Impact Environmental Services

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Transmittal

To: Mr. Steven Plunkett
Alameda County Environmental
Health Services
1131 Harbor Bay Parkway
Alameda, CA 94702-1359

From: Joseph Cotton
Date: October, 9, 2008
ACDEH File No.: RO0002933

Copies	Description	Sent by:
2	Groundwater Well Installation & Initial Quarterly Groundwater Monitoring Report for 1409 – 1417 12th Street, Oakland, CA. 1 Electronic Copy and 1 Hardcopy	☒ *Regular Mail* ☐ *FedEx* ☐ *Courier* ☒ *Other*

Mr. Plunkett,

Attached is the Groundwater Well Installation & Initial Quarterly Groundwater Monitoring Report for 1409-1417 12th Street, Oakland, California. Impact Environmental Services is pleased to submit this report on behalf of the property owner, Mrs. Shirley Thompson.

Should you have questions, please contact me at (510) 703-5420.

Sincerely,

Joseph A. Cotton PG
Principal Geologist

Copies	Name & Address	Sent by:
2	Mrs. Shirley Thompson 1155 Hopkins Street Berkeley CA 94801	☐ *Regular Mail* ☐ *FedEx* ☐ *Courier* ☒ *Other*

GROUNDWATER WELL INSTALLATION & INITIAL GROUNDWATER MONITORING EPORT 1409- 1417 12TH STREET OAKLAND, CALIFORNIA

Prepared for:

Mrs. Shirley Thompson
1155 Hopkins Street
Berkeley, CA 94801

Prepared by:

Impact Environmental Services Inc.
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Joseph A. Cotton, R.G., 7378
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October 2008

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GROUNDWATER WELL INSTALLATION & INITIAL 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 Well Installation and Initial Groundwater Monitoring Report for 1409-1417 12th Street in Oakland, California (Figure 1). This report describes procedures used to install eight groundwater monitoring wells and three groundwater extraction/treatment wells. The report also presents the results of the initial groundwater monitoring and sampling event at the property. In addition, this document presents site background information and a summary of environmental site assessment activities conducted at the site to date. This document is being prepared at the request of Alameda County Environmental Health (ACEH) for a remediation work plan[1] for the unauthorized release of fuel at the subject property.

The wells will accommodate groundwater monitoring and remediation of petroleum hydrocarbons in groundwater. Wells will also be used to further evaluate the spatial extent of petroleum hydrocarbons in groundwater and to monitor plume migration at the subject property.

SITE CONTACT INFORMATION

The site address and contact information is as follows:

Site Address:	**Contact Information:**
1409-1417 12th Street	Mrs. Shirley Thompson
Oakland, CA	Edward C. and Shirley E. Thompson Trust
APN 004-063-06	1155 Hopkins Street, Berkeley, CA 94702-1359

[1] Alameda County Environmental Health Services Letter_Fuel Leak Case No. RO0002933 Global ID T0600158621, Thompson Property, 1409-1417 12th Street, Oakland, CA 94607-2003, dated July 31, 2008.

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 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. Several mounds of soil up to 18-inches high are present in the southeast portion of the subject property.

Historical records indicate that the property was occupied by a service station from circa 1957 to the circa 1969. The subject property was either vacant or occupied by residential dwellings from at least 1902 to circa 1956. Sanborn maps from 1957, 1958, 1961 and 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 Property[2].

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 local gradient is directed toward the west to southwest[3]. 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 at approximately 11 feet bgs.

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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

In August 1999, East Bay Asian Local Development Corporation (EBALDC) contracted Blymer Engineers of Alameda, California to conduct a subsurface investigation at the subject property[4]. EBALDC was considering purchasing the subject property from Mrs. Thompson for infill development of residential housing units.

The investigation consisted of the installation of five on-site exploratory borings (B1 through B5) and the collection of soil and grab groundwater samples. All soil and grab groundwater samples were analyzed for total petroleum hydrocarbons (TPH) as gasoline (TPHg) by modified EPA Method 8015, and benzene, toluene, ethylbenzene and total xylenes (BTEX) and methyl *tert*-butyl ether (MTBE) by EPA Method 8020. In addition, all of the soil samples and three groundwater samples (GW-3, GW-4, and GW-5) were analyzed for total lead using EPA Methods 6010 and 239.2. Grab groundwater sample GW-5 was also analyzed for Volatile Organic Compounds (VOCs) by EPA Method 8260.

TPHg at concentrations up to 1,500 milligrams per kilogram (mg/kg) and BTEX compounds at concentrations up to 120 mg/kg were detected in soil samples collected from the apparent capillary fringe in borings B-3 and B-5. The highest concentrations were detected just above first-encountered groundwater at a depth of 10.5 to 11.5 feet bgs. Lead was detected in all soil samples (with the exception of sample B1-5) at concentrations indicative of background levels. TPHg at concentrations up to 110,000 micrograms per liter (µg/L), benzene up to 5,800 µg/L, toluene up to 16,000 µg/L, ethylbenzene up to 31,000 µg/L, and total xylenes up to 18,000 µg/L were detected in groundwater samples GW-2 and GW-3. The laboratory noted the presence of a "lighter than water immiscible sheen" in groundwater samples GW-3 and GW-5. Lead was not detected in any of the groundwater samples above the method reporting limit of 0.005 milligrams per liter (mg/L). The following VOCs were detected in groundwater sample GW-5: benzene (5,400 µg/L), 1,2-dichloroethane (1,2-DCA, 500 µg/L), ethylbenzene (3,800 µg/L), n-propyl benzene (550 µg/L), toluene (18,000 µg/L), 1,2,4-trimethylbenzene (4,900 µg/L), 1,3,5-trimethylbenzene (1,100 µg/L), and total xylenes (23,000 µg/L). The detected concentrations of TPHg and BTEX in groundwater samples from borings B2, B3, and B5 exceed respective San Francisco Bay Regional Water Quality Control Board (RWQCB) environmental screening levels

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

(ESLs)[5] for commercial and residential land use scenarios. The concentration of 1, 2-DCA detected in groundwater sample GW-5 also exceeds the ESL for that compound.

In July, 2006, Impact conducted a Phase I Environmental Site Assessment (Phase I) for the Subject Property[6]. The scope of the Phase I included a reconnaissance of the site and vicinity to assess current land use, review of historical records to establish past land use and to help evaluate the likelihood that past land use resulted in subsurface contamination. Geologic maps and environmental reports were also reviewed to evaluate general geologic and hydrogeologic conditions in the area including the presence of groundwater and regional hydrogeologic features dictating groundwater flow direction. Government agency files were reviewed for information regarding subsurface contamination and use, storage and disposal of hazardous materials at the site and vicinity.

The subject property was not on any government lists. However, the Phase I concluded that the subject property was occupied by a gasoline service station from circa 1957 to circa 1969. Based on review of the Blymer report, previous activities at the site appear to have resulted in hydrocarbon contamination of soils and groundwater at the property.

In May 2007, Impact conducted site characterization study to further evaluate the presence of petroleum hydrocarbons and VOCs in soil, soil-vapor, and groundwater at the subject property. Thirty-six discrete soil samples and nine grab groundwater samples from nine exploratory borings (B-6, B-7, and B-9 through B-15) at the Subject Property. In addition, nine soil-vapor samples were collected from property[7]. Soil and grab groundwater samples were analyzed for TPH as diesel (TPHd) and motor oil (TPHmo) by EPA Method 8015, and TPHg, BTEX, MTBE, and other fuel oxygenates by EPA Method 8260. Soil-vapor samples were analyzed for TPHg (by modified EPA Method TO-3) and VOCs (by EPA Method TO-15).

TPHg was detected in three of the thirty-six soil samples at concentrations ranging from 32 mg/kg and 20,000 mg/kg. Soil samples with TPHg detections were collected from boring B-9 at depths of 10, 12, and 20 feet bgs. Two of these samples (B-9:10' [4,600 mg/kg] and B-9:12'

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[5] *Screening For Environmental Concerns at Sites with Contaminated Soil and Groundwater*, San Francisco Bay Regional Water Quality Control Board, November 2007.

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

[7] Impact Environmental Services, Site Characterization Report *1409-1417 12th Street Oakland California*, June 5, 2007.

[20,000 mg/kg]) contained concentrations of TPHg that exceed the ESL of 100 mg/kg. TPHd was not detected at or above method detection limits (MDLs) in soil samples. TPHmo was only detected in one soil sample (B-10:5'), at a concentration significantly below the residential ESL of 500 mg/kg. BTEX were only detected in soil samples retrieved from exploratory boring B-9. Benzene was detected at 830 µg/kg in soil sample B-9:20'. The concentration of benzene in this sample is above the residential ESL of 44 µg/kg. Toluene was detected at 210,000 µg/kg and 320 µg/kg in samples B-9:12' and B-9:20', respectively. The concentration of toluene in sample B-9:12' exceeds to residential ESL of 2,900 µg/kg. Ethylbenzene was detected at concentrations of 220,000 µg/kg and 440 µg/kg in samples B-9:12' and B-9:20', respectively. The concentration of ethyl benzene in sample B-9:12' exceeds to residential ESL of 220,000 µg/kg. Total xylenes were detected in soil samples B-9:10' (88,000 µg/kg), B-9:12' (1,300,000 µg/kg), and B-9:20' (1,600 µg/kg). The concentrations of total xylenes in samples B-9:10' and B-9:12' are above the residential ESL of 2,300 µg/kg. Fuel oxygenates were not detected at or above MDLs in soil samples collected from the site.

The grab groundwater sample collected from boring B-9 contained 52,000µg/L TPHg, significantly above the TPHg ESL of 100µg/L. The grab groundwater sample collected from boring B-7 contained TPHd at 59µg/L. The grab groundwater sample collected from boring B-6 contained TPHmo at 150 µg/L, which exceeds the ESL of 100 µg/L. BTEX were not detected at or above MDLs in grab groundwater samples collected from the site, with the exception of the following samples. The groundwater sample collected from boring B-9 contained 8,700µg/L of benzene, 2,200 µg/L toluene, 2,000 µg/L mg/kg ethylbenzene, and 7,200 µg/L total xylenes. Fuel oxygenates (including MTBE) were not detected at or above MDLs in grab groundwater samples collected from the site during this investigation, with the following exception. 1, 2-DCA was detected at 570 µg/L in the grab groundwater sample collected from boring B-9. The concentration of 1, 2-DCA in this sample exceeded the residential ESL of 0.5 µg/L.

Nine soil-vapor samples (SV-1 through SV-9) were collected from the subject property. The soil-vapor sample collected from SV-6 (near boring B-9) contained concentrations of TPHg, benzene, and vinyl chloride that exceed residential ESLs for shallow soil gas. TPHg was detected in sample SV-6 at a concentration of 52,000 ug/m^3, which is twice the ESL of 26,000 ug/m^3. The soil-vapor sample from SV-6 also contained benzene and vinyl chloride at concentrations of 1,200 ug/m^3 and 260 ug/m^3, which is significantly above their respective ESLs

of 32 ug/m^3 and 85 ug/m^3. The remaining soil-vapor samples collected as part of this investigation did not contain constituents of concern above ESLs.

The investigation concluded that soil, soil-vapor, and grab groundwater samples collected from boring B-9 contained gasoline-range hydrocarbons, BTEX, and 1, 2-dichloroethane at concentrations that present a potential risk to human health in a residential land-use scenario. The groundwater sample collected from boring B-6 contained motor-oil range hydrocarbons above residential ESLs. Groundwater quality data from the exploratory borings suggest that petroleum contamination in groundwater was isolated in a hot-spot in the northern portion of the property. This hot-spot are located in the vicinity of borings B-2, B-3, B-5 (advanced during the Blymer investigation), and B-9. Free-product (gasoline) was identified in soils just above first encountered groundwater in boring B-9. Grab groundwater samples collected from exploratory borings B-2, B-3, and B-5, and B-9 contained TPHg at concentrations indicative of free-phase product (i.e., greater than 5 milligrams per liter [mg/L], which is the assumed solubility limit of TPH in water) [8,9].

CONFIRMATION EXPLORATORY BORINGS

On March 6 and 7, 2008, Woodward Drilling Inc. (Woodward) of Rio Vista, California installed two "confirmation" exploratory borings (B-16 and B-17) to substantiate historical soil and groundwater results from Blymer borings B-2 and B-3. The locations of the confirmation exploratory borings are presented on Figure 2. The absence of detectable concentrations of petroleum hydrocarbons in soil and groundwater samples collected from borings near B-2 and B-3 produced some uncertainty (by ACEH and IMPACT) regarding the actual presence of petroleum hydrocarbons in these two areas. Exploratory boring B-16 was advanced near former boring B-3 and boring B-17 was advanced in proximity to boring B-2. The exploratory borings were also used to determine whether installation of groundwater extraction/treatment would be

[8] Total Petroleum Hydrocarbon Criteria Working Group Series Volume 3, Selection of Representative TPH Fractions Based on Fate and Transport Considerations, July 1997

[9] Agency for Toxic Substances and Disease Registry, *Toxicological Profile for Fuel Oils*, 1995.

appropriate in these areas. Boring permits were obtained from Alameda County Public Works Agency (ACPWA) and are presented in Appendix A.

Confirmation Exploratory Boring Soil and Grab Groundwater Sample Collection

Continuous soil samples were collected from confirmation exploratory borings for lithologic identification. In general, exploratory boring soil samples for chemical analysis were collected at five-foot intervals from depths ranging between 5 and 25 feet bgs. Samples were also collected from soils with 1) staining, odor or elevated OVM readings, 2) in the apparent capillary fringe, 3) where groundwater is first encountered, 4) at distinct changes in lithology, and 5) at the total depth of the exploratory soil boring. Sample collection depths are shown on Table 1.

Soil samples were collected by driving a 2-inch diameter, California Modified sampler through and in advance of hollow stem augers (HSA). The sampler was driven with a 140-pound hammer falling 30 inches. The number of blows required to drive the sampler 18 (or 24) inches were recorded as the penetration resistance (blows/foot) on the boring logs. Soil samples were collected in 2-inch diameter, 6-inch long, brass liners. Soil samples collected for chemical analysis were filled to the fullest extent possible to reduce the potential for loss of volatiles and sealed with Teflon-lined plastic caps, labeled and placed in a cooled container.

Soils were logged by Professional Geologist according to the Unified Soil Classification System (USCS). Boring logs are contained in Appendix B. Periodic soil samples were screened in the field using an organic vapor meter (OVM) and visual and olfactory methods to evaluate the presence of hydrocarbons in the soil.

Grab groundwater samples were collected from each boring. Borings were advanced into the groundwater-bearing zone and the augers pulled back two to three feet to allow groundwater to enter the borehole. Grab groundwater samples were collected through the hollow portion of the augers using new, disposable Teflon® bailers. Grab groundwater samples were placed in laboratory-supplied containers, labeled, and preserved on ice.

Each boring was grouted to the ground surface with bentonite-cement slurry via tremie pipe. Chain of custody documentation accompanied boring soil and grab groundwater samples to the laboratory for analysis. All down-hole equipment was steam-cleaned before use and between borings. Soil cuttings and decontamination rinsate were placed in 55-gallon drums for proper disposal.

Soil and Grab Groundwater Sample Analysis

Confirmation boring soil and grab groundwater samples were analyzed at Torrent Laboratory Inc. (Torrent Laboratory) of Milpitas, California. Torrent is a state-certified laboratory. Soil samples from confirmation borings were analyzed for constituents of concern (COCs) including TPHd, TPHmo by EPA Method 8015, and TPHg, BTEX, and fuel oxygenates using EPA Method 8260. Grab groundwater samples were analyzed for TPHd and TPHmo by EPA Method 8015, and TPHg, BTEX, and MTBE using EPA Method 8260.

Confirmation Boring Soil and Grab Groundwater Sample Results

Confirmation exploratory boring soil sample results are summarized in Table 1 and the certified laboratory analytical reports (LARs) are presented in Appendix C. Figure 3 presents data on TPHg detected in confirmation boring soil samples.

Constituents of concern were detected in six of seven soil samples collected from confirmation boring B-16. However only two of the seven samples, B-6:8' and B-6:15' contained significant concentrations of COCs. The soil sample collected from 8-feet bgs from boring B-16 contained 4,700 mg/kg TPHg, 240 mg/kg TPHd, 13 mg/kg benzene, 180 mg/kg toluene, 110 mg/kg ethylbenzene, and 520 mg/kg total xylenes. The grab groundwater sample collected from boring B-16 contained 130 µg/L TPHg, 6,820 µg/L benzene, 9,410 µg/L toluene, 3,360 µg/L ethylbenzene, and 17,400 µg/L total xylenes. The detections of petroleum hydrocarbons in soil and grab groundwater samples collected from boring B-16 supports Blymer's data from boring B-3) that indicates that petroleum hydrocarbons are present in this area.

TPHmo was the lonely COC detected in soil samples collected from confirmation boring B-17. Both detections of TPHmo in soil samples were at low concentrations and not significant. The grab groundwater sample collected from boring B-17 contained 2 µg/L TPHmo, 0.930 µg/L toluene, 0.500 µg/L ethylbenzene, and 1.56 µg/L total xylenes. All COC detected in the grab groundwater sample were below their respective ESLs and contradict Blymer data (from B-2) that suggests significant petroleum hydrocarbons are present in soil and groundwater in this area.

GROUNDWATER MONITORING AND EXTRACTION WELL INSTALLATION

In March and April 2008, groundwater monitoring wells MW-1 through MW-8 and groundwater extraction wells GW-1 through GW-3 were installed at the subject property by Woodward. The location of groundwater wells are shown on Figures 2. Well installation permits obtained from ACPWA are presented in Appendix A. The wells were installed to support groundwater monitoring and remediation activities and to help define the spatial extent of petroleum hydrocarbons and related compounds in groundwater at the property. Wells were also installed at the site to allow periodic groundwater monitoring and to evaluate plume migration. Groundwater wells were installed under the direction of GeoMatrix and IMPACT professional geologists.

Rationale for Groundwater Monitoring and Extraction Well Locations

Groundwater monitoring well MW-1, located along the southern property boundary, was installed to monitor groundwater quality at the southern property boundary. Groundwater monitoring wells MW-2 and MW-5 were placed along the western property boundary to help define and monitor the western extent of petroleum hydrocarbons identified in groundwater samples collected from borings B-5 and B-9. MW-2 and MW-5 also function as groundwater monitoring points of compliance for potential sensitive receptors at the adjacent residence located west of the subject property. Well MW-3 was installed to help define and monitor the southern extent of petroleum hydrocarbons indentified in samples collected from borings B-5 and B-9. Well MW-4 was installed along the eastern property boundary to help define and monitor the eastern extent of petroleum hydrocarbons identified in groundwater samples collected from borings B-3 and B-16. Groundwater monitoring wells MW-6 and MW-7 were placed along the northern property boundary to monitor the northern extent of petroleum hydrocarbons identified in groundwater samples collected from borings B-3 and B-9. Wells MW-6 and MW-7 also function as baseline groundwater monitoring wells to evaluate the quality of groundwater entering the site from the north. Groundwater monitoring well MW-8 is located at the source area near former boring B-9 and well GW-1. MW-8 is screened in a deeper water-bearing zone or at the lower portion of the shallow water bearing unit (assuming a hydraulic connection) and helps evaluate the vertical extent of petroleum hydrocarbons in groundwater beneath the source area. Groundwater extraction/treatment wells GW-1, GW-2, and GW-3 were installed to monitor groundwater in the source area and the support groundwater remediation.

Well Boring Soil Sample Collection

Soil samples were collected from various depths ranging from 5 approximately five feet bgs to 27 feet bgs for lithologic identification. Sample collection depths are shown on Table 1. During drilling of the well boreholes, soil samples for chemical analysis were collected from soils with 1) staining, odor or elevated OVM readings, 2) within the apparent capillary fringe, 3) where groundwater is first encountered, 4) at distinct changes in lithology, and 5) at the total depth of soil boring. Where possible, soil samples were not collected from well boreholes near previous exploratory boring to reduce collection and analysis of redundant soil samples. As a result, soil samples were not collected from borings for wells MW-5, GW-1, and GW-3. Soil samples collected from well borings MW-3 and MW-7 were inadvertently not submitted for analysis. Well borehole soil sample collections depths are presented in Table 1.

Soil samples were collected from well boreholes by driving a 2-inch diameter, California Modified sampler through and in advance of the HSAs. The sampler was driven with a 140-pound hammer falling 30 inches. The number of blows required to drive the sampler 18 or 24 inches were recorded as the penetration resistance (blows/foot) on the boring logs. Soil samples were collected in 2-inch diameter, 6-inch long, brass liners. Soil samples collected for chemical analysis were filled to the fullest extent possible to reduce the potential for loss of volatiles and sealed with Teflon-lined plastic caps, labeled and placed in a cooled container.

Soils were logged under the direction of a registered Professional Geologist in accordance with the Unified Soil Classification System (USCS). Periodic soil samples were screened in the field using an organic vapor meter (OVM) and visual and olfactory methods to evaluate the presence of hydrocarbons in the soil. All down-hole equipment was steam-cleaned before use and between borings. Soil cuttings and decontamination rinsate were placed in 55-gallon drums for proper disposal.

Groundwater Well Installation

In March and April, 2008, Woodward installed seven shallow groundwater monitoring, one deeper groundwater monitoring well (MW-8), and three groundwater extraction/treatment wells (GW-1 through GW-3). The wells were installed using a truck-mounted drill-rig equipped with HSAs. Shallow groundwater monitoring wells (MW-1 through MW-7) were completed to a depth of approximately 14 feet bgs and groundwater extraction wells (GW-1 and GW-3) were installed to depths between 17 and 18 feet bgs. Well MW-8 was installed to a depth of 27 feet bgs within a conductor casing set at 19 feet bgs.

Groundwater monitoring wells were constructed using 2-inch-diameter, flush-threaded, Schedule 40 PVC casing, with a 0.010-inch slotted well screen surrounded by a filter pack of #2/12 filter sand. Filter pack material was installed from the bottom of the well to approximately 1-foot above the screened section. Groundwater extraction wells were constructed within augers using 4-inch-diameter, flush-threaded, Schedule 40 polyvinyl chloride (PVC) casing. Screened sections for extraction wells consisted of 0.010-inch slotted PVC with a filter pack of Lonestar #2/12 sand. A three-foot section of blank 4-inch PVC sump was placed at the bottom of the screened section of the extraction wells to accommodate a pump should groundwater pump and treat be employed at the site. Approximately 1 foot of bentonite pellets were placed above the well sand pack. A neat cement sanitary seal was placed above the bentonite to within 6-inches of the ground surface.

The wellhead was surrounded by a watertight vault encased in a concrete platform raised approximately 3-inches above grade. The well casing was capped with a watertight, locking well cap**.** Well construction details are presented in Table 2 and well boring logs are included in Appendix B.

Well Development and Surveying

Monitoring wells were developed following placement of filter pack material during well construction. On April 4 through April 6, 2008 the wells were develop further developed using the surge block and purge method. The wells were developed until the water was relatively free of sediment. Purge water generated during well development was stored in 55-gallon drums pending disposal. A licensed surveyor surveyed the top-of-casing elevation of the wells to the nearest 0.01-foot relative to on North American Vertical Datum 1988 (NAVD88). Groundwater well locations were surveyed for horizontal control consistent with AB2886. Well survey data and well development data sheets are presented in Appendix D.

Well Boring Soil Sample Analysis

Well boring soil samples were analyzed by Torrent Laboratory. Soil samples from well borings were analyzed for constituents of concern COCs including TPHd and TPHmo by EPA Method 8015, and TPHg, BTEX, and fuel oxygenates using EPA Method 8260.

Well Boring Soil Sample Results

Soil samples collected from well borings were submitted to Torrent Laboratory for analysis by TPHg, TPHd, TPHmo, BTEX, and fuel oxygenates. Soil samples were collected from well borings to further evaluate soil quality at the subject property. Soil sample results are summarized in Table 1 and LARs are presented in Appendix C. Figure 3 presents data on TPHg detected in well bore soil samples.

Twenty-one soil samples were collected during installation of well borings. Soil samples were collected to further evaluate the presence of petroleum hydrocarbons in soil at the site. COCs were detected in six soil samples which were all from wells MW-1 and MW-8. However, significant concentrations of COCs were only detected in soil samples collected from well boring MW-8. Sample MW-8:5' contained 333 mg/kg TPHg. Sample MW-8:11' contained 0.76 mg/kg benzene. TPHg was detected at 138 mg/kg in soil sample MW-8:16' and at 107 mg/kg in soil sample MW-8:20.5'.

INITIAL QUARTERLY GROUNDWATER MONITORING EVENT

On April 30, 2008, Blaine Technical Services (Blaine) of Santa Clara, California conducted the initial quarterly groundwater monitoring at the subject property. Groundwater samples were collected from groundwater monitoring wells MW-1 through MW-8 and groundwater extraction wells GW-1 through GW-3. Blaine also measured depth-to-water (DTW) in all wells before collecting groundwater samples. DTW measurements are presented in Table 3. A groundwater contour map calculated from DTW measurements is presented as Figure 4.

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 well monitoring data sheets presented in Appendix E. 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 TPHd and TPHmo by EPA Method 8015, and TPHg, BTEX, and MTBE using EPA Method 8260.

Groundwater Sample Results

Groundwater sample results for the initial quarterly groundwater monitoring event (April 30, 2008) are summarized in Table 4. LARs for this groundwater monitoring event are presented in Appendix C. Maps showing the distribution of TPHg and benzene are presented in Figure 5 and Figure 6, respectively. CARs are presented in Appendix C.

Groundwater samples collected from wells MW-1 and MW-6 contained TPHg at 54 µg/L and 53 µg/L, respectively. Groundwater from monitoring well MW-8 was found to contain 1,049µg/L TPHg, 161 µg/L TPHd, 13.9µg/L benzene, 12.4µg/L toluene, 9.76µg/L ethylbenzene, and 160 µg/L total xylenes. The groundwater sample from well GW-1 contained 37,000µg/L TPHg, 7.25µg/L TPHd, 2,400µg/L benzene, 769µg/L toluene, 378µg/L ethylbenzene, and 3,450 µg/L total xylenes. TPHg was also detected at a concentration of 74 µg/L in groundwater collected from well GW-2. The groundwater sample collected from well GW-3 was found to contain 250µg/L TPHg, 46.5 µg/L benzene, 1.36 µg/L toluene, 2.16 µg/L ethylbenzene, and 6.27 µg/L total xylenes. COCs were not detected above MDLs in the remaining groundwater samples.

Groundwater Elevations and Gradient

DTW measurements were recorded on Well Gauging Data Sheets presented in Appendix E. Groundwater elevation data for wells are presented on Table 3. A groundwater contour map calculated from DTW measurements (collected from the site on April 30, 2008) is presented as Figure 4. Groundwater elevations were calculated by subtracting the measured depth to water from the surveyed top of well casings elevations.

Groundwater elevation contour map indicates that the direction of groundwater flow and gradient are highly irregular. The map indicates that shallow groundwater flow in the northwest corner of the site is generally to the south-southwest at an approximate gradient of 0.0068. In the northeast portion of the site groundwater flow is southeast at an approximate gradient of 0.0032. Groundwater flow in the southern portions of the property is to the north-northeast at an approximate gradient of 0.0016. A relatively flat subdued gradient and groundwater sink (or low) is present in much of the center of the property.

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 LARs presented in Appendix C. 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.

DISCUSSION OF RESULTS

The results of soil and groundwater samples were compared to the RWQCB ESLs for a residential land-use where 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.

Soil samples collected from confirmation exploratory boring B-16 (near well GW-3) and from borings for well MW-8 were found to contain COCs that were above respective ESLs. Soil samples MW-8:6.5', MW-8:16', MW-8:20.5', B-16:8' and B-16:15' all contained concentrations of TPHg above the gasoline ESL of 100 mg/kg. Sample B-16:8' also contained TPHd and BTEX that exceed the respective ESLs for these compounds. Benzene was detected above the ESL in soil samples B-16:8', B-16:15' and MW-8:11'.

Groundwater samples collected from wells MW-8, GW-1, and GW-2 contained TPHg above the gasoline ESL of 100µg/L. The groundwater sample from MW-8 also contained TPHd, benzene, and xylenes above respective ESLs of 100µg/L, 1 µg/L, and 20µg/L. The groundwater sample collected from well GW-1 contained concentrations of benzene, toluene (ESL of 40µg/L), ethylbenzene (ESL of 30µg/L), and total xylenes significantly above residential ESLs. The groundwater sample collected from well GW-3 contained concentrations of TPHg and benzene above the respective ESLs.

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.

SITE HYDROGEOLOGY AND STRATIGRAPHY

Soil beneath the site consists primarily of sand and silts with occasion sandy clays and clayey sand. A dark yellowish-brown sandy clay was observed from the surface to approximately 3 to 4 feet bgs. In general, a moderate yellowish-brown to moderate reddish-brown silty-sand unit was observed beneath the surface clay layer to the maximum depth of exploration at 27 feet bgs. In the western part of the site, a clayey sand unit was observed from a depth of approximately 5 to 10 feet bgs and a fine to medium-grained sand unit was observed on occasion from this same depth interval in other parts of the site. Groundwater at the site was first encountered at depths ranging from 10 to 12 feet bgs. Perched groundwater was observed from approximately 5 to 7 feet bgs at several locations.

DISCUSSION OF REGULATORY TECHNICAL COMMENTS

The following is IMPACTs response to Alameda County Environmental Health Services letter (dated July, 31, 2008) requesting additional information and providing technical comment on the Remediation Workplan (dated October 18, 2008) prepared by IMPACT for the subject site.

IMPACT recommends installing eight dual-phase vapor extraction (DPE) wells at the locations shown on Figure 7. The proposed dual phase extraction well are located in (or near) the petroleum hydrocarbon contamination source area as defined by soil and groundwater samples collected during site characterization. The DPE system will generate a high vacuum, which is applied to recovery wells through a sealed well cap and drop suction tube. It is anticipated that DPE wells will be installed to a depth of approximately 14 to 15-feet bgs with the well screens extending from the bottom of the well to approximately 7-feet bgs. The depth interval of the DPE well screen corresponds vertically to areas with the highest concentrations of petroleum hydrocarbons in soil. The 1-inch diameter, PVC drop tube will extend through the well seal into the DPE well to depths ranging from 10 to 14 feet bgs. The drop tube will act like a straw in a glass of water. The high vacuum generated at the DPE wells will draw groundwater out of the

well and lower the water table to the bottom of the drop tube. This drop in water level will expose a greater portion of the well screen to the vacuum. As a result, hydrocarbons vapors will be drawn out of the well screen and surrounding unsaturated soils. Any additional water that enters the well due to recharge will be immediately pulled into the drop tube and therefore water levels in the DPE wells will be maintained at the bottom of the drop tube.

DPE wells will be installed using a drill-rig equipped with 8-inch HSA. The wells will be constructed of Schedule 40, 2-inch-diameter, flush-threaded, PVC casing. Well screens will consist of Schedule 40, 2-inch-diameter, flush-threaded, 0.010-inch, machine-slotted, PVC well screen. The small screen size will be used to minimize the capture of fine-grained sands and silts which exist at the site.

Based on site conditions identified during well installation and groundwater sampling, IMPACT concludes that mobile vacuum enhanced multi-phase extraction (MEME) is not the most economically viable remedial option for petroleum hydrocarbons in soil and groundwater at the subject property. It is our judgment that due to the severity and spatial extent of petroleum hydrocarbon contamination in soil and groundwater beneath the site, a more stationary high vacuum system would be a more economically beneficial system to remediate petroleum hydrocarbon contamination at the site.

Based on relatively low groundwater yield and relatively slow recharge rates identified during well development and sampling activities, IMPACT concludes that groundwater pump-and-treat would not be an economically or technically beneficial remedial technology for petroleum hydrocarbons in groundwater at the site. Our initial conceptual groundwater remedial approach was to use pump and treat technology in conjunction with soil-vapor extraction (SVE) to minimize groundwater upwelling into unsaturated soil and to lower the groundwater column thus creating a greater area of unsaturated soil that could undergo vacuum treatment.

IMPACT concurs with ACDEH that due to the current absence of free-product in groundwater samples collected at the site thus far, a free-product bail-down test is not necessary at this time. However, should site conditions change and free-product be discovered during subsequent groundwater monitoring and sampling events, free product recovery-rate testing and free product removal will be required.

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.

- Groundwater samples collected from wells MW-8, GW-1, and GW-3 contained several COCs above respective residential ESLs.

- The horizontal extent of petroleum hydrocarbons in shallow groundwater has been well defined at the site. However, the vertical extent of petroleum hydrocarbons and related compounds has not been defined at the subject property.

- The spatial extent of petroleum hydrocarbons in soil beneath the site has been well defined. Soil containing petroleum hydrocarbons in excess of respective ESLs appear to be outlined by wells GW-1 (per historical boring B-9), GW-3, and MW-8. In addition The vertical extent of soil containing significant concentrations of petroleum hydrocarbons does not appear to extend deeper than approximately 22 feet.

- Groundwater elevation contours indicate that shallow groundwater flow in the northwest corner of the site is generally to the south-southwest at an approximate gradient of 0.0068. Groundwater flow in the southeast corner of the site has an approximate gradient of 0.0032. Groundwater flow in the southern portions of the property is to the north-northeast at an approximate gradient of 0.0016. A groundwater sink low with a subdued gradient is present in much of the center of the property.

- 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.

- Soil and grab groundwater samples collected from confirmation exploratory boring B-16 confirmed the presence of petroleum contamination in proximity to Blymer exploratory boring B-3. The absence of significant petroleum hydrocarbon contamination in

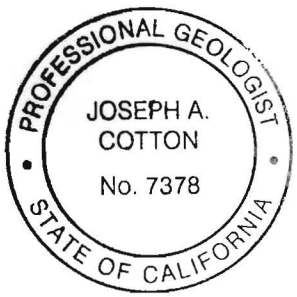
confirmation exploratory boring B-17 appears to refute historical soil and groundwater data which suggests the presence of significant petroleum hydrocarbon contamination in proximity to Blymer boring B-2.

RECOMMENDATIONS

IMPACT recommends installing eight soil-vapor extraction wells at the locations shown on Figure 7. IMPACT also recommends installing an additional deep well near wells MW-8 and GW-1 to help evaluate the vertical extent of petroleum hydrocarbons in groundwater. The proposed deep groundwater monitor well will be screened at depths beyond 27 feet bgs to monitor groundwater deeper than the interval monitored in well MW-8. IMPACT further recommends continuing quarterly groundwater monitoring to evaluate temporal changes in groundwater quality and to monitor groundwater plume migration.

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 –Soil Analytical Results
Table 2 –Well Construction Details for Groundwater Wells
Table 3– Summary of Groundwater Elevations
Table 4– Groundwater Analytical Results

Figures
Figure 1 - Site Location Map
Figure 2 – Site Plan
Figure 3 – Map Showing TPHg Soil Results
Figure 4 – Groundwater Elevation Contour Map_ April 30, 2008
Figure 5 – Map of TPHg in Groundwater
Figure 6 – Map of Benzene in Groundwater
Figure 7 –Proposed Soil-Vapor Extraction Well Locations

Appendices
Appendix A –Alameda County Public Works Agency Drilling Permits
Appendix B – Boring Logs
Appendix C – Certified Laboratory Analytical Report
Appendix D – Well Development Data Sheets and Certified Well Survey Reports
Appendix E – Groundwater Sampling and Well Gauging 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
Soil Analytical Results
1409-1417 12th Street
Oakland, California

Sample ID	Date Sampled	Sample Depth (ft-bgs)	TPHg (mg/kg)	TPHd (mg/kg)	TPHmo (mg/kg)	Benzene (mg/kg)	Toluene (mg/kg)	Ethylbenzene (mg/kg)	Xylenes (mg/kg)
MW-1-5.5'	03/10/08	5.5	<1	18.7	20.5	<0.005	<0.005	<0.005	<0.015
MW-1-10.5'	03/10/08	10.5	<1	<2	<4	<0.005	<0.005	<0.005	<0.015
MW-1-15'	03/10/08	15	<1	4.70	6.35	<0.005	<0.005	<0.005	<0.015
MW-2-7'	03/11/08	7	<1	<2	<4	<0.005	<0.005	<0.005	<0.015
MW-2-10.5'	03/11/08	10.5	<1	<2	<4	<0.005	<0.005	<0.005	<0.015
MW-2-13.8'	03/11/08	13.8	<1	<2	<4	<0.005	<0.005	<0.005	<0.015
MW-4-9.5'	03/11/08	9.5	<1	<2	<4	<0.005	<0.005	<0.005	<0.015
MW-4-12'	03/11/08	12	<1	<2	<4	<0.005	<0.005	<0.005	<0.015
MW-4-17'	03/11/08	17	<1	<2	<4	<0.005	<0.005	<0.005	<0.015
MW-6-5'	04/02/08	6.5	<1	<2	<4	<0.005	<0.005	<0.005	<0.015
MW-6-10'	04/02/08	10	<1	<2	<4	<0.005	<0.005	<0.005	<0.015
MW-6-15'	04/02/08	15	<1	<2	<4	<0.005	<0.005	<0.005	<0.015
MW-8-6.5'	03/10/08	6.5	**333**	54.7	<4	<0.5	<0.5	1.7	8.2
MW-8-11'	03/10/08	11	40	<2	<4	**0.76**	1	1.4	7.7
MW-8-16'	03/10/08	16	**138**	<2	<4	<0.005	<0.005	<0.005	<0.015
MW-8-20.5'	03/10/08	20.5	**107**	3.0	4.41	<0.005	<0.005	<0.005	<0.017
MW-8: 27'	03/13/08	27	<1	<2	<4	<0.005	<0.005	<0.005	<0.015
GW-2-5'	04/03/07	5	<1	<2	<4	<0.005	<0.005	<0.005	<0.015
GW-2-10'	04/03/07	10	<1	<2	<4	<0.005	<0.005	<0.005	<0.015
GW-2-15'	04/03/07	15	<1	<2	<4	<0.005	<0.005	<0.005	<0.015
GW-2-18'	04/03/07	18	<1	<2	<4	<0.005	<0.005	<0.005	<0.015
B-16-5'	03/06/08	5	<1	<2	<4	<0.005	<0.005	<0.005	<0.015
B-16-8'	03/06/08	8	**4,700**	**240**	<40	**13**	**180**	**110**	**520**
B-16-10'	03/06/08	10	0.116	<2	<4	<0.005	0.0066	0.0079	0.026
B-16-13'	03/06/08	13	2.3	60	<4	0.17	0.077	0.080	0.30
B-16-15'	03/06/08	15	**520**	17	<4	**2.3**	7.7	16	**52**
B-16-20'	03/06/08	20	1.134	<2	<4	<0.005	0.032	0.025	0.12
B-16-22'	03/06/08	22	0.740	<2	<4	0.0082	0.049	0.027	0.13
B-17-5'	03/07/08	5	<1	<2	29.2	<0.005	<0.005	<0.005	<0.015
B-17-10'	03/07/08	10	<1	<2	4.16	<0.005	<0.005	<0.005	<0.015
B-17-15'	03/07/08	15	<1	<2	<4	<0.005	<0.005	<0.005	<0.015
B-17-20'	03/07/08	20	<1	<2	<4	<0.005	<0.005	<0.005	<0.015
B-17-25'	03/07/08	25	<1	<2	<4	<0.005	<0.005	<0.005	<0.015
Residential ESL for Shallow Soil (NDWS)			*100*	*100*	*500*	*0.18*	*9.3*	*32*	*11*
Residential ESL for Shallow Soil (DWS)			*100*	*100*	*500*	*0.044*	*2.9*	*3.3*	*2.3*

TPHg = Total petroleum hydrocarbons as gasoline by EPA Method 8260
TPHd & TPHmo= Total Petroleum Hydrocarbons as diesel by EPA Method 8015
Benzene, toluene, ethylbenzene, and xylenes by EPA Method 8260
mg/kg = Milligrams per kilogram, equivalent to parts per million (ppm)
ESL= San Francisco Bay Regional Water Quality Control Board, Screening For Environmental Concerns at Sites With Contaminated Soil and Groundwater, February 2005.
Note: Soil samples collected from boring B-16 were used to represent soil quality for proposed extraction well GW-3, due to their close proximity.

Table 1
Soil Analytical Results
Grondwater Monitoring Well Installation
1409-1417 12th Street
Oakland, California

Sample ID	Date Sampled	Sample Depth	1,2-Dibromomethane (mg/kg)	1,2-Dichloroethane (mg/kg)	Diisopropyl Ether (mg/kg)	Ethyl tert-butyl ether (mg/kg)	Isopropyl Ether (mg/kg)	Methyl tert-butyl ether (mg/kg)	t-Butanol (mg/kg)	tert-Amyl methyl ether (mg/kg)
MW-1-5.5'	03/10/08	5.5	<0.005	<0.005	<0.005	<0.005	<0.005	<0.01	<0.05	<0.005
MW-1-10.5'	03/10/08	10.5	<0.005	<0.005	<0.005	<0.005	<0.005	<0.01	<0.05	<0.005
MW-1-15'	03/10/08	15	<0.005	<0.005	<0.005	<0.005	<0.005	<0.01	<0.05	<0.005
MW-2-7'	03/11/08	7	<0.005	<0.005	<0.005	<0.005	<0.005	<0.01	<0.05	<0.005
MW-2-10.5'	03/11/08	10.5	<0.005	<0.005	<0.005	<0.005	<0.005	<0.01	<0.05	<0.005
MW-2-13.8'	03/11/08	13.8	<0.005	<0.005	<0.005	<0.005	<0.005	<0.01	<0.05	<0.005
MW-4-9.5'	03/11/08	9.5	<0.005	<0.005	<0.005	<0.005	<0.005	<0.01	<0.05	<0.005
MW-4-12'	03/11/08	12	<0.005	<0.005	<0.005	<0.005	<0.005	<0.01	<0.05	<0.005
MW-4-17'	03/11/08	17	<0.005	<0.005	<0.005	<0.005	<0.005	<0.01	<0.05	<0.005
MW-6-5'	04/02/08	5	<0.005	<0.005	<0.005	<0.005	<0.005	<0.01	<0.05	<0.005
MW-6-10'	04/02/08	10	<0.005	<0.005	<0.005	<0.005	<0.005	<0.01	<0.05	<0.005
MW-6-15'	04/02/08	15	<0.005	<0.005	<0.005	<0.005	<0.005	<0.01	<0.05	<0.005
MW-8-6.5'	03/10/08	5	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0	<5.0	<0.5
MW-8-11'	03/10/08	11	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0	<5.0	<0.5
MW-8-16'	03/10/08	16	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0	<5.0	<0.5
MW-8-20.5'	03/10/08	20.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0	<5.0	<0.5
MW-8-27'	03/10/08	27	NA	NA	<0.5	<0.5	NA	<1.0	<5.0	<0.5
GW-2-5'	04/03/07	5	<0.005	<0.005	<0.005	<0.005	<0.005	<0.01	<0.05	<0.005
GW-2-10'	04/03/07	10	<0.005	<0.005	<0.005	<0.005	<0.005	<0.01	<0.05	<0.005
GW-2-15'	04/03/07	15	<0.005	<0.005	<0.005	<0.005	<0.005	<0.01	<0.05	<0.005
GW-2-18'	04/03/07	18	<0.005	<0.005	<0.005	<0.005	<0.005	<0.01	<0.05	<0.005
B-16-5'	03/06/08	5	<0.005	<0.005	<0.005	<0.005	<0.005	<0.01	<0.05	<0.005
B-16-8'	03/06/08	8	<10	<10	<10	<10	NA	<20	<100	<10
B-16-10'	03/06/08	10	<0.005	<0.005	<0.005	<0.005	<0.005	<0.01	<0.05	<0.005
B-16-13'	03/06/08	13	<0.025	<0.025	<0.025	<0.025	<0.025	<0.050	<0.250	<0.025
B-16-15'	03/06/08	15	<1.0	<1.0	<1.0	<1.0	NA	<2.0	<10	<1.0
B-16-20'	03/06/08	20	<0.005	<0.005	<0.005	<0.005	<0.005	<0.01	<0.05	<0.005
B-16-22'	03/06/08	22	<0.005	<0.005	<0.005	<0.005	<0.005	<0.01	<0.05	<0.005
B-17-5'	03/07/08	5	<0.005	<0.005	<0.005	<0.005	<0.005	<0.01	<0.05	<0.005
B-17-10'	03/07/08	10	<0.005	<0.005	<0.005	<0.005	<0.005	<0.01	<0.05	<0.005
B-17-15'	03/07/08	15	<0.005	<0.005	<0.005	<0.005	<0.005	<0.01	<0.05	<0.005
B-17-20'	03/07/08	20	<0.005	<0.005	<0.005	<0.005	<0.005	<0.01	<0.05	<0.005
B-17-25'	03/07/08	25	<0.005	<0.005	<0.005	<0.005	<0.005	<0.01	<0.05	<0.005
Residential ESL for Shallow Soil (DWS)			*7.3*	*25*	*NA*	*NA*	*NA*	*23*	*57,000*	*NA*

Fuel Oxygenates by EPA Method 8260
mg/kg = Milligrams per kilogram, equivalent to parts per million (ppm)
ESL= San Francisco Bay Regional Water Quality Control Board, Screening For Environmental Concerns at Sites With Contaminated Soil and Groundwater, February 2005.
Note: Soil samples collected from boring B-16 were used to represent soil quality for proposed extraction well GW-3, due to their close proximity.

Table 2
Well Constructions Details for Groundwater Wells
1409-1417 12th Street
Oakland, California

Well Number	TOC Elevation (feet) NAVD88	Well Location Northing NAD83	Well Location Easting NAD83	Total Depth of Boring (feet, bgs)	Total Depth of Well (feet, bgs)	Casing Diameter (inches)	Casing Material (gauge/type)	Screened Interval (feet, bgs)	Slot Size (inches)	Filter Pack (feet, bgs)	Filter Pack Type	Bentonite Seal (feet, bgs)	Neat Cement Seal (feet, bgs)
MW-1	21.49	37.8088602	-122.2926636	17	13.92	2	SCH40 PVC	14-7	0.010	14-6	#2/12	6 - 4	4 - Surface
MW-2	20.61	37.8090210	-122.2927461	14	13.91	2	SCH40 PVC	14-7	0.010	14-6	#2/12	6 - 4	4 - Surface
MW-3	21.09	37.8089672	-122.2926514	15	13.59	2	SCH40 PVC	14-7	0.010	14-6	#2/12	6 - 4	4 - Surface
MW-4	20.35	37.8089714	-122.2924800	17	13.90	2	SCH40 PVC	14-7	0.010	14-6	#2/12	6 - 4	4 - Surface
MW-5	20.05	37.8091233	-122.2927183	15	13.87	2	SCH40 PVC	14-7	0.010	14-6	#2/12	6 - 4	4 - Surface
MW-6	19.67	37.8081279	-122.2925899	15	14.44	2	SCH40 PVC	14-7	0.010	14-6	#2/12	6 - 4	4 - Surface
MW-7	19.88	37.8090964	-122.2924472	14	13.81	2	SCH40 PVC	14-7	0.010	14-6	#2/12	6 - 4	4 - Surface
MW-8*	20.71	37.8090245	-122.2926416	27	27.55	2	SCH40 PVC	27-20	0.010	27-19	#2/12	19-17	17 - Surface
GW-1	20.23	37.8090591	-122.2926359	17	17.05	4	SCH40 PVC	14-7**	0.010	17-6	#2/12	6 - 4	4 - Surface
GW-2	20.57	37.8090554	-122.2926970	18	17.00	4	SCH40 PVC	14-7**	0.010	17-6	#2/12	6 - 4	4 - Surface
GW-3	20.57	37.8090566	-122.2925325	17	17.98	4	SCH40 PVC	14-7**	0.010	17-6	#2/12	6 - 4	4 - Surface

Notes:
TOC - top of casing
feet, NAVD88 - feet relative to NAVD88
feet, bgs - feet below ground surface
BOH - bottom of well
*- 10-inch conductor casing installed in the boring from the surface to 20 feet bgs.
**- 3 foot sump constructed of 4" diameter blank Schedule 40 PVC attached to the bottom of the screened portion of the well from 17-14 feet bgs.

Table 3
Summary of Groundwater Elevations
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	04/30/08	0.0	10.52	10.97
MW-2	20.61	04/30/08	0.0	9.64	10.97
MW-3	21.09	04/30/08	0.0	10.20	10.89
MW-4	20.35	04/30/08	0.0	9.43	10.92
MW-5	20.05	04/30/08	0.0	9.10	10.95
MW-6	19.67	04/30/08	0.0	8.60	11.07
MW-7	19.88	04/30/08	0.0	8.96	10.92
MW-8	20.71	04/30/08	0.0	9.82	10.89
GW-1	20.23	04/30/08	0.0	9.34	10.89
GW-2	20.57	04/30/08	0.0	9.7	10.87
GW-3	20.57	04/30/08	0.0	9.6	10.97

Notes:

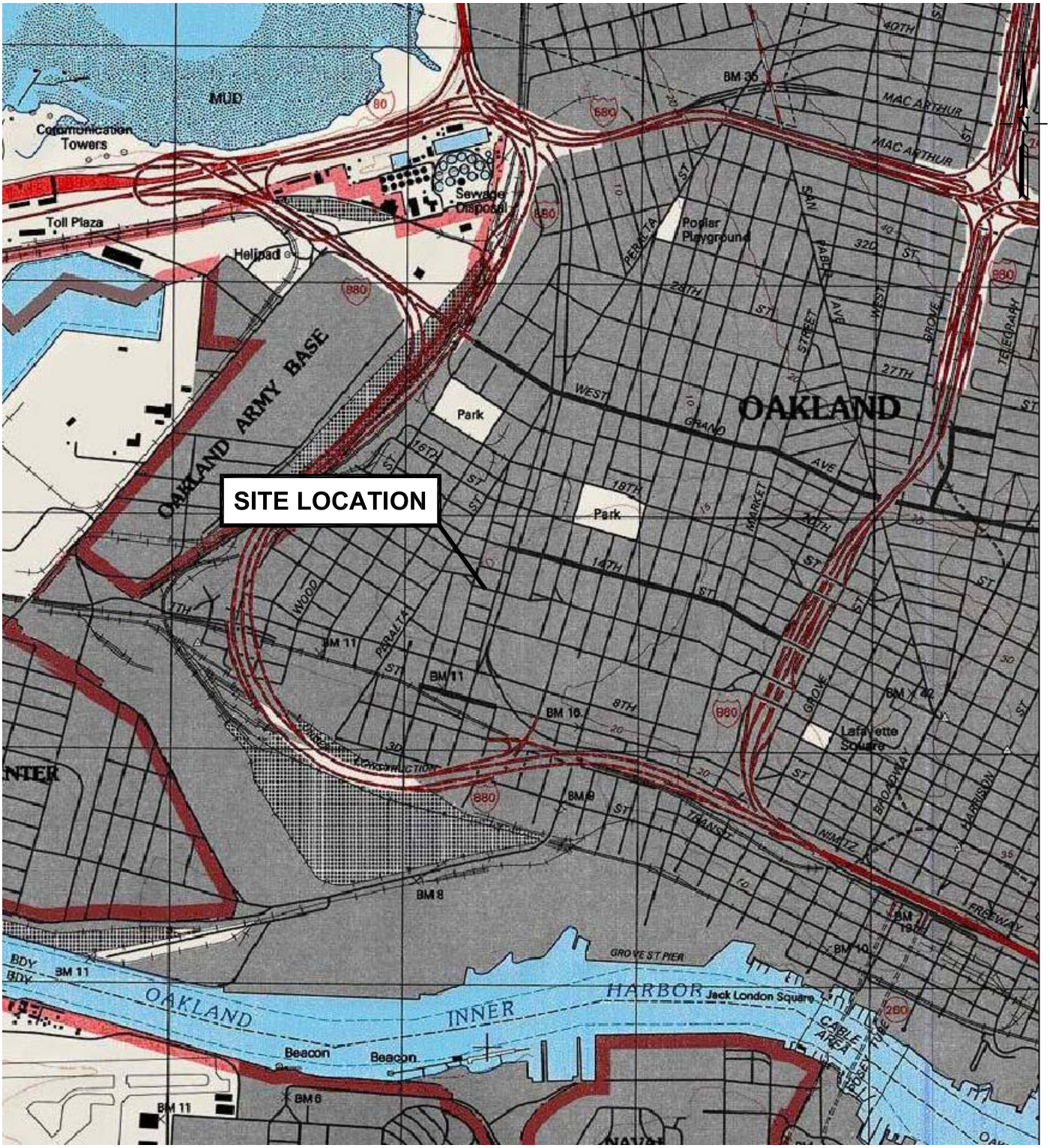
Table 4
Groundwater Analytical Results

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)
MW-1	04/30/08	54	<100	<200	<0.500	<0.500	<0.500	<1.5	<0.500
MW-2	04/30/08	<50	<100	<200	<0.500	<0.500	<0.500	<1.5	<0.500
MW-3	04/30/08	<50	<100	<200	<0.500	<0.500	<0.500	<1.5	<0.500
MW-4	04/30/08	<50	<100	<200	<0.500	<0.500	<0.500	<1.5	<0.500
MW-5	04/30/08	<50	<100	<200	<0.500	<0.500	<0.500	<1.5	<0.500
MW-6	04/30/08	53	<100	<200	<0.500	<0.500	<0.500	<1.5	<0.500
MW-7	04/30/08	<50	<100	<200	<0.500	<0.500	<0.500	<1.5	<0.500
MW-8	04/30/08	**1,049**	**161**	<200	**13.9**	12.4	9.76	**160**	<0.500
GW-1	04/30/08	**37,000**	7.25	<200	**2,400**	**769**	**378**	**3,450**	<0.500
GW-2	04/30/08	74	<100	<200	<0.500	<0.500	<0.500	<1.5	<0.500
GW-3	04/30/08	**250**	<100	<200	**46.5**	1.36	2.16	6.27	<0.500
Grab Grounwater Sample Results from Exploratory Borings									
B-16*	03/06/08	**130**	15	<4.68	**6,820**	**9,410**	**3,360**	**17,400**	<4.40
B-17*	03/07/08	<50	<1.0	2	<0.500	0.930	0.500	1.56	<0.500
Residential ESL (DWS)		*100*	*100*	*100*	*1*	*40*	*30*	*20*	*5*
Residential ESL (NDWS)		*500*	*640*	*640*	*46*	*130*	*290*	*100*	*1,800*

Abbreviations and Methods:
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
Benzene, methyl-tert-butyl ether, toluene, ethylbenzene, and xylenes by EPA Method 8260
ug/L= Micrograms per liter, equivalent to parts per billion (ppb)
ESL= San Francisco Bay Regional Water Quality Control Board, Screening For Environmental Concerns at Sites With Contaminated Soil and Groundwater, February 2005.

DWS- Groundwater beneath site is a drinking water source
NDWS- Groundwater beneath site is not a drinking water source
*- Groundwater samples were also analyzed for all seven fuel oxygenates,but were not detected at or above MRLs.



Scale 1:24,000

1 1/2 0 1 Mile

1000 0 1000 2000 3000 4000 5000 6000 7000 Feet

1 .5 0 1 Kilometer

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Fremont, CA 94538

Figure 1

1409 to 1417 12TH STREET
OAKLAND, CALIFORNIA

SITE LOCATION MAP

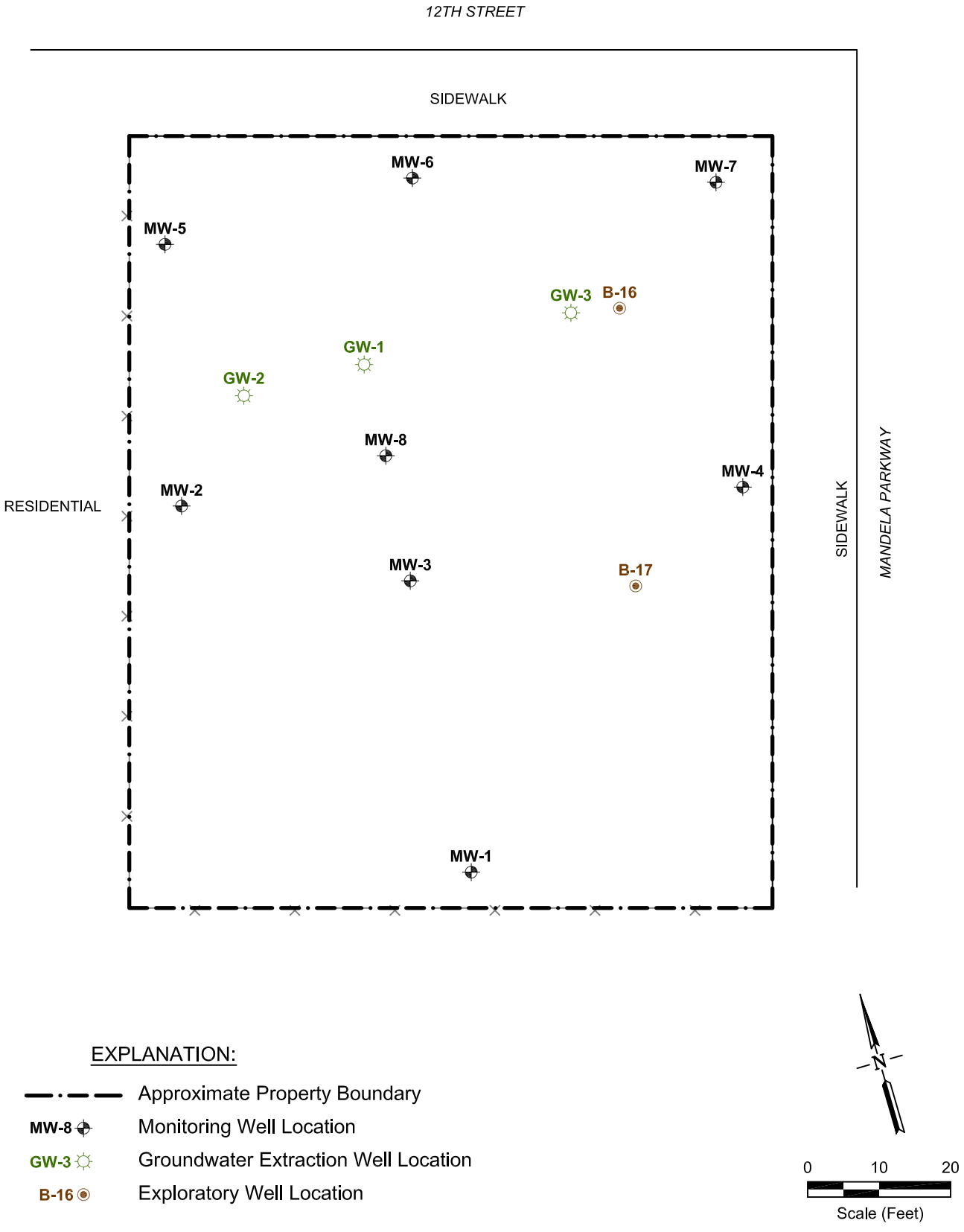

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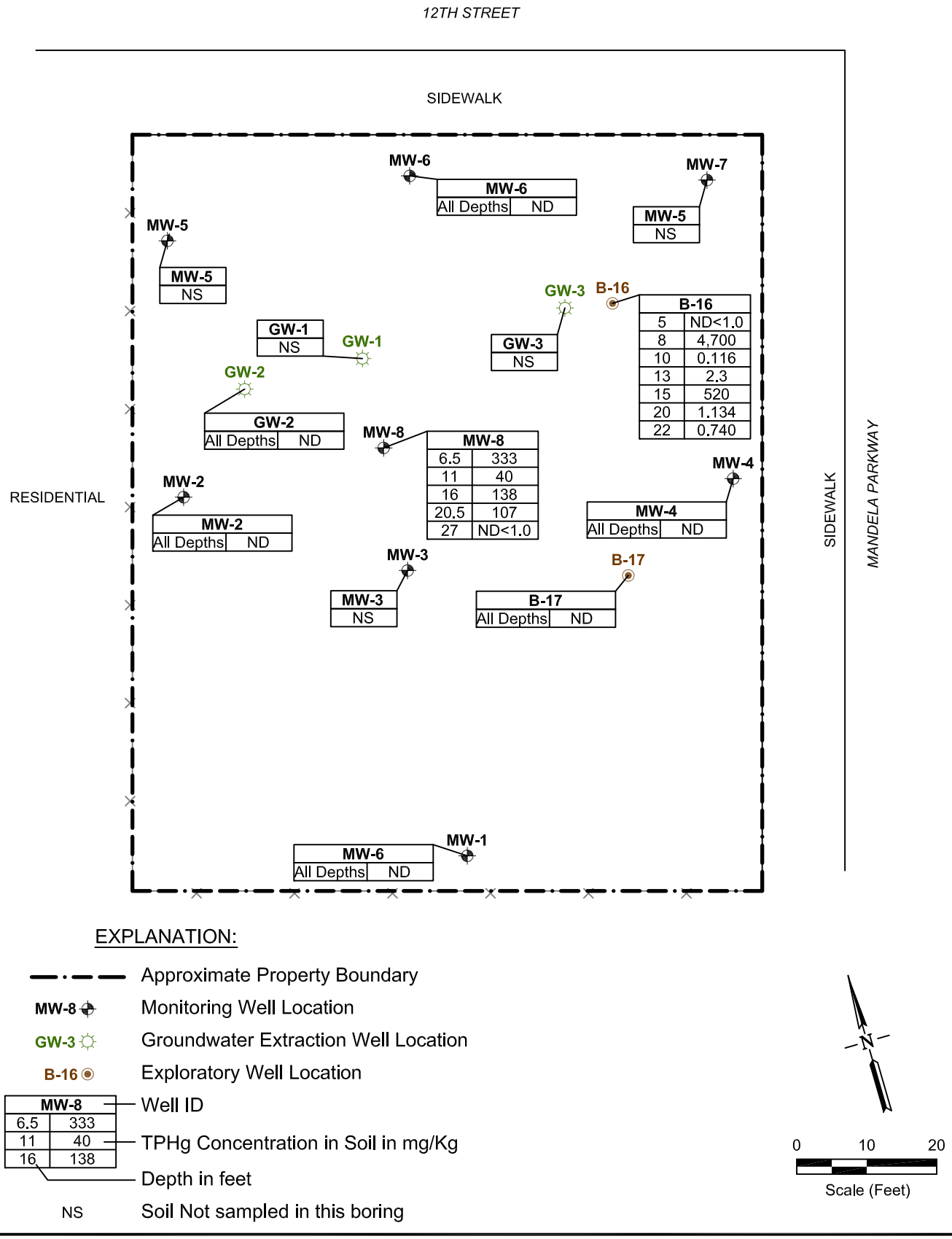
Figure 2
1409 to 1417 12TH STREET
OAKLAND, CALIFORNIA

SITE PLAN



C:\Work\EnviroCAD\ES\1409-1417 12th Street\Well Installation-GW Mon Report\Figure 2-3-4-5-6.dwg Layout: Fig 3 - TPHg-Soil Oct 07, 2008 - 11:18pm

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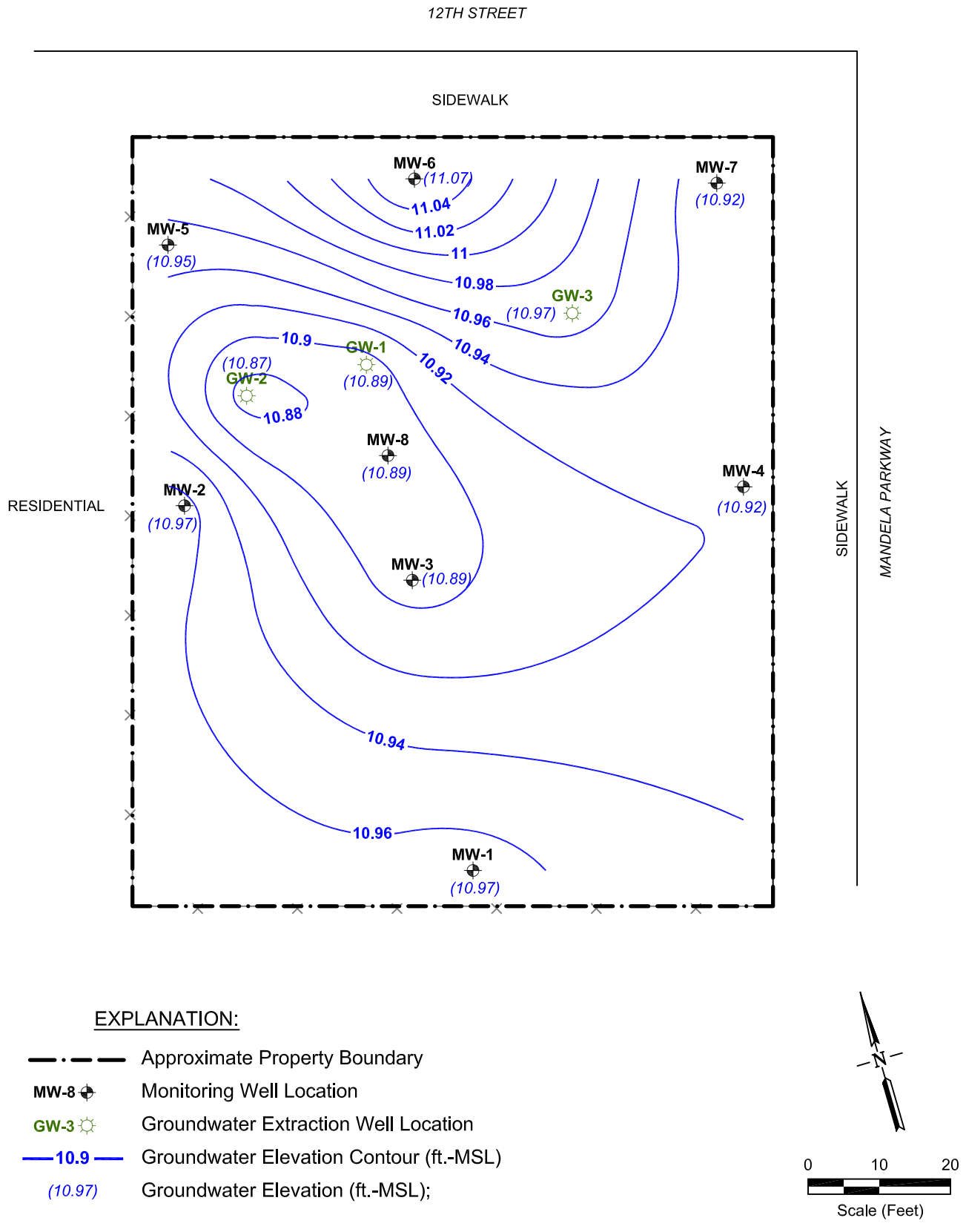
Figure 3
1409 to 1417 12TH STREET
OAKLAND, CALIFORNIA
TPHg IN SOIL



C:\Work\IES\1409-1417 12th Street\2\Figure 2-3-4-5-6.dwg Layout: Fig 4 - GW-elev Aug 06, 2008 - 10:18pm

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Figure 4
1409 to 1417 12TH STREET
OAKLAND, CALIFORNIA

GROUNDWTER ELEVATION MAP

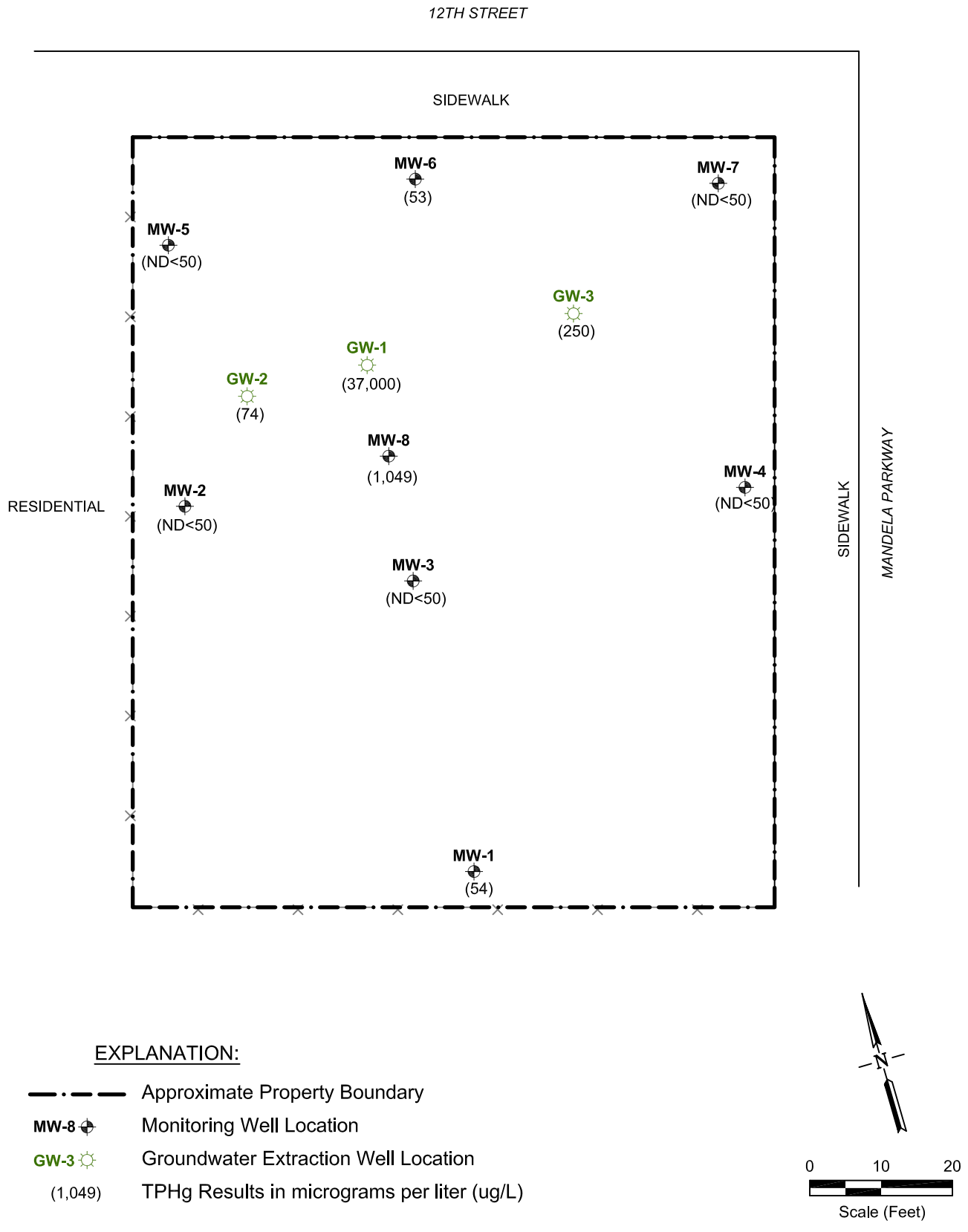

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Figure 5
1409 to 1417 12TH STREET
OAKLAND, CALIFORNIA
TPHg IN GROUNDWATER

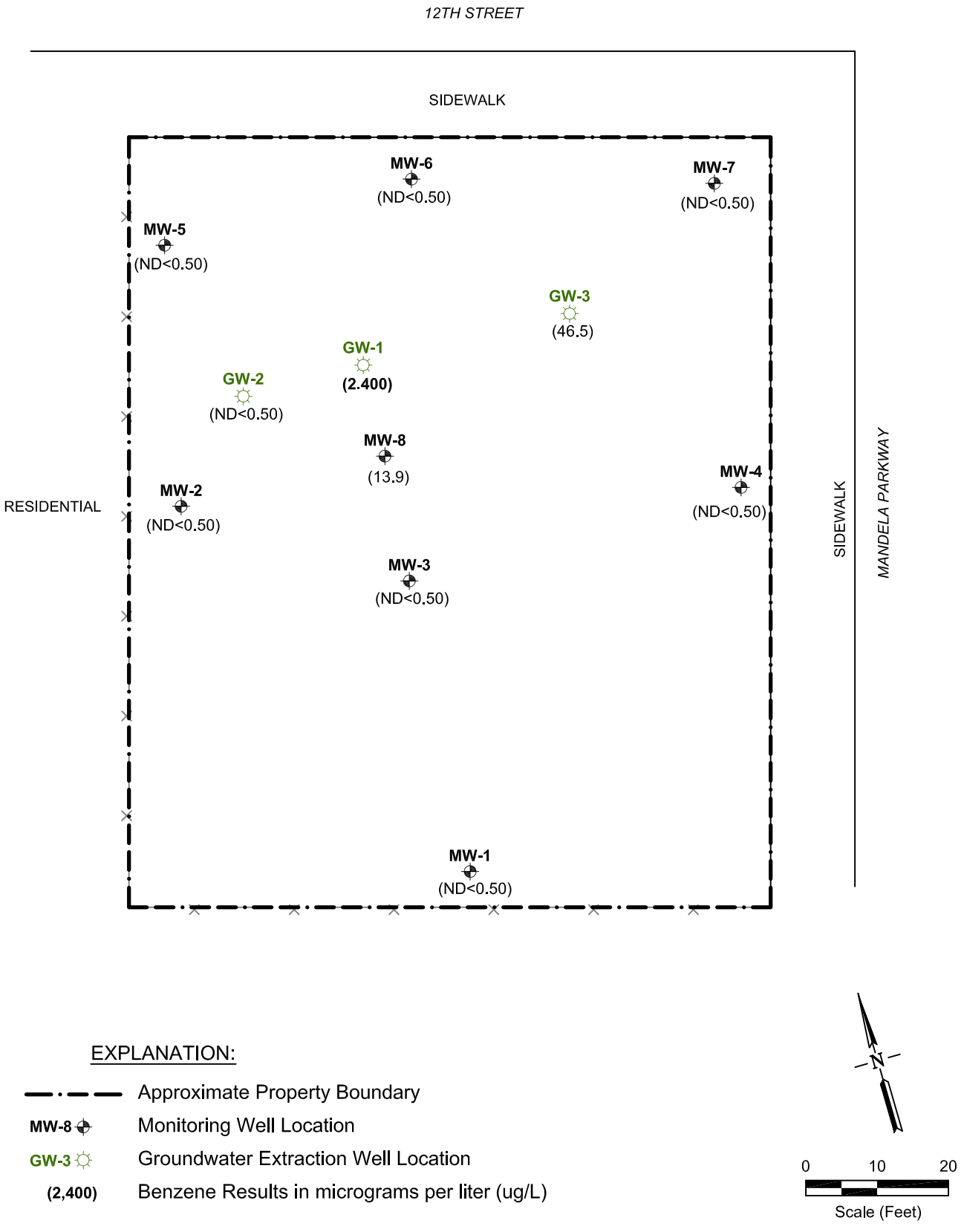

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Figure 6
1409 to 1417 12TH STREET
OAKLAND, CALIFORNIA
BENZENE IN GROUNDWATER

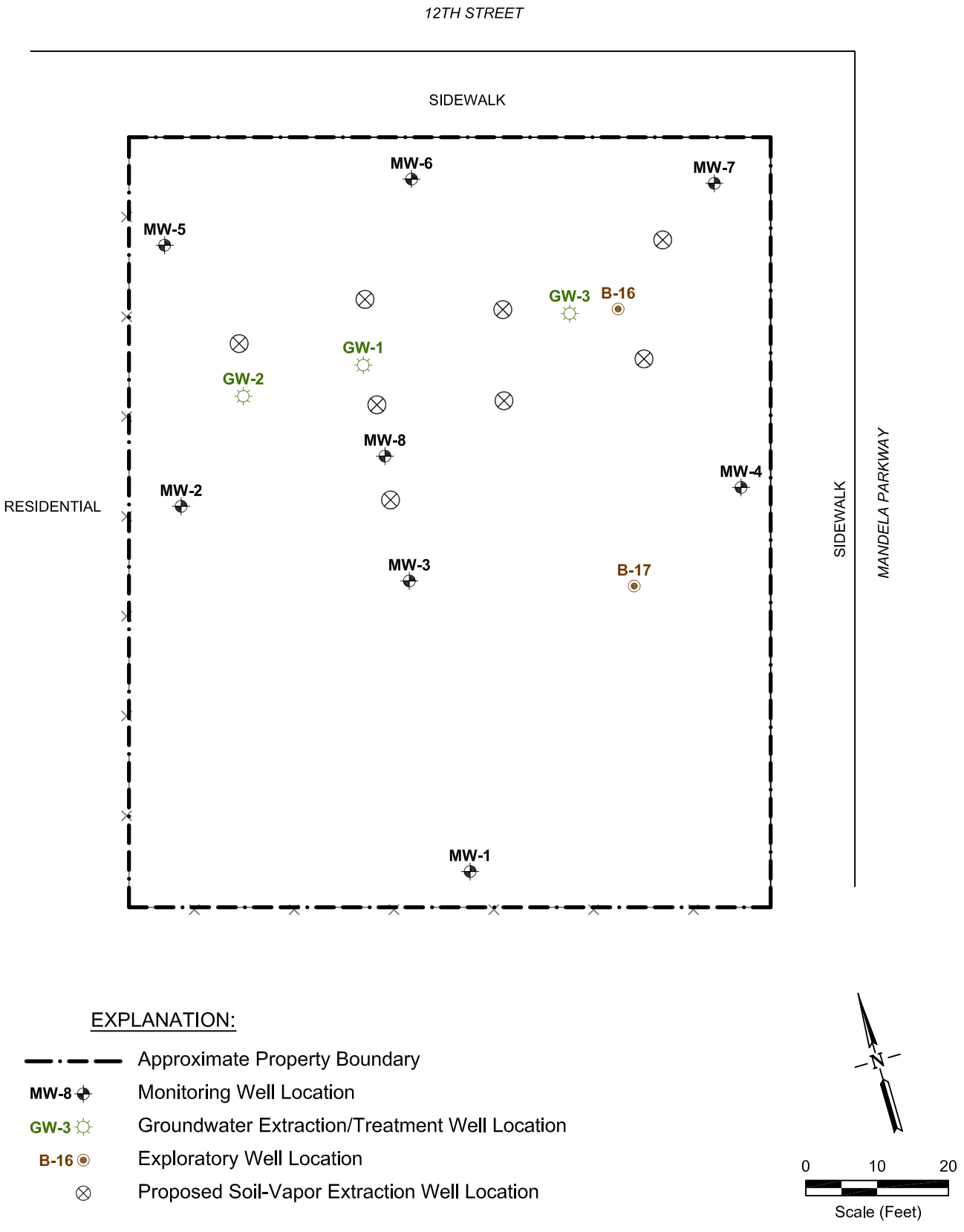

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Figure 7
1409 to 1417 12TH STREET
OAKLAND, CALIFORNIA

PROPOSED SOIL-VAPOR EXTRACTION WELL LOCATIONS

APPENDIX A

Alameda County Public Works Agency Drilling Permit

Alameda County Public Works Agency - Water Resources Well Permit

399 Elmhurst Street
Hayward, CA 94544-1395
Telephone: (510)670-6633 Fax:(510)782-1939

Application Approved on: 03/05/2008 By jamesy

Permit Numbers: W2008-0089 to W2008-0098
Permits Valid from 04/02/2008 to 04/02/2008

Application Id: 1203924117651 **City of Project Site:** Oakland
Site Location: 1409-1417 12TH Street, Oakland/ Well Installation
Project Start Date: 03/06/2008 **Completion Date:** 03/14/2008
Requested Inspection:
Scheduled Inspection: 03/10/2008 at 10:00 AM (Contact your inspector, Vicky Hamlin at (510) 670-5443, to confirm.)
Extension Start Date: 04/02/2008 **Extension End Date:** 04/02/2008
Extension Count: 2 **Extended By:** vickyh1

Applicant: IMPACT ENVIRONMENTAL - JOSEPH COTTON
39120 ARGONAUT WAY, SUITE 223, FREMONT, CA 94538 **Phone:** 510-703-5420

Property Owner: Shirley Thompson
1155 Hopkins Street, Berkeley, CA 94702 **Phone:** 510-527-5702

Client: Joseph Cotton
39120 Argonaut Way, Suite 223, Fremont, CA 94538 **Phone:** 510-703-5420

Contact: JOSEPH COTTON **Phone:** 510-703-5420 **Cell:** 510-703-5420

	Total Due:	$2800.00
Receipt Number: WR2008-0063	**Total Amount Paid:**	$2800.00
Payer Name : Joseph A. Cotton	Paid By: MC	**PAID IN FULL**

Works Requesting Permits:

Well Construction-Monitoring-Monitoring - 8 Wells
Driller: Woodward Drilling - Lic #: 57581639 - Method: auger **Work Total: $2400.00**

Specifications

Permit #	Issued Date	Expire Date	Owner Well Id	Hole Diam.	Casing Diam.	Seal Depth	Max. Depth
W2008-0089	03/05/2008	06/08/2008	MW-1	8.00 in.	2.00 in.	8.00 ft	25.00 ft
W2008-0090	03/05/2008	06/08/2008	MW-2	8.00 in.	2.00 in.	8.00 ft	25.00 ft
W2008-0091	03/05/2008	06/08/2008	MW-3	8.00 in.	2.00 in.	8.00 ft	25.00 ft
W2008-0092	03/05/2008	06/08/2008	MW-4	8.00 in.	2.00 in.	8.00 ft	25.00 ft
W2008-0093	03/05/2008	06/08/2008	MW-5	8.00 in.	2.00 in.	8.00 ft	25.00 ft
W2008-0094	03/05/2008	06/08/2008	MW-6	8.00 in.	2.00 in.	8.00 ft	25.00 ft
W2008-0095	03/05/2008	06/08/2008	MW-7	8.00 in.	2.00 in.	8.00 ft	25.00 ft
W2008-0096	03/05/2008	06/08/2008	MW-8	8.00 in.	2.00 in.	8.00 ft	25.00 ft

Specific Work Permit Conditions

1. Permittee shall assume entire responsibility for all activities and uses under this permit and shall indemnify, defend and save the Alameda County Public Works Agency, its officers, agents, and employees free and harmless from any and all expense, cost, liability in connection with or resulting from the exercise of this Permit including, but not limited to, properly damage, personal injury and wrongful death.

2. Permitte, permittee's contractors, consultants or agents shall be responsible to assure that all material or waters generated during drilling, boring destruction, and/or other activities associated with this Permit will be safely handled, properly managed, and disposed of according to all applicable federal, state, and local statutes regulating such. In no case shall these materials and/or waters be allowed to enter, or potentially enter, on or off-site storm sewers, dry wells, or waterways or be allowed to move off the property where work is being completed.

3. Prior to any drilling activities, it shall be the applicant's responsibility to contact and coordinate an Underground Service Alert (USA), obtain encroachment permit(s), excavation permit(s) or any other permits or agreements required for that Federal, State, County or City, and follow all City or County Ordinances. No work shall begin until all the permits and requirements have been approved or obtained. It shall also be the applicants responsibilities to provide to the Cities or to Alameda County an Traffic Safety Plan for any lane closures or detours planned. No work shall begin until all the permits and requirements have been approved or obtained.

4. Compliance with the well-sealing specifications shall not exempt the well-sealing contractor from complying with appropriate State reporting-requirements related to well construction or destruction (Sections 13750 through 13755 (Division 7, Chapter 10, Article 3) of the California Water Code). Contractor must complete State DWR Form 188 and mail original to the Alameda County Public Works Agency, Water Resources Section, within 60 days. Including permit number and site map.

5. Applicant shall contact Vicky Hamlin for an inspection time at 510-670-5443 or email to vickyh@acpwa.org at least five (5) working days prior to starting, once the permit has been approved. Confirm the scheduled date(s) at least 24 hours prior to drilling.

6. Wells shall have a Christy box or similar structure with a locking cap or cover. Well(s) shall be kept locked at all times. Well(s) that become damaged by traffic or construction shall be repaired in a timely manner or destroyed immediately (through permit process). No well(s) shall be left in a manner to act as a conduit at any time.

7. Minimum surface seal thickness is two inches of cement grout placed by tremie

8. Minimum seal (Neat Cement seal) depth for monitoring wells is 5 feet below ground surface(BGS) or the maximum depth practicable or 20 feet.

9. Copy of approved drilling permit must be on site at all times. Failure to present or show proof of the approved permit application on site shall result in a fine of $500.00.

Borehole(s) for Investigation-Contamination Study - 3 Boreholes
Driller: Woodward Drilling - Lic #: 57581639 - Method: auger **Work Total: $200.00**

Specifications

Permit Number	Issued Dt	Expire Dt	# Boreholes	Hole Diam	Max Depth
W2008-0097	03/05/2008	06/08/2008	3	2.50 in.	30.00 ft

Specific Work Permit Conditions

1. Backfill bore hole by tremie with cement grout or cement grout/sand mixture. Upper two-three feet replaced in kind or with compacted cuttings. All cuttings remaining or unused shall be containerized and hauled off site. The containers shall be clearly labeled to the ownership of the container and labeled hazardous or non-hazardous.

2. Boreholes shall not be left open for a period of more than 24 hours. All boreholes left open more than 24 hours will

need approval from Alameda County Public Works Agency, Water Resources Section. All boreholes shall be backfilled according to permit destruction requirements and all concrete material and asphalt material shall be to Caltrans Spec or County/City Codes. No borehole(s) shall be left in a manner to act as a conduit at any time.

3. Permittee shall assume entire responsibility for all activities and uses under this permit and shall indemnify, defend and save the Alameda County Public Works Agency, its officers, agents, and employees free and harmless from any and all expense, cost, liability in connection with or resulting from the exercise of this Permit including, but not limited to, properly damage, personal injury and wrongful death.

4. Prior to any drilling activities, it shall be the applicant's responsibility to contact and coordinate an Underground Service Alert (USA), obtain encroachment permit(s), excavation permit(s) or any other permits or agreements required for that Federal, State, County or City, and follow all City or County Ordinances. No work shall begin until all the permits and requirements have been approved or obtained. It shall also be the applicants responsibilities to provide to the Cities or to Alameda County an Traffic Safety Plan for any lane closures or detours planned. No work shall begin until all the permits and requirements have been approved or obtained.

5. Applicant shall contact Vicky Hamlin for an inspection time at 510-670-5443 or email to vickyh@acpwa.org at least five (5) working days prior to starting, once the permit has been approved. Confirm the scheduled date(s) at least 24 hours prior to drilling.

6. Copy of approved drilling permit must be on site at all times. Failure to present or show proof of the approved permit application on site shall result in a fine of $500.00.

7. Permit is valid only for the purpose specified herein. No changes in construction procedures, as described on this permit application. Boreholes shall not be converted to monitoring wells, without a permit application process.

Remediation Well Construction-Extraction - 4 Wells
Driller: Woodward - Lic #: 710079 - Method: hstem **Work Total: $200.00**

Specifications

Permit #	Issued Date	Expire Date	Owner Well Id	Hole Diam.	Casing Diam.	Seal Depth	Max. Depth
W2008-0098	03/05/2008	06/08/2008	GW-1	10.00 in.	4.00 in.	8.00 ft	30.00 ft
W2008-0098	03/05/2008	06/08/2008	GW-2	10.00 in.	4.00 in.	8.00 ft	30.00 ft
W2008-0098	03/05/2008	06/08/2008	GW-3	10.00 in.	4.00 in.	8.00 ft	30.00 ft
W2008-0098	03/05/2008	06/08/2008	GW-4	10.00 in.	4.00 in.	8.00 ft	30.00 ft

Specific Work Permit Conditions

1. Permittee shall assume entire responsibility for all activities and uses under this permit and shall indemnify, defend and save the Alameda County Public Works Agency, its officers, agents, and employees free and harmless from any and all expense, cost, liability in connection with or resulting from the exercise of this Permit including, but not limited to, properly damage, personal injury and wrongful death.

2. Permitte, permittee's contractors, consultants or agents shall be responsible to assure that all material or waters generated during drilling, boring destruction, and/or other activities associated with this Permit will be safely handled, properly managed, and disposed of according to all applicable federal, state, and local statutes regulating such. In no

case shall these materials and/or waters be allowed to enter, or potentially enter, on or off-site storm sewers, dry wells, or waterways or be allowed to move off the property where work is being completed.

3. Compliance with the well-sealing specifications shall not exempt the well-sealing contractor from complying with appropriate State reporting-requirements related to well construction or destruction (Sections 13750 through 13755 (Division 7, Chapter 10, Article 3) of the California Water Code). Contractor must complete State DWR Form 188 and mail original to the Alameda County Public Works Agency, Water Resources Section, within 60 days. Including permit number and site map.

4. Applicant shall contact Vicky Hamlin for an inspection time at 510-670-5443 or email to vickyh@acpwa.org at least five (5) working days prior to starting, once the permit has been approved. Confirm the scheduled date(s) at least 24 hours prior to drilling.

5. Minimum seal depth (Neat Cement Seal) is 2 feet below ground surface (BGS).

6. Minimum surface seal thickness is two inches of cement grout placed by tremie

7. Copy of approved drilling permit must be on site at all times. Failure to present or show proof of the approved permit application on site shall result in a fine of $500.00.

8. Prior to any drilling activities onto any public right-of-ways, it shall be the applicants responsibilities to contact and coordinate a Underground Service Alert (USA), obtain encroachment permit(s), excavation permit(s) or any other permits required for that City or to the County and follow all City or County Ordinances. It shall also be the applicants responsibilities to provide to the Cities or to Alameda County a Traffic Safety Plan for any lane closures or detours planned. No work shall begin until all the permits and requirements have been approved or obtained.

APPENDIX B

Boring Logs

PROJECT: IES OAKLAND - 1409 12TH STREET Oakland, California		**Boring Log Explanation**			
BORING LOCATION:		ELEVATION AND DATUM:			
DRILLING CONTRACTOR:		DATE STARTED:		DATE FINISHED:	
DRILLING METHOD:		TOTAL DEPTH (ft.):		MEASURING POINT:	
DRILLING EQUIPMENT:		DEPTH TO WATER	FIRST	COMPL.	24 HRS.
SAMPLING METHOD:		LOGGED BY:			
HAMMER WEIGHT:	DROP:	RESPONSIBLE PROFESSIONAL:			REG. NO.

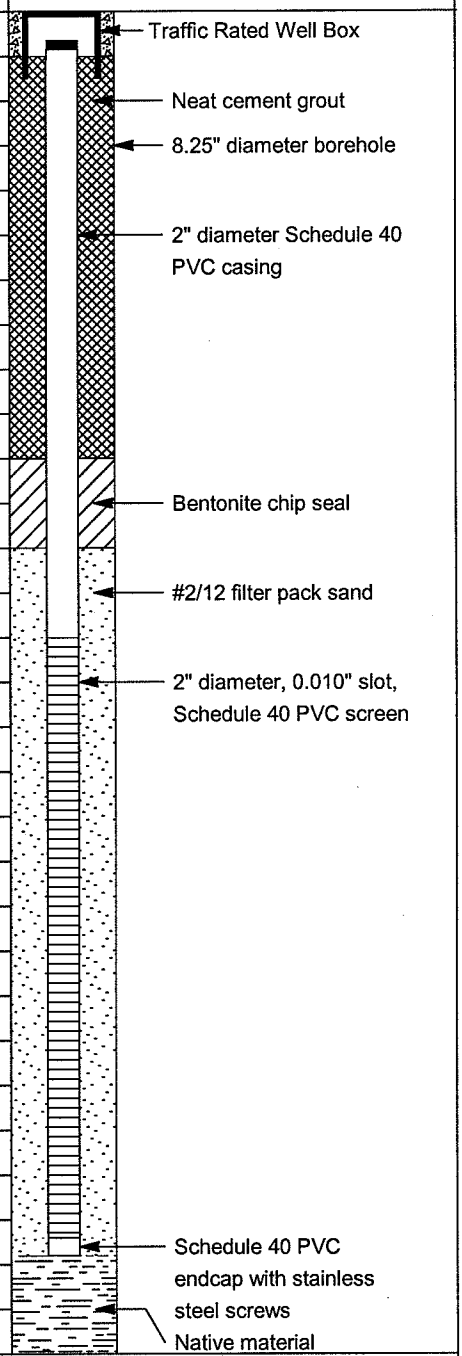
DEPTH (feet)	SAMPLES: Sample No.	SAMPLES: Sample	SAMPLES: Blows/ Foot	OVM READING (ppm)	DESCRIPTION NAME (USCS): color, moist, % by wt., plast. density, structure, cementation, react. w/HCl, geo. inter. Surface Elevation:	REMARKS
1–15	MW-1-12.5				**Notes:** 1. Soil described using visual-manual procedures of American Society of Testing and Materials (ASTM) Standard D 2488 for guidance; a Standard based on the Unified Soil Classification System. 2. Soil color described according to Munsell Color Chart. 3. Dashed lines separating soil strata represent inferred boundaries between sampled intervals that may be abrupt or gradual transitions. 4. Solid lines represent approximate boundaries observed within sample intervals. 5. OVM = organic vapor meter, reading in volumetric parts per million (ppm). 6. Odor, if noted is subjective and not necessarily indicative of specific compounds or concentrations. 7. NA = not applicable. 8. ND = no data. Interval of recovered soil collected with split-spoon drive sampler. Interval of no recovery. Sample collected for chemical analysis and sample identification.	

KEYFORM (REV. 7/99)

PROJECT: IES OAKLAND - 1409 12TH STREET Oakland, California	**Log of Well No. MW-1**
BORING LOCATION: Along S property line, 33' E of SW corner	GROUND SURFACE ELEVATION AND DATUM: Not surveyed; datum is ground surface
DRILLING CONTRACTOR: Woodward Drilling Co	DATE STARTED: 3/10/08 / DATE FINISHED: 3/11/08
DRILLING METHOD: Hollow-stem auger	TOTAL DEPTH (ft.): 17.0 / SCREEN INTERVAL (ft.): 7.0-13.7
DRILLING EQUIPMENT: BK-81	DEPTH TO WATER: FIRST Note 3, COMPL. 9.1 / CASING: 2" Sch. 40 PVC
SAMPLING METHOD: Split-spoon drive sampler [24" x 2"]	LOGGED BY: J. Smith/M. Goerz
HAMMER WEIGHT: 140 lbs / DROP: 30 in.	RESPONSIBLE PROFESSIONAL: R. Schultz / REG. NO. CHG 833

DEPTH (feet)	SAMPLES Sample No.	SAMPLES Sample	SAMPLES Blows/ Foot	OVM Reading	DESCRIPTION NAME (USCS): color, moist, % by wt., plast. density, structure, cementation, react. w/HCl, geo. inter. Surface Elevation: Not surveyed
0					LEAN CLAY (CL): olive brown (2.5Y 4/3), moist, 95% fines, 5% fine to medium sand, nonplastic, soft
3					SILTY SAND (SM): olive brown (2.5Y 4/4), moist, 80% fine sand, 20% low plasticity fines
5	MW-1-5.5				wet
6				3.5	
7			25	5.4	moist
8				0.5	light olive brown (2.5Y 5/6)
9			66	1.4	
10	MW-1-10.5		50 4"		wet, olive brown (2.5Y 5/4)
12				0	
13			55	0	
14	MW-1-15.0			0	olive brown (2.5Y 4/4) mottled with gray (2.5Y 6/1)
15			71	0	

WELL CONSTRUCTION DETAILS AND/OR DRILLING REMARKS



PROJECT: IES OAKLAND - 1409 12TH STREET
Oakland, California

Log of Well No. MW-1 (cont'd)

DEPTH (feet)	SAMPLES: Sample No.	SAMPLES: Sample	SAMPLES: Blows/ Foot	OVM Reading	DESCRIPTION NAME (USCS): color, moist, % by wt., plast. density, structure, cementation, react. w/HCl, geo. inter.	WELL CONSTRUCTION DETAILS AND/OR DRILLING REMARKS
16					SILTY SAND (SM): cont'd	Native material 2" diameter borehole
17	MW-1-17.0		56		Bottom of boring at 17.0 feet	
18						
19						
20						
21						
22						
23						
24						
25						
26						
27						
28						
29						
30						
31						
32						
33						

Notes:

1. OVM = MiniRAE 2000 PID calibrated with 100 ppm isobutylene standard.
2. Hand augered to 5 feet bgs. Lithology described from soil cuttings.
3. Perched water encountered at 5.0 feet bgs.
4. Depth to water was measured on 3/10/08 at 1032 hours at approximately 14 feet bgs.
5. Depth to water was measured on 3/11/08 at 0900 hours at approximately 9.1 feet bgs.

PROJECT: IES OAKLAND - 1409 12TH STREET Oakland, California	**Log of Well No. MW-2**
BORING LOCATION: Along W property line, 42' N of SW corner of property	GROUND SURFACE ELEVATION AND DATUM: Not surveyed; datum is ground surface
DRILLING CONTRACTOR: Woodward Drilling Co	DATE STARTED: 3/11/08 / DATE FINISHED: 3/11/08
DRILLING METHOD: Hollow-stem auger	TOTAL DEPTH (ft.): 14.0 / SCREEN INTERVAL (ft.): 7.6-14.1
DRILLING EQUIPMENT: BK-81	DEPTH TO WATER: FIRST Note 3, COMPL. NA / CASING: 2" Sch. 40 PVC
SAMPLING METHOD: Split-spoon drive sampler [24" x 2"]	LOGGED BY: M. Webb/M. Goerz
HAMMER WEIGHT: 140 lbs / DROP: 30 in.	RESPONSIBLE PROFESSIONAL: R. Schultz / REG. NO. CHG 833

DEPTH (feet)	SAMPLES: Sample No.	SAMPLES: Sample	SAMPLES: Blows/ Foot	OVM Reading	DESCRIPTION NAME (USCS): color, moist, % by wt., plast. density, structure, cementation, react. w/HCl, geo. inter. Surface Elevation: Not surveyed
0					ASPHALTIC CONCRETE: (2 inches thick)
1					SILTY GRAVEL with SAND (GM): yellowish brown (10YR 5/6), moist, 60% fine to coarse gravel, 25% fine to coarse sand, 15% low plasticity fines
2					
3					SILTY SAND (SM): very dark brown (10YR 2/2), moist, 80% fine sand, 20% low plasticity fines
4					brown (10YR 4/3), wet
5				0	
6				0	CLAYEY SAND (SC): brown (10YR 2/2) mottled with strong brown (7.5YR 4/6), moist, 70% fine sand, 30% low plasticity fines
7	MW-2-7.0		40		
8					
9					
10	MW-2-10.5				SILTY SAND (SM): olive brown (2.5Y 4/3), wet, 85% fine sand, 15% low plasticity fines
11				0	
12			54	0	dark yellowish brown (10YR 4/6) mottled with olive brown (2.5Y 4/4)
13	MW-2-13.8			0	
14			61		
15					Bottom of boring at 14.5 feet

WELL CONSTRUCTION DETAILS AND/OR DRILLING REMARKS

- Traffic Rated Well Box
- Neat cement grout
- 8.25" diameter borehole
- 2" diameter Schedule 40 PVC casing
- Bentonite chip seal
- #2/12 filter pack sand
- 2" diameter, 0.010" slot, Schedule 40 PVC screen
- Schedule 40 PVC endcap with stainless steel screws

Notes:

1. OVM = MiniRAE 2000 PID calibrated with 100 ppm isobutylene standard.
2. Hand augered to 5 feet bgs. Lithology described from soil cuttings.
3. Perched water encountered at 4.0 feet bgs.

PROJECT: IES OAKLAND - 1409 12TH STREET Oakland, California	**Log of Well No. MW-3**
BORING LOCATION: 47' S, 30' E of NW corner of property	GROUND SURFACE ELEVATION AND DATUM: Not surveyed; datum is ground surface
DRILLING CONTRACTOR: Woodward Drilling Co	DATE STARTED: 3/12/08 / DATE FINISHED: 3/12/08
DRILLING METHOD: Hollow-stem auger	TOTAL DEPTH (ft.): 14.4 / SCREEN INTERVAL (ft.): 7.5-14.2
DRILLING EQUIPMENT: BK-81	DEPTH TO WATER: FIRST Note 3, COMPL. NA / CASING: 2" Sch. 40 PVC
SAMPLING METHOD: Split-spoon drive sampler [24" x 2"]	LOGGED BY: M. Gilmore
HAMMER WEIGHT: 140 lbs / DROP: 30 in.	RESPONSIBLE PROFESSIONAL: R. Schultz / REG. NO. CHG 833

DEPTH (feet)	SAMPLES Sample No.	Sample	Blows/ Foot	OVM Reading	DESCRIPTION NAME (USCS): color, moist, % by wt., plast. density, structure, cementation, react. w/HCl, geo. inter. Surface Elevation: Not surveyed
0					ORGANIC MATTER: (2 inches thick)
					ASPHALTIC CONCRETE: (2 inches thick)
1				0	POORLY GRADED GRAVEL with SAND (GP): brown (10YR 4/4), moist, 85% coarse gravel, 10% fine to coarse sand, 5% fines [FILL]
2				0	
				0	CLAYEY SAND (SC): brown (10YR 4/3), moist, 70% fine to medium sand, 30% low plasticity fines
3				0	SILTY SAND (SM): dark grayish brown (10YR 4/2), moist, 80% fine to medium sand, 20% nonplastic fines
4					brown (10YR 4/3)
				0	
5				0	wet
6				0	
				0	CLAYEY SAND (SC): dark yellowish brown (10YR 4/4), moist, 80% fine to medium sand, 20% low plasticity fines
7	MW-3-7.0		36	0	
				0	SILTY SAND (SM): brown (10YR 4/3), moist, 80% fine to medium sand, 20% nonplastic fines
8			50/5"	0	
9	MW-3-9.5				wet
10				0	
				0	
11			67	0	
				0	
12			50/5"	0	
13				0	brown (10YR 4/3) mottled with gray (10YR 5/1)
	MW-3-14			0	
14				0	
				0	
15			29	0	Bottom of boring at 15.0 feet

WELL CONSTRUCTION DETAILS AND/OR DRILLING REMARKS

- Traffic Rated Well Box
- Neat cement grout
- 8.25" diameter borehole
- 2" diameter Schedule 40 PVC casing
- Bentonite chip seal
- #2/12 filter pack sand
- 2" diameter, 0.010" slot, Schedule 40 PVC screen
- Schedule 40 PVC endcap with stainless steel screws
- Native material

Notes:

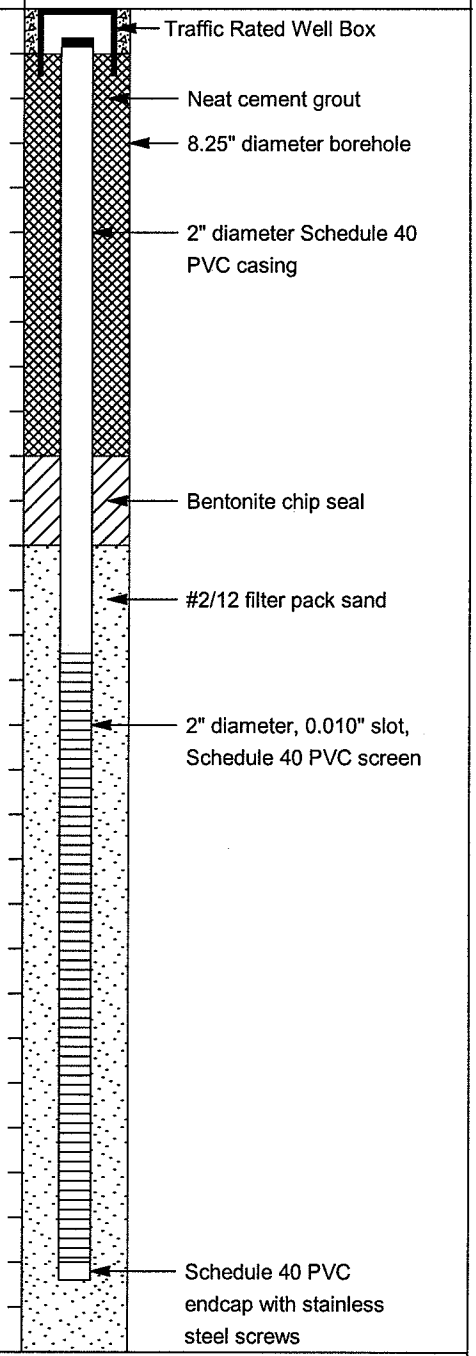
1. OVM = MiniRAE 2000 PID calibrated with 100 ppm isobutylene standard.
2. Hand augered to 5 feet bgs. Lithology described from soil cuttings.
3. Perched water encountered at 5.0 feet bgs.

I:\PROJECT\...\14194.002\10000 BORING LOGS\DRAWINGS\MW-3_PP WELL.GDW OAKWELLV_PREPACK (REV. 9/2007)

PROJECT: IES OAKLAND - 1409 12TH STREET Oakland, California	**Log of Well No. MW-4**
BORING LOCATION: Along E property line, 36' S of NE corner of property	GROUND SURFACE ELEVATION AND DATUM: Not surveyed; datum is ground surface
DRILLING CONTRACTOR: Woodward Drilling Co	DATE STARTED: 3/11/08 / DATE FINISHED: 3/11/08
DRILLING METHOD: Hollow-stem auger	TOTAL DEPTH (ft.): 17.0 / SCREEN INTERVAL (ft.): 7.2-14.0
DRILLING EQUIPMENT: BK-81	DEPTH TO WATER: FIRST 9.0 / COMPL. NA / CASING: 2" Sch. 40 PVC
SAMPLING METHOD: Split-spoon drive sampler [24" x 2"]	LOGGED BY: M. Webb/M. Goerz
HAMMER WEIGHT: 140 lbs / DROP: 30 in.	RESPONSIBLE PROFESSIONAL: R. Schultz / REG. NO. CHG 833

DEPTH (feet)	SAMPLES Sample No.	SAMPLES Sample	SAMPLES Blows/ Foot	OVM Reading	DESCRIPTION NAME (USCS): color, moist, % by wt., plast. density, structure, cementation, react. w/HCl, geo. inter. Surface Elevation: Not surveyed
0					CLAYEY GRAVEL with SAND (GC): dark yellowish brown (10YR 3/4), moist, 60% fine to coarse gravel, 25% fine to coarse sand, 15% low plasticity fines
1					
2					
3					
4					
5					SILTY SAND (SM): dark brown (10YR 3/3), moist, 80% fine sand, 20% low plasticity fines
6				0	
7			6	0	
8					
9	MW-4-9.5				wet
10				0	
11			48	0	dark yellowish brown (10YR 4/4) mottled with dark grayish brown (2.5Y 4/2)
12	MW-4-12.0			0	dark yellowish brown (10YR 4/4)
13			47	0	dark yellowish brown (10YR 4/6) mottled with dark grayish brown (2.5Y 4/2)
14				0	
15			72	0	

WELL CONSTRUCTION DETAILS AND/OR DRILLING REMARKS



PROJECT: IES OAKLAND - 1409 12TH STREET
Oakland, California

Log of Well No. MW-4 (cont'd)

DEPTH (feet)	SAMPLES: Sample No.	SAMPLES: Sample	SAMPLES: Blows/ Foot	OVM Reading	DESCRIPTION NAME (USCS): color, moist, % by wt., plast. density, structure, cementation, react. w/HCl, geo. inter.	WELL CONSTRUCTION DETAILS AND/OR DRILLING REMARKS
16				0	SILTY SAND (SM): cont'd	
				0	CLAYEY SAND (SC): dark yellowish brown (10YR 4/6) mottled with dark grayish brown (2.5Y 4/2), 70% fine sand, 30% low plasticity fines	
17	MW-4-17.0		19	0	Bottom of boring at 17.0 feet	
18						
19						
20						
21						
22						
23						
24						
25						
26						
27						
28						
29						
30						
31						
32						
33						

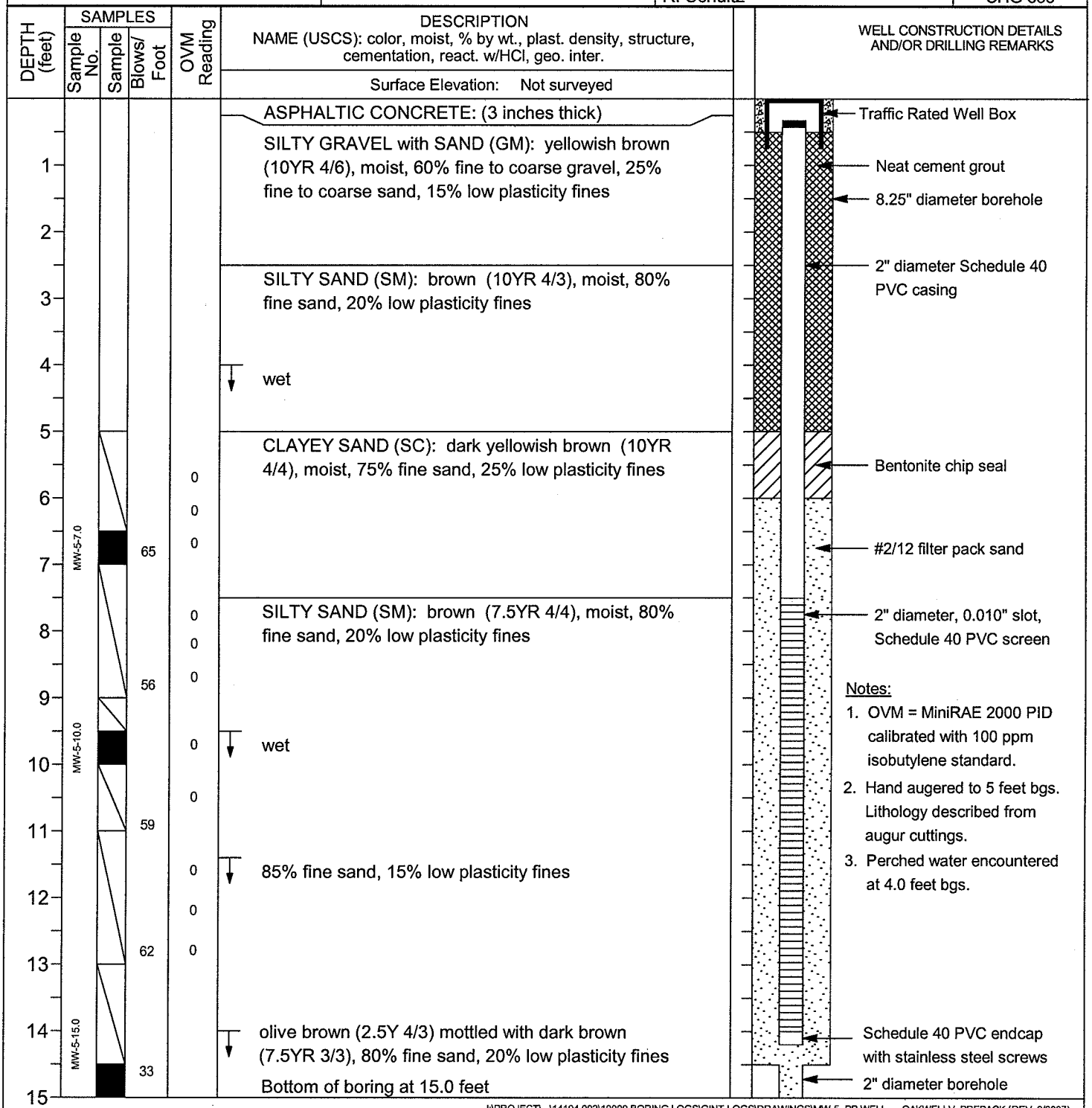
#2/12 filter pack sand

2" diameter borehole

Notes:

1. OVM = MiniRAE 2000 PID calibrated with 100 ppm isobutylene standard.
2. Hand augered to 5 feet bgs. Lithology described from soil cuttings.

PROJECT: IES OAKLAND - 1409 12TH STREET Oakland, California	**Log of Well No. MW-5**
BORING LOCATION: Along W property line, 20' S of NE corner of property	GROUND SURFACE ELEVATION AND DATUM: Not surveyed; datum is ground surface
DRILLING CONTRACTOR: Woodward Drilling Co	DATE STARTED: 3/11/08 / DATE FINISHED: 3/11/08
DRILLING METHOD: Hollow-stem auger	TOTAL DEPTH (ft.): 15.0 / SCREEN INTERVAL (ft.): 7.5-14.0
DRILLING EQUIPMENT: BK-81	DEPTH TO WATER: FIRST Note 3 / COMPL. NA / CASING: 2" Sch. 40 PVC
SAMPLING METHOD: Split-spoon drive sampler [24" x 2"]	LOGGED BY: M. Webb/M. Goerz
HAMMER WEIGHT: 140 lbs / DROP: 30 in.	RESPONSIBLE PROFESSIONAL: R. Schultz / REG. NO. CHG 833



Notes:

1. OVM = MiniRAE 2000 PID calibrated with 100 ppm isobutylene standard.
2. Hand augered to 5 feet bgs. Lithology described from augur cuttings.
3. Perched water encountered at 4.0 feet bgs.

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IMPACT Environmental

BORING LOG

Boring No. ____
Well No. **MW-6**
Sheet 1 of 1

Site: **1409- 1417 12th ST. , OAKLAND, CA**
Client: **MRS. SHIRLEY E. THOMPSON**
Project Number:
Date(s) Drilled: **04/02/08**
Date(s) Installed: **04/03/08**
Drilling Co./Driller: **WOODWARD DRILLING**

Ground Elevation:
T.O.C. Elevation:
Coordinates:
Drilling Method: **Hollow-Stem Auger**
Borehole Total Depth: **15'**
Final Borehole Diameter: **8"**

Drilling Summary: Advance boring to target depth using 8-inch hollow-stem augers. Install 2-inch diameter groundwater monitoring well with Schedule 40 PVC casing and 0.010-inch slot screen (14- 6-feet, bgs), #2/12 filter sand from TD to 5 feet, bgs, bentonite pellets (coated) to 4 feet bgs, cement-bentonite grout to surface. Christy box at wellhead contained in concrete collar.

Well Construction Details	Sample No.	Sample Interval	PID Reading (ppm)	Recovery	Blow Counts	Odor	Depth (ft)		LITHOLOGY/REMARKS
2-inch Schedule 40 Blank PVC		HAND AUGER					1	CL	**0- 3' (CL) SANDY CLAY:** Dark yellowish-brown, moist; medium stiff, 75- 85% fines, 15-25% fine to medium sand.
							2		
							3		**3- 15' (SM) SILTY SAND :** Olive brown; mosit to wet; medium dense; 75% fine sand; 25% non-plasctic fines.
							4	SM	
						No	5		
	MW-6:5'				3				
					6		6		
					9				
					17		7		
2-inch Schedule 40 Slotted (0.02D) PVC					7	No			
					16		8		
					22				
					28		9		
					12				▽ Groundwater first encountered at ~9.5' bgs
SAND					17	No	10		
	MW-6:10'				17				
					22				
					9		11		
					12				
					17		12		
					19				
					15	No	13		
					17		14		
					18				
	MW-6:15'				19		15		**Total Depth= 15 feet bgs**

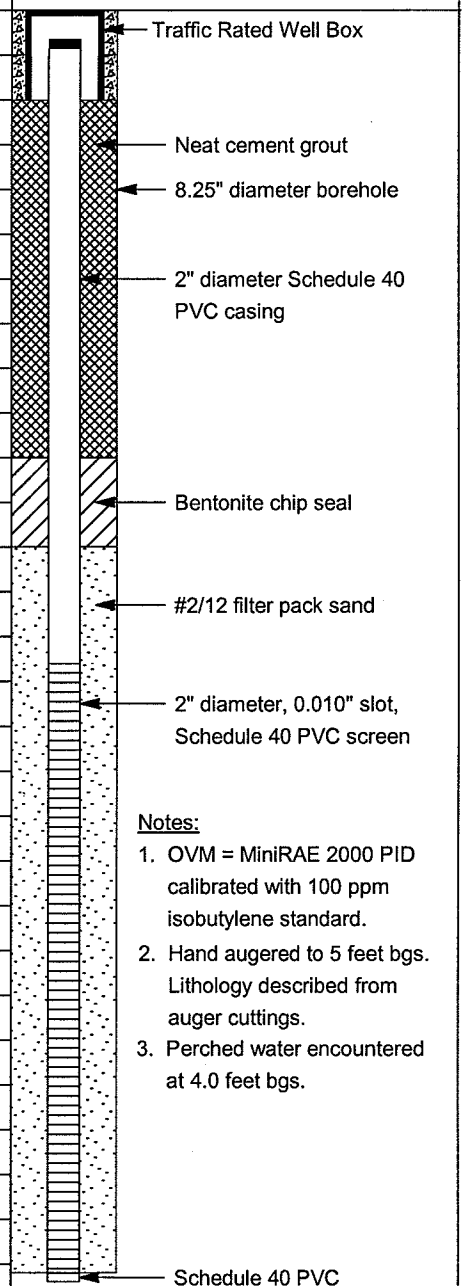
Date checked: October 1, 2008

Logged by: Joseph Cotton

PROJECT: IES OAKLAND - 1409 12TH STREET Oakland, California	**Log of Well No. MW-7**
BORING LOCATION: 6' S, 6' E of the NE corner of the property	GROUND SURFACE ELEVATION AND DATUM: Not surveyed; datum is ground surface
DRILLING CONTRACTOR: Woodward Drilling Co	DATE STARTED: 3/12/08 / DATE FINISHED: 3/12/08
DRILLING METHOD: Hollow-stem auger	TOTAL DEPTH (ft.): 14.0 / SCREEN INTERVAL (ft.): 7.3-14.1
DRILLING EQUIPMENT: BK-81	DEPTH TO WATER: FIRST Note 3 / COMPL. NA / CASING: 2" Sch. 40 PVC
SAMPLING METHOD: Split-spoon drive sampler [24" x 2"]	LOGGED BY: M. Gilmore
HAMMER WEIGHT: 140 lbs / DROP: 30 in.	RESPONSIBLE PROFESSIONAL: R. Schultz / REG. NO. CHG 833

DEPTH (feet)	SAMPLES Sample No.	SAMPLES Sample	SAMPLES Blows/ Foot	OVM Reading	DESCRIPTION NAME (USCS): color, moist, % by wt., plast. density, structure, cementation, react. w/HCl, geo. inter. Surface Elevation: Not surveyed
0					CONCRETE: (3.5 feet thick)
3					SILTY SAND (SM): brown (10YR 4/3), moist, 80% fine to medium sand, 20% nonplastic fines
4				0	wet
5				0	CLAYEY SAND (SC): dark yellowish brown (10YR 4/3), moist, 60% fine sand, 40% low plasticity fines
6	MW-3-6.0		32	0	80% fine to medium sand, 20% low plasticity fines
7			50 5"	0	
8				0	SILTY SAND (SM): dark greenish gray (10Y 4/1), moist, 80% fine to medium sand, 20% nonplastic fines
9	MW-3-9		61	0	brown (10YR 4/3), wet
10				0	
11			53	0	
12				0	
13			62	0	
14	MW-7-14		10 14	0	
15					Bottom of boring at 14.0 feet

WELL CONSTRUCTION DETAILS AND/OR DRILLING REMARKS



Notes:

1. OVM = MiniRAE 2000 PID calibrated with 100 ppm isobutylene standard.
2. Hand augered to 5 feet bgs. Lithology described from auger cuttings.
3. Perched water encountered at 4.0 feet bgs.

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PROJECT: IES OAKLAND - 1409 12TH STREET Oakland, California	**Log of Boring No. MW-8**
BORING LOCATION: 30'E, 30' S of NW corner of property	ELEVATION AND DATUM: Not surveyed; datum is ground surface
DRILLING CONTRACTOR: Woodward Drilling Co	DATE STARTED: 3/10/08 / DATE FINISHED: 3/10/08
DRILLING METHOD: Hollow-stem auger	TOTAL DEPTH (ft.): 26.0 / MEASURING POINT: Ground surface
DRILLING EQUIPMENT: BK-81	DEPTH TO WATER (ft.) FIRST: See remarks / COMPL.: NA
SAMPLING METHOD: Split-spoon drive sampler [24" x 2"]	LOGGED BY: J. Smith
HAMMER WEIGHT: 140 lbs / DROP: 30 in.	RESPONSIBLE PROFESSIONAL: R. Schultz / REG. NO. CHG 833

DEPTH (feet)	SAMPLES: Sample No.	SAMPLES: Sample	SAMPLES: Blows/Foot	OVM READING (ppm)	DESCRIPTION NAME (USCS): color, moist, % by wt., plast. density, structure, cementation, react. w/HCl, geo. inter. Surface Elevation: Not surveyed	REMARKS
0					ASPHALTIC CONCRETE : (2 feet thick)	
1					POORLY GRADED GRAVEL with SAND (GP): brown (10YR 4/3), moist, 55% fine to coarse gravel, 40% fine to coarse sand, 5% fines [FILL]	OVM = MiniRAE 2000 PID calibrated with 100 ppm isobutylene standard.
2					SILTY SAND (SM): very dark grayish brown (10YR 3/2), moist,80% fine sand, 20% low plasticity fines	
3						Hand augered to 5 feet bgs. Lithology described from soil cuttings.
4						
5				4.3	olive brown (2.5Y 4/3), wet	
6	MW-8-6.5			252	dark greenish gray (10Y 4/1), hydrocarbon odor	Perched water encountered at 4.5 feet bgs.
7			30	479		
8						
9						
10				91.5		
11	MW-8-11.0		50 5"	108		
12						
13						
14						
15						

OAKBOREV (REV. 8/2007)

PROJECT: IES OAKLAND - 1409 12TH STREET
Oakland, California

Log of Boring No. MW-8 (cont'd)

DEPTH (feet)	SAMPLES: Sample No.	SAMPLES: Sample	SAMPLES: Blows/Foot	OVM READING (ppm)	DESCRIPTION NAME (USCS): color, moist, % by wt., plast. density, structure, cementation, react. w/HCl, geo. inter.	REMARKS
				8.6	light olive brown (2.5Y 5/4), no odor	
	MW-8-16.0			0.5		
16				0.4	SILTY SAND (SM): cont'd	
			14			
17				0.3		
18						
19						
20	MW-8-20.5			0.3		
				1.1		
21				0.7		
			20	0.3		
22				0.9		
				0.5		
23				0.5		
			50			
24						
	MW-8-25.0		50/4"			
25						
26					Bottom of boring at 26.0 feet	
27						
28						
29						
30						
31						
32						
33						

IMPACT Environmental

BORING LOG

Boring No. ____
Well No. **MW-8**
Sheet 1 of 2

Site: **1409- 1417 12th ST. , OAKLAND, CA**
Client: **MRS. SHIRLEY E. THOMPSON**
Project Number:
Date(s) Drilled: **03/10/08**
Date(s) Installed: **03/13/08**
Drilling Co./Driller: **WOODWARD DRILLING**

Ground Elevation:
T.O.C. Elevation:
Coordinates:
Drilling Method: **Hollow-Stem Auger**
Borehole Total Depth: **27'**
Final Borehole Diameter: **14" from 0-20 ' bgs: 8' from 20-27' bgs**

Drilling Summary: Conductor casing installed from surface to 20 feet bgs. Well boring advanced through conductor casing to 27 feet bgs using 8-inch hollow-stem augers. Install 2-inch diameter groundwater monitoring well with Schedule 40 PVC casing and 0.010-inch slot screen (27- 20-feet, bgs), #2/12 filter sand from TD to 19 feet, bgs, bentonite pellets (coated) to 4feet bgs, cement-bentonite grout to surface. Christy box at wellhead contained in concrete collar.

Well Construction Details	Sample No.	Sample Interval	PID Reading (ppm)	Recovery	Blow Counts	Odor	Depth (ft)		LITHOLOGY/REMARKS
CEMENT **2-inch Schedule 40 Blank PVC**	**REFER TO GEOMATRIX BORING LOG FOR THIS INFORMATION_10" DIAMETER 0.25-INCH STEEL CONDUCTOR CASING SET FROM SURFACE TO 20 FEET BGS**						1	GP	**0- 2' (GP) POORLY GRADED GRAVEL W/ SAND (FILL):**
							2	SM	**3- 27' (SM) SILTY SAND_Continued :** Dark grayish brown to light olive brown; moist to wet; 80% fine sand; 20% non-plasctic fines.
							3		
							4		▽ Perched groundwater at ~4.5' bgs
							5		
							6		
							7		
							8		
							9		
							10		
							11		
							12		
							13		
							14		
							15		Continued on Next Page

Date checked: October 1, 2008

Logged by: Joseph Cotton

IMPACT Environmental	**BORING LOG**	Boring No. _____ Well No. **MW-8** Sheet 1 of 2

Site: **1409- 1417 12th ST. , OAKLAND, CA**
Client: **MRS. SHIRLEY E. THOMPSON**
Project Number:
Date(s) Drilled: **03/10/08**
Date(s) Installed: **03/13/08**
Drilling Co./Driller: **WOODWARD DRILLING**

Ground Elevation:
T.O.C. Elevation:
Coordinates:
Drilling Method: **Hollow-Stem Auger**
Borehole Total Depth: **27'**
Final Borehole Diameter: **14" from 0-20 ' bgs: 8' from 20-27' bgs**

Drilling Summary: Conductor casing installed from surface to 20 feet bgs. Well boring advanced through conductor casing to 27 feet bgs using 8-inch hollow-stem augers. Install 2-inch diameter groundwater monitoring well with Schedule 40 PVC casing and 0.010-inch slot screen (27- 20-feet, bgs), #2/12 filter sand from TD to 19 feet, bgs, bentonite pellets (coated) to 4feet bgs, cement-bentonite grout to surface. Christy box at wellhead contained in concrete collar.

Well Construction Details	Sample No.	Sample Interval	PID Reading (ppm)	Recovery	Blow Counts	Odor	Depth (ft)		LITHOLOGY/REMARKS
CEMENT/BENTONITE SAND 2-inch Schedule 40 Blank PVC 2-inch Schedule 40 Slotted (0.020) PVC	**REFER TO GEOMATRIX BORING LOG FROM 0- 26' BGS FOR THIS INFORMATION 10" DIAMETER 0.25-INCH STEEL CONDUCTOR CASING SET FROM SURFACE TO 20 FEET BGS**						16 17 18 19 20 21 22 23 24 25 26	SM	**3- 27' (SM) SILTY SAND_Continued :** Dark grayish brown to light olive brown; moist to wet; 80% fine sand; 20% non-plasctic fines. ▽ Groundwater encountered at 22' bgs
	MW-8:27'			X			27		

Total Depth= 27 feet bgs

Date checked: October 1, 2008

Logged by: Joseph Cotton

IMPACT Environmental

BORING LOG

Boring No. ____
Well No. **GW-1**
Sheet 1 of 1

Site: **1409- 1417 12th ST. , OAKLAND, CA**
Client: **MRS. SHIRLEY E. THOMPSON**
Project Number:
Date(s) Drilled: **04/03/08**
Date(s) Installed: **04/03/08**
Drilling Co./Driller: **WOODWARD DRILLING**

Ground Elevation:
T.O.C. Elevation:
Coordinates:
Drilling Method: **Hollow-Stem Auger**
Borehole Total Depth: **17'**
Final Borehole Diameter: **10"**

Drilling Summary: Staright drill boring to target depth using 10-inch hollow-stem augers. Install 4-inch diameter groundwater monitoring well with Schedule 40 PVC casing and 0.010-inch slot screen (14- 6-feet, bgs), #2/12 filter sand from TD to 5 feet, bgs, bentonite pellets (coated) to 4 feet bgs, cement-bentonite grout to surface. Christy box at wellhead contained in concrete collar. 4-inch blank Schedule 40 PVC sump set from 14-17 feet bgs

Well Construction Details	Sample No.	Sample Interval	PID Reading (ppm)	Recovery	Blow Counts	Odor	Depth (ft)		LITHOLOGY/REMARKS
4-inch Schedule 40 Blank PVC		STRAIGHT DRILL TO 17 FEET BGS_SOIL LITHOLOGY TAKEN FROM BORING B-9 & LOGGED DRILL CUTTINGS FOR OF LITHOLOGY					1	CL	**0- 3' (CL) SANDY CLAY:** Dark yellowish-brown, moist; medium stiff, 75- 85% fines, 15-25% fine to medium sand.
							2		
							3		**3- 17' (SM) SILTY SAND:** Olive brown; mosit to wet; medium dense; 80% fine sand; 20% low plasticity fines.
			0				4	SM	
						Yes	5		~6- 15' Hydrocarbon odor. Olive-green to gray petroleum stained soil from ~7 to 14 feet bgs.
			78				6		
4-inch Schedule 40 Slotted (0.020) PVC						Yes	7		
			267				8		
						Yes	9		
SAND			421				10		▽ Groundwater first encountered at ~10.5' bgs
						Yes	11		
			214				12		
						Yes	13		
SUMP							14		
			32				15		
							16		
							17		

Total Depth= 17 feet bgs

Date checked: October 1, 2008

Logged by: Joseph Cotton

IMPACT Environmental

BORING LOG

Boring No. ____
Well No. **GW-2**
Sheet 1 of ___1__

Site: **1409- 1417 12th ST. , OAKLAND, CA**
Client: **MRS. SHIRLEY E. THOMPSON**
Project Number:
Date(s) Drilled: **04/03/08**
Date(s) Installed: **04/03/08**
Drilling Co./Driller: **WOODWARD DRILLING**

Ground Elevation:
T.O.C. Elevation:
Coordinates:
Drilling Method: **Hollow-Stem Auger**
Borehole Total Depth: **18'**
Final Borehole Diameter: **10"**

Drilling Summary: Advance boring to target depth using 10-inch hollow-stem augers. Install 4-inch diameter groundwater monitoring well with Schedule 40 PVC casing and 0.010-inch slot screen (14- 6-feet, bgs), #2/12 filter sand from TD to 5 feet, bgs, bentonite pellets (coated) to 4 feet bgs, cement-bentonite grout to surface. Christy box at wellhead contained in concrete collar. 4-inch blank Schedule 40 PVC sump set from 14-17 feet bgs

Well Construction Details	Sample No.	Sample Interval	PID Reading (ppm)	Recovery	Blow Counts	Odor	Depth (ft)		LITHOLOGY/REMARKS
4-inch Schedule 40 Blank PVC		HAND AUGER					1	CL	**0- 3' (CL) SANDY CLAY:** Dark yellowish-brown, moist; medium stiff, 75- 85% fines, 15-25% fine to medium sand.
							2		
							3	SM	**3- 10.5' (SM) SILTY SAND w/ CLAY :** Olive brown; mosit to wet; medium dense; 70% fine sand; 30% low fines.
							4		
						No	5		
	GW-2:5'				4				
			0		4		6		
					12				
					20		7		
					4	No			
					12		8		
					17				
			0		19		9		
					7				
					20	No	10		Groundwater first encountered at ~10' bgs
SAND	GW-2:10'				22				
			13		24		11	SP	**10.5-15.5 (SP) SAND :** Dark yellowish-brown, wet; stiff; fine to medium sand. Trace fines.
					14				
					22		12		
					24				
							13		
			0		8	No			
					13		14		
					16				
					17		15		
4-inch Schedule 40 Slotted (0.020) PVC	GW-2:15'				12				
					15		16		
			0		7	No		CL	**15.5- 18' SANDY CLAY:** Dark yellowish-brown, moist to very moist; stiff; 60% plastic fines; 40% fine to medium grain sand.
					12				
					15		17		
	GW-2:18'				20		18		

Total Depth= 18 feet bgs

SUMP

Date checked: October 1, 2008

Logged by: Joseph Cotton

IMPACT Environmental

BORING LOG

Boring No. ____
Well No. **GW-3**
Sheet 1 of ___1__

Site: **1409- 1417 12th ST. , OAKLAND, CA**
Client: **MRS. SHIRLEY E. THOMPSON**
Project Number:
Date(s) Drilled: **03/13/08**
Date(s) Installed: **03/13/08**
Drilling Co./Driller: **WOODWARD DRILLING**

Ground Elevation:
T.O.C. Elevation:
Coordinates:
Drilling Method: **Hollow-Stem Auger**
Borehole Total Depth: **17'**
Final Borehole Diameter: **10"**

Drilling Summary: Advance boring with to target depth using 10-inch hollow-stem augers. Install 4-inch diameter groundwater monitoring well with Schedule 40 PVC casing and 0.010-inch slot screen (14- 6-feet, bgs), #2/12 filter sand from TD to 5 feet, bgs, bentonite pellets (coated) to 4 feet bgs, cement-bentonite grout to surface. Christy box at wellhead contained in concrete collar. 4-inch blank Schedule 40 PVC sump set from 14-17 feet bgs

Well Construction Details	Sample No.	Sample Interval	PID Reading (ppm)	Recovery	Blow Counts	Odor	Depth (ft)		LITHOLOGY/REMARKS
CEMENT BENTONITE 4-inch Schedule 40 Blank PVC SAND 4-inch Schedule 40 Slotted (0.020) PVC SAND SUMP		STRAIGHT DRILL TO 17 FEET BGS_SOIL LITHOLOGY TAKEN FROM BORING B-16 & LOGGED DRILL CUTTINGS FOR OF LITHOLOGY	14 359 420 95 17			No Yes Yes	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17	CL SM	**0- 3' (CL) SANDY CLAY:** Dark yellowish-brown, moist; medium stiff, 75- 85% fines, 15-25% fine to medium sand. **3- 17' (SM) SILTY SAND:** Olive brown; mosit to wet; medium dense; 75% fine sand; 25% low plasticity fines. ~8- 15' Hydrocarbon odor Color change to olive-green to greenish gray. . Groundwater first encountered at ~10' bgs

Total Depth= 17 feet bgs

Date checked: October 1, 2008

Logged by: Joseph Cotton

IMPACT Environmental

BORING LOG

Boring No. **B - 16**
Well No. N/A
Sheet 1 of 2

Site: **1409- 1417 12th ST. , OAKLAND, CA**
Client: **MRS. SHIRLEY E. THOMPSON**
Project Number:
Date(s) Drilled: **3/6/2008**
Date(s) Installed: **3/6/2008**
Drilling Co./Driller **WOODWARD DRILLING**

Ground Elevation:
T.O.C. Elevation:
Coordinates:
Drilling Method: **Direct Push-EnviroCore**
Borehole Total Depth: **24**
Final Borehole Diameter: **8"**

Drilling Summary: Direct-push 4-long core barrel to target depth . Collect cores in butyrate liners for logging. Cut 6" length cores selected for laboratory analysis and use teflon liners and end caps to seal sample. Place sample in plastic zip-lock bag. Collect groundwater grab sample using disposable bailers. Backfill soil boring using neat cement grout.

Sample No.	Sample Interval	PID Reading	Recovery	Sampler	Odor	Depth (ft)	Graphic Log	LITHOLOGY/REMARKS
						1	CL	**0- 4' SANDY CLAY:** Dark yellowish-brown, moist; non-plastic to low plastcicty, 15-25% fine to medium sand.
		0						
		0				2		
						3		
						4	SM	**4- 24' SILTY SAND (SM):** Moderate yellowish-brown to moderate reddish-brown; moist to wet; 80% fine to medium sand, 20% non-plastic fines.
					No			
B-16: 5'		0				5		
						6		
						7		
B-16: 8'						8		~8- 15' Hydrocarbon odor and olive-green to gray petroleum stained soil .
		157			Yes	9		
						10		
B-16: 10'								
						11		
						12		
		233			Yes			
						13		▽ Groundwater first encountered at ~13' bgs
B-16: 13'								
						14		
						15		
B-16: 15'								
		98			Yes	16		
						17		
						18		
						19		
B-16: 20'		17				20		

Continued on next Page

Date checked: October 1, 2008

Logged by: Joseph Cotton

IMPACT Environmental

BORING LOG

Boring No. **B-16**
Well No. N/A
Sheet 2 of 2

Site: **1409- 1417 12th ST. , OAKLAND, CA**
Client: **MRS. SHIRLEY E. THOMPSON**
Project Number:
Date(s) Drilled: **3/6/2008**
Date(s) Installed: **3/6/2008**
Drilling Co./Driller: **WOODWARD DRILLING**

Ground Elevation:
T.O.C. Elevation:
Coordinates:
Drilling Method: **Direct Push-EnviroCore**
Borehole Total Depth: **24**
Final Borehole Diameter: **2.5"**

Drilling Summary: Direct-push 4'-long sampler to target depth. Collect cores in butyrate liners for logging. Cut 6" length cores selected for laboratory analysis and use teflon liners and end caps to seal sample. Place sample in plastic zip-lock bag. Collect groundwater grab sample using disposable bailers. Backfill soil boring using neat cement grout.

Sample No.	Sample Interval	PID Reading	Recovery	Sampler	Odor	Depth (ft)	Graphic Log	
						21	SM	**4-24' SILTY SAND (SM)_Continued :** Moderate yellowish-brown to moderate reddish- brown; moist to wet; 80% fine to medium sand, 20% non-plastic fines.
		0			No			
B-16: 22'						22		
		0			No			
						23		
						24		**Total Depth of Boring= 24 feet bgs**

Date checked: October 1, 2008

Logged by: Joseph Cotton

IMPACT Environmental

BORING LOG

Boring No. **B - 17**
Well No. N/A
Sheet 1 of 2

Site: **1409- 1417 12th ST. , OAKLAND, CA**
Client: **MRS. SHIRLEY E. THOMPSON**
Project Number:
Date(s) Drilled: **3/7/2008**
Date(s) Installed: **3/7/2008**
Drilling Co./Driller **WOODWARD DRILLING**

Ground Elevation:
T.O.C. Elevation:
Coordinates:
Drilling Method: **Direct Push-EnviroCore**
Borehole Total Depth: **25**
Final Borehole Diameter: **2.5"**

Drilling Summary: Direct-push 4'-long sampler to target depth . Collect cores in butyrate liners for logging. Cut 6" length cores selected for laboratory analysis and use teflon liners and end caps to seal sample. Place sample in plastic zip-lock bag. Collect groundwater grab sample using disposable bailers. Backfill soil boring using neat cement grout.

Sample No.	Sample Interval	PID Reading	Recovery	Sampler	Odor	Depth (ft)	Graphic Log	LITHOLOGY/REMARKS
						1	CL	**0- 4' SANDY CLAY:** Dark yellowish-brown, moist; non-plastic to low plastcicty, 15-25% fine to medium sand.
		0				2		
						3		
						4		**4- 25' SILTY SAND (SM):** Moderate yellowish-brown to moderate reddish-brown; moist to wet; 80% fine to medium sand, 20% non-plastic fines.
		0			No	5	SM	
B-17: 5'						6		
						7		
		0				8		
					No	9		▽ Groundwater first encountered at ~9.5' bgs
						10		
B-17: 10'						11		
		12				12		Slight Hydrocarbon odor from 11- 13' bgs
					Yes	13		
		6				14		
						15		
B-17: 15'						16		
		0			No	17		
						18		
						19		
B-17: 20'					No	20		

Continued on next Page

Date checked: October 1, 2008

Logged by: Joseph Cotton

IMPACT Environmental

BORING LOG

Boring No. **B-17**
Well No. N/A
Sheet 2 of 2

Site: **1409- 1417 12th ST. , OAKLAND, CA**
Client: **MRS. SHIRLEY E. THOMPSON**
Project Number:
Date(s) Drilled: **3/7/2008**
Date(s) Installed: **3/7/2008**
Drilling Co./Driller: **WOODWARD DRILLING**

Ground Elevation:
T.O.C. Elevation:
Coordinates:
Drilling Method: **Direct Push-EnviroCore**
Borehole Total Depth: **25**
Final Borehole Diameter: **2.5"**

Drilling Summary: Direct-push 4'-long sampler to target depth . Collect cores in butyrate liners for logging. Cut 6" length cores selected for laboratory analysis and use teflon liners and end caps to seal sample. Place sample in plastic zip-lock bag. Collect groundwater grab sample using disposable bailers. Backfill soil boring using neat cement grout.

Sample No.	Sample Interval	PID Reading	Recovery	Sampler	Odor	Depth (ft)	Graphic Log	
						21	SM	**4-25' SILTY SAND (SM)_Continued :** Moderate yellowish-brown to moderate reddish- brown; moist to wet; 80% fine to medium sand, 20% non-plastic fines.
					No			
		0				22		
		0				23		
					No	24		
						25		
B17:25'								**Total Depth of Boring= 25 feet bgs**

Date checked: October 1, 2008

Logged by: Joseph Cotton

APPENDIX C

Certified Laboratory Analytical Report

Torrent
LABORATORY, INC.

March 11, 2008

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

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

RE:

Order No.: 0803052

Dear Mr. Joseph Cotton:

Torrent Laboratory, Inc. received 15 samples on 3/7/2008 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 3/11/08
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: 3/7/2008
Date Reported: 3/11/2008

Client Sample ID: B-16:5'
Sample Location: 1409-1417 12th St, Oakland
Sample Matrix: SOIL
Date/Time Sampled 3/6/2008 1:00:00 PM

Lab Sample ID: 0803052-001
Date Prepared: 3/10/2008

Parameters	Analysis Method	Date Analyzed	RL	Dilution Factor	MRL	Result	Units	Analytical Batch
TPH (Diesel-SG)	SW8015B	3/10/2008	2	1	2.00	ND	mg/Kg	R15611
TPH (Motor Oil-SG)	SW8015B	3/10/2008	4	1	4.00	ND	mg/Kg	R15611
Surr: Pentacosane	SW8015B	3/10/2008	0	1	28-125	104	%REC	R15611
1,2-Dibromoethane (EDB)	SW8260B	3/10/2008	5	1	5.0	ND	µg/Kg	R15616
1,2-Dichloroethane (EDC)	SW8260B	3/10/2008	5	1	5.0	ND	µg/Kg	R15616
Benzene	SW8260B	3/10/2008	5	1	5.0	ND	µg/Kg	R15616
Diisopropyl ether (DIPE)	SW8260B	3/10/2008	5	1	5.0	ND	µg/Kg	R15616
Ethyl tert-butyl ether (ETBE)	SW8260B	3/10/2008	5	1	5.0	ND	µg/Kg	R15616
Ethylbenzene	SW8260B	3/10/2008	5	1	5.0	ND	µg/Kg	R15616
Methyl tert-butyl ether (MTBE)	SW8260B	3/10/2008	10	1	10	ND	µg/Kg	R15616
t-Butyl alcohol (t-Butanol)	SW8260B	3/10/2008	50	1	50	ND	µg/Kg	R15616
tert-Amyl methyl ether (TAME)	SW8260B	3/10/2008	5	1	5.0	ND	µg/Kg	R15616
Toluene	SW8260B	3/10/2008	5	1	5.0	ND	µg/Kg	R15616
Xylenes, Total	SW8260B	3/10/2008	15	1	15	ND	µg/Kg	R15616
Surr: 4-Bromofluorobenzene	SW8260B	3/10/2008	0	1	55.8-141	104	%REC	R15616
Surr: Dibromofluoromethane	SW8260B	3/10/2008	0	1	59.8-148	117	%REC	R15616
Surr: Toluene-d8	SW8260B	3/10/2008	0	1	55.2-133	94.0	%REC	R15616
TPH (Gasoline)	SW8260B(TPH)	3/10/2008	100	1	100	ND	µg/Kg	G15616
Surr: 4-Bromofllurobenzene	SW8260B(TPH)	3/10/2008	0	1	56.9-133	96.0	%REC	G15616

These analyses were performed according to State of California Environmental Laboratory Accreditation program, Certificate # 1991

Report prepared for: Mr. Joseph Cotton
Impact Environmental Services

Date Received: 3/7/2008
Date Reported: 3/11/2008

Client Sample ID: B-16:8'
Sample Location: 1409-1417 12th St, Oakland
Sample Matrix: SOIL
Date/Time Sampled 3/6/2008 1:20:00 PM

Lab Sample ID: 0803052-002
Date Prepared: 3/10/2008-3/11/2008

Parameters	Analysis Method	Date Analyzed	RL	Dilution Factor	MRL	Result	Units	Analytical Batch
TPH (Diesel-SG)	SW8015B	3/10/2008	2	10	20.0	240x	mg/Kg	R15611
TPH (Motor Oil-SG)	SW8015B	3/10/2008	4	10	40.0	ND	mg/Kg	R15611
Surr: Pentacosane	SW8015B	3/10/2008	0	10	28-125	91.8	%REC	R15611
Note: x-Sample chromatogram does not resemble typical diesel pattern (possibly fuel lighter than diesel). Lighter end hydrocarbons within the diesel range quantitated as diesel.								
1,2-Dibromoethane (EDB)	SW8260B	3/11/2008	5	2000	10000	ND	µg/Kg	R15616
1,2-Dichloroethane (EDC)	SW8260B	3/11/2008	5	2000	10000	ND	µg/Kg	R15616
Benzene	SW8260B	3/11/2008	5	2000	10000	13000	µg/Kg	R15616
Diisopropyl ether (DIPE)	SW8260B	3/11/2008	5	2000	10000	ND	µg/Kg	R15616
Ethyl tert-butyl ether (ETBE)	SW8260B	3/11/2008	5	2000	10000	ND	µg/Kg	R15616
Ethylbenzene	SW8260B	3/11/2008	5	2000	10000	110000	µg/Kg	R15616
Methyl tert-butyl ether (MTBE)	SW8260B	3/11/2008	10	2000	20000	ND	µg/Kg	R15616
t-Butyl alcohol (t-Butanol)	SW8260B	3/11/2008	50	2000	100000	ND	µg/Kg	R15616
tert-Amyl methyl ether (TAME)	SW8260B	3/11/2008	5	2000	10000	ND	µg/Kg	R15616
Toluene	SW8260B	3/11/2008	5	2000	10000	180000	µg/Kg	R15616
Xylenes, Total	SW8260B	3/11/2008	15	2000	30000	520000	µg/Kg	R15616
Surr: 4-Bromofluorobenzene	SW8260B	3/11/2008	0	2000	55.8-141	111	%REC	R15616
Surr: Dibromofluoromethane	SW8260B	3/11/2008	0	2000	59.8-148	102	%REC	R15616
Surr: Toluene-d8	SW8260B	3/11/2008	0	2000	55.2-133	102	%REC	R15616
TPH (Gasoline)	SW8260B(TPH)	3/11/2008	100	2000	200000	4700000	µg/Kg	G15616
Surr: 4-Bromofllurobenzene	SW8260B(TPH)	3/11/2008	0	2000	56.9-133	88.0	%REC	G15616

These analyses were performed according to State of California Environmental Laboratory Accreditation program, Certificate # 1991

Report prepared for: Mr. Joseph Cotton
Impact Environmental Services

Date Received: 3/7/2008
Date Reported: 3/11/2008

Client Sample ID: B-16:10'
Sample Location: 1409-1417 12th St, Oakland
Sample Matrix: SOIL
Date/Time Sampled 3/6/2008 1:40:00 PM

Lab Sample ID: 0803052-003
Date Prepared: 3/10/2008

Parameters	Analysis Method	Date Analyzed	RL	Dilution Factor	MRL	Result	Units	Analytical Batch
TPH (Diesel-SG)	SW8015B	3/10/2008	2	1	2.00	ND	mg/Kg	R15611
TPH (Motor Oil-SG)	SW8015B	3/10/2008	4	1	4.00	ND	mg/Kg	R15611
Surr: Pentacosane	SW8015B	3/10/2008	0	1	28-125	104	%REC	R15611
1,2-Dibromoethane (EDB)	SW8260B	3/10/2008	5	1	5.0	ND	µg/Kg	R15616
1,2-Dichloroethane (EDC)	SW8260B	3/10/2008	5	1	5.0	ND	µg/Kg	R15616
Benzene	SW8260B	3/10/2008	5	1	5.0	ND	µg/Kg	R15616
Diisopropyl ether (DIPE)	SW8260B	3/10/2008	5	1	5.0	ND	µg/Kg	R15616
Ethyl tert-butyl ether (ETBE)	SW8260B	3/10/2008	5	1	5.0	ND	µg/Kg	R15616
Ethylbenzene	SW8260B	3/10/2008	5	1	5.0	7.9	µg/Kg	R15616
Methyl tert-butyl ether (MTBE)	SW8260B	3/10/2008	10	1	10	ND	µg/Kg	R15616
t-Butyl alcohol (t-Butanol)	SW8260B	3/10/2008	50	1	50	ND	µg/Kg	R15616
tert-Amyl methyl ether (TAME)	SW8260B	3/10/2008	5	1	5.0	ND	µg/Kg	R15616
Toluene	SW8260B	3/10/2008	5	1	5.0	6.6	µg/Kg	R15616
Xylenes, Total	SW8260B	3/10/2008	15	1	15	26	µg/Kg	R15616
Surr: 4-Bromofluorobenzene	SW8260B	3/10/2008	0	1	55.8-141	103	%REC	R15616
Surr: Dibromofluoromethane	SW8260B	3/10/2008	0	1	59.8-148	118	%REC	R15616
Surr: Toluene-d8	SW8260B	3/10/2008	0	1	55.2-133	96.5	%REC	R15616
TPH (Gasoline)	SW8260B(TPH)	3/10/2008	100	1	100	116x	µg/Kg	G15616
Surr: 4-Bromofllurobenzene	SW8260B(TPH)	3/10/2008	0	1	56.9-133	88.0	%REC	G15616

Note:x- Pattern does not match typical gasoline. TPHg result due to the presence of non-target compounds within gasoline range.

These analyses were performed according to State of California Environmental Laboratory Accreditation program, Certificate # 1991

Report prepared for: Mr. Joseph Cotton
Impact Environmental Services

Date Received: 3/7/2008
Date Reported: 3/11/2008

Client Sample ID: B-16:13'
Sample Location: 1409-1417 12th St, Oakland
Sample Matrix: SOIL
Date/Time Sampled 3/6/2008 2:30:00 PM

Lab Sample ID: 0803052-005
Date Prepared: 3/10/2008-3/11/2008

Parameters	Analysis Method	Date Analyzed	RL	Dilution Factor	MRL	Result	Units	Analytical Batch
TPH (Diesel-SG)	SW8015B	3/10/2008	2	1	2.00	60.1x	mg/Kg	R15611
TPH (Motor Oil-SG)	SW8015B	3/10/2008	4	1	4.00	ND	mg/Kg	R15611
Surr: Pentacosane	SW8015B	3/10/2008	0	1	28-125	91.9	%REC	R15611
Note: x-Sample chromatogram does not resemble typical diesel pattern (possibly fuel lighter than diesel). Lighter end hydrocarbons within the diesel range quantitated as diesel.								
1,2-Dibromoethane (EDB)	SW8260B	3/11/2008	5	5	25	ND	µg/Kg	R15616
1,2-Dichloroethane (EDC)	SW8260B	3/11/2008	5	5	25	ND	µg/Kg	R15616
Benzene	SW8260B	3/11/2008	5	5	25	170	µg/Kg	R15616
Diisopropyl ether (DIPE)	SW8260B	3/11/2008	5	5	25	ND	µg/Kg	R15616
Ethyl tert-butyl ether (ETBE)	SW8260B	3/11/2008	5	5	25	ND	µg/Kg	R15616
Ethylbenzene	SW8260B	3/11/2008	5	5	25	80	µg/Kg	R15616
Methyl tert-butyl ether (MTBE)	SW8260B	3/11/2008	10	5	50	ND	µg/Kg	R15616
t-Butyl alcohol (t-Butanol)	SW8260B	3/11/2008	50	5	250	ND	µg/Kg	R15616
tert-Amyl methyl ether (TAME)	SW8260B	3/11/2008	5	5	25	ND	µg/Kg	R15616
Toluene	SW8260B	3/11/2008	5	5	25	77	µg/Kg	R15616
Xylenes, Total	SW8260B	3/11/2008	15	5	75	300	µg/Kg	R15616
Surr: 4-Bromofluorobenzene	SW8260B	3/11/2008	0	5	55.8-141	114	%REC	R15616
Surr: Dibromofluoromethane	SW8260B	3/11/2008	0	5	59.8-148	102	%REC	R15616
Surr: Toluene-d8	SW8260B	3/11/2008	0	5	55.2-133	94.8	%REC	R15616
TPH (Gasoline)	SW8260B(TPH)	3/11/2008	100	5	500	2300	µg/Kg	G15616
Surr: 4-Bromoflurobenzene	SW8260B(TPH)	3/11/2008	0	5	56.9-133	96.0	%REC	G15616
Note: TPH value includes amount of non-target compounds within gasoline quantitative range.								

These analyses were performed according to State of California Environmental Laboratory Accreditation program, Certificate # 1991

Report prepared for: Mr. Joseph Cotton
Impact Environmental Services

Date Received: 3/7/2008
Date Reported: 3/11/2008

Client Sample ID: B-16:15'
Sample Location: 1409-1417 12th St, Oakland
Sample Matrix: SOIL
Date/Time Sampled 3/6/2008 3:00:00 PM

Lab Sample ID: 0803052-006
Date Prepared: 3/10/2008-3/11/2008

Parameters	Analysis Method	Date Analyzed	RL	Dilution Factor	MRL	Result	Units	Analytical Batch
TPH (Diesel-SG)	SW8015B	3/10/2008	2	1	2.00	16.9x	mg/Kg	R15611
TPH (Motor Oil-SG)	SW8015B	3/10/2008	4	1	4.00	ND	mg/Kg	R15611
Surr: Pentacosane	SW8015B	3/10/2008	0	1	28-125	98.2	%REC	R15611
Note: x-Sample chromatogram does not resemble typical diesel pattern (possibly fuel lighter than diesel). Lighter end hydrocarbons within the diesel range quantitated as diesel.								
1,2-Dibromoethane (EDB)	SW8260B	3/11/2008	5	200	1000	ND	µg/Kg	R15616
1,2-Dichloroethane (EDC)	SW8260B	3/11/2008	5	200	1000	ND	µg/Kg	R15616
Benzene	SW8260B	3/11/2008	5	200	1000	2300	µg/Kg	R15616
Diisopropyl ether (DIPE)	SW8260B	3/11/2008	5	200	1000	ND	µg/Kg	R15616
Ethyl tert-butyl ether (ETBE)	SW8260B	3/11/2008	5	200	1000	ND	µg/Kg	R15616
Ethylbenzene	SW8260B	3/11/2008	5	200	1000	16000	µg/Kg	R15616
Methyl tert-butyl ether (MTBE)	SW8260B	3/11/2008	10	200	2000	ND	µg/Kg	R15616
t-Butyl alcohol (t-Butanol)	SW8260B	3/11/2008	50	200	10000	ND	µg/Kg	R15616
tert-Amyl methyl ether (TAME)	SW8260B	3/11/2008	5	200	1000	ND	µg/Kg	R15616
Toluene	SW8260B	3/11/2008	5	200	1000	7700	µg/Kg	R15616
Xylenes, Total	SW8260B	3/11/2008	15	200	3000	52000	µg/Kg	R15616
Surr: 4-Bromofluorobenzene	SW8260B	3/11/2008	0	200	55.8-141	107	%REC	R15616
Surr: Dibromofluoromethane	SW8260B	3/11/2008	0	200	59.8-148	95.1	%REC	R15616
Surr: Toluene-d8	SW8260B	3/11/2008	0	200	55.2-133	102	%REC	R15616
TPH (Gasoline)	SW8260B(TPH)	3/11/2008	100	2000	200000	520000	µg/Kg	G15616
Surr: 4-Bromoflurobenzene	SW8260B(TPH)	3/11/2008	0	2000	56.9-133	96.0	%REC	G15616
Note: Although TPH as gasoline is present, result is elevated due to the presence of non-target compounds within gasoline range.								

These analyses were performed according to State of California Environmental Laboratory Accreditation program, Certificate # 1991

Report prepared for: Mr. Joseph Cotton
Impact Environmental Services

Date Received: 3/7/2008
Date Reported: 3/11/2008

Client Sample ID: B-16:20'
Sample Location: 1409-1417 12th St, Oakland
Sample Matrix: SOIL
Date/Time Sampled 3/6/2008 3:30:00 PM

Lab Sample ID: 0803052-007
Date Prepared: 3/10/2008

Parameters	Analysis Method	Date Analyzed	RL	Dilution Factor	MRL	Result	Units	Analytical Batch
TPH (Diesel-SG)	SW8015B	3/10/2008	2	1	2.00	ND	mg/Kg	R15611
TPH (Motor Oil-SG)	SW8015B	3/10/2008	4	1	4.00	ND	mg/Kg	R15611
Surr: Pentacosane	SW8015B	3/10/2008	0	1	28-125	106	%REC	R15611
1,2-Dibromoethane (EDB)	SW8260B	3/10/2008	5	1	5.0	ND	µg/Kg	R15616
1,2-Dichloroethane (EDC)	SW8260B	3/10/2008	5	1	5.0	ND	µg/Kg	R15616
Benzene	SW8260B	3/10/2008	5	1	5.0	ND	µg/Kg	R15616
Diisopropyl ether (DIPE)	SW8260B	3/10/2008	5	1	5.0	ND	µg/Kg	R15616
Ethyl tert-butyl ether (ETBE)	SW8260B	3/10/2008	5	1	5.0	ND	µg/Kg	R15616
Ethylbenzene	SW8260B	3/10/2008	5	1	5.0	25	µg/Kg	R15616
Methyl tert-butyl ether (MTBE)	SW8260B	3/10/2008	10	1	10	ND	µg/Kg	R15616
t-Butyl alcohol (t-Butanol)	SW8260B	3/10/2008	50	1	50	ND	µg/Kg	R15616
tert-Amyl methyl ether (TAME)	SW8260B	3/10/2008	5	1	5.0	ND	µg/Kg	R15616
Toluene	SW8260B	3/10/2008	5	1	5.0	32	µg/Kg	R15616
Xylenes, Total	SW8260B	3/10/2008	15	1	15	120	µg/Kg	R15616
Surr: 4-Bromofluorobenzene	SW8260B	3/10/2008	0	1	55.8-141	120	%REC	R15616
Surr: Dibromofluoromethane	SW8260B	3/10/2008	0	1	59.8-148	111	%REC	R15616
Surr: Toluene-d8	SW8260B	3/10/2008	0	1	55.2-133	95.3	%REC	R15616
TPH (Gasoline)	SW8260B(TPH)	3/10/2008	100	1	100	1134x	µg/Kg	G15616
Surr: 4-Bromofllurobenzene	SW8260B(TPH)	3/10/2008	0	1	56.9-133	96.0	%REC	G15616

Note:x- Pattern does not match typical gasoline. TPHg result due to the presence of non-target compounds within gasoline range.

These analyses were performed according to State of California Environmental Laboratory Accreditation program, Certificate # 1991

Report prepared for: Mr. Joseph Cotton
Impact Environmental Services

Date Received: 3/7/2008
Date Reported: 3/11/2008

Client Sample ID: B-16:22'
Sample Location: 1409-1417 12th St, Oakland
Sample Matrix: SOIL
Date/Time Sampled 3/6/2008 4:00:00 PM

Lab Sample ID: 0803052-008
Date Prepared: 3/10/2008

Parameters	Analysis Method	Date Analyzed	RL	Dilution Factor	MRL	Result	Units	Analytical Batch
TPH (Diesel-SG)	SW8015B	3/10/2008	2	1	2.00	ND	mg/Kg	R15611
TPH (Motor Oil-SG)	SW8015B	3/10/2008	4	1	4.00	ND	mg/Kg	R15611
Surr: Pentacosane	SW8015B	3/10/2008	0	1	28-125	94.6	%REC	R15611
1,2-Dibromoethane (EDB)	SW8260B	3/10/2008	5	1	5.0	ND	µg/Kg	R15616
1,2-Dichloroethane (EDC)	SW8260B	3/10/2008	5	1	5.0	ND	µg/Kg	R15616
Benzene	SW8260B	3/10/2008	5	1	5.0	8.2	µg/Kg	R15616
Diisopropyl ether (DIPE)	SW8260B	3/10/2008	5	1	5.0	ND	µg/Kg	R15616
Ethyl tert-butyl ether (ETBE)	SW8260B	3/10/2008	5	1	5.0	ND	µg/Kg	R15616
Ethylbenzene	SW8260B	3/10/2008	5	1	5.0	27	µg/Kg	R15616
Methyl tert-butyl ether (MTBE)	SW8260B	3/10/2008	10	1	10	ND	µg/Kg	R15616
t-Butyl alcohol (t-Butanol)	SW8260B	3/10/2008	50	1	50	ND	µg/Kg	R15616
tert-Amyl methyl ether (TAME)	SW8260B	3/10/2008	5	1	5.0	ND	µg/Kg	R15616
Toluene	SW8260B	3/10/2008	5	1	5.0	49	µg/Kg	R15616
Xylenes, Total	SW8260B	3/10/2008	15	1	15	130	µg/Kg	R15616
Surr: 4-Bromofluorobenzene	SW8260B	3/10/2008	0	1	55.8-141	106	%REC	R15616
Surr: Dibromofluoromethane	SW8260B	3/10/2008	0	1	59.8-148	115	%REC	R15616
Surr: Toluene-d8	SW8260B	3/10/2008	0	1	55.2-133	97.3	%REC	R15616
TPH (Gasoline)	SW8260B(TPH)	3/10/2008	100	1	100	740	µg/Kg	G15616
Surr: 4-Bromofllurobenzene	SW8260B(TPH)	3/10/2008	0	1	56.9-133	92.0	%REC	G15616

Note: Although TPH as gasoline is present, result is elevated due to the presence of non-target compounds within gasoline range.

These analyses were performed according to State of California Environmental Laboratory Accreditation program, Certificate # 1991

Report prepared for: Mr. Joseph Cotton
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Date Received: 3/7/2008
Date Reported: 3/11/2008

Client Sample ID: B-16:GW
Sample Location: 1409-1417 12th St, Oakland
Sample Matrix: WATER
Date/Time Sampled 3/6/2008 3:15:00 PM

Lab Sample ID: 0803052-009
Date Prepared: 3/10/2008

Parameters	Analysis Method	Date Analyzed	RL	Dilution Factor	MRL	Result	Units	Analytical Batch
TPH (Diesel-SG)	SW8015B	3/11/2008	0.1	20	2.34	14.8x	mg/L	R15613
TPH (Motor Oil-SG)	SW8015B	3/11/2008	0.2	20	4.68	ND	mg/L	R15613
Surr: Pentacosane	SW8015B	3/11/2008	0	20	40-120	80.0	%REC	R15613
Note: x-Sample chromatogram does not resemble typical diesel pattern (possibly fuel lighter than diesel). Lighter end hydrocarbons within the diesel range quantitated as diesel.								
1,2-Dibromoethane (EDB)	SW8260B	3/10/2008	0.5	8.8	4.40	64.2	µg/L	R15612
1,2-Dichloroethane (EDC)	SW8260B	3/10/2008	0.5	8.8	4.40	103	µg/L	R15612
Benzene	SW8260B	3/10/2008	0.5	110	55.0	6820	µg/L	R15612
Ethyl tert-butyl ether (ETBE)	SW8260B	3/10/2008	0.5	8.8	4.40	ND	µg/L	R15612
Ethylbenzene	SW8260B	3/10/2008	0.5	110	55.0	3360	µg/L	R15612
Isopropyl Ether	SW8260B	3/10/2008	0.5	8.8	4.40	ND	µg/L	R15612
Methyl tert-butyl ether (MTBE)	SW8260B	3/10/2008	0.5	8.8	4.40	ND	µg/L	R15612
t-Butyl alcohol (t-Butanol)	SW8260B	3/10/2008	10	8.8	88.0	ND	µg/L	R15612
tert-Amyl methyl ether (TAME)	SW8260B	3/10/2008	0.5	8.8	4.40	ND	µg/L	R15612
Toluene	SW8260B	3/10/2008	0.5	110	55.0	9410	µg/L	R15612
Xylenes, Total	SW8260B	3/10/2008	1.5	110	165	17400	µg/L	R15612
Surr: Dibromofluoromethane	SW8260B	3/10/2008	0	8.8	61.2-131	88.4	%REC	R15612
Surr: Dibromofluoromethane	SW8260B	3/10/2008	0	110	61.2-131	89.4	%REC	R15612
Surr: 4-Bromofluorobenzene	SW8260B	3/10/2008	0	8.8	64.1-120	76.4	%REC	R15612
Surr: 4-Bromofluorobenzene	SW8260B	3/10/2008	0	110	64.1-120	79.8	%REC	R15612
Surr: Toluene-d8	SW8260B	3/10/2008	0	8.8	75.1-127	86.8	%REC	R15612
Surr: Toluene-d8	SW8260B	3/10/2008	0	110	75.1-127	96.9	%REC	R15612
TPH (Gasoline)	SW8260B(TPH)	3/10/2008	50	110	5500	130000	µg/L	G15612
Surr: 4-Bromofllurobenzene	SW8260B(TPH)	3/10/2008	0	110	58.4-133	104	%REC	G15612
Note: Although TPH as Gasoline constituents are present, results are elevated due to the presence of non-target compounds within the gasoline range.								

These analyses were performed according to State of California Environmental Laboratory Accreditation program, Certificate # 1991

Report prepared for: Mr. Joseph Cotton
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Date Received: 3/7/2008
Date Reported: 3/11/2008

Client Sample ID: B-17:GW
Sample Location: 1409-1417 12th St, Oakland
Sample Matrix: WATER
Date/Time Sampled 3/7/2008 1:00:00 PM

Lab Sample ID: 0803052-010
Date Prepared: 3/10/2008

Parameters	Analysis Method	Date Analyzed	RL	Dilution Factor	MRL	Result	Units	Analytical Batch
TPH (Diesel-SG)	SW8015B	3/10/2008	0.1	1	0.100	ND	mg/L	R15613
TPH (Motor Oil-SG)	SW8015B	3/10/2008	0.2	1	0.200	ND	mg/L	R15613
Surr: Pentacosane	SW8015B	3/10/2008	0	1	40-120	93.0	%REC	R15613
1,2-Dibromoethane (EDB)	SW8260B	3/10/2008	0.5	1	0.500	ND	µg/L	R15612
1,2-Dichloroethane (EDC)	SW8260B	3/10/2008	0.5	1	0.500	ND	µg/L	R15612
Benzene	SW8260B	3/10/2008	0.5	1	0.500	ND	µg/L	R15612
Ethyl tert-butyl ether (ETBE)	SW8260B	3/10/2008	0.5	1	0.500	ND	µg/L	R15612
Ethylbenzene	SW8260B	3/10/2008	0.5	1	0.500	0.500	µg/L	R15612
Isopropyl Ether	SW8260B	3/10/2008	0.5	1	0.500	ND	µg/L	R15612
Methyl tert-butyl ether (MTBE)	SW8260B	3/10/2008	0.5	1	0.500	ND	µg/L	R15612
t-Butyl alcohol (t-Butanol)	SW8260B	3/10/2008	10	1	10.0	ND	µg/L	R15612
tert-Amyl methyl ether (TAME)	SW8260B	3/10/2008	0.5	1	0.500	ND	µg/L	R15612
Toluene	SW8260B	3/10/2008	0.5	1	0.500	0.930	µg/L	R15612
Xylenes, Total	SW8260B	3/10/2008	1.5	1	1.50	1.56	µg/L	R15612
Surr: Dibromofluoromethane	SW8260B	3/10/2008	0	1	61.2-131	85.6	%REC	R15612
Surr: 4-Bromofluorobenzene	SW8260B	3/10/2008	0	1	64.1-120	93.4	%REC	R15612
Surr: Toluene-d8	SW8260B	3/10/2008	0	1	75.1-127	92.6	%REC	R15612
TPH (Gasoline)	SW8260B(TPH)	3/10/2008	50	1	50	ND	µg/L	G15612
Surr: 4-Bromofllurobenzene	SW8260B(TPH)	3/10/2008	0	1	58.4-133	93.1	%REC	G15612

These analyses were performed according to State of California Environmental Laboratory Accreditation program, Certificate # 1991

Report prepared for: Mr. Joseph Cotton
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Date Received: 3/7/2008
Date Reported: 3/11/2008

Client Sample ID: B-17:5'
Sample Location: 1409-1417 12th St, Oakland
Sample Matrix: SOIL
Date/Time Sampled 3/7/2008 10:00:00 AM

Lab Sample ID: 0803052-011
Date Prepared: 3/10/2008

Parameters	Analysis Method	Date Analyzed	RL	Dilution Factor	MRL	Result	Units	Analytical Batch
TPH (Diesel-SG)	SW8015B	3/11/2008	2	1	2.00	ND	mg/Kg	R15611
TPH (Motor Oil-SG)	SW8015B	3/11/2008	4	1	4.00	29.2	mg/Kg	R15611
Surr: Pentacosane	SW8015B	3/11/2008	0	1	28-125	83.2	%REC	R15611
1,2-Dibromoethane (EDB)	SW8260B	3/10/2008	5	1	5.0	ND	µg/Kg	R15616
1,2-Dichloroethane (EDC)	SW8260B	3/10/2008	5	1	5.0	ND	µg/Kg	R15616
Benzene	SW8260B	3/10/2008	5	1	5.0	ND	µg/Kg	R15616
Diisopropyl ether (DIPE)	SW8260B	3/10/2008	5	1	5.0	ND	µg/Kg	R15616
Ethyl tert-butyl ether (ETBE)	SW8260B	3/10/2008	5	1	5.0	ND	µg/Kg	R15616
Ethylbenzene	SW8260B	3/10/2008	5	1	5.0	ND	µg/Kg	R15616
Methyl tert-butyl ether (MTBE)	SW8260B	3/10/2008	10	1	10	ND	µg/Kg	R15616
t-Butyl alcohol (t-Butanol)	SW8260B	3/10/2008	50	1	50	ND	µg/Kg	R15616
tert-Amyl methyl ether (TAME)	SW8260B	3/10/2008	5	1	5.0	ND	µg/Kg	R15616
Toluene	SW8260B	3/10/2008	5	1	5.0	ND	µg/Kg	R15616
Xylenes, Total	SW8260B	3/10/2008	15	1	15	ND	µg/Kg	R15616
Surr: 4-Bromofluorobenzene	SW8260B	3/10/2008	0	1	55.8-141	119	%REC	R15616
Surr: Dibromofluoromethane	SW8260B	3/10/2008	0	1	59.8-148	108	%REC	R15616
Surr: Toluene-d8	SW8260B	3/10/2008	0	1	55.2-133	94.8	%REC	R15616
TPH (Gasoline)	SW8260B(TPH)	3/10/2008	100	1	100	ND	µg/Kg	G15616
Surr: 4-Bromofllurobenzene	SW8260B(TPH)	3/10/2008	0	1	56.9-133	80.0	%REC	G15616

These analyses were performed according to State of California Environmental Laboratory Accreditation program, Certificate # 1991

Report prepared for: Mr. Joseph Cotton
Impact Environmental Services

Date Received: 3/7/2008
Date Reported: 3/11/2008

Client Sample ID: B-17:10'
Sample Location: 1409-1417 12th St, Oakland
Sample Matrix: SOIL
Date/Time Sampled 3/7/2008 11:00:00 AM

Lab Sample ID: 0803052-012
Date Prepared: 3/10/2008-3/11/2008

Parameters	Analysis Method	Date Analyzed	RL	Dilution Factor	MRL	Result	Units	Analytical Batch
TPH (Diesel-SG)	SW8015B	3/11/2008	2	1	2.00	ND	mg/Kg	R15611
TPH (Motor Oil-SG)	SW8015B	3/11/2008	4	1	4.00	4.16	mg/Kg	R15611
Surr: Pentacosane	SW8015B	3/11/2008	0	1	28-125	98.8	%REC	R15611
1,2-Dibromoethane (EDB)	SW8260B	3/11/2008	5	1	5.0	ND	µg/Kg	R15616
1,2-Dichloroethane (EDC)	SW8260B	3/11/2008	5	1	5.0	ND	µg/Kg	R15616
Benzene	SW8260B	3/11/2008	5	1	5.0	ND	µg/Kg	R15616
Diisopropyl ether (DIPE)	SW8260B	3/11/2008	5	1	5.0	ND	µg/Kg	R15616
Ethyl tert-butyl ether (ETBE)	SW8260B	3/11/2008	5	1	5.0	ND	µg/Kg	R15616
Ethylbenzene	SW8260B	3/11/2008	5	1	5.0	ND	µg/Kg	R15616
Methyl tert-butyl ether (MTBE)	SW8260B	3/11/2008	10	1	10	ND	µg/Kg	R15616
t-Butyl alcohol (t-Butanol)	SW8260B	3/11/2008	50	1	50	ND	µg/Kg	R15616
tert-Amyl methyl ether (TAME)	SW8260B	3/11/2008	5	1	5.0	ND	µg/Kg	R15616
Toluene	SW8260B	3/11/2008	5	1	5.0	ND	µg/Kg	R15616
Xylenes, Total	SW8260B	3/11/2008	15	1	15	ND	µg/Kg	R15616
Surr: 4-Bromofluorobenzene	SW8260B	3/11/2008	0	1	55.8-141	117	%REC	R15616
Surr: Dibromofluoromethane	SW8260B	3/11/2008	0	1	59.8-148	83.2	%REC	R15616
Surr: Toluene-d8	SW8260B	3/11/2008	0	1	55.2-133	88.4	%REC	R15616
TPH (Gasoline)	SW8260B(TPH)	3/11/2008	100	1	100	ND	µg/Kg	G15616
Surr: 4-Bromofllurobenzene	SW8260B(TPH)	3/11/2008	0	1	56.9-133	84.0	%REC	G15616

These analyses were performed according to State of California Environmental Laboratory Accreditation program, Certificate # 1991

Report prepared for: Mr. Joseph Cotton
Impact Environmental Services

Date Received: 3/7/2008
Date Reported: 3/11/2008

Client Sample ID: B-17:15
Sample Location: 1409-1417 12th St, Oakland
Sample Matrix: SOIL
Date/Time Sampled 3/7/2008 12:00:00 PM

Lab Sample ID: 0803052-013
Date Prepared: 3/10/2008-3/11/2008

Parameters	Analysis Method	Date Analyzed	RL	Dilution Factor	MRL	Result	Units	Analytical Batch
TPH (Diesel-SG)	SW8015B	3/11/2008	2	1	2.00	ND	mg/Kg	R15611
TPH (Motor Oil-SG)	SW8015B	3/11/2008	4	1	4.00	ND	mg/Kg	R15611
Surr: Pentacosane	SW8015B	3/11/2008	0	1	28-125	106	%REC	R15611
1,2-Dibromoethane (EDB)	SW8260B	3/11/2008	5	1	5.0	ND	µg/Kg	R15616
1,2-Dichloroethane (EDC)	SW8260B	3/11/2008	5	1	5.0	ND	µg/Kg	R15616
Benzene	SW8260B	3/11/2008	5	1	5.0	ND	µg/Kg	R15616
Diisopropyl ether (DIPE)	SW8260B	3/11/2008	5	1	5.0	ND	µg/Kg	R15616
Ethyl tert-butyl ether (ETBE)	SW8260B	3/11/2008	5	1	5.0	ND	µg/Kg	R15616
Ethylbenzene	SW8260B	3/11/2008	5	1	5.0	ND	µg/Kg	R15616
Methyl tert-butyl ether (MTBE)	SW8260B	3/11/2008	10	1	10	ND	µg/Kg	R15616
t-Butyl alcohol (t-Butanol)	SW8260B	3/11/2008	50	1	50	ND	µg/Kg	R15616
tert-Amyl methyl ether (TAME)	SW8260B	3/11/2008	5	1	5.0	ND	µg/Kg	R15616
Toluene	SW8260B	3/11/2008	5	1	5.0	ND	µg/Kg	R15616
Xylenes, Total	SW8260B	3/11/2008	15	1	15	ND	µg/Kg	R15616
Surr: 4-Bromofluorobenzene	SW8260B	3/11/2008	0	1	55.8-141	108	%REC	R15616
Surr: Dibromofluoromethane	SW8260B	3/11/2008	0	1	59.8-148	109	%REC	R15616
Surr: Toluene-d8	SW8260B	3/11/2008	0	1	55.2-133	91.4	%REC	R15616
TPH (Gasoline)	SW8260B(TPH)	3/11/2008	100	1	100	ND	µg/Kg	G15616
Surr: 4-Bromofllurobenzene	SW8260B(TPH)	3/11/2008	0	1	56.9-133	82.0	%REC	G15616

These analyses were performed according to State of California Environmental Laboratory Accreditation program, Certificate # 1991

Report prepared for: Mr. Joseph Cotton
Impact Environmental Services

Date Received: 3/7/2008
Date Reported: 3/11/2008

Client Sample ID: B-17:20'
Sample Location: 1409-1417 12th St, Oakland
Sample Matrix: SOIL
Date/Time Sampled 3/7/2008 1:30:00 PM

Lab Sample ID: 0803052-014
Date Prepared: 3/10/2008-3/11/2008

Parameters	Analysis Method	Date Analyzed	RL	Dilution Factor	MRL	Result	Units	Analytical Batch
TPH (Diesel-SG)	SW8015B	3/11/2008	2	1	2.00	ND	mg/Kg	R15611
TPH (Motor Oil-SG)	SW8015B	3/11/2008	4	1	4.00	ND	mg/Kg	R15611
Surr: Pentacosane	SW8015B	3/11/2008	0	1	28-125	100	%REC	R15611
1,2-Dibromoethane (EDB)	SW8260B	3/11/2008	5	1	5.0	ND	µg/Kg	R15616
1,2-Dichloroethane (EDC)	SW8260B	3/11/2008	5	1	5.0	ND	µg/Kg	R15616
Benzene	SW8260B	3/11/2008	5	1	5.0	ND	µg/Kg	R15616
Diisopropyl ether (DIPE)	SW8260B	3/11/2008	5	1	5.0	ND	µg/Kg	R15616
Ethyl tert-butyl ether (ETBE)	SW8260B	3/11/2008	5	1	5.0	ND	µg/Kg	R15616
Ethylbenzene	SW8260B	3/11/2008	5	1	5.0	ND	µg/Kg	R15616
Methyl tert-butyl ether (MTBE)	SW8260B	3/11/2008	10	1	10	ND	µg/Kg	R15616
t-Butyl alcohol (t-Butanol)	SW8260B	3/11/2008	50	1	50	ND	µg/Kg	R15616
tert-Amyl methyl ether (TAME)	SW8260B	3/11/2008	5	1	5.0	ND	µg/Kg	R15616
Toluene	SW8260B	3/11/2008	5	1	5.0	ND	µg/Kg	R15616
Xylenes, Total	SW8260B	3/11/2008	15	1	15	ND	µg/Kg	R15616
Surr: 4-Bromofluorobenzene	SW8260B	3/11/2008	0	1	55.8-141	108	%REC	R15616
Surr: Dibromofluoromethane	SW8260B	3/11/2008	0	1	59.8-148	87.0	%REC	R15616
Surr: Toluene-d8	SW8260B	3/11/2008	0	1	55.2-133	90.2	%REC	R15616
TPH (Gasoline)	SW8260B(TPH)	3/11/2008	100	1	100	ND	µg/Kg	G15616
Surr: 4-Bromofllurobenzene	SW8260B(TPH)	3/11/2008	0	1	56.9-133	84.0	%REC	G15616

These analyses were performed according to State of California Environmental Laboratory Accreditation program, Certificate # 1991

Report prepared for: Mr. Joseph Cotton
Impact Environmental Services

Date Received: 3/7/2008
Date Reported: 3/11/2008

Client Sample ID: B-17:25'
Sample Location: 1409-1417 12th St, Oakland
Sample Matrix: SOIL
Date/Time Sampled 3/7/2008 2:00:00 PM

Lab Sample ID: 0803052-015
Date Prepared: 3/10/2008-3/11/2008

Parameters	Analysis Method	Date Analyzed	RL	Dilution Factor	MRL	Result	Units	Analytical Batch
TPH (Diesel-SG)	SW8015B	3/11/2008	2	1	2.00	ND	mg/Kg	R15611
TPH (Motor Oil-SG)	SW8015B	3/11/2008	4	1	4.00	ND	mg/Kg	R15611
Surr: Pentacosane	SW8015B	3/11/2008	0	1	28-125	110	%REC	R15611
1,2-Dibromoethane (EDB)	SW8260B	3/11/2008	5	1	5.0	ND	µg/Kg	R15616
1,2-Dichloroethane (EDC)	SW8260B	3/11/2008	5	1	5.0	ND	µg/Kg	R15616
Benzene	SW8260B	3/11/2008	5	1	5.0	ND	µg/Kg	R15616
Diisopropyl ether (DIPE)	SW8260B	3/11/2008	5	1	5.0	ND	µg/Kg	R15616
Ethyl tert-butyl ether (ETBE)	SW8260B	3/11/2008	5	1	5.0	ND	µg/Kg	R15616
Ethylbenzene	SW8260B	3/11/2008	5	1	5.0	ND	µg/Kg	R15616
Methyl tert-butyl ether (MTBE)	SW8260B	3/11/2008	10	1	10	ND	µg/Kg	R15616
t-Butyl alcohol (t-Butanol)	SW8260B	3/11/2008	50	1	50	ND	µg/Kg	R15616
tert-Amyl methyl ether (TAME)	SW8260B	3/11/2008	5	1	5.0	ND	µg/Kg	R15616
Toluene	SW8260B	3/11/2008	5	1	5.0	ND	µg/Kg	R15616
Xylenes, Total	SW8260B	3/11/2008	15	1	15	ND	µg/Kg	R15616
Surr: 4-Bromofluorobenzene	SW8260B	3/11/2008	0	1	55.8-141	116	%REC	R15616
Surr: Dibromofluoromethane	SW8260B	3/11/2008	0	1	59.8-148	91.2	%REC	R15616
Surr: Toluene-d8	SW8260B	3/11/2008	0	1	55.2-133	89.0	%REC	R15616
TPH (Gasoline)	SW8260B(TPH)	3/11/2008	100	1	100	ND	µg/Kg	G15616
Surr: 4-Bromofllurobenzene	SW8260B(TPH)	3/11/2008	0	1	56.9-133	86.0	%REC	G15616

These analyses were performed according to State of California Environmental Laboratory Accreditation program, Certificate # 1991

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 #

These analyses were performed according to State of California Environmental Laboratory Accreditation program, Certificate # 1991

CLIENT: Impact Environmental Services
Work Order: 0803052
Project:

ANALYTICAL QC SUMMARY REPORT

BatchID: G15612

Sample ID: **MB-G**	SampType: **MBLK**	TestCode: **TPH_GAS_W**	Units: **µg/L**	Prep Date: **3/10/2008**	RunNo: **15612**
Client ID: **ZZZZZ**	Batch ID: **G15612**	TestNo: **SW8260B(TP**		Analysis Date: **3/10/2008**	SeqNo: **224188**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
TPH (Gasoline)	ND	50									
Surr: 4-Bromofllurobenzene	8.100	0	11.36	0	71.3	58.4	133				

Sample ID: **LCS-G**	SampType: **LCS**	TestCode: **TPH_GAS_W**	Units: **µg/L**	Prep Date: **3/10/2008**	RunNo: **15612**
Client ID: **ZZZZZ**	Batch ID: **G15612**	TestNo: **SW8260B(TP**		Analysis Date: **3/10/2008**	SeqNo: **224198**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
TPH (Gasoline)	253.8	50	227	0	112	52.4	127				
Surr: 4-Bromofllurobenzene	12.80	0	11.36	0	113	58.4	133				

Sample ID: **LCSD-G**	SampType: **LCSD**	TestCode: **TPH_GAS_W**	Units: **µg/L**	Prep Date: **3/10/2008**	RunNo: **15612**
Client ID: **ZZZZZ**	Batch ID: **G15612**	TestNo: **SW8260B(TP**		Analysis Date: **3/10/2008**	SeqNo: **224199**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
TPH (Gasoline)	217.4	50	227	0	95.8	52.4	127	253.8	15.4	20	
Surr: 4-Bromofllurobenzene	12.00	0	11.36	0	106	58.4	133	0	0	0	

Qualifiers:

3 Recovery of the MS and/or MSD was out of control due t
4 The MS/MSD RPD was out of control due to matrix inter
Q Spike recovery and RPD control limits do not apply result
R RPD outside accepted recovery limits
S Spike Recovery outside accepted recovery limits

CLIENT: Impact Environmental Services
Work Order: 0803052
Project:

ANALYTICAL QC SUMMARY REPORT

BatchID: G15616

Sample ID: **MB-G**	SampType: **MBLK**	TestCode: **TPH_GAS_S_**	Units: **µg/Kg**	Prep Date: **3/10/2008**	RunNo: **15616**
Client ID: **ZZZZZ**	Batch ID: **G15616**	TestNo: **SW8260B(TP**		Analysis Date: **3/10/2008**	SeqNo: **224164**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
TPH (Gasoline)	ND	100									
Surr: 4-Bromofllurobenzene	49.00	0	50	0	98.0	56.9	133				

Sample ID: **LCS-G**	SampType: **LCS**	TestCode: **TPH_GAS_S_**	Units: **µg/Kg**	Prep Date: **3/10/2008**	RunNo: **15616**
Client ID: **ZZZZZ**	Batch ID: **G15616**	TestNo: **SW8260B(TP**		Analysis Date: **3/10/2008**	SeqNo: **224165**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
TPH (Gasoline)	998.0	100	1000	19	97.9	48.2	132				
Surr: 4-Bromofllurobenzene	50.00	0	50	0	100	56.9	133				

Sample ID: **LCSD-G**	SampType: **LCSD**	TestCode: **TPH_GAS_S_**	Units: **µg/Kg**	Prep Date: **3/11/2008**	RunNo: **15616**
Client ID: **ZZZZZ**	Batch ID: **G15616**	TestNo: **SW8260B(TP**		Analysis Date: **3/11/2008**	SeqNo: **224166**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
TPH (Gasoline)	909.0	100	1000	19	89.0	48.2	132	998	9.33	30	
Surr: 4-Bromofllurobenzene	49.00	0	50	0	98.0	56.9	133	0	0	0	

Qualifiers:

3 Recovery of the MS and/or MSD was out of control due t
4 The MS/MSD RPD was out of control due to matrix inter
Q Spike recovery and RPD control limits do not apply result
R RPD outside accepted recovery limits
S Spike Recovery outside accepted recovery limits

CLIENT: Impact Environmental Services
Work Order: 0803052
Project:

ANALYTICAL QC SUMMARY REPORT

BatchID: R15611

Sample ID: **SDSG080310A-MB**	SampType: **MBLK**	TestCode: **TPHDOSG_S**	Units: **mg/Kg**	Prep Date: **3/10/2008**	RunNo: **15611**
Client ID: **ZZZZZ**	Batch ID: **R15611**	TestNo: **SW8015B**		Analysis Date: **3/10/2008**	SeqNo: **224100**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
TPH (Diesel-SG)	ND	2.00									
TPH (Motor Oil-SG)	ND	4.00									
Surr: Pentacosane	4.115	0	3.3	0	125	28	125				

Sample ID: **SDSG080310A-LCS**	SampType: **LCS**	TestCode: **TPHDOSG_S**	Units: **mg/Kg**	Prep Date: **3/10/2008**	RunNo: **15611**
Client ID: **ZZZZZ**	Batch ID: **R15611**	TestNo: **SW8015B**		Analysis Date: **3/10/2008**	SeqNo: **224101**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
TPH (Diesel-SG)	29.38	2.00	33.33	0	88.1	26.6	128				
Surr: Pentacosane	3.135	0	3.3	0	95.0	28	125				

Sample ID: **SDSG080310A-LCS**	SampType: **LCSD**	TestCode: **TPHDOSG_S**	Units: **mg/Kg**	Prep Date: **3/10/2008**	RunNo: **15611**
Client ID: **ZZZZZ**	Batch ID: **R15611**	TestNo: **SW8015B**		Analysis Date: **3/10/2008**	SeqNo: **224102**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
TPH (Diesel-SG)	33.62	2.00	33.33	0	101	26.6	128	29.38	13.5	30	
Surr: Pentacosane	3.716	0	3.3	0	113	28	125	0	0	0	

Qualifiers:
3 Recovery of the MS and/or MSD was out of control due t
4 The MS/MSD RPD was out of control due to matrix inter
Q Spike recovery and RPD control limits do not apply result
R RPD outside accepted recovery limits
S Spike Recovery outside accepted recovery limits

CLIENT: Impact Environmental Services
Work Order: 0803052
Project:

ANALYTICAL QC SUMMARY REPORT

BatchID: R15612

Sample ID: **MB**	SampType: **MBLK**	TestCode: **8260B_W**	Units: **µg/L**	Prep Date: **3/10/2008**	RunNo: **15612**
Client ID: **ZZZZZ**	Batch ID: **R15612**	TestNo: **SW8260B**		Analysis Date: **3/10/2008**	SeqNo: **224115**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,2-Dibromoethane (EDB)	ND	0.360									
1,2-Dichloroethane (EDC)	ND	0.360									
Benzene	ND	0.340									
Ethyl tert-butyl ether (ETBE)	ND	0.420									
Ethylbenzene	ND	0.250									
Methyl tert-butyl ether (MTBE)	ND	0.390									
t-Butyl alcohol (t-Butanol)	1.650	1.50									
tert-Amyl methyl ether (TAME)	ND	0.320									
Toluene	ND	0.300									
Xylenes, Total	ND	0.770									
Surr: Dibromofluoromethane	10.45	0.395	11.36	0	92.0	61.2	131				
Surr: 4-Bromofluorobenzene	10.57	0.498	11.36	0	93.0	64.1	120				
Surr: Toluene-d8	11.27	0.531	11.36	0	99.2	75.1	127				

Sample ID: **LCS**	SampType: **LCS**	TestCode: **8260B_W**	Units: **µg/L**	Prep Date: **3/10/2008**	RunNo: **15612**
Client ID: **ZZZZZ**	Batch ID: **R15612**	TestNo: **SW8260B**		Analysis Date: **3/10/2008**	SeqNo: **224117**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	15.65	0.500	17.04	0	91.8	66.9	140				
Toluene	17.66	0.500	17.04	0	104	76.6	123				
Surr: Dibromofluoromethane	9.240	0	11.36	0	81.3	61.2	131				
Surr: 4-Bromofluorobenzene	10.63	0	11.36	0	93.6	64.1	120				
Surr: Toluene-d8	11.24	0	11.36	0	98.9	75.1	127				

Sample ID: **LCSD**	SampType: **LCSD**	TestCode: **8260B_W**	Units: **µg/L**	Prep Date: **3/10/2008**	RunNo: **15612**
Client ID: **ZZZZZ**	Batch ID: **R15612**	TestNo: **SW8260B**		Analysis Date: **3/10/2008**	SeqNo: **224118**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	16.70	0.500	17.04	0	98.0	66.9	140	15.65	6.49	20	
Toluene	14.80	0.500	17.04	0	86.9	76.6	123	17.66	17.6	20	
Surr: Dibromofluoromethane	10.92	0	11.36	0	96.1	61.2	131	0	0	0	

Qualifiers:
3 Recovery of the MS and/or MSD was out of control due t
4 The MS/MSD RPD was out of control due to matrix inter
Q Spike recovery and RPD control limits do not apply result
R RPD outside accepted recovery limits
S Spike Recovery outside accepted recovery limits

CLIENT: Impact Environmental Services
Work Order: 0803052
Project:

ANALYTICAL QC SUMMARY REPORT

BatchID: R15612

Sample ID: **LCSD**	SampType: **LCSD**	TestCode: **8260B_W**	Units: **µg/L**	Prep Date: **3/10/2008**	RunNo: **15612**
Client ID: **ZZZZZ**	Batch ID: **R15612**	TestNo: **SW8260B**		Analysis Date: **3/10/2008**	SeqNo: **224118**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Surr: 4-Bromofluorobenzene	9.890	0	11.36	0	87.1	64.1	120	0	0	0	
Surr: Toluene-d8	10.21	0	11.36	0	89.9	75.1	127	0	0	0	

Qualifiers:
3 Recovery of the MS and/or MSD was out of control due t
4 The MS/MSD RPD was out of control due to matrix inter
Q Spike recovery and RPD control limits do not apply result
R RPD outside accepted recovery limits
S Spike Recovery outside accepted recovery limits

CLIENT: Impact Environmental Services
Work Order: 0803052
Project:

ANALYTICAL QC SUMMARY REPORT

BatchID: R15613

Sample ID: **WDSG080310A-MB** SampType: **MBLK** TestCode: **TPHDOSG_W** Units: **mg/L** Prep Date: **3/10/2008** RunNo: **15613**
Client ID: **ZZZZZ** Batch ID: **R15613** TestNo: **SW8015B** Analysis Date: **3/10/2008** SeqNo: **224123**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
TPH (Diesel-SG)	ND	0.100									
TPH (Motor Oil-SG)	ND	0.200									
Surr: Pentacosane	0.09900	0	0.1	0	99.0	40	120				

Sample ID: **WDSG080310A-LCS** SampType: **LCS** TestCode: **TPHDOSG_W** Units: **mg/L** Prep Date: **3/10/2008** RunNo: **15613**
Client ID: **ZZZZZ** Batch ID: **R15613** TestNo: **SW8015B** Analysis Date: **3/10/2008** SeqNo: **224124**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
TPH (Diesel-SG)	0.3330	0.100	1	0	33.3	30	68.5				
Surr: Pentacosane	0.1040	0	0.1	0	104	46.8	104				

Sample ID: **WDSG080310A-LCS** SampType: **LCSD** TestCode: **TPHDOSG_W** Units: **mg/L** Prep Date: **3/10/2008** RunNo: **15613**
Client ID: **ZZZZZ** Batch ID: **R15613** TestNo: **SW8015B** Analysis Date: **3/10/2008** SeqNo: **224125**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
TPH (Diesel-SG)	0.3220	0.100	1	0	32.2	30	68.5	0.333	3.36	30	
Surr: Pentacosane	0.1030	0	0.1	0	103	46.8	104	0	0	0	

Qualifiers:
3 Recovery of the MS and/or MSD was out of control due t
4 The MS/MSD RPD was out of control due to matrix inter
Q Spike recovery and RPD control limits do not apply result
R RPD outside accepted recovery limits
S Spike Recovery outside accepted recovery limits

CLIENT: Impact Environmental Services
Work Order: 0803052
Project:

ANALYTICAL QC SUMMARY REPORT

BatchID: R15616

Sample ID: **mb**	SampType: **MBLK**	TestCode: **8260B_S**	Units: **µg/Kg**	Prep Date: **3/10/2008**	RunNo: **15616**
Client ID: **ZZZZZ**	Batch ID: **R15616**	TestNo: **SW8260B**		Analysis Date: **3/10/2008**	SeqNo: **224147**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,2-Dibromoethane (EDB)	ND	10									
1,2-Dichloroethane (EDC)	ND	10									
Benzene	ND	10									
Ethyl tert-butyl ether (ETBE)	ND	10									
Ethylbenzene	ND	10									
Isopropyl Ether	ND	10									
Methyl tert-butyl ether (MTBE)	ND	10									
t-Butyl alcohol (t-Butanol)	ND	50									
tert-Amyl methyl ether (TAME)	ND	10									
Toluene	ND	10									
Xylenes, Total	ND	20									
Surr: 4-Bromofluorobenzene	42.53	0	50	0	85.1	55.8	141				
Surr: Dibromofluoromethane	60.13	0	50	0	120	59.8	148				
Surr: Toluene-d8	45.99	0	50	0	92.0	55.2	133				

Sample ID: **lcs**	SampType: **LCS**	TestCode: **8260B_S**	Units: **µg/Kg**	Prep Date: **3/10/2008**	RunNo: **15616**
Client ID: **ZZZZZ**	Batch ID: **R15616**	TestNo: **SW8260B**		Analysis Date: **3/10/2008**	SeqNo: **224148**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	47.16	10	50	0	94.3	66.5	135				
Toluene	49.62	10	50	0	99.2	56.8	134				
Surr: 4-Bromofluorobenzene	46.91	0	50	0	93.8	55.8	141				
Surr: Dibromofluoromethane	54.66	0	50	0	109	59.8	148				
Surr: Toluene-d8	48.71	0	50	0	97.4	55.2	133				

Sample ID: **lcsd**	SampType: **LCSD**	TestCode: **8260B_S**	Units: **µg/Kg**	Prep Date: **3/10/2008**	RunNo: **15616**
Client ID: **ZZZZZ**	Batch ID: **R15616**	TestNo: **SW8260B**		Analysis Date: **3/10/2008**	SeqNo: **224149**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	46.76	10	50	0	93.5	66.5	135	47.16	0.852	30	
Toluene	44.83	10	50	0	89.7	56.8	134	49.62	10.1	30	

Qualifiers:
3 Recovery of the MS and/or MSD was out of control due t
4 The MS/MSD RPD was out of control due to matrix inter
Q Spike recovery and RPD control limits do not apply result
R RPD outside accepted recovery limits
S Spike Recovery outside accepted recovery limits

CLIENT: Impact Environmental Services
Work Order: 0803052
Project:

ANALYTICAL QC SUMMARY REPORT

BatchID: R15616

Sample ID: **lcsd**	SampType: **LCSD**	TestCode: **8260B_S**	Units: **µg/Kg**	Prep Date: **3/10/2008**	RunNo: **15616**
Client ID: **ZZZZZ**	Batch ID: **R15616**	TestNo: **SW8260B**		Analysis Date: **3/10/2008**	SeqNo: **224149**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Surr: 4-Bromofluorobenzene	49.40	0	50	0	98.8	55.8	141	0	0	0	
Surr: Dibromofluoromethane	57.69	0	50	0	115	59.8	148	0	0	0	
Surr: Toluene-d8	46.03	0	50	0	92.1	55.2	133	0	0	0	

Qualifiers:

3 Recovery of the MS and/or MSD was out of control due t
4 The MS/MSD RPD was out of control due to matrix inter
Q Spike recovery and RPD control limits do not apply result
R RPD outside accepted recovery limits
S Spike Recovery outside accepted recovery limits

Torrent LABORATORY, INC.
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: 0803052

Company Name: IMPACT ENVIRONMENTAL	Location of Sampling: 1409-1417 12th St. OAKLAND
Address: 39120 Argonaut Way, #223	Purpose: Phase II ESA/Well Installation
City: FREMONT State: CA Zip Code: 94538	Special Instructions / Comments: Email results to jac21462@aol.com
Telephone: (510) 7035420 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

ANALYSIS REQUESTED

LAB ID	CLIENT'S SAMPLE I.D.	DATE / TIME SAMPLED	MATRIX	# OF CONT	CONT TYPE	EPA 8260B - Full List / EPA 8260B - 8010 List	THP gas / BTEX / Oxygenates / MTBE	THP Diesel / Si-Gel / Motor Oil	Pesticide - 8081	PCB - 8082	Metals / CAM - 17 / LUFT 5 / 7 Metals	8270 Full List / PAHs Only	plus 10 surrogates		REMARKS
001A	B-16'.5'	3-6-8 1:00P	S	1	Poly Liner		X	X							
002A	B-16'.8'	1:20P	S	1			X	X							
003A	B-16'.10'	1:40P	S	1			X	X							
004A	B-16'.12'	2:10P	S	1			X	X							HOLD UNTIL FURTHER NOTICE
005A	B-16'.13'	2:30P	S	1			X	X							
006A	B-16'.15'	3:00P	S	1			X	X							
007A	B-16'.20'	3:30P	S	1			X	X							
008A	B-16'.22'	3-6-8 4:00P	S	1	Poly Liner		X	X							
009A	B-16'GW	3-6-8 3:15P	W	4	3 VOAs 1 AMBER		X	X							
010A	B-17'GW	3-7-8 1:00P	W	4	"		X	X							

RUSH

TORRENT LAB

	Relinquished By:	Print:	Date:	Time:	Received By:	Print:	Date:	Time:
1		Joseph Cotton	3-7-8				3/7/8	18:55
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 _____ 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: NDO Date: 3/10 Log In Reviewed By: _____ Date: _____

Torrent LABORATORY, INC.
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: 0803052

Company Name: IMPACT ENVIRONMENTAL
Address: 39120 ARGONAUT WAY, #223
City: FREMONT State: CA Zip Code: 94538
Telephone: (510) 703-5420 FAX: (510) 791-6271
REPORT TO: Joseph Cotton SAMPLER: Joseph Cotton

Location of Sampling: 1409-1417 12th St, OAKLAND
Purpose: Phase II ESA/Well Installation
Special Instructions / Comments: Email results to JAC21462@aol.com
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

ANALYSIS REQUESTED

LAB ID	CLIENT'S SAMPLE I.D.	DATE / TIME SAMPLED	MATRIX	# OF CONT	CONT TYPE	EPA 8260B - Full List ☐ / EPA 8260B - 8010 List ☐	THP gas ☒ BTEX ☒ Oxygenates ☒ MTBE	THP Diesel ☒ Si-Gel ☒ Motor Oil ☒	Pesticide - 8081 ☐	PCB - 8082 ☐	Metals ☐ CAM - 17 ☐ LUFT 5 ☐ 7 Metals	8270 Full List ☐ PAHs Only ☐	5 Lucs By Scan		REMARKS
011A	B-17'.5'	3-7-8 10:00	S	1	Poly Liter		X	X					X		
012A	B-17'.10'	11:00	S	1			X	X							
013A	B-17'.15'	12:00	S	1			X	X							
014A	B-17'.20'	1:30	S	1			X	X							
015A	B-17'.25'	3-7-8 2:00	S	1			X	X							

RUSH

TORRENT LAB

	Relinquished By:	Print:	Date:	Time:	Received By:	Print:	Date:	Time:
1		JOSEPH COTTON	3-7-8				3/7/08	18:55
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 _____ 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.

Page 2 of 2

Log In By: _____ Date: 3/10 Log In Reviewed By: _____ Date: _____

Torrent
LABORATORY, INC.

March 18, 2008

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

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

RE: 14194.002

Order No.: 0803064

Dear Mr. Joseph Cotton:

Torrent Laboratory, Inc. received 15 samples on 3/11/2008 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 3/18/08 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: 3/11/2008
Date Reported:

Client Sample ID: MW-1-5.5
Sample Location: IES Oakland 1409 12th St
Sample Matrix: SOIL
Date/Time Sampled 3/10/2008 9:30:00 AM

Lab Sample ID: 0803064-001
Date Prepared: 3/14/2008

Parameters	Analysis Method	Date Analyzed	RL	Dilution Factor	MRL	Result	Units	Analytical Batch
TPH (Diesel)	SW8015B	3/15/2008	2	1	2.00	18.7x	mg/Kg	R15675
TPH (Motor Oil)	SW8015B	3/15/2008	4	1	4.00	20.5x	mg/Kg	R15675
Surr: Pentacosane	SW8015B	3/15/2008	0	1	53.5-127	98.8	%REC	R15675
Note: x-Sample chromatogram does not resemble typical diesel or motor oil pattern. Hydrocarbons within the diesel range quantitated as diesel; hydrocarbons within the motor oil range quantitated as motor oil.								
1,2-Dibromoethane (EDB)	SW8260B	3/14/2008	5	1	5.0	ND	µg/Kg	R15648
1,2-Dichloroethane (EDC)	SW8260B	3/14/2008	5	1	5.0	ND	µg/Kg	R15648
Benzene	SW8260B	3/14/2008	5	1	5.0	ND	µg/Kg	R15648
Diisopropyl ether (DIPE)	SW8260B	3/14/2008	5	1	5.0	ND	µg/Kg	R15648
Ethyl tert-butyl ether (ETBE)	SW8260B	3/14/2008	5	1	5.0	ND	µg/Kg	R15648
Ethylbenzene	SW8260B	3/14/2008	5	1	5.0	ND	µg/Kg	R15648
Isopropyl Ether	SW8260B	3/14/2008	5	1	5.0	ND	µg/Kg	R15648
Methyl tert-butyl ether (MTBE)	SW8260B	3/14/2008	10	1	10	ND	µg/Kg	R15648
t-Butyl alcohol (t-Butanol)	SW8260B	3/14/2008	50	1	50	ND	µg/Kg	R15648
tert-Amyl methyl ether (TAME)	SW8260B	3/14/2008	5	1	5.0	ND	µg/Kg	R15648
Toluene	SW8260B	3/14/2008	5	1	5.0	ND	µg/Kg	R15648
Xylenes, Total	SW8260B	3/14/2008	15	1	15	ND	µg/Kg	R15648
Surr: 4-Bromofluorobenzene	SW8260B	3/14/2008	0	1	55.8-141	115	%REC	R15648
Surr: Dibromofluoromethane	SW8260B	3/14/2008	0	1	59.8-148	117	%REC	R15648
Surr: Toluene-d8	SW8260B	3/14/2008	0	1	55.2-133	95.0	%REC	R15648
TPH (Gasoline)	SW8260B(TPH)	3/14/2008	100	1	100	ND	µg/Kg	G15648
Surr: 4-Bromofllurobenzene	SW8260B(TPH)	3/14/2008	0	1	56.9-133	76.0	%REC	G15648

These analyses were performed according to State of California Environmental Laboratory Accreditation program, Certificate # 1991

Report prepared for: Mr. Joseph Cotton
Impact Environmental Services

Date Received: 3/11/2008
Date Reported:

Client Sample ID: MW-1-10.5
Sample Location: IES Oakland 1409 12th St
Sample Matrix: SOIL
Date/Time Sampled 3/10/2008 9:50:00 AM

Lab Sample ID: 0803064-002
Date Prepared: 3/14/2008

Parameters	Analysis Method	Date Analyzed	RL	Dilution Factor	MRL	Result	Units	Analytical Batch
TPH (Diesel)	SW8015B	3/15/2008	2	1	2.00	ND	mg/Kg	R15675
TPH (Motor Oil)	SW8015B	3/15/2008	4	1	4.00	ND	mg/Kg	R15675
Surr: Pentacosane	SW8015B	3/15/2008	0	1	53.5-127	103	%REC	R15675
1,2-Dibromoethane (EDB)	SW8260B	3/14/2008	5	1	5.0	ND	µg/Kg	R15648
1,2-Dichloroethane (EDC)	SW8260B	3/14/2008	5	1	5.0	ND	µg/Kg	R15648
Benzene	SW8260B	3/14/2008	5	1	5.0	ND	µg/Kg	R15648
Diisopropyl ether (DIPE)	SW8260B	3/14/2008	5	1	5.0	ND	µg/Kg	R15648
Ethyl tert-butyl ether (ETBE)	SW8260B	3/14/2008	5	1	5.0	ND	µg/Kg	R15648
Ethylbenzene	SW8260B	3/14/2008	5	1	5.0	ND	µg/Kg	R15648
Isopropyl Ether	SW8260B	3/14/2008	5	1	5.0	ND	µg/Kg	R15648
Methyl tert-butyl ether (MTBE)	SW8260B	3/14/2008	10	1	10	ND	µg/Kg	R15648
t-Butyl alcohol (t-Butanol)	SW8260B	3/14/2008	50	1	50	ND	µg/Kg	R15648
tert-Amyl methyl ether (TAME)	SW8260B	3/14/2008	5	1	5.0	ND	µg/Kg	R15648
Toluene	SW8260B	3/14/2008	5	1	5.0	ND	µg/Kg	R15648
Xylenes, Total	SW8260B	3/14/2008	15	1	15	ND	µg/Kg	R15648
Surr: 4-Bromofluorobenzene	SW8260B	3/14/2008	0	1	55.8-141	118	%REC	R15648
Surr: Dibromofluoromethane	SW8260B	3/14/2008	0	1	59.8-148	131	%REC	R15648
Surr: Toluene-d8	SW8260B	3/14/2008	0	1	55.2-133	102	%REC	R15648
TPH (Gasoline)	SW8260B(TPH)	3/17/2008	100	1	100	ND	µg/Kg	G15673
Surr: 4-Bromofllurobenzene	SW8260B(TPH)	3/17/2008	0	1	56.9-133	90.0	%REC	G15673

These analyses were performed according to State of California Environmental Laboratory Accreditation program, Certificate # 1991

Report prepared for: Mr. Joseph Cotton
Impact Environmental Services

Date Received: 3/11/2008
Date Reported:

Client Sample ID: MW-1-15.0
Sample Location: IES Oakland 1409 12th St
Sample Matrix: SOIL
Date/Time Sampled 3/10/2008 10:05:00 AM

Lab Sample ID: 0803064-003
Date Prepared: 3/14/2008

Parameters	Analysis Method	Date Analyzed	RL	Dilution Factor	MRL	Result	Units	Analytical Batch
TPH (Diesel)	SW8015B	3/15/2008	2	1	2.00	4.70x	mg/Kg	R15675
TPH (Motor Oil)	SW8015B	3/15/2008	4	1	4.00	6.35x	mg/Kg	R15675
Surr: Pentacosane	SW8015B	3/15/2008	0	1	53.5-127	102	%REC	R15675
Note:x-Sample chromatogram does not resemble typical diesel or motor oil pattern. Hydrocarbons within the diesel range quantitated as diesel; hydrocarbons within the motor oil range quantitated as motor oil.								
1,2-Dibromoethane (EDB)	SW8260B	3/14/2008	5	1	5.0	ND	µg/Kg	R15648
1,2-Dichloroethane (EDC)	SW8260B	3/14/2008	5	1	5.0	ND	µg/Kg	R15648
Benzene	SW8260B	3/14/2008	5	1	5.0	ND	µg/Kg	R15648
Diisopropyl ether (DIPE)	SW8260B	3/14/2008	5	1	5.0	ND	µg/Kg	R15648
Ethyl tert-butyl ether (ETBE)	SW8260B	3/14/2008	5	1	5.0	ND	µg/Kg	R15648
Ethylbenzene	SW8260B	3/14/2008	5	1	5.0	ND	µg/Kg	R15648
Isopropyl Ether	SW8260B	3/14/2008	5	1	5.0	ND	µg/Kg	R15648
Methyl tert-butyl ether (MTBE)	SW8260B	3/14/2008	10	1	10	ND	µg/Kg	R15648
t-Butyl alcohol (t-Butanol)	SW8260B	3/14/2008	50	1	50	ND	µg/Kg	R15648
tert-Amyl methyl ether (TAME)	SW8260B	3/14/2008	5	1	5.0	ND	µg/Kg	R15648
Toluene	SW8260B	3/14/2008	5	1	5.0	ND	µg/Kg	R15648
Xylenes, Total	SW8260B	3/14/2008	15	1	15	ND	µg/Kg	R15648
Surr: 4-Bromofluorobenzene	SW8260B	3/14/2008	0	1	55.8-141	114	%REC	R15648
Surr: Dibromofluoromethane	SW8260B	3/14/2008	0	1	59.8-148	117	%REC	R15648
Surr: Toluene-d8	SW8260B	3/14/2008	0	1	55.2-133	96.0	%REC	R15648
TPH (Gasoline)	SW8260B(TPH)	3/14/2008	100	1	100	ND	µg/Kg	G15648
Surr: 4-Bromofllurobenzene	SW8260B(TPH)	3/14/2008	0	1	56.9-133	70.0	%REC	G15648

These analyses were performed according to State of California Environmental Laboratory Accreditation program, Certificate # 1991

Report prepared for: Mr. Joseph Cotton
Impact Environmental Services

Date Received: 3/11/2008
Date Reported:

Client Sample ID: MW-8-6.5
Sample Location: IES Oakland 1409 12th St
Sample Matrix: SOIL
Date/Time Sampled 3/10/2008 1:40:00 PM

Lab Sample ID: 0803064-005
Date Prepared: 3/14/2008-3/17/2008

Parameters	Analysis Method	Date Analyzed	RL	Dilution Factor	MRL	Result	Units	Analytical Batch
TPH (Diesel)	SW8015B	3/15/2008	2	1	2.00	54.7x	mg/Kg	R15675
TPH (Motor Oil)	SW8015B	3/15/2008	4	1	4.00	ND	mg/Kg	R15675
Surr: Pentacosane	SW8015B	3/15/2008	0	1	53.5-127	97.4	%REC	R15675
Note: x-Sample chromatogram does not resemble typical diesel pattern. Hydrocarbons within the diesel range quantitated as diesel								
1,2-Dibromoethane (EDB)	SW8260B	3/15/2008	5	100	500	ND	µg/Kg	R15666
1,2-Dichloroethane (EDC)	SW8260B	3/15/2008	5	100	500	ND	µg/Kg	R15666
Benzene	SW8260B	3/15/2008	5	100	500	ND	µg/Kg	R15666
Diisopropyl ether (DIPE)	SW8260B	3/15/2008	5	100	500	ND	µg/Kg	R15666
Ethyl tert-butyl ether (ETBE)	SW8260B	3/15/2008	5	100	500	ND	µg/Kg	R15666
Ethylbenzene	SW8260B	3/15/2008	5	100	500	1700	µg/Kg	R15666
Isopropyl Ether	SW8260B	3/15/2008	5	100	500	ND	µg/Kg	R15666
Methyl tert-butyl ether (MTBE)	SW8260B	3/15/2008	10	100	1000	ND	µg/Kg	R15666
t-Butyl alcohol (t-Butanol)	SW8260B	3/15/2008	50	100	5000	ND	µg/Kg	R15666
tert-Amyl methyl ether (TAME)	SW8260B	3/15/2008	5	100	500	ND	µg/Kg	R15666
Toluene	SW8260B	3/15/2008	5	100	500	ND	µg/Kg	R15666
Xylenes, Total	SW8260B	3/15/2008	15	100	1500	8200	µg/Kg	R15666
Surr: 4-Bromofluorobenzene	SW8260B	3/15/2008	0	100	55.8-141	106	%REC	R15666
Surr: Dibromofluoromethane	SW8260B	3/15/2008	0	100	59.8-148	109	%REC	R15666
Surr: Toluene-d8	SW8260B	3/15/2008	0	100	55.2-133	107	%REC	R15666
TPH (Gasoline)	SW8260B(TPH)	3/17/2008	100	200	20000	333000x	µg/Kg	G15673
Surr: 4-Bromofllurobenzene	SW8260B(TPH)	3/17/2008	0	200	56.9-133	88.0	%REC	G15673

Note:x- Pattern does not match typical gasoline. TPHg result due to the presence of significant amount of non-target heavy end hydrocarbons within gasoline range.

These analyses were performed according to State of California Environmental Laboratory Accreditation program, Certificate # 1991

Report prepared for: Mr. Joseph Cotton
Impact Environmental Services

Date Received: 3/11/2008
Date Reported:

Client Sample ID: MW-8-11.0
Sample Location: IES Oakland 1409 12th St
Sample Matrix: SOIL
Date/Time Sampled 3/10/2008 1:50:00 PM

Lab Sample ID: 0803064-006
Date Prepared: 3/14/2008-3/15/2008

Parameters	Analysis Method	Date Analyzed	RL	Dilution Factor	MRL	Result	Units	Analytical Batch
TPH (Diesel)	SW8015B	3/15/2008	2	1	2.00	ND	mg/Kg	R15675
TPH (Motor Oil)	SW8015B	3/15/2008	4	1	4.00	ND	mg/Kg	R15675
Surr: Pentacosane	SW8015B	3/15/2008	0	1	53.5-127	99.6	%REC	R15675
1,2-Dibromoethane (EDB)	SW8260B	3/15/2008	5	100	500	ND	µg/Kg	R15666
1,2-Dichloroethane (EDC)	SW8260B	3/15/2008	5	100	500	ND	µg/Kg	R15666
Benzene	SW8260B	3/15/2008	5	100	500	760	µg/Kg	R15666
Diisopropyl ether (DIPE)	SW8260B	3/15/2008	5	100	500	ND	µg/Kg	R15666
Ethyl tert-butyl ether (ETBE)	SW8260B	3/15/2008	5	100	500	ND	µg/Kg	R15666
Ethylbenzene	SW8260B	3/15/2008	5	100	500	1400	µg/Kg	R15666
Isopropyl Ether	SW8260B	3/15/2008	5	100	500	ND	µg/Kg	R15666
Methyl tert-butyl ether (MTBE)	SW8260B	3/15/2008	10	100	1000	ND	µg/Kg	R15666
t-Butyl alcohol (t-Butanol)	SW8260B	3/15/2008	50	100	5000	ND	µg/Kg	R15666
tert-Amyl methyl ether (TAME)	SW8260B	3/15/2008	5	100	500	ND	µg/Kg	R15666
Toluene	SW8260B	3/15/2008	5	100	500	1000	µg/Kg	R15666
Xylenes, Total	SW8260B	3/15/2008	15	100	1500	7700	µg/Kg	R15666
Surr: 4-Bromofluorobenzene	SW8260B	3/15/2008	0	100	55.8-141	109	%REC	R15666
Surr: Dibromofluoromethane	SW8260B	3/15/2008	0	100	59.8-148	106	%REC	R15666
Surr: Toluene-d8	SW8260B	3/15/2008	0	100	55.2-133	98.3	%REC	R15666
TPH (Gasoline)	SW8260B(TPH)	3/15/2008	100	100	10000	40000	µg/Kg	G15666
Surr: 4-Bromofllurobenzene	SW8260B(TPH)	3/15/2008	0	100	56.9-133	72.0	%REC	G15666

Note:x- Although TPHg as gasoline compounds are present, TPHg value elevated due to the presence of non-target compounds within gasoline range.

These analyses were performed according to State of California Environmental Laboratory Accreditation program, Certificate # 1991

Report prepared for: Mr. Joseph Cotton
Impact Environmental Services

Date Received: 3/11/2008
Date Reported:

Client Sample ID: MW-8-16.0
Sample Location: IES Oakland 1409 12th St
Sample Matrix: SOIL
Date/Time Sampled 3/10/2008 2:00:00 PM

Lab Sample ID: 0803064-007
Date Prepared: 3/14/2008

Parameters	Analysis Method	Date Analyzed	RL	Dilution Factor	MRL	Result	Units	Analytical Batch
TPH (Diesel)	SW8015B	3/15/2008	2	1	2.00	ND	mg/Kg	R15675
TPH (Motor Oil)	SW8015B	3/15/2008	4	1	4.00	ND	mg/Kg	R15675
Surr: Pentacosane	SW8015B	3/15/2008	0	1	53.5-127	111	%REC	R15675
1,2-Dibromoethane (EDB)	SW8260B	3/14/2008	5	1	5.0	ND	µg/Kg	R15648
1,2-Dichloroethane (EDC)	SW8260B	3/14/2008	5	1	5.0	ND	µg/Kg	R15648
Benzene	SW8260B	3/14/2008	5	1	5.0	ND	µg/Kg	R15648
Diisopropyl ether (DIPE)	SW8260B	3/14/2008	5	1	5.0	ND	µg/Kg	R15648
Ethyl tert-butyl ether (ETBE)	SW8260B	3/14/2008	5	1	5.0	ND	µg/Kg	R15648
Ethylbenzene	SW8260B	3/14/2008	5	1	5.0	ND	µg/Kg	R15648
Isopropyl Ether	SW8260B	3/14/2008	5	1	5.0	ND	µg/Kg	R15648
Methyl tert-butyl ether (MTBE)	SW8260B	3/14/2008	10	1	10	ND	µg/Kg	R15648
t-Butyl alcohol (t-Butanol)	SW8260B	3/14/2008	50	1	50	ND	µg/Kg	R15648
tert-Amyl methyl ether (TAME)	SW8260B	3/14/2008	5	1	5.0	ND	µg/Kg	R15648
Toluene	SW8260B	3/14/2008	5	1	5.0	ND	µg/Kg	R15648
Xylenes, Total	SW8260B	3/14/2008	15	1	15	ND	µg/Kg	R15648
Surr: 4-Bromofluorobenzene	SW8260B	3/14/2008	0	1	55.8-141	76.3	%REC	R15648
Surr: Dibromofluoromethane	SW8260B	3/14/2008	0	1	59.8-148	122	%REC	R15648
Surr: Toluene-d8	SW8260B	3/14/2008	0	1	55.2-133	95.4	%REC	R15648
TPH (Gasoline)	SW8260B(TPH)	3/14/2008	100	1	100	138x	µg/Kg	G15648
Surr: 4-Bromofllurobenzene	SW8260B(TPH)	3/14/2008	0	1	56.9-133	86.0	%REC	G15648

Note: x-Pattern does not match typical gasoline. TPHg result due to the presence of non-target compounds within gasoline range.

These analyses were performed according to State of California Environmental Laboratory Accreditation program, Certificate # 1991

Report prepared for: Mr. Joseph Cotton
Impact Environmental Services

Date Received: 3/11/2008
Date Reported:

Client Sample ID: MW-8-20.5
Sample Location: IES Oakland 1409 12th St
Sample Matrix: SOIL
Date/Time Sampled 3/10/2008 2:05:00 PM

Lab Sample ID: 0803064-008
Date Prepared: 3/14/2008

Parameters	Analysis Method	Date Analyzed	RL	Dilution Factor	MRL	Result	Units	Analytical Batch
TPH (Diesel)	SW8015B	3/15/2008	2	1	2.00	3.02x	mg/Kg	R15675
TPH (Motor Oil)	SW8015B	3/15/2008	4	1	4.00	4.41x	mg/Kg	R15675
Surr: Pentacosane	SW8015B	3/15/2008	0	1	53.5-127	98.6	%REC	R15675

Note: x-Sample chromatogram does not resemble typical diesel or motor oil pattern. Hydrocarbons within the diesel range quantitated as diesel; hydrocarbons within the motor oil range quantitated as motor oil.Note: Sample chromatogram does not resemble typical diesel or motor oil pattern. Hydrocarbons within the diesel range quantitated as diesel; hydrocarbons within the motor oil range quantitated as motor oil.

1,2-Dibromoethane (EDB)	SW8260B	3/14/2008	5	1	5.0	ND	µg/Kg	R15648
1,2-Dichloroethane (EDC)	SW8260B	3/14/2008	5	1	5.0	ND	µg/Kg	R15648
Benzene	SW8260B	3/14/2008	5	1	5.0	ND	µg/Kg	R15648
Diisopropyl ether (DIPE)	SW8260B	3/14/2008	5	1	5.0	ND	µg/Kg	R15648
Ethyl tert-butyl ether (ETBE)	SW8260B	3/14/2008	5	1	5.0	ND	µg/Kg	R15648
Ethylbenzene	SW8260B	3/14/2008	5	1	5.0	ND	µg/Kg	R15648
Isopropyl Ether	SW8260B	3/14/2008	5	1	5.0	ND	µg/Kg	R15648
Methyl tert-butyl ether (MTBE)	SW8260B	3/14/2008	10	1	10	ND	µg/Kg	R15648
t-Butyl alcohol (t-Butanol)	SW8260B	3/14/2008	50	1	50	ND	µg/Kg	R15648
tert-Amyl methyl ether (TAME)	SW8260B	3/14/2008	5	1	5.0	ND	µg/Kg	R15648
Toluene	SW8260B	3/14/2008	5	1	5.0	ND	µg/Kg	R15648
Xylenes, Total	SW8260B	3/14/2008	15	1	15	17	µg/Kg	R15648
Surr: 4-Bromofluorobenzene	SW8260B	3/14/2008	0	1	55.8-141	82.0	%REC	R15648
Surr: Dibromofluoromethane	SW8260B	3/14/2008	0	1	59.8-148	121	%REC	R15648
Surr: Toluene-d8	SW8260B	3/14/2008	0	1	55.2-133	94.5	%REC	R15648
TPH (Gasoline)	SW8260B(TPH)	3/14/2008	100	1	100	107x	µg/Kg	G15648
Surr: 4-Bromofllurobenzene	SW8260B(TPH)	3/14/2008	0	1	56.9-133	80.0	%REC	G15648

Note: x-Pattern does not match typical gasoline. TPHg result due to the presence of non-target compounds within gasoline range.

These analyses were performed according to State of California Environmental Laboratory Accreditation program, Certificate # 1991

Report prepared for: Mr. Joseph Cotton
Impact Environmental Services

Date Received: 3/11/2008
Date Reported:

Client Sample ID: MW-4-9.5
Sample Location: IES Oakland 1409 12th St
Sample Matrix: SOIL
Date/Time Sampled 3/11/2008 11:40:00 AM

Lab Sample ID: 0803064-010
Date Prepared: 3/14/2008

Parameters	Analysis Method	Date Analyzed	RL	Dilution Factor	MRL	Result	Units	Analytical Batch
TPH (Diesel)	SW8015B	3/15/2008	2	1	2.00	ND	mg/Kg	R15675
TPH (Motor Oil)	SW8015B	3/15/2008	4	1	4.00	ND	mg/Kg	R15675
Surr: Pentacosane	SW8015B	3/15/2008	0	1	53.5-127	103	%REC	R15675
1,2-Dibromoethane (EDB)	SW8260B	3/14/2008	5	1	5.0	ND	µg/Kg	R15648
1,2-Dichloroethane (EDC)	SW8260B	3/14/2008	5	1	5.0	ND	µg/Kg	R15648
Benzene	SW8260B	3/14/2008	5	1	5.0	ND	µg/Kg	R15648
Diisopropyl ether (DIPE)	SW8260B	3/14/2008	5	1	5.0	ND	µg/Kg	R15648
Ethyl tert-butyl ether (ETBE)	SW8260B	3/14/2008	5	1	5.0	ND	µg/Kg	R15648
Ethylbenzene	SW8260B	3/14/2008	5	1	5.0	ND	µg/Kg	R15648
Isopropyl Ether	SW8260B	3/14/2008	5	1	5.0	ND	µg/Kg	R15648
Methyl tert-butyl ether (MTBE)	SW8260B	3/14/2008	10	1	10	ND	µg/Kg	R15648
t-Butyl alcohol (t-Butanol)	SW8260B	3/14/2008	50	1	50	ND	µg/Kg	R15648
tert-Amyl methyl ether (TAME)	SW8260B	3/14/2008	5	1	5.0	ND	µg/Kg	R15648
Toluene	SW8260B	3/14/2008	5	1	5.0	ND	µg/Kg	R15648
Xylenes, Total	SW8260B	3/14/2008	15	1	15	ND	µg/Kg	R15648
Surr: 4-Bromofluorobenzene	SW8260B	3/14/2008	0	1	55.8-141	109	%REC	R15648
Surr: Dibromofluoromethane	SW8260B	3/14/2008	0	1	59.8-148	125	%REC	R15648
Surr: Toluene-d8	SW8260B	3/14/2008	0	1	55.2-133	98.0	%REC	R15648
TPH (Gasoline)	SW8260B(TPH)	3/14/2008	100	1	100	ND	µg/Kg	G15648
Surr: 4-Bromofllurobenzene	SW8260B(TPH)	3/14/2008	0	1	56.9-133	82.0	%REC	G15648

These analyses were performed according to State of California Environmental Laboratory Accreditation program, Certificate # 1991

Report prepared for: Mr. Joseph Cotton
Impact Environmental Services

Date Received: 3/11/2008
Date Reported:

Client Sample ID: MW-4-12.0
Sample Location: IES Oakland 1409 12th St
Sample Matrix: SOIL
Date/Time Sampled 3/11/2008 11:47:00 AM

Lab Sample ID: 0803064-011
Date Prepared: 3/14/2008-3/15/2008

Parameters	Analysis Method	Date Analyzed	RL	Dilution Factor	MRL	Result	Units	Analytical Batch
TPH (Diesel)	SW8015B	3/15/2008	2	1	2.00	ND	mg/Kg	R15675
TPH (Motor Oil)	SW8015B	3/15/2008	4	1	4.00	ND	mg/Kg	R15675
Surr: Pentacosane	SW8015B	3/15/2008	0	1	53.5-127	98.5	%REC	R15675
1,2-Dibromoethane (EDB)	SW8260B	3/15/2008	5	1	5.0	ND	µg/Kg	R15666
1,2-Dichloroethane (EDC)	SW8260B	3/15/2008	5	1	5.0	ND	µg/Kg	R15666
Benzene	SW8260B	3/15/2008	5	1	5.0	ND	µg/Kg	R15666
Diisopropyl ether (DIPE)	SW8260B	3/15/2008	5	1	5.0	ND	µg/Kg	R15666
Ethyl tert-butyl ether (ETBE)	SW8260B	3/15/2008	5	1	5.0	ND	µg/Kg	R15666
Ethylbenzene	SW8260B	3/15/2008	5	1	5.0	ND	µg/Kg	R15666
Isopropyl Ether	SW8260B	3/15/2008	5	1	5.0	ND	µg/Kg	R15666
Methyl tert-butyl ether (MTBE)	SW8260B	3/15/2008	10	1	10	ND	µg/Kg	R15666
t-Butyl alcohol (t-Butanol)	SW8260B	3/15/2008	50	1	50	ND	µg/Kg	R15666
tert-Amyl methyl ether (TAME)	SW8260B	3/15/2008	5	1	5.0	ND	µg/Kg	R15666
Toluene	SW8260B	3/15/2008	5	1	5.0	ND	µg/Kg	R15666
Xylenes, Total	SW8260B	3/15/2008	15	1	15	ND	µg/Kg	R15666
Surr: 4-Bromofluorobenzene	SW8260B	3/15/2008	0	1	55.8-141	91.5	%REC	R15666
Surr: Dibromofluoromethane	SW8260B	3/15/2008	0	1	59.8-148	125	%REC	R15666
Surr: Toluene-d8	SW8260B	3/15/2008	0	1	55.2-133	116	%REC	R15666
TPH (Gasoline)	SW8260B(TPH)	3/15/2008	100	1	100	ND	µg/Kg	G15666
Surr: 4-Bromofllurobenzene	SW8260B(TPH)	3/15/2008	0	1	56.9-133	74.0	%REC	G15666

These analyses were performed according to State of California Environmental Laboratory Accreditation program, Certificate # 1991

Report prepared for: Mr. Joseph Cotton
Impact Environmental Services

Date Received: 3/11/2008
Date Reported:

Client Sample ID: MW-4-17.0
Sample Location: IES Oakland 1409 12th St
Sample Matrix: SOIL
Date/Time Sampled 3/11/2008 11:55:00 AM

Lab Sample ID: 0803064-012
Date Prepared: 3/14/2008

Parameters	Analysis Method	Date Analyzed	RL	Dilution Factor	MRL	Result	Units	Analytical Batch
TPH (Diesel)	SW8015B	3/15/2008	2	1	2.00	ND	mg/Kg	R15675
TPH (Motor Oil)	SW8015B	3/15/2008	4	1	4.00	ND	mg/Kg	R15675
Surr: Pentacosane	SW8015B	3/15/2008	0	1	53.5-127	100	%REC	R15675
1,2-Dibromoethane (EDB)	SW8260B	3/14/2008	5	1	5.0	ND	µg/Kg	R15666
1,2-Dichloroethane (EDC)	SW8260B	3/14/2008	5	1	5.0	ND	µg/Kg	R15666
Benzene	SW8260B	3/14/2008	5	1	5.0	ND	µg/Kg	R15666
Diisopropyl ether (DIPE)	SW8260B	3/14/2008	5	1	5.0	ND	µg/Kg	R15666
Ethyl tert-butyl ether (ETBE)	SW8260B	3/14/2008	5	1	5.0	ND	µg/Kg	R15666
Ethylbenzene	SW8260B	3/14/2008	5	1	5.0	ND	µg/Kg	R15666
Isopropyl Ether	SW8260B	3/14/2008	5	1	5.0	ND	µg/Kg	R15666
Methyl tert-butyl ether (MTBE)	SW8260B	3/14/2008	10	1	10	ND	µg/Kg	R15666
t-Butyl alcohol (t-Butanol)	SW8260B	3/14/2008	50	1	50	ND	µg/Kg	R15666
tert-Amyl methyl ether (TAME)	SW8260B	3/14/2008	5	1	5.0	ND	µg/Kg	R15666
Toluene	SW8260B	3/14/2008	5	1	5.0	ND	µg/Kg	R15666
Xylenes, Total	SW8260B	3/14/2008	15	1	15	ND	µg/Kg	R15666
Surr: 4-Bromofluorobenzene	SW8260B	3/14/2008	0	1	55.8-141	101	%REC	R15666
Surr: Dibromofluoromethane	SW8260B	3/14/2008	0	1	59.8-148	111	%REC	R15666
Surr: Toluene-d8	SW8260B	3/14/2008	0	1	55.2-133	99.6	%REC	R15666
TPH (Gasoline)	SW8260B(TPH)	3/14/2008	100	1	100	ND	µg/Kg	G15666
Surr: 4-Bromofllurobenzene	SW8260B(TPH)	3/14/2008	0	1	56.9-133	76.0	%REC	G15666

These analyses were performed according to State of California Environmental Laboratory Accreditation program, Certificate # 1991

Report prepared for: Mr. Joseph Cotton
Impact Environmental Services

Date Received: 3/11/2008
Date Reported:

Client Sample ID: MW-2-7.0
Sample Location: IES Oakland 1409 12th St
Sample Matrix: SOIL
Date/Time Sampled 3/11/2008 2:30:00 PM

Lab Sample ID: 0803064-013
Date Prepared: 3/14/2008

Parameters	Analysis Method	Date Analyzed	RL	Dilution Factor	MRL	Result	Units	Analytical Batch
TPH (Diesel)	SW8015B	3/15/2008	2	1	2.00	ND	mg/Kg	R15675
TPH (Motor Oil)	SW8015B	3/15/2008	4	1	4.00	ND	mg/Kg	R15675
Surr: Pentacosane	SW8015B	3/15/2008	0	1	53.5-127	97.9	%REC	R15675
1,2-Dibromoethane (EDB)	SW8260B	3/14/2008	5	1	5.0	ND	µg/Kg	R15666
1,2-Dichloroethane (EDC)	SW8260B	3/14/2008	5	1	5.0	ND	µg/Kg	R15666
Benzene	SW8260B	3/14/2008	5	1	5.0	ND	µg/Kg	R15666
Diisopropyl ether (DIPE)	SW8260B	3/14/2008	5	1	5.0	ND	µg/Kg	R15666
Ethyl tert-butyl ether (ETBE)	SW8260B	3/14/2008	5	1	5.0	ND	µg/Kg	R15666
Ethylbenzene	SW8260B	3/14/2008	5	1	5.0	ND	µg/Kg	R15666
Isopropyl Ether	SW8260B	3/14/2008	5	1	5.0	ND	µg/Kg	R15666
Methyl tert-butyl ether (MTBE)	SW8260B	3/14/2008	10	1	10	ND	µg/Kg	R15666
t-Butyl alcohol (t-Butanol)	SW8260B	3/14/2008	50	1	50	ND	µg/Kg	R15666
tert-Amyl methyl ether (TAME)	SW8260B	3/14/2008	5	1	5.0	ND	µg/Kg	R15666
Toluene	SW8260B	3/14/2008	5	1	5.0	ND	µg/Kg	R15666
Xylenes, Total	SW8260B	3/14/2008	15	1	15	ND	µg/Kg	R15666
Surr: 4-Bromofluorobenzene	SW8260B	3/14/2008	0	1	55.8-141	102	%REC	R15666
Surr: Dibromofluoromethane	SW8260B	3/14/2008	0	1	59.8-148	119	%REC	R15666
Surr: Toluene-d8	SW8260B	3/14/2008	0	1	55.2-133	104	%REC	R15666
TPH (Gasoline)	SW8260B(TPH)	3/14/2008	100	1	100	ND	µg/Kg	G15666
Surr: 4-Bromofllurobenzene	SW8260B(TPH)	3/14/2008	0	1	56.9-133	70.0	%REC	G15666

These analyses were performed according to State of California Environmental Laboratory Accreditation program, Certificate # 1991

Report prepared for: Mr. Joseph Cotton
Impact Environmental Services

Date Received: 3/11/2008
Date Reported:

Client Sample ID: MW-2-10.5
Sample Location: IES Oakland 1409 12th St
Sample Matrix: SOIL
Date/Time Sampled 3/11/2008 2:38:00 PM

Lab Sample ID: 0803064-014
Date Prepared: 3/14/2008

Parameters	Analysis Method	Date Analyzed	RL	Dilution Factor	MRL	Result	Units	Analytical Batch
TPH (Diesel)	SW8015B	3/15/2008	2	1	2.00	ND	mg/Kg	R15675
TPH (Motor Oil)	SW8015B	3/15/2008	4	1	4.00	ND	mg/Kg	R15675
Surr: Pentacosane	SW8015B	3/15/2008	0	1	53.5-127	107	%REC	R15675
1,2-Dibromoethane (EDB)	SW8260B	3/14/2008	5	1	5.0	ND	µg/Kg	R15666
1,2-Dichloroethane (EDC)	SW8260B	3/14/2008	5	1	5.0	ND	µg/Kg	R15666
Benzene	SW8260B	3/14/2008	5	1	5.0	ND	µg/Kg	R15666
Diisopropyl ether (DIPE)	SW8260B	3/14/2008	5	1	5.0	ND	µg/Kg	R15666
Ethyl tert-butyl ether (ETBE)	SW8260B	3/14/2008	5	1	5.0	ND	µg/Kg	R15666
Ethylbenzene	SW8260B	3/14/2008	5	1	5.0	ND	µg/Kg	R15666
Isopropyl Ether	SW8260B	3/14/2008	5	1	5.0	ND	µg/Kg	R15666
Methyl tert-butyl ether (MTBE)	SW8260B	3/14/2008	10	1	10	ND	µg/Kg	R15666
t-Butyl alcohol (t-Butanol)	SW8260B	3/14/2008	50	1	50	ND	µg/Kg	R15666
tert-Amyl methyl ether (TAME)	SW8260B	3/14/2008	5	1	5.0	ND	µg/Kg	R15666
Toluene	SW8260B	3/14/2008	5	1	5.0	ND	µg/Kg	R15666
Xylenes, Total	SW8260B	3/14/2008	15	1	15	ND	µg/Kg	R15666
Surr: 4-Bromofluorobenzene	SW8260B	3/14/2008	0	1	55.8-141	105	%REC	R15666
Surr: Dibromofluoromethane	SW8260B	3/14/2008	0	1	59.8-148	118	%REC	R15666
Surr: Toluene-d8	SW8260B	3/14/2008	0	1	55.2-133	97.1	%REC	R15666
TPH (Gasoline)	SW8260B(TPH)	3/14/2008	100	1	100	ND	µg/Kg	G15666
Surr: 4-Bromofllurobenzene	SW8260B(TPH)	3/14/2008	0	1	56.9-133	58.0	%REC	G15666

These analyses were performed according to State of California Environmental Laboratory Accreditation program, Certificate # 1991

Report prepared for: Mr. Joseph Cotton
Impact Environmental Services

Date Received: 3/11/2008
Date Reported:

Client Sample ID: MW-2-13.8
Sample Location: IES Oakland 1409 12th St
Sample Matrix: SOIL
Date/Time Sampled 3/11/2008 2:45:00 PM

Lab Sample ID: 0803064-015
Date Prepared: 3/14/2008

Parameters	Analysis Method	Date Analyzed	RL	Dilution Factor	MRL	Result	Units	Analytical Batch
TPH (Diesel)	SW8015B	3/15/2008	2	1	2.00	ND	mg/Kg	R15675
TPH (Motor Oil)	SW8015B	3/15/2008	4	1	4.00	ND	mg/Kg	R15675
Surr: Pentacosane	SW8015B	3/15/2008	0	1	53.5-127	107	%REC	R15675
1,2-Dibromoethane (EDB)	SW8260B	3/14/2008	5	1	5.0	ND	µg/Kg	R15666
1,2-Dichloroethane (EDC)	SW8260B	3/14/2008	5	1	5.0	ND	µg/Kg	R15666
Benzene	SW8260B	3/14/2008	5	1	5.0	ND	µg/Kg	R15666
Diisopropyl ether (DIPE)	SW8260B	3/14/2008	5	1	5.0	ND	µg/Kg	R15666
Ethyl tert-butyl ether (ETBE)	SW8260B	3/14/2008	5	1	5.0	ND	µg/Kg	R15666
Ethylbenzene	SW8260B	3/14/2008	5	1	5.0	ND	µg/Kg	R15666
Isopropyl Ether	SW8260B	3/14/2008	5	1	5.0	ND	µg/Kg	R15666
Methyl tert-butyl ether (MTBE)	SW8260B	3/14/2008	10	1	10	ND	µg/Kg	R15666
t-Butyl alcohol (t-Butanol)	SW8260B	3/14/2008	50	1	50	ND	µg/Kg	R15666
tert-Amyl methyl ether (TAME)	SW8260B	3/14/2008	5	1	5.0	ND	µg/Kg	R15666
Toluene	SW8260B	3/14/2008	5	1	5.0	ND	µg/Kg	R15666
Xylenes, Total	SW8260B	3/14/2008	15	1	15	ND	µg/Kg	R15666
Surr: 4-Bromofluorobenzene	SW8260B	3/14/2008	0	1	55.8-141	104	%REC	R15666
Surr: Dibromofluoromethane	SW8260B	3/14/2008	0	1	59.8-148	121	%REC	R15666
Surr: Toluene-d8	SW8260B	3/14/2008	0	1	55.2-133	96.2	%REC	R15666
TPH (Gasoline)	SW8260B(TPH)	3/14/2008	100	1	100	ND	µg/Kg	G15666
Surr: 4-Bromofllurobenzene	SW8260B(TPH)	3/14/2008	0	1	56.9-133	72.0	%REC	G15666

These analyses were performed according to State of California Environmental Laboratory Accreditation program, Certificate # 1991

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 #

These analyses were performed according to State of California Environmental Laboratory Accreditation program, Certificate # 1991

CLIENT: Impact Environmental Services
Work Order: 0803064
Project: 14194.002

ANALYTICAL QC SUMMARY REPORT

BatchID: G15648

Sample ID: **MB-G**	SampType: **MBLK**	TestCode: **TPH_GAS_S_**	Units: **µg/Kg**	Prep Date: **3/13/2008**	RunNo: **15648**
Client ID: **ZZZZZ**	Batch ID: **G15648**	TestNo: **SW8260B(TP**		Analysis Date: **3/13/2008**	SeqNo: **224554**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
TPH (Gasoline)	ND	100									
Surr: 4-Bromofllurobenzene	39.00	0	50	0	78.0	56.9	133				

Sample ID: **LCS-G**	SampType: **LCS**	TestCode: **TPH_GAS_S_**	Units: **µg/Kg**	Prep Date: **3/13/2008**	RunNo: **15648**
Client ID: **ZZZZZ**	Batch ID: **G15648**	TestNo: **SW8260B(TP**		Analysis Date: **3/13/2008**	SeqNo: **224555**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
TPH (Gasoline)	832.0	100	1000	0	83.2	48.2	132				
Surr: 4-Bromofllurobenzene	45.00	0	50	0	90.0	56.9	133				

Sample ID: **LCSD-G**	SampType: **LCSD**	TestCode: **TPH_GAS_S_**	Units: **µg/Kg**	Prep Date: **3/13/2008**	RunNo: **15648**
Client ID: **ZZZZZ**	Batch ID: **G15648**	TestNo: **SW8260B(TP**		Analysis Date: **3/13/2008**	SeqNo: **224556**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
TPH (Gasoline)	802.0	100	1000	0	80.2	48.2	132	832	3.67	30	
Surr: 4-Bromofllurobenzene	42.00	0	50	0	84.0	56.9	133	0	0	0	

Qualifiers:

E	Value above quantitation range	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	R	RPD outside accepted recovery limits	S	Spike Recovery outside accepted recovery limits

CLIENT: Impact Environmental Services
Work Order: 0803064
Project: 14194.002

ANALYTICAL QC SUMMARY REPORT

BatchID: G15666

Sample ID: **MB-G**	SampType: **MBLK**	TestCode: **TPH_GAS_S_**	Units: **µg/Kg**	Prep Date: **3/14/2008**	RunNo: **15666**
Client ID: **ZZZZZ**	Batch ID: **G15666**	TestNo: **SW8260B(TP**		Analysis Date: **3/14/2008**	SeqNo: **224753**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
TPH (Gasoline)	ND	100									
Surr: 4-Bromofllurobenzene	38.00	0	50	0	76.0	56.9	133				

Sample ID: **LCS-G**	SampType: **LCS**	TestCode: **TPH_GAS_S_**	Units: **µg/Kg**	Prep Date: **3/14/2008**	RunNo: **15666**
Client ID: **ZZZZZ**	Batch ID: **G15666**	TestNo: **SW8260B(TP**		Analysis Date: **3/14/2008**	SeqNo: **224754**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
TPH (Gasoline)	965.0	100	1000	0	96.5	48.2	132				
Surr: 4-Bromofllurobenzene	45.00	0	50	0	90.0	56.9	133				

Sample ID: **LCSD-G**	SampType: **LCSD**	TestCode: **TPH_GAS_S_**	Units: **µg/Kg**	Prep Date: **3/14/2008**	RunNo: **15666**
Client ID: **ZZZZZ**	Batch ID: **G15666**	TestNo: **SW8260B(TP**		Analysis Date: **3/14/2008**	SeqNo: **224755**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
TPH (Gasoline)	869.0	100	1000	0	86.9	48.2	132	965	10.5	30	
Surr: 4-Bromofllurobenzene	39.00	0	50	0	78.0	56.9	133	0	0	0	

Qualifiers:

E	Value above quantitation range	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	R	RPD outside accepted recovery limits	S	Spike Recovery outside accepted recovery limits

CLIENT: Impact Environmental Services
Work Order: 0803064
Project: 14194.002

ANALYTICAL QC SUMMARY REPORT

BatchID: G15673

Sample ID: **MB-G**	SampType: **MBLK**	TestCode: **TPH_GAS_S_**	Units: **µg/Kg**	Prep Date: **3/17/2008**	RunNo: **15673**
Client ID: **ZZZZZ**	Batch ID: **G15673**	TestNo: **SW8260B(TP**		Analysis Date: **3/17/2008**	SeqNo: **224869**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
TPH (Gasoline)	ND	100									
Surr: 4-Bromofllurobenzene	44.00	0	50	0	88.0	56.9	133				

Sample ID: **LCS-G**	SampType: **LCS**	TestCode: **TPH_GAS_S_**	Units: **µg/Kg**	Prep Date: **3/17/2008**	RunNo: **15673**
Client ID: **ZZZZZ**	Batch ID: **G15673**	TestNo: **SW8260B(TP**		Analysis Date: **3/17/2008**	SeqNo: **224870**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
TPH (Gasoline)	888.0	100	1000	0	88.8	48.2	132				
Surr: 4-Bromofllurobenzene	46.00	0	50	0	92.0	56.9	133				

Sample ID: **LCSD-G**	SampType: **LCSD**	TestCode: **TPH_GAS_S_**	Units: **µg/Kg**	Prep Date: **3/17/2008**	RunNo: **15673**
Client ID: **ZZZZZ**	Batch ID: **G15673**	TestNo: **SW8260B(TP**		Analysis Date: **3/17/2008**	SeqNo: **224871**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
TPH (Gasoline)	902.0	100	1000	0	90.2	48.2	132	888	1.56	30	
Surr: 4-Bromofllurobenzene	45.00	0	50	0	90.0	56.9	133	0	0	0	

Qualifiers:

E	Value above quantitation range	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	R	RPD outside accepted recovery limits	S	Spike Recovery outside accepted recovery limits

CLIENT: Impact Environmental Services
Work Order: 0803064
Project: 14194.002

ANALYTICAL QC SUMMARY REPORT

BatchID: R15648

Sample ID: **mb-6**	SampType: **MBLK**	TestCode: **8260B_S**	Units: **µg/Kg**	Prep Date: **3/13/2008**	RunNo: **15648**
Client ID: **ZZZZZ**	Batch ID: **R15648**	TestNo: **SW8260B**		Analysis Date: **3/13/2008**	SeqNo: **224536**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,2-Dibromoethane (EDB)	ND	10									
1,2-Dichloroethane (EDC)	ND	10									
Benzene	ND	10									
Ethyl tert-butyl ether (ETBE)	ND	10									
Ethylbenzene	ND	10									
Isopropyl Ether	ND	10									
Methyl tert-butyl ether (MTBE)	ND	10									
t-Butyl alcohol (t-Butanol)	ND	50									
tert-Amyl methyl ether (TAME)	ND	10									
Toluene	ND	10									
Xylenes, Total	ND	20									
Surr: 4-Bromofluorobenzene	52.99	0	50	0	106	55.8	141				
Surr: Dibromofluoromethane	52.85	0	50	0	106	59.8	148				
Surr: Toluene-d8	52.57	0	50	0	105	55.2	133				

Sample ID: **lcs-6**	SampType: **LCS**	TestCode: **8260B_S**	Units: **µg/Kg**	Prep Date: **3/13/2008**	RunNo: **15648**
Client ID: **ZZZZZ**	Batch ID: **R15648**	TestNo: **SW8260B**		Analysis Date: **3/13/2008**	SeqNo: **224545**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	40.25	10	50	0	80.5	66.5	135				
Toluene	49.14	10	50	0	98.3	56.8	134				
Surr: 4-Bromofluorobenzene	52.34	0	50	0	105	55.8	141				
Surr: Dibromofluoromethane	51.69	0	50	0	103	59.8	148				
Surr: Toluene-d8	50.82	0	50	0	102	55.2	133				

Sample ID: **lcsd-6**	SampType: **LCSD**	TestCode: **8260B_S**	Units: **µg/Kg**	Prep Date: **3/13/2008**	RunNo: **15648**
Client ID: **ZZZZZ**	Batch ID: **R15648**	TestNo: **SW8260B**		Analysis Date: **3/13/2008**	SeqNo: **224546**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	46.68	10	50	0	93.4	66.5	135	40.25	14.8	30	
Toluene	51.77	10	50	0	104	56.8	134	49.14	5.21	30	

Qualifiers:

E	Value above quantitation range	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	R	RPD outside accepted recovery limits	S	Spike Recovery outside accepted recovery limits

CLIENT: Impact Environmental Services
Work Order: 0803064
Project: 14194.002

ANALYTICAL QC SUMMARY REPORT

BatchID: R15648

Sample ID: **lcsd-6** SampType: **LCSD** TestCode: **8260B_S** Units: **µg/Kg** Prep Date: **3/13/2008** RunNo: **15648**
Client ID: **ZZZZZ** Batch ID: **R15648** TestNo: **SW8260B** Analysis Date: **3/13/2008** SeqNo: **224546**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Surr: 4-Bromofluorobenzene	47.62	0	50	0	95.2	55.8	141	0	0	0	
Surr: Dibromofluoromethane	50.94	0	50	0	102	59.8	148	0	0	0	
Surr: Toluene-d8	49.24	0	50	0	98.5	55.2	133	0	0	0	

Qualifiers:
E Value above quantitation range
H Holding times for preparation or analysis exceeded
J Analyte detected below quantitation limits
ND Not Detected at the Reporting Limit
R RPD outside accepted recovery limits
S Spike Recovery outside accepted recovery limits

CLIENT: Impact Environmental Services
Work Order: 0803064
Project: 14194.002

ANALYTICAL QC SUMMARY REPORT

BatchID: R15666

Sample ID: **mb**	SampType: **MBLK**	TestCode: **8260B_S**	Units: **µg/Kg**	Prep Date: **3/14/2008**	RunNo: **15666**
Client ID: **ZZZZZ**	Batch ID: **R15666**	TestNo: **SW8260B**		Analysis Date: **3/14/2008**	SeqNo: **224733**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,2-Dibromoethane (EDB)	ND	10									
1,2-Dichloroethane (EDC)	ND	10									
Benzene	ND	10									
Ethyl tert-butyl ether (ETBE)	ND	10									
Ethylbenzene	ND	10									
Isopropyl Ether	ND	10									
Methyl tert-butyl ether (MTBE)	ND	10									
t-Butyl alcohol (t-Butanol)	ND	50									
tert-Amyl methyl ether (TAME)	ND	10									
Toluene	ND	10									
Xylenes, Total	ND	20									
Surr: 4-Bromofluorobenzene	52.66	0	50	0	105	55.8	141				
Surr: Dibromofluoromethane	58.27	0	50	0	117	59.8	148				
Surr: Toluene-d8	51.52	0	50	0	103	55.2	133				

Sample ID: **lcs**	SampType: **LCS**	TestCode: **8260B_S**	Units: **µg/Kg**	Prep Date: **3/14/2008**	RunNo: **15666**
Client ID: **ZZZZZ**	Batch ID: **R15666**	TestNo: **SW8260B**		Analysis Date: **3/14/2008**	SeqNo: **224734**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	47.63	10	50	0	95.3	66.5	135				
Toluene	50.00	10	50	0	100	56.8	134				
Surr: 4-Bromofluorobenzene	53.65	0	50	0	107	55.8	141				
Surr: Dibromofluoromethane	53.25	0	50	0	106	59.8	148				
Surr: Toluene-d8	48.72	0	50	0	97.4	55.2	133				

Sample ID: **lcsd**	SampType: **LCSD**	TestCode: **8260B_S**	Units: **µg/Kg**	Prep Date: **3/14/2008**	RunNo: **15666**
Client ID: **ZZZZZ**	Batch ID: **R15666**	TestNo: **SW8260B**		Analysis Date: **3/14/2008**	SeqNo: **224735**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	48.42	10	50	0	96.8	66.5	135	47.63	1.64	30	
Toluene	51.27	10	50	0	103	56.8	134	50	2.51	30	

Qualifiers:

E	Value above quantitation range	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	R	RPD outside accepted recovery limits	S	Spike Recovery outside accepted recovery limits

CLIENT: Impact Environmental Services
Work Order: 0803064
Project: 14194.002

ANALYTICAL QC SUMMARY REPORT

BatchID: R15666

Sample ID: **lcsd**	SampType: **LCSD**	TestCode: **8260B_S**	Units: **µg/Kg**	Prep Date: **3/14/2008**	RunNo: **15666**
Client ID: **ZZZZZ**	Batch ID: **R15666**	TestNo: **SW8260B**		Analysis Date: **3/14/2008**	SeqNo: **224735**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Surr: 4-Bromofluorobenzene	52.11	0	50	0	104	55.8	141	0	0	0	
Surr: Dibromofluoromethane	54.59	0	50	0	109	59.8	148	0	0	0	
Surr: Toluene-d8	49.56	0	50	0	99.1	55.2	133	0	0	0	

Sample ID: **0803064-014A MS**	SampType: **MS**	TestCode: **8260B_S_PE**	Units: **µg/Kg**	Prep Date: **3/15/2008**	RunNo: **15666**
Client ID: **MW-2-10.5**	Batch ID: **R15666**	TestNo: **SW8260B**		Analysis Date: **3/15/2008**	SeqNo: **224747**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	53.12	5.0	50	0	106	66.5	135				
Toluene	54.98	5.0	50	0	110	56.8	134				
Surr: 4-Bromofluorobenzene	50.85	0	50	0	102	55.8	141				
Surr: Dibromofluoromethane	59.38	0	50	0	119	59.8	148				
Surr: Toluene-d8	52.78	0	50	0	106	55.2	133				

Sample ID: **0803064-014A MSD**	SampType: **MSD**	TestCode: **8260B_S_PE**	Units: **µg/Kg**	Prep Date: **3/15/2008**	RunNo: **15666**
Client ID: **MW-2-10.5**	Batch ID: **R15666**	TestNo: **SW8260B**		Analysis Date: **3/15/2008**	SeqNo: **224748**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	56.23	5.0	50	0	112	66.5	135				
Toluene	61.44	5.0	50	0	123	56.8	134				
Surr: 4-Bromofluorobenzene	50.02	0	50	0	100	55.8	141				
Surr: Dibromofluoromethane	64.23	0	50	0	128	59.8	148				
Surr: Toluene-d8	59.35	0	50	0	119	55.2	133				

Qualifiers:

E	Value above quantitation range	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	R	RPD outside accepted recovery limits	S	Spike Recovery outside accepted recovery limits

CLIENT: Impact Environmental Services
Work Order: 0803064
Project: 14194.002

ANALYTICAL QC SUMMARY REPORT

BatchID: R15675

Sample ID: **SD080314A-MB**	SampType: **MBLK**	TestCode: **TPHDO_S**	Units: **mg/Kg**	Prep Date: **3/14/2008**	RunNo: **15675**
Client ID: **ZZZZZ**	Batch ID: **R15675**	TestNo: **SW8015B**		Analysis Date: **3/15/2008**	SeqNo: **224841**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
TPH (Diesel)	ND	2.00									
TPH (Motor Oil)	ND	4.00									
Surr: Pentacosane	3.328	0	3.3	0	101	53.5	127				

Sample ID: **SD080314A-LCS**	SampType: **LCS**	TestCode: **TPHDO_S**	Units: **mg/Kg**	Prep Date: **3/14/2008**	RunNo: **15675**
Client ID: **ZZZZZ**	Batch ID: **R15675**	TestNo: **SW8015B**		Analysis Date: **3/15/2008**	SeqNo: **224842**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
TPH (Diesel)	28.06	2.00	33.33	0	84.2	46.2	109				
Surr: Pentacosane	3.370	0	3.3	0	102	53.5	127				

Sample ID: **SD080314A-LCSD**	SampType: **LCSD**	TestCode: **TPHDO_S**	Units: **mg/Kg**	Prep Date: **3/14/2008**	RunNo: **15675**
Client ID: **ZZZZZ**	Batch ID: **R15675**	TestNo: **SW8015B**		Analysis Date: **3/15/2008**	SeqNo: **224843**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
TPH (Diesel)	24.69	2.00	33.33	0	74.1	46.2	109	28.06	12.8	30	
Surr: Pentacosane	3.194	0	3.3	0	96.8	53.5	127	0	0	0	

Qualifiers:

E	Value above quantitation range	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	R	RPD outside accepted recovery limits	S	Spike Recovery outside accepted recovery limits

CHAIN-OF-CUSTODY RECORD OAK 11979

PROJECT NAME: 1ES OAKLAND 1409 12TH ST			DATE: 3/10/08	PAGE 1 OF
PROJECT NUMBER: 14194.002	LABORATORY NAME: TORRENT LABORATORY	CLIENT INFORMATION: IMPACT ENVIRONMENTAL	REPORTING REQUIREMENTS:	
RESULTS TO: JOSEPH COTTON	LABORATORY ADDRESS: MILPITAS	39120 Argonaut Way #223 FREMONT, CA 94538		
TURNAROUND TIME: STANDARD				
SAMPLE SHIPMENT METHOD: LAB COURIER	LABORATORY CONTACT:		GEOTRACKER REQUIRED: YES (circled) NO	
	LABORATORY PHONE NUMBER:		SITE SPECIFIC GLOBAL ID NO.	

SAMPLERS (SIGNATURE): MW

08 03064

DATE	TIME	SAMPLE NUMBER	① TPHd diesel	① TPHmo motor oil	③ TPHg by 8260B	BTEX 8260B	④ Fuel Oxygenates (5)	Hold	CONTAINER TYPE AND SIZE	Soil (S), Water (W), Vapor (V), or Other (O)	Filtered	Preservative Type	Cooled	MS/MSD	No. of Containers	ADDITIONAL COMMENTS
3/10/08	0930	MW-1-5.5	X	X	X	X	X		2"x6" steel	S	–	–	Y	N	1	01A
	0950	MW-1-10.5	↓	↓	↓	↓	↓			S	–	–	Y	N	1	02A
	1005	MW-1-15.0	↓	↓	↓	↓	↓			S	–	–	Y	N	1	03A
	1015	MW-1-17.0						X		S	–	–	Y	N	1	04A
	1340	MW-8-6.5	X	X	X	X	X								1	05A
	1350	MW-8-11.0	↓	↓	↓	↓	↓								1	06A
	1400	MW-8-16.0							No label on sleeve			→			1	07A
	1405	MW-8-20.5	↓	↓	↓	↓	↓		ID on sleeve						1	08A
↓	1426	MW-8-25.0						X							1	09A
3/11/08	1140	MW-4-9.5	X	X	X	X	X								1	10A
	1147	MW-4-12.0	↓	↓	↓	↓	↓								1	11A
	1155	MW-4-17.0													1	12A
	1430	MW-2-7.0													1	13A
	1438	MW-2-10.5													1	14A
↓	1445	MW-2-13.8	↓	↓	↓	↓	↓			↓			↓	↓	1	15A

RELINQUISHED BY:	DATE	TIME	RECEIVED BY:	DATE	TIME
SIGNATURE: MW	3/11/08	1515	SIGNATURE: MWard	3/11/08	15:15
PRINTED NAME: MATT GOERZ			PRINTED NAME: Amil Patel		
COMPANY: GEOMATRIX			COMPANY: Torrent Lab		
SIGNATURE:			SIGNATURE:		
PRINTED NAME:			PRINTED NAME:		
COMPANY:			COMPANY:		
SIGNATURE:			SIGNATURE:		
PRINTED NAME:			PRINTED NAME:		
COMPANY:			COMPANY:		

TOTAL NUMBER OF CONTAINERS: 15

SAMPLING COMMENTS: ① Analyze TPHd and TPHmo by EPA 8015 M.
② Analyze Fuel Oxygenates plus EDB and EDC using EPA 8260B (MTBE, TBA, DIPE, ETBE, TAME)
③ TPHg by EPA 8260B
OK to send copy to Bob Robertson per J. Cotton 3/12/08

2101 Webster Street, 12th Floor
Oakland, California 94612-3066
Tel 510.663.4100 Fax 510.663.4141
Geomatrix

Torrent
LABORATORY, INC.

March 20, 2008

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

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

RE:

Order No.: 0803086

Dear Mr. Joseph Cotton:

Torrent Laboratory, Inc. received 1 sample on 3/13/2008 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 3/20/08 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: 3/13/2008
Date Reported:

Client Sample ID: MW-8:27
Sample Location: 1409-1417 12th St Oakland
Sample Matrix: SOIL
Date/Time Sampled 3/13/2008 10:00:00 AM

Lab Sample ID: 0803086-001
Date Prepared: 3/14/2008-3/18/2008

Parameters	Analysis Method	Date Analyzed	RL	Dilution Factor	MRL	Result	Units	Analytical Batch
TPH (Diesel-SG)	SW8015B	3/18/2008	2	1	2.00	ND	mg/Kg	R15671
TPH (Motor Oil-SG)	SW8015B	3/18/2008	4	1	4.00	ND	mg/Kg	R15671
Surr: Pentacosane	SW8015B	3/18/2008	0	1	28-125	104	%REC	R15671
Benzene	SW8260B	3/18/2008	5	1	5.0	ND	µg/Kg	R15673
Diisopropyl ether (DIPE)	SW8260B	3/18/2008	5	1	5.0	ND	µg/Kg	R15673
Ethyl tert-butyl ether (ETBE)	SW8260B	3/18/2008	5	1	5.0	ND	µg/Kg	R15673
Ethylbenzene	SW8260B	3/18/2008	5	1	5.0	ND	µg/Kg	R15673
Methyl tert-butyl ether (MTBE)	SW8260B	3/18/2008	10	1	10	ND	µg/Kg	R15673
t-Butyl alcohol (t-Butanol)	SW8260B	3/18/2008	50	1	50	ND	µg/Kg	R15673
tert-Amyl methyl ether (TAME)	SW8260B	3/18/2008	5	1	5.0	ND	µg/Kg	R15673
Toluene	SW8260B	3/18/2008	5	1	5.0	ND	µg/Kg	R15673
Xylenes, Total	SW8260B	3/18/2008	15	1	15	ND	µg/Kg	R15673
Surr: 4-Bromofluorobenzene	SW8260B	3/18/2008	0	1	55.8-141	112	%REC	R15673
Surr: Dibromofluoromethane	SW8260B	3/18/2008	0	1	59.8-148	119	%REC	R15673
Surr: Toluene-d8	SW8260B	3/18/2008	0	1	55.2-133	90.9	%REC	R15673
TPH (Gasoline)	SW8260B(TPH)	3/18/2008	100	1	100	ND	µg/Kg	G15673
Surr: 4-Bromofllurobenzene	SW8260B(TPH)	3/18/2008	0	1	56.9-133	76.0	%REC	G15673

These analyses were performed according to State of California Environmental Laboratory Accreditation program, Certificate # 1991

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 #

These analyses were performed according to State of California Environmental Laboratory Accreditation program, Certificate # 1991

CLIENT: Impact Environmental Services
Work Order: 0803086
Project:

ANALYTICAL QC SUMMARY REPORT

BatchID: G15673

Sample ID: **MB-G**	SampType: **MBLK**	TestCode: **TPH_GAS_S_**	Units: **µg/Kg**	Prep Date: **3/17/2008**	RunNo: **15673**
Client ID: **ZZZZZ**	Batch ID: **G15673**	TestNo: **SW8260B(TP**		Analysis Date: **3/17/2008**	SeqNo: **224869**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
TPH (Gasoline)	ND	100									
Surr: 4-Bromofllurobenzene	44.00	0	50	0	88.0	56.9	133				

Sample ID: **LCS-G**	SampType: **LCS**	TestCode: **TPH_GAS_S_**	Units: **µg/Kg**	Prep Date: **3/17/2008**	RunNo: **15673**
Client ID: **ZZZZZ**	Batch ID: **G15673**	TestNo: **SW8260B(TP**		Analysis Date: **3/17/2008**	SeqNo: **224870**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
TPH (Gasoline)	888.0	100	1000	0	88.8	48.2	132				
Surr: 4-Bromofllurobenzene	46.00	0	50	0	92.0	56.9	133				

Sample ID: **LCSD-G**	SampType: **LCSD**	TestCode: **TPH_GAS_S_**	Units: **µg/Kg**	Prep Date: **3/17/2008**	RunNo: **15673**
Client ID: **ZZZZZ**	Batch ID: **G15673**	TestNo: **SW8260B(TP**		Analysis Date: **3/17/2008**	SeqNo: **224871**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
TPH (Gasoline)	902.0	100	1000	0	90.2	48.2	132	888	1.56	30	
Surr: 4-Bromofllurobenzene	45.00	0	50	0	90.0	56.9	133	0	0	0	

Qualifiers:

E	Value above quantitation range	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	R	RPD outside accepted recovery limits	S	Spike Recovery outside accepted recovery limits

CLIENT: Impact Environmental Services
Work Order: 0803086
Project:

ANALYTICAL QC SUMMARY REPORT

BatchID: R15671

Sample ID: **SDSG080314A-MB**	SampType: **MBLK**	TestCode: **TPHDOSG_S**	Units: **mg/Kg**	Prep Date: **3/14/2008**	RunNo: **15671**
Client ID: **ZZZZZ**	Batch ID: **R15671**	TestNo: **SW8015B**		Analysis Date: **3/14/2008**	SeqNo: **224800**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
TPH (Diesel-SG)	ND	2.00									
TPH (Motor Oil-SG)	ND	4.00									
Surr: Pentacosane	3.325	0	3.3	0	101	28	125				

Sample ID: **SDSG080314A-LCS**	SampType: **LCS**	TestCode: **TPHDOSG_S**	Units: **mg/Kg**	Prep Date: **3/14/2008**	RunNo: **15671**
Client ID: **ZZZZZ**	Batch ID: **R15671**	TestNo: **SW8015B**		Analysis Date: **3/14/2008**	SeqNo: **224801**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
TPH (Diesel-SG)	28.94	2.00	33.33	0	86.8	26.6	128				
Surr: Pentacosane	3.344	0	3.3	0	101	28	125				

Sample ID: **SDSG080314A-LCS**	SampType: **LCSD**	TestCode: **TPHDOSG_S**	Units: **mg/Kg**	Prep Date: **3/14/2008**	RunNo: **15671**
Client ID: **ZZZZZ**	Batch ID: **R15671**	TestNo: **SW8015B**		Analysis Date: **3/14/2008**	SeqNo: **224802**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
TPH (Diesel-SG)	33.20	2.00	33.33	0	99.6	26.6	128	28.94	13.7	30	
Surr: Pentacosane	3.790	0	3.3	0	115	28	125	0	0	0	

Qualifiers:

E	Value above quantitation range	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	R	RPD outside accepted recovery limits	S	Spike Recovery outside accepted recovery limits

CLIENT: Impact Environmental Services
Work Order: 0803086
Project:

ANALYTICAL QC SUMMARY REPORT

BatchID: R15673

Sample ID: **mb**	SampType: **MBLK**	TestCode: **8260B_S**	Units: **µg/Kg**	Prep Date: **3/17/2008**	RunNo: **15673**
Client ID: **ZZZZZ**	Batch ID: **R15673**	TestNo: **SW8260B**		Analysis Date: **3/17/2008**	SeqNo: **224826**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	ND	10									
Ethyl tert-butyl ether (ETBE)	ND	10									
Ethylbenzene	ND	10									
Methyl tert-butyl ether (MTBE)	ND	10									
t-Butyl alcohol (t-Butanol)	ND	50									
tert-Amyl methyl ether (TAME)	ND	10									
Toluene	ND	10									
Xylenes, Total	ND	20									
Surr: 4-Bromofluorobenzene	55.32	0	50	0	111	55.8	141				
Surr: Dibromofluoromethane	55.44	0	50	0	111	59.8	148				
Surr: Toluene-d8	47.28	0	50	0	94.6	55.2	133				

Sample ID: **lcs**	SampType: **LCS**	TestCode: **8260B_S**	Units: **µg/Kg**	Prep Date: **3/17/2008**	RunNo: **15673**
Client ID: **ZZZZZ**	Batch ID: **R15673**	TestNo: **SW8260B**		Analysis Date: **3/17/2008**	SeqNo: **224827**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	50.92	10	50	0	102	66.5	135				
Toluene	58.25	10	50	0	116	56.8	134				
Surr: 4-Bromofluorobenzene	52.92	0	50	0	106	55.8	141				
Surr: Dibromofluoromethane	46.86	0	50	0	93.7	59.8	148				
Surr: Toluene-d8	51.14	0	50	0	102	55.2	133				

Sample ID: **lcsd**	SampType: **LCSD**	TestCode: **8260B_S**	Units: **µg/Kg**	Prep Date: **3/17/2008**	RunNo: **15673**
Client ID: **ZZZZZ**	Batch ID: **R15673**	TestNo: **SW8260B**		Analysis Date: **3/17/2008**	SeqNo: **224828**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	52.68	10	50	0	105	66.5	135	50.92	3.40	30	
Toluene	58.55	10	50	0	117	56.8	134	58.25	0.514	30	
Surr: 4-Bromofluorobenzene	55.46	0	50	0	111	55.8	141	0	0	0	
Surr: Dibromofluoromethane	48.57	0	50	0	97.1	59.8	148	0	0	0	
Surr: Toluene-d8	52.79	0	50	0	106	55.2	133	0	0	0	

Qualifiers:
E Value above quantitation range
H Holding times for preparation or analysis exceeded
J Analyte detected below quantitation limits
ND Not Detected at the Reporting Limit
R RPD outside accepted recovery limits
S Spike Recovery outside accepted recovery limits

Torrent LABORATORY, INC.

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: 0803086

Company Name: IMPACT ENVIRONMENTAL	Location of Sampling: 1409-1417 12TH St. OAKLAND
Address: 39120 ARGONAUT WAY, #223	Purpose: WELL INSTALLATION
City: FREMONT State: CA Zip Code: 94538	Special Instructions / Comments: E-mail results to jac21462@aol.com
Telephone: (510) 703-5420 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

ANALYSIS REQUESTED

LAB ID	CLIENT'S SAMPLE I.D.	DATE / TIME SAMPLED	MATRIX	# OF CONT	CONT TYPE	☐ EPA 8260B - Full List ☐ EPA 8260B - 8010 List	☒ BTEX ☒ MTBE ☒ THP gas ☒ Oxygenates	☒ Si-Gel ☒ THP Diesel ☒ Motor Oil	☐ Pesticide - 8081	☐ PCB - 8082	Metals ☐ CAM - 17 ☐ LUFT 5 ☐ 7 Metals	☐ 8270 Full List ☐ PAHs Only			REMARKS
	MW-8@27	3-13-8 10:00AM	S	1	STAINLESS STEEL LINER		X	X							

TORRENT LAB

	Relinquished By:	Print:	Date:	Time:	Received By:	Print:	Date:	Time:
1		Joseph Cotton	3-13-8	2:55P			3/13/08	2:55
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: pl 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: 3/13 Log In Reviewed By: Date:

Torrent
LABORATORY, INC.

April 10, 2008

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

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

RE: 1409-1417 12th St

Order No.: 0804029

Dear Mr. Joseph Cotton:

Torrent Laboratory, Inc. received 7 samples on 4/3/2008 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 4/14/08 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: 4/3/2008
Date Reported:

Client Sample ID: MW-6:5'
Sample Location: 1409-1417 12th St
Sample Matrix: SOIL
Date/Time Sampled 4/2/2008 9:30:00 AM

Lab Sample ID: 0804029-001
Date Prepared: 4/4/2008

Parameters	Analysis Method	Date Analyzed	RL	Dilution Factor	MRL	Result	Units	Analytical Batch
Lead	SW6010B	4/4/2008	1	1	1.0	3.4	mg/Kg	4269
TPH (Diesel-SG)	SW8015B	4/8/2008	2	1	2.00	ND	mg/Kg	R15886
TPH (Motor Oil-SG)	SW8015B	4/8/2008	4	1	4.00	ND	mg/Kg	R15886
Surr: Pentacosane	SW8015B	4/8/2008	0	1	28-125	93.6	%REC	R15886
Benzene	SW8260B	4/4/2008	5	1	5.0	ND	µg/Kg	R15872
Diisopropyl ether (DIPE)	SW8260B	4/4/2008	5	1	5.0	ND	µg/Kg	R15872
Ethyl tert-butyl ether (ETBE)	SW8260B	4/4/2008	5	1	5.0	ND	µg/Kg	R15872
Ethylbenzene	SW8260B	4/4/2008	5	1	5.0	ND	µg/Kg	R15872
Methyl tert-butyl ether (MTBE)	SW8260B	4/4/2008	10	1	10	ND	µg/Kg	R15872
t-Butyl alcohol (t-Butanol)	SW8260B	4/4/2008	50	1	50	ND	µg/Kg	R15872
tert-Amyl methyl ether (TAME)	SW8260B	4/4/2008	5	1	5.0	ND	µg/Kg	R15872
Toluene	SW8260B	4/4/2008	5	1	5.0	ND	µg/Kg	R15872
Xylenes, Total	SW8260B	4/4/2008	15	1	15	ND	µg/Kg	R15872
Surr: 4-Bromofluorobenzene	SW8260B	4/4/2008	0	1	55.8-141	101	%REC	R15872
Surr: Dibromofluoromethane	SW8260B	4/4/2008	0	1	59.8-148	100	%REC	R15872
Surr: Toluene-d8	SW8260B	4/4/2008	0	1	55.2-133	105	%REC	R15872
TPH (Gasoline)	SW8260B(TPH)	4/4/2008	100	1	100	ND	µg/Kg	G15872
Surr: 4-Bromofllurobenzene	SW8260B(TPH)	4/4/2008	0	1	56.9-133	94.0	%REC	G15872

These analyses were performed according to State of California Environmental Laboratory Accreditation program, Certificate # 1991

Report prepared for: Mr. Joseph Cotton
Impact Environmental Services

Date Received: 4/3/2008
Date Reported:

Client Sample ID: MW-6:10'
Sample Location: 1409-1417 12th St
Sample Matrix: SOIL
Date/Time Sampled 4/2/2008 9:45:00 AM

Lab Sample ID: 0804029-002
Date Prepared: 4/4/2008

Parameters	Analysis Method	Date Analyzed	RL	Dilution Factor	MRL	Result	Units	Analytical Batch
TPH (Diesel-SG)	SW8015B	4/8/2008	2	1	2.00	ND	mg/Kg	R15886
TPH (Motor Oil-SG)	SW8015B	4/8/2008	4	1	4.00	ND	mg/Kg	R15886
Surr: Pentacosane	SW8015B	4/8/2008	0	1	28-125	101	%REC	R15886
Benzene	SW8260B	4/4/2008	5	1	5.0	ND	µg/Kg	R15872
Diisopropyl ether (DIPE)	SW8260B	4/4/2008	5	1	5.0	ND	µg/Kg	R15872
Ethyl tert-butyl ether (ETBE)	SW8260B	4/4/2008	5	1	5.0	ND	µg/Kg	R15872
Ethylbenzene	SW8260B	4/4/2008	5	1	5.0	ND	µg/Kg	R15872
Methyl tert-butyl ether (MTBE)	SW8260B	4/4/2008	10	1	10	ND	µg/Kg	R15872
t-Butyl alcohol (t-Butanol)	SW8260B	4/4/2008	50	1	50	ND	µg/Kg	R15872
tert-Amyl methyl ether (TAME)	SW8260B	4/4/2008	5	1	5.0	ND	µg/Kg	R15872
Toluene	SW8260B	4/4/2008	5	1	5.0	ND	µg/Kg	R15872
Xylenes, Total	SW8260B	4/4/2008	15	1	15	ND	µg/Kg	R15872
Surr: 4-Bromofluorobenzene	SW8260B	4/4/2008	0	1	55.8-141	92.2	%REC	R15872
Surr: Dibromofluoromethane	SW8260B	4/4/2008	0	1	59.8-148	103	%REC	R15872
Surr: Toluene-d8	SW8260B	4/4/2008	0	1	55.2-133	114	%REC	R15872
TPH (Gasoline)	SW8260B(TPH)	4/4/2008	100	1	100	ND	µg/Kg	G15872
Surr: 4-Bromofllurobenzene	SW8260B(TPH)	4/4/2008	0	1	56.9-133	78.0	%REC	G15872

These analyses were performed according to State of California Environmental Laboratory Accreditation program, Certificate # 1991

Report prepared for: Mr. Joseph Cotton
Impact Environmental Services

Date Received: 4/3/2008
Date Reported:

Client Sample ID: MW-6:15'
Sample Location: 1409-1417 12th St
Sample Matrix: SOIL
Date/Time Sampled 4/3/2008 10:10:00 AM

Lab Sample ID: 0804029-003
Date Prepared: 4/4/2008

Parameters	Analysis Method	Date Analyzed	RL	Dilution Factor	MRL	Result	Units	Analytical Batch
TPH (Diesel-SG)	SW8015B	4/8/2008	2	1	2.00	ND	mg/Kg	R15886
TPH (Motor Oil-SG)	SW8015B	4/8/2008	4	1	4.00	ND	mg/Kg	R15886
Surr: Pentacosane	SW8015B	4/8/2008	0	1	28-125	102	%REC	R15886
Benzene	SW8260B	4/4/2008	5	1	5.0	ND	µg/Kg	R15872
Diisopropyl ether (DIPE)	SW8260B	4/4/2008	5	1	5.0	ND	µg/Kg	R15872
Ethyl tert-butyl ether (ETBE)	SW8260B	4/4/2008	5	1	5.0	ND	µg/Kg	R15872
Ethylbenzene	SW8260B	4/4/2008	5	1	5.0	ND	µg/Kg	R15872
Methyl tert-butyl ether (MTBE)	SW8260B	4/4/2008	10	1	10	ND	µg/Kg	R15872
t-Butyl alcohol (t-Butanol)	SW8260B	4/4/2008	50	1	50	ND	µg/Kg	R15872
tert-Amyl methyl ether (TAME)	SW8260B	4/4/2008	5	1	5.0	ND	µg/Kg	R15872
Toluene	SW8260B	4/4/2008	5	1	5.0	ND	µg/Kg	R15872
Xylenes, Total	SW8260B	4/4/2008	15	1	15	ND	µg/Kg	R15872
Surr: 4-Bromofluorobenzene	SW8260B	4/4/2008	0	1	55.8-141	106	%REC	R15872
Surr: Dibromofluoromethane	SW8260B	4/4/2008	0	1	59.8-148	106	%REC	R15872
Surr: Toluene-d8	SW8260B	4/4/2008	0	1	55.2-133	104	%REC	R15872
TPH (Gasoline)	SW8260B(TPH)	4/4/2008	100	1	100	ND	µg/Kg	G15872
Surr: 4-Bromofllurobenzene	SW8260B(TPH)	4/4/2008	0	1	56.9-133	84.0	%REC	G15872

These analyses were performed according to State of California Environmental Laboratory Accreditation program, Certificate # 1991

Report prepared for: Mr. Joseph Cotton
Impact Environmental Services

Date Received: 4/3/2008
Date Reported:

Client Sample ID: GW-2:5'
Sample Location: 1409-1417 12th St
Sample Matrix: SOIL
Date/Time Sampled 4/3/2008 1:30:00 PM

Lab Sample ID: 0804029-004
Date Prepared: 4/4/2008

Parameters	Analysis Method	Date Analyzed	RL	Dilution Factor	MRL	Result	Units	Analytical Batch
Lead	SW6010B	4/4/2008	1	1	1.0	2.9	mg/Kg	4269
TPH (Diesel-SG)	SW8015B	4/8/2008	2	1	2.00	ND	mg/Kg	R15886
TPH (Motor Oil-SG)	SW8015B	4/8/2008	4	1	4.00	ND	mg/Kg	R15886
Surr: Pentacosane	SW8015B	4/8/2008	0	1	28-125	91.1	%REC	R15886
Benzene	SW8260B	4/4/2008	5	1	5.0	ND	µg/Kg	R15872
Diisopropyl ether (DIPE)	SW8260B	4/4/2008	5	1	5.0	ND	µg/Kg	R15872
Ethyl tert-butyl ether (ETBE)	SW8260B	4/4/2008	5	1	5.0	ND	µg/Kg	R15872
Ethylbenzene	SW8260B	4/4/2008	5	1	5.0	ND	µg/Kg	R15872
Methyl tert-butyl ether (MTBE)	SW8260B	4/4/2008	10	1	10	ND	µg/Kg	R15872
t-Butyl alcohol (t-Butanol)	SW8260B	4/4/2008	50	1	50	ND	µg/Kg	R15872
tert-Amyl methyl ether (TAME)	SW8260B	4/4/2008	5	1	5.0	ND	µg/Kg	R15872
Toluene	SW8260B	4/4/2008	5	1	5.0	ND	µg/Kg	R15872
Xylenes, Total	SW8260B	4/4/2008	15	1	15	ND	µg/Kg	R15872
Surr: 4-Bromofluorobenzene	SW8260B	4/4/2008	0	1	55.8-141	102	%REC	R15872
Surr: Dibromofluoromethane	SW8260B	4/4/2008	0	1	59.8-148	106	%REC	R15872
Surr: Toluene-d8	SW8260B	4/4/2008	0	1	55.2-133	108	%REC	R15872
TPH (Gasoline)	SW8260B(TPH)	4/4/2008	100	1	100	ND	µg/Kg	G15872
Surr: 4-Bromofllurobenzene	SW8260B(TPH)	4/4/2008	0	1	56.9-133	86.0	%REC	G15872

These analyses were performed according to State of California Environmental Laboratory Accreditation program, Certificate # 1991

Report prepared for: Mr. Joseph Cotton
Impact Environmental Services

Date Received: 4/3/2008
Date Reported:

Client Sample ID: GW-2:10'
Sample Location: 1409-1417 12th St
Sample Matrix: SOIL
Date/Time Sampled 4/3/2008 2:00:00 PM

Lab Sample ID: 0804029-005
Date Prepared: 4/4/2008

Parameters	Analysis Method	Date Analyzed	RL	Dilution Factor	MRL	Result	Units	Analytical Batch
TPH (Diesel-SG)	SW8015B	4/8/2008	2	1	2.00	ND	mg/Kg	R15886
TPH (Motor Oil-SG)	SW8015B	4/8/2008	4	1	4.00	ND	mg/Kg	R15886
Surr: Pentacosane	SW8015B	4/8/2008	0	1	28-125	94.3	%REC	R15886
Benzene	SW8260B	4/4/2008	5	1	5.0	ND	µg/Kg	R15872
Diisopropyl ether (DIPE)	SW8260B	4/4/2008	5	1	5.0	ND	µg/Kg	R15872
Ethyl tert-butyl ether (ETBE)	SW8260B	4/4/2008	5	1	5.0	ND	µg/Kg	R15872
Ethylbenzene	SW8260B	4/4/2008	5	1	5.0	ND	µg/Kg	R15872
Methyl tert-butyl ether (MTBE)	SW8260B	4/4/2008	10	1	10	ND	µg/Kg	R15872
t-Butyl alcohol (t-Butanol)	SW8260B	4/4/2008	50	1	50	ND	µg/Kg	R15872
tert-Amyl methyl ether (TAME)	SW8260B	4/4/2008	5	1	5.0	ND	µg/Kg	R15872
Toluene	SW8260B	4/4/2008	5	1	5.0	ND	µg/Kg	R15872
Xylenes, Total	SW8260B	4/4/2008	15	1	15	ND	µg/Kg	R15872
Surr: 4-Bromofluorobenzene	SW8260B	4/4/2008	0	1	55.8-141	101	%REC	R15872
Surr: Dibromofluoromethane	SW8260B	4/4/2008	0	1	59.8-148	109	%REC	R15872
Surr: Toluene-d8	SW8260B	4/4/2008	0	1	55.2-133	103	%REC	R15872
TPH (Gasoline)	SW8260B(TPH)	4/4/2008	100	1	100	ND	µg/Kg	G15872
Surr: 4-Bromofllurobenzene	SW8260B(TPH)	4/4/2008	0	1	56.9-133	82.0	%REC	G15872

These analyses were performed according to State of California Environmental Laboratory Accreditation program, Certificate # 1991

Report prepared for: Mr. Joseph Cotton
Impact Environmental Services

Date Received: 4/3/2008
Date Reported:

Client Sample ID: GW-2:15'
Sample Location: 1409-1417 12th St
Sample Matrix: SOIL
Date/Time Sampled 4/3/2008 2:30:00 PM

Lab Sample ID: 0804029-006
Date Prepared: 4/4/2008

Parameters	Analysis Method	Date Analyzed	RL	Dilution Factor	MRL	Result	Units	Analytical Batch
TPH (Diesel-SG)	SW8015B	4/8/2008	2	1	2.00	ND	mg/Kg	R15886
TPH (Motor Oil-SG)	SW8015B	4/8/2008	4	1	4.00	ND	mg/Kg	R15886
Surr: Pentacosane	SW8015B	4/8/2008	0	1	28-125	95.6	%REC	R15886
Benzene	SW8260B	4/4/2008	5	1	5.0	ND	µg/Kg	R15872
Diisopropyl ether (DIPE)	SW8260B	4/4/2008	5	1	5.0	ND	µg/Kg	R15872
Ethyl tert-butyl ether (ETBE)	SW8260B	4/4/2008	5	1	5.0	ND	µg/Kg	R15872
Ethylbenzene	SW8260B	4/4/2008	5	1	5.0	ND	µg/Kg	R15872
Methyl tert-butyl ether (MTBE)	SW8260B	4/4/2008	10	1	10	ND	µg/Kg	R15872
t-Butyl alcohol (t-Butanol)	SW8260B	4/4/2008	50	1	50	ND	µg/Kg	R15872
tert-Amyl methyl ether (TAME)	SW8260B	4/4/2008	5	1	5.0	ND	µg/Kg	R15872
Toluene	SW8260B	4/4/2008	5	1	5.0	ND	µg/Kg	R15872
Xylenes, Total	SW8260B	4/4/2008	15	1	15	ND	µg/Kg	R15872
Surr: 4-Bromofluorobenzene	SW8260B	4/4/2008	0	1	55.8-141	100	%REC	R15872
Surr: Dibromofluoromethane	SW8260B	4/4/2008	0	1	59.8-148	109	%REC	R15872
Surr: Toluene-d8	SW8260B	4/4/2008	0	1	55.2-133	103	%REC	R15872
TPH (Gasoline)	SW8260B(TPH)	4/4/2008	100	1	100	ND	µg/Kg	G15872
Surr: 4-Bromofllurobenzene	SW8260B(TPH)	4/4/2008	0	1	56.9-133	84.0	%REC	G15872

These analyses were performed according to State of California Environmental Laboratory Accreditation program, Certificate # 1991

Report prepared for: Mr. Joseph Cotton
Impact Environmental Services

Date Received: 4/3/2008
Date Reported:

Client Sample ID: GW-2:18'
Sample Location: 1409-1417 12th St
Sample Matrix: SOIL
Date/Time Sampled 4/3/2008 2:45:00 PM

Lab Sample ID: 0804029-007
Date Prepared: 4/7/2008

Parameters	Analysis Method	Date Analyzed	RL	Dilution Factor	MRL	Result	Units	Analytical Batch
TPH (Diesel-SG)	SW8015B	4/8/2008	2	1	2.00	ND	mg/Kg	R15886
TPH (Motor Oil-SG)	SW8015B	4/8/2008	4	1	4.00	ND	mg/Kg	R15886
Surr: Pentacosane	SW8015B	4/8/2008	0	1	28-125	103	%REC	R15886
Benzene	SW8260B	4/7/2008	5	1	5.0	ND	µg/Kg	R15879
Diisopropyl ether (DIPE)	SW8260B	4/7/2008	5	1	5.0	ND	µg/Kg	R15879
Ethyl tert-butyl ether (ETBE)	SW8260B	4/7/2008	5	1	5.0	ND	µg/Kg	R15879
Ethylbenzene	SW8260B	4/7/2008	5	1	5.0	ND	µg/Kg	R15879
Methyl tert-butyl ether (MTBE)	SW8260B	4/7/2008	10	1	10	ND	µg/Kg	R15879
t-Butyl alcohol (t-Butanol)	SW8260B	4/7/2008	50	1	50	ND	µg/Kg	R15879
tert-Amyl methyl ether (TAME)	SW8260B	4/7/2008	5	1	5.0	ND	µg/Kg	R15879
Toluene	SW8260B	4/7/2008	5	1	5.0	ND	µg/Kg	R15879
Xylenes, Total	SW8260B	4/7/2008	15	1	15	ND	µg/Kg	R15879
Surr: 4-Bromofluorobenzene	SW8260B	4/7/2008	0	1	55.8-141	107	%REC	R15879
Surr: Dibromofluoromethane	SW8260B	4/7/2008	0	1	59.8-148	95.4	%REC	R15879
Surr: Toluene-d8	SW8260B	4/7/2008	0	1	55.2-133	98.6	%REC	R15879
TPH (Gasoline)	SW8260B(TPH)	4/7/2008	100	1	100	ND	µg/Kg	G15879
Surr: 4-Bromofllurobenzene	SW8260B(TPH)	4/7/2008	0	1	56.9-133	92.0	%REC	G15879

These analyses were performed according to State of California Environmental Laboratory Accreditation program, Certificate # 1991

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 #

These analyses were performed according to State of California Environmental Laboratory Accreditation program, Certificate # 1991

CLIENT: Impact Environmental Services
Work Order: 0804029
Project: 1409-1417 12th St

ANALYTICAL QC SUMMARY REPORT

BatchID: 4269

Sample ID: **MB-4269**	SampType: **MBLK**	TestCode: **6010B_S**	Units: **mg/Kg**	Prep Date: **4/4/2008**	RunNo: **15867**
Client ID: **ZZZZZ**	Batch ID: **4269**	TestNo: **SW6010B**	**(SW3050B)**	Analysis Date: **4/4/2008**	SeqNo: **227690**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Lead	ND	1.0									

Sample ID: **LCS-4269**	SampType: **LCS**	TestCode: **6010B_S**	Units: **mg/Kg**	Prep Date: **4/4/2008**	RunNo: **15867**
Client ID: **ZZZZZ**	Batch ID: **4269**	TestNo: **SW6010B**	**(SW3050B)**	Analysis Date: **4/4/2008**	SeqNo: **227688**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Lead	50.65	1.0	50	0	101	67.9	118				

Sample ID: **LCSD-4269**	SampType: **LCSD**	TestCode: **6010B_S**	Units: **mg/Kg**	Prep Date: **4/4/2008**	RunNo: **15867**
Client ID: **ZZZZZ**	Batch ID: **4269**	TestNo: **SW6010B**	**(SW3050B)**	Analysis Date: **4/4/2008**	SeqNo: **227689**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Lead	51.30	1.0	50	0	103	67.9	118	50.65	1.28	30	

Qualifiers:

E	Value above quantitation range	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	R	RPD outside accepted recovery limits	S	Spike Recovery outside accepted recovery limits

CLIENT: Impact Environmental Services
Work Order: 0804029
Project: 1409-1417 12th St

ANALYTICAL QC SUMMARY REPORT

BatchID: G15872

Sample ID: **MB-G**	SampType: **MBLK**	TestCode: **TPH_GAS_S_**	Units: **µg/Kg**	Prep Date: **4/4/2008**	RunNo: **15872**
Client ID: **ZZZZZ**	Batch ID: **G15872**	TestNo: **SW8260B(TP**		Analysis Date: **4/4/2008**	SeqNo: **227801**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
TPH (Gasoline)	ND	100									
Surr: 4-Bromofllurobenzene	47.00	0	50	0	94.0	56.9	133				

Sample ID: **LCS-G**	SampType: **LCS**	TestCode: **TPH_GAS_S_**	Units: **µg/Kg**	Prep Date: **4/4/2008**	RunNo: **15872**
Client ID: **ZZZZZ**	Batch ID: **G15872**	TestNo: **SW8260B(TP**		Analysis Date: **4/4/2008**	SeqNo: **227802**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
TPH (Gasoline)	979.0	100	1000	34	94.5	48.2	132				
Surr: 4-Bromofllurobenzene	48.00	0	50	0	96.0	56.9	133				

Sample ID: **LCSD-G**	SampType: **LCSD**	TestCode: **TPH_GAS_S_**	Units: **µg/Kg**	Prep Date: **4/4/2008**	RunNo: **15872**
Client ID: **ZZZZZ**	Batch ID: **G15872**	TestNo: **SW8260B(TP**		Analysis Date: **4/4/2008**	SeqNo: **227803**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
TPH (Gasoline)	962.0	100	1000	34	92.8	48.2	132	979	1.75	30	
Surr: 4-Bromofllurobenzene	49.00	0	50	0	98.0	56.9	133	0	0	0	

Qualifiers:

E	Value above quantitation range	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	R	RPD outside accepted recovery limits	S	Spike Recovery outside accepted recovery limits

CLIENT: Impact Environmental Services
Work Order: 0804029
Project: 1409-1417 12th St

ANALYTICAL QC SUMMARY REPORT

BatchID: G15879

Sample ID: **MB-G**	SampType: **MBLK**	TestCode: **TPH_GAS_S_**	Units: **µg/Kg**	Prep Date: **4/7/2008**	RunNo: **15879**
Client ID: **ZZZZZ**	Batch ID: **G15879**	TestNo: **SW8260B(TP**		Analysis Date: **4/7/2008**	SeqNo: **227910**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
TPH (Gasoline)	ND	100									
Surr: 4-Bromofllurobenzene	47.00	0	50	0	94.0	56.9	133				

Sample ID: **LCS-G**	SampType: **LCS**	TestCode: **TPH_GAS_S_**	Units: **µg/Kg**	Prep Date: **4/7/2008**	RunNo: **15879**
Client ID: **ZZZZZ**	Batch ID: **G15879**	TestNo: **SW8260B(TP**		Analysis Date: **4/7/2008**	SeqNo: **227911**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
TPH (Gasoline)	931.0	100	1000	26	90.5	48.2	132				
Surr: 4-Bromofllurobenzene	45.00	0	50	0	90.0	56.9	133				

Sample ID: **LCSD-G**	SampType: **LCSD**	TestCode: **TPH_GAS_S_**	Units: **µg/Kg**	Prep Date: **4/7/2008**	RunNo: **15879**
Client ID: **ZZZZZ**	Batch ID: **G15879**	TestNo: **SW8260B(TP**		Analysis Date: **4/7/2008**	SeqNo: **227912**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
TPH (Gasoline)	939.0	100	1000	26	91.3	48.2	132	931	0.856	30	
Surr: 4-Bromofllurobenzene	49.00	0	50	0	98.0	56.9	133	0	0	0	

Qualifiers:

E	Value above quantitation range	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	R	RPD outside accepted recovery limits	S	Spike Recovery outside accepted recovery limits

CLIENT: Impact Environmental Services
Work Order: 0804029
Project: 1409-1417 12th St

ANALYTICAL QC SUMMARY REPORT

BatchID: R15872

Sample ID: **MB-17**	SampType: **MBLK**	TestCode: **8260B_S**	Units: **µg/Kg**	Prep Date: **4/4/2008**	RunNo: **15872**
Client ID: **ZZZZZ**	Batch ID: **R15872**	TestNo: **SW8260B**		Analysis Date: **4/4/2008**	SeqNo: **227776**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	ND	10									
Ethyl tert-butyl ether (ETBE)	ND	10									
Ethylbenzene	ND	10									
Methyl tert-butyl ether (MTBE)	ND	10									
t-Butyl alcohol (t-Butanol)	ND	50									
tert-Amyl methyl ether (TAME)	ND	10									
Toluene	ND	10									
Xylenes, Total	ND	15									
Surr: 4-Bromofluorobenzene	52.01	0	50	0	104	55.8	141				
Surr: Dibromofluoromethane	49.56	0	50	0	99.1	59.8	148				
Surr: Toluene-d8	51.00	0	50	0	102	55.2	133				

Sample ID: **LCS-17**	SampType: **LCS**	TestCode: **8260B_S**	Units: **µg/Kg**	Prep Date: **4/4/2008**	RunNo: **15872**
Client ID: **ZZZZZ**	Batch ID: **R15872**	TestNo: **SW8260B**		Analysis Date: **4/4/2008**	SeqNo: **227777**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	42.30	10	50	0	84.6	66.5	135				
Toluene	54.17	10	50	0	108	56.8	134				
Surr: 4-Bromofluorobenzene	53.69	0	50	0	107	55.8	141				
Surr: Dibromofluoromethane	40.80	0	50	0	81.6	59.8	148				
Surr: Toluene-d8	54.12	0	50	0	108	55.2	133				

Sample ID: **LCSD-17**	SampType: **LCSD**	TestCode: **8260B_S**	Units: **µg/Kg**	Prep Date: **4/4/2008**	RunNo: **15872**
Client ID: **ZZZZZ**	Batch ID: **R15872**	TestNo: **SW8260B**		Analysis Date: **4/4/2008**	SeqNo: **227778**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	46.52	10	50	0	93.0	66.5	135	42.3	9.50	30	
Toluene	56.83	10	50	0	114	56.8	134	54.17	4.79	30	
Surr: 4-Bromofluorobenzene	46.45	0	50	0	92.9	55.8	141	0	0	0	
Surr: Dibromofluoromethane	41.77	0	50	0	83.5	59.8	148	0	0	0	
Surr: Toluene-d8	54.47	0	50	0	109	55.2	133	0	0	0	

Qualifiers:
E Value above quantitation range
H Holding times for preparation or analysis exceeded
J Analyte detected below quantitation limits
ND Not Detected at the Reporting Limit
R RPD outside accepted recovery limits
S Spike Recovery outside accepted recovery limits

CLIENT: Impact Environmental Services
Work Order: 0804029
Project: 1409-1417 12th St

ANALYTICAL QC SUMMARY REPORT

BatchID: R15879

Sample ID: **mb**	SampType: **MBLK**	TestCode: **8260B_S**	Units: **µg/Kg**	Prep Date: **4/7/2008**	RunNo: **15879**
Client ID: **ZZZZZ**	Batch ID: **R15879**	TestNo: **SW8260B**		Analysis Date: **4/7/2008**	SeqNo: **227890**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	ND	10									
Ethyl tert-butyl ether (ETBE)	ND	10									
Ethylbenzene	ND	10									
Methyl tert-butyl ether (MTBE)	ND	10									
t-Butyl alcohol (t-Butanol)	ND	50									
tert-Amyl methyl ether (TAME)	ND	10									
Toluene	ND	10									
Xylenes, Total	ND	15									
Surr: 4-Bromofluorobenzene	52.34	0	50	0	105	55.8	141				
Surr: Dibromofluoromethane	54.45	0	50	0	109	59.8	148				
Surr: Toluene-d8	49.82	0	50	0	99.6	55.2	133				

Sample ID: **lcs**	SampType: **LCS**	TestCode: **8260B_S**	Units: **µg/Kg**	Prep Date: **4/7/2008**	RunNo: **15879**
Client ID: **ZZZZZ**	Batch ID: **R15879**	TestNo: **SW8260B**		Analysis Date: **4/7/2008**	SeqNo: **227891**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	46.80	10	50	0	93.6	66.5	135				
Toluene	56.48	10	50	0	113	56.8	134				
Surr: 4-Bromofluorobenzene	54.11	0	50	0	108	55.8	141				
Surr: Dibromofluoromethane	43.52	0	50	0	87.0	59.8	148				
Surr: Toluene-d8	53.56	0	50	0	107	55.2	133				

Sample ID: **lcsd**	SampType: **LCSD**	TestCode: **8260B_S**	Units: **µg/Kg**	Prep Date: **4/7/2008**	RunNo: **15879**
Client ID: **ZZZZZ**	Batch ID: **R15879**	TestNo: **SW8260B**		Analysis Date: **4/7/2008**	SeqNo: **227892**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	46.82	10	50	0	93.6	66.5	135	46.8	0.0427	30	
Toluene	56.45	10	50	0	113	56.8	134	56.48	0.0531	30	
Surr: 4-Bromofluorobenzene	53.75	0	50	0	108	55.8	141	0	0	0	
Surr: Dibromofluoromethane	43.44	0	50	0	86.9	59.8	148	0	0	0	
Surr: Toluene-d8	54.01	0	50	0	108	55.2	133	0	0	0	

Qualifiers:
E Value above quantitation range
H Holding times for preparation or analysis exceeded
J Analyte detected below quantitation limits
ND Not Detected at the Reporting Limit
R RPD outside accepted recovery limits
S Spike Recovery outside accepted recovery limits

CLIENT: Impact Environmental Services
Work Order: 0804029
Project: 1409-1417 12th St

ANALYTICAL QC SUMMARY REPORT

BatchID: R15879

Sample ID: **0804029-007A MS**	SampType: **MS**	TestCode: **8260B_S_PE**	Units: **µg/Kg**	Prep Date: **4/7/2008**	RunNo: **15879**
Client ID: **GW-2:18'**	Batch ID: **R15879**	TestNo: **SW8260B**		Analysis Date: **4/7/2008**	SeqNo: **227894**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	37.93	5.0	50	0	75.9	66.5	135				
Toluene	46.88	5.0	50	0	93.8	56.8	134				
Surr: 4-Bromofluorobenzene	49.10	0	50	0	98.2	55.8	141				
Surr: Dibromofluoromethane	40.81	0	50	0	81.6	59.8	148				
Surr: Toluene-d8	51.12	0	50	0	102	55.2	133				

Sample ID: **0804029-007A MSD**	SampType: **MSD**	TestCode: **8260B_S_PE**	Units: **µg/Kg**	Prep Date: **4/7/2008**	RunNo: **15879**
Client ID: **GW-2:18'**	Batch ID: **R15879**	TestNo: **SW8260B**		Analysis Date: **4/7/2008**	SeqNo: **227895**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	40.45	5.0	50	0	80.9	66.5	135	37.93	6.43	30	
Toluene	50.48	5.0	50	0	101	56.8	134	46.88	7.40	30	
Surr: 4-Bromofluorobenzene	51.44	0	50	0	103	55.8	141	0	0	0	
Surr: Dibromofluoromethane	39.93	0	50	0	79.9	59.8	148	0	0	0	
Surr: Toluene-d8	51.89	0	50	0	104	55.2	133	0	0	0	

Qualifiers:

E	Value above quantitation range	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	R	RPD outside accepted recovery limits	S	Spike Recovery outside accepted recovery limits

CLIENT: Impact Environmental Services
Work Order: 0804029
Project: 1409-1417 12th St

ANALYTICAL QC SUMMARY REPORT

BatchID: R15886

Sample ID: **SDSG080408A-MB**	SampType: **MBLK**	TestCode: **TPHDOSG_S**	Units: **mg/Kg**	Prep Date: **4/7/2008**	RunNo: **15886**
Client ID: **ZZZZZ**	Batch ID: **R15886**	TestNo: **SW8015B**		Analysis Date: **4/8/2008**	SeqNo: **228015**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
TPH (Diesel-SG)	ND	2.00									
TPH (Motor Oil-SG)	ND	4.00									
Surr: Pentacosane	3.426	0	3.3	0	104	28	125				

Sample ID: **SDSG080407A-LCS**	SampType: **LCS**	TestCode: **TPHDOSG_S**	Units: **mg/Kg**	Prep Date: **4/7/2008**	RunNo: **15886**
Client ID: **ZZZZZ**	Batch ID: **R15886**	TestNo: **SW8015B**		Analysis Date: **4/8/2008**	SeqNo: **228016**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
TPH (Diesel-SG)	26.63	2.00	33.33	0	79.9	26.6	128				
Surr: Pentacosane	3.228	0	3.3	0	97.8	28	125				

Sample ID: **SDSG080407A-LCS**	SampType: **LCSD**	TestCode: **TPHDOSG_S**	Units: **mg/Kg**	Prep Date: **4/7/2008**	RunNo: **15886**
Client ID: **ZZZZZ**	Batch ID: **R15886**	TestNo: **SW8015B**		Analysis Date: **4/8/2008**	SeqNo: **228017**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
TPH (Diesel-SG)	28.47	2.00	33.33	0	85.4	26.6	128	26.63	6.67	30	
Surr: Pentacosane	3.293	0	3.3	0	99.8	28	125	0	0	0	

Sample ID: **0804029-002A MS**	SampType: **MS**	TestCode: **TPHDOSG_S**	Units: **mg/Kg**	Prep Date: **4/7/2008**	RunNo: **15886**
Client ID: **MW-6:10'**	Batch ID: **R15886**	TestNo: **SW8015B**		Analysis Date: **4/8/2008**	SeqNo: **228025**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
TPH (Diesel-SG)	26.90	2.00	33.33	0	80.7	26.6	128				
Surr: Pentacosane	3.071	0	3.3	0	93.1	28	125				

Sample ID: **0804029-002A MSD**	SampType: **MSD**	TestCode: **TPHDOSG_S**	Units: **mg/Kg**	Prep Date: **4/7/2008**	RunNo: **15886**
Client ID: **MW-6:10'**	Batch ID: **R15886**	TestNo: **SW8015B**		Analysis Date: **4/8/2008**	SeqNo: **228026**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
TPH (Diesel-SG)	26.33	2.00	33.33	0	79.0	26.6	128	26.9	2.16	30	

Qualifiers:

E	Value above quantitation range	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	R	RPD outside accepted recovery limits	S	Spike Recovery outside accepted recovery limits

CLIENT: Impact Environmental Services
Work Order: 0804029
Project: 1409-1417 12th St

ANALYTICAL QC SUMMARY REPORT

BatchID: R15886

Sample ID: **0804029-002A MSD** SampType: **MSD** TestCode: **TPHDOSG_S** Units: **mg/Kg** Prep Date: **4/7/2008** RunNo: **15886**
Client ID: **MW-6:10'** Batch ID: **R15886** TestNo: **SW8015B** Analysis Date: **4/8/2008** SeqNo: **228026**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Surr: Pentacosane	2.969	0	3.3	0	90.0	28	125	0	0	0	

Qualifiers:

E	Value above quantitation range	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	R	RPD outside accepted recovery limits	S	Spike Recovery outside accepted recovery limits

Torrent Laboratory, Inc.

WORK ORDER Summary

04-Apr-08

Work Order 0804029

Client ID: IMPACT ENV. SER.

Project: 1409-1417 12th St **QC Level:**

Comments: 5 Day TAT!! Need EDF email to Joseph!

Sample ID	Client Sample ID	Collection Date	Date Received	Date Due	Matrix	Test Code	Hld	MS	SEL	Sub	Storage
0804029-001A	MW-6:5'	4/2/2008 9:30:00 AM	4/2/2008	4/9/2008	Soil	3050B_S	☐	☐	☐	☐	SR
				4/9/2008		6010B_S	☐	☐	☑	☐	SR
				4/9/2008		8260B_S_PETROLEUM	☐	☐	☑	☐	SR
				4/9/2008		EDF	☐	☐	☐	☐	SR
				4/9/2008		TPH_GAS_S_GCMS	☐	☐	☐	☐	SR
				4/9/2008		TPHDOSG_S	☐	☐	☐	☐	SR
0804029-002A	MW-6:10'	4/2/2008 9:45:00 AM		4/9/2008		8260B_S_PETROLEUM	☐	☐	☑	☐	SR
				4/9/2008		TPH_GAS_S_GCMS	☐	☐	☐	☐	SR
				4/9/2008		TPHDOSG_S	☐	☐	☐	☐	SR
0804029-003A	MW-6:15'	4/3/2008 10:10:00 AM		4/9/2008		8260B_S_PETROLEUM	☐	☐	☑	☐	SR
				4/9/2008		TPH_GAS_S_GCMS	☐	☐	☐	☐	SR
				4/9/2008		TPHDOSG_S	☐	☐	☐	☐	SR
0804029-004A	GW-2:5'	4/3/2008 1:30:00 PM		4/9/2008		3050B_S	☐	☐	☐	☐	SR
				4/9/2008		6010B_S	☐	☐	☑	☐	SR
				4/9/2008		8260B_S_PETROLEUM	☐	☐	☑	☐	SR
				4/9/2008		TPH_GAS_S_GCMS	☐	☐	☐	☐	SR
				4/9/2008		TPHDOSG_S	☐	☐	☐	☐	SR
0804029-005A	GW-2:10'	4/3/2008 2:00:00 PM		4/9/2008		8260B_S_PETROLEUM	☐	☐	☑	☐	SR
				4/9/2008		TPH_GAS_S_GCMS	☐	☐	☐	☐	SR
				4/9/2008		TPHDOSG_S	☐	☐	☐	☐	SR
0804029-006A	GW-2:15'	4/3/2008 2:30:00 PM		4/9/2008		8260B_S_PETROLEUM	☐	☐	☑	☐	SR
				4/9/2008		TPH_GAS_S_GCMS	☐	☐	☐	☐	SR
				4/9/2008		TPHDOSG_S	☐	☐	☐	☐	SR
0804029-007A	GW-2:18'	4/3/2008 2:45:00 PM		4/9/2008		8260B_S_PETROLEUM	☐	☐	☑	☐	SR
				4/9/2008		TPH_GAS_S_GCMS	☐	☐	☐	☐	SR
				4/9/2008		TPHDOSG_S	☐	☐	☐	☐	SR

Torrent LABORATORY, INC.
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: 0804029

Company Name: IMPACT ENVIRONMENTAL
Address: 39120 ARGONAUT WAY, #223
City: FREMONT State: CA Zip Code: 94538
Telephone: (510) 703-5420 FAX: (510) 791-0271
REPORT TO: Joseph Cotton SAMPLER: Joseph Cotton

Location of Sampling: 1409-1417 12th St, OAKLAND
Purpose: Well Installation - Thompson Property
Special Instructions / Comments: Email final signed results to jac21462@aol.com
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

ANALYSIS REQUESTED

LAB ID	CLIENT'S SAMPLE I.D.	DATE / TIME SAMPLED	MATRIX	# OF CONT	CONT TYPE	EPA 8260B - Full List ☐ / EPA 8260B - 8010 List ☐	THP gas ☒ BTEX ☒ / Oxygenates ☒ MTBE ☒	THP Diesel ☒ Si-Gel ☒ / Motor Oil ☒	Pesticide - 8081 ☐	PCB - 8082 ☐	Metals ☐ CAM-17 ☐ / LUFT 5 ☐ 7 Metals ☐	8270 Full List ☐ / PAHs Only ☐	LEAD (TOTAL)		REMARKS
01A	MW-6'5'	4-2-8/9:30 A	S	1	STAINLESS STEEL LINER		X	X					X		
02A	MW-6'10'	4-2-8/9:45 A		1			X	X							
03A	MW-6'15'	4-3-8/10:10 A		1			X	X							
04A	GW-2'5'	4-3-8 1:30 P		1			X	X					X		
05A	GW-2'10'	2:00 P		1			X	X							
06A	GW-2'15'	2:30 P		1			X	X							
07A	GW-2'18'	4-3-8 2:45 P	S	1			X	X							

TORRENT LAB

	Relinquished By:	Print:	Date:	Time:	Received By:	Print:	Date:	Time:
1		Joseph Cotton	4-3-8	3:25		PAUL DIAZ	4-3-08	3:25
2		PAUL DIAZ	4-3-08	17:25			4-3-08	17:25

Were Samples Received in Good Condition? ☒ Yes ☐ NO Samples on Ice? ☒ Yes ☐ NO Method of Shipment: HD 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.

Page 1 of 1

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

Torrent
LABORATORY, INC.

May 07, 2008

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

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

RE:

Order No.: 0804218

Dear Mr. Joseph Cotton:

Torrent Laboratory, Inc. received 8 samples on 4/30/2008 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 5/7/08 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: 4/30/2008
Date Reported:

Client Sample ID: MW-1
Sample Location: 1409-1417 12th ST
Sample Matrix: WATER
Date/Time Sampled 4/30/2008 1:40:00 PM

Lab Sample ID: 0804218-001
Date Prepared: 5/2/2008

Parameters	Analysis Method	Date Analyzed	RL	Dilution Factor	MRL	Result	Units	Analytical Batch
TPH (Diesel)	SW8015B	5/3/2008	0.1	1	0.100	ND	mg/L	R16185
TPH (Motor Oil)	SW8015B	5/3/2008	0.2	1	0.200	ND	mg/L	R16185
Surr: Pentacosane	SW8015B	5/3/2008	0	1	53.3-124	99.0	%REC	R16185
Benzene	SW8260B	5/2/2008	0.5	1	0.500	ND	µg/L	P16196
Ethylbenzene	SW8260B	5/2/2008	0.5	1	0.500	ND	µg/L	P16196
Methyl tert-butyl ether (MTBE)	SW8260B	5/2/2008	0.5	1	0.500	ND	µg/L	P16196
Toluene	SW8260B	5/2/2008	0.5	1	0.500	ND	µg/L	P16196
Xylenes, Total	SW8260B	5/2/2008	1.5	1	1.50	ND	µg/L	P16196
Surr: Dibromofluoromethane	SW8260B	5/2/2008	0	1	61.2-131	94.1	%REC	P16196
Surr: 4-Bromofluorobenzene	SW8260B	5/2/2008	0	1	64.1-120	91.9	%REC	P16196
Surr: Toluene-d8	SW8260B	5/2/2008	0	1	75.1-127	102	%REC	P16196
TPH (Gasoline)	SW8260B(TPH)	5/2/2008	50	1	50	54x	µg/L	T16196
Surr: 4-Bromofllurobenzene	SW8260B(TPH)	5/2/2008	0	1	58.4-133	103	%REC	T16196

Note: x- Sample chromatogram does not resemble gasoline standard pattern. Reported value due to presence of non-gasoline compounds within range of C5-C12 quantified as Gasoline.

These analyses were performed according to State of California Environmental Laboratory Accreditation program, Certificate # 1991

Report prepared for: Mr. Joseph Cotton
Impact Environmental Services

Date Received: 4/30/2008
Date Reported:

Client Sample ID: MW-2
Sample Location: 1409-1417 12th ST
Sample Matrix: WATER
Date/Time Sampled 4/30/2008 1:45:00 PM

Lab Sample ID: 0804218-002
Date Prepared: 5/1/2008

Parameters	Analysis Method	Date Analyzed	RL	Dilution Factor	MRL	Result	Units	Analytical Batch
TPH (Diesel)	SW8015B	5/3/2008	0.1	1	0.100	ND	mg/L	R16185
TPH (Motor Oil)	SW8015B	5/3/2008	0.2	1	0.200	ND	mg/L	R16185
Surr: Pentacosane	SW8015B	5/3/2008	0	1	53.3-124	88.0	%REC	R16185
Benzene	SW8260B	5/1/2008	0.5	1	0.500	ND	µg/L	P16196
Ethylbenzene	SW8260B	5/1/2008	0.5	1	0.500	ND	µg/L	P16196
Methyl tert-butyl ether (MTBE)	SW8260B	5/1/2008	0.5	1	0.500	ND	µg/L	P16196
Toluene	SW8260B	5/1/2008	0.5	1	0.500	ND	µg/L	P16196
Xylenes, Total	SW8260B	5/1/2008	1.5	1	1.50	ND	µg/L	P16196
Surr: Dibromofluoromethane	SW8260B	5/1/2008	0	1	61.2-131	114	%REC	P16196
Surr: 4-Bromofluorobenzene	SW8260B	5/1/2008	0	1	64.1-120	93.8	%REC	P16196
Surr: Toluene-d8	SW8260B	5/1/2008	0	1	75.1-127	112	%REC	P16196
TPH (Gasoline)	SW8260B(TPH)	5/2/2008	50	1	50	ND	µg/L	T16196
Surr: 4-Bromofllurobenzene	SW8260B(TPH)	5/2/2008	0	1	58.4-133	103	%REC	T16196

These analyses were performed according to State of California Environmental Laboratory Accreditation program, Certificate # 1991

Report prepared for: Mr. Joseph Cotton
Impact Environmental Services

Date Received: 4/30/2008
Date Reported:

Client Sample ID: MW-3
Sample Location: 1409-1417 12th ST
Sample Matrix: WATER
Date/Time Sampled 4/30/2008 10:58:00 AM

Lab Sample ID: 0804218-003
Date Prepared: 5/1/2008

Parameters	Analysis Method	Date Analyzed	RL	Dilution Factor	MRL	Result	Units	Analytical Batch
TPH (Diesel)	SW8015B	5/5/2008	0.1	1	0.100	ND	mg/L	R16185
TPH (Motor Oil)	SW8015B	5/5/2008	0.2	1	0.200	ND	mg/L	R16185
Surr: Pentacosane	SW8015B	5/5/2008	0	1	53.3-124	86.0	%REC	R16185
Benzene	SW8260B	5/1/2008	0.5	1	0.500	ND	µg/L	P16196
Ethylbenzene	SW8260B	5/1/2008	0.5	1	0.500	ND	µg/L	P16196
Methyl tert-butyl ether (MTBE)	SW8260B	5/1/2008	0.5	1	0.500	ND	µg/L	P16196
Toluene	SW8260B	5/1/2008	0.5	1	0.500	ND	µg/L	P16196
Xylenes, Total	SW8260B	5/1/2008	1.5	1	1.50	ND	µg/L	P16196
Surr: Dibromofluoromethane	SW8260B	5/1/2008	0	1	61.2-131	111	%REC	P16196
Surr: 4-Bromofluorobenzene	SW8260B	5/1/2008	0	1	64.1-120	98.2	%REC	P16196
Surr: Toluene-d8	SW8260B	5/1/2008	0	1	75.1-127	112	%REC	P16196
TPH (Gasoline)	SW8260B(TPH)	5/1/2008	50	1	50	ND	µg/L	T16196
Surr: 4-Bromofllurobenzene	SW8260B(TPH)	5/1/2008	0	1	58.4-133	94.8	%REC	T16196

These analyses were performed according to State of California Environmental Laboratory Accreditation program, Certificate # 1991

Report prepared for: Mr. Joseph Cotton
Impact Environmental Services

Date Received: 4/30/2008
Date Reported:

Client Sample ID: MW-4
Sample Location: 1409-1417 12th ST
Sample Matrix: WATER
Date/Time Sampled 4/30/2008 11:38:00 AM

Lab Sample ID: 0804218-004
Date Prepared: 5/2/2008

Parameters	Analysis Method	Date Analyzed	RL	Dilution Factor	MRL	Result	Units	Analytical Batch
TPH (Diesel)	SW8015B	5/5/2008	0.1	1	0.100	ND	mg/L	R16185
TPH (Motor Oil)	SW8015B	5/5/2008	0.2	1	0.200	ND	mg/L	R16185
Surr: Pentacosane	SW8015B	5/5/2008	0	1	53.3-124	93.0	%REC	R16185
Benzene	SW8260B	5/2/2008	0.5	1.22	0.610	ND	µg/L	P16196
Ethylbenzene	SW8260B	5/2/2008	0.5	1.22	0.610	ND	µg/L	P16196
Methyl tert-butyl ether (MTBE)	SW8260B	5/2/2008	0.5	1.22	0.610	ND	µg/L	P16196
Toluene	SW8260B	5/2/2008	0.5	1.22	0.610	ND	µg/L	P16196
Xylenes, Total	SW8260B	5/2/2008	1.5	1.22	1.83	ND	µg/L	P16196
Surr: Dibromofluoromethane	SW8260B	5/2/2008	0	1.22	61.2-131	110	%REC	P16196
Surr: 4-Bromofluorobenzene	SW8260B	5/2/2008	0	1.22	64.1-120	94.0	%REC	P16196
Surr: Toluene-d8	SW8260B	5/2/2008	0	1.22	75.1-127	91.8	%REC	P16196
Note: Sample was diluted prior to analysis due to the sediment in all voas.								
TPH (Gasoline)	SW8260B(TPH)	5/2/2008	50	1.16	58	ND	µg/L	T16196
Surr: 4-Bromofllurobenzene	SW8260B(TPH)	5/2/2008	0	1.16	58.4-133	94.8	%REC	T16196

These analyses were performed according to State of California Environmental Laboratory Accreditation program, Certificate # 1991

Report prepared for: Mr. Joseph Cotton
Impact Environmental Services

Date Received: 4/30/2008
Date Reported:

Client Sample ID: MW-5
Sample Location: 1409-1417 12th ST
Sample Matrix: WATER
Date/Time Sampled 4/30/2008 2:21:00 PM

Lab Sample ID: 0804218-005
Date Prepared: 5/2/2008

Parameters	Analysis Method	Date Analyzed	RL	Dilution Factor	MRL	Result	Units	Analytical Batch
TPH (Diesel)	SW8015B	5/5/2008	0.1	1	0.100	ND	mg/L	R16185
TPH (Motor Oil)	SW8015B	5/5/2008	0.2	1	0.200	ND	mg/L	R16185
Surr: Pentacosane	SW8015B	5/5/2008	0	1	53.3-124	77.0	%REC	R16185
Benzene	SW8260B	5/2/2008	0.5	1.16	0.580	ND	µg/L	P16196
Ethylbenzene	SW8260B	5/2/2008	0.5	1.16	0.580	ND	µg/L	P16196
Methyl tert-butyl ether (MTBE)	SW8260B	5/2/2008	0.5	1.16	0.580	ND	µg/L	P16196
Toluene	SW8260B	5/2/2008	0.5	1.16	0.580	ND	µg/L	P16196
Xylenes, Total	SW8260B	5/2/2008	1.5	1.16	1.74	ND	µg/L	P16196
Surr: Dibromofluoromethane	SW8260B	5/2/2008	0	1.16	61.2-131	88.5	%REC	P16196
Surr: 4-Bromofluorobenzene	SW8260B	5/2/2008	0	1.16	64.1-120	98.9	%REC	P16196
Surr: Toluene-d8	SW8260B	5/2/2008	0	1.16	75.1-127	108	%REC	P16196
Note: Sample was diluted prior to analysis due to the sediment in all voas.								
TPH (Gasoline)	SW8260B(TPH)	5/2/2008	50	1.16	58	ND	µg/L	T16196
Surr: 4-Bromofllurobenzene	SW8260B(TPH)	5/2/2008	0	1.16	58.4-133	94.8	%REC	T16196

These analyses were performed according to State of California Environmental Laboratory Accreditation program, Certificate # 1991

Report prepared for: Mr. Joseph Cotton
Impact Environmental Services

Date Received: 4/30/2008
Date Reported:

Client Sample ID: MW-6
Sample Location: 1409-1417 12th ST
Sample Matrix: WATER
Date/Time Sampled 4/30/2008 12:14:00 PM

Lab Sample ID: 0804218-006
Date Prepared: 5/2/2008

Parameters	Analysis Method	Date Analyzed	RL	Dilution Factor	MRL	Result	Units	Analytical Batch
TPH (Diesel)	SW8015B	5/5/2008	0.1	1	0.100	ND	mg/L	R16185
TPH (Motor Oil)	SW8015B	5/5/2008	0.2	1	0.200	ND	mg/L	R16185
Surr: Pentacosane	SW8015B	5/5/2008	0	1	53.3-124	73.0	%REC	R16185
Benzene	SW8260B	5/2/2008	0.5	1	0.500	ND	µg/L	P16196
Ethylbenzene	SW8260B	5/2/2008	0.5	1	0.500	ND	µg/L	P16196
Methyl tert-butyl ether (MTBE)	SW8260B	5/2/2008	0.5	1	0.500	ND	µg/L	P16196
Toluene	SW8260B	5/2/2008	0.5	1	0.500	ND	µg/L	P16196
Xylenes, Total	SW8260B	5/2/2008	1.5	1	1.50	ND	µg/L	P16196
Surr: Dibromofluoromethane	SW8260B	5/2/2008	0	1	61.2-131	84.4	%REC	P16196
Surr: 4-Bromofluorobenzene	SW8260B	5/2/2008	0	1	64.1-120	90.8	%REC	P16196
Surr: Toluene-d8	SW8260B	5/2/2008	0	1	75.1-127	96.5	%REC	P16196
TPH (Gasoline)	SW8260B(TPH)	5/2/2008	50	1	50	53x	µg/L	T16196
Surr: 4-Bromofllurobenzene	SW8260B(TPH)	5/2/2008	0	1	58.4-133	103	%REC	T16196

Note: x- Sample chromatogram does not resemble gasoline standard pattern. Reported value due to presence of non-gasoline compounds within range of C5-C12 quantified as Gasoline.

These analyses were performed according to State of California Environmental Laboratory Accreditation program, Certificate # 1991

Report prepared for: Mr. Joseph Cotton
Impact Environmental Services

Date Received: 4/30/2008
Date Reported:

Client Sample ID: MW-7
Sample Location: 1409-1417 12th ST
Sample Matrix: WATER
Date/Time Sampled 4/30/2008 12:20:00 PM

Lab Sample ID: 0804218-007
Date Prepared: 5/2/2008

Parameters	Analysis Method	Date Analyzed	RL	Dilution Factor	MRL	Result	Units	Analytical Batch
TPH (Diesel)	SW8015B	5/5/2008	0.1	1	0.100	ND	mg/L	R16185
TPH (Motor Oil)	SW8015B	5/5/2008	0.2	1	0.200	ND	mg/L	R16185
Surr: Pentacosane	SW8015B	5/5/2008	0	1	53.3-124	80.0	%REC	R16185
Benzene	SW8260B	5/2/2008	0.5	1	0.500	ND	µg/L	P16196
Ethylbenzene	SW8260B	5/2/2008	0.5	1	0.500	ND	µg/L	P16196
Methyl tert-butyl ether (MTBE)	SW8260B	5/2/2008	0.5	1	0.500	ND	µg/L	P16196
Toluene	SW8260B	5/2/2008	0.5	1	0.500	ND	µg/L	P16196
Xylenes, Total	SW8260B	5/2/2008	1.5	1	1.50	ND	µg/L	P16196
Surr: Dibromofluoromethane	SW8260B	5/2/2008	0	1	61.2-131	83.8	%REC	P16196
Surr: 4-Bromofluorobenzene	SW8260B	5/2/2008	0	1	64.1-120	89.8	%REC	P16196
Surr: Toluene-d8	SW8260B	5/2/2008	0	1	75.1-127	105	%REC	P16196
TPH (Gasoline)	SW8260B(TPH)	5/2/2008	50	1	50	ND	µg/L	T16196
Surr: 4-Bromofllurobenzene	SW8260B(TPH)	5/2/2008	0	1	58.4-133	94.8	%REC	T16196

These analyses were performed according to State of California Environmental Laboratory Accreditation program, Certificate # 1991

Report prepared for: Mr. Joseph Cotton
Impact Environmental Services

Date Received: 4/30/2008
Date Reported:

Client Sample ID: MW-8
Sample Location: 1409-1417 12th ST
Sample Matrix: WATER
Date/Time Sampled 4/30/2008 10:11:00 AM

Lab Sample ID: 0804218-008
Date Prepared: 5/2/2008

Parameters	Analysis Method	Date Analyzed	RL	Dilution Factor	MRL	Result	Units	Analytical Batch
TPH (Diesel)	SW8015B	5/6/2008	0.1	1	0.100	0.161x	mg/L	R16185
TPH (Motor Oil)	SW8015B	5/6/2008	0.2	1	0.200	ND	mg/L	R16185
Surr: Pentacosane	SW8015B	5/6/2008	0	1	53.3-124	55.0	%REC	R16185
Note:x-Sample chromatogram does not resemble typical diesel pattern (possibly fuel lighter than diesel). Lighter end hydrocarbons within the diesel range quantitated as diesel.								
Benzene	SW8260B	5/2/2008	0.5	1	0.500	13.9	µg/L	P16196
Ethylbenzene	SW8260B	5/2/2008	0.5	1	0.500	9.76	µg/L	P16196
Methyl tert-butyl ether (MTBE)	SW8260B	5/2/2008	0.5	1	0.500	ND	µg/L	P16196
Toluene	SW8260B	5/2/2008	0.5	1	0.500	12.4	µg/L	P16196
Xylenes, Total	SW8260B	5/2/2008	1.5	1	1.50	160	µg/L	P16196
Surr: Dibromofluoromethane	SW8260B	5/2/2008	0	1	61.2-131	113	%REC	P16196
Surr: 4-Bromofluorobenzene	SW8260B	5/2/2008	0	1	64.1-120	102	%REC	P16196
Surr: Toluene-d8	SW8260B	5/2/2008	0	1	75.1-127	87.1	%REC	P16196
TPH (Gasoline)	SW8260B(TPH)	5/2/2008	50	1	50	1049x	µg/L	T16196
Surr: 4-Bromofllurobenzene	SW8260B(TPH)	5/2/2008	0	1	58.4-133	69.0	%REC	T16196
Note: Although TPH as Gasoline constituents are present, results are elevated due to the presence of non-target compounds within range of C5-C12 quantified as Gasoline								

These analyses were performed according to State of California Environmental Laboratory Accreditation program, Certificate # 1991

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 #

These analyses were performed according to State of California Environmental Laboratory Accreditation program, Certificate # 1991

CLIENT: Impact Environmental Services
Work Order: 0804218
Project:

ANALYTICAL QC SUMMARY REPORT

BatchID: P16196

Sample ID: **MB_P16196**	SampType: **MBLK**	TestCode: **8260B_W_PE**	Units: **µg/L**	Prep Date: **5/1/2008**	RunNo: **16196**
Client ID: **ZZZZZ**	Batch ID: **P16196**	TestNo: **SW8260B**		Analysis Date: **5/1/2008**	SeqNo: **232729**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	ND	0.500									
Ethylbenzene	ND	0.500									
Methyl tert-butyl ether (MTBE)	ND	0.500									
Toluene	ND	0.500									
Xylenes, Total	ND	1.50									
Surr: Dibromofluoromethane	11.89	0	11.36	0	105	61.2	131				
Surr: 4-Bromofluorobenzene	11.17	0	11.36	0	98.3	64.1	120				
Surr: Toluene-d8	9.450	0	11.36	0	83.2	75.1	127				

Sample ID: **LCS_P16196**	SampType: **LCS**	TestCode: **8260B_W_PE**	Units: **µg/L**	Prep Date: **5/1/2008**	RunNo: **16196**
Client ID: **ZZZZZ**	Batch ID: **P16196**	TestNo: **SW8260B**		Analysis Date: **5/1/2008**	SeqNo: **232730**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	15.69	0.500	17.04	0	92.1	66.9	140				
Toluene	18.01	0.500	17.04	0	106	76.6	123				
Surr: Dibromofluoromethane	10.21	0	11.36	0	89.9	61.2	131				
Surr: 4-Bromofluorobenzene	10.19	0	11.36	0	89.7	64.1	120				
Surr: Toluene-d8	11.76	0	11.36	0	104	75.1	127				

Sample ID: **LCSD_P16196**	SampType: **LCSD**	TestCode: **8260B_W_PE**	Units: **µg/L**	Prep Date: **5/1/2008**	RunNo: **16196**
Client ID: **ZZZZZ**	Batch ID: **P16196**	TestNo: **SW8260B**		Analysis Date: **5/1/2008**	SeqNo: **232731**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	15.20	0.500	17.04	0	89.2	66.9	140	16.31	7.05	20	
Toluene	15.20	0.500	17.04	0	89.2	76.6	123	17.16	12.1	20	
Surr: Dibromofluoromethane	11.24	0	11.36	0	98.9	61.2	131	0	0	0	
Surr: 4-Bromofluorobenzene	11.69	0	11.36	0	103	64.1	120	0	0	0	
Surr: Toluene-d8	9.410	0	11.36	0	82.8	75.1	127	0	0	0	

Qualifiers:
E Value above quantitation range
H Holding times for preparation or analysis exceeded
J Analyte detected below quantitation limits
ND Not Detected at the Reporting Limit
R RPD outside accepted recovery limits
S Spike Recovery outside accepted recovery limits

CLIENT: Impact Environmental Services
Work Order: 0804218
Project:

ANALYTICAL QC SUMMARY REPORT

BatchID: R16185

Sample ID: **WD080501A-MB**	SampType: **MBLK**	TestCode: **TPHDO_W**	Units: **mg/L**	Prep Date: **5/1/2008**	RunNo: **16185**
Client ID: **ZZZZZ**	Batch ID: **R16185**	TestNo: **SW8015B**		Analysis Date: **5/1/2008**	SeqNo: **232322**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
TPH (Diesel)	ND	0.100									
TPH (Motor Oil)	ND	0.200									
Surr: Pentacosane	0.07200	0	0.1	0	72.0	53.3	124				

Sample ID: **WD080502A-MB**	SampType: **MBLK**	TestCode: **TPHDO_W**	Units: **mg/L**	Prep Date: **5/2/2008**	RunNo: **16185**
Client ID: **ZZZZZ**	Batch ID: **R16185**	TestNo: **SW8015B**		Analysis Date: **5/3/2008**	SeqNo: **233008**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
TPH (Diesel)	ND	0.100									
TPH (Motor Oil)	ND	0.200									
Surr: Pentacosane	0.07900	0	0.1	0	79.0	53.3	124				

Sample ID: **WD080501A-LCS**	SampType: **LCS**	TestCode: **TPHDO_W**	Units: **mg/L**	Prep Date: **5/1/2008**	RunNo: **16185**
Client ID: **ZZZZZ**	Batch ID: **R16185**	TestNo: **SW8015B**		Analysis Date: **5/1/2008**	SeqNo: **232323**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
TPH (Diesel)	0.5590	0.100	1	0	55.9	46.2	109				
Surr: Pentacosane	0.09700	0	0.1	0	97.0	53.3	124				

Sample ID: **WD080501A-LCSD**	SampType: **LCSD**	TestCode: **TPHDO_W**	Units: **mg/L**	Prep Date: **5/1/2008**	RunNo: **16185**
Client ID: **ZZZZZ**	Batch ID: **R16185**	TestNo: **SW8015B**		Analysis Date: **5/1/2008**	SeqNo: **232324**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
TPH (Diesel)	0.5750	0.100	1	0	57.5	46.2	109	0.559	2.82	20	
Surr: Pentacosane	0.08600	0	0.1	0	86.0	53.3	124	0	0	0	

Qualifiers:

E	Value above quantitation range	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	R	RPD outside accepted recovery limits	S	Spike Recovery outside accepted recovery limits

CLIENT: Impact Environmental Services
Work Order: 0804218
Project:

ANALYTICAL QC SUMMARY REPORT

BatchID: T16196

Sample ID: **MB_T16196**	SampType: **MBLK**	TestCode: **TPH_GAS_W**	Units: **µg/L**	Prep Date: **5/2/2008**	RunNo: **16196**
Client ID: **ZZZZZ**	Batch ID: **T16196**	TestNo: **SW8260B(TP**		Analysis Date: **5/2/2008**	SeqNo: **232768**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
TPH (Gasoline)	ND	50									
Surr: 4-Bromofllurobenzene	9.000	0	11.36	0	79.2	58.4	133				

Sample ID: **LCS_T16196**	SampType: **LCS**	TestCode: **TPH_GAS_W**	Units: **µg/L**	Prep Date: **5/2/2008**	RunNo: **16196**
Client ID: **ZZZZZ**	Batch ID: **T16196**	TestNo: **SW8260B(TP**		Analysis Date: **5/2/2008**	SeqNo: **232769**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
TPH (Gasoline)	197.0	50	227	29	74.0	52.4	127				
Surr: 4-Bromofllurobenzene	11.00	0	11.36	0	96.8	58.4	133				

Sample ID: **LCSD_T16196**	SampType: **LCSD**	TestCode: **TPH_GAS_W**	Units: **µg/L**	Prep Date: **5/2/2008**	RunNo: **16196**
Client ID: **ZZZZZ**	Batch ID: **T16196**	TestNo: **SW8260B(TP**		Analysis Date: **5/2/2008**	SeqNo: **232770**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
TPH (Gasoline)	192.0	50	227	29	71.8	52.4	127	197	2.57	20	
Surr: 4-Bromofllurobenzene	12.00	0	11.36	0	106	58.4	133	0	0	0	

Qualifiers:

E	Value above quantitation range	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	R	RPD outside accepted recovery limits	S	Spike Recovery outside accepted recovery limits

Torrent Laboratory, Inc.

WORK ORDER Summary

01-May-08

Work Order 0804218

Client ID: IMPACT ENV. SER.

Project: **QC Level:**

Comments: 5 day TAT! Received 8 waters.

Sample ID	Client Sample ID	Collection Date	Date Received	Date Due	Matrix	Test Code	Hld	MS	SEL	Sub	Storage
0804218-001A	MW-1	4/30/2008 1:40:00 PM	4/30/2008	5/6/2008	Water	8260B_W_PETROLEUM	☐	☐	☑	☐	SR
				5/6/2008		TPH_GAS_W_GCMS	☐	☐	☐	☐	SR
				5/6/2008		TPHDO_W	☐	☐	☐	☐	SR
0804218-002A	MW-2	4/30/2008 1:45:00 PM		5/6/2008		8260B_W_PETROLEUM	☐	☐	☑	☐	SR
				5/6/2008		TPH_GAS_W_GCMS	☐	☐	☐	☐	SR
				5/6/2008		TPHDO_W	☐	☐	☐	☐	SR
0804218-003A	MW-3	4/30/2008 10:58:00 AM		5/6/2008		8260B_W_PETROLEUM	☐	☐	☑	☐	SR
				5/6/2008		TPH_GAS_W_GCMS	☐	☐	☐	☐	SR
				5/6/2008		TPHDO_W	☐	☐	☐	☐	SR
0804218-004A	MW-4	4/30/2008 11:38:00 AM		5/6/2008		8260B_W_PETROLEUM	☐	☐	☑	☐	SR
				5/6/2008		TPH_GAS_W_GCMS	☐	☐	☐	☐	SR
				5/6/2008		TPHDO_W	☐	☐	☐	☐	SR
0804218-005A	MW-5	4/30/2008 2:21:00 PM		5/6/2008		8260B_W_PETROLEUM	☐	☐	☑	☐	SR
				5/6/2008		TPH_GAS_W_GCMS	☐	☐	☐	☐	SR
				5/6/2008		TPHDO_W	☐	☐	☐	☐	SR
0804218-006A	MW-6	4/30/2008 12:14:00 PM		5/6/2008		8260B_W_PETROLEUM	☐	☐	☑	☐	SR
				5/6/2008		TPH_GAS_W_GCMS	☐	☐	☐	☐	SR
				5/6/2008		TPHDO_W	☐	☐	☐	☐	SR
0804218-007A	MW-7	4/30/2008 12:20:00 PM		5/6/2008		8260B_W_PETROLEUM	☐	☐	☑	☐	SR
				5/6/2008		TPH_GAS_W_GCMS	☐	☐	☐	☐	SR
				5/6/2008		TPHDO_W	☐	☐	☐	☐	SR
0804218-008A	MW-8	4/30/2008 10:11:00 AM		5/6/2008		8260B_W_PETROLEUM	☐	☐	☑	☐	SR
				5/6/2008		TPH_GAS_W_GCMS	☐	☐	☐	☐	SR
				5/6/2008		TPHDO_W	☐	☐	☐	☐	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 #

CLIENT: Impact Environmental Services

SITE: 1409-1417 12th St.
Oakland CA

CONDUCT ANALYSIS TO DETECT

LAB: Torrent Lab | DHS #

MUST MEET SPECIFICATIONS
- [x] EPA
- [ ] LIA
- [ ] OTHER
- [ ] RWQCB REGION _____

080421&

SPECIAL INSTRUCTIONS

Invoice and Report to: Impact Env. Services

Attn: Joseph Cotton

SAMPLE I.D.	DATE	TIME	MATRIX (S = Soil, W = H2O)	CONTAINERS TOTAL	TPH-G	BTEX	MTBE	TPH-D & Motor Oil	ADD'L INFORMATION	STATUS	CONDITION	LAB SAMPLE #
MW-1	4/30/08	1340	W	5	X	X	X	X				01A
MW-2		1345	W	5	X	X	X	X				02A
MW-3		1058	W	5	X	X	X	X				03A
MW-4		1138	W	5	X	X	X	X				04A
MW-5		1421	W	5	X	X	X	X				05A
MW-6		1214	W	5	X	X	X	X				06A
MW-7		1220	W	5	X	X	X	X				07A
MW-8	↓	1011	W	5	X	X	X	X				08A
												—

SAMPLING COMPLETED: DATE 4/30/08 TIME 1430

SAMPLING PERFORMED BY: B. Doshier, M. Todi

RESULTS NEEDED NO LATER THAN: Standard TAT

RELEASED BY	DATE	TIME	RECEIVED BY	DATE	TIME
[signature]	4/30/08			4/30/08	
RELEASED BY	DATE	TIME	RECEIVED BY	DATE	TIME
			M. Sudin	4/30/08	4:00pm
RELEASED BY	DATE	TIME	RECEIVED BY	DATE	TIME

SHIPPED VIA	DATE SENT	TIME SENT	COOLER #

Torrent
LABORATORY, INC.

May 07, 2008

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

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

RE:

Order No.: 0804219

Dear Mr. Joseph Cotton:

Torrent Laboratory, Inc. received 3 samples on 4/30/2008 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 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: 4/30/2008
Date Reported:

Client Sample ID: GW-1
Sample Location: 1409-1417 12th St
Sample Matrix: WATER
Date/Time Sampled 4/30/2008 11:00:00 AM

Lab Sample ID: 0804219-001
Date Prepared: 5/1/2008

Parameters	Analysis Method	Date Analyzed	RL	Dilution Factor	MRL	Result	Units	Analytical Batch
TPH (Diesel)	SW8015B	5/3/2008	0.1	10	1.00	7.25x	mg/L	R16185
TPH (Motor Oil)	SW8015B	5/3/2008	0.2	10	2.00	ND	mg/L	R16185
Surr: Pentacosane	SW8015B	5/3/2008	0	10	53.3-124	120	%REC	R16185
Note: Sample chromatogram does not resemble typical diesel pattern.(possibly fuels lighter then diesel). Hydrocarbons within the diesel range quantitated as diesel.								
Benzene	SW8260B	5/2/2008	0.5	44	22.0	2400	µg/L	P16196
Ethylbenzene	SW8260B	5/2/2008	0.5	44	22.0	378	µg/L	P16196
Methyl tert-butyl ether (MTBE)	SW8260B	5/2/2008	0.5	44	22.0	ND	µg/L	P16196
Toluene	SW8260B	5/2/2008	0.5	44	22.0	769	µg/L	P16196
Xylenes, Total	SW8260B	5/2/2008	1.5	44	66.0	3450	µg/L	P16196
Surr: Dibromofluoromethane	SW8260B	5/2/2008	0	44	61.2-131	109	%REC	P16196
Surr: 4-Bromofluorobenzene	SW8260B	5/2/2008	0	44	64.1-120	87.9	%REC	P16196
Surr: Toluene-d8	SW8260B	5/2/2008	0	44	75.1-127	101	%REC	P16196
TPH (Gasoline)	SW8260B(TPH)	5/6/2008	50	44	2200	37000	µg/L	G16219
Surr: 4-Bromofllurobenzene	SW8260B(TPH)	5/6/2008	0	44	58.4-133	94.8	%REC	G16219
Note: Although TPH as Gasoline constituents are present, results are elevated due to the presence of non-target compounds within range of C5-C12 quantified as Gasoline								

These analyses were performed according to State of California Environmental Laboratory Accreditation program, Certificate # 1991

Report prepared for: Mr. Joseph Cotton
Impact Environmental Services

Date Received: 4/30/2008
Date Reported:

Client Sample ID: GW-2
Sample Location: 1409-1417 12th St
Sample Matrix: WATER
Date/Time Sampled 4/30/2008 10:15:00 AM

Lab Sample ID: 0804219-002
Date Prepared: 5/2/2008

Parameters	Analysis Method	Date Analyzed	RL	Dilution Factor	MRL	Result	Units	Analytical Batch
TPH (Diesel)	SW8015B	5/3/2008	0.1	1	0.100	ND	mg/L	R16185
TPH (Motor Oil)	SW8015B	5/3/2008	0.2	1	0.200	ND	mg/L	R16185
Surr: Pentacosane	SW8015B	5/3/2008	0	1	53.3-124	71.0	%REC	R16185
Benzene	SW8260B	5/2/2008	0.5	1	0.500	ND	µg/L	P16196
Ethylbenzene	SW8260B	5/2/2008	0.5	1	0.500	ND	µg/L	P16196
Methyl tert-butyl ether (MTBE)	SW8260B	5/2/2008	0.5	1	0.500	ND	µg/L	P16196
Toluene	SW8260B	5/2/2008	0.5	1	0.500	ND	µg/L	P16196
Xylenes, Total	SW8260B	5/2/2008	1.5	1	1.50	ND	µg/L	P16196
Surr: Dibromofluoromethane	SW8260B	5/2/2008	0	1	61.2-131	89.9	%REC	P16196
Surr: 4-Bromofluorobenzene	SW8260B	5/2/2008	0	1	64.1-120	88.7	%REC	P16196
Surr: Toluene-d8	SW8260B	5/2/2008	0	1	75.1-127	98.7	%REC	P16196
TPH (Gasoline)	SW8260B(TPH)	5/2/2008	50	1	50	74x	µg/L	T16196
Surr: 4-Bromofllurobenzene	SW8260B(TPH)	5/2/2008	0	1	58.4-133	94.8	%REC	T16196

Note: x- Sample chromatogram does not resemble gasoline standard pattern. Reported value due to presence of non-gasoline compounds within range of C5-C12 quantified as Gasoline.

These analyses were performed according to State of California Environmental Laboratory Accreditation program, Certificate # 1991

Report prepared for: Mr. Joseph Cotton
Impact Environmental Services

Date Received: 4/30/2008
Date Reported:

Client Sample ID: GW-3
Sample Location: 1409-1417 12th St
Sample Matrix: WATER
Date/Time Sampled 4/30/2008 11:35:00 AM

Lab Sample ID: 0804219-003
Date Prepared: 5/2/2008

Parameters	Analysis Method	Date Analyzed	RL	Dilution Factor	MRL	Result	Units	Analytical Batch
TPH (Diesel)	SW8015B	5/3/2008	0.1	1	0.100	ND	mg/L	R16185
TPH (Motor Oil)	SW8015B	5/3/2008	0.2	1	0.200	ND	mg/L	R16185
Surr: Pentacosane	SW8015B	5/3/2008	0	1	53.3-124	67.0	%REC	R16185
Benzene	SW8260B	5/2/2008	0.5	1	0.500	46.5	µg/L	P16196
Ethylbenzene	SW8260B	5/2/2008	0.5	1	0.500	2.16	µg/L	P16196
Methyl tert-butyl ether (MTBE)	SW8260B	5/2/2008	0.5	1	0.500	ND	µg/L	P16196
Toluene	SW8260B	5/2/2008	0.5	1	0.500	1.36	µg/L	P16196
Xylenes, Total	SW8260B	5/2/2008	1.5	1	1.50	6.27	µg/L	P16196
Surr: Dibromofluoromethane	SW8260B	5/2/2008	0	1	61.2-131	119	%REC	P16196
Surr: 4-Bromofluorobenzene	SW8260B	5/2/2008	0	1	64.1-120	97.6	%REC	P16196
Surr: Toluene-d8	SW8260B	5/2/2008	0	1	75.1-127	85.4	%REC	P16196
TPH (Gasoline)	SW8260B(TPH)	5/2/2008	50	1	50	250	µg/L	T16196
Surr: 4-Bromofllurobenzene	SW8260B(TPH)	5/2/2008	0	1	58.4-133	94.8	%REC	T16196

Note: Although TPH as Gasoline constituents are present, results are elevated due to the presence of non-target compounds within range of C5-C12 quantified as Gasoline

These analyses were performed according to State of California Environmental Laboratory Accreditation program, Certificate # 1991

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 #

These analyses were performed according to State of California Environmental Laboratory Accreditation program, Certificate # 1991

CLIENT: Impact Environmental Services
Work Order: 0804219
Project:

ANALYTICAL QC SUMMARY REPORT

BatchID: G16219

Sample ID: **MB_G16219**	SampType: **MBLK**	TestCode: **TPH_GAS_W**	Units: **µg/L**	Prep Date: **5/5/2008**	RunNo: **16219**
Client ID: **ZZZZZ**	Batch ID: **G16219**	TestNo: **SW8260B(TP**		Analysis Date: **5/5/2008**	SeqNo: **232909**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
TPH (Gasoline)	ND	50									
Surr: 4-Bromofllurobenzene	11.00	0	11.36	0	96.8	58.4	133				

Sample ID: **LCS_G16219**	SampType: **LCS**	TestCode: **TPH_GAS_W**	Units: **µg/L**	Prep Date: **5/5/2008**	RunNo: **16219**
Client ID: **ZZZZZ**	Batch ID: **G16219**	TestNo: **SW8260B(TP**		Analysis Date: **5/5/2008**	SeqNo: **232910**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
TPH (Gasoline)	234.0	50	227	44	83.7	52.4	127				
Surr: 4-Bromofllurobenzene	12.00	0	11.36	0	106	58.4	133				

Sample ID: **LCSD_G16219**	SampType: **LCSD**	TestCode: **TPH_GAS_W**	Units: **µg/L**	Prep Date: **5/6/2008**	RunNo: **16219**
Client ID: **ZZZZZ**	Batch ID: **G16219**	TestNo: **SW8260B(TP**		Analysis Date: **5/6/2008**	SeqNo: **232911**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
TPH (Gasoline)	228.0	50	227	44	81.1	52.4	127	234	2.60	20	
Surr: 4-Bromofllurobenzene	11.00	0	11.36	0	96.8	58.4	133	0	0	0	

Qualifiers:

E	Value above quantitation range	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	R	RPD outside accepted recovery limits	S	Spike Recovery outside accepted recovery limits

CLIENT: Impact Environmental Services
Work Order: 0804219
Project:

ANALYTICAL QC SUMMARY REPORT

BatchID: P16196

Sample ID: **MB_P16196** SampType: **MBLK** TestCode: **8260B_W_PE** Units: **µg/L** Prep Date: **5/1/2008** RunNo: **16196**
Client ID: **ZZZZZ** Batch ID: **P16196** TestNo: **SW8260B** Analysis Date: **5/1/2008** SeqNo: **232729**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	ND	0.500									
Ethylbenzene	ND	0.500									
Methyl tert-butyl ether (MTBE)	ND	0.500									
Toluene	ND	0.500									
Xylenes, Total	ND	1.50									
Surr: Dibromofluoromethane	11.89	0	11.36	0	105	61.2	131				
Surr: 4-Bromofluorobenzene	11.17	0	11.36	0	98.3	64.1	120				
Surr: Toluene-d8	9.450	0	11.36	0	83.2	75.1	127				

Sample ID: **LCS_P16196** SampType: **LCS** TestCode: **8260B_W_PE** Units: **µg/L** Prep Date: **5/1/2008** RunNo: **16196**
Client ID: **ZZZZZ** Batch ID: **P16196** TestNo: **SW8260B** Analysis Date: **5/1/2008** SeqNo: **232730**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	15.69	0.500	17.04	0	92.1	66.9	140				
Toluene	18.01	0.500	17.04	0	106	76.6	123				
Surr: Dibromofluoromethane	10.21	0	11.36	0	89.9	61.2	131				
Surr: 4-Bromofluorobenzene	10.19	0	11.36	0	89.7	64.1	120				
Surr: Toluene-d8	11.76	0	11.36	0	104	75.1	127				

Sample ID: **LCSD_P16196** SampType: **LCSD** TestCode: **8260B_W_PE** Units: **µg/L** Prep Date: **5/1/2008** RunNo: **16196**
Client ID: **ZZZZZ** Batch ID: **P16196** TestNo: **SW8260B** Analysis Date: **5/1/2008** SeqNo: **232731**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	15.20	0.500	17.04	0	89.2	66.9	140	16.31	7.05	20	
Toluene	15.20	0.500	17.04	0	89.2	76.6	123	17.16	12.1	20	
Surr: Dibromofluoromethane	11.24	0	11.36	0	98.9	61.2	131	0	0	0	
Surr: 4-Bromofluorobenzene	11.69	0	11.36	0	103	64.1	120	0	0	0	
Surr: Toluene-d8	9.410	0	11.36	0	82.8	75.1	127	0	0	0	

Qualifiers:
E Value above quantitation range
H Holding times for preparation or analysis exceeded
J Analyte detected below quantitation limits
ND Not Detected at the Reporting Limit
R RPD outside accepted recovery limits
S Spike Recovery outside accepted recovery limits

CLIENT: Impact Environmental Services
Work Order: 0804219
Project:

ANALYTICAL QC SUMMARY REPORT

BatchID: R16185

Sample ID: **WD080501A-MB**	SampType: **MBLK**	TestCode: **TPHDO_W**	Units: **mg/L**	Prep Date: **5/1/2008**	RunNo: **16185**
Client ID: **ZZZZZ**	Batch ID: **R16185**	TestNo: **SW8015B**		Analysis Date: **5/1/2008**	SeqNo: **232322**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
TPH (Diesel)	ND	0.100									
TPH (Motor Oil)	ND	0.200									
Surr: Pentacosane	0.07200	0	0.1	0	72.0	53.3	124				

Sample ID: **WD080502A-MB**	SampType: **MBLK**	TestCode: **TPHDO_W**	Units: **mg/L**	Prep Date: **5/2/2008**	RunNo: **16185**
Client ID: **ZZZZZ**	Batch ID: **R16185**	TestNo: **SW8015B**		Analysis Date: **5/3/2008**	SeqNo: **233008**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
TPH (Diesel)	ND	0.100									
TPH (Motor Oil)	ND	0.200									
Surr: Pentacosane	0.07900	0	0.1	0	79.0	53.3	124				

Sample ID: **WD080501A-LCS**	SampType: **LCS**	TestCode: **TPHDO_W**	Units: **mg/L**	Prep Date: **5/1/2008**	RunNo: **16185**
Client ID: **ZZZZZ**	Batch ID: **R16185**	TestNo: **SW8015B**		Analysis Date: **5/1/2008**	SeqNo: **232323**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
TPH (Diesel)	0.5590	0.100	1	0	55.9	46.2	109				
Surr: Pentacosane	0.09700	0	0.1	0	97.0	53.3	124				

Sample ID: **WD080501A-LCSD**	SampType: **LCSD**	TestCode: **TPHDO_W**	Units: **mg/L**	Prep Date: **5/1/2008**	RunNo: **16185**
Client ID: **ZZZZZ**	Batch ID: **R16185**	TestNo: **SW8015B**		Analysis Date: **5/1/2008**	SeqNo: **232324**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
TPH (Diesel)	0.5750	0.100	1	0	57.5	46.2	109	0.559	2.82	20	
Surr: Pentacosane	0.08600	0	0.1	0	86.0	53.3	124	0	0	0	

Qualifiers:

E	Value above quantitation range	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	R	RPD outside accepted recovery limits	S	Spike Recovery outside accepted recovery limits

CLIENT: Impact Environmental Services
Work Order: 0804219
Project:

ANALYTICAL QC SUMMARY REPORT

BatchID: T16196

Sample ID: **MB_T16196**	SampType: **MBLK**	TestCode: **TPH_GAS_W**	Units: **µg/L**	Prep Date: **5/2/2008**	RunNo: **16196**
Client ID: **ZZZZZ**	Batch ID: **T16196**	TestNo: **SW8260B(TP**		Analysis Date: **5/2/2008**	SeqNo: **232768**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
TPH (Gasoline)	ND	50									
Surr: 4-Bromofllurobenzene	9.000	0	11.36	0	79.2	58.4	133				

Sample ID: **LCS_T16196**	SampType: **LCS**	TestCode: **TPH_GAS_W**	Units: **µg/L**	Prep Date: **5/2/2008**	RunNo: **16196**
Client ID: **ZZZZZ**	Batch ID: **T16196**	TestNo: **SW8260B(TP**		Analysis Date: **5/2/2008**	SeqNo: **232769**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
TPH (Gasoline)	197.0	50	227	29	74.0	52.4	127				
Surr: 4-Bromofllurobenzene	11.00	0	11.36	0	96.8	58.4	133				

Sample ID: **LCSD_T16196**	SampType: **LCSD**	TestCode: **TPH_GAS_W**	Units: **µg/L**	Prep Date: **5/2/2008**	RunNo: **16196**
Client ID: **ZZZZZ**	Batch ID: **T16196**	TestNo: **SW8260B(TP**		Analysis Date: **5/2/2008**	SeqNo: **232770**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
TPH (Gasoline)	192.0	50	227	29	71.8	52.4	127	197	2.57	20	
Surr: 4-Bromofllurobenzene	12.00	0	11.36	0	106	58.4	133	0	0	0	

Qualifiers:

E	Value above quantitation range	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	R	RPD outside accepted recovery limits	S	Spike Recovery outside accepted recovery limits

Torrent Laboratory, Inc.

WORK ORDER Summary

01-May-08

Work Order 0804219

Client ID: IMPACT ENV. SER.

Project: **QC Level:**

Comments: 5 day TAT! Received 3 waters.

Sample ID	Client Sample ID	Collection Date	Date Received	Date Due	Matrix	Test Code	Hld	MS	SEL	Sub	Storage
0804219-001A	GW-1	4/30/2008 11:00:00 AM	4/30/2008	5/6/2008	Water	8260B_W_PETROLEUM	☐	☐	☑	☐	SR
				5/6/2008		TPH_GAS_W_GCMS	☐	☐	☐	☐	SR
				5/6/2008		TPHDO_W	☐	☐	☐	☐	SR
0804219-002A	GW-2	4/30/2008 10:15:00 AM		5/6/2008		8260B_W_PETROLEUM	☐	☐	☑	☐	SR
				5/6/2008		TPH_GAS_W_GCMS	☐	☐	☐	☐	SR
				5/6/2008		TPHDO_W	☐	☐	☐	☐	SR
0804219-003A	GW-3	4/30/2008 11:35:00 AM		5/6/2008		8260B_W_PETROLEUM	☐	☐	☑	☐	SR
				5/6/2008		TPH_GAS_W_GCMS	☐	☐	☐	☐	SR
				5/6/2008		TPHDO_W	☐	☐	☐	☐	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 #

CLIENT: Impact Environmental Services

SITE: 1409-1417 12th St.
Oakland CA

LAB: Torrent Lab | DHS #

MUST MEET SPECIFICATIONS
- [x] EPA
- [ ] LIA
- [ ] OTHER
- [ ] RWQCB REGION

0804219

SPECIAL INSTRUCTIONS

Invoice and Report to: Impact Env. Services

Attn: Joseph Cotton

SAMPLE I.D.	DATE	TIME	MATRIX (S = Soil, W = H2O)	CONTAINERS TOTAL	CONDUCT ANALYSIS TO DETECT: TPH-G	BTEX	MTBE	TPH-D & Motor Oil	ADD'L INFORMATION	STATUS	CONDITION	LAB SAMPLE #
GW-1	4/30/08	1100	W	5	X	X	X	X				01A
GW-2		1015	W	5	X	X	X	X				02A
GW-3		1135	W	5	X	X	X	X				03A

SAMPLING COMPLETED: DATE 4/30 | TIME 1430

SAMPLING PERFORMED BY: B. Doshier, M TODI

RESULTS NEEDED NO LATER THAN: Standard TAT

RELEASED BY	DATE	TIME	RECEIVED BY	DATE	TIME
	4/30/08			4/30/08	
RELEASED BY	DATE	TIME	RECEIVED BY	DATE	TIME
			N.S. Bodi	4/30/08	4:00pm
RELEASED BY	DATE	TIME	RECEIVED BY	DATE	TIME

SHIPPED VIA	DATE SENT	TIME SENT	COOLER #

APPENDIX D

Well Development Data Sheets and Certified Well Survey Reports

Silicon Valley Land Surveying, Inc.

1093 North 5th Street • San Jose, CA 95112 • Tel: (408) 971-3800 • Fax: (408) 971-8501

May 5, 2008

Joseph A. Cotton P.G.
Impact Environmental
39120 Argonaut Way, Suite 223
Fremont, CA 94538
T: 510-703-5420
F: 510-791-0271
E: Jac21462@aol.com

Subject: Transmittal Letter
Survey Data Report prepared for
1409-17 12th Street, Oakland CA
SVLS Project No. 08-0815

Dear Mr. Cotton,

Enclosed you will find our original signed and stamped survey data report prepared for the subject location. Electronic version has been emailed to you previously.

In addition, invoice for the services provided is enclosed herein. We always appreciate your prompt payment.

If we can be of further assistance, please don't hesitate to call on us.

Again, thank you for selecting Silicon Valley Land Surveying, Inc. as your land surveying consultant.

Very respectfully yours,

Timothy J. Redd, PLS 7527
Principal Land Surveyor/President

Enclosures, as listed
Via USPS

TR/kh
s:\jobs\svls job by #\08-0150\trans-cotton-12thst-mw-report-050508.doc

GeoTracker Report for
Monitoring Wells Surveyed at 1409-17 12th Street, Oakland, CA.
by Silicon Valley Land Surveying, Inc. for Impact Environmental, Inc.

FIELD_PT_NAME	ELEV_SURVEY_DATE	ELEVATION	ELEV_METHOD	ELEV_DATUM	ELEV_ACC_VAL	ELEV_SURVEY_ORG	RISER_HT	ELEV_DESC
GW-1	4/30/2008	20.23	DIG	88	2	Silicon Valley Land Surveying Inc.	-0.50	NGS HT0661 - NAVD 88
GW-2	4/30/2008	20.57	DIG	88	2	Silicon Valley Land Surveying Inc.	-0.16	NGS HT0661 - NAVD 88
GW-3	4/30/2008	20.57	DIG	88	2	Silicon Valley Land Surveying Inc.	-0.33	NGS HT0661 - NAVD 88
MW-1	4/30/2008	21.49	DIG	88	2	Silicon Valley Land Surveying Inc.	-0.30	NGS HT0661 - NAVD 88
MW-2	4/30/2008	20.61	DIG	88	2	Silicon Valley Land Surveying Inc.	-0.39	NGS HT0661 - NAVD 88
MW-3	4/30/2008	21.09	DIG	88	2	Silicon Valley Land Surveying Inc.	-0.52	NGS HT0661 - NAVD 88
MW-4	4/30/2008	20.35	DIG	88	2	Silicon Valley Land Surveying Inc.	-0.40	NGS HT0661 - NAVD 88
MW-5	4/30/2008	20.05	DIG	88	2	Silicon Valley Land Surveying Inc.	-0.23	NGS HT0661 - NAVD 88
MW-6	4/30/2008	19.67	DIG	88	2	Silicon Valley Land Surveying Inc.	-0.38	NGS HT0661 - NAVD 88
MW-7	4/30/2008	19.88	DIG	88	2	Silicon Valley Land Surveying Inc.	-0.30	NGS HT0661 - NAVD 88
MW-8	4/30/2008	20.71	DIG	88	2	Silicon Valley Land Surveying Inc.	-0.39	NGS HT0661 - NAVD 88

5/5/08

GeoTracker_XY Report for
Monitoring Wells Surveyed at 1409-17 12th Street, Oakland, CA.
by Silicon Valley Land Surveying, Inc. for Impact Environmental, Inc.

FIELD_PT_NAME	XY_SURVEY_DATE	LATITUDE	LONGTITUDE	XY_METHOD	XY_DATUM	XY_ACC_VAL	XY_SURVEY_ORG	GPS_EQUIP_TYPE
GW-1	4/30/2008	37.8090591	-122.2926359	CGPS	NAD83	2	Silicon Valley Land Surveying Inc.	L530
GW-2	4/30/2008	37.8090554	-122.2926970	CGPS	NAD83	2	Silicon Valley Land Surveying Inc.	L530
GW-3	4/30/2008	37.8090566	-122.2925325	CGPS	NAD83	2	Silicon Valley Land Surveying Inc.	L530
MW-1	4/30/2008	37.8088602	-122.2926636	CGPS	NAD83	2	Silicon Valley Land Surveying Inc.	L530
MW-2	4/30/2008	37.8090210	-122.2927461	CGPS	NAD83	2	Silicon Valley Land Surveying Inc.	L530
MW-3	4/30/2008	37.8089672	-122.2926514	CGPS	NAD83	2	Silicon Valley Land Surveying Inc.	L530
MW-4	4/30/2008	37.8089714	-122.2924800	CGPS	NAD83	2	Silicon Valley Land Surveying Inc.	L530
MW-5	4/30/2008	37.8091233	122.2927183	CGPS	NAD83	2	Silicon Valley Land Surveying Inc.	L530
MW-6	4/30/2008	37.8091279	-122.2925899	CGPS	NAD83	2	Silicon Valley Land Surveying Inc.	L530
MW-7	4/30/2008	37.8090964	-122.2924472	CGPS	NAD83	2	Silicon Valley Land Surveying Inc.	L530
MW-8	4/30/2008	37.8090245	-122.2926416	CGPS	NAD83	2	Silicon Valley Land Surveying Inc.	L530

5/5/08

WELL DEVELOPMENT LOG

Project Name: THOMPSON PROPERTY
Project Number: THMP 2008_DEV
Well Number: MW-1
Well Location: 1409- 1417 12th St., Oakland, CA

Date: April ~~4~~, 2008
Sampler: JOSEPH COTTON ET AL.
Weather:

Well Construction

Date Completed: March 2008
Total Depth of Well: 13.92'
Diameter: 2"
Well Elevation and Reference:

Sampling Equipment & Cleaning

Sampler Type: Suction Pump
Method of Cleaning: Alconox and D.I. Water
Pump/Bailer Type: Suction Pump
Method of Cleaning: Alconox and D.I. Water
pH Meter: HANNA
Conductivity Meter: HANNA
Comments: Surge black & Purge
2" Well = 0.163 gallons per foot
4" Well = 0.653 gallons per foot

Ground Water Levels:

Initial: 9.80'
Final: 13.63'
Reference Point: Black Mark on Top of Casing
Well Volume of Water: ~ 0.70 gallons

PURGE MEASUREMENTS

	Time	Discharge (gal.) Per Time Period	Discharge (gal.) Cumulative	pH	Temp (°F) C	Spec. Conductance (mmhos/cm) Field	Spec. Conductance (mmhos/cm) Dissolved Oxygen	Color/ Turbidity (NTU)	Odor
4/4	12:10	start	0	6.93	18.3	2935	—	Cloudy Brown	No
	12:30		4.5	WELL	WENT	DRY			No
4/5	8:30		7.5	7.23	16.3	2478		Clear/Slightly brown	No

Total Discharge: 7.5 gallons
Comments: Well went dry @ 4.5 gallons
Casing Volumes Removed: +10
Method of Disposal: Stored on-site pending disposal

IMPACT ENVIRONMENTAL	WELL DEVELOPMENT LOG		
	1409 - 1417 12TH ST., OAKLAND		
	Project No.	Date	Well
		APRIL 2008	MW-1

WELL DEVELOPMENT LOG

Project Name: THOMPSON PROPERTY
Project Number: THMP 2008_DEV
Well Number: MW-2
Well Location: 1409- 1417 12th St., Oakland, CA

Date: April ~~4,~~ 2008
Sampler: JOSEPH COTTON ET AL.
Weather:

Well Construction

Date Completed: March 2008
Total Depth of Well: 13.91
Diameter: 2"
Well Elevation and Reference:

Sampling Equipment & Cleaning

Sampler Type: Suction Pump
Method of Cleaning: Alconox and D.I. Water
Pump/Bailer Type: Suction Pump
Method of Cleaning: Alconox and D.I. Water
pH Meter: HANNA
Conductivity Meter: HANNA
Comments: Surge block & purge
2" Well = 0.163 gallons per foot
4" Well = 0.653 gallons per foot

Ground Water Levels:

Initial: 9.00
Final: 12.21
Reference Point: Black Mark on Top of Casing
Well Volume of Water: ~ 0.70 gallons

PURGE MEASUREMENTS

Time	Discharge (gal.) Per Time Period	Discharge (gal.) Cumulative	pH	Temp (°F) (°C)	Spec. Conductance (mmhos/cm) Field	Spec. Conductance (mmhos/cm) Dissolved Oxygen	Color/ Turbidity (NTU)	Odor
11:30	start	Ø	6.88	19.2	1252		Muddy Brown	No
1:30		20	6.73	20.8	1011		Clear/Sl. Muddy	No

Total Discharge: 20 gallons
Comments:
Casing Volumes Removed: +27
Method of Disposal: Drummed on-site pending disposal

IMPACT ENVIRONMENTAL	WELL DEVELOPMENT LOG		
	1409 - 1417 12TH ST., OAKLAND		
	Project No.	Date	Well
		APRIL 2008	MW-2

WELL DEVELOPMENT LOG

Project Name: THOMPSON PROPERTY
Project Number: THMP 2008_DEV
Well Number: MW-3
Well Location: 1409- 1417 12th St., Oakland, CA

Date: April ~~4,~~ 2008
Sampler: JOSEPH COTTON ET AL.
Weather:

Well Construction

Date Completed: March 2008
Total Depth of Well: 13.59
Diameter: 2"
Well Elevation and Reference:

Ground Water Levels:

Initial: 10.20
Final: 13.14
Reference Point: Black Mark on Top of Casing
Well Volume of Water: 0.70 gallons

Sampling Equipment & Cleaning

Sampler Type: Suction Pump
Method of Cleaning: Alconox and D.I. Water
Pump/Bailer Type: Suction Pump
Method of Cleaning: Alconox and D.I. Water
pH Meter: HANNA
Conductivity Meter: HANNA
Comments: Surge block & Purge
2" Well = 0.163 gallons per foot
4" Well = 0.653 gallons per foot

PURGE MEASUREMENTS

Time	Discharge (gal.) Per Time Period	Discharge (gal.) Cumulative	pH	Temp (°C)	Spec. Conductance (mmhos/cm) Field	Spec. Conductance (mmhos/cm) Dissolved Oxygen	Color/ Turbidity (NTU)	Odor
1:05	start	0	7.26	19.0	1775		Watery Mud	No
3:10		7	7.20	18.8	1638		Muddy Brown	No

Total Discharge: 7 gallons
Casing Volumes Removed: 10
Method of Disposal: Drummed on-site pending disposal

Comments:

IMPACT ENVIRONMENTAL	WELL DEVELOPMENT LOG		
	1409 - 1417 12TH ST., OAKLAND		
	Project No.	Date	Well
		APRIL 2008	MW-3

WELL DEVELOPMENT LOG

Project Name: THOMPSON PROPERTY
Project Number: THMP 2008_DEV
Well Number: MW-4
Well Location: 1409- 1417 12th St., Oakland, CA

Date: April ~~4~~, 2008
Sampler: JOSEPH COTTON ET AL.
Weather:

Well Construction

Date Completed: March 2008
Total Depth of Well: 13.90
Diameter: 2"
Well Elevation and Reference:

Ground Water Levels:

Initial: 9.43
Final: 13.31
Reference Point: Black Mark on Top of Casing
Well Volume of Water: 0.86 gallons

Sampling Equipment & Cleaning

Sampler Type: Suction Pump
Method of Cleaning: Alconox and D.I. Water
Pump/Bailer Type: Suction Pump
Method of Cleaning: Alconox and D.I. Water
pH Meter: HANNA
Conductivity Meter: HANNA
Comments: Surge block & purge
2" Well = 0.163 gallons per foot
4" Well = 0.653 gallons per foot

PURGE MEASUREMENTS

Time	Discharge (gal.) Per Time Period	Discharge (gal.) Cumulative	pH	Temp (°F)	Spec. Conductance (mmhos/cm) Field	Spec. Conductance (mmhos/cm) Dissolved Oxygen	Color/ Turbidity (NTU)	Odor
11:54	start	Ø	7.13	19.5	600		muddy brown	No
1:44		5	7.05	20.6	592		"	No
2:17		10	7.09	19.6	637		opaque brown	No

Total Discharge: 10 gallons
Casing Volumes Removed: +1P
Method of Disposal: Drummed on-site pending disposal

Comments:

IMPACT ENVIRONMENTAL	WELL DEVELOPMENT LOG		
	1409 - 1417 12TH ST., OAKLAND		
	Project No.	Date	Well
		APRIL 2008	MW-4

WELL DEVELOPMENT LOG

Project Name: THOMPSON PROPERTY
Project Number: THMP 2008_DEV
Well Number: MW-5
Well Location: 1409- 1417 12th St., Oakland, CA

Date: April 1, 2008
Sampler: JOSEPH COTTON ET AL.
Weather:

Well Construction

Date Completed: March 2008
Total Depth of Well: 13.87'
Diameter: 2"
Well Elevation and Reference:

Ground Water Levels:

Initial: 8.50
Final: 12.32
Reference Point: Black Mark on Top of Casing
Well Volume of Water: ~.90 gallons

Sampling Equipment & Cleaning

Sampler Type: Suction Pump
Method of Cleaning: Alconox and D.I. Water
Pump/Bailer Type: Suction Pump
Method of Cleaning: Alconox and D.I. Water
pH Meter: HANNA
Conductivity Meter: HANNA
Comments: Black & Surge & Purge
2" Well = 0.163 gallons per foot
4" Well = 0.653 gallons per foot

PURGE MEASUREMENTS

Time	Discharge (gal.) Per Time Period	Discharge (gal.) Cumulative	pH	Temp (°F/C)	Spec. Conductance (mmhos/cm) Field	Spec. Conductance (mmhos/cm) Dissolved Oxygen	Color/ Turbidity (NTU)	Odor
11:51	start	Ø	6.97	19.8	2168		muddy brown	NO
1:30		5	6.76	21.1	1578		"	NO
1:45		10	6.55	22.0	1365		Opaque Brown	NO
2:05		17	6.61	19.3	1322		watery Brown	NO

Total Discharge: 17 gallons
Casing Volumes Removed: +19
Method of Disposal: Drummed on-site pending disposal

Comments:

IMPACT ENVIRONMENTAL	WELL DEVELOPMENT LOG		
	1409 - 1417 12TH ST., OAKLAND		
	Project No.	Date	Well
		APRIL 2008	MW-5

WELL DEVELOPMENT LOG

Project Name: THOMPSON PROPERTY
Project Number: THMP 2008_DEV
Well Number: MW-6
Well Location: 1409- 1417 12th St., Oakland, CA

Date: April 5 2008
Sampler: JOSEPH COTTON ET AL.
Weather:

Well Construction

Date Completed: April March 2008
Total Depth of Well: 14.44'
Diameter: 2"
Well Elevation and Reference:

Sampling Equipment & Cleaning

Sampler Type: Suction Pump
Method of Cleaning: Alconox and D.I. Water
Pump/Bailer Type: Suction Pump
Method of Cleaning: Alconox and D.I. Water
pH Meter: HANNA
Conductivity Meter: HANNA
Comments: Surge Block & Purge

2" Well = 0.163 gallons per foot
4" Well = 0.653 gallons per foot

Ground Water Levels:

Initial: 8.60'
Final: 13.72'
Reference Point: Black Mark on Top of Casing
Well Volume of Water: ~1.10 gallons

PURGE MEASUREMENTS

Time	Discharge (gal.) Per Time Period	Discharge (gal.) Cumulative	pH	Temp (°F)	Spec. Conductance (mmhos/cm) Field	Spec. Conductance (mmhos/cm) Dissolved Oxygen	Color/ Turbidity (NTU)	Odor
2:10	start	Ø	7.55	20.2	2128		Clear	ND
2:30		5	7.19	19.3	2052		Muddy Brown	ND
2:56		10	7.17	19.7	2019		Watery Brown	ND

Total Discharge: ~10 gallons
Casing Volumes Removed: ~9
Method of Disposal: Drummed & left on-site pending disposal

Comments:

IMPACT ENVIRONMENTAL	WELL DEVELOPMENT LOG		
	1409 - 1417 12TH ST., OAKLAND		
	Project No.	Date	Well
		APRIL 2008	MW-6

WELL DEVELOPMENT LOG

Project Name: THOMPSON PROPERTY
Project Number: THMP 2008_DEV
Well Number: MW-7
Well Location: 1409- 1417 12th St. , Oakland, CA

Date: April 4 & 5 2008
Sampler: JOSEPH COTTON ET AL.
Weather:

Well Construction

Date Completed: March 2008
Total Depth of Well: 13.95
Diameter: 2"
Well Elevation and Reference:

Ground Water Levels:

Initial: 8.27'
Final: 13.31'
Reference Point: Black Mark on Top of Casing
Well Volume of Water: ~0.95

Sampling Equipment & Cleaning

Sampler Type: Suction Pump
Method of Cleaning: Alconox and D.I. Water
Pump/Bailer Type: Suction Pump
Method of Cleaning: Alconox and D.I. Water
pH Meter: HANNA
Conductivity Meter: HANNA
Comments: Surge Block & Purge
2" Well = 0.163 gallons per foot
4" Well = 0.653 gallons per foot

PURGE MEASUREMENTS

	Time	Discharge (gal.) Per Time Period	Discharge (gal.) Cumulative	pH	Temp (°F)	Spec. Conductance (mmhos/cm) Field	Spec. Conductance (mmhos/cm) Dissolved Oxygen	Color/ Turbidity (NTU)	Odor
4/4	11:30	start	0	7.39	19.9	1375		Brown	No
	12:23		5	6.91	20.5	920		Opaque Brown	No
	1:24		10	6.98	20.6	792		"	No
	2:15		15	6.97	21.2	641		Clear	No
4/5	10:30		17	7.02	19.4	651		Clear	No

Total Discharge: 17 gallons
Comments:
Casing Volumes Removed: +20
Method of Disposal: Drum on-site pending disposal

IMPACT ENVIRONMENTAL	WELL DEVELOPMENT LOG		
	1409 - 1417 12TH ST., OAKLAND		
	Project No.	Date	Well
		APRIL 2008	MW-7

WELL DEVELOPMENT LOG

Project Name: THOMPSON PROPERTY
Project Number: THMP 2008_DEV
Well Number: MW-8
Well Location: 1409- 1417 12th St., Oakland, CA

Date: April 1, 2008
Sampler: JOSEPH COTTON ET AL.
Weather:

Well Construction

Date Completed: March 2008
Total Depth of Well: 27.65'
Diameter: 2" w/ conductor casing
Well Elevation and Reference:

Ground Water Levels:

Initial: 11.29'
Final: 15.34'
Reference Point: Black Mark on Top of Casing
Well Volume of Water: ~2.90 gallons

Sampling Equipment & Cleaning

Sampler Type: Suction Pump
Method of Cleaning: Alconox and D.I. Water
Pump/Bailer Type: Suction Pump
Method of Cleaning: Alconox and D.I. Water
pH Meter: HANNA
Conductivity Meter: HANNA
Comments: Surge block & purge
2" Well = 0.163 gallons per foot
4" Well = 0.653 gallons per foot

PURGE MEASUREMENTS

Time	Discharge (gal.) Per Time Period	Discharge (gal.) Cumulative	pH	Temp (°F)	Spec. Conductance (mmhos/cm) Field	Spec. Conductance (mmhos/cm) Dissolved Oxygen	Color/ Turbidity (NTU)	Odor
11:02	start	0	8.04	17.2	560		Clear	Yes
11:09		9	7.22	19.7	766		Muddy Brown	Yes
11:16		16	7.22	20.7	700		"	No
11:20		21	7.02	20.8	654		"	No
11:30		28	7.07	20.7	660		Opaque Brown	Yes
12:06		34	7.02	21.6	651		Opaque Brown	Yes
12:10		43	6.91	21.1	640		Clear	Yes
12:17		52	6.88	20.9	639		Clear	Yes

Total Discharge: 52
Casing Volumes Removed: ~17
Method of Disposal: Drummed on-site pending disposal

Comments:

IMPACT ENVIRONMENTAL	WELL DEVELOPMENT LOG		
	1409 - 1417 12TH ST., OAKLAND		
	Project No.	Date	Well
		APRIL 2008	MW-8

WELL DEVELOPMENT LOG

Project Name: THOMPSON PROPERTY
Project Number: THMP 2008_DEV
Well Number: GW-1
Well Location: 1409- 1417 12th St., Oakland, CA

Date: April 6, 2008
Sampler: JOSEPH COTTON ET AL.
Weather:

Well Construction

Date Completed: April 2008
Total Depth of Well: 17.05'
Diameter: 4"
Well Elevation and Reference:

Ground Water Levels:

Initial: 9.34'
Final: 15.62'
Reference Point: Black Mark on Top of Casing
Well Volume of Water: ~ 5.25 gallons

Sampling Equipment & Cleaning

Sampler Type: Suction Pump
Method of Cleaning: Alconox and D.I. Water
Pump/Bailer Type: Suction Pump
Method of Cleaning: Alconox and D.I. Water
pH Meter: HANNA
Conductivity Meter: HANNA
Comments: Surge block & purge
2" Well = 0.163 gallons per foot
4" Well = 0.653 gallons per foot

PURGE MEASUREMENTS

Time	Discharge (gal.) Per Time Period	Discharge (gal.) Cumulative	pH	Temp (°C)	Spec. Conductance (mmhos/cm) Field	Spec. Conductance (mmhos/cm) Dissolved Oxygen	Color/ Turbidity (NTU)	Odor
12:38	start	0	7.06	23.9	1052		Opaque Brown	Yes
12:48		10	7.00	20.2	2086		Muddy Brown	Yes
1:45		18	6.94	21.6	1804		Muddy Brown	Yes
2:11		24	6.83	21.2	2216		Opaque Brown	Yes
2:31		30	6.87	21.0	1952			Yes

Total Discharge: 30 gallons
Casing Volumes Removed: ~6
Method of Disposal: Drummed on-site pending disposal

Comments:

IMPACT ENVIRONMENTAL	WELL DEVELOPMENT LOG		
	1409 - 1417 12TH ST., OAKLAND		
	Project No.	Date	Well
		APRIL 2008	GW-1

WELL DEVELOPMENT LOG

Project Name: THOMPSON PROPERTY
Project Number: THMP 2008_DEV
Well Number: GW-2
Well Location: 1409- 1417 12th St., Oakland, CA

Date: April 6 2008
Sampler: JOSEPH COTTON ET AL.
Weather:

Well Construction

Date Completed: APRIL 2008
Total Depth of Well: ± 17.00'
Diameter: 4"
Well Elevation and Reference:

Ground Water Levels:

Initial: 9.11'
Final: 14.20'
Reference Point: Black Mark on Top of Casing
Well Volume of Water: ~ 5.22 gallons

Sampling Equipment & Cleaning

Sampler Type: Suction Pump
Method of Cleaning: Alconox and D.I. Water
Pump/Bailer Type: Suction Pump
Method of Cleaning: Alconox and D.I. Water
pH Meter: HANNA
Conductivity Meter: HANNA
Comments: Surge block & purge
2" Well = 0.163 gallons per foot
4" Well = 0.653 gallons per foot

PURGE MEASUREMENTS

Time	Discharge (gal.) Per Time Period	Discharge (gal.) Cumulative	pH	Temp (°F/C)	Spec. Conductance (mmhos/cm) Field	Spec. Conductance (mmhos/cm) Dissolved Oxygen	Color/ Turbidity (NTU)	Odor
11:00	start	0	7.41	17.5	2542		Brown	No
11:10		9	7.13	18.7	2410		Brown	No
11:30		16	6.98	18.7	2194		Opaque Brown	No
11:58		21	6.53	19.1	1922		~Clear	No

Total Discharge: 25 gallons
Comments:
Casing Volumes Removed: ~5
Method of Disposal: Drummed on-site pending disposal

IMPACT ENVIRONMENTAL	WELL DEVELOPMENT LOG		
	1409 - 1417 12TH ST., OAKLAND		
	Project No.	Date	Well
		APRIL 2008	GW-2

WELL DEVELOPMENT LOG

Project Name: THOMPSON PROPERTY
Project Number: THMP 2008_DEV
Well Number: GW-3
Well Location: 1409- 1417 12th St., Oakland, CA

Date: April 5 2008
Sampler: JOSEPH COTTON ET AL.
Weather:

Well Construction

Date Completed: APRIL 2008
Total Depth of Well: 17.98'
Diameter: 4"
Well Elevation and Reference:

Ground Water Levels:

Initial: 9.22'
Final: 15.66'
Reference Point: Black Mark on Top of Casing
Well Volume of Water: ~5.25 gallons

Sampling Equipment & Cleaning

Sampler Type: Suction Pump
Method of Cleaning: Alconox and D.I. Water
Pump/Bailer Type: Suction Pump
Method of Cleaning: Alconox and D.I. Water
pH Meter: HANNA
Conductivity Meter: HANNA
Comments: Surge block & purge
2" Well = 0.163 gallons per foot
4" Well = 0.653 gallons per foot

PURGE MEASUREMENTS

Time	Discharge (gal.) Per Time Period	Discharge (gal.) Cumulative	pH	Temp (°F)	Spec. Conductance (mmhos/cm) Field	Spec. Conductance (mmhos/cm) Dissolved Oxygen	Color/ Turbidity (NTU)	Odor
11:02	start	0	6.83	25.1	1320		clear	No
11:17		10	7.32	20.6	1813		muddy brown	No
12:15		15	7.27	21.8	1361		clear	No
1:50		28	7.19	20.2	1253		clear	No
1:16		36	7.12	19.7	1241		clear	No

Total Discharge: 36 gallons
Casing Volumes Removed: ~6
Method of Disposal: Drummed on-site pending disposal

Comments:

IMPACT ENVIRONMENTAL	WELL DEVELOPMENT LOG		
	1409 - 1417 12TH ST., OAKLAND		
	Project No.	Date	Well
		APRIL 2008	GW-3

APPENDIX E

Groundwater Sampling and Well Gauging Data Sheets

WELL GAUGING DATA

Project # 080430-BD1 Date 04-30-08 Client Impact Env. Services

Site 1409-1417 12th St, Oakland, CA

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 TOC	Notes
MW-1	0911	2					10.52	13.92		
MW-2	0915	2					9.64	13.91		
MW-3	0913	2					10.20	13.59		
MW-4	0908	2					9.43	13.90		
MW-5	0918	2					9.10	13.87		
MW-6	0902	2					8.60	14.44		
MW-7	0905	2					8.96	13.81		
MW-8	0900	2					9.82	27.55		
GW-1	0920	4					9.34	17.05		
GW-2	0916	4					9.70	17.00		
GW-3	0922	4					9.60	17.98		

WELL MONITORING DATA SHEET

Project #: 080430-BD1	Client: Impact Environmental Services
Sampler: MT, BD	Date: 04-30-08
Well I.D.: MW-1	Well Diameter: (2) 3 4 6 8 ____
Total Well Depth (TD): 13.92	Depth to Water (DTW): 10.52
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]: 11.20	

Purge Method: Bailer; X Disposable Bailer; Positive Air Displacement; Electric Submersible; Waterra; Peristaltic; Extraction Pump; Other____

Sampling Method: Bailer; X Disposable Bailer; Extraction Port; Dedicated Tubing; Other: ____

.54 (Gals.) X	3	=	1.62 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	radius² * 0.163

Time	Temp (°F or (°C))	pH	Cond. (mS or (µS))	Turbidity (NTUs)	Gals. Removed	Observations
1318	19.8	7.13	1978	~~49.9~~ >1000	.54	
1322	18.4	7.15	1976	>1000	1.08	
1325	18.0	7.13	1968	>1000	1.62	
					DTW - 12.50	

Did well dewater? Yes (No) Gallons actually evacuated: 1.62

Sampling Date: 04.30.08 Sampling Time: 1340 Depth to Water: 11.17 (Wanted)

Sample I.D.: MW-1 Laboratory: Kiff CalScience Other Torrent

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

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

WELL MONITORING DATA SHEET

Project #: 080430-BD1	Client: Impact Environmental Services
Sampler: MT, BD	Date: 04-30-08
Well I.D.: MW-2	Well Diameter: (2) 3 4 6 8 ___
Total Well Depth (TD): 13.91	Depth to Water (DTW): 9.64
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]: 10.49	

Purge Method: Bailer; X Disposable Bailer; Positive Air Displacement; Electric Submersible; Waterra; Peristaltic; Extraction Pump; Other ____

Sampling Method: Bailer; X Disposable Bailer; Extraction Port; Dedicated Tubing; Other: ____

0.6 (Gals.) X 3 = 2.7 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	radius² * 0.163

Time	Temp (°F or (°C))	pH	Cond. (mS or (µS))	Turbidity (NTUs)	Gals. Removed	Observations
1325	18.0	7.64	702.4	1000	0.6	Brown ~~silt~~
1328	17.9	7.50	662.1	>1000	1.8	
1331	17.8	7.06	688.9	>1000	2.7	

Did well dewater? Yes (No) Gallons actually evacuated: 2.7

Sampling Date: 04-30-08 Sampling Time: 1345 Depth to Water: 10.49

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

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

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

V[illegible]L MONITORING DATA SHE[illegible]T

Project #: 080430-BD1	Client: Impact Environmental Services
Sampler: MT, BD	Date: 04-30-08
Well I.D.: MW-3	Well Diameter: (2) 3 4 6 8 ___
Total Well Depth (TD): 13.59	Depth to Water (DTW): 10.20
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]: 10.88	

Purge Method: Bailer; X Disposable Bailer; Positive Air Displacement; Electric Submersible; Waterra; Peristaltic; Extraction Pump; Other ____

Sampling Method: Bailer; X Disposable Bailer; Extraction Port; Dedicated Tubing; Other: ____

.54 (Gals.) X	3	=	1.7 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	16.3	7.26	1061	71000	.54	
1029	16.7	7.24	1057	71000	1.08	
1033	16.7	7.20	1040	71000	1.70	
				DTW = 12.10		

Did well dewater? Yes (No) Gallons actually evacuated: 1.70

Sampling Date: 04-30-08 Sampling Time: 1058 Depth to Water: 10.87 (waited)

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

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

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

WELL MONITORING DATA SHEET

Project #: 080430-BD1	Client: Impact Environmental Services
Sampler: MT, BD	Date: 04-30-08
Well I.D.: MW-4	Well Diameter: (2) 3 4 6 8 ____
Total Well Depth (TD): 13.90	Depth to Water (DTW): 9.43
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]: 10.32	

Purge Method: Bailer; X Disposable Bailer; Positive Air Displacement; Electric Submersible; Waterra; Peristaltic; Extraction Pump; Other_____

Sampling Method: Bailer; X Disposable Bailer; Extraction Port; Dedicated Tubing; Other: _____

.71 (Gals.) X	3 =	2.13 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	radius² * 0.163

Time	Temp (°F or (°C))	pH	Cond. (mS or (µS))	Turbidity (NTUs)	Gals. Removed	Observations
1117	21.5	~~7.18~~ MT	529.6	>1000	.71	
1120	19.6	7.12	686.5	>1000	1.42	
MT 1124	19.3	7.13	525.0	>1000	2.13	
				DTW	11.40	

Did well dewater? Yes (No) Gallons actually evacuated: 2.13

Sampling Date: 04-30-08 Sampling Time: 1138 Depth to Water: 10.32 (water)

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

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

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

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WELL MONITORING DATA SHEET

Project #: 080430-BD1	Client: Impact Env. Services
Sampler: MT, BD	Date: 04-30-08
Well I.D.: MW-5	Well Diameter: (2) 3 4 6 8 ____
Total Well Depth (TD): 13.87	Depth to Water (DTW): 9.10
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]: 10.05	

Purge Method:
- Bailer
- X Disposable Bailer
- Positive Air Displacement
- Electric Submersible
- Waterra
- Peristaltic
- Extraction Pump
- Other_____

Sampling Method:
- Bailer
- X Disposable Bailer
- Extraction Port
- Dedicated Tubing
- Other: _____

.76 (Gals.) X	3	= 2.28 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	radius² * 0.163

Time	Temp (°F or (°C))	pH	Cond. (mS or (µS))	Turbidity (NTUs)	Gals. Removed	Observations
1359	20.8	7.80	1121	71000	.76	
1403	19.7	7.38	1185	71000	1.52	
1407	18.7	7.29	1198	71000	2.28	
					DTW - 10.72	

Did well dewater? Yes (No) Gallons actually evacuated: 2.28

Sampling Date: 04-30-08 Sampling Time: 1421 Depth to Water: 10.05 (waited)

Sample I.D.: MW-5 Laboratory: Kiff CalScience Other Torrent

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

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

WELL MONITORING DATA SHEET

Project #: 080430-BD1	Client: Impact Environmental Services
Sampler: MT, BD	Date: 04-30-08
Well I.D.: MW-6	Well Diameter: (2) 3 4 6 8 ___
Total Well Depth (TD): 14.44	Depth to Water (DTW): 8.60
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]: 9.76	

Purge Method: Bailer; [X] Disposable Bailer; Positive Air Displacement; Electric Submersible; Waterra; Peristaltic; Extraction Pump; Other ___

Sampling Method: Bailer; [X] Disposable Bailer; Extraction Port; Dedicated Tubing; Other: ___

0.9 (Gals.) X	3	=	2.7 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	radius² * 0.163

Time	Temp (°F or (°C))	pH	Cond. (mS or (µS))	Turbidity (NTUs)	Gals. Removed	Observations
1153	19.6	7.13	734.5	64	0.9	TAN & cloudy
1156	20.1	7.23	721.2	1000	1.8	
1159	19.0	7.13	693.6	>1000	2.7	

Did well dewater? Yes (No) Gallons actually evacuated: 2.7

Sampling Date: 04-30-08 Sampling Time: 1214 Depth to Water: 9.76

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

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

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

WELL MONITORING DATA SHEET

Project #: 080430-BD1	Client: Impact Environmental Services
Sampler: MT, BD	Date: 04-30-08
Well I.D.: MW-7	Well Diameter: (2) 3 4 6 8 ___
Total Well Depth (TD): 13.81	Depth to Water (DTW): 8.96
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]: 10.83	

Purge Method: Bailer; (X) Disposable Bailer; Positive Air Displacement; Electric Submersible; Waterra; Peristaltic; Extraction Pump; Other ____

Sampling Method: Bailer; (X) Disposable Bailer; Extraction Port; Dedicated Tubing; Other: ____

.77 (Gals.) X	3	=	2.31 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	radius² * 0.163

Time	Temp (°F or (°C))	pH	Cond. (mS or (µS))	Turbidity (NTUs)	Gals. Removed	Observations
1148	21.8	7.80	568.9	99.9	.77	
1152	21.1	7.16	607.5	99.9	1.54	
1157	20.6	7.13	608.3	99.9	2.31	
				DTW-12.20		

Did well dewater? Yes (No) Gallons actually evacuated: 2.31

Sampling Date: 04-30-08 Sampling Time: 12:20 Depth to Water: 10.80 (waited)

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

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

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

V LL MONITORING DATA SHI T

Project #: 080430-BD1	Client: Impact Environmental Services
Sampler: MT, BD	Date: 04-30-08
Well I.D.: MW-8	Well Diameter: (2) 3 4 6 8 ___
Total Well Depth (TD): 27.55	Depth to Water (DTW): 9.82
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]: 13.36	

Purge Method: Bailer; X Disposable Bailer; Positive Air Displacement; Electric Submersible; Waterra; Peristaltic; Extraction Pump; Other ____

Sampling Method: Bailer; X Disposable Bailer; Extraction Port; Dedicated Tubing; Other: ____

2.8 (Gals.) X 3 = 8.4 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	radius² * 0.163

Time	Temp (°F or (°C))	pH	Cond. (mS or (µS))	Turbidity (NTUs)	Gals. Removed	Observations
0949	17.8	~~7.68~~ 7.70	1342	34.9	2.8	
0956	17.9	7.59	597.7	99.9	5.6	
1001	18.1	7.14	574.1	99.9	8.4	

Did well dewater? Yes (No) Gallons actually evacuated: 8.4

Sampling Date: 04-30-08 Sampling Time: 10:11 Depth to Water: 1035

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

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

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

WELL MONITORING DATA SHEET

Project #: 080430-BD1	Client: Impact Environmental Services
Sampler: MT, BD	Date: 04-30-08
Well I.D.: GW-1	Well Diameter: 2 3 (4) 6 8 ___
Total Well Depth (TD): 17.05	Depth to Water (DTW): 9.34
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]: 10.88	

Purge Method: Bailer; Disposable Bailer; Positive Air Displacement; X Electric Submersible; Waterra; Peristaltic; Extraction Pump; Other ____

Sampling Method: Bailer; X Disposable Bailer; Extraction Port; Dedicated Tubing; Other: ____

5 (Gals.) X	3	=	15 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	radius² * 0.163

Time	Temp (°F or (°C))	pH	Cond. (mS or (µS))	Turbidity (NTUs)	Gals. Removed	Observations
1030	18.8	6.79	1281	12	5	odor/cloudy
1031	18.8	6.62	1636	10	10	
~~1032~~ (BD)					~~15~~ (BD)	
	* Well dewatered @ 10 gal					
1100	18.7	6.61	1671	12		

Did well dewater? (Yes) No Gallons actually evacuated: 10

Sampling Date: 04-30-08 Sampling Time: 1100 Depth to Water: 10.88

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

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

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

V LL MONITORING DATA SHI T

Project #: 080430-BD1	Client: Impact Environmental Services
Sampler: MT, BD	Date: 04-30-08
Well I.D.: GW-2	Well Diameter: 2 3 (4) 6 8 ___
Total Well Depth (TD): 17.00	Depth to Water (DTW): 9.70
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]: 11.16	

Purge Method: Bailer; Disposable Bailer; Positive Air Displacement; X Electric Submersible; Waterra; Peristaltic; Extraction Pump; Other ____

Sampling Method: Bailer; X Disposable Bailer; Extraction Port; Dedicated Tubing; Other: ____

4.7 (Gals.) X	3	=	14.1 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	radius² * 0.163

Time	Temp (°F or (°C))	pH	Cond. (mS or (µS))	Turbidity (NTUs)	Gals. Removed	Observations
0950	15.7	7.01	1645	9.99	4.7	Clear
0951	17.3	6.83	1327	10	9.4	
0952	17.6	6.75	1325	10	14.1	
0953 →	well	dewatered	@ 3rd C.V.			

Did well dewater? (Yes) No Gallons actually evacuated: 14.1

Sampling Date: 04-30-08 Sampling Time: 1015 Depth to Water: 10.91

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

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

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

WELL MONITORING DATA SHEET

Project #: 080430-BD1	Client: Impact Environmental Services
Sampler: MT, BD	Date: 04-30-08
Well I.D.: GW-3	Well Diameter: 2 3 (4) 6 8 ___
Total Well Depth (TD): 17.98	Depth to Water (DTW): 9.60
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]: 11.27	

Purge Method: Bailer; Disposable Bailer; Positive Air Displacement; X Electric Submersible; Waterra; Peristaltic; Extraction Pump; Other ___

Sampling Method: Bailer; X Disposable Bailer; Extraction Port; Dedicated Tubing; Other: ___

5.4 (Gals.) X	3	=	16.2 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	radius² * 0.163

Time	Temp (°F or (°C))	pH	Cond. (mS or (µS))	Turbidity (NTUs)	Gals. Removed	Observations
1117	22.2	6.70	1645	1000	5.4	
1118	20.1	7.00	1145	1000	10.8	
1119	19.4	6.97	1157	1000	16.2	

Did well dewater? Yes (No) Gallons actually evacuated: 16.2

Sampling Date: 04-30-08 Sampling Time: 1135 Depth to Water: 11.27

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

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

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

TEST EQUIPMENT CALIBRATION LOG

PROJECT NAME				PROJECT NUMBER			
EQUIPMENT NAME	EQUIPMENT NUMBER	DATE/TIME OF TEST	STANDARDS USED	EQUIPMENT READING	CALIBRATED TO: OR WITHIN 10%:	TEMP.	INITIALS
MYRON Ultrameter	6215727	04/30/08 0840	4 ph cond 7 ph 10 ph	PH 10-10.04 7-6.98 cond 3995 4-4.05 orp 253	yes	14.7 C	MH
HACH TurB	23627	04/30/08 0924	20.1 20 100 800	0.1 20 101 800	yes		MH
Hach TurB	26776	0926	↓	0.1 20 100 801	yes		

H or Purge Water Drum L

Client: Impact

Site Address: 1409 12th St, Oakland

STATUS OF DRUM(S) UPON ARRIVAL						
Date	04/30/08					
Number of drum(s) empty:	7					
Number of drum(s) 1/4 full:	~~0~~					
Number of drum(s) 1/2 full:	1					
Number of drum(s) 3/4 full:	~~0~~					
Number of drum(s) full:	13					
Total drum(s) on site:	21					
Are the drum(s) properly labeled?	yes					
Drum ID & Contents:	Soil & purge H_2O					
If any drum(s) are partially or totally filled, what is the first use date:	4-6-08					

- If you add any SPH to an empty or partially filled drum, drum must have at least 20 gals. of Purgewater or DI Water.

-If drum contains SPH, the drum MUST be steel AND labeled with the appropriate label.

-All BTS drums MUST be labeled appropriately.

STATUS OF DRUM(S) UPON DEPARTURE						
Date	04/30/08					
Number of drums empty:	6					
Number of drum(s) 1/4 full:	~~0~~					
Number of drum(s) 1/2 full:	1					
Number of drum(s) 3/4 full:	~~0~~					
Number of drum(s) full:	~~12~~ 14					
Total drum(s) on site:	21					
Are the drum(s) properly labeled?	Yes					
Drum ID & Contents:	Soil & purge H_2O					

LOCATION OF DRUM(S)
Describe location of drum(s):

FINAL STATUS						
Number of new drum(s) left on site this event	~~0~~					
Date of inspection:	04/30/08					
Drum(s) labelled properly:	yes					
Logged by BTS Field Tech:	MT					
Office reviewed by:	TL					

WELLHEAD INSPECTION CHECKLIST

Date 04.30.08 Client Impact Env. Services

Site Address 1409-1417 12th St, Oakland, CA

Job Number 080430-BD1 Technician BD, MT

Well ID	Well Inspected - No Corrective Action Required	Water Bailed From Wellbox	Wellbox Components Cleaned	Cap Replaced	Debris Removed From Wellbox	Lock Replaced	Other Action Taken (explain below)	Well Not Inspected (explain below)
MW-1	X							
MW-2	X							
MW-3	X							
MW-4	X							
MW-5	X							
MW-6	X							
MW-7	X							
MW-8	X							
GW-1	X							
GW-2	X							
GW-3	X							

NOTES: