reported: 11/16/2009

Client Sample ID:	MW-6	Lab Sample ID:	0911040-006
Sample Location:	1409-1417 12th St. Oakland, CA	Date Prepared:	11/10/2009
Sample Matrix:	WATER		
Date/Time Sampled	11/6/2009 11:15:00 AM		

Parameters	Analysis Method	Date Analyzed	RL	Dilution Factor	MRL	Result	Units	Analytical Batch
TPH (Diesel)	SW8015B	11/13/2009	0.1	1	0.10	ND	mg/L	R21727
TPH (Motor Oil)	SW8015B	11/13/2009	0.2	1	0.20	ND	mg/L	R21727
Surr: Pentacosane	SW8015B	11/13/2009	0	1	57.9-125	113	%REC	R21727
Benzene	SW8260B	11/10/2009	0.5	1	0.50	ND	µg/L	R21712
Toluene	SW8260B	11/10/2009	0.5	1	0.50	ND	µg/L	R21712
Ethylbenzene	SW8260B	11/10/2009	0.5	1	0.50	ND	µg/L	R21712
Methyl tert-butyl ether (MTBE)	SW8260B	11/10/2009	0.5	1	0.50	ND	µg/L	R21712
Diisopropyl ether (DIPE)	SW8260B	11/10/2009	0.5	1	0.50	ND	µg/L	R21712
Ethyl tert-butyl ether (ETBE)	SW8260B	11/10/2009	0.5	1	0.50	ND	µg/L	R21712
tert-Amyl methyl ether (TAME)	SW8260B	11/10/2009	0.5	1	0.50	ND	µg/L	R21712
t-Butyl alcohol (t-Butanol)	SW8260B	11/10/2009	5	1	5.0	ND	µg/L	R21712
Xylenes, Total	SW8260B	11/10/2009	1.5	1	1.5	ND	µg/L	R21712
Surr: Dibromofluoromethane	SW8260B	11/10/2009	0	1	61.2-131	80.9	%REC	R21712
Surr: 4-Bromofluorobenzene	SW8260B	11/10/2009	0	1	64.1-120	101	%REC	R21712
Surr: Toluene-d8	SW8260B	11/10/2009	0	1	75.1-127	108	%REC	R21712
TPH (Gasoline)	SW8260B(TPH)	11/10/2009	50	1	50	ND	µg/L	G21712
Surr: 4-Bromofluorobenzene	SW8260B(TPH)	11/10/2009	0	1	53-118	56.0	%REC	G21712

Report prepared for: Mr. Joseph Cotton
Impact Environmental Services

Date Received: 11/6/2009
Date Reported: 11/16/2009

Client Sample ID:	MW-7	Lab Sample ID:	0911040-007
Sample Location:	1409-1417 12th St. Oakland, CA	Date Prepared:	11/10/2009
Sample Matrix:	WATER		
Date/Time Sampled	11/6/2009 11:40:00 AM		

Parameters	Analysis Method	Date Analyzed	RL	Dilution Factor	MRL	Result	Units	Analytical Batch
TPH (Diesel)	SW8015B	11/13/2009	0.1	1	0.10	ND	mg/L	R21727
TPH (Motor Oil)	SW8015B	11/13/2009	0.2	1	0.20	ND	mg/L	R21727
Surr: Pentacosane	SW8015B	11/13/2009	0	1	57.9-125	99.5	%REC	R21727
Benzene	SW8260B	11/10/2009	0.5	1	0.50	ND	µg/L	R21712
Toluene	SW8260B	11/10/2009	0.5	1	0.50	ND	µg/L	R21712
Ethylbenzene	SW8260B	11/10/2009	0.5	1	0.50	ND	µg/L	R21712
Methyl tert-butyl ether (MTBE)	SW8260B	11/10/2009	0.5	1	0.50	ND	µg/L	R21712
Diisopropyl ether (DIPE)	SW8260B	11/10/2009	0.5	1	0.50	ND	µg/L	R21712
Ethyl tert-butyl ether (ETBE)	SW8260B	11/10/2009	0.5	1	0.50	ND	µg/L	R21712
tert-Amyl methyl ether (TAME)	SW8260B	11/10/2009	0.5	1	0.50	ND	µg/L	R21712
t-Butyl alcohol (t-Butanol)	SW8260B	11/10/2009	5	1	5.0	ND	µg/L	R21712
Xylenes, Total	SW8260B	11/10/2009	1.5	1	1.5	ND	µg/L	R21712
Surr: Dibromofluoromethane	SW8260B	11/10/2009	0	1	61.2-131	90.3	%REC	R21712
Surr: 4-Bromofluorobenzene	SW8260B	11/10/2009	0	1	64.1-120	101	%REC	R21712
Surr: Toluene-d8	SW8260B	11/10/2009	0	1	75.1-127	105	%REC	R21712
TPH (Gasoline)	SW8260B(TPH)	11/10/2009	50	1	50	ND	µg/L	G21712
Surr: 4-Bromofluorobenzene	SW8260B(TPH)	11/10/2009	0	1	53-118	65.5	%REC	G21712

Report prepared for: Mr. Joseph Cotton
Impact Environmental Services

Date Received: 11/6/2009
Date Reported: 11/16/2009

Client Sample ID:	GW-2	Lab Sample ID:	0911040-008
Sample Location:	1409-1417 12th St. Oakland, CA	Date Prepared:	11/11/2009
Sample Matrix:	WATER		
Date/Time Sampled	11/6/2009 12:05:00 PM		

Parameters	Analysis Method	Date Analyzed	RL	Dilution Factor	MRL	Result	Units	Analytical Batch
TPH (Diesel)	SW8015B	11/13/2009	0.1	1	0.10	ND	mg/L	R21727
TPH (Motor Oil)	SW8015B	11/13/2009	0.2	1	0.20	ND	mg/L	R21727
Surr: Pentacosane	SW8015B	11/13/2009	0	1	57.9-125	93.0	%REC	R21727
Benzene	SW8260B	11/11/2009	0.5	1	0.50	ND	µg/L	R21714
Toluene	SW8260B	11/11/2009	0.5	1	0.50	ND	µg/L	R21714
Ethylbenzene	SW8260B	11/11/2009	0.5	1	0.50	ND	µg/L	R21714
Methyl tert-butyl ether (MTBE)	SW8260B	11/11/2009	0.5	1	0.50	ND	µg/L	R21714
Diisopropyl ether (DIPE)	SW8260B	11/11/2009	0.5	1	0.50	ND	µg/L	R21714
Ethyl tert-butyl ether (ETBE)	SW8260B	11/11/2009	0.5	1	0.50	ND	µg/L	R21714
tert-Amyl methyl ether (TAME)	SW8260B	11/11/2009	0.5	1	0.50	ND	µg/L	R21714
t-Butyl alcohol (t-Butanol)	SW8260B	11/11/2009	5	1	5.0	ND	µg/L	R21714
Xylenes, Total	SW8260B	11/11/2009	1.5	1	1.5	ND	µg/L	R21714
Surr: Dibromofluoromethane	SW8260B	11/11/2009	0	1	61.2-131	84.9	%REC	R21714
Surr: 4-Bromofluorobenzene	SW8260B	11/11/2009	0	1	64.1-120	96.0	%REC	R21714
Surr: Toluene-d8	SW8260B	11/11/2009	0	1	75.1-127	95.3	%REC	R21714
TPH (Gasoline)	SW8260B(TPH)	11/12/2009	50	1	50	ND	µg/L	G21733
Surr: 4-Bromofluorobenzene	SW8260B(TPH)	11/12/2009	0	1	53-118	109	%REC	G21733

Definitions, legends and Notes

Note	Description
ug/kg	Microgram per kilogram (ppb, part per billion).
ug/L	Microgram per liter (ppb, part per billion).
mg/kg	Milligram per kilogram (ppm, part per million).
mg/L	Milligram per liter (ppm, part per million).
LCS/LCSD	Laboratory control sample/laboratory control sample duplicate.
MDL	Method detection limit.
MRL	Modified reporting limit. When sample is subject to dilution, reporting limit times dilution factor yields MRL.
MS/MSD	Matrix spike/matrix spike duplicate.
N/A	Not applicable.
ND	Not detected at or above detection limit.
NR	Not reported.
QC	Quality Control.
RL	Reporting limit.
% RPD	Percent relative difference.
a	pH was measured immediately upon the receipt of the sample, but it was still done outside the holding time.
sub	Analyzed by subcontracting laboratory, Lab Certificate #

CLIENT: Impact Environmental Services
Work Order: 0911040
Project: BTS/091106-RM

ANALYTICAL QC SUMMARY REPORT**BatchID: G21712**

Sample ID: MB-G21712	SampType: MBLK	TestCode: TPH_GAS_W	Units: µg/L	Prep Date: 11/10/2009	RunNo: 21712
Client ID: ZZZZZ	Batch ID: G21712	TestNo: SW8260B(TP)		Analysis Date: 11/10/2009	SeqNo: 311673
Analyte					
TPH (Gasoline)	ND	50			
Surr: 4-Bromofluorobenzene	7.000	0	11.36	0	61.6 53 118
Sample ID: LCS-G21712	SampType: LCS	TestCode: TPH_GAS_W	Units: µg/L	Prep Date: 11/10/2009	RunNo: 21712
Client ID: ZZZZZ	Batch ID: G21712	TestNo: SW8260B(TP)		Analysis Date: 11/10/2009	SeqNo: 311674
Analyte					
TPH (Gasoline)	245.0	50	227	0	108 52.4 127
Surr: 4-Bromofluorobenzene	10.90	0	11.36	0	96.0 53 118
Sample ID: LCSD-G21712	SampType: LCSD	TestCode: TPH_GAS_W	Units: µg/L	Prep Date: 11/10/2009	RunNo: 21712
Client ID: ZZZZZ	Batch ID: G21712	TestNo: SW8260B(TP)		Analysis Date: 11/10/2009	SeqNo: 311675
Analyte					
TPH (Gasoline)	265.0	50	227	0	117 52.4 127 245
Surr: 4-Bromofluorobenzene	10.50	0	11.36	0	92.4 53 118 0
%RPD		RPDLimit		Qual	
7.84		20		0	
0		0		0	

Qualifiers: E Value above quantitation range

ND Not Detected at the Reporting Limit

H Holding times for preparation or analysis exceeded

R RPD outside accepted recovery limits

J Analyte detected below quantitation limits

S Spike Recovery outside accepted recovery limits

CLIENT: Impact Environmental Services
Work Order: 0911040
Project: BTS/091106-RM

ANALYTICAL QC SUMMARY REPORT

BatchID: G21733

Sample ID: BLK-G21733	SampType: MBLK	TestCode: TPH_GAS_W	Units: µg/L	Prep Date: 11/12/2009	RunNo: 21733
Client ID: ZZZZZ	Batch ID: G21733	TestNo: SW8260B(TP)		Analysis Date: 11/12/2009	SeqNo: 311956
<hr/>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC
TPH (Gasoline)	ND	50			
Surr: 4-Bromofluorobenzene	12.10	0	11.36	0	107
				53	118
Sample ID: LCS-G21733	SampType: LCS	TestCode: TPH_GAS_W	Units: µg/L	Prep Date: 11/12/2009	RunNo: 21733
Client ID: ZZZZZ	Batch ID: G21733	TestNo: SW8260B(TP)		Analysis Date: 11/12/2009	SeqNo: 311971
<hr/>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC
TPH (Gasoline)	264.0	50	227	32	102
Surr: 4-Bromofluorobenzene	11.50	0	11.36	0	101
				53	118
Sample ID: LCSD-G21733	SampType: LCSD	TestCode: TPH_GAS_W	Units: µg/L	Prep Date: 11/13/2009	RunNo: 21733
Client ID: ZZZZZ	Batch ID: G21733	TestNo: SW8260B(TP)		Analysis Date: 11/13/2009	SeqNo: 311975
<hr/>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC
TPH (Gasoline)	233.5	50	227	32	88.8
Surr: 4-Bromofluorobenzene	10.00	0	11.36	0	88.0
				53	118
				127	264
				0	0
				12.3	20
				0	0

Qualifiers: E Value above quantitation range

ND Not Detected at the Reporting Limit

H Holding times for preparation or analysis exceeded

R RPD outside accepted recovery limits

J Analyte detected below quantitation limits

S Spike Recovery outside accepted recovery limits

CLIENT: Impact Environmental Services
Work Order: 0911040
Project: BTS/091106-RM

ANALYTICAL QC SUMMARY REPORT

BatchID: R21712

Sample ID: MB-R21712	SampType: MBLK	TestCode: 8260B_W_PE	Units: µg/L	Prep Date:	11/10/2009	RunNo:	21712				
Client ID: ZZZZZ	Batch ID: R21712	TestNo: SW8260B		Analysis Date:	11/10/2009	SeqNo:	311661				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	ND	0.50									
Toluene	ND	0.50									
Ethylbenzene	ND	0.50									
Methyl tert-butyl ether (MTBE)	ND	0.50									
Diisopropyl ether (DIPE)	ND	0.50									
Ethyl tert-butyl ether (ETBE)	ND	0.50									
tert-Amyl methyl ether (TAME)	ND	0.50									
t-Butyl alcohol (t-Butanol)	ND	5.0									
Xylenes, Total	ND	1.5									
Surr: Dibromofluoromethane	11.53	0	11.36	0	101	61.2	131				
Surr: 4-Bromofluorobenzene	9.120	0	11.36	0	80.3	64.1	120				
Surr: Toluene-d8	9.340	0	11.36	0	82.2	75.1	127				

Sample ID: LCS-R21712	SampType: LCS	TestCode: 8260B_W_PE	Units: µg/L	Prep Date:	11/10/2009	RunNo:	21712				
Client ID: ZZZZZ	Batch ID: R21712	TestNo: SW8260B		Analysis Date:	11/10/2009	SeqNo:	311662				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	15.56	0.50	17.04	0	91.3	66.9	140				
Toluene	17.19	0.50	17.04	0	101	76.6	123				
Surr: Dibromofluoromethane	13.28	0	11.36	0	117	61.2	131				
Surr: 4-Bromofluorobenzene	11.46	0	11.36	0	101	64.1	120				
Surr: Toluene-d8	11.36	0	11.36	0	100	75.1	127				

Sample ID: LCSD-R21712	SampType: LCSD	TestCode: 8260B_W_PE	Units: µg/L	Prep Date:	11/10/2009	RunNo:	21712				
Client ID: ZZZZZ	Batch ID: R21712	TestNo: SW8260B		Analysis Date:	11/10/2009	SeqNo:	311663				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	17.29	0.50	17.04	0	101	66.9	140	15.56	10.5	20	
Toluene	16.01	0.50	17.04	0	94.0	76.6	123	17.19	7.11	20	
Surr: Dibromofluoromethane	12.23	0	11.36	0	108	61.2	131	0	0	0	
Surr: 4-Bromofluorobenzene	11.48	0	11.36	0	101	64.1	120	0	0	0	

Qualifiers: E Value above quantitation range
ND Not Detected at the Reporting Limit

H Holding times for preparation or analysis exceeded
R RPD outside accepted recovery limits

J Analyte detected below quantitation limits
S Spike Recovery outside accepted recovery limits

CLIENT: Impact Environmental Services
Work Order: 0911040
Project: BTS/091106-RM

ANALYTICAL QC SUMMARY REPORT

BatchID: R21712

Sample ID: LCSD-R21712	SampType: LCSD	TestCode: 8260B_W_PE	Units: µg/L	Prep Date: 11/10/2009	RunNo: 21712
Client ID: ZZZZZ	Batch ID: R21712	TestNo: SW8260B		Analysis Date: 11/10/2009	SeqNo: 311663
<hr/>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC
Surr: Toluene-d8	11.76	0	11.36	0	104
				75.1	127
				0	0
				0	0

Qualifiers: E Value above quantitation range
ND Not Detected at the Reporting Limit

H Holding times for preparation or analysis exceeded
R RPD outside accepted recovery limits

J Analyte detected below quantitation limits
S Spike Recovery outside accepted recovery limits

CLIENT: Impact Environmental Services
Work Order: 0911040
Project: BTS/091106-RM

ANALYTICAL QC SUMMARY REPORT

BatchID: R21714

Sample ID: MB-R21714	SampType: MBLK	TestCode: 8260B_W_PE	Units: µg/L	Prep Date: 11/11/2009	RunNo: 21714						
Client ID: ZZZZZ	Batch ID: R21714	TestNo: SW8260B		Analysis Date: 11/11/2009	SeqNo: 311690						
<hr/>											
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Benzene	ND	0.50								
Toluene	ND	0.50								
Ethylbenzene	ND	0.50								
Methyl tert-butyl ether (MTBE)	ND	0.50								
Diisopropyl ether (DIPE)	ND	0.50								
Ethyl tert-butyl ether (ETBE)	ND	0.50								
tert-Amyl methyl ether (TAME)	ND	0.50								
t-Butyl alcohol (t-Butanol)	ND	5.0								
Xylenes, Total	ND	1.5								
Surr: Dibromofluoromethane	11.78	0	11.36	0	104	61.2	131			
Surr: 4-Bromofluorobenzene	10.29	0	11.36	0	90.6	64.1	120			
Surr: Toluene-d8	11.21	0	11.36	0	98.7	75.1	127			

Sample ID: LCS-R21714	SampType: LCS	TestCode: 8260B_W_PE	Units: µg/L	Prep Date: 11/11/2009	RunNo: 21714						
Client ID: ZZZZZ	Batch ID: R21714	TestNo: SW8260B		Analysis Date: 11/11/2009	SeqNo: 311691						
<hr/>											
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	15.64	0.50	17.04	0	91.8	66.9	140				
Toluene	14.22	0.50	17.04	0	83.5	76.6	123				
Surr: Dibromofluoromethane	11.98	0	11.36	0	105	61.2	131				
Surr: 4-Bromofluorobenzene	11.33	0	11.36	0	99.7	64.1	120				
Surr: Toluene-d8	11.65	0	11.36	0	103	75.1	127				

Sample ID: LCSD-R21714	SampType: LCSD	TestCode: 8260B_W_PE	Units: µg/L	Prep Date: 11/11/2009	RunNo: 21714						
Client ID: ZZZZZ	Batch ID: R21714	TestNo: SW8260B		Analysis Date: 11/11/2009	SeqNo: 311692						
<hr/>											
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	16.66	0.50	17.04	0	97.8	66.9	140	15.64	6.32	20	
Toluene	16.74	0.50	17.04	0	98.2	76.6	123	14.22	16.3	20	
Surr: Dibromofluoromethane	10.81	0	11.36	0	95.2	61.2	131	0	0	0	
Surr: 4-Bromofluorobenzene	9.990	0	11.36	0	87.9	64.1	120	0	0	0	

Qualifiers: E Value above quantitation range
 ND Not Detected at the Reporting Limit

H Holding times for preparation or analysis exceeded
 R RPD outside accepted recovery limits

J Analyte detected below quantitation limits
 S Spike Recovery outside accepted recovery limits

CLIENT: Impact Environmental Services
Work Order: 0911040
Project: BTS/091106-RM

ANALYTICAL QC SUMMARY REPORT

BatchID: R21714

Sample ID: LCSD-R21714	SampType: LCSD	TestCode: 8260B_W_PE	Units: µg/L	Prep Date: 11/11/2009	RunNo: 21714
Client ID: ZZZZZ	Batch ID: R21714	TestNo: SW8260B		Analysis Date: 11/11/2009	SeqNo: 311692
<hr/>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC
Surr: Toluene-d8	11.56	0	11.36	0	102
				75.1	127
				0	0
				0	0

Qualifiers: E Value above quantitation range
ND Not Detected at the Reporting Limit

H Holding times for preparation or analysis exceeded
R RPD outside accepted recovery limits

J Analyte detected below quantitation limits
S Spike Recovery outside accepted recovery limits

CLIENT: Impact Environmental Services
Work Order: 0911040
Project: BTS/091106-RM

ANALYTICAL QC SUMMARY REPORT

BatchID: R21727

Sample ID: WD091111A-MB	SampType: MBLK	TestCode: TPHDO_W	Units: mg/L	Prep Date: 11/11/2009	RunNo: 21727						
Client ID: ZZZZZ	Batch ID: R21727	TestNo: SW8015B		Analysis Date: 11/12/2009	SeqNo: 311912						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
TPH (Diesel)	ND	0.10									
TPH (Motor Oil)	ND	0.20									
Surr: Pentacosane	0.1170	0	0.1	0	117	57.9	125				
Sample ID: WD091111A-LCS	SampType: LCS	TestCode: TPHDO_W	Units: mg/L	Prep Date: 11/11/2009	RunNo: 21727						
Client ID: ZZZZZ	Batch ID: R21727	TestNo: SW8015B		Analysis Date: 11/12/2009	SeqNo: 311913						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
TPH (Diesel)	1.060	0.10	1	0	106	50.3	125				
Surr: Pentacosane	0.1040	0	0.1	0	104	57.9	125				
Sample ID: WD091111A-LCSD	SampType: LCSD	TestCode: TPHDO_W	Units: mg/L	Prep Date: 11/11/2009	RunNo: 21727						
Client ID: ZZZZZ	Batch ID: R21727	TestNo: SW8015B		Analysis Date: 11/12/2009	SeqNo: 311914						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
TPH (Diesel)	0.8620	0.10	1	0	86.2	50.3	125	1.06	20.6	30	
Surr: Pentacosane	0.09900	0	0.1	0	99.0	57.9	125	0	0	0	

Qualifiers: E Value above quantitation range
ND Not Detected at the Reporting Limit

H Holding times for preparation or analysis exceeded
R RPD outside accepted recovery limits

J Analyte detected below quantitation limits
S Spike Recovery outside accepted recovery limits

Torrent Laboratory, Inc.

WORK ORDER Summary

10-Nov-09

Work Order 0911040

Client ID: IMPACT ENV. SER.

Project: BTS/091106-RM

QC Level:

Comments: 5 day TAT!!! Pls. Invoice and report to Impact Env.Services to jac@21462@aol.com.Rec'd 8 water samples for TPHg;BTEX ;MTBE 5 OXYGENATES and Die

Sample ID	Client Sample ID	Collection Date	Date Received	Date Due	Matrix	Test Code	Hld	MS	SEL	Sub	Storage
0911040-001A	MW-1	11/6/2009 9:25:00 AM	11/6/2009	11/12/2009	Water	8260B_W_PETRO	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	ORG/SR
						TPH_GAS_W_GC	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	ORG/SR
						TPHDO_W	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	ORG/SR
0911040-002A	MW-2	11/6/2009 9:45:00 AM		11/12/2009	Water	8260B_W_PETRO	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	ORG/SR
						TPH_GAS_W_GC	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	ORG/SR
						TPHDO_W	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	ORG/SR
0911040-003A	MW-3	11/6/2009 10:15:00 AM		11/12/2009	Water	8260B_W_PETRO	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	ORG/SR
						TPH_GAS_W_GC	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	ORG/SR
						TPHDO_W	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	ORG/SR
0911040-004A	MW-4	11/6/2009 10:55:00 AM		11/12/2009	Water	8260B_W_PETRO	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	ORG/SR
						TPH_GAS_W_GC	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	ORG/SR
						TPHDO_W	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	ORG/SR
0911040-005A	MW-5	11/6/2009 10:35:00 AM		11/12/2009	Water	8260B_W_PETRO	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	ORG/SR
						TPH_GAS_W_GC	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	ORG/SR
						TPHDO_W	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	ORG/SR
0911040-006A	MW-6	11/6/2009 11:15:00 AM		11/12/2009	Water	8260B_W_PETRO	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	ORG/SR
						TPH_GAS_W_GC	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	ORG/SR
						TPHDO_W	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	ORG/SR
0911040-007A	MW-7	11/6/2009 11:40:00 AM		11/12/2009	Water	8260B_W_PETRO	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	ORG/SR
						TPH_GAS_W_GC	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	ORG/SR
						TPHDO_W	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	ORG/SR
0911040-008A	GW-2	11/6/2009 12:05:00 PM		11/12/2009	Water	8260B_W_PETRO	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	ORG/SR
						TPH_GAS_W_GC	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	ORG/SR
						TPHDO_W	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	ORG/SR

BLAINE

TECH SERVICES, INC.

1680 ROGERS AVENUE
 SAN JOSE, CALIFORNIA 95112-1105
 FAX (408) 573-7771
 PHONE (408) 573-0555

CHAIN OF CUSTODY

BTS # 091106 - Run

CLIENT Impact Environmental Services
 SITE 1409-1417 12th St.
 Oakland CA

SAMPLE I.D.	DATE	TIME	MATRIX S = Soil W = H ₂ O	CONTAINERS TOTAL	TPH-G by 8260	BTEX by 8260	MTBE by 8260	TPH-D & Motor Oil	Oxygenates by 8260	ADD'L INFORMATION	STATUS	CONDITION	LAB SAMPLE #
Mw-1	11/6/09	0925	W	Mix	S	X	X	X	X	-001A			
Mw-2		0945				X	X	X	X	-002A			
Mw-3		1015				X	X	X	X	-003A			
Mw-4		1035				X	X	X	X	-004A			
Mw-5		1035				✓	X	X	X	-005A			
Mw-6		1115				✓	X	X	X	-006A			
Mw-7		1140				X	X	X	X	-007A			
Cw-2	1205	V V V				X	X	X	X	-008A			Temp 30C

SAMPLING COMPLETED	DATE	TIME	SAMPLING PERFORMED BY	R.M. Carter	RESULTS NEEDED NO LATER THAN	Standard TAT
RELEASED BY	DATE	TIME	RECEIVED BY	11/6/09 2:50 pm	DATE	TIME
RELEASED BY	DATE	TIME	RECEIVED BY	11/6/09 2:50 pm	DATE	TIME
RELEASED BY	DATE	TIME	RECEIVED BY		DATE	TIME

RELEASED BY	DATE	TIME	RECEIVED BY	DATE	TIME

SHIPPED VIA	DATE SENT	TIME SENT	COOLER #	31 off.

LAB Torrent Lab DHS #

MUST MEET SPECIFICATIONS
 EPA
 LIA
 OTHER

RWQCB REGION

0911040

SPECIAL INSTRUCTIONS

Invoice and Report to: Impact Env. Services

Attn: Joseph Cotton
 tel: (510) 703-5420
 fax: (510) 791-0271
 email: jac21462@aol.com



November 19, 2009

Mr. Joseph Cotton
Impact Environmental Services
39120 Argonaut Way, Suite 223
Fremont, CA 94538

TEL: 510-703-5420
FAX 510-713-7790

RE: BTS#091112-1W-2

Order No.: 0911097

Dear Mr. Joseph Cotton:

Torrent Laboratory, Inc. received 3 samples on 11/12/2009 for the analyses presented in the following report.

All data for associated QC met EPA or laboratory specification(s) except where noted in the case narrative.

Reported data is applicable for only the samples received as part of the order number referenced above.

Torrent Laboratory, Inc. is certified by the State of California, ELAP #1991. If you have any questions regarding these tests results, please feel free to contact the Project Management Team at (408)263-5258;ext: 204.

Sincerely,

A handwritten signature in black ink, appearing to read "Patti Sandrock".

Laboratory Director

11/19/09
Date

Patti Sandrock
QA Officer



TORRENT LABORATORY, INC.

483 Sinclair Frontage Road • Milpitas, CA • Phone: (408) 263-5258 • Fax: (408) 263-8293

Visit us at www.torrentlab.com email: analysis@torrentlab.com

Report prepared for: Mr. Joseph Cotton
Impact Environmental Services

Date Received: 11/12/2009

Date Reported: 11/19/2009

Client Sample ID:	MW-8	Lab Sample ID:	0911097-001
Sample Location:	1409-1417- 12th St.Oakland	Date Prepared:	11/13/2009
Sample Matrix:	WATER		
Date/Time Sampled	11/12/2009 2:40:00 PM		

Parameters	Analysis Method	Date Analyzed	RL	Dilution Factor	MRL	Result	Units	Analytical Batch
TPH (Diesel)	SW8015B	11/17/2009	0.1	1	0.10	ND	mg/L	R21738
TPH (Motor Oil)	SW8015B	11/17/2009	0.2	1	0.20	ND	mg/L	R21738
Surr: Pentacosane	SW8015B	11/17/2009	0	1	57.9-125	91.0	%REC	R21738
Benzene	SW8260B	11/17/2009	0.5	1	0.50	ND	µg/L	R21792
Toluene	SW8260B	11/17/2009	0.5	1	0.50	ND	µg/L	R21792
Ethylbenzene	SW8260B	11/17/2009	0.5	1	0.50	ND	µg/L	R21792
Methyl tert-butyl ether (MTBE)	SW8260B	11/17/2009	0.5	1	0.50	ND	µg/L	R21792
Diisopropyl ether (DIPE)	SW8260B	11/17/2009	0.5	1	0.50	ND	µg/L	R21792
Ethyl tert-butyl ether (ETBE)	SW8260B	11/17/2009	0.5	1	0.50	ND	µg/L	R21792
tert-Amyl methyl ether (TAME)	SW8260B	11/17/2009	0.5	1	0.50	ND	µg/L	R21792
t-Butyl alcohol (t-Butanol)	SW8260B	11/17/2009	5	1	5.0	ND	µg/L	R21792
Xylenes, Total	SW8260B	11/17/2009	1.5	1	1.5	ND	µg/L	R21792
Surr: Dibromofluoromethane	SW8260B	11/17/2009	0	1	61.2-131	68.6	%REC	R21792
Surr: 4-Bromofluorobenzene	SW8260B	11/17/2009	0	1	64.1-120	116	%REC	R21792
Surr: Toluene-d8	SW8260B	11/17/2009	0	1	75.1-127	113	%REC	R21792
TPH (Gasoline)	SW8260B(TPH)	11/17/2009	50	1	50	220x	µg/L	G21792
Surr: 4-Bromofluorobenzene	SW8260B(TPH)	11/17/2009	0	1	53-118	69.0	%REC	G21792

Note: x - Reported value is the result of discrete peaks (light end) of non-gasoline compounds within range of C5-C12 quantified as Gasoline.

Report prepared for: Mr. Joseph Cotton
Impact Environmental Services

Date Received: 11/12/2009
Date Reported: 11/19/2009

Client Sample ID:	GW-1	Lab Sample ID:	0911097-002
Sample Location:	1409-1417- 12th St.Oakland	Date Prepared:	11/13/2009
Sample Matrix:	WATER		
Date/Time Sampled	11/12/2009 2:50:00 PM		

Parameters	Analysis Method	Date Analyzed	RL	Dilution Factor	MRL	Result	Units	Analytical Batch
TPH (Diesel)	SW8015B	11/17/2009	0.1	1	0.10	0.138x	mg/L	R21738
TPH (Motor Oil)	SW8015B	11/17/2009	0.2	1	0.20	ND	mg/L	R21738
Surr: Pentacosane	SW8015B	11/17/2009	0	1	57.9-125	112	%REC	R21738
Note:x-Sample chromatogram does not resemble typical diesel pattern (possibly fuel lighter than diesel). Hydrocarbons within the diesel range quantitated as diesel.								
Benzene	SW8260B	11/17/2009	0.5	1	0.50	3.9	µg/L	R21792
Toluene	SW8260B	11/17/2009	0.5	1	0.50	ND	µg/L	R21792
Ethylbenzene	SW8260B	11/17/2009	0.5	1	0.50	2.1	µg/L	R21792
Methyl tert-butyl ether (MTBE)	SW8260B	11/17/2009	0.5	1	0.50	ND	µg/L	R21792
Diisopropyl ether (DIPE)	SW8260B	11/17/2009	0.5	1	0.50	ND	µg/L	R21792
Ethyl tert-butyl ether (ETBE)	SW8260B	11/17/2009	0.5	1	0.50	ND	µg/L	R21792
tert-Amyl methyl ether (TAME)	SW8260B	11/17/2009	0.5	1	0.50	ND	µg/L	R21792
t-Butyl alcohol (t-Butanol)	SW8260B	11/17/2009	5	1	5.0	ND	µg/L	R21792
Xylenes, Total	SW8260B	11/17/2009	1.5	1	1.5	12	µg/L	R21792
Surr: Dibromofluoromethane	SW8260B	11/17/2009	0	1	61.2-131	82.4	%REC	R21792
Surr: 4-Bromofluorobenzene	SW8260B	11/17/2009	0	1	64.1-120	102	%REC	R21792
Surr: Toluene-d8	SW8260B	11/17/2009	0	1	75.1-127	112	%REC	R21792
TPH (Gasoline)	SW8260B(TPH)	11/17/2009	50	1	50	120x	µg/L	G21792
Surr: 4-Bromofluorobenzene	SW8260B(TPH)	11/17/2009	0	1	53-118	76.7	%REC	G21792

Note: x - Hydrocarbons within range of C5-C12 quantified as Gasoline but pattern does not match gasoline standard.

Report prepared for: Mr. Joseph Cotton
Impact Environmental Services

Date Received: 11/12/2009
Date Reported: 11/19/2009

Client Sample ID:	GW-3	Lab Sample ID:	0911097-003
Sample Location:	1409-1417- 12th St.Oakland	Date Prepared:	11/13/2009
Sample Matrix:	WATER		
Date/Time Sampled	11/12/2009 2:55:00 PM		

Parameters	Analysis Method	Date Analyzed	RL	Dilution Factor	MRL	Result	Units	Analytical Batch
TPH (Diesel)	SW8015B	11/17/2009	0.1	1	0.10	ND	mg/L	R21738
TPH (Motor Oil)	SW8015B	11/17/2009	0.2	1	0.20	ND	mg/L	R21738
Surr: Pentacosane	SW8015B	11/17/2009	0	1	57.9-125	96.0	%REC	R21738
Benzene	SW8260B	11/17/2009	0.5	1	0.50	ND	µg/L	R21792
Toluene	SW8260B	11/17/2009	0.5	1	0.50	ND	µg/L	R21792
Ethylbenzene	SW8260B	11/17/2009	0.5	1	0.50	ND	µg/L	R21792
Methyl tert-butyl ether (MTBE)	SW8260B	11/17/2009	0.5	1	0.50	0.72	µg/L	R21792
Diisopropyl ether (DIPE)	SW8260B	11/17/2009	0.5	1	0.50	ND	µg/L	R21792
Ethyl tert-butyl ether (ETBE)	SW8260B	11/17/2009	0.5	1	0.50	ND	µg/L	R21792
tert-Amyl methyl ether (TAME)	SW8260B	11/17/2009	0.5	1	0.50	ND	µg/L	R21792
t-Butyl alcohol (t-Butanol)	SW8260B	11/17/2009	5	1	5.0	ND	µg/L	R21792
Xylenes, Total	SW8260B	11/17/2009	1.5	1	1.5	ND	µg/L	R21792
Surr: Dibromofluoromethane	SW8260B	11/17/2009	0	1	61.2-131	93.3	%REC	R21792
Surr: 4-Bromofluorobenzene	SW8260B	11/17/2009	0	1	64.1-120	105	%REC	R21792
Surr: Toluene-d8	SW8260B	11/17/2009	0	1	75.1-127	101	%REC	R21792
TPH (Gasoline)	SW8260B(TPH)	11/17/2009	50	1	50	ND	µg/L	G21792
Surr: 4-Bromofluorobenzene	SW8260B(TPH)	11/17/2009	0	1	53-118	75.0	%REC	G21792

Definitions, legends and Notes

Note	Description
ug/kg	Microgram per kilogram (ppb, part per billion).
ug/L	Microgram per liter (ppb, part per billion).
mg/kg	Milligram per kilogram (ppm, part per million).
mg/L	Milligram per liter (ppm, part per million).
LCS/LCSD	Laboratory control sample/laboratory control sample duplicate.
MDL	Method detection limit.
MRL	Modified reporting limit. When sample is subject to dilution, reporting limit times dilution factor yields MRL.
MS/MSD	Matrix spike/matrix spike duplicate.
N/A	Not applicable.
ND	Not detected at or above detection limit.
NR	Not reported.
QC	Quality Control.
RL	Reporting limit.
% RPD	Percent relative difference.
a	pH was measured immediately upon the receipt of the sample, but it was still done outside the holding time.
sub	Analyzed by subcontracting laboratory, Lab Certificate #

CLIENT: Impact Environmental Services
Work Order: 0911097
Project: BTS#091112-1W-2

ANALYTICAL QC SUMMARY REPORT**BatchID: G21792**

Sample ID: MBG-G21792	SampType: MBLK	TestCode: TPH_GAS_W	Units: µg/L	Prep Date: 11/17/2009	RunNo: 21792
Client ID: ZZZZZ	Batch ID: G21792	TestNo: SW8260B(TP)		Analysis Date: 11/17/2009	SeqNo: 312853
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC
TPH (Gasoline)	ND	50			
Surr: 4-Bromofluorobenzene	8.600	0	11.36	0	75.7
				53	118
Sample ID: LCSG-G21792	SampType: LCS	TestCode: TPH_GAS_W	Units: µg/L	Prep Date: 11/17/2009	RunNo: 21792
Client ID: ZZZZZ	Batch ID: G21792	TestNo: SW8260B(TP)		Analysis Date: 11/17/2009	SeqNo: 312854
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC
TPH (Gasoline)	221.8	50	227	0	97.7
Surr: 4-Bromofluorobenzene	9.100	0	11.36	0	80.1
				53	118
Sample ID: LCSDG-G21792	SampType: LCSD	TestCode: TPH_GAS_W	Units: µg/L	Prep Date: 11/17/2009	RunNo: 21792
Client ID: ZZZZZ	Batch ID: G21792	TestNo: SW8260B(TP)		Analysis Date: 11/17/2009	SeqNo: 312856
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC
TPH (Gasoline)	183.2	50	227	0	80.7
Surr: 4-Bromofluorobenzene	9.300	0	11.36	0	81.9
				53	118
				127	221.8
				221.8	19.1
				0	0
				0	20

Qualifiers: E Value above quantitation range

ND Not Detected at the Reporting Limit

H Holding times for preparation or analysis exceeded

R RPD outside accepted recovery limits

J Analyte detected below quantitation limits

S Spike Recovery outside accepted recovery limits

CLIENT: Impact Environmental Services
Work Order: 0911097
Project: BTS#091112-1W-2

ANALYTICAL QC SUMMARY REPORT

BatchID: R21738

Sample ID: WD091112A-MB	SampType: MBLK	TestCode: TPHDO_W	Units: mg/L	Prep Date: 11/12/2009	RunNo: 21738						
Client ID: ZZZZZ	Batch ID: R21738	TestNo: SW8015B		Analysis Date: 11/12/2009	SeqNo: 312026						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
TPH (Diesel)	ND	0.10									
TPH (Motor Oil)	ND	0.20									
Surr: Pentacosane	0.1050	0	0.1	0	105	57.9	125				
Sample ID: WD091113A-MB	SampType: MBLK	TestCode: TPHDO_W	Units: mg/L	Prep Date: 11/13/2009	RunNo: 21738						
Client ID: ZZZZZ	Batch ID: R21738	TestNo: SW8015B		Analysis Date: 11/13/2009	SeqNo: 312370						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
TPH (Diesel)	ND	0.10									
TPH (Motor Oil)	ND	0.20									
Surr: Pentacosane	0.1090	0	0.1	0	109	57.9	125				
Sample ID: WD091112A-LCS	SampType: LCS	TestCode: TPHDO_W	Units: mg/L	Prep Date: 11/12/2009	RunNo: 21738						
Client ID: ZZZZZ	Batch ID: R21738	TestNo: SW8015B		Analysis Date: 11/12/2009	SeqNo: 312027						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
TPH (Diesel)	0.7510	0.10	1	0	75.1	50.3	125				
Surr: Pentacosane	0.1030	0	0.1	0	103	57.9	125				
Sample ID: WD091112A-LCSD	SampType: LCSD	TestCode: TPHDO_W	Units: mg/L	Prep Date: 11/12/2009	RunNo: 21738						
Client ID: ZZZZZ	Batch ID: R21738	TestNo: SW8015B		Analysis Date: 11/12/2009	SeqNo: 312028						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
TPH (Diesel)	0.7400	0.10	1	0	74.0	50.3	125	0.751	1.48	30	
Surr: Pentacosane	0.1100	0	0.1	0	110	57.9	125	0	0	0	

Qualifiers: E Value above quantitation range
ND Not Detected at the Reporting Limit

H Holding times for preparation or analysis exceeded
R RPD outside accepted recovery limits

J Analyte detected below quantitation limits
S Spike Recovery outside accepted recovery limits

CLIENT: Impact Environmental Services
Work Order: 0911097
Project: BTS#091112-1W-2

ANALYTICAL QC SUMMARY REPORT

BatchID: R21792

Sample ID: MB-R21792	SampType: MBLK	TestCode: 8260B_W	Units: µg/L	Prep Date: 11/17/2009	RunNo: 21792						
Client ID: ZZZZZ	Batch ID: R21792	TestNo: SW8260B		Analysis Date: 11/17/2009	SeqNo: 312849						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	ND	0.50									
Diisopropyl ether (DIPE)	ND	0.50									
Ethyl tert-butyl ether (ETBE)	ND	0.50									
Ethylbenzene	ND	0.50									
Methyl tert-butyl ether (MTBE)	ND	0.50									
t-Butyl alcohol (t-Butanol)	ND	5.0									
tert-Amyl methyl ether (TAME)	ND	0.50									
Toluene	ND	0.50									
Xylenes, Total	ND	1.5									
Surr: Dibromofluoromethane	12.11	0	11.36	0	107	61.2	131				
Surr: 4-Bromofluorobenzene	11.79	0	11.36	0	104	64.1	120				
Surr: Toluene-d8	10.36	0	11.36	0	91.2	75.1	127				
Sample ID: LCS-R21792	SampType: LCS	TestCode: 8260B_W	Units: µg/L	Prep Date: 11/17/2009	RunNo: 21792						
Client ID: ZZZZZ	Batch ID: R21792	TestNo: SW8260B		Analysis Date: 11/17/2009	SeqNo: 312850						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	17.78	0.50	17.04	0	104	66.9	140				
Toluene	17.49	0.50	17.04	0	103	76.6	123				
Surr: Dibromofluoromethane	11.47	0	11.36	0	101	61.2	131				
Surr: 4-Bromofluorobenzene	10.23	0	11.36	0	90.1	64.1	120				
Surr: Toluene-d8	12.07	0	11.36	0	106	75.1	127				
Sample ID: LCSD-R21792	SampType: LCSD	TestCode: 8260B_W	Units: µg/L	Prep Date: 11/17/2009	RunNo: 21792						
Client ID: ZZZZZ	Batch ID: R21792	TestNo: SW8260B		Analysis Date: 11/17/2009	SeqNo: 312851						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	16.96	0.50	17.04	0	99.5	66.9	140	17.78	4.72	20	
Toluene	15.53	0.50	17.04	0	91.1	76.6	123	17.49	11.9	20	
Surr: Dibromofluoromethane	12.29	0	11.36	0	108	61.2	131	0	0	0	
Surr: 4-Bromofluorobenzene	9.770	0	11.36	0	86.0	64.1	120	0	0	0	

Qualifiers: E Value above quantitation range
ND Not Detected at the Reporting Limit

H Holding times for preparation or analysis exceeded
R RPD outside accepted recovery limits

J Analyte detected below quantitation limits
S Spike Recovery outside accepted recovery limits

CLIENT: Impact Environmental Services
Work Order: 0911097
Project: BTS#091112-1W-2

ANALYTICAL QC SUMMARY REPORT

BatchID: R21792

Sample ID: LCSD-R21792	SampType: LCSD	TestCode: 8260B_W	Units: µg/L	Prep Date: 11/17/2009	RunNo: 21792
Client ID: ZZZZZ	Batch ID: R21792	TestNo: SW8260B		Analysis Date: 11/17/2009	SeqNo: 312851
<hr/>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC
Surr: Toluene-d8	10.57	0	11.36	0	93.0
				75.1	127
				0	0
				0	0

Qualifiers: E Value above quantitation range
ND Not Detected at the Reporting Limit

H Holding times for preparation or analysis exceeded
R RPD outside accepted recovery limits

J Analyte detected below quantitation limits
S Spike Recovery outside accepted recovery limits

Torrent Laboratory, Inc.

WORK ORDER Summary

13-Nov-09

Work Order 0911097

Client ID: IMPACT ENV. SER.

Project: BTS#091112-1W-2

QC Level:

Comments: 5 day TAT!!! Pls. Invoice and report to Attn: jac21462@aol.com. Rev'd 3 water samples for TPHg; MBTEX, Oxys and TPHDO.

Sample ID	Client Sample ID	Collection Date	Date Received	Date Due	Matrix	Test Code	Hld	MS	SEL	Sub	Storage
0911097-001A	MW-8	11/12/2009 2:40:00 PM	11/12/2009	11/18/2009	Water	8260B_W_PETRO	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	SR/ORG
						TPH_GAS_W_GC	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	SR/ORG
						TPHDO_W	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	SR/ORG
0911097-002A	GW-1	11/12/2009 2:50:00 PM		11/18/2009		8260B_W_PETRO	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	SR/ORG
						TPH_GAS_W_GC	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	SR/ORG
						TPHDO_W	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	SR/ORG
0911097-003A	GW-3	11/12/2009 2:55:00 PM		11/18/2009		8260B_W_PETRO	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	SR/ORG
						TPH_GAS_W_GC	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	SR/ORG
						TPHDO_W	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	SR/ORG

BLAINE

TECH SERVICES, INC.

1680 ROGERS AVENUE
 SAN JOSE, CALIFORNIA 95112-1105
 FAX (408) 573-7771
 PHONE (408) 573-0555

0911097

Torrent Lab

DHS #

CHAIN OF CUSTODY			
BTS # 091112-1W-2			
CLIENT Impact Environmental Services			
SITE 1409-1417 12th St.			
Oakland CA			
SAMPLE I.D.	DATE	TIME	MATRIX S = Soil W = H ₂ O
			TOTAL
MW-8	11/12/09	1440	W
GW-1		1450	
GW-3		1455	

CONDUCT ANALYSIS TO DETECT					LAB	MUST MEET SPECIFICATIONS	DHS #		
TPH-G by 8260	BTEX by 8260	MTBE by 8260	TPH-D & Motor Oil	Oxygenates by 8260					
X	1	X	X	X	-001				
X	1	X	X	X	-002A				
X	X	X	X	X	-003A				
						ADD'L INFORMATION	STATUS	CONDITION	LAB SAMPLE #

Temp 11°C

SAMPLING COMPLETED	DATE 11/12/09	TIME 1455	SAMPLING PERFORMED BY IAN WILLIAMS	RESULTS NEEDED NO LATER THAN Standard TAT
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RELEASED BY <i>W</i>	DATE 11/12/09	TIME 1607	RECEIVED BY <i>Jant L. D. Imbas</i>	DATE 11/12/09	TIME 1607
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RELEASED BY	DATE	TIME	RECEIVED BY	DATE	TIME
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SHIPPED VIA	DATE SENT	TIME SENT	COOLER #	D/J
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APPENDIX C
Manual Hydrogen Peroxide Injection Data Sheets

WCG

**75 Palm Drive
Camarillo, CA 93010**

Field Log Sheet for Hydrogen Peroxide Injection

Client: Impact Environmental Services, Inc

WCG Project #

WCG Project Manager: Douglas Lovings

Task# **N/A**

N/A

Phone# (805) 607-0756

Site Name **Thompson Property**

Site Location 1409 -1417 12th Street in Oakland, California

Site Contact Person's Name Joseph Cotton **Phone#** (510) 703-5420

D.O. Metter Model # Model 55 Manufacture Y51

pH Meter Model # **Manufacturer**

Date: September 12, 2009

Notes:

Conducted by:

Signature: Dang Loring

WCG

**75 Palm Drive
Camarillo, CA 93010**

Field Log Sheet for Hydrogen Peroxide Injection

Client: Impact Environmental Services, Inc

WCG Project #

WCG Project Manager: Douglas Lovings

Task# N/A

N/A

Phone# (805) 607-0756

Site Name **Thompson Property**

Site Location 1409 -1417 12th Street in Oakland, California

Site Contact Person's Name Joseph Cotton **Phone#** (510) 703-5420

D.O. Metter Model # Model 55 Manufacture Y51

pH Meter Model # Manufacture

Date: October 10, 2009

Notes:

Conducted by:

Signature:

Davy Lang

WCG

**75 Palm Drive
Camarillo, CA 93010**

Field Log Sheet for Hydrogen Peroxide Injection

Client: Impact Environmental Services, Inc

WCG Project #

WCG Project Manager: Douglas Lovings

Task# N/A

N/A

Phone# (805) 607-0756

Site Name **Thompson Property**

Site Location 1409 -1417 12th Street in Oakland, California

Site Contact Person's Name Joseph Cotton **Phone#** (510) 703-5420

D.O. Metter Model # Model 55 Manufacture Y51

pH Meter Model # Manufacture

Date: November 7, 2009

Notes:

Conducted by:

Signature:

Dong Lam