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June 17, 2005
Report 0363.R2

Mr. Terry Davis
T.D. Rowe
3 Riverway, Suite 1140
Houston, TX 77056

SUBJECT: SUBSURFACE INVESTIGATION REPORT
(Boreholes B5, B6, B7, and Wells MW1, MW2, MW3)
ACEH File #RO-2848
T.D. Rowe Facility
8134 Capwell Drive
Oakland, CA

Dear Mr. Davis:

P&D Environmental, a division of Paul H. King, Inc. (P&D) is pleased to present this report documenting the permitting, drilling and sampling of soil and groundwater from three soil borings designated as B5 through B7 at the subject site on April 26, 2005. In addition, this report documents the permitting, installation, development, monitoring, and sampling of three groundwater monitoring wells designated as MW1, MW2, and MW3 at the subject site. The wells were installed on May 17, 2005. The boreholes and groundwater monitoring wells were installed to evaluate the horizontal and vertical extent of petroleum hydrocarbon impact to soil and groundwater in the vicinity of the former Underground Storage Tank (UST) pit. All work was performed in accordance with P&D's March 7, 2005 Soil and Groundwater Investigation Work Plan (document number 0363.W1). A Site Location Map is attached as Figure 1, and a Site Vicinity Map showing the drilling locations is attached as Figure 2.

All work was performed under the direct supervision of an appropriately registered professional. This work was performed in accordance with guidelines set forth in the document "Tri-Regional Board Staff Recommendations for Preliminary Evaluation and Investigation of Underground Tank Sites" dated August 10, 1990 and "Appendix A - Workplan for Initial Subsurface Investigation" dated August 20, 1991.

BACKGROUND

P&D's understanding of historical site investigations is based on review of the following documents.

- August 6 or August 9, 1999 (different parts of the report have different dates) Underground Storage Tank Removal Report prepared by ACC Environmental Consultants (ACC),
- September 9, 2004 Additional Subsurface Investigation Report prepared by ACC,

- September 28, 2004 Opinion Letter – Subsurface Investigation Results prepared by ACC.

Review of the August, 1999 Underground Storage Tank (UST) Removal Report indicates that two 3,000-gallon capacity fiberglass USTs were removed from the site on April 16, 1999. The USTs were reported to have stored gasoline that was used to supply fuel to delivery trucks operated by T.D. Rowe. The report stated that the USTs had not been used for three years prior to their removal. Mr. Stephen Craford of the Oakland Fire Department was onsite to observe UST removal and sample collection. At the time of UST removal, no holes were observed in either UST. However, it appeared that the fittings on one UST were damaged. The pit was reported to have been excavated to a depth of approximately six feet below the ground surface, and groundwater was observed in the pit at depths ranging from 4 to 6 feet below the ground surface. The groundwater level in the pit was reported to have been directly observed to be tidally influenced. Soil exposed in the walls of the pit consisted of brown silty sand.

Significant staining was reported to have been observed and petroleum hydrocarbon odors were detected in the UST pit. A total of four sidewall soil samples were collected at the soil-groundwater interface (samples TDR-Pit-N, TDR-Pit-S, TDR-Pit-E, TDR-Pit-W), and one pit water sample was collected (TDR-Pit). In addition, one soil stockpile sample designated as TDR-SP1 through SP8 was collected. The samples were analyzed for TPH-G, BTEX, Fuel Oxygenates (TBA, MTBE, DIPE, ETBE and TAME by EPA Method 8260) and Total Lead. The sample results showed elevated TPH-G concentrations on the north wall of the pit and in the pit water. The ratio of TPH-G to benzene in one soil sample and the absence of BTEX in the remaining soil samples indicated the gasoline was aged and degraded.

On April 29, 1999 approximately 150 tons of petroleum-impacted soil was removed from the north wall of the pit, extending the pit dimensions approximately 4 feet to the north. Following over-excavation of the pit, two confirmation soil samples were collected from the north wall (samples TDR-NWall-1 and TDRNWall-2). The samples were analyzed for TPH-G, BTEX, Fuel Oxygenates, and Total Lead. Based on the confirmation soil sample results, it was concluded that over-excavation activities successfully removed residual petroleum in the soil.

On May 18, 1999 approximately 800 gallons of water was removed from the pit by a vacuum truck prior to backfilling the pit. The surface of the water was reported to have been skimmed in order to remove as much product as possible. A groundwater sample was collected from the pit (sample Pit-2) and analyzed for TPH-G, BTEX, Fuel Oxygenates and Total Lead.

Review of the ACC report summary tables shows that the only fuel oxygenate listed in the column heading is MTBE, and that the Table 1 soil sample analytical results incorrectly identify the MTBE units as mg/kg instead of ug/kg. Similarly, all of the Table 2 water sample analytical results are incorrectly reported as mg/kg and should be reported as ug/L with the exception of lead, which should be reported as mg/L. It appears that the January

19, 2005 Alameda County Environmental Health Department (ACEH) work plan request letter incorrectly identified residual MTBE at the site as 57 mg/kg and not 57 ug/kg based on review of the report summary tables.

The report concluded that following over-excavation of the UST pit, confirmation soil sample results did not show detectable concentrations of petroleum hydrocarbons, and that after removal of petroleum-impacted groundwater from the pit, petroleum concentrations in groundwater decreased significantly.

Review of the City of Oakland UST removal application attached with the report shows that the USTs were identified in the application as containing both gasoline and diesel fuel. Review of the Uniform Hazardous Waste Manifest attached to the report dated April 16, 1999 shows that 950 gallons of liquid identified as "Rinse Aide" was removed from the site. Figure 2 of the ACC report incorrectly shows the site building extending to Capwell Drive and incorrectly identifies the UST pit dimensions.

Review of the September 9, 2004 Additional Subsurface Investigation Report documents the drilling of four soil borings designated as TDR-B1 through TDR-B4 on August 24, 2004. The boreholes were continuously cored using Geoprobe push technology. One soil sample was collected from each borehole at a depth of 4.0 feet below the ground surface, and one groundwater sample was collected from each borehole. Groundwater was reported to have been encountered at an estimated depth of 7.0 feet below the ground surface in each of the boreholes. The soils samples at the 4-foot depth from boreholes B1 and B2 and the groundwater samples from boreholes B1, B3 and B4 were analyzed for TPH-G, BTEX and MTBE by EPA Method 8260B.

Review of the boring logs for the boreholes shows that all of the boreholes were drilled to a total depth of 8 feet below the ground surface. The boring logs show that subsurface conditions consisted of silty clay to a depth of approximately 4 feet below the ground surface in all of the boreholes except TDR-B3, where silty clay was encountered to a depth of approximately 3 feet below the ground surface. Below the silty clay, silty sand with varying amounts of gravel was encountered to the total depths explored. The boring logs show that a mild gasoline odor was reported in the silty clay in all of the boreholes except for TDR-B1, where a gasoline odor was reported. Similarly, a strong gasoline odor was reported in the silty sand from all of the boreholes except for TDR-B1, where no gasoline odor was reported. Photoionization Detector (PID) values re reported on the boring logs at depths of 4 and 8 feet below the ground surface. The three boreholes where PID values were measured in the silty clay (B1, B2, and B4) showed PID values ranging from 1.4 to 1.8 ppm. In borehole B3, the 4-foot depth sample was located in silty sand, and was 82.0 ppm. In all of the boreholes the 8-foot depth PID reading was 21.1 or 22 ppm except for borehole B3, where 74.2 ppm was reported.

Review of the report text shows that the silty clay layer is identified as extending to a depth of approximately 6 feet below the ground surface, not the 3 or 4 feet below the ground surface shown on the boring logs. The report also identifies the soil sample and groundwater samples as being summarized in Tables 3 and 4. However, the soil and

groundwater sample results are summarized in Tables designated as Table 1 and Table 2, respectively in the ACC report.

Based on the soil boring sample results, ACC concluded that no significant source of impact to soil or groundwater is present, impacted groundwater appears to be confined to the site and offsite migration and potential human exposure is minimal to nonexistent, offsite migration of dissolved-phase petroleum hydrocarbons is limited in the horizontal extent and is relatively well defined, and the sample results indicate that significant natural attenuation of the petroleum hydrocarbons is occurring. The ACC report concluded by requesting case closure.

Review of the September 28, 2004 ACC Opinion Letter shows that reference to Table 1 of the August 1999 report still references MTBE concentrations in mg/kg instead of ug/kg. In addition, the letter references RWQCB RBSLs, which were superseded in 2003 by ESLs. The letter does not address TPH-G groundwater sample results from borehole B3 of 4900 ug/L exceeding the RWQCB guideline value of 500 ug/L, and does not explicitly address the potential risk to occupants of the building at the site from soil vapor migration into the building.

Review of the summary tables for soil sample results in the ACC documents shows that following over-excavation of the north end of the UST pit, no petroleum hydrocarbon concentrations exceeding RWQCB ESL values were detected in the UST pit or in any of the soil borings. Similarly, review of the summary tables for groundwater sample results in the ACC documents shows that following pumping of the UST pit, no petroleum hydrocarbon concentrations exceeding RWQCB ESL values were detected in the UST pit or in any of the ACC soil borings soil sample results with the following exceptions.

- UST pit sample Pit-2 for TPH-G and lead (although Table 2 of the March 7, 2005 Work Plan identifies the Pit-2 water sample xylenes value of 54 ug/L exceeding the associated ESL value of 13 ug/L, the 54 ug/L xylenes value does not exceed the current RWQCB February 2005 Table B ESL value of 100 ug/L)
- Soil boring sample TDR-B3-W for TPH-G.

On January 19, 2005, the ACEH issued a letter requesting a subsurface conduit study and a 2,000-foot radius well survey. In addition, the January 19, 2005 ACEH letter requested a work plan for further subsurface investigation at the subject site.

In response to the ACEH letter, P&D submitted a Conduit Study and Well Survey Report (document 0363.R1) dated March 4, 2005 and a Soil and Groundwater Investigation Work Plan (document 0363.W1) dated March 7, 2005.

FIELD ACTIVITIES

P&D conducted field activities in accordance with P&D's March 7, 2005 work plan, with the exceptions that water quality in the wells was not monitored for indicators of intrinsic bioremediation, and that the groundwater monitoring wells were purged and sampled one

time to evaluate petroleum concentrations in groundwater in the wells. Field activities consisted of drilling of boreholes B5 through B7 on April 26, 2005, installation of wells MW1 through MW3 on May 17, 2005, development of the wells on May 27, 2005, monitoring of the wells five times for depth to water between May 17 and June 6, 2005, arranging for the wells to be surveyed horizontally and vertically by a State-licensed contractor, and purging and sampling of the wells on June 6, 2005. Details of the field activities completed since submittal of the March 7, 2005 work plan are presented below.

Soil Boring Oversight

Prior to drilling, Alameda County Public Works Agency (ACPWA) permit W05-0451 was obtained for the drilling of boreholes B5 through B7. In addition, the drilling locations were marked with white paint, Underground Service Alert was notified for underground utility location, a health and safety plan was prepared, and notification of the scheduled drilling date was provided to the ACPWA and the ACEH.

On April 26, 2005 the boreholes were drilled to characterize subsurface conditions at the subject site. Boreholes B5 and B5a were drilled on the western side of the site in the driveway entering the site from Capwell Drive. Boreholes B6 and B6a were drilled on the western side of the site to the south of the driveway entering the site from Capwell Drive. Boreholes B7a, B7b, and B7c were drilled in and adjacent to the former UST pit at the site.

Boreholes B5 and B6 were continuously cored to a total depth of 20.0 feet. Boreholes B5a and B6a were drilled with a Hydropunch to a depth of 20.0 feet at a location approximately 1.5 feet from the continuously cored boreholes for B5 and B6, respectively. Borehole B7a was initially drilled by continuous coring. However, because of collapsing fill conditions encountered in borehole B7a in the former UST pit, soil was only recovered to a depth of 4 feet below the ground surface in the borehole and the borehole was completed with a Hydropunch to a total of 8.0 feet. Borehole B7b was continuously cored to a total depth of 28.0 feet at a location approximately one foot to the west of the asphalt sawcut for the former UST pit. Borehole B7c was hydropunched a first time to 20.0 feet with no water sample recoverable, and then a second time to 28.0 feet to collect a water sample from beneath the UST pit.

Subsurface materials were identified and evaluated based on the continuous cores from boreholes B5, B6, and B7b. The soil from the continuous cores was logged in the field in accordance with standard geologic field techniques and the Unified Soil Classification System. All of the soil from boreholes B5 and B6 was evaluated with a 10.3 eV Photoionization Detector (PID) calibrated using a 100 ppm isobutylene standard. The PID malfunctioned prior to drilling of borehole B7b, resulting in PID values not being provided for soil from borehole B7b.

No organic vapors were detected with the PID in boreholes B5 and B6, except for a reading of 1 ppm from soil with a very strong sulfurous odor at a depth of approximately 12 feet in borehole B5. No petroleum hydrocarbon odors were detected in boreholes B5 and B6. In borehole B7b, petroleum hydrocarbon odors were detected at depths ranging from 1.0 to

2.5 feet and from 3.7 to 28 feet below the ground surface as follows: slight odors from the silty clay from 1.0 to 2.5 feet below the ground surface, strong odors on the silty clay and clayey sand from 3.7 to 10.3 feet, moderate odors on the sand from 10.3 to approximately 13 feet, strong odors on the clay from approximately 13 to 18 feet, moderate to slight odors on the clay from approximately 18 to 21 feet, and finally slight petroleum hydrocarbon odor observed by the driller, but not by P&D personnel, on the sandy gravel and sand from approximately 21 feet to the total depth explored of 28 feet. The locations of the boreholes are shown on the Site Plans attached as Figures 2, 4, 5, 6, and 7. Copies of the boring logs are attached with this report.

Borehole Soil Sample Collection

Soil samples were retained for laboratory analysis at depths of approximately 5, 10, and 15 feet below the ground surface from the continuous cores from boreholes B5, B6, and B7b. The soil samples from the depths of approximately 5, 10, and 15 feet were retained for laboratory analysis in the following manner. A six-inch long soil sample from the continuous cores was retained in the cellulose acetate tubes by cutting the core barrel sample liner at the depths corresponding to the desired sampling interval.

In addition to the soil samples collected from depths of approximately 5, 10, and 15 feet, soil samples were collected from depths of 19.5, 23.0, and 27.5 feet from borehole B7b. The soil sample collected at a depth of 19.5 feet from borehole B7b was collected by cutting the sample liner in the same manner as for the soil samples at shallower depths. Due to jamming of the continuous core in the sampling barrel, each of the samples collected at the depths of 23.0 feet and 27.5 feet from borehole B7b were obtained by using decontaminated metal tools to transfer the sand in the bottom end of the sampling barrel into 2-inch diameter by 6-inch long brass tubes. For both of the samples collected at depths of 23.0 and 27.5, the brass tubes were packed so as to result in zero head space in each brass tube.

For each soil sample, the ends of the sample tube were sequentially covered with aluminum foil and plastic endcaps, and the tube was then labeled and stored in a cooler with ice pending delivery to the laboratory. Chain of custody procedures were observed for all sample handling.

Borehole Groundwater Grab Sample Collection

P&D obtained groundwater grab samples at a depth of 8.0 feet in boreholes B5, B6, and B7a; at a depth of 20.0 feet in borehole B5a; and at a depth of 28.0 feet in borehole B7c. No water samples were recoverable from boreholes B6a and B7c at a depth of 20.0 feet because water did not enter these boreholes at these depths. All groundwater samples were collected from the boreholes using polyethylene tubing and a stainless steel foot valve. The groundwater samples collected at a depth of 8.0 feet from boreholes B5 and B6 were collected using one-inch diameter slotted PVC casing set to the bottom of the borehole which had been continuously cored to 8.0 feet. The groundwater samples collected at a depth of 8.0 feet in borehole B7a, at a depth of 20.0 feet in borehole B5a, and at a depth of 28.0 feet in borehole B7c were collected using a Hydropunch.

No sheen or separate phase layers of petroleum hydrocarbons were observed and no petroleum hydrocarbon odors were detected in water in any of the boreholes, except for a moderate petroleum hydrocarbon odor on the water sample collected at a depth of 8.0 feet in borehole B7a. All water samples were transferred to 1-liter amber bottles and 40-milliliter glass Volatile Organic Analysis (VOA) vials containing hydrochloric acid preservative, which were sealed with Teflon-lined screw caps. The VOAs were overturned and tapped to ensure that air bubbles were not present. The samples were labeled and then placed into a cooler with ice pending delivery to the laboratory. Chain of custody procedures were followed for all sample handling.

All drilling equipment was steam cleaned prior to use at the site. All sampling equipment was cleaned with an Alconox solution followed by a clean water rinse prior to use in each borehole. Following completion of sample collection activities, the boreholes were filled with neat cement grout. Soil and water generated during drilling were stored in one drum at the subject site pending characterization and disposal.

Monitoring Well Installation

Prior to performing field work, ACPWA permits W05-0452, W05-0453, W05-0454 were obtained, notification was provided to the ACPWA of the scheduled drilling date, the drilling locations were marked with white paint, Underground Safety Alert was notified for buried utility location, and a health and safety plan was prepared. On May 17, 2005 P&D personnel oversaw the installation of monitoring wells MW1, MW2, and MW3 at the subject site. Exploration Geoservices, Inc. of San Jose, California performed the well installation. The locations of the wells at the site are shown in Figure 2.

Each of the boreholes for monitoring wells MW1, MW2 and MW3 were drilled to a total depth of 12.0 feet below the ground surface. Each borehole was drilled using a truck-mounted 7.5-inch outside diameter hollow stem auger drill rig. Soil samples were collected at five-foot intervals for lithologic logging purposes using a California-modified split-spoon sampler lined with brass tubes driven by a 140-pound hammer falling 30 inches. Blow counts were recorded every six inches. The soil in the brass tubes and the soil cuttings from drilling were classified lithologically in the field in accordance with standard geologic field techniques and the Unified Soil Classification System. No groundwater level measurements were made in the boreholes for the wells on the day of well installation.

All of the wells were constructed using a 2-inch diameter Schedule 40 PVC pipe with 7.5 feet of 0.010-inch factory slot placed in the bottom of the borehole between the depths of 4 and 11.5 feet below the ground surface. The annular space surrounding the PVC pipe was filled with #2/12 RMC Pacific Materials sack sand from 3 to 12 feet below ground surface (to a height of one foot above the top of the slotted interval). A one-foot thick layer of bentonite pellets was placed above the sand and hydrated. A one-foot thick layer of neat cement grout was placed in the annular space above the bentonite layer, and a one-foot thick layer of concrete in the remaining annular space to the ground surface.

The top of each of the PVC well pipes for the groundwater monitoring wells were secured with a watertight locking plug and enclosed in a watertight traffic-rated well box. Well construction specifications for well MW1, MW2, and MW3 are provided in a Well Construction Diagrams attached with this report. Soil and water generated during drilling activities were stored in drums onsite, pending analysis and appropriate disposal.

Monitoring Well Development

On May 27, 2005, wells MW1, MW2, and MW3 were developed by surging and over-pumping. Prior to development, the monitoring wells were monitored for depth to water to the nearest 0.01 feet using an electric water level indicator. The measured depth to groundwater prior to development on May 27, 2005 in wells MW1, MW2, and MW3 was 4.14, 4.82, and 3.33 feet, respectively. The depth to water measurements are summarized in Table 1.

During development of the wells P&D personnel did not detect petroleum hydrocarbon odors or sheen on the water purged from the wells. As a result of relatively low recharge rates to the wells, approximately 19, 21, and 35 gallons of water were removed during development of wells MW1, MW2, and MW3, respectively. Water removed from the wells during development was stored in drums onsite, pending characterization and appropriate disposal.

Monitoring and Sampling of Wells

On May 27 and 31, 2005 and June 1, 2, and 6, 2005 P&D personnel monitored wells MW1, MW2, and MW3. The wells were monitored for depth to water and the presence of free product or sheen. The depth to water was measured to the nearest 0.01 foot using an electric water level indicator and the presence of free product or sheen was evaluated using a transparent bailer. No free product or sheen was observed in any of the groundwater monitoring wells. In addition, electrical conductivity was measured using a down-hole probe and electrical conductivity meter on June 2 and 6, 2005. On June 6, 2005 the conductivity was measured in the wells with a down-hole probe both before and after purging the wells. Records of the measured depth to water and electrical conductivity are attached with this report. The depth to water measurements are summarized in Table 1. Calculated groundwater flow directions and gradients are summarized in Table 2. Electrical conductivity values are summarized in Table 3.

On June 6, 2005 P&D purged, and sampled wells MW1, MW2, and MW3. Prior to purging, conductivity monitoring was performed with a high-range, down-hole instrument. After initial conductivity monitoring, the wells were purged of a minimum of three casing volumes of water, or until the wells had been purged dry. During purging operations, the field parameters of electrical conductivity, temperature, and pH were monitored. No sheen or petroleum hydrocarbon odor was detected on the purge water from any of the wells. After purging, follow-up conductivity monitoring was performed with a high-range, down-hole instrument.

Once the field parameters were observed to stabilize during well purging, and a minimum of three casing volumes had been purged, water samples were collected using a clean Teflon bailer. No sheen or separate phase layers of petroleum hydrocarbons were observed on the groundwater samples from any of the wells. The water samples were transferred from the Teflon bailer to 40-milliliter glass Volatile Organic Analysis (VOA) vials and 1-liter amber glass bottles that were sealed with Teflon-lined screw caps. The VOA vials were overturned and tapped to assure that no air bubbles were present. The VOA vials and bottles were then transferred to a cooler with ice, pending transport to the laboratory. Chain of custody documentation accompanied the samples to the laboratory. Records of the field parameters measured during well purging are attached with this report.

Monitoring Well Surveying

The top of the PVC casing for each monitoring well was surveyed by Kier & Wright Engineers Surveyors, Inc. on May 25, 2005. The surveying was performed in accordance with Geotracker requirements. The top of casing elevations for each well are provided in Table 1. A copy of the survey information provided by the surveyor is attached with this report.

GEOLOGY AND HYDROGEOLOGY

Based on review of regional geologic maps from U. S. Geological Survey Professional Paper 943, "Flatland Deposits - Their Geology and Engineering Properties and Their Importance to Comprehensive Planning," by E. J. Helley and K. R. Lajoie, 1979, the subject site is underlain by Bay Mud (Qhbm). Bay Mud is described as unconsolidated, water-saturated, dark, plastic clay and silty clay.

The subsurface materials encountered on April 26, 2005 in continuously cored boreholes B5 and B6 consisted of gravelly sand or gravelly clay to depths of 3.2 and 6.3 feet below ground surface, respectively, underlain by sand to depths of 10.0 and 9.5 feet, respectively. The sand was sequentially underlain by clay or clayey sand approximately 0.5 feet in thickness, organic clay approximately 0.5 feet in thickness, and then Bay Mud to the total depth explored of 20.0 feet.

The subsurface materials encountered on April 26, 2005 in the continuously cored borehole B7 consisted of silty clay and clayey gravel to a depth of 9.0 feet, underlain by clayey sand 1.3 feet in thickness, sand to a depth of 13.0 feet, Bay Mud to a depth of 21.0 feet, and then sandy gravel and fine sand to the total depth explored of 28.0 feet.

Groundwater was encountered during drilling at depths of 4.5, 6.3, and 10.3 feet in boreholes B5, B6, and B7b, respectively. Groundwater was subsequently measured at a depth of 3.2 feet in the Hydropunch that was set to a total depth of 20.0 feet in borehole B5a. No other water level measurements were taken during drilling of the temporary boreholes on April 26, 2005. Copies of the boring logs are attached with this report. The locations of geologic cross sections A-A' and B-B' are shown on Figure 2, and the geologic cross

sections are shown in Figure 3. The depth of the UST pit is unknown, and was assumed to be six feet deep in Figure 3.

The measured depth to water during well monitoring and sampling at the site from May 27 to June 6, 2005 ranged from 4.14 to 4.30 feet in well MW1, from 4.82 to 4.97 feet in well MW2, and from 3.33 to 3.48 feet in well MW3. The measured depth to groundwater and calculated water table elevations are shown on Table 1. The calculated groundwater flow direction and gradient for each day of monitoring are summarized in Table 2.

Based on the measured depth to groundwater in the groundwater monitoring wells, the apparent groundwater flow direction at the site from May 27 to June 6, 2005 was calculated to be to the southwest with a gradient of 0.013 or 0.014. The groundwater flow direction and gradient on June 2, 2005 are shown on Figures 4 and 6. A tidally influenced canal that drains to the San Francisco Bay is present approximately 200 feet to the southwest of the subject site. However, based on the consistent calculated groundwater flow direction and gradient for the five different monitoring events, groundwater does not appear to be tidally influenced at the site.

LABORATORY ANALYSIS

All of the soil and groundwater samples were analyzed at McCampbell Analytical, Inc. in Pacheco, California. McCampbell Analytical, Inc. is a state-accredited hazardous waste testing laboratory. All of the soil and groundwater samples collected from the boreholes and the monitoring wells were analyzed for Total Petroleum Hydrocarbons as Diesel (TPH-D), Total Petroleum Hydrocarbons as Motor Oil (TPH-MO), and Total Petroleum Hydrocarbons as Gasoline (TPH-G) using EPA Method 8015C; as well as benzene, toluene, ethylbenzene, and xylenes (BTEX), fuel oxygenates, and lead scavengers using EPA Method 8260B.

Review of the laboratory analytical results for the borehole soil samples shows that TPH-MO was not detected in any of the borehole soil samples. TPH-D was not detected in soil samples B6-5.0, B6-10.0, B7b-23.0, and B7b-27.5; and was detected at concentrations of less than 15 mg/kg in all other soil samples with the exception of soil sample B7b-10.0 where TPH-D was detected at a concentration of 61 mg/kg. TPH-G was not detected in the soil samples from borehole B6, and was only detected in the borehole B5 samples at a depth of 4.5 feet at a concentration of 5.9 mg/kg. In borehole B7b, TPH-G was detected at concentrations of 86 and 160 mg/kg at depths of 5.0 and 10.0 feet, respectively, at concentrations of 4.5 and 2.2 mg/kg at depths of 15.0 and 19.5 feet, respectively, and was not detected in soil samples collected at depths of 23.0 and 27.5 feet. BTEX, fuel oxygenates, and lead scavengers were not detected in the borehole soil samples with the exception of 0.021 mg/kg or less MTBE in borehole B5 soil samples and ethylbenzene and xylenes in the soil samples from borehole B7b at depths of 5.0 and 10.0 feet. The borehole soil sample results are summarized in Table 4. Copies of the laboratory analytical reports and chain of custody documentation for the borehole soil samples are attached with this report.

Review of the laboratory analytical results for the borehole groundwater grab samples shows that TPH-MO was not detected in any of the borehole groundwater samples, except for samples B5-8.0 Water and B7-8.0 Water at concentrations of 0.43 and 0.39 mg/L, respectively. TPH-D was detected in all of the groundwater grab samples at concentrations ranging from 0.051 to 88 mg/L. TPH-G was detected in borehole groundwater grab samples B5-8.0 Water, B7-8.0 Water and B7-28.0 Water at concentrations of 0.96, 3.78 and 3.9 mg/L, respectively. Various BTEX compounds were detected in all of the groundwater grab samples at various concentrations, and MTBE was detected in all of the groundwater grab samples at concentrations of less than 0.043 mg/L except for sample B7-28.0 Water, where MTBE was not detected. No other fuel oxygenates or lead scavengers were detected in any of the borehole groundwater grab samples. The borehole groundwater grab sample results are summarized in Table 5. Copies of the laboratory analytical reports and chain of custody documentation for the borehole groundwater grab samples are attached with this report.

Review of the laboratory analytical results for the groundwater monitoring well groundwater samples shows that none of the target analytes were detected, except for TPH-D in wells MW2 and MW3 at concentrations of 0.061 and 0.064 mg/L, respectively. The monitoring well groundwater sample results are summarized in Table 6. Copies of the laboratory analytical reports and chain of custody documentation for the monitoring well groundwater samples are attached with this report.

Figures 4 and 5 show TPH-G concentrations in groundwater at the site, and Figures 6 and 7 show TPH-D concentrations in groundwater at the site.

DISCUSSION AND RECOMMENDATIONS

Soil and groundwater samples collected at drilling locations B5, B6 and B7 and groundwater samples collected from wells MW1, MW2 and MW3 were collected to define the extent of petroleum hydrocarbons in soil and groundwater in the vicinity of the former UST pit at the subject site. Subsurface conditions encountered in the boreholes at the site consisted of sand or clayey sand to a depth of approximately 10 to 13 feet. Bay Mud was encountered beneath the sandy material. In boreholes B7a/B7b (located at the UST pit) a gravel and sand layer was encountered at a depth of approximately 21 feet and extended to the total depth explored of 28 feet. The bottom of this gravel and sand layer was not determined.

Groundwater is encountered in the wells at the site at a depth of approximately 3 to 5 feet below the ground surface. Five separate monitoring events for the groundwater monitoring wells have identified a consistent southwesterly groundwater flow direction at the site, consistent with the detected distribution of petroleum hydrocarbons in groundwater at the site.

Down-hole monitoring of electrical conductivity in the groundwater monitoring wells has identified electrical conductivity values ranging from 5,240 to 11,690 uS/cm. Based on groundwater electrical conductivity values exceeding 5,000 uS/cm in all of the wells at the

site, P&D recommends that groundwater not be considered a current or potential source of drinking water, and that San Francisco Bay Regional Water Quality Control Board (RWQCB) Environmental Screening Level (ESL) Table B values be used for site evaluation.

Figures 4 and 6 show the distribution of TPH-G and TPH-D in groundwater at a depth of approximately 8 feet at the site. Figures 5 and 7 show the distribution of TPH-G and TPH-D in groundwater at a depth of 20 or 28 feet at the site. Soil and groundwater sample results associated with this current investigation are summarized in Tables 4, 5 and 6. RWQCB Table B ESL values are also provided in the tables. Industrial/commercial land use ESL values are provided for the soil sample results in Table 4.

Comparison of the soil sample results to the ESL values in Table 4 shows that none of the petroleum hydrocarbon sample results for the soil samples exceed their respective ESL values. As discussed in the background section of this report, review of the summary tables for soil sample results in the ACC documents shows that following over-excavation of the north end of the UST pit, no petroleum hydrocarbon concentrations exceeding RWQCB ESL values were detected in the UST pit or in any of the ACC soil boring soil sample results.

Comparison of the groundwater sample results to the ESL values in Tables 5 and 6 shows that none of the petroleum hydrocarbon sample results for the soil samples exceed their respective ESL values with the following exceptions.

- Soil boring sample B5-8.0 Water for TPH-D and TPH-G,
- Soil boring sample B7-8.0 Water for TPH-D, TPH-G, and xylenes, and
- Soil boring sample B7-28.0 Water for TPH-D, TPH-G, and xylenes

As discussed in the background section of this report, review of the summary tables for groundwater sample results in the ACC documents shows that following pumping of the UST pit, no petroleum hydrocarbon concentrations exceeding RWQCB ESL values were detected in the UST pit or in any of the ACC soil borings soil sample results with the following exceptions.

- UST pit sample Pit-2 for TPH-G and lead
- Soil boring sample TDR-B3-W for TPH-G.

Review of Figure 4 shows that the extent of TPH-G exceeding the ESL in groundwater at a depth of approximately 8 feet is defined by wells MW1, MW2, MW3 and boring locations B1, B4 and B6. Similarly, review of Figure 6 shows that the extent of TPH-D exceeding the ESL in groundwater at a depth of approximately 8 feet is defined by wells MW1, MW2, MW3 and boring location B6. To complete delineation of the horizontal extent of TPH-G and TPH-D in groundwater at the site a depth of approximately 8 feet, P&D proposes that 3 additional boreholes be drilled for the collection of groundwater grab samples at a depth of approximately 8 feet below the ground surface. The three proposed sample collection locations are shown on Figures 4 and 6.

Review of Figures 5 and 7 show that the only TPH-G and TPH-D groundwater quality available for depths of 20 or 28 feet are at drilling locations B5 and B7. At drilling location B6, groundwater did not enter the borehole at the 20-foot depth. The sample collected at location B5 at a depth of 20.0 feet was from the Bay Mud, and the sample collected at location B7 at a depth of 28.0 feet was collected from a gravel and sand layer of unknown thickness in the Bay Mud. The groundwater grab sample results at location B7 at a depth of 28.0 feet exceed the ESL values for both the TPH-G and TPH-D.

The horizontal and vertical extent of the gravel and sand layer encountered below the UST pit at drilling location B7 are unknown. P&D proposes to drill a total of three boreholes to define the horizontal and vertical extent of the gravel and sand layer detected at boring location B7, and to evaluate water quality in the gravel and sand layer to define the extent of petroleum hydrocarbons in the gravel and sand layer. In addition, a fourth boring will be drilled between the former UST pit and the site building to determine if groundwater in sand or gravel layers located beneath the gravel and sand layer encountered between the depths of 21 and 28 feet have been impacted by petroleum hydrocarbons. The four proposed drilling locations are shown in Figures 5 and 7.

To evaluate the proposed drilling locations, P&D proposes to perform the following scope of work.

- Obtain permits, prepare a health and safety plan, mark the proposed drilling locations with white paint, notify Underground Service Alert for underground utility location, and arrange for borehole drilling at the proposed locations shown on Figures 4 through 7. All of the boreholes will be continuously cored using Geoprobe push technology as described above. In addition, all of the soil from the boreholes will be evaluated with a PID and logged as described above.
- Oversee drilling the three proposed boreholes shown on Figures 4 and 6 to a depth of eight feet below the ground surface and collection of groundwater grab samples using temporary PVC casing as described above.
- Oversee drilling three of the four proposed boreholes shown on Figures 5 and 7 to the bottom of the gravel and sand layer encountered at drilling location B7 (an estimated depth of 30 to 35 feet below the ground surface) and collection of groundwater grab samples using temporary PVC casing as described above. These three boreholes will be drilled using Geoprobe dual tube drilling technology. The bottom of the outer drilling tube will be set in the Bay Mud at a depth of approximately 17 feet below the ground surface.
- Oversee drilling the fourth of the four proposed boreholes shown on Figures 5 and 7 (the proposed borehole located between the former UST pit and the site building) to the bottom of the next coarse-grained layer encountered beneath the gravel and sand layer that was encountered at drilling location B7 beneath the UST pit. This borehole will be drilled using Geoprobe dual tube drilling technology. The bottom of the outer drilling tube will be set in the Bay Mud at a depth of approximately four feet below the bottom of the gravel and sand layer (an estimated depth of 35 to 40 feet below the ground surface). One

groundwater grab sample will be collected from the borehole using temporary PVC casing as described above.

- Arrange for all of the groundwater samples to be analyzed for TPH-G, TPH-D and TPH-MO by modified EPA Method 8015C, and for BTEX and fuel oxygenates and lead scavengers using EPA Method 8260B, as described above. In addition, the three groundwater grab samples collected at a depth of 8 feet below the ground surface will be analyzed for total lead.
- Report preparation. The report will include a site vicinity map showing the drilling locations, boring logs, tables summarizing the sample results, recommendations based on the sample results, and the stamp of an appropriately registered professional. Recommendations for evaluation of water quality in each well for indicators of intrinsic bioremediation using a down-hole probe will be included in the report, following evaluation of the water quality results from the proposed boreholes.

DISTRIBUTION

A copy of this report should be forwarded to Mr. Jerry Wickham at the ACEH. The report should be accompanied by a transmittal letter signed by an authorized representative of T.D. Rowe, in accordance with requirements set forth in a letter to TD Rowe from the ACEH dated January 19, 2005.

LIMITATIONS

This report was prepared solely for the use of T.D. Rowe. The content and conclusions provided by P&D in this assessment are based on information collected during our investigation, which may include, but not be limited to, visual site inspections; interviews with site owner, regulatory agencies and other pertinent individuals; review of available public documents; subsurface exploration and our professional judgment based on said information at the time of preparation of this document. Any subsurface sample results and observations presented herein are considered to be representative of the area of investigation; however, geological conditions may vary between boreholes and may not necessarily apply to the general site as a whole. If future subsurface or other conditions are revealed which vary from these findings, the newly revealed conditions must be evaluated and may invalidate the findings of this report.

This report is issued with the understanding that it is the responsibility of the owner, or his representative, to ensure that the information contained herein is brought to the attention of the appropriate regulatory agencies, where required by law. Additionally, it is the sole responsibility of the owner to properly dispose of any hazardous materials or hazardous wastes left onsite, in accordance with existing laws and regulations.

This report has been prepared in accordance with generally accepted practices using standards of care and diligence normally practiced by recognized consulting firms performing services of a similar nature. P&D is not responsible for the accuracy or completeness of information provided by other individuals or entities which is used in this

report. This report presents our professional judgment based upon data and findings identified in this report and interpretation of such data based upon our experience and background, and no warranty, either express or implied, is made. The conclusions presented are based upon the current regulatory climate and may require revision if future regulatory changes occur.

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

Sincerely,
P&D Environmental

Paul H. King
President
Professional Geologist # 5901
Expires: 12/31/05

Attachments: Table 1: Groundwater Level Monitoring Data
Table 2: Calculated Groundwater Flow Direction and Gradient For Wells MW1, MW2 and MW3
Table 3: Groundwater Electrical Conductivity Monitoring Data For Wells MW1, MW2 and MW3
Table 4: Summary of Laboratory Analytical Results – Borehole Soil Samples
Table 5: Summary of Laboratory Analytical Results – Borehole Groundwater Grab Samples
Table 6: Summary of Laboratory Analytical Results – Monitoring Well Groundwater Samples
Figure 1: Site Location Map
Figure 2: Site Vicinity Map Showing Geologic Cross-Section Locations
Figure 3: Geologic Cross-Sections
Figure 4: TPH-G Concentration in Groundwater at 8 Feet Below Ground Surface
Figure 5: TPH-G Concentration in Groundwater at 20 or 28 Feet Below Ground Surface
Figure 6: TPH-D Concentration in Groundwater at 8 Feet Below Ground Surface
Figure 7: TPH-D Concentration in Groundwater at 20 or 28 Feet Below Ground Surface
Soil Boring Logs
Well Construction Diagrams
Well Monitoring and Purging Data Sheets
Laboratory Analytical Reports
Chain of Custody Documentation

PHK/wrw/bl
0363.R2

TABLE 1
GROUNDWATER LEVEL MONITORING DATA
FOR WELLS MW1, MW2, AND MW3

Well No.	Date Monitored	Top of Casing Elev. (ft.)	Depth to Water (ft.)	Water Table Elev. (ft.)
MW1	6/6/05	11.27	4.30	6.97
	6/2/05		4.24	7.03
	6/1/05		4.22	7.05
	5/31/05		4.26	7.01
	5/27/05		4.14	7.13
MW2	6/6/05	11.75	4.97	6.78
	6/2/05		4.96	6.79
	6/1/05		4.94	6.81
	5/31/05		4.93	6.82
	5/27/05		4.82	6.93
MW3	6/6/05	11.14	3.48	7.66
	6/2/05		3.43	7.71
	6/1/05		3.37	7.77
	5/31/05		3.39	7.75
	5/27/05		3.33	7.81

TABLE 2
CALCULATED GROUNDWATER FLOW DIRECTION AND GRADIENT
FOR WELLS MW1, MW2, AND MW3

Date Monitored	**Flow Direction**	**Gradient (ft./ft.)**
6/6/05	S56°W	0.013
6/2/05	S54°W	0.013
6/1/05	S54°W	0.014
5/31/05	S57°W	0.014
5/27/05	S54°W	0.013

TABLE 3
GROUNDWATER ELECTRICAL CONDUCTIVITY MONITORING DATA
FOR WELLS MW1, MW2, AND MW3
(Wells Monitored June 2 and 6, 2005)

Well No.	Date	Conductivity Prior to Purge (mS/cm)	Conductivity Following Purge (mS/cm)
MW1	6/6/05	--	11.69
	6/2/05	9.97	NA
MW2	6/6/05	8.06	6.97
	6/2/05	8.39	NA
MW3	6/6/05	5.93	5.24
	6/2/05	6.29	NA

Notes:
-- = Not Monitored.
NA = Not Applicable

TABLE 4
SUMMARY OF LABORATORY ANALYTICAL RESULTS - BOREHOLE SOIL SAMPLES
(Samples Collected on April 26, 2005)

Sample Name	TPH-D	TPH-MO	TPH-G	Benzene	Toluene	Ethyl-benzene	Xylenes	Other VOCs By 8260
B5-4.5	2.9,c	ND<5.0	5.9,a,b	ND<0.005	ND<0.005	ND<0.005	ND<0.005	ND
B5-10.0	1.4,d	ND<5.0	ND<1.0	ND<0.005	ND<0.005	ND<0.005	ND<0.005	ND except, MTBE = 0.021
B5-15.0	1.1,d	ND<5.0	ND<1.0	ND<0.005	ND<0.005	ND<0.005	ND<0.005	ND except, MTBE = 0.0052
B6-5.0	ND<1.0	ND<5.0	ND<1.0	ND<0.005	ND<0.005	ND<0.005	ND<0.005	ND
B6-10.0	ND<1.0	ND<5.0	ND<1.0	ND<0.005	ND<0.005	ND<0.005	ND<0.005	ND
B6-15.0	2.0,d	ND<5.0	ND<1.0	ND<0.005	ND<0.005	ND<0.005	ND<0.005	ND
B7b-5.0	12,c,d	ND<5.0	86	ND<0.005	ND<0.005	0.038	0.014	ND
B7b-10.0	61,c,d	ND<25	160,a,b	ND<0.10	ND<0.10	3.6	5.0	ND
B7b-15.0	2.6,c	ND<5.0	4.5,a,b	ND<0.005	ND<0.005	ND<0.005	ND<0.005	ND
B7b-19.5	4.4,c	ND<5.0	2.2,a,b	ND<0.005	ND<0.005	ND<0.005	ND<0.005	ND
B7b-23.0	ND<1.0	ND<5.0	ND<1.0	ND<0.005	ND<0.005	ND<0.005	ND<0.005	ND
B7b-27.5	ND<1.0	ND<5.0	ND<1.0	ND<0.005	ND<0.005	ND<0.005	ND<0.005	ND
ESL_1	500	1000	400	0.38	9.3	32	11	MTBE = 5.6

NOTES:
TPH-D = Total Petroleum Hydrocarbons as Diesel.
TPH-MO= Total Petroleum Hydrocarbons as Motor Oil.
TPH-G = Total Petroleum Hydrocarbons as Gasoline.
VOCs = Volatile Organic Compounds.
ESL_1 = Environmental Screening Level, developed by San Francisco Bay – Regional Water Quality Control Board (SF-RWQCB) updated February 2005, from Table B – Shallow Soils, Groundwater is not a current or potential source of drinking water (commercial/industrial land use only).
a = Laboratory analytical report note: heavier gasoline range compounds are significant, possibly aged gasoline.
b = Laboratory analytical report note: no recognizable pattern.
c = Laboratory analytical report note: gasoline range compounds are significant.
d = Laboratory analytical report note: diesel range compounds are significant; no recognizable pattern.
ND = Not detected.
Results are in mg/kg, unless otherwise indicated.

TABLE 5
SUMMARY OF LABORATORY ANALYTICAL RESULTS - BOREHOLE GROUNDWATER GRAB SAMPLES
(Samples Collected on April 26, 2005)

Sample Name	TPH-D	TPH-MO	TPH-G	Benzene	Toluene	Ethyl-benzene	Xylenes	Other VOCs By 8260
B5-8.0 Water	1.6,b,c,d	0.43	0.96	0.0021	0.00080	0.0032	0.00086	ND, except MTBE = 0.043
B5-20.0 Water	0.076,c,e	ND<0.25	ND<0.05	ND<0.0005	0.00061	ND<0.0005	ND<0.0005	ND, except MTBE = 0.0024
B6-8.0 Water	0.051,c,e	ND<0.25	ND<0.05	ND<0.0005	0.0030	ND<0.0005	ND<0.0005	ND, except MTBE = 0.00057
B7-8.0 Water	4.4,b,c,d	0.39	3.7	ND<0.0025	ND<0.0025	0.090	0.290	ND, except MTBE = 0.0037
B7-28.0 Water	88,b,c	ND<5.0	3.9,a	0.0045	0.0015	0.067	0.10	ND
ESL_2	0.64	0.64	0.5	0.046	0.13	0.29	0.10	MTBE = 1.8

NOTES:
TPH-D = Total Petroleum Hydrocarbons as Diesel.
TPH-MO= Total Petroleum Hydrocarbons as Motor Oil.
TPH-G = Total Petroleum Hydrocarbons as Gasoline.
VOCs = Volatile Organic Compounds.
ESL_2 = Environmental Screening Level, developed by San Francisco Bay – Regional Water Quality Control Board (SF-RWQCB) updated February 2005, from Table B – Shallow Soils, Groundwater is not a current or potential source of drinking water.
a = Laboratory analytical report note: heavier gasoline range compounds are significant, possibly aged gasoline.
b = Laboratory analytical report note: gasoline range compounds are significant.
c = Laboratory analytical report note: diesel range compounds are significant; no recognizable pattern.
d = Laboratory analytical report note: oil range compounds are significant.
e = Laboratory analytical report note: one to a few isolated peaks present.
ND = Not detected.
Results are in mg/L, unless otherwise indicated.

TABLE 6
SUMMARY OF LABORATORY ANALYTICAL RESULTS -
MONITORING WELL GROUNDWATER SAMPLES
(Samples Collected June 6, 2005)

Sample Name	TPH-D	TPH-MO	TPH-G	Benzene	Toluene	Ethyl-benzene	Xylenes	Other VOCs By 8260
MW1	ND<0.05	ND<0.25	ND<0.05	ND<0.0005	ND<0.0005	ND<0.0005	ND<0.0005	ND
MW2	0.061,c	ND<0.25	ND<0.05	ND<0.0005	ND<0.0005	ND<0.0005	ND<0.0005	ND
MW3	0.064,c	ND<0.25	ND<0.05	ND<0.0005	ND<0.0005	ND<0.0005	ND<0.0005	ND
ESL_2	0.64	0.64	0.5	0.046	0.13	0.29	0.10	MTBE = 1.8

NOTES:
TPH-D = Total Petroleum Hydrocarbons as Diesel.
TPH-MO= Total Petroleum Hydrocarbons as Motor Oil.
TPH-G = Total Petroleum Hydrocarbons as Gasoline.
VOCs = Volatile Organic Compounds.
ESL_2 = Environmental Screening Level, developed by San Francisco Bay – Regional Water Quality Control Board (SF-RWQCB) updated February 2005, from Table B – Shallow Soils, Groundwater is not a current or potential source of drinking water.
c = Laboratory analytical report note: diesel range compounds are significant; no recognizable pattern.
ND = Not detected.
Results are in mg/L, unless otherwise indicated.

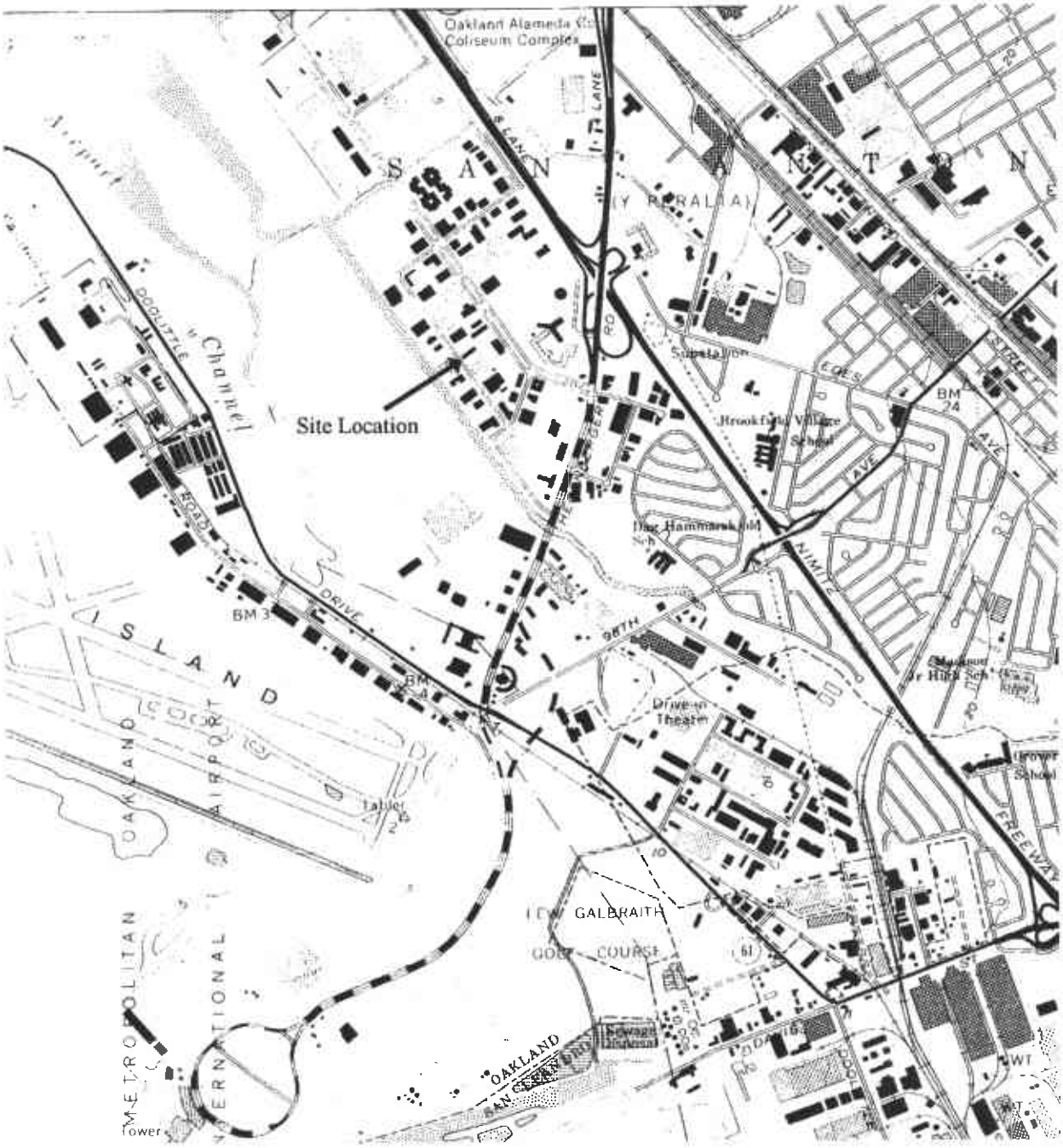

FIGURE 1
Site Location Map
8134 Capwell Drive
Oakland, California

N

Base Map From:
U.S. Geological Survey
San Leandro, Calif.
Photorevised 1980

P & D ENVIRONMENTAL
A Division of Paul H. King, Inc.
55 Santa Clara Avenue, Suite 240
Oakland, CA 94610
(510) 658-6916

0 1000 2000
SCALE IN FEET

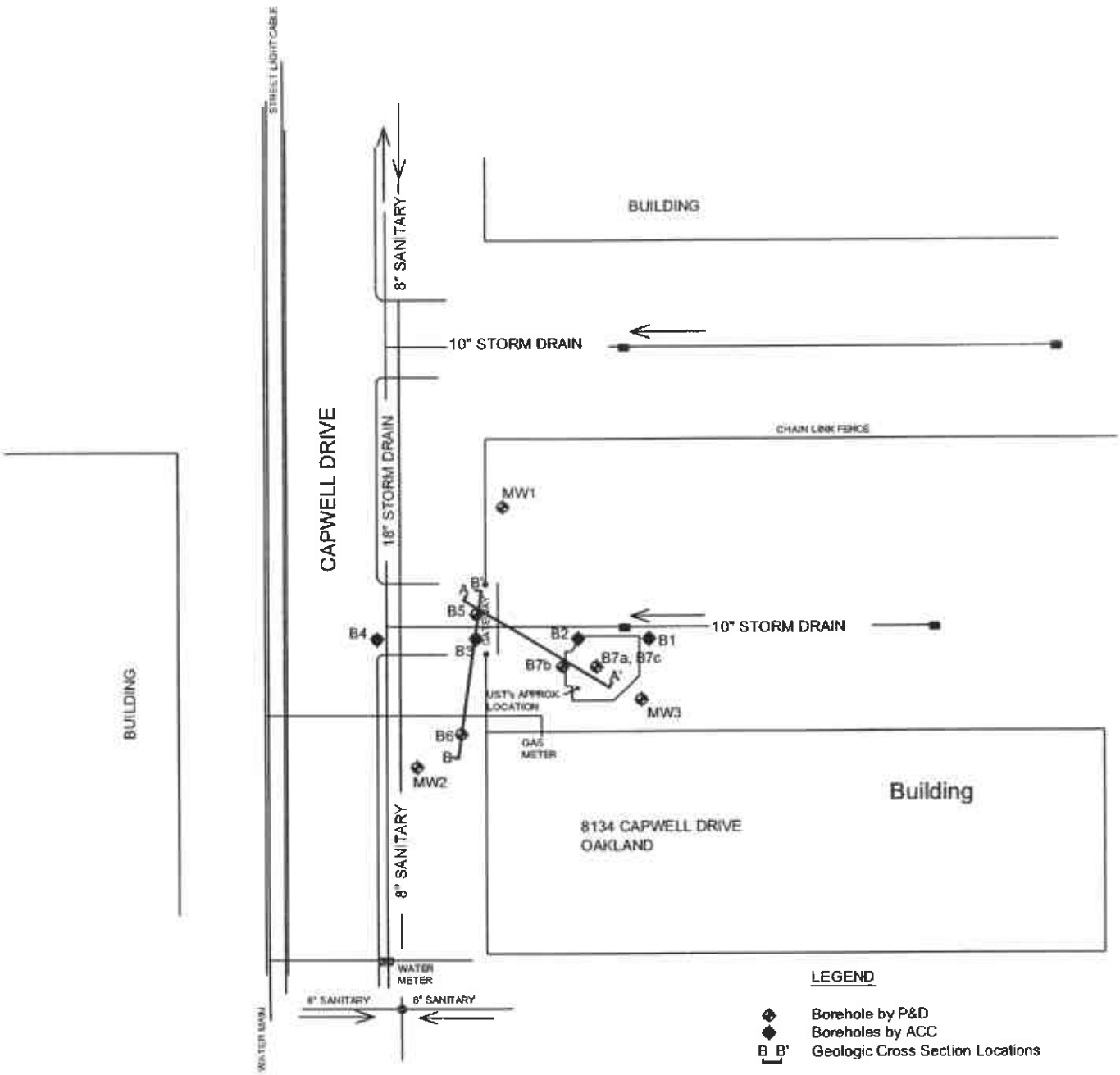

Figure 2
Site Vicinity Map Showing
Geologic Cross-Section Locations
8134 Capwell Drive
Oakland, California

N

Base Map From
California Utility Surveys
Feb. 14, 2005

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0 10 20 30 40 50
Scale In Feet

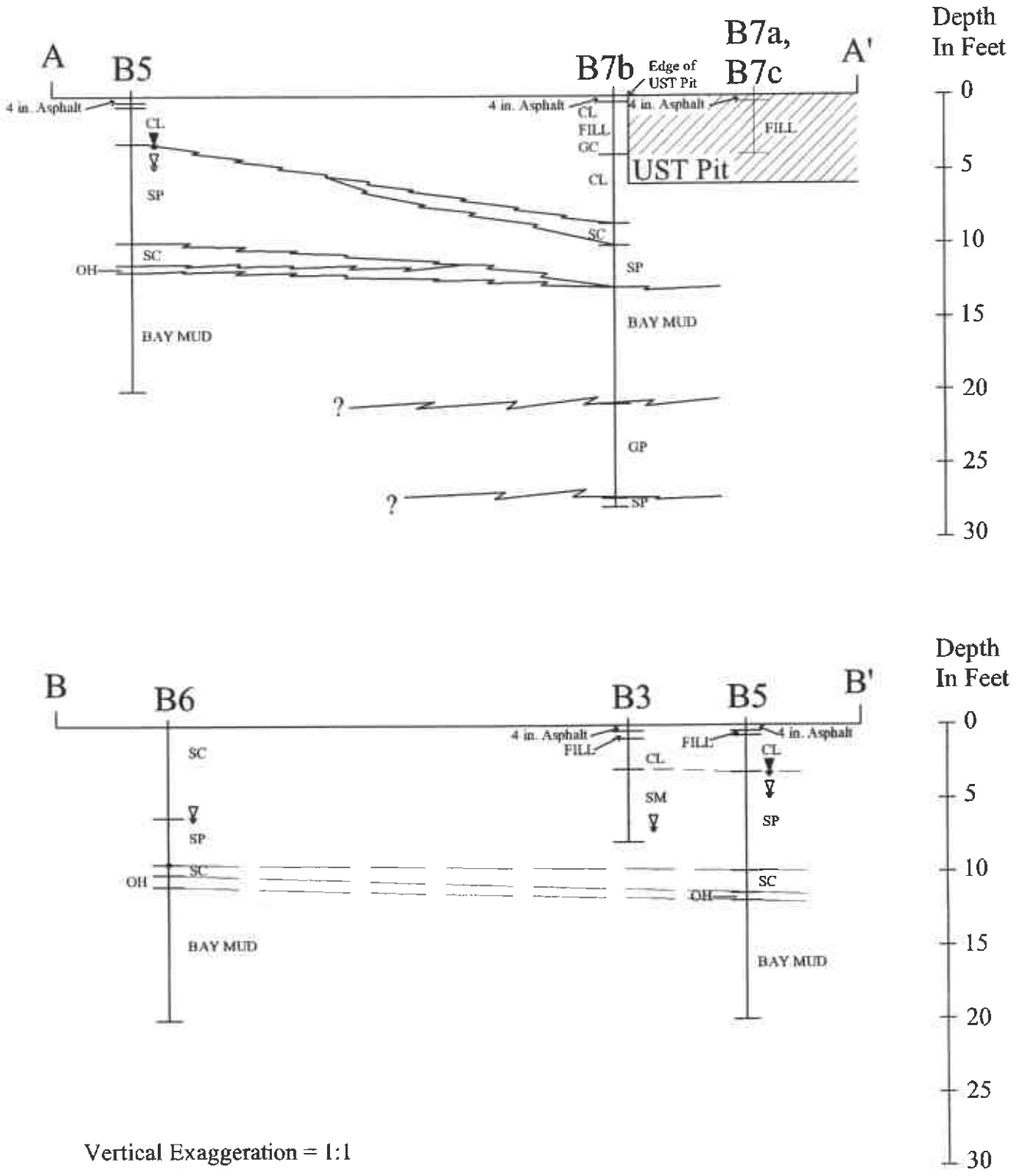

Figure 3
Geologic Cross-Sections
8134 Capwell Drive
Oakland, California

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0 10
Scale In Feet

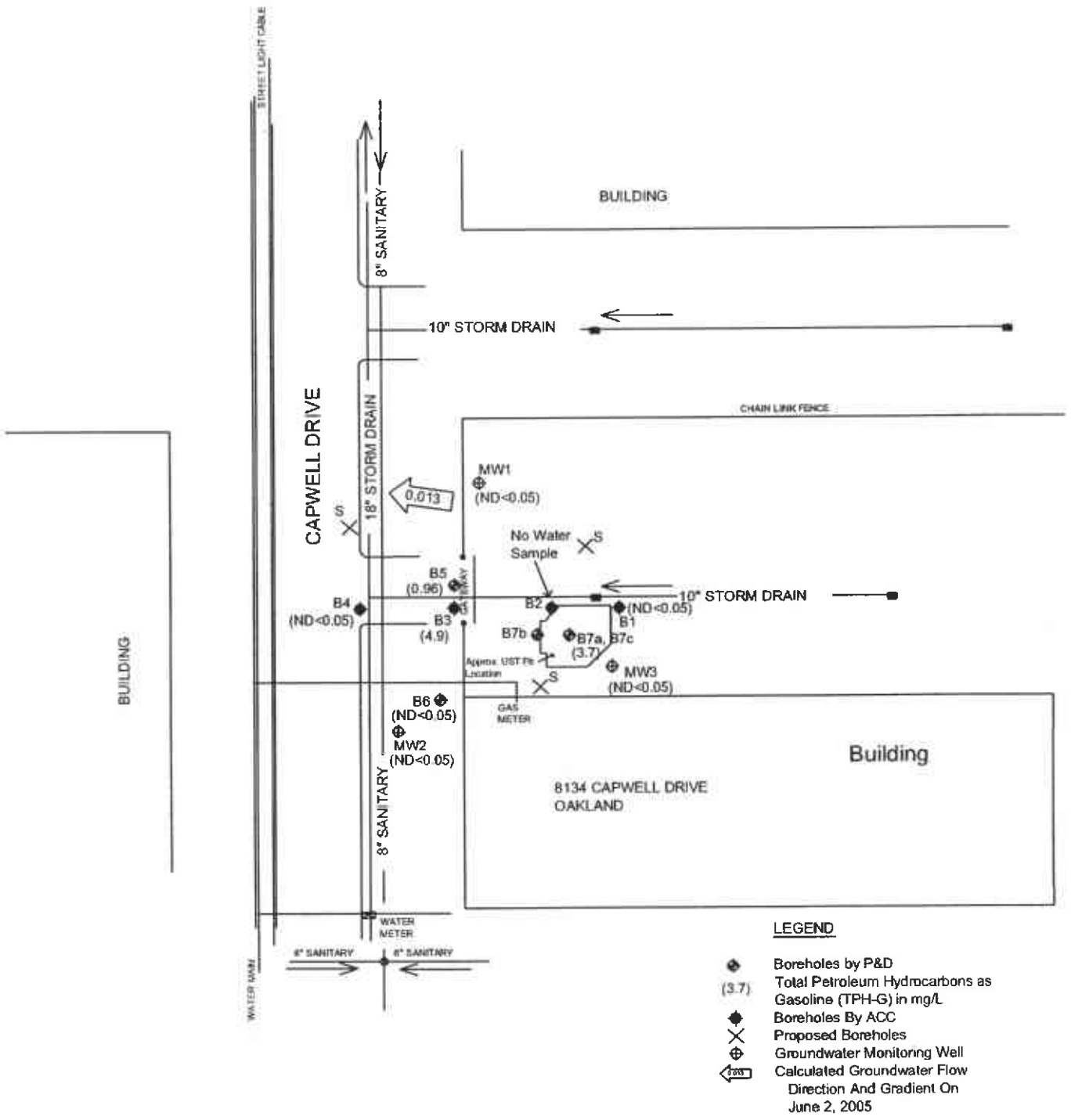

Figure 4
TPH-G Concentration in Groundwater at 8 Feet Below Ground Surface
8134 Capwell Drive
Oakland, California

N

Base Map From
California Utility Surveys
Feb. 14, 2005

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Oakland, CA 94610
(510) 658-6916

0 10 20 30 40 50
Scale In Feet

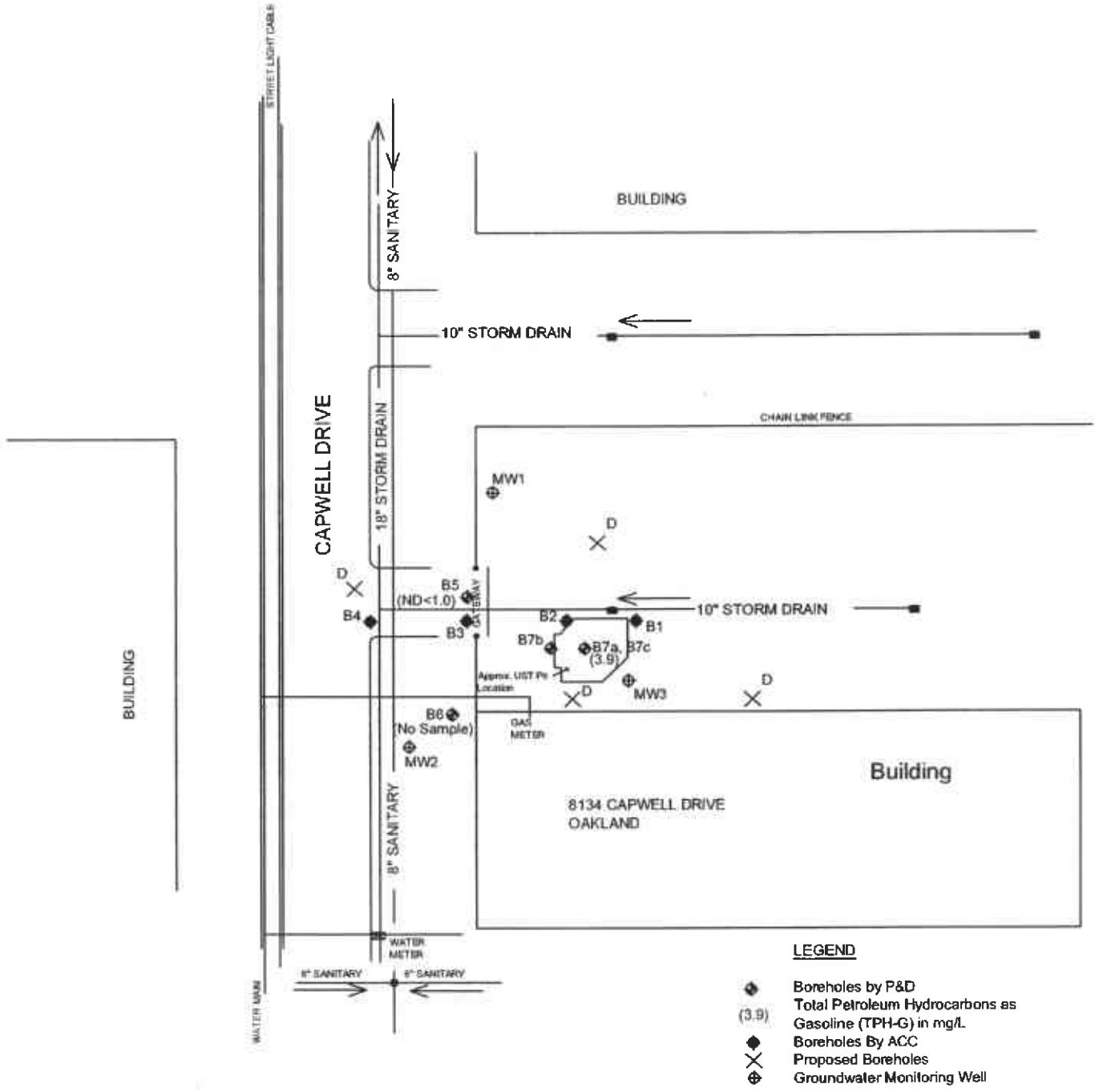

Figure 5
TPH-G Concentration in Groundwater at 20 or 28 Feet Below Ground Surface
8134 Capwell Drive
Oakland, California

N

Base Map From
California Utility Surveys
Feb. 14, 2005

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0 10 20 30 40 50
Scale In Feet

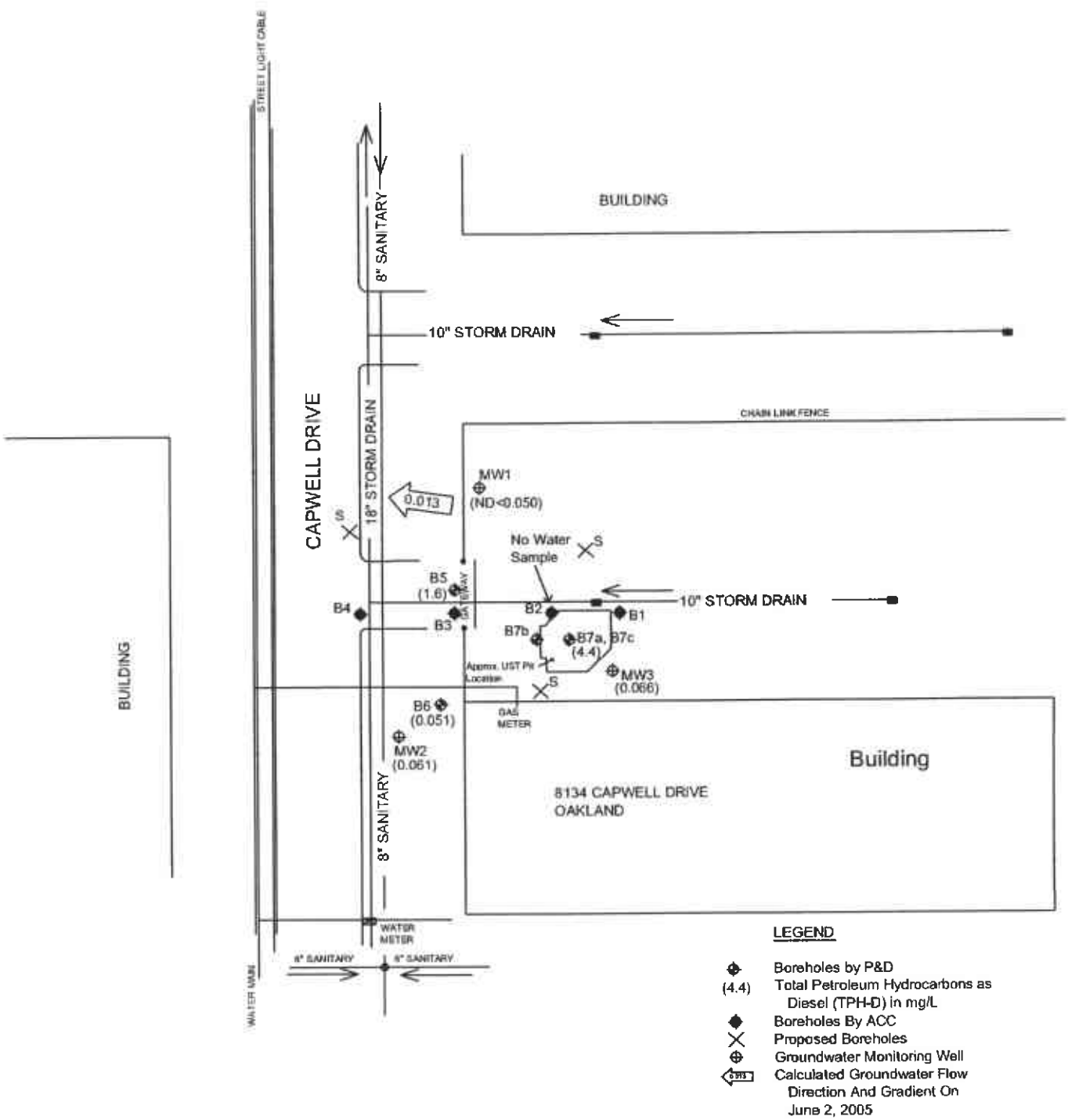

Figure 6
TPH-D Concentration in Goundwater at 8 Feet Below Ground Surface
and in Groundwater Monitoring Wells
8134 Capwell Drive
Oakland, California

N

Base Map From
California Utility Surveys
Feb. 14, 2005

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Oakland, CA 94610
(510) 658-6916

0 10 20 30 40 50
Scale In Feet

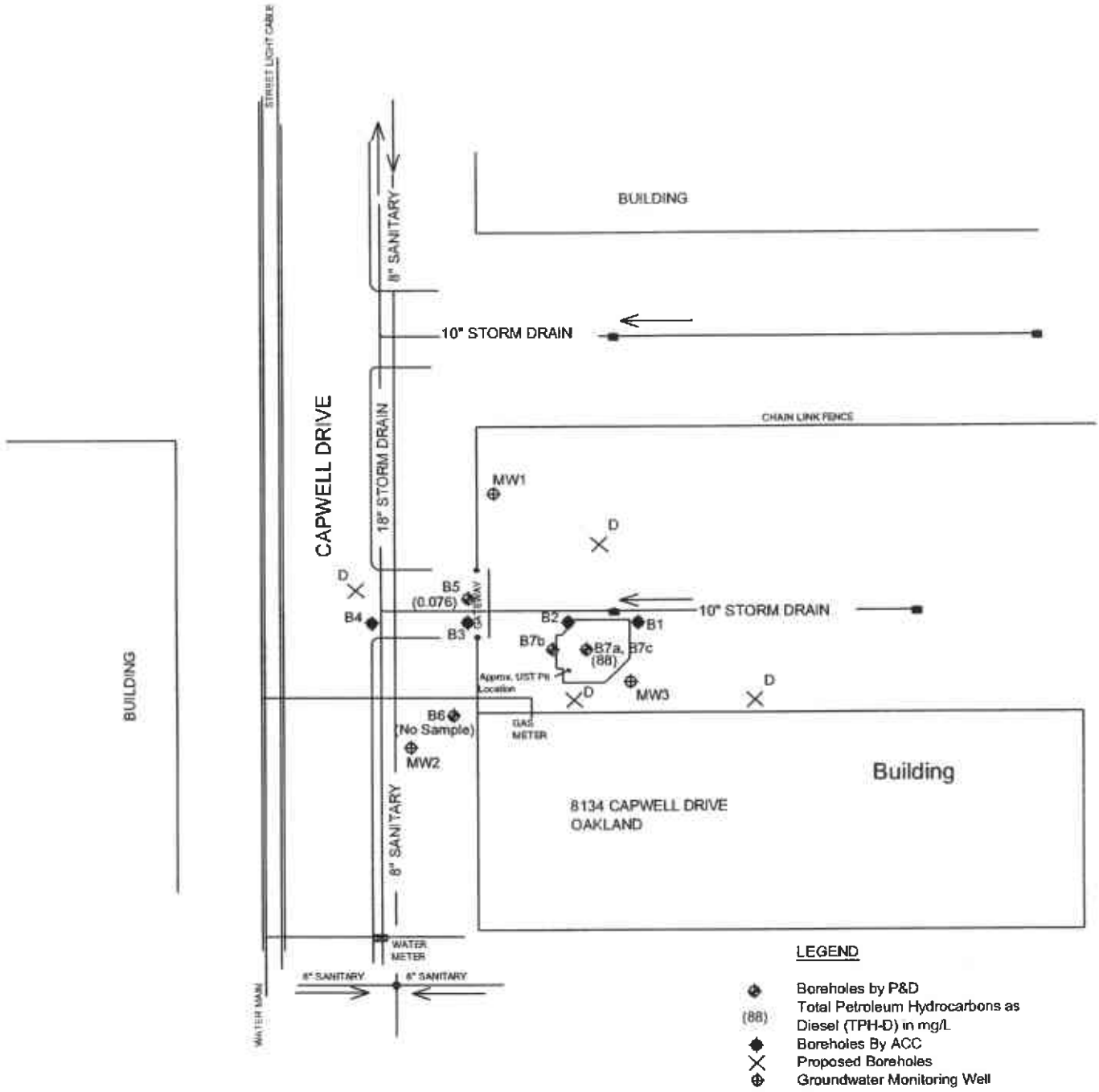

Figure 7
TPH-D Concentration in Groundwater at 20 or 28 Feet Below Ground Surface
8134 Capwell Drive
Oakland, California

N

Base Map From
California Utility Surveys
Feb. 14, 2005

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

0 10 20 30 40 50
Scale In Feet

P&D ENVIRONMENTAL

BORING NO.: B5/B5a	PROJECT NO.: 0363	PROJECT NAME: T.D. Rowe, Oakland	
BORING LOCATION: North side of driveway		ELEVATION AND DATUM: NONE	
DRILLING AGENCY: Vironex, Inc		DRILLER: Brandon	DATE & TIME STARTED: 4/26/05 / DATE & TIME FINISHED: 4/26/05
DRILLING EQUIPMENT: Geoprobe 5400			
COMPLETION DEPTH: 20.0 FEET		BEDROCK DEPTH: None encountered	LOGGED BY: WRW / CHECKED BY:
FIRST WATER DEPTH: 4.5 FEET		NO. OF SAMPLES: 4 soil, 2 water	

DEPTH (FT.)	DESCRIPTION	GRAPHIC COLUMN	WELL CONSTRUCTION LOG	BLOW COUNT PER 6"	PID	REMARKS
	4 in. Asphalt	FILL	No Well Constructed		0.0	Borehole B5 continuously cored using a 4-foot long 2-inch O.D. Geoprobe Macro-core barrel sampler. Samples collected in 4-foot intervals. The sampler was lined with 4-foot long 1 3/4-inch O.D. cellulose acetate tubes. First water encountered in borehole B5 at 4.5 ft. below the ground surface, 8:30am. Borehole B5a drilled at a horizontal distance of 1.5 feet from borehole B5 by pushing a Hydropunch to 20 feet and pulling back the rods to expose Hydropunch screen from 16 to 20 foot depth for collection of water sample B5-20-Water. Water measured in Hydropunch rods in borehole B5a after Hydropunch set at 16 to 20 foot interval.at 3.2 ft. below the ground surface, 9:30am.
	0.3 to 0.6 ft. Light brown sandy silt (FILL); medium stiff, dry. No Petroleum Hydrocarbon (PHC) odor.	CL			0.0	
	0.6 to 3.2 ft. Gray gravelly clay (CL); medium stiff, moist. Orange and white mottling. No PHC odor				0.0	
5	3.2 to 10.0 ft. Gray sand (SP); medium dense, moist. No PHC odor. Saturated below 4.5 ft.	SP			0.0	
10	10.0 to 11.5 ft. Gray clayey sand (SC); very loose, saturated. Possible oily odor, but no gasoline or diesel odor	SC			0.0	
	11.5 to 12.0 ft. Black and orange organic clay (OH); soft, moist. Abundant rootlets. Very sulfurous odor. No PHC odor.	OH			1	
15	12.0 to 20.0 ft. Gray clay (BAY MUD); very loose, saturated. Sulfurous odor. No PHC odor.	BAY MUD			0.0	
					0.0	
20	First water sample collected in continuous-cored borehole B5 open to 8.0 ft. by placing temporary slotted PVC casing in the borehole and using polyethylene tubing with a stainless steel foot valve. Following water sample collection the temporary PVC casing was removed and drilling resumed. Following completion of drilling in borehole B5 a borehole designated as B5a was drilled approximately 1.5 feet from borehole B5 and a Hydropunch was set at the 16 to 20-foot interval. The water sample was collected from the Hydropunch using polyethlylene tubing with a stainless steel foot valve and was designated as B5-20-Water. No PHC odor or sheen were detected in either water sample.					Borehole terminated at 20.0 feet. Borehole grouted 4/26/05 using neat cement.
25						
30						

P&D ENVIRONMENTAL

BORING NO.: B6/B6a	PROJECT NO.: 0363	PROJECT NAME: T.D. Rowe, Oakland	
BORING LOCATION: South side of driveway	ELEVATION AND DATUM: NONE		
DRILLING AGENCY: Vironex, Inc	DRILLER: Brandon	DATE & TIME STARTED: 4/26/05	DATE & TIME FINISHED: 4/26/05
DRILLING EQUIPMENT: Geoprobe 5400			
COMPLETION DEPTH: 20.0 FEET	BEDROCK DEPTH: None encountered	LOGGED BY: WRW	CHECKED BY:
FIRST WATER DEPTH: 6.3 FEET	NO. OF SAMPLES: 4 soil, 1 water		

DEPTH (FT.)	DESCRIPTION	GRAPHIC COLUMN	WELL CONSTRUCTION LOG	BLOW COUNT PER 6"	PID	REMARKS
0	0.0 to 6.3 ft. Orangish brown clayey, gravelly sand (SC); dense, slightly moist. No Petroleum Hydrocarbon (PHC) odor.	SC	No Well Constructed		0.0 0.0 0.0	Borehole B6 continuously cored using a 4-foot long 2-inch O.D. Geoprobe Macro-core barrel sampler. Samples collected in 4-foot intervals. The sampler was lined with 4-foot long 1 3/4-inch O.D. cellulose acetate tubes. First water encountered in B6 at 6.3 feet, 11:00am.
5	6.3 to 9.5 ft. Gray sand (SP); loose, saturated. No PHC odor.	SP			0.0	Water sample collected in continuous-cored borehole open to 8.0 ft. using slotted PVC casing and polyethylene tubing with a stainless steel foot valve.
10	9.5 to 10.2 ft. Gray clay (CL); soft, saturated. No PHC odor	CL			0.0	Borehole B6a drilled at a horizontal distance of 1.5 feet from borehole B6 by pushing a Hydropunch to 20 feet and pulling back the rods to expose Hydropunch screen from 16 to 20 foot depth. No water entered into the Hydropunch after waiting 1/2 hour. No water sample collected.
	10.2 to 11.0 ft. Orange Organic clay (OH); soft, wet. No PHC odor	OH			0.0	
15	11.0 to 20.0 ft. Gray clay (BAY MUD); very soft, saturated. No PHC odor.	BAY MUD			0.0	
20					0.0	
25	First water sample collected in continuous-cored borehole B6 open to 8.0 ft. by placing temporary slotted PVC casing in the borehole and using polyethylene tubing with a stainless steel foot valve. No PHC odor or sheen were detected in the water sample. Following water sample collection the temporary PVC casing was removed and drilling resumed. Following completion of drilling in borehole B6 a borehole designated as B6a was drilled approximately 1.5 feet from borehole B6 and a Hydropunch was set at the 16 to 20-foot interval. No water entered the Hydropunch and no water sample was collected.					Borehole terminated at 20.0 feet. Borehole grouted 4/26/05 using neat cement.
30						

P&D ENVIRONMENTAL

BORING NO.: B7a/B7c	PROJECT NO.: 0363	PROJECT NAME: T.D. Rowe, Oakland	
BORING LOCATION: Former UST pit		ELEVATION AND DATUM: NONE	
DRILLING AGENCY: Vironex, Inc		DRILLER: Brandon	DATE & TIME STARTED: 4/26/05 / DATE & TIME FINISHED: 4/26/05
DRILLING EQUIPMENT: Geoprobe 5400			
COMPLETION DEPTH: 28.0 FEET		BEDROCK DEPTH: None encountered	LOGGED BY: WRW / CHECKED BY:
FIRST WATER DEPTH: 5.0 FEET		NO. OF SAMPLES: 0 soil, 2 water	

DEPTH (FT.)	DESCRIPTION	GRAPHIC COLUMN	WELL CONSTRUCTION LOG	BLOW COUNT PER 6"	PID	REMARKS
	4 in. Asphalt	FILL	No Well Constructed		0.0	Borehole B7a attempted as continuous core using a 4-foot long 2-inch O.D. Geoprobe Macrocore barrel sampler. The sampler was lined with 4-foot long 1 3/4-inch O.D. cellulose acetate tubes. Borehole B7a collapsed to 2.5 ft. each time Macrocore tools removed from borehole. No recovery of soil from 4.0 to 8.0 ft. interval in B7a.
	For borehole B7a 0.3 to 4.0 ft. Light gray sandy, silty gravel (FILL); medium dense, dry. No Petroleum Hydrocarbon (PHC) odor.					
5	No recovery of soil from 4.0 to 8.0 ft. interval in borehole B7a drilled to 8.0 ft. Total depth of borehole B7a = 8.0 ft.					Water sample collected at 8.0 ft. in B7a using hydropunch with polyethylene tubing and stainless steel foot valve.
10	Hydropunch only to 28.0 ft. for borehole B7c.					Borehole B7c subsequently drilled for additional groundwater sample collection. No water encountered in borehole B7c hydropunched to 20.0 feet, approx. 12:10pm. Tools removed and new borehole B7c hydropunched to 28.0 feet, approx. 2:00pm. Water sample collected at 28.0 ft. using hydropunch and polyethylene tubing with stainless steel foot valve. (water depth not measured in deepest hydropunch).
15						
20						
25						Borehole B7a drilled in UST pit, used for collection of water sample at 8.0 feet (no soil recoverable in borehole). Borehole B7b drilled adjacent to western edge of UST pit, used for collection of soil samples to 28.0 feet. Borehole B7c drilled in UST pit, used for collection of water sample at 28.0 feet.
30						Boreholes B7a and B7c grouted 4/26/05 using neat cement.

P&D ENVIRONMENTAL

BORING NO.: B7b	PROJECT NO.: 0363	PROJECT NAME: T.D. Rowe, Oakland			
BORING LOCATION:	Approx. 1 ft. west of sawcut for UST pit.	ELEVATION AND DATUM: NONE			
DRILLING AGENCY:	Vironex, Inc	DRILLER: Brandon	DATE & TIME STARTED: 4/26/05	DATE & TIME FINISHED: 4/26/05	
DRILLING EQUIPMENT:	Geoprobe 5400				
COMPLETION DEPTH:	28.0 FEET	BEDROCK DEPTH: None encountered	LOGGED BY: WRW	CHECKED BY:	
FIRST WATER DEPTH:	6.1 FEET	NO. OF SAMPLES: 6 soil, 0 water			

DEPTH (FT.)	DESCRIPTION	GRAPHIC COLUMN	WELL CONSTRUCTION LOG	BLOW COUNT PER 6"	PID	REMARKS
	4 in. Asphalt 0.3 to 1.0 ft. Light brown sand (FILL); medium dense, slightly moist. No PHC odor	FILL	No Well Constructed		PID not working.	Borehole B7b continuously cored using a 4-foot long 2-inch O.D. Geoprobe Macro-core barrel sampler. Samples collected in 4-foot intervals. The sampler was lined with 4-foot long 1 3/4 inch O.D. cellulose acetate tubes. 90% recovery from 0-4 ft. 60% recovery from 4-8 ft. 9.5 to 9.8 ft. sand layer with strong PHC sheen and odor. First water encountered at approx. 10.3 ft., 1:30pm. 20% recovery from 8-12 ft. 20% recovery from 12-16 ft. 20% recovery from 16-20 ft. 60% recovery from 20-24 ft. (barell jammed) 80% recovery from 24-28 ft. (60% slough) No water sample collected from borehole (see B7a/B7c boring log). Borehole B7a, in UST pit, used for collection of water sample at 8.0 feet (no soil recoverable). Borehole B7b, adjacent to western edge of UST pit, used for collection of soil samples to 28.0 feet. Borehole B7c, in UST pit, used for collection of water sample at 28.0 feet.
	1.0 to 2.5 ft. Gray silty clay (CL); very stiff, slightly moist. Slight PHC odor.	CL				
	2.5 to 3.7 ft. Light brown sandy clayey gravel (GC); slightly moist. No PHC odor.	GC				
5	3.7 to Est. 9.0 ft. Black and gray silty clay (CL); stiff, moist. Strong PHC odor.	CL				
	Est. 9.0 to 10.3 ft. Black clayey sand (SC); loose, saturated. Strong PHC odor and sheen.		<SC			
10	Est. 10.3 to 13 ft. Gray fine sand (SP); medium dense, wet. Moderate PHC odor.	SP				
	Est. 13 to 21 ft. Gray clay (BAY MUD); stiff, wet. No PHC odor. (13 to 18 ft. Black colored + strong PHC odor) (18 to 21 ft. Gray colored + moderate to slight PHC odor)	BAY MUD				
15						
20	Est. 21 to 27 ft. Brown sandy gravel (GP); saturated. Possible slight PHC odor (odor observed by driller but not by P&D).	GP				
25	27 to 28 ft. Brown fine sand (SP); loose, saturated. No PHC odor.	SP				Borehole terminated at 28.0 feet. Borehole grouted 4/26/05 using neat cement.
30						

P&D ENVIRONMENTAL

BORING NO.: MW1	PROJECT NO.: 0363	PROJECT NAME: TD Rowe, Oakland	
BORING LOCATION: NW Corner of parking lot		ELEVATION AND DATUM: NONE	
DRILLING AGENCY: Exploration Geoservices	DRILLER: David Yeager & Chris	DATE & TIME STARTED: 5/17/05	DATE & TIME FINISHED: 5/17/05
DRILLING EQUIPMENT: Mobile B61			
COMPLETION DEPTH: 12 FEET	BEDROCK DEPTH: None encountered	LOGGED BY: WRW	CHECKED BY:
FIRST WATER DEPTH: Approx. 6 FEET	NO. OF SAMPLES: 2 Soil		

DEPTH (FT.)	DESCRIPTION	GRAPHIC COLUMN	WELL CONSTRUCTION LOG	BLOW COUNT PER 6"	PID	REMARKS
	2 inch Asphalt	FILL	See Well Construction Diagram			Borehole drilled with 7 1/2 in. O.D. hollow stem auger. Samples collected with a CA-Modified, split spoon sampler driver by 140 lb hammer falling 40 in.
	2 in. to 5.9 ft. Medium brown silty sand (SM); loose, moist. No PHC odor.	SM		2 3 5	0 0	
5	5.9 to 10.6 ft. Gray clayey sand (SC); loose, wet to saturated. No PHC odor (Sulfurous odor from 10.5 to 11.5 ft.)	SC				
10	10.6 to 12.0 ft Gray silty clay (BAY MUD); very soft, wet. Orange mottling & decaying vegetation. No PHC odor. (Strong sulfurous odor)	BAY MUD		2 1 1	0 0 12	
						Borehole terminated at 12.0 ft
15						
20						
25						
30						

P&D ENVIRONMENTAL

BORING NO.: MW2	PROJECT NO.: 0363	PROJECT NAME: TD Rowe, Oakland	
BORING LOCATION: Near Capwell Drive, South of driveway		ELEVATION AND DATUM: NONE	
DRILLING AGENCY: Exploration Geoservices	DRILLER: David Yeager & Chris	DATE & TIME STARTED: 5/17/05	DATE & TIME FINISHED: 5/17/05
DRILLING EQUIPMENT: Mobile B61			
COMPLETION DEPTH: 12 FEET	BEDROCK DEPTH: None encountered	LOGGED BY: WRW	CHECKED BY:
FIRST WATER DEPTH: Approx. 6 FEET	NO. OF SAMPLES: 2 Soil		

DEPTH (FT.)	DESCRIPTION	GRAPHIC COLUMN	WELL CONSTRUCTION LOG	BLOW COUNT PER 6"	PID	REMARKS
5	0 to 5.9 ft. Brown silty sand (SM); loose, moist. No PHC odor	SM	See Well Construction Diagram	2 3 5	0 0 0	Borehole drilled with 7 1/2 in. O.D. hollow stem auger. Samples collected with a CA-Modified, split spoon sampler driver by 140 lb hammer falling 40 in.
	5.9 to 9.5 ft. Gray clayey sand (SC); loose, wet to saturated. No PHC odor.	SC				
10	9.5 to 12.0 ft Gray silty clay (BAY MUD); very soft, wet. Orange mottling & decaying Vegetation. No PHC odor.	BAY MUD		1 1 1	0 0 0	
						Borehole terminated at 12.0 ft
15						
20						
25						
30						

P&D ENVIRONMENTAL

BORING NO.: MW3	PROJECT NO.: 0363	PROJECT NAME: TD Rowe, Oakland	
BORING LOCATION: Approx. 1 ft., SE of former UST pit		ELEVATION AND DATUM: NONE	
DRILLING AGENCY: Exploration Geoservices	DRILLER: David Yeager & Chris	DATE & TIME STARTED: 5/17/05	DATE & TIME FINISHED: 5/17/05
DRILLING EQUIPMENT: Mobile B61			
COMPLETION DEPTH: 12 FEET	BEDROCK DEPTH: None encountered	LOGGED BY: WRW	CHECKED BY:
FIRST WATER DEPTH: Approx. 5.5 FEET	NO. OF SAMPLES: 2 Soil		

DEPTH (FT.)	DESCRIPTION	GRAPHIC COLUMN	WELL CONSTRUCTION LOG	BLOW COUNT PER 6"	PID	REMARKS
0	2 inch Asphalt	FILL	See Well Construction Diagram			Borehole drilled with 7 1/2 in. O.D. hollow stem auger. Samples collected with a CA-Modified, split spoon sampler driver by 140 lb hammer falling 40 in.
	2 in. to 5.4 ft. Medium brown silty sand (SM); loose, moist. No PHC odor.	SM		5 3 3	0 0 0	
5	5.4 to ? ft. Gray clayey sand (SC); loose, wet. Moderate diesel odor. Oily sheen	SC				
10	? to 12.0 ft Gray clay (BAY MUD); very soft, wet. No PHC odor.	BAY MUD		1 1 1	0 0 0	
15						
20						
25						
30						

P & D ENVIRONMENTAL

A Division of Paul H. King, Inc.
55 Santa Clara Avenue, Suite 240
Oakland, CA 94610
(510) 658-6916

WELL CONSTRUCTION DIAGRAM

PROJECT NUMBER 0363

PROJECT NAME TD Rowe, Oakland

COUNTY Alameda

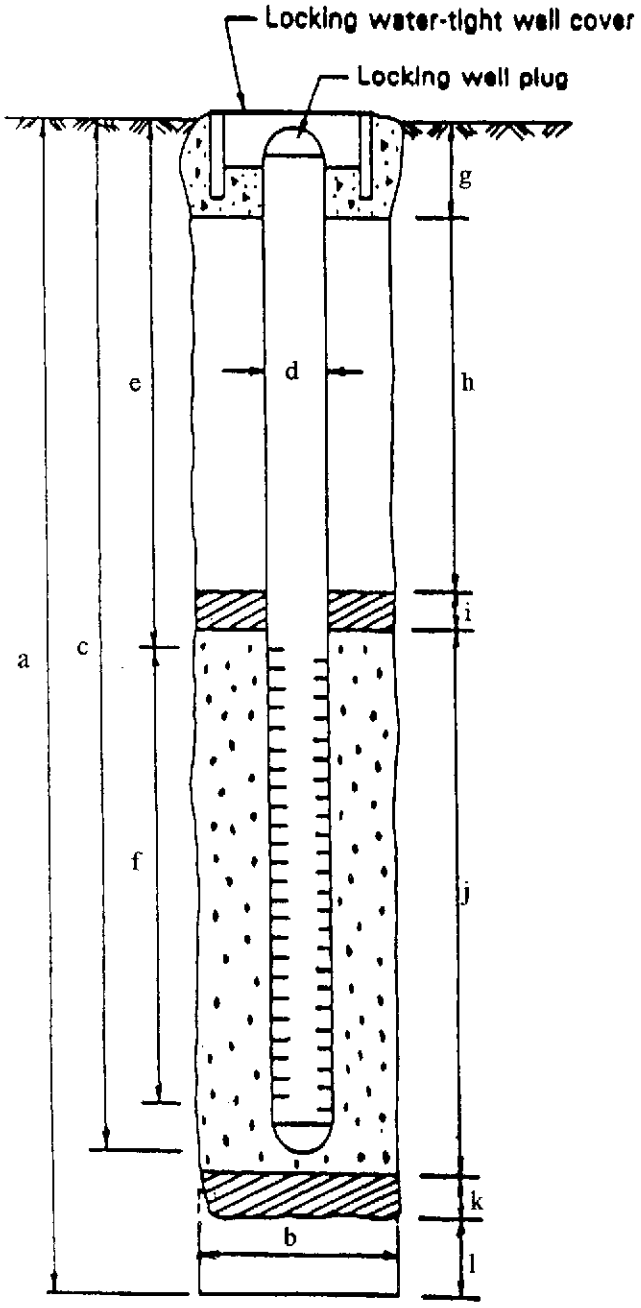
WELL PERMIT NO. W04-0452

BORING/WELL NO. MW1

TOP OF CASING ELEV. See attached

GROUND SURFACE ELEVATION See attached

DATUM See attached



EXPLORATORY BORING

a. Total depth 12 ft.

b. Diameter 7.5 in.

Drilling method Hollow Stem Auger

WELL CONSTRUCTION

c. Casing length 11.5 ft.

d. Material Schedule 40 PVC

d. Diameter 2 in.

e. Depth to top of perforations 4 ft.

f. Perforated length 7.5 ft

Perforated interval from 4 to 11.5 ft.

Perforation type factory slot

Perforation size 0.010 in.

g. Surface sanitary seal 1 ft.

Seal material concrete

h. Sanitary seal 1 ft.

Seal material neat cement

i. Filter pack seal 1 ft.

Seal material Bentonite pellet

j. Filter pack length 9 ft.

Filter pack interval from 3 to 12 ft.

k. Pack material #2/12 RMC Pacific sack sand

l. Bottom seal 0 ft.

Seal mateial None

l. Sluff in bottom of borehole 0 ft.

P & D ENVIRONMENTAL

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

WELL CONSTRUCTION DIAGRAM

PROJECT NUMBER 0363

PROJECT NAME TD Rowe, Oakland

COUNTY Alameda

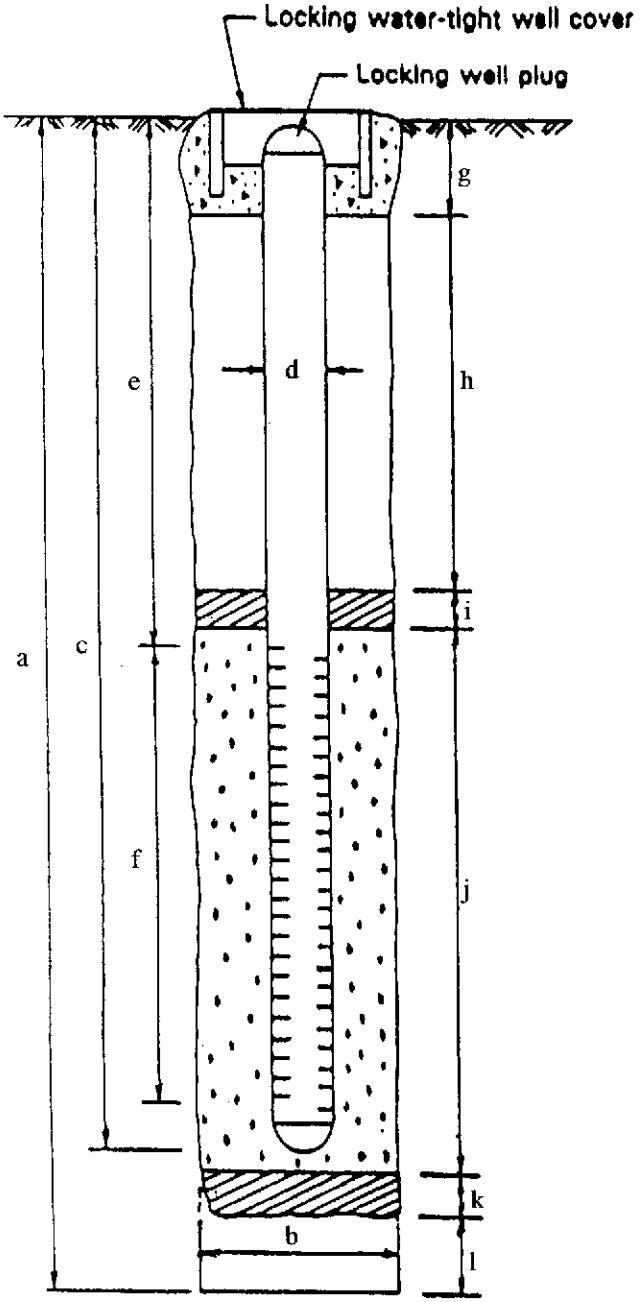
WELL PERMIT NO. W04-0453

BORING/WELL NO. MW2

TOP OF CASING ELEV. See attached

GROUND SURFACE ELEVATION See attached

DATUM See attached



EXPLORATORY BORING

a. Total depth 12 ft.

b. Diameter 7.5 in.

Drilling method Hollow Stem Auger

WELL CONSTRUCTION

c. Casing length 11.5 ft.

d. Material Schedule 40 PVC

d. Diameter 2 in.

e. Depth to top of perforations 4 ft.

f. Perforated length 7.5 ft

Perforated interval from 4 to 11.5 ft.

Perforation type factory slot

Perforation size 0.010 in.

g. Surface sanitary seal 1 ft.

Seal material concrete

h. Sanitary seal 1 ft.

Seal material neat cement

i. Filter pack seal 1 ft.

Seal material Bentonite pellet

j. Filter pack length 9 ft.

Filter pack interval from 3 to 12 ft.

k. Pack material #2/12 RMC Pacific sack sand

l. Bottom seal 0 ft.

Seal mateial None

l. Sluff in bottom of borehole 0 ft.

P & D ENVIRONMENTAL

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

WELL CONSTRUCTION DIAGRAM

PROJECT NUMBER 0363

PROJECT NAME TD Rowe, Oakland

COUNTY Alameda

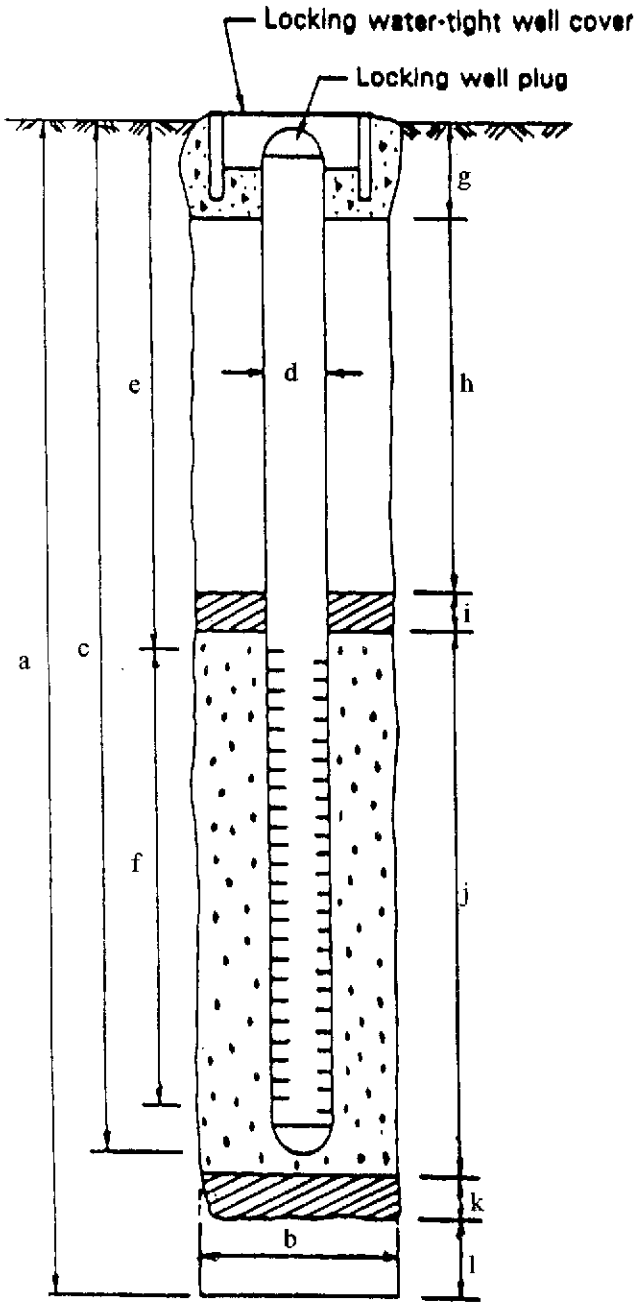
WELL PERMIT NO. W04-0454

BORING/WELL NO. MW3

TOP OF CASING ELEV. See attached

GROUND SURFACE ELEVATION See attached

DATUM See attached



EXPLORATORY BORING

a. Total depth 12 ft.

b. Diameter 7.5 in.

Drilling method Hollow Stem Auger

WELL CONSTRUCTION

c. Casing length 11.5 ft.

d. Material Schedule 40 PVC

d. Diameter 2 in.

e. Depth to top of perforations 4 ft.

f. Perforated length 7.5 ft

Perforated interval from 4 to 11.5 ft.

Perforation type factory slot

Perforation size 0.010 in.

g. Surface sanitary seal 1 ft.

Seal material concrete

h. Sanitary seal 1 ft.

Seal material neat cement

i. Filter pack seal 1 ft.

Seal material Bentonite pellet

j. Filter pack length 9 ft.

Filter pack interval from 3 to 12 ft.

k. Pack material #2/12 RMC Pacific sack sand

l. Bottom seal 0 ft.

Seal mateial None

l. Sluff in bottom of borehole 0 ft.

DATE: 5-25-05
JOB# A05539

TABLE OF ELEVATIONS & COORDINATES ON MONITORING WELLS FOR P & D ENVIRONMENTAL OF 8134 CAPWELL DRIVE OAKLAND, CA

WELL ID #	NORTHING (FT.) / LATITUDE (DEC.)	EASTING (FT.) / LONGITUDE (DEC.)	ELEVATION (FT.)	DESCRIPTION
MW-1	2095849.90	6069369.99	11.27	2" PVC, NOTCH N.SIDE
MW-1	37.73851396	-122.2025802	11.87	N. RIM
			11.87	AC
MW-2	2095763.64	6069391.15	11.75	2" PVC, NOTCH N.SIDE
	37.73827815	-122.2025016	12.35	N. RIM
			12.23	GROUND
MW-3	2095819.98	6069439.82	11.14	2" PVC, NOTCH N.SIDE
MW-3	37.73843527	-122.2023368	11.82	N. RIM
			11.78	AC

BENCH MARK: NGS BENCH MARK **PID# HT0280**

STATION DESCRIPTION

DESCRIBED BY NATIONAL GEODETIC SURVEY 1956
AT OAKLAND MUN AIRPORT.
AT OAKLAND MUNICIPAL AIRPORT, IN R3W T2S, ALONG EARHART DRIVE, AT THE ADMINISTRATION BUILDING PASSENGER TERMINAL, AT THE APPROXIMATE CENTER OF A SMALL ISLAND FOR A MONUMENT AND FLAG POLE, IN TOP OF THE SOUTH CORNER OF THE CONCRETE BASE FOR THE MONUMENT, 59.3 FEET NORTHEAST OF THE CENTER OF THE NORTHEAST MAIN ENTRANCE TO THE BUILDING, 20.0 FEET SOUTHWEST OF THE SOUTHWEST CURB OF THE DRIVE, AND ABOUT LEVEL WITH THE DRIVE.

ELEVATION 5.64', NAVD88

COORDINATE VALUES ARE BASED ON THE CALIFORNIA COORDINATE SYSTEM,ZONE III,NAD83 DATUM

Kier & Wright Engineers Surveyors, Inc.
1233 Quarry Lane, Suite 145, Pleasanton, CA 94566
Phone (925) 249-6555,
Fax (925) 249-6563

Well Development

P&D ENVIRONMENTAL
GROUNDWATER MONITORING/WELL PURGING
DATA SHEET

Site Name TD Lowe, Oakland
Job No. 0363
TOC to Water (ft.) —
Well Depth (ft.) ~~15~~ 12
Well Diameter 2 in.
Gal./Casing Vol. —

Well No. —
Date 5/27/05
Sheen —
Free Product Thickness —
Sample Collection Method —

TIME	Well No. ~~GAL. PURGED~~	Depth to Water (ft.) ~~pH~~	TEMPERATURE	ELECTRICAL CONDUCTIVITY
11:48	MW1	4.14	prior to purge	
11:53	"	4.12	" "	
12:13	"	~7	note: ~5 gal purged (~5 min. after well purged dry)	
12:18	"	~11.4	~10 gal purged (immed after well " ")	
12:24	"	~6	" " (6 min. after " ")	
15:15	"	4.22		
15:25	"	(out of range)		>3999 uS/cm
11:50	MW2	4.82	prior to purge	
13:33	"	4.87	" "	
14:14	"	8.9	~8 gal purged (immed. after well purged dry)	
14:21	"	4.9	" " 7 min. after " "	
15:35	"	(out of range)		>3999 uS/cm
11:52	MW3	3.33	prior to purge	
13:35	"	3.32	" "	
15:53	"	~9.3	~8 gal purged (immed. after well purged dry)	
15:56	"	4.0	" " 5 min. " "	
16:07	"	9.8	~15 gal purged (immed after " "	
16:10	"	5.7	" " 3 min. " ")	
17:20	"	(out of range)		>3999 uS/cm

NOTES: TDS to EC conv factor on meter set at 0.5

PURGE10.92

Monitoring Water Levels only

P&D ENVIRONMENTAL
GROUNDWATER MONITORING/WELL PURGING
DATA SHEET

Site Name TD Rowe, Oakland
Job No. 0563
TOC to Water (ft.)
Well Depth (ft.)
Well Diameter
Gal./Casing Vol.

Well No.
Date 5/31/05
Sheen
Free Product Thickness
Sample Collection Method

TIME	GAL. PURGED	well No.	pH	depth to water (ft.) TEMPERATURE	ELECTRICAL CONDUCTIVITY
4:30 pm		MW1	4.26		
4:32		MW2	4.93		
4:33		MW3	3.39		

NOTES:

PURGE10.92

Monitoring Water Levels Only

P&D ENVIRONMENTAL
GROUNDWATER MONITORING/WELL PURGING
DATA SHEET

Site Name ID Rowe Oakland
Job No. 0363
TOC to Water (ft.)
Well Depth (ft.)
Well Diameter
Gal./Casing Vol.

Well No.
Date 6/1/05
Sheen
Free Product Thickness
Sample Collection Method

well No. depth to water (ft.)

TIME	~~GAL. PURGED~~	~~pH~~	TEMPERATURE	ELECTRICAL CONDUCTIVITY
4:08 pm	MW1	4.22		
4:09	MW2	4.94		
4:10	MW3	3.37		

NOTES:

PURGE10.92

Water level and conductivity using down-hole probe

P&D ENVIRONMENTAL
GROUNDWATER MONITORING/WELL PURGING
DATA SHEET

Site Name T.I. Power, Oakland
Job No. 0363
TOC to Water (ft.) —
Well Depth (ft.) —
Well Diameter —
Gal./Casing Vol. —

Well No. —
Date 6/2/05
Sheen —
Free Product Thickness —
Sample Collection Method —

TIME	GAL. PURGED	Well No. / Depth to Water (ft.) pH	TEMPERATURE	ELECTRICAL CONDUCTIVITY (µS/cm)
4:56 pm	~~3~~ MW1	4.24		
5:07	"			9,970
5:10	MW2	4.96		
5:11	"			8,390
5:13	MW3	3.43		6,290
5:14	"			

NOTES: well caps open prior to arrival on site.

PURGE10.92

P&D ENVIRONMENTAL
GROUNDWATER MONITORING/WELL PURGING
DATA SHEET

Site Name TD Rowe, Oakland
Job No. 0363
TOC to Water (ft.) 4.30
Well Depth (ft.) 11.5
Well Diameter 2 in.
Gal./Casing Vol. 7.2 1.2
$\pi = 3.6$

Well No. MW1
Date 6/6/05
Sheen None
Free Product Thickness Ø
Sample Collection Method Teflon bailer

TIME	GAL. PURGED	pH	TEMPERATURE (°C)	ELECTRICAL CONDUCTIVITY (mS/cm)
11:16am	~~0.5~~ 1.0	6.01	21.5	16.26
	~~1.0~~		~~21.2~~	
	~~1.5~~			
11:17	2.0	6.11	21.2	13.01
11:19	3.0	6.31	~~22.0~~ 21.3	14.24
11:22	4.0	6.33	21.3	16.37
11:26	6.0	6.31	21.4	16.53
11:30	Sampling time			

1 mS = 1000 µS

NOTES: No PHC sheen or odor on purge water. (pH taken w/ Hanna meter, Temp & cond taken w/ Oakton meter)

PURGE10.92

P&D ENVIRONMENTAL
GROUNDWATER MONITORING/WELL PURGING
DATA SHEET

Site Name TD Rowe, Oakland
Job No. 0363
TOC to Water (ft.) 4.97
Well Depth (ft.) 11.5
Well Diameter 2 in.
Gal./Casing Vol. 1 Σ = 3.3

Well No. MW2
Date 6/6/05
Sheen None
Free Product Thickness 0
Sample Collection Method Teflon bailer

TIME	GAL. PURGED	pH	TEMPERATURE (°C)	ELECTRICAL CONDUCTIVITY (mS/cm)
12:04	~~0.5~~ 1.0	6.27	21.8	16.16
	~~1.0~~			
	~~1.5~~			
12:05	2.0	6.18	18.6	9.80
12:06	3.0	6.69	17.9	9.77
12:07	4.0	6.69	18.7	11.66
12:09	5.0	6.69	18.5	11.03
12:10	6.0	6.69	17.8	8.82
12:15	Sampling	time		

1 mS = 1000 mS

NOTES: No PHC odor or sheen on purge water.

PURGE10.92

P&D ENVIRONMENTAL
GROUNDWATER MONITORING/WELL PURGING
DATA SHEET

Site Name TI Rowe Oakland
Job No. 0363
TOC to Water (ft.) 3.48
Well Depth (ft.) 11.5
Well Diameter 2 in.
Gal./Casing Vol. 1.3
Σ = 3.9

Well No. MW3
Date 6/6/05
Sheen None
Free Product Thickness Ø
Sample Collection Method Teflon bailer

TIME	GAL. PURGED	pH	TEMPERATURE (°C)	ELECTRICAL CONDUCTIVITY (mS/cm)
12:39	1.0	~~6.69~~	~~6.69~~ 22.4	12.10
12:41	2.0	6.52	20.0	7.58
	~~3.0~~			
12:42	4.0	6.51	19.5	7.12
12:43	5.0	6.56	19.8	11.25
12:44	5.5	6.58	19.6	10.43
12:50	Sampling time			

~~mS~~
1mS = 1000µS

NOTES: No PHC odor or sheen on purge water. Less sediment in MW3 than in MW1 & MW2 purge water.
(All readings taken w/ Oakton meter.)
(Hanna pH value apparently stuck at 6.69.)

PURGE10.92

McCampbell Analytical, Inc.

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

P & D Environmental 55 Santa Clara, Ste.240 Oakland, CA 94610	Client Project ID: #0363; T.D. Rowe, Oakland	Date Sampled: 04/26/05
		Date Received: 04/27/05
	Client Contact: Wilhelm Welzenbach	Date Extracted: 04/27/05
	Client P.O.:	Date Analyzed: 04/27/05-04/28/05

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

Extraction method: SW5030B Analytical methods: 8015Cm Work Order: 0504397

Lab ID	Client ID	Matrix	TPH(g)	DF	% SS
001A	B5-4.5	S	5.9,b,m	1	85
002A	B5-10.0	S	ND	1	104
003A	B5-15.0	S	ND	1	90
005A	B6-5.0	S	ND	1	80
006A	B6-10.0	S	ND	1	82
007A	B6-15.0	S	ND	1	98
009A	B7b-5.0	S	86,a	1	103
010A	B7b-10.0	S	160,b,m	40	83
011A	B7b-15.0	S	4.5,b,m	1	118
012A	B7b-19.5	S	2.2,b,m	1	86
013A	B7b-23.0	S	ND	1	82
014A	B7b-27.5	S	ND	1	80

Reporting Limit for DF =1; ND means not detected at or above the reporting limit	W	NA	NA
	S	1.0	mg/Kg

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

cluttered chromatogram; sample peak coelutes with surrogate peak.

+The following descriptions of the TPH chromatogram are cursory in nature and McCampbell Analytical is not responsible for their interpretation: a) unmodified or weakly modified gasoline is significant; b) heavier gasoline range compounds are significant(aged gasoline?); c) lighter gasoline range compounds (the most mobile fraction) are significant; d) gasoline range compounds having broad chromatographic peaks are significant; biologically altered gasoline?; e) TPH pattern that does not appear to be derived from gasoline (stoddard solvent / mineral spirit?); f) one to a few isolated non-target peaks present; g) strongly aged gasoline or diesel range compounds are significant; h) lighter than water immiscible sheen/product is present; i) liquid sample that contains greater than ~1 vol. % sediment; j) reporting limit raised due to high MTBE content; k) TPH pattern that does not appear to be derived from gasoline (aviation gas). m) no recognizable pattern; n) TPH(g) range non-target isolated peaks subtracted out of the TPH(g) concentration at the client's request.

DHS Certification No. 1644

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P & D Environmental	Client Project ID: #0363; T.D. Rowe, Oakland	Date Sampled: 04/26/05
55 Santa Clara, Ste.240		Date Received: 04/27/05
Oakland, CA 94610	Client Contact: Wilhelm Welzenbach	Date Extracted: 04/28/05-04/29/05
	Client P.O.:	Date Analyzed: 04/28/05-04/29/05

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

Extraction method: SW5030B Analytical methods: 8015Cm Work Order: 0504397

Lab ID	Client ID	Matrix	TPH(g)	DF	% SS
015A	B5-8.0 Water	W	960,a,i	1	113
016A	B5-20.0 Water	W	ND,i	1	98
017A	B6-8.0 Water	W	ND,i	1	93
018A	B7-8.0 Water	W	3700,b,i	10	101
019A	B7-28.0 Water	W	3900,b,i	10	104

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

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

cluttered chromatogram; sample peak coelutes with surrogate peak.

+The following descriptions of the TPH chromatogram are cursory in nature and McCampbell Analytical is not responsible for their interpretation: a) unmodified or weakly modified gasoline is significant; b) heavier gasoline range compounds are significant(aged gasoline?); c) lighter gasoline range compounds (the most mobile fraction) are significant; d) gasoline range compounds having broad chromatographic peaks are significant; biologically altered gasoline?; e) TPH pattern that does not appear to be derived from gasoline (stoddard solvent / mineral spirit?); f) one to a few isolated non-target peaks present; g) strongly aged gasoline or diesel range compounds are significant; h) lighter than water immiscible sheen/product is present; i) liquid sample that contains greater than ~1 vol. % sediment; j) reporting limit raised due to high MTBE content; k) TPH pattern that does not appear to be derived from gasoline (aviation gas). m) no recognizable pattern; n) TPH(g) range non-target isolated peaks subtracted out of the TPH(g) concentration at the client's request.

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P & D Environmental 55 Santa Clara, Ste.240 Oakland, CA 94610	Client Project ID: #0363; T.D. Rowe, Oakland	Date Sampled: 04/26/05
		Date Received: 04/27/05
	Client Contact: Wilhelm Welzenbach	Date Extracted: 04/27/05
	Client P.O.:	Date Analyzed: 04/28/05-05/03/05

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

Extraction method: SW3550C Analytical methods: SW8015C Work Order: 0504397

Lab ID	Client ID	Matrix	TPH(d)	TPH(mo)	DF	% SS
0504397-001A	B5-4.5	S	2.9,d	ND	1	106
0504397-002A	B5-10.0	S	1.4,b	ND	1	103
0504397-003A	B5-15.0	S	1.1,b	ND	1	94
0504397-005A	B6-5.0	S	ND	ND	1	94
0504397-006A	B6-10.0	S	ND	ND	1	94
0504397-007A	B6-15.0	S	2.0,b	ND	1	112
0504397-009A	B7b-5.0	S	12,d,b	ND	1	105
0504397-010A	B7b-10.0	S	61,d,b	ND<25	5	92
0504397-011A	B7b-15.0	S	2.6,d	ND	1	94
0504397-012A	B7b-19.5	S	4.4,d	ND	1	95
0504397-013A	B7b-23.0	S	ND	ND	1	94
0504397-014A	B7b-27.5	S	ND	ND	1	98

Reporting Limit for DF =1; ND means not detected at or above the reporting limit	W	NA	NA	ug/L
	S	1.0	5.0	mg/Kg

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

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

+The following descriptions of the TPH chromatogram are cursory in nature and McCampbell Analytical is not responsible for their interpretation: a) unmodified or weakly modified diesel is significant; b) diesel range compounds are significant; no recognizable pattern; c) aged diesel? is significant); d) gasoline range compounds are significant; e) unknown medium boiling point pattern that does not appear to be derived from diesel (asphalt?); f) one to a few isolated peaks present; g) oil range compounds are significant; h) lighter than water immiscible sheen/product is present; i) liquid sample that contains greater than ~1 vol. % sediment; k) kerosene/kerosene range; l) bunker oil; m) fuel oil; n) stoddard solvent/mineral spirit.

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P & D Environmental 55 Santa Clara, Ste.240 Oakland, CA 94610	Client Project ID: #0363; T.D. Rowe, Oakland	Date Sampled: 04/26/05
		Date Received: 04/27/05
	Client Contact: Wilhelm Welzenbach	Date Extracted: 04/27/05
	Client P.O.:	Date Analyzed: 04/28/05-04/30/05

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

Extraction method: SW3510C Analytical methods: SW8015C Work Order: 0504397

Lab ID	Client ID	Matrix	TPH(d)	TPH(mo)	DF	% SS
0504397-015A	B5-8.0 Water	W	1600,d,b,g,i	430	1	109
0504397-016A	B5-20.0 Water	W	76,b,f,i	ND	1	95
0504397-017A	B6-8.0 Water	W	51,b,f,i	ND	1	97
0504397-018A	B7-8.0 Water	W	4400,d,b,g,i	390	1	113
0504397-019A	B7-28.0 Water	W	88,000,d,b,i	ND<5000	20	119

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

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

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

+The following descriptions of the TPH chromatogram are cursory in nature and McCampbell Analytical is not responsible for their interpretation: a) unmodified or weakly modified diesel is significant; b) diesel range compounds are significant; no recognizable pattern; c) aged diesel? is significant); d) gasoline range compounds are significant; e) unknown medium boiling point pattern that does not appear to be derived from diesel; f) one to a few isolated peaks present; g) oil range compounds are significant; h) lighter than water immiscible sheen/product is present; i) liquid sample that contains greater than ~1 vol. % sediment; k) kerosene/kerosene range; l) bunker oil; m) fuel oil; n) stoddard solvent/mineral spirit.

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P & D Environmental 55 Santa Clara, Ste.240 Oakland, CA 94610	Client Project ID: #0363; T.D. Rowe, Oakland	Date Sampled: 04/26/05
		Date Received: 04/27/05
	Client Contact: Wilhelm Welzenbach	Date Extracted: 04/27/05-05/02/05
	Client P.O.:	Date Analyzed: 04/29/05-05/02/05

Oxygenates and BTEX by GC/MS*

Extraction Method: SW5030B | Analytical Method: SW8260B | Work Order: 0504397

Lab ID	0504397-015B	0504397-016B	0504397-017B	0504397-018B	Reporting Limit for DF =1	
Client ID	B5-8.0 Water	B5-20.0 Water	B6-8.0 Water	B7-8.0 Water		
Matrix	W	W	W	W		
DF	1	1	1	5	S	W
Compound	**Concentration**				mg/kg	µg/L
tert-Amyl methyl ether (TAME)	ND	ND	ND	ND<2.5	0.005	0.5
Benzene	2.1	ND	ND	ND<2.5	0.005	0.5
t-Butyl alcohol (TBA)	ND	ND	ND	ND<25	0.025	5.0
1,2-Dibromoethane (EDB)	ND	ND	ND	ND<2.5	0.005	0.5
1,2-Dichloroethane (1,2-DCA)	ND	ND	ND	ND<2.5	0.005	0.5
Diisopropyl ether (DIPE)	ND	ND	ND	ND<2.5	0.005	0.5
Ethylbenzene	3.2	ND	ND	90	0.005	0.5
Ethyl tert-butyl ether (ETBE)	ND	ND	ND	ND<2.5	0.005	0.5
Methyl-t-butyl ether (MTBE)	43	2.4	0.57	3.7	0.005	0.5
Toluene	0.80	0.61	3.0	ND<2.5	0.005	0.5
Xylenes	0.86	ND	ND	290	0.005	0.5
Surrogate Recoveries (%)						
%SS1:	100	107	105	101		
%SS2:	99	99	100	101		
%SS3:	91	100	105	91		
Comments	i	i	i	i		

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

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

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

h) lighter than water immiscible sheen/product is present; i) liquid sample that contains greater than ~1 vol. % sediment; j) sample diluted due to high organic content/matrix interference; k) reporting limit near, but not identical to our standard reporting limit due to variable Encore sample weight; m) reporting limit raised due to insufficient sample amount; n) results are reported on a dry weight basis; p) see attached narrative.

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P & D Environmental 55 Santa Clara, Ste.240 Oakland, CA 94610	Client Project ID: #0363; T.D. Rowe, Oakland	Date Sampled: 04/26/05
		Date Received: 04/27/05
	Client Contact: Wilhelm Welzenbach	Date Extracted: 04/27/05-05/02/05
	Client P.O.:	Date Analyzed: 04/29/05-05/02/05

Oxygenates and BTEX by GC/MS*

Extraction Method: SW5030B | Analytical Method: SW8260B | Work Order: 0504397

					Reporting Limit for DF =1	
Lab ID	0504397-019B					
Client ID	B7-28.0 Water					
Matrix	W					
DF	2				S	W
Compound	**Concentration**				mg/kg	µg/L
tert-Amyl methyl ether (TAME)	ND<1.0				0.005	0.5
Benzene	4.5				0.005	0.5
t-Butyl alcohol (TBA)	ND<10				0.025	5.0
1,2-Dibromoethane (EDB)	ND<1.0				0.005	0.5
1,2-Dichloroethane (1,2-DCA)	ND<1.0				0.005	0.5
Diisopropyl ether (DIPE)	ND<1.0				0.005	0.5
Ethylbenzene	67				0.005	0.5
Ethyl tert-butyl ether (ETBE)	ND<1.0				0.005	0.5
Methyl-t-butyl ether (MTBE)	ND<1.0				0.005	0.5
Toluene	1.5				0.005	0.5
Xylenes	100				0.005	0.5
Surrogate Recoveries (%)						
%SS1:	102					
%SS2:	103					
%SS3:	93					
Comments	i					

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

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

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

h) lighter than water immiscible sheen/product is present; i) liquid sample that contains greater than ~1 vol. % sediment; j) sample diluted due to high organic content/matrix interference; k) reporting limit near, but not identical to our standard reporting limit due to variable Encore sample weight; m) reporting limit raised due to insufficient sample amount; n) results are reported on a dry weight basis; p) see attached narrative.

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QC SUMMARY REPORT FOR SW8021B/8015Cm

W.O. Sample Matrix: Water QC Matrix: Water WorkOrder: 0504397

EPA Method: SW8021B/8015Cm **Extraction: SW5030B** **BatchID: 16000** **Spiked Sample ID: 0504382-012A**

Analyte	Sample	Spiked	MS	MSD	MS-MSD	LCS	LCSD	LCS-LCSD	Acceptance Criteria (%)	
	µg/L	µg/L	% Rec.	% Rec.	% RPD	% Rec.	% Rec.	% RPD	MS / MSD	LCS / LCSD
TPH(btex) £	ND	60	97.4	93.9	3.72	92.6	92.2	0.497	70 - 130	70 - 130
MTBE	ND	10	89.2	91.3	2.31	96.7	95.6	1.14	70 - 130	70 - 130
Benzene	ND	10	99.9	105	5.31	99.5	102	2.18	70 - 130	70 - 130
Toluene	ND	10	99	104	4.60	96	97	0.988	70 - 130	70 - 130
Ethylbenzene	ND	10	104	107	3.52	99.7	102	2.19	70 - 130	70 - 130
Xylenes	ND	30	91.3	95.3	4.29	87	90.7	4.13	70 - 130	70 - 130
%SS:	102	10	112	114	2.17	111	113	1.98	70 - 130	70 - 130

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

NONE

BATCH 16000 SUMMARY

Sample ID	Date Sampled	Date Extracted	Date Analyzed	Sample ID	Date Sampled	Date Extracted	Date Analyzed
0504397-015A	4/26/05	4/28/05	4/28/05 3:21 AM	0504397-016A	4/26/05	4/29/05	4/29/05 6:26 AM
0504397-017A	4/26/05	4/28/05	4/28/05 4:26 AM	0504397-018A	4/26/05	4/28/05	4/28/05 4:59 AM
0504397-019A	4/26/05	4/28/05	4/28/05 5:32 AM				

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

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

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

£ TPH(btex) = sum of BTEX areas from the FID.

cluttered chromatogram; sample peak coelutes with surrogate peak.

N/A = not applicable or not enough sample to perform matrix spike and matrix spike duplicate.

NR = analyte concentration in sample exceeds spike amount for soil matrix or exceeds 2x spike amount for water matrix or sample diluted due to high matrix or analyte content.

DHS Certification No. 1644

QA/QC Officer

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QC SUMMARY REPORT FOR SW8015C

W.O. Sample Matrix: Soil QC Matrix: Soil WorkOrder: 0504397

EPA Method: SW8015C	Extraction: SW3550C	BatchID: 15978	Spiked Sample ID: 0504349-003A

Analyte	Sample	Spiked	MS	MSD	MS-MSD	LCS	LCSD	LCS-LCSD	Acceptance Criteria (%)	
	mg/Kg	mg/Kg	% Rec.	% Rec.	% RPD	% Rec.	% Rec.	% RPD	MS / MSD	LCS / LCSD
TPH(d)	3.3	20	110	111	0.388	108	110	1.81	70 - 130	70 - 130
%SS:	102	50	103	103	0	101	102	0.523	70 - 130	70 - 130

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

NONE

BATCH 15978 SUMMARY

Sample ID	Date Sampled	Date Extracted	Date Analyzed	Sample ID	Date Sampled	Date Extracted	Date Analyzed
0504397-001A	4/26/05	4/27/05	4/29/05 1:44 AM	0504397-002A	4/26/05	4/27/05	5/02/05 9:57 PM
0504397-003A	4/26/05	4/27/05	4/29/05 2:38 AM	0504397-005A	4/26/05	4/27/05	4/28/05 8:04 PM
0504397-006A	4/26/05	4/27/05	4/29/05 3:44 AM	0504397-007A	4/26/05	4/27/05	5/03/05 5:58 AM
0504397-009A	4/26/05	4/27/05	4/30/05 1:35 AM	0504397-010A	4/26/05	4/27/05	5/03/05 1:25 AM
0504397-011A	4/26/05	4/27/05	4/28/05 5:52 PM	0504397-012A	4/26/05	4/27/05	4/29/05 5:55 AM

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

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

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

N/A = not enough sample to perform matrix spike and matrix spike duplicate.

NR = analyte concentration in sample exceeds spike amount for soil matrix or exceeds 2x spike amount for water matrix or sample diluted due to high matrix or analyte content.

DHS Certification No. 1644

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QC SUMMARY REPORT FOR SW8015C

W.O. Sample Matrix: Soil QC Matrix: Soil WorkOrder: 0504397

EPA Method: SW8015C	Extraction: SW3550C				BatchID: 16014			Spiked Sample ID: 0504397-014A		
Analyte	Sample	Spiked	MS	MSD	MS-MSD	LCS	LCSD	LCS-LCSD	Acceptance Criteria (%)	
	mg/Kg	mg/Kg	% Rec.	% Rec.	% RPD	% Rec.	% Rec.	% RPD	MS / MSD	LCS / LCSD
TPH(d)	ND	20	91.3	89.8	1.67	102	102	0	70 - 130	70 - 130
%SS:	98	50	85	83	2.20	92	92	0	70 - 130	70 - 130

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

NONE

BATCH 16014 SUMMARY

Sample ID	Date Sampled	Date Extracted	Date Analyzed	Sample ID	Date Sampled	Date Extracted	Date Analyzed
0504397-013A	4/26/05	4/27/05	4/28/05 6:58 PM	0504397-014A	4/26/05	4/27/05	4/28/05 2:09 PM

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

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

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

N/A = not enough sample to perform matrix spike and matrix spike duplicate.

NR = analyte concentration in sample exceeds spike amount for soil matrix or exceeds 2x spike amount for water matrix or sample diluted due to high matrix or analyte content.

DHS Certification No. 1644

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QC SUMMARY REPORT FOR SW8015C

W.O. Sample Matrix: Water QC Matrix: Water WorkOrder: 0504397

EPA Method: SW8015C **Extraction: SW3510C** **BatchID: 16018** **Spiked Sample ID: N/A**

Analyte	Sample	Spiked	MS	MSD	MS-MSD	LCS	LCSD	LCS-LCSD	Acceptance Criteria (%)	
	µg/L	µg/L	% Rec.	% Rec.	% RPD	% Rec.	% Rec.	% RPD	MS / MSD	LCS / LCSD
TPH(d)	N/A	1000	N/A	N/A	N/A	97.1	104	7.05	N/A	70 - 130
%SS:	N/A	2500	N/A	N/A	N/A	87	115	27.3	N/A	70 - 130

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

NONE

BATCH 16018 SUMMARY

Sample ID	Date Sampled	Date Extracted	Date Analyzed	Sample ID	Date Sampled	Date Extracted	Date Analyzed
0504397-019A	4/26/05	4/27/05	4/30/05 3:28 AM				

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

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

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

N/A = not enough sample to perform matrix spike and matrix spike duplicate.

NR = analyte concentration in sample exceeds spike amount for soil matrix or exceeds 2x spike amount for water matrix or sample diluted due to high matrix or analyte content.

DHS Certification No. 1644

QA/QC Officer

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QC SUMMARY REPORT FOR SW8015C

W.O. Sample Matrix: Water QC Matrix: Water WorkOrder: 0504397

EPA Method: SW8015C	Extraction: SW3510C			BatchID: 16001		Spiked Sample ID: N/A				
Analyte	Sample	Spiked	MS	MSD	MS-MSD	LCS	LCSD	LCS-LCSD	Acceptance Criteria (%)	
	µg/L	µg/L	% Rec.	% Rec.	% RPD	% Rec.	% Rec.	% RPD	MS / MSD	LCS / LCSD
TPH(d)	N/A	1000	N/A	N/A	N/A	104	106	1.49	N/A	70 - 130
%SS:	N/A	2500	N/A	N/A	N/A	95	97	1.43	N/A	70 - 130

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

NONE

BATCH 16001 SUMMARY

Sample ID	Date Sampled	Date Extracted	Date Analyzed	Sample ID	Date Sampled	Date Extracted	Date Analyzed
0504397-015A	4/26/05	4/27/05	4/29/05 10:56 PM	0504397-016A	4/26/05	4/27/05	4/29/05 5:07 PM
0504397-017A	4/26/05	4/27/05	4/29/05 8:38 PM	0504397-018A	4/26/05	4/27/05	4/28/05 10:19 PM

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

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

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

N/A = not enough sample to perform matrix spike and matrix spike duplicate.

NR = analyte concentration in sample exceeds spike amount for soil matrix or exceeds 2x spike amount for water matrix or sample diluted due to high matrix or analyte content.

DHS Certification No. 1644

QA/QC Officer

McCampbell Analytical, Inc.

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

QC SUMMARY REPORT FOR SW8260B

W.O. Sample Matrix: Soil QC Matrix: Soil WorkOrder: 0504397

EPA Method: SW8260B	Extraction: SW5030B			BatchID: 15972			Spiked Sample ID: 0504344-007A			
Analyte	Sample	Spiked	MS	MSD	MS-MSD	LCS	LCSD	LCS-LCSD	Acceptance Criteria (%)	
	mg/kg	mg/kg	% Rec.	% Rec.	% RPD	% Rec.	% Rec.	% RPD	MS / MSD	LCS / LCSD
tert-Amyl methyl ether (TAME)	ND	0.050	94.8	97	2.26	94.2	97.6	3.60	70 - 130	70 - 130
Benzene	ND	0.050	101	102	0.911	100	102	1.77	70 - 130	70 - 130
t-Butyl alcohol (TBA)	ND	0.25	90.1	94.8	5.04	93.4	98.9	5.78	70 - 130	70 - 130
1,2-Dibromoethane (EDB)	ND	0.050	89.4	88	1.56	88.2	92.8	5.13	70 - 130	70 - 130
1,2-Dichloroethane (1,2-DCA)	ND	0.050	110	112	1.38	109	113	3.66	70 - 130	70 - 130
Diisopropyl ether (DIPE)	ND	0.050	102	102	0	101	105	3.99	70 - 130	70 - 130
Ethyl tert-butyl ether (ETBE)	ND	0.050	95.3	96.6	1.36	95	97.7	2.80	70 - 130	70 - 130
Methyl-t-butyl ether (MTBE)	ND	0.050	97.1	96.2	0.949	93.2	100	7.11	70 - 130	70 - 130
Toluene	ND	0.050	102	101	0.406	102	102	0	70 - 130	70 - 130
%SS1:	95	0.050	101	100	0.705	99	100	1.33	70 - 130	70 - 130
%SS2:	106	0.050	97	95	2.04	97	97	0	70 - 130	70 - 130
%SS3:	110	0.050	114	114	0	112	112	0	70 - 130	70 - 130

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

NONE

BATCH 15972 SUMMARY

Sample ID	Date Sampled	Date Extracted	Date Analyzed	Sample ID	Date Sampled	Date Extracted	Date Analyzed
0504397-001A	4/26/05	4/27/05	4/29/05 10:47 PM	0504397-002A	4/26/05	4/27/05	4/29/05 11:30 PM
0504397-003A	4/26/05	4/27/05	4/30/05 12:12 AM	0504397-005A	4/26/05	4/27/05	4/30/05 12:55 AM

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

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

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

N/A = not enough sample to perform matrix spike and matrix spike duplicate.

NR = analyte concentration in sample exceeds spike amount for soil matrix or exceeds 2x spike amount for water matrix or sample diluted due to high matrix or analyte content.

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

DHS Certification No. 1644

QA/QC Officer

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QC SUMMARY REPORT FOR SW8260B

W.O. Sample Matrix: Soil QC Matrix: Soil WorkOrder: 0504397

EPA Method: SW8260B **Extraction: SW5030B** **BatchID: 16015** **Spiked Sample ID: 0504397-014A**

Analyte	Sample	Spiked	MS	MSD	MS-MSD	LCS	LCSD	LCS-LCSD	Acceptance Criteria (%)	
	mg/kg	mg/kg	% Rec.	% Rec.	% RPD	% Rec.	% Rec.	% RPD	MS / MSD	LCS / LCSD
tert-Amyl methyl ether (TAME)	ND	0.050	100	101	0.463	103	104	1.17	70 - 130	70 - 130
Benzene	ND	0.050	102	102	0	97.9	101	2.82	70 - 130	70 - 130
t-Butyl alcohol (TBA)	ND	0.25	103	104	1.29	107	104	2.74	70 - 130	70 - 130
1,2-Dibromoethane (EDB)	ND	0.050	95.4	96.2	0.810	95.4	97.8	2.56	70 - 130	70 - 130
1,2-Dichloroethane (1,2-DCA)	ND	0.050	112	113	1.12	110	115	4.57	70 - 130	70 - 130
Diisopropyl ether (DIPE)	ND	0.050	106	105	0.0712	105	107	2.11	70 - 130	70 - 130
Ethyl tert-butyl ether (ETBE)	ND	0.050	101	101	0	103	105	1.39	70 - 130	70 - 130
Methyl-t-butyl ether (MTBE)	ND	0.050	101	101	0	101	104	3.10	70 - 130	70 - 130
Toluene	ND	0.050	103	100	3.05	100	102	1.64	70 - 130	70 - 130
%SS1:	101	0.050	99	99	0	99	98	0.286	70 - 130	70 - 130
%SS2:	99	0.050	98	97	1.56	98	98	0	70 - 130	70 - 130
%SS3:	107	0.050	112	115	2.14	110	111	0.759	70 - 130	70 - 130

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

NONE

BATCH 16015 SUMMARY

Sample ID	Date Sampled	Date Extracted	Date Analyzed	Sample ID	Date Sampled	Date Extracted	Date Analyzed
0504397-006A	4/26/05	4/27/05	4/30/05 1:37 AM	0504397-007A	4/26/05	4/27/05	4/30/05 2:20 AM
0504397-009A	4/26/05	4/27/05	5/02/05 5:56 PM	0504397-010A	4/26/05	4/27/05	4/30/05 3:45 AM
0504397-011A	4/26/05	4/27/05	4/30/05 4:28 AM	0504397-012A	4/26/05	4/27/05	4/30/05 5:10 AM
0504397-013A	4/26/05	4/27/05	4/30/05 5:53 AM	0504397-014A	4/26/05	4/27/05	4/30/05 6:36 AM

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

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

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

N/A = not enough sample to perform matrix spike and matrix spike duplicate.

NR = analyte concentration in sample exceeds spike amount for soil matrix or exceeds 2x spike amount for water matrix or sample diluted due to high matrix or analyte content.

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

DHS Certification No. 1644

QA/QC Officer

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QC SUMMARY REPORT FOR SW8260B

W.O. Sample Matrix: Water QC Matrix: Water WorkOrder: 0504397

EPA Method: SW8260B **Extraction: SW5030B** **BatchID: 16009** **Spiked Sample ID: 0504402-003C**

Analyte	Sample	Spiked	MS	MSD	MS-MSD	LCS	LCSD	LCS-LCSD	Acceptance Criteria (%)	
	µg/L	µg/L	% Rec.	% Rec.	% RPD	% Rec.	% Rec.	% RPD	MS / MSD	LCS / LCSD
tert-Amyl methyl ether (TAME)	ND	10	104	103	0.987	95.5	104	8.26	70 - 130	70 - 130
Benzene	ND	10	102	102	0	96.9	103	6.09	70 - 130	70 - 130
t-Butyl alcohol (TBA)	ND	50	108	107	1.31	101	109	7.26	70 - 130	70 - 130
Diisopropyl ether (DIPE)	ND	10	106	104	1.82	101	108	6.62	70 - 130	70 - 130
Ethyl tert-butyl ether (ETBE)	ND	10	104	100	3.64	96.3	103	6.97	70 - 130	70 - 130
Methyl-t-butyl ether (MTBE)	ND	10	115	109	4.82	98.6	107	8.10	70 - 130	70 - 130
Toluene	ND	10	105	102	3.30	98.9	105	6.34	70 - 130	70 - 130
%SS1:	106	10	98	100	1.82	96	99	2.25	70 - 130	70 - 130
%SS2:	100	10	100	97	2.81	100	99	0.566	70 - 130	70 - 130
%SS3:	118	10	113	113	0	114	118	3.66	70 - 130	70 - 130

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

NONE

BATCH 16009 SUMMARY

Sample ID	Date Sampled	Date Extracted	Date Analyzed	Sample ID	Date Sampled	Date Extracted	Date Analyzed
0504397-015B	4/26/05	4/29/05	4/29/05 6:34 PM	0504397-016B	4/26/05	4/29/05	4/29/05 7:18 PM
0504397-017B	4/26/05	4/29/05	4/29/05 8:01 PM	0504397-018B	4/26/05	4/29/05	4/29/05 8:44 PM
0504397-019B	4/26/05	4/29/05	4/29/05 9:28 PM				

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

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

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

N/A = not enough sample to perform matrix spike and matrix spike duplicate.

NR = analyte concentration in sample exceeds spike amount for soil matrix or exceeds 2x spike amount for water matrix or sample diluted due to high matrix or analyte content.

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

DHS Certification No. 1644

QA/QC Officer

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

CHAIN-OF-CUSTODY RECORD

WorkOrder: 0504397 **ClientID: PDEO**

Report to:
Wilhelm Welzenbach
P & D Environmental
55 Santa Clara, Ste.240
Oakland, CA 94610

TEL: (510) 658-6916
FAX: 510-834-0152
ProjectNo: #0363; T.D. Rowe, Oakland
PO:

Bill to:
Accounts Payable
P & D Environmental
55 Santa Clara, Ste.240
Oakland, CA 94610

Requested TAT: 5 days
Date Received: 04/27/2005
Date Printed: 04/27/2005

Sample ID	ClientSampID	Matrix	Collection Date	Hold	Requested Tests (See legend below)														
					1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
0504397-001	B5-4.5	Soil	4/26/05	☐	A		A												
0504397-002	B5-10.0	Soil	4/26/05	☐	A		A												
0504397-003	B5-15.0	Soil	4/26/05	☐	A		A												
0504397-005	B6-5.0	Soil	4/26/05	☐	A		A												
0504397-006	B6-10.0	Soil	4/26/05	☐	A		A												
0504397-007	B6-15.0	Soil	4/26/05	☐	A		A												
0504397-009	B7b-5.0	Soil	4/26/05	☐	A		A												
0504397-010	B7b-10.0	Soil	4/26/05	☐	A		A												
0504397-011	B7b-15.0	Soil	4/26/05	☐	A		A												
0504397-012	B7b-19.5	Soil	4/26/05	☐	A		A												
0504397-013	B7b-23.0	Soil	4/26/05	☐	A		A												
0504397-014	B7b-27.5	Soil	4/26/05	☐	A		A												
0504397-015	B5-8.0 Water	Water	4/26/05	☐		A		B											
0504397-016	B5-20.0 Water	Water	4/26/05	☐		A		B											
0504397-017	B6-8.0 Water	Water	4/26/05	☐		A		B											

Test Legend:

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

Prepared by: Melissa Valles

Comments:

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

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

CHAIN-OF-CUSTODY RECORD

WorkOrder: 0504397 **ClientID: PDEO**

Report to:
Wilhelm Welzenbach
P & D Environmental
55 Santa Clara, Ste.240
Oakland, CA 94610

TEL: (510) 658-6916
FAX: 510-834-0152
ProjectNo: #0363; T.D. Rowe, Oakland
PO:

Bill to:
Accounts Payable
P & D Environmental
55 Santa Clara, Ste.240
Oakland, CA 94610

Requested TAT: 5 days
Date Received: 04/27/2005
Date Printed: 04/27/2005

Sample ID	ClientSampID	Matrix	Collection Date	Hold	Requested Tests (See legend below)														
					1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
0504397-018	B7-8.0 Water	Water	4/26/05	☐		A		B											
0504397-019	B7-28.0 Water	Water	4/26/05	☐		A		B											

Test Legend:

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

Prepared by: Melissa Valles

Comments:

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

P & D ENVIRONMENTAL
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Oakland, CA 94610
(510) 658-6916

Pdeo - 0504397

CHAIN OF CUSTODY RECORD

PAGE 1 OF 1

PROJECT NUMBER: 0363
PROJECT NAME: T.D. Rowe, Oakland
SAMPLED BY: (PRINTED AND SIGNATURE) Wilhelm Welzenbach [signature]

ANALYSIS(ES): TPH Multi-range; 8260 for BTEX + fuel oxy's + lead scavengers

SAMPLE NUMBER	DATE	TIME	TYPE	SAMPLE LOCATION	NUMBER OF CONTAINERS	TPH Multi-range	8260 for BTEX + fuel oxy's + lead scavengers					PRESERVATIVE	REMARKS
B5-4.5	4/26/05		Soil	North side of driveway	1	X	X					ICE	Normal Turnaround
B5-10.0	↓		↓	↓	↓	X	X					↓	↓
B5-15.0						X	X						
B5-19.5													HOLD
B6-5.0				South of driveway		X	X						Normal Turnaround
B6-10.0				↓		X	X						↓
B6-15.0						X	X						
B6-19.5													HOLD
B7b-5.0				West side of UST Pit		X	X						Normal Turnaround
B7b-10.0				↓		X	X						↓
B7b-15.0						X	X						
B7b-19.5						X	X						
B7b-23.0						X	X						
B7b-27.5	↓		↓	↓	↓	X	X					↓	↓

RELINQUISHED BY: (SIGNATURE)	DATE	TIME	RECEIVED BY: (SIGNATURE)
Wilhelm Welzenbach [signature]	4/27/05	1000	[signature]
[signature]	4/27/05	1140	Mike Vall [signature]
			RECEIVED FOR LABORATORY BY: (SIGNATURE)

TOTAL NO. OF SAMPLES (THIS SHIPMENT): 14
TOTAL NO. OF CONTAINERS (THIS SHIPMENT): 14
LABORATORY: McCampbell Analytical
LABORATORY CONTACT: Angela Rydelius
LABORATORY PHONE NUMBER: (925) 798-1620
SAMPLE ANALYSIS REQUEST SHEET ATTACHED: ( )YES (X)NO

REMARKS:
ICE/t° ✓
GOOD CONDITION ✓
HEAD SPACE ABSENT ✓
DECHLORINATED IN LAB ____
APPROPRIATE CONTAINERS ✓
PRESERVED IN LAB ____

PRESERVATION	VOAS	O&G	METALS	OTHER
	✓			

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

PdeO-0504397

CHAIN OF CUSTODY RECORD

PAGE 1 OF 1

PROJECT NUMBER:	PROJECT NAME:
0363	T. D. Rowe, Oakland

SAMPLED BY: (PRINTED AND SIGNATURE)
Wilhelm Welzenbach

	SAMPLE NUMBER	DATE	TIME	TYPE	SAMPLE LOCATION	NUMBER OF CONTAINERS	ANALYSIS(ES): TPH - Mult. Ranges	8260 for BTEX + Fuel's, Oxy's, 3 x lead scavengers	PRESERVATIVE	REMARKS
+20	B5-8.0 water	4/26/05		water		6	X	X		Normal Turnaround
+20	B5-20.0 water					7	X	X		
+20	B6-8.0 water						X	X		
	~~B6-20~~									
+5	B7-8.0 water						X	X		
+10	B7-28.0 water						X	X		

RELINQUISHED BY: (SIGNATURE)	DATE	TIME	RECEIVED BY: (SIGNATURE)	TOTAL NO. OF SAMPLES (THIS SHIPMENT) 5	LABORATORY: McCampbell Analytical
	4/27/05	1000		TOTAL NO. OF CONTAINERS (THIS SHIPMENT) 35	
RELINQUISHED BY: (SIGNATURE)	DATE	TIME	RECEIVED BY: (SIGNATURE)	LABORATORY CONTACT: Angela Rydelius	LABORATORY PHONE NUMBER: (925) 798-1620
	4/27/05	1140			
RELINQUISHED BY: (SIGNATURE)	DATE	TIME	RECEIVED FOR LABORATORY BY: (SIGNATURE)	SAMPLE ANALYSIS REQUEST SHEET ATTACHED: ( )YES (X)NO	

REMARKS: VOAs preserved w HCl.

McCampbell Analytical, Inc.

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P & D Environmental	Client Project ID: #0363; TD Rowe	Date Sampled: 06/06/05
		Date Received: 06/07/05
55 Santa Clara, Ste.240	Client Contact: Wilhelm Welzenbach	Date Extracted: 06/10/05
Oakland, CA 94610	Client P.O.:	Date Analyzed: 06/10/05

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

Extraction method: SW5030B Analytical methods: SW8015Cm Work Order: 0506128

Lab ID	Client ID	Matrix	TPH(g)	DF	% SS
001A	MW 1	W	ND	1	114
002A	MW 2	W	ND	1	114
003A	MW 3	W	ND	1	110

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

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

cluttered chromatogram; sample peak coelutes with surrogate peak.

+The following descriptions of the TPH chromatogram are cursory in nature and McCampbell Analytical is not responsible for their interpretation: a) unmodified or weakly modified gasoline is significant; b) heavier gasoline range compounds are significant(aged gasoline?); c) lighter gasoline range compounds (the most mobile fraction) are significant; d) gasoline range compounds having broad chromatographic peaks are significant; biologically altered gasoline?; e) TPH pattern that does not appear to be derived from gasoline (stoddard solvent / mineral spirit?); f) one to a few isolated non-target peaks present; g) strongly aged gasoline or diesel range compounds are significant; h) lighter than water immiscible sheen/product is present; i) liquid sample that contains greater than ~1 vol. % sediment; j) reporting limit raised due to high MTBE content; k) TPH pattern that does not appear to be derived from gasoline (aviation gas). m) no recognizable pattern; n) TPH(g) range non-target isolated peaks subtracted out of the TPH(g) concentration at the client's request.

DHS Certification No. 1644

Angela Rydelius, Lab Manager

McCampbell Analytical, Inc.

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P & D Environmental	Client Project ID: #0363; TD Rowe	Date Sampled: 06/06/05
		Date Received: 06/07/05
55 Santa Clara, Ste.240	Client Contact: Wilhelm Welzenbach	Date Extracted: 06/07/05
Oakland, CA 94610	Client P.O.:	Date Analyzed: 06/10/05-06/13/05

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

Extraction method: SW3510C Analytical methods: SW8015C Work Order: 0506128

Lab ID	Client ID	Matrix	TPH(d)	TPH(mo)	DF	% SS
0506128-001A	MW 1	W	ND	ND	1	114
0506128-002A	MW 2	W	61,b	ND	1	113
0506128-003A	MW 3	W	64,b	ND	1	109

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

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

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

+The following descriptions of the TPH chromatogram are cursory in nature and McCampbell Analytical is not responsible for their interpretation: a) unmodified or weakly modified diesel is significant; b) diesel range compounds are significant; no recognizable pattern; c) aged diesel? is significant); d) gasoline range compounds are significant; e) unknown medium boiling point pattern that does not appear to be derived from diesel; f) one to a few isolated peaks present; g) oil range compounds are significant; h) lighter than water immiscible sheen/product is present; i) liquid sample that contains greater than ~1 vol. % sediment; k) kerosene/kerosene range; l) bunker oil; m) fuel oil; n) stoddard solvent/mineral spirit.

DHS Certification No. 1644

Angela Rydelius, Lab Manager

McCampbell Analytical, Inc.

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

P & D Environmental	Client Project ID: #0363; TD Rowe	Date Sampled: 06/06/05
		Date Received: 06/07/05
55 Santa Clara, Ste.240	Client Contact: Wilhelm Welzenbach	Date Extracted: 06/09/05
Oakland, CA 94610	Client P.O.:	Date Analyzed: 06/09/05

Oxygenates and BTEX by GC/MS*

Extraction Method: SW5030B | Analytical Method: SW8260B | Work Order: 0506128

Lab ID	0506128-001B	0506128-002B	0506128-003B		Reporting Limit for DF =1	
Client ID	MW 1	MW 2	MW 3			
Matrix	W	W	W			
DF	1	1	1		S	W
Compound	**Concentration**				ug/kg	µg/L
tert-Amyl methyl ether (TAME)	ND	ND	ND		NA	0.5
Benzene	ND	ND	ND		NA	0.5
t-Butyl alcohol (TBA)	ND	ND	ND		NA	5.0
1,2-Dibromoethane (EDB)	ND	ND	ND		NA	0.5
1,2-Dichloroethane (1,2-DCA)	ND	ND	ND		NA	0.5
Diisopropyl ether (DIPE)	ND	ND	ND		NA	0.5
Ethylbenzene	ND	ND	ND		NA	0.5
Ethyl tert-butyl ether (ETBE)	ND	ND	ND		NA	0.5
Methyl-t-butyl ether (MTBE)	ND	ND	ND		NA	0.5
Toluene	ND	ND	ND		NA	0.5
Xylenes	ND	ND	ND		NA	0.5
Surrogate Recoveries (%)						
%SS1:	94	94	96			
%SS2:	95	95	96			
%SS3:	96	94	91			
Comments						

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

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

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

h) lighter than water immiscible sheen/product is present; i) liquid sample that contains greater than ~1 vol. % sediment; j) sample diluted due to high organic content/matrix interference; k) reporting limit near, but not identical to our standard reporting limit due to variable Encore sample weight; m) reporting limit raised due to insufficient sample amount; n) results are reported on a dry weight basis; p) see attached narrative.

DHS Certification No. 1644

Angela Rydelius, Lab Manager

McCampbell Analytical, Inc.

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QC SUMMARY REPORT FOR SW8021B/8015Cm

W.O. Sample Matrix: Water QC Matrix: Water WorkOrder: 0506128

EPA Method: SW8021B/8015Cm **Extraction: SW5030B** **BatchID: 16556** **Spiked Sample ID: 0506119-010A**

Analyte	Sample	Spiked	MS	MSD	MS-MSD	LCS	LCSD	LCS-LCSD	Acceptance Criteria (%)	
	µg/L	µg/L	% Rec.	% Rec.	% RPD	% Rec.	% Rec.	% RPD	MS / MSD	LCS / LCSD
TPH(btex) £	ND	60	99.4	92	7.63	102	99.9	2.41	70 - 130	70 - 130
MTBE	ND	10	88	82.6	6.24	85.7	95.4	10.8	70 - 130	70 - 130
Benzene	ND	10	86	83.3	3.13	108	109	0.793	70 - 130	70 - 130
Toluene	ND	10	84.1	84.2	0.160	110	111	0.947	70 - 130	70 - 130
Ethylbenzene	ND	10	90.9	93	2.25	112	112	0	70 - 130	70 - 130
Xylenes	ND	30	87	91	4.49	113	113	0	70 - 130	70 - 130
%SS:	95	10	99	95	3.42	94	97	2.30	70 - 130	70 - 130

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

NONE

BATCH 16556 SUMMARY

Sample ID	Date Sampled	Date Extracted	Date Analyzed	Sample ID	Date Sampled	Date Extracted	Date Analyzed
0506128-001A	6/06/05	6/10/05	6/10/05 6:11 AM	0506128-002A	6/06/05	6/10/05	6/10/05 6:41 AM

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

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

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

£ TPH(btex) = sum of BTEX areas from the FID.

cluttered chromatogram; sample peak coelutes with surrogate peak.

N/A = not applicable or not enough sample to perform matrix spike and matrix spike duplicate.

NR = analyte concentration in sample exceeds spike amount for soil matrix or exceeds 2x spike amount for water matrix or sample diluted due to high matrix or analyte content.

DHS Certification No. 1644

QA/QC Officer

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QC SUMMARY REPORT FOR SW8021B/8015Cm

W.O. Sample Matrix: Water QC Matrix: Water WorkOrder: 0506128

EPA Method: SW8021B/8015Cm **Extraction: SW5030B** **BatchID: 16562** **Spiked Sample ID: 0506131-001A**

Analyte	Sample	Spiked	MS	MSD	MS-MSD	LCS	LCSD	LCS-LCSD	Acceptance Criteria (%)	
	µg/L	µg/L	% Rec.	% Rec.	% RPD	% Rec.	% Rec.	% RPD	MS / MSD	LCS / LCSD
TPH(btex) £	ND	60	105	97.4	7.95	101	99.8	1.12	70 - 130	70 - 130
MTBE	ND	10	82.6	91.5	10.2	85.6	88.5	3.29	70 - 130	70 - 130
Benzene	ND	10	80.7	85.6	5.91	102	103	0.539	70 - 130	70 - 130
Toluene	ND	10	85.7	89.3	4.05	103	104	0.853	70 - 130	70 - 130
Ethylbenzene	ND	10	96.5	99	2.55	106	106	0	70 - 130	70 - 130
Xylenes	ND	30	91.3	91.7	0.364	110	110	0	70 - 130	70 - 130
%SS:	109	10	97	98	1.07	87	90	2.54	70 - 130	70 - 130

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

NONE

BATCH 16562 SUMMARY

Sample ID	Date Sampled	Date Extracted	Date Analyzed	Sample ID	Date Sampled	Date Extracted	Date Analyzed
0506128-003A	6/06/05	6/10/05	6/10/05 7:11 AM				

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

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

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

£ TPH(btex) = sum of BTEX areas from the FID.

cluttered chromatogram; sample peak coelutes with surrogate peak.

N/A = not applicable or not enough sample to perform matrix spike and matrix spike duplicate.

NR = analyte concentration in sample exceeds spike amount for soil matrix or exceeds 2x spike amount for water matrix or sample diluted due to high matrix or analyte content.

QA/QC Officer

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QC SUMMARY REPORT FOR SW8015C

W.O. Sample Matrix: Water QC Matrix: Water WorkOrder: 0506128

EPA Method: SW8015C **Extraction: SW3510C** **BatchID: 16550** **Spiked Sample ID: N/A**

Analyte	Sample	Spiked	MS	MSD	MS-MSD	LCS	LCSD	LCS-LCSD	Acceptance Criteria (%)	
	µg/L	µg/L	% Rec.	% Rec.	% RPD	% Rec.	% Rec.	% RPD	MS / MSD	LCS / LCSD
TPH(d)	N/A	1000	N/A	N/A	N/A	109	110	0.570	N/A	70 - 130
%SS:	N/A	2500	N/A	N/A	N/A	96	99	3.21	N/A	70 - 130

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

NONE

BATCH 16550 SUMMARY

Sample ID	Date Sampled	Date Extracted	Date Analyzed	Sample ID	Date Sampled	Date Extracted	Date Analyzed
0506128-001A	6/06/05	6/07/05	6/10/05 3:10 AM	0506128-002A	6/06/05	6/07/05	6/13/05 8:19 PM
0506128-003A	6/06/05	6/07/05	6/13/05 9:32 PM				

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

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

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

N/A = not enough sample to perform matrix spike and matrix spike duplicate.

NR = analyte concentration in sample exceeds spike amount for soil matrix or exceeds 2x spike amount for water matrix or sample diluted due to high matrix or analyte content.

DHS Certification No. 1644

QA/QC Officer

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QC SUMMARY REPORT FOR SW8260B

W.O. Sample Matrix: Water QC Matrix: Water WorkOrder: 0506128

EPA Method: SW8260B **Extraction: SW5030B** **BatchID: 16557** **Spiked Sample ID: 0506119-007B**

Analyte	Sample	Spiked	MS	MSD	MS-MSD	LCS	LCSD	LCS-LCSD	Acceptance Criteria (%)	
	µg/L	µg/L	% Rec.	% Rec.	% RPD	% Rec.	% Rec.	% RPD	MS / MSD	LCS / LCSD
tert-Amyl methyl ether (TAME)	ND<50	10	117	114	3.05	118	115	2.76	70 - 130	70 - 130
Benzene	ND<50	10	103	105	1.90	108	104	4.20	70 - 130	70 - 130
t-Butyl alcohol (TBA)	5500	50	NR	NR	NR	94.2	90.8	3.67	70 - 130	70 - 130
Diisopropyl ether (DIPE)	ND<50	10	119	119	0	119	119	0	70 - 130	70 - 130
Ethyl tert-butyl ether (ETBE)	ND<50	10	109	112	2.88	117	112	4.41	70 - 130	70 - 130
Methyl-t-butyl ether (MTBE)	ND<50	10	110	115	3.80	118	114	3.40	70 - 130	70 - 130
Toluene	ND<50	10	98.2	97.3	0.911	98	96.7	1.35	70 - 130	70 - 130
%SS1:	105	10	96	98	2.36	101	97	4.03	70 - 130	70 - 130
%SS2:	106	10	99	99	0	100	99	1.06	70 - 130	70 - 130
%SS3:	113	10	101	103	1.86	104	102	1.93	70 - 130	70 - 130

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

NONE

BATCH 16557 SUMMARY

Sample ID	Date Sampled	Date Extracted	Date Analyzed	Sample ID	Date Sampled	Date Extracted	Date Analyzed
0506128-001B	6/06/05	6/09/05	6/09/05 6:48 AM	0506128-002B	6/06/05	6/09/05	6/09/05 7:31 AM
0506128-003B	6/06/05	6/09/05	6/09/05 1:12 PM				

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

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

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

N/A = not enough sample to perform matrix spike and matrix spike duplicate.

NR = analyte concentration in sample exceeds spike amount for soil matrix or exceeds 2x spike amount for water matrix or sample diluted due to high matrix or analyte content.

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

DHS Certification No. 1644

QA/QC Officer

P & D ENVIRONMENTAL
A Division of Paul H. King, Inc.
55 Santa Clara Ave, Suite 240
Oakland, CA 94610
(510) 658-6916

PDEO - 0504128

CHAIN OF CUSTODY RECORD

Fuel only's & Lead Scavengers

PAGE 1 OF 1

PROJECT NUMBER:	PROJECT NAME:
0363	TD Rowe, Oakland

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

	SAMPLE NUMBER	DATE	TIME	TYPE	SAMPLE LOCATION	NUMBER OF CONTAINERS	ANALYSIS(ES): TPH	MtBE 8260 for BTEX	PRESERVATIVE	REMARKS
X	MW1	6/6/05		water		7	X	X	ICE	Normal Turnaround
X	MW2	↓					X	X	↓	↓
X	MW3					↓	X	X		

ICE/T ✓
GOOD CONDITION ✓ APPROPRIATE ✓
HEAD SPACE ABSENT ____ CONTAINERS ____
DECHLORINATED IN LAB ____ PRESERVED IN LAB ____

PRESERVATION	VOAS	O&G	METALS	OTHER

RELINQUISHED BY: (SIGNATURE)	DATE	TIME	RECEIVED BY: (SIGNATURE)
Wilhelm Welzenbach	6/7/05	1200	
RELINQUISHED BY: (SIGNATURE)	DATE	TIME	RECEIVED BY: (SIGNATURE)
	6/7/05	1400	
RELINQUISHED BY: (SIGNATURE)	DATE	TIME	RECEIVED FOR LABORATORY BY: (SIGNATURE)

TOTAL NO. OF SAMPLES (THIS SHIPMENT)	3
TOTAL NO. OF CONTAINERS (THIS SHIPMENT)	21
LABORATORY:	McCampbell Analytical
LABORATORY CONTACT:	Angela Rydelius
LABORATORY PHONE NUMBER:	(925) 798-1620
SAMPLE ANALYSIS REQUEST SHEET ATTACHED: ( )YES (X)NO	

REMARKS: VOAs preserved w HCl.

McCampbell Analytical, Inc.
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CHAIN-OF-CUSTODY RECORD

WorkOrder: 0506128 **ClientID: PDEO**

Report to:
Wilhelm Welzenbach
P & D Environmental
55 Santa Clara, Ste.240
Oakland, CA 94610

TEL: (510) 658-6916
FAX: 510-834-0152
ProjectNo: #0363; TD Rowe
PO:

Bill to:
Accounts Payable
P & D Environmental
55 Santa Clara, Ste.240
Oakland, CA 94610

Requested TAT: 5 days

Date Received: 06/07/2005
Date Printed: 06/07/2005

Sample ID	ClientSampID	Matrix	Collection Date	Hold	Requested Tests (See legend below)														
					1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
0506128-001	MW 1	Water	06/06/2005	☐	A	B													
0506128-002	MW 2	Water	06/06/2005	☐	A	B													
0506128-003	MW 3	Water	06/06/2005	☐	A	B													

Test Legend:

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

Prepared by: Rosa Venegas

Comments:

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