PACIFIC
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July 26, 2010

Ms. Barbara Jakub
Hazardous Materials Specialist
Alameda County Health Care Services Agency
1131 Harbor Bay Parkway, Suite 250
Alameda, California 94502-6577

Subject: **Site Investigation Report**

Site: **76 Station No. 5191/5043**
449 Hegenberger Road
Oakland, California
Fuel Leak Case No. RO0000219

Dear Ms. Jakub;

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

If you have any questions or need additional information, please call:

Liz Bermudez
Pacific Convenience & Fuel
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Sincerely,

PACIFIC CONVENIENCE & FUEL

Liz Bermudez

LIZ BERMUDEZ
Senior Paralegal

Attachment

July 26, 2010

Ms. Barbara Jakub
Hazardous Materials Specialist
Alameda County Health Care Services Agency
1131 Harbor Bay Parkway, Suite 250
Alameda, California 94502-6577

RE: Site Investigation Report
76 Station No. 5191/5043
449 Hegenberger Road
Oakland, California
Fuel Leak Case No. RO0000219

DELTA

Dear Ms. Jakub,

Delta Consultants (Delta) is submitting this *Site Investigation Report* describing the installation, development, surveying, and sampling of two monitoring/extraction wells and two monitoring wells at the 76 Station No. 5191/5043 located in Oakland, California. The site location is shown on **Figure 1**.

The work was performed as proposed in Delta's *Work Plan – Additional Site Investigation*, dated February 19, 2010. This work was approved by the Alameda County Health Care Services Agency (ACHCSA) in a letter dated April 22, 2010. A copy of the letter is presented as Attachment A.

The investigation consisted of the installation, development, surveying, and sampling of two monitoring/extraction wells, MW-11 and MW-2 and monitoring wells MW-12A and MW-13. In addition, batch extraction was performed using monitoring/extraction wells MW-11 and MW-12 and monitoring well MW-12A in an attempt to reduce the separate phase hydrocarbons reported in borings B-4 and B-5 during Delta's December 2009 site investigation. Another monitoring well, MW-14, was proposed to be installed in Hegenberger Road, east of the site; however, Delta was unable to obtain an encroachment permit from the City of Oakland. Therefore, this monitoring well was not installed. The well locations are shown on **Figure 2**.

SITE DESCRIPTION

The site is an active 76 station located on the southwest corner of Hegenberger Road and Edgewater Drive in Oakland, California. The site contains four fuel dispensers on two dispenser islands under a single canopy, three fuel underground storage tanks (USTs) on the north side of the site, a carwash

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facility on the west side of the site, and a station building in the central portion of the site. The current site features are shown on **Figure 2**.

PREVIOUS ASSESSMENT

October 1991 - Four soil samples were collected from the product pipe trenches at depths of approximately 3 feet below ground surface (bgs) during a dispenser island modification. The product pipe trenches were subsequently excavated to the groundwater depth at 4 to 4.5 feet bgs. Historical soil analytical results are presented in **Table 1**. Sample locations are shown on **Figure 3**.

February 1992 - Three monitoring wells, MW-1 through MW-3, were installed at the site to depths ranging from 13.5 to 15 feet bgs. Historical soil analytical results are presented in **Table 1**. Monitoring well locations are shown on **Figure 3**.

August 1992 - Three additional monitoring wells, MW-4 through MW-6, were installed at the site to a depth of 13.5 feet bgs. Historical soil analytical results are presented in **Table 1**. Monitoring well locations are shown on **Figure 3**.

September 1994 - One 280-gallon waste-oil UST was removed from the site. The UST was made of steel, and no apparent holes or cracks were observed in the UST. One soil sample was collected from beneath the former UST at a depth of approximately 9 feet bgs. No petroleum hydrocarbons were reported. Historical soil analytical results are presented in **Table 1**. The location of the former waste-oil UST is shown on **Figure 3**.

January 1995 - Two additional monitoring wells, MW-9 and MW-10, were installed to depths of 13 and 15 feet bgs. In addition, monitoring well MW-3, which was damaged during the UST cavity over excavation in 1995, was fully drilled out and reconstructed in the same borehole. Historical soil analytical results are presented in **Table 1**. Monitoring well locations are shown on **Figure 3**.

March 1995 - Two 10,000-gallon gasoline USTs and one 10,000-gallon diesel UST were removed from the site. Groundwater was encountered in the tank cavity at a depth of approximately 8.5 feet bgs. Soil samples contained total petroleum hydrocarbons as diesel (TPHd) and benzene, and TPH as gasoline (TPHg). Approximately 125,000 gallons of groundwater were pumped from the site for remediation and properly disposed off-site. Four fuel dispenser islands and associated product piping were also removed. Based on the results of the confirmation samples, the product dispenser islands were over excavated to approximately 6 feet bgs. Historical soil analytical results are presented in **Table 1**. Sample locations are shown on **Figure 3**.

March-April 1995 - During demolition activities of the former station building, soil samples were collected from two excavations, which were subsequently over excavated. Confirmation samples contained petroleum hydrocarbons. An additional area on the south side of the former station building was excavated based on photo-ionization detector (PID) readings. Two monitoring wells, MW-1 and MW-2, were destroyed in order to allow for over excavation activities to extend to an area adjacent to the dispenser islands in the southeastern quadrant of the site. The excavated areas were subsequently backfilled with clean-engineered fill. Historical soil analytical results are presented in **Table 1**. Sample locations are shown on **Figure 3**.

April 1997 - Two additional monitoring wells, MW-7 and MW-8, were installed off-site to the south and east on the neighboring property to a depth of 13 feet bgs. In addition, two existing monitoring wells were destroyed in order to accommodate the construction of a car wash at the site. Monitoring wells MW-4 and MW-5 were fully drilled out and backfilled with neat cement. Historical soil analytical results are presented in **Table 1**. Monitoring well locations are shown on **Figure 3**.

October 2003 - Site environmental consulting responsibilities were transferred to TRC.

April 8-9, 2005 - TRC conducted a 24-hour dual phase extraction (DPE) test at the site using monitoring well MW-6. The 24-hour DPE test was only moderately successful at removing vapor-phase petroleum hydrocarbons from the subsurface; therefore, TRC recommended DPE no longer be considered a viable remedial alternative for the site.

October 2007 - Site environmental consulting responsibilities were transferred to Delta Consultants.

December 2009 - Delta advanced two borings, B-4 and B-5, to depths of 20 feet bgs and 32 feet bgs, respectively. Analytical results from the soil and groundwater samples collected from these two borings indicated that the soil and the groundwater were impacted by petroleum hydrocarbons at these locations. Historical soil analytical results are presented in **Table 1**. Groundwater analytical results are presented in **Table 2**. Boring locations are shown on **Figure 3**.

SENSITIVE RECEPTORS

April 24, 2006, TRC completed a sensitive receptor survey for the site. According to the Department of Water Resources (DWR) records, three water supply wells are located within one-half mile of the site. The closest well is an irrigation well, reported to be, approximately 1,080 feet southeast of the site. In addition, two surface water bodies were observed within a one-half mile radius of the site. San Leandro Creek is located approximately 1,400 feet southwest of the site and flows into the San Leandro Bay. Elmhurst Creek is located approximately 2,220 feet north of the site and also flows into the San Leandro Bay.

SITE GEOLOGY AND HYDROGEOLOGY

The site is underlain by Holocene-age bay mud. The bay mud typically consists of unconsolidated, saturated clay and sandy clay that is rich in organic material. The bay mud locally contains lenses and stringers of well-sorted silt, sand, gravel, and beds of peat. During this investigation, a well-graded sand was encountered in boring MW-12A beginning at a depth of approximately 37 feet bgs. This well graded sand continued to a depth of 43 feet bgs. Beneath the well graded sand was a clayey sand to the total depth of the boring, 44 feet bgs.

The most recent monitoring and sampling event was conducted at the site on July 6, 2010. The measured depth to groundwater ranged from 2.02 feet (MW-9) to 4.63 feet (MW-7) below top of casing (TOC). The groundwater flow direction was southeast with a hydraulic gradient of 0.01 foot per foot (ft/ft).

SITE INVESTIGATION

Pre-Field Activities

A utility survey was conducted prior to the field investigation. Underground Service Alert (USA) was notified prior to drilling and a private utility locator was retained to minimize the risk of damage to underground utilities. Additionally, the first five feet of each boring was cleared using an air-knife to further minimize the risk of damage to underground utilities.

Delta prepared a site-specific Health and Safety Plan (HASP) in accordance with Title 8, Section 5192 of the California Code of Regulations. The HASP contained a list of emergency contacts, as well as a hospital route map to the nearest emergency facility. Drilling permits were obtained from the Alameda County Public Works Agency (ACPWA) prior to field activities. A copy of the drilling permits is presented as **Attachment B**.

Monitoring/Extraction Well Installation

On June 22, 2010, Gregg Drilling and Testing (Gregg), under supervision of a Delta field geologist, advanced two borings for monitoring wells/extraction wells MW-11 and MW-12.

Each of the borings were advanced to a depth of 20 feet bgs, by Gregg, using a limited access drill-rig equipped with 11-inch outside diameter hollow-stem augers. The soils encountered in the borings were logged using the Unified Soil Classification System (USCS) for lithologic interpretation and field screened for volatile organic compounds (VOCs) using a pre-calibrated photo ionization detector (PID). Soil samples were collected continuously for lithologic interpretation and field screening beginning at 5 feet bgs. A copy of the boring logs is presented as **Attachment C**. Current well locations are shown on **Figure 2**.

Soil samples collected at depths of approximately 10 and 20 feet bgs from boring MW-11 and at depths of approximately 8, 10, and 20 feet bgs from boring MW-12 were retained for laboratory analysis. The selected soil samples were properly labeled, placed on ice, and sent to Pace Analytical Services, Inc. (Pace) with chain-of-custody documentation. The soil samples collected and submitted for analysis from the borings were analyzed by Pace for TPH-Diesel Range Organics (DRO) [silica gel treated] by Environmental Protection Agency (EPA) Method 8015B, TPHg by the California LUFT Method, and benzene, toluene, ethylbenzene, and total xylenes (BTEX), methyl tertiary-butyl ether (MTBE), tertiary amyl-methyl ether (TAME), tertiary-butyl alcohol (TBA), di-isopropyl ether (DIPE), ethyl tertiary-butyl ether (ETBE), 1,2-dichloroethane (1,2-DCA), ethylene dibromide (EDB), and ethanol by EPA Method 8260.

The borings were converted to monitoring/extraction wells by installing a 4-inch diameter schedule 40 poly-vinyl chloride (PVC) well casing with a screened interval from 5 to 20 feet bgs. The perforation size in the screened interval was 0.020-inch. A sand pack consisting of RMC Lonestar #3 sand was placed into the annular space and extended to approximately 1 foot above the top of the screen (4 feet bgs). A 1-foot thick bentonite seal was placed on top of the sand pack. The monitoring/extraction wells were surged prior to the placement of the bentonite seal to promote settling of the sand pack. The remainder of the annular space was filled with neat cement to approximately 1-foot bgs. The monitoring/extraction wells were fitted with a locking

cap and encased in a traffic-rated protective vault placed at existing ground level. The protective vault was encased in concrete to match existing surface conditions.

Monitoring Well Installation

On June 22 and 23, 2010, Gregg, under supervision of a Delta field geologist, advanced two borings for monitoring wells MW-12A and MW-13.

The boring for monitoring wells MW-12A and MW-13 were advanced to depths of 44 feet bgs and 15 feet bgs, respectively, by Gregg, using a limited access drill-rig equipped with 8-inch outside diameter hollow-stem augers. The soils encountered in the borings were logged using the USCS for lithologic interpretation and field screened for VOCs using a pre-calibrated PID. Soil samples were collected continuously for lithologic interpretation and field screening beginning at 5 feet bgs. A copy of the boring logs is presented as **Attachment C**. Current well locations are shown on **Figure 2**.

Soil samples collected at depths of approximately 26, 32, and 34 feet bgs from boring MW-12A and at depths of approximately 8 and 13 feet bgs from boring MW-13 were retained for laboratory analysis. The selected soil samples were properly labeled, placed on ice, and sent to Pace with chain-of-custody documentation. The soil samples collected and submitted for analysis from the borings were analyzed by Pace for TPH-DRO (silica gel treated) by EPA Method 8015B, TPHg by the California LUFT Method, and BTEX, MTBE, TAME, TBA, DIPE, ETBE, 1,2-DCA, EDB, and ethanol by EPA Method 8260.

Slough backfilled the MW-12A boring from approximately 39 to 44 feet bgs. Prior to well construction, the boring for monitoring well MW-12A was additionally backfilled with bentonite chips from approximately 35 to 39 feet bgs.

The boring for monitoring well MW-12A was converted to a monitoring well by installing a 2-inch diameter schedule 40 PVC well casing with a screened interval from 30 to 34 feet bgs. The boring for monitoring well MW-13 was converted to a monitoring well by installing a 2-inch diameter schedule 40 PVC well casing with a screened interval from 5 to 15 feet bgs. The perforation size in the screened interval was 0.020-inch. A sand pack consisting of RMC Lonestar #3 sand was placed into the annular space and extended to approximately 1 foot above the top of the screen. A 2-foot thick bentonite seal was placed on top of the sand pack during the construction of monitoring well MW-12A and a 1-foot thick bentonite seal was placed on top of the sand pack during the construction of monitoring well MW-13. The monitoring wells were surged prior to the placement of the bentonite seal to promote settling of the sand pack. The remainder of the annular space was filled with neat cement to approximately 1-foot bgs. The monitoring wells were fitted with a locking cap and encased in a traffic-rated protective vault placed at existing ground level. The protective vault was encased in concrete to match existing surface conditions.

Well Development, Monitoring, and Sampling

On June 28, 2010, Gregg, under supervision of the Delta field geologist, developed the four newly installed monitoring wells. The monitoring wells were developed by surging a block throughout the screen interval for a minimum of 10 minutes. Subsequent to surging, the monitoring wells were bailed removing a minimum of four gallons of groundwater. Subsequent to bailing a submersible pump was placed in each of the

newly installed monitoring wells. A total of 106, 102, 45, and 21 gallons of groundwater were removed from monitoring wells MW-11, MW-12, MW-12A, and MW-13, respectively during well development. Electrical conductivity, pH, turbidity, and temperature were monitored during development activities. A copy of Gregg's well development logs is presented as **Attachment D**.

On July 6, 2010 Blain Tech Services, Inc. (Blain Tech) conducted monitoring and sampling activities at the site. The four newly installed monitoring wells were gauged, purged, and sampled. Each of the newly installed monitoring wells were purged prior to sampling removing approximately three casing volumes of groundwater. The groundwater sampling forms completed by Blain Tech are presented as **Attachment E**. A groundwater elevation contour map based on data recorded during the July 6, 2010 monitoring and sampling event is presented as **Figure 4**.

Groundwater samples collected for analysis from the four monitoring wells were analyzed by Pace for TPH-DRO (silica gel treated) by EPA Method 8015B, TPHg by the California LUFT Method, BTEX, MTBE, TAME, DIPE, ETBE, TBA, 1,2-DCA, EDB, and ethanol by EPA Method 8260. In addition, the groundwater samples were analyzed for total and dissolved iron by EPA Method 6010, sulfate by EPA Method 300, nitrogen, nitrate and nitrogen (NO_2 plus NO_3) by EPA Method 352.2, and nitrite as N by Standard Method (SM) 4500-NO_2 B.

Approximately 87 gallons of groundwater were generated during this groundwater sampling event and temporarily stored by Blaine Tech in a 2,000-gallon poly tank. The generated groundwater was later transported for proper disposal at Seaport Environmental in Redwood City, California. A copy of the waste manifest documentation is presented in **Attachment F**.

Wellhead Survey

A California licensed surveyor was retained to survey the northing and easting of each of the monitoring wells associated with this site using Datum NAD 83. The monitoring well elevations were surveyed relative to mean sea level, with an accuracy of +/- 0.01 foot. A global positioning system (GPS) was also used to survey in the latitude and longitude of the monitoring wells. Additionally, State of California Department of Water Resources (DWR) well completion forms were completed and submitted to the DWR and ACHCSA. Copies of the signed DWR forms are presented as **Attachment G**.

Disposal of Drill Cuttings, Wastewater, and Well Development Water

Drill cuttings, wastewater, and well development water generated during the investigation were placed into properly labeled 55-gallon Department of Transportation (DOT) approved steel drums and temporarily stored on-site. The analytical results from the soil samples collected from the four monitoring well borings is being used to profile the drill cuttings. A sample of the waste and well development water was collected, properly labeled, placed on ice, and transported to Pace with chain-of-custody documentation. The sample was analyzed by Pace for TPHg by the California LUFT Method, BTEX and MTBE by EPA Method 8260, and total lead by EPA Method 6010B. The drill cuttings, wastewater and well development water are currently being profiled for transportation to and disposal at an approved facility.

EXTRACTION EVENT

On July 7 and 8, 2010, Belshire Environmental Services, Inc. (BESI), under supervision of a Delta field geologist, conducted a groundwater extraction event using monitoring/extraction wells MW-11 and MW-12, and monitoring well MW-12A **(Figure 2)**. Liquid phase hydrocarbons (LPH) had been observed borings advanced by Delta in December 2009 adjacent to these well locations. The purpose of the event was to extract LPH and groundwater from the wells in an attempt to remove the LPH and reduce the petroleum hydrocarbon concentrations in the groundwater.

LPH and groundwater was extracted using a vacuum truck operated by BESI. During the event, 1,800 gallons of LPH/groundwater was extracted from monitoring/extraction well MW-11, only 500 gallons of LPH/groundwater was extracted from monitoring/extraction well MW-12 due to poor well recovery, and 1,300 gallons of LPH/groundwater was extracted from monitoring well MW-12A for a total of 3,600 gallons of LPH/groundwater.

RESULTS OF THE INVESTIGATION

Findings

The subsurface materials encountered in borings MW-12 and MW-12A consisted predominately of Fill from just below the surface cover, asphalt or concrete, to a depth of approximately one foot bgs. No Fill material was observed in borings MW-11 and MW-13. The site is underlain by predominately bay mud (clay) with sand and some gravel. During this investigation, a well-graded sand was encountered in boring MW-12A beginning at a depth of approximately 37 feet bgs. This well graded sand continued to a depth of 43 feet bgs. Beneath the well graded sand was a clayey sand to the total depth of the boring, 44 feet bgs. Copies of the boring logs are presented as **Attachment C**.

Groundwater was first encountered in the four borings advanced during this investigation at depths ranging from 3 feet bgs to 5.5 feet bgs. During groundwater monitoring activities conducted on July 6, 2010, the depth to groundwater was measured in each of the wells associated with this site, and ranged from 2.02 feet TOC (MW-9) to 4.63 feet TOC (MW-7). The groundwater sampling forms completed by Blain Tech are presented as **Attachment E**. The groundwater flow direction was southeast with a hydraulic gradient of 0.01 ft/ft. A groundwater elevation contour map based on data recorded during the July 6, 2010 monitoring and sampling event is presented as **Figure 4**.

Soil Sampling

Analytical results from the soil samples collected from the four borings advanced during this investigation indicate that TPH-DRO was present in boring MW-11 at depths of 10 feet bgs and 20 feet bgs at concentrations of 3.2 milligrams per kilogram (mg/kg) and 27.3 mg/kg, respectively. TPH-DRO was also present in the soil samples collected from boring MW-12 at depths of 8 feet bgs (45.7 mg/kg) and 10 feet bgs (73.6 mg/kg) and in boring MW-12A at depths of 26 feet bgs (2,210 mg/kg) and 32 feet bgs (267 mg/kg). TPHg was present in the soil samples collected from boring MW-12 at depths of 8 feet bgs and 10 feet bgs at concentrations of 210 mg/kg and 422 mg/kg, respectively. TPHg was also present in the soil samples collected from boring MW-12A at depths of 26 feet bgs and 32 feet bgs at concentrations of 6,840 mg/kg and 943

mg/kg, respectively. Benzene was present in the soil samples collected from boring MW-12 at depths of 8 feet bgs, 10 feet bgs, and at 20 feet bgs at concentrations of 5.2 mg/kg, 4 mg/kg, and 0.019 mg/kg, respectively. Benzene was also present in the soil samples collected from boring MW-12A at depths of 26 feet bgs and 32 feet bgs at concentrations of 80.9 mg/kg and 4.9 mg/kg, respectively. Toluene, ethylbenzene, and total xylenes were present in the soil samples collected at concentrations up to 232 mg/kg, 178 mg/kg, and 607 mg/kg, respectively. These elevated concentrations were reported in the soil sample collected from boring MW-12A at a depth of 26 feet bgs.

Analytical results from the soil samples collected from the four borings indicate that fuel oxygenates MTBE, TBA, and TAME were present at concentrations up to 0.064 mg/kg, 0.044 mg/kg, and 0.048 mg/kg, respectively.

Analytical results from the soil samples collected from the four borings indicate that lead was present in each of the samples collected and submitted for analysis at concentrations up to 13.1 mg/kg. All other constituents analyzed from each of the soil samples collected were below the laboratory's indicated reporting limits. Soil analytical results are presented in **Table 1**. A copy of the laboratory report and chain-of-custody documentation is presented as **Attachment H**.

Well Sampling

Groundwater samples were collected from the two monitoring/extraction wells MW-11 and MW-12 and monitoring wells MW-12A and MW-13 on July 6, 2010. Analytical results indicate that TPH-DRO was present in each of the four groundwater samples collected and submitted for analysis at concentrations ranging from 89.3 micrograms per liter [µg/L] (MW-12A) to 990 µg/L (MW-12). TPHg was present in each of the four groundwater samples collected and submitted for analysis at concentrations ranging from 99.2 µg/L (MW-11) to 20,300 µg/L (MW-12). Benzene, toluene, ethylbenzene, and total xylenes were present in the groundwater samples collected and submitted for analysis at concentrations up to 1,030 µg/L, 955 µg/L, 311 µg/L, and 2,450 µg/L, respectively. These concentrations were each reported in the groundwater sample collected from monitoring/extraction well MW-12. Fuel oxygenates MTBE, TBA, and TAME were reported at concentrations up to 1,650 µg/L, 1,430 µg/L, and 1.0 µg/L, respectively in the groundwater sample collected and submitted from monitoring/extraction well MW-12. Groundwater analytical results are presented in **Table 2**. A copy of the laboratory report and chain-of-custody documentation is presented as **Attachment H**.

DISCUSSION

During the groundwater extraction event, discussed above, Delta decided to attempt batch extraction using monitoring well MW-12A. This was done in an attempt to reduce the petroleum hydrocarbon concentrations reported in the groundwater sample collected from boring B-5 at a depth of 32 feet bgs during the December 2009 site investigation.

As indicated above, the groundwater samples collected from monitoring/extraction wells MW-11 and MW-12 and monitoring wells MW-12A and MW-13 were additionally analyzed for total and dissolved iron by EPA Method 6010, sulfate by EPA Method 300, nitrogen, nitrate and nitrogen (NO_2 plus NO_3) by EPA Method 352.2, and nitrite as N by SM 4500-NO_2 B. These additional analyses were conducted for the purpose of

accessing if the infiltration of magnesium sulfate ($MgSO_4$) into the groundwater is a viable remediation option for this site. Delta's engineering team is currently evaluating this data.

CONCLUSIONS AND RECOMMENDATIONS

Based on the analytical results from the soil samples collected during this investigation it appears that the soil in the vicinity of monitoring wells MW-12 and MW-12A is impacted by petroleum hydrocarbons and to a lesser extent fuel oxygenates. This appears to indicate that the impacted soil at this location is from an old release, due to the lack of fuel oxygenates in the impacted soil. Soil analytical results are presented in **Table 1**.

According to the historical data obtained for this site, the waste-oil UST was removed in 1994 and the remainder of the site was upgraded in 1995. The station building, the fuel USTs, the fuel dispensers, and the product piping were each removed and replaced. At that time, most of the known impacted soil in the vicinity of the former station building, fuel USTs, fuel dispensers, and product piping was removed and replaced with what was described as "clean-engineered fill". However, as indicated below the groundwater beneath the site is impacted by petroleum hydrocarbons and to a lesser extent fuel oxygenates.

Based on the analytical results from this investigation, the previous Delta investigation conducted in December 2009, and previous groundwater monitoring conducted at this site, it appears that the groundwater beneath the site is impacted by TPHg, TPH-DRO, BTEX MTBE, TBA, and TAME in the vicinity of wells MW-12, MW-12A, MW-6 and TPHg and TPH-DRO in the vicinity of wells MW-13, MW-11, MW-8, MW-9, MW-3, MW-7, and MW-10. Groundwater analytical results are presented in **Table 2**. The analytical results from the groundwater samples collected from borings B-4 and B-5 during the Delta 2009 investigation were generally three orders of magnitude greater than those reported in the groundwater samples collected from monitoring/extraction wells MW-11, MW-12, and monitoring well MW-12A. The reported petroleum hydrocarbon concentrations in the groundwater samples collected from borings B-4 and B-5 are likely not representative of site conditions.

Due to the elevated concentrations reported in the groundwater samples collected from monitoring/extraction well MW-12 and monitoring well MW-12A additional investigation is warranted down-gradient, southeast of the site. However, due to the City of Oakland's unwillingness to allow borings or monitoring wells be installed in Hegenberger Road, additional investigation in this direction is not feasible. An additional boring or monitoring well could likely be installed southeast of the site, across Hegenberger Road; however, due to this distance from the site, the value of the data obtained would not be worth the cost to conduct this additional investigation. This additional investigation would likely indicate that the soil and the groundwater off-site, down-gradient of the site at this location is not impacted by petroleum hydrocarbons or fuel oxygenates. Therefore, Delta recommends that groundwater samples be collected from wells MW-6, MW-10, MW-11, MW-12, MW-12A, and MW-13 on a quarterly basis, monitoring wells MW-3, MW-7, MW-8, and MW-9 be sampled on a semi-annual basis during the second and fourth quarters of each year, and depth to groundwater measurements be recorded from each of the well associated with this site on a quarterly basis. In addition, Delta recommends that batch extraction continue

periodically, at least monthly, from monitoring/extraction well MW-12 and monitoring wells MW-6 and MW-12A in an effort to reduce the petroleum hydrocarbon and to a lesser extent the fuel oxygenate concentrations in the groundwater beneath the site.

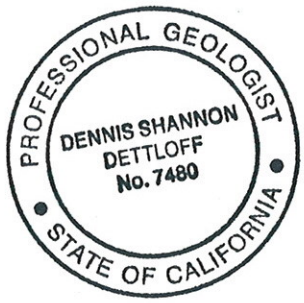
REMARKS/SIGNATURES

The recommendations contained in this report represent Delta's professional opinions based upon the currently available information and are arrived at in accordance with currently acceptable professional standards. This report is based upon a specific scope of work requested by the client. The Contract between Delta and its client outlines the scope of work, and only those tasks specifically authorized by that contract or outlined in this report will be performed. This report is intended only for the use of Delta's Client and anyone else specifically listed on this report. Delta will not and cannot be liable for unauthorized reliance by any other third party. Other than as contained in this paragraph, Delta makes no expressed or implied warranty as to the contents of this report.

If you have any questions regarding this project, please contact Dennis Dettloff at (916) 503-1261.

Sincerely,
DELTA CONSULTANTS

Dennis S. Dettloff, P.G.
Senior Project Manager
California Professional Geologist No. 7480



FIGURES

Figure 1 – Site Location Map
Figure 2 – Site Map
Figure 3 – Site Map with Historic Sample Locations
Figure 4 – Potentiometric Surface Map

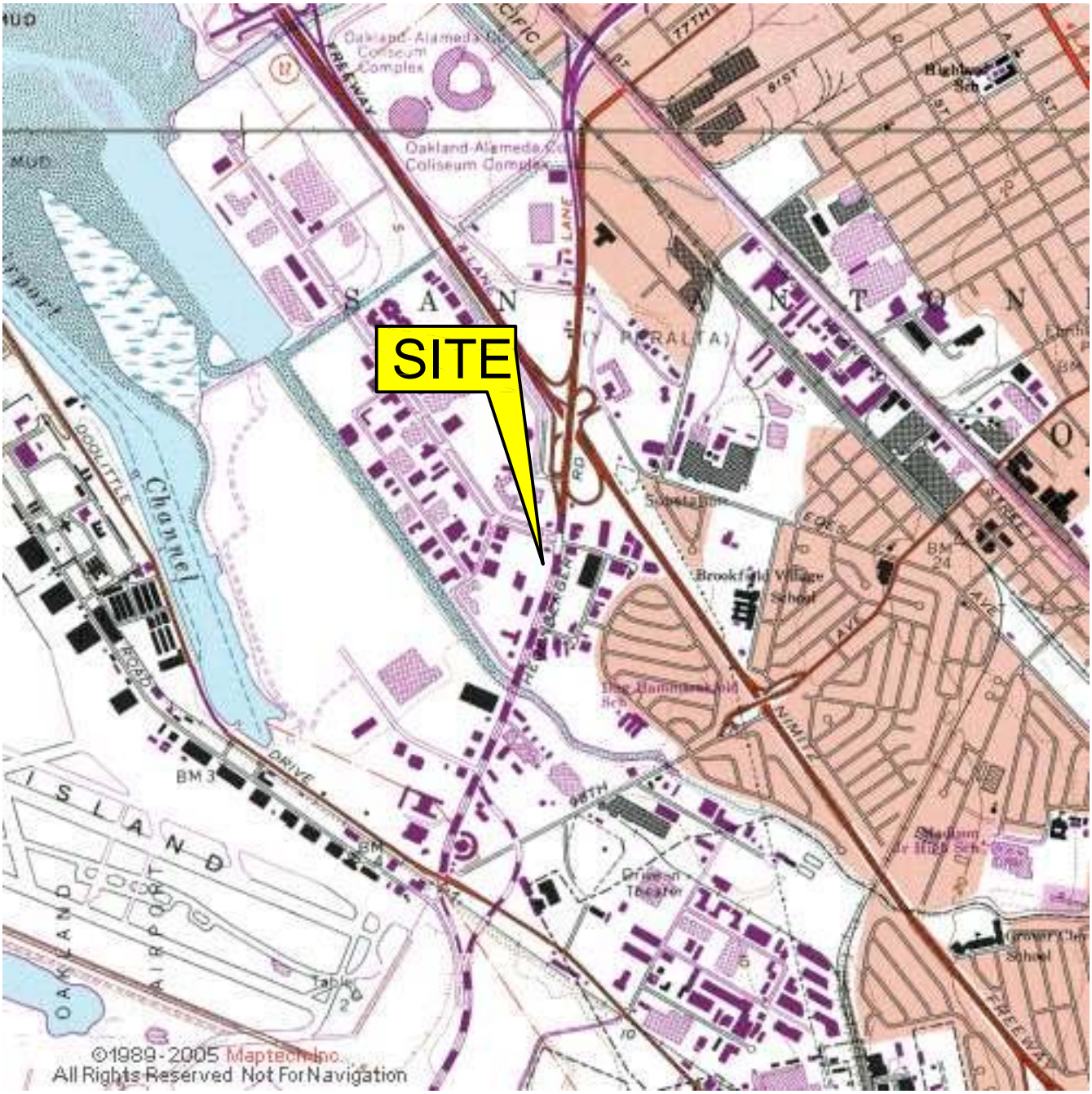
TABLES

Table 1 – Historical Soil Analytical Results
Table 2 – Groundwater Analytical Results

ATTACHMENTS

Attachment A – ACHCSA Letter, Dated April 22, 2010
Attachment B – Drilling Permits
Attachment C – Boring Logs
Attachment D – Well Development Logs
Attachment E – Groundwater Sampling Forms
Attachment F – Waste Manifest
Attachment G – DWR Well Completion Forms
Attachment H – Analytical Reports and Chain-of-Custody Documentation

Figures



North

0 900 1800 FT

SCALE

SOURCE: USGS 7.5 MINUTE TOPOGRAPHIC MAP, OAKLAND EAST QUADRANGLE (1973)

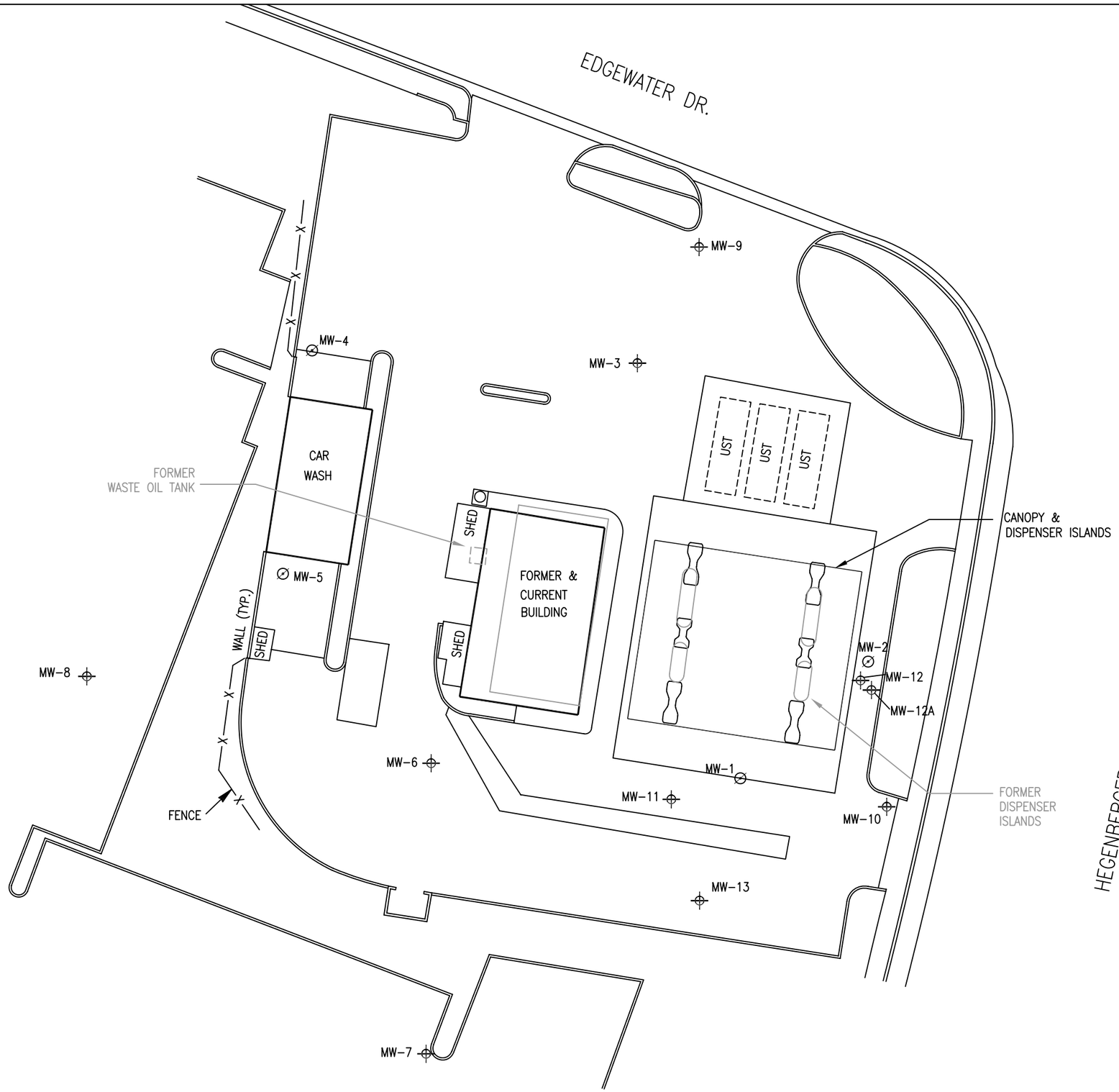
FIGURE 1

SITE LOCATION MAP

76 Station No. 5191/5043
449 HEGENBERGER ROAD
OAKLAND, CALIFORNIA

PROJECT NO. 142611270	DRAWN BY JH 06/02/09
FILE NO. 11270-SiteLocator	PREPARED BY DD
REVISION NO.	REVIEWED BY

DELTA®



LEGEND

⊕ MW– MONITORING WELL

⊘ MW– ABANDONED MONITORING WELL

North

0 30

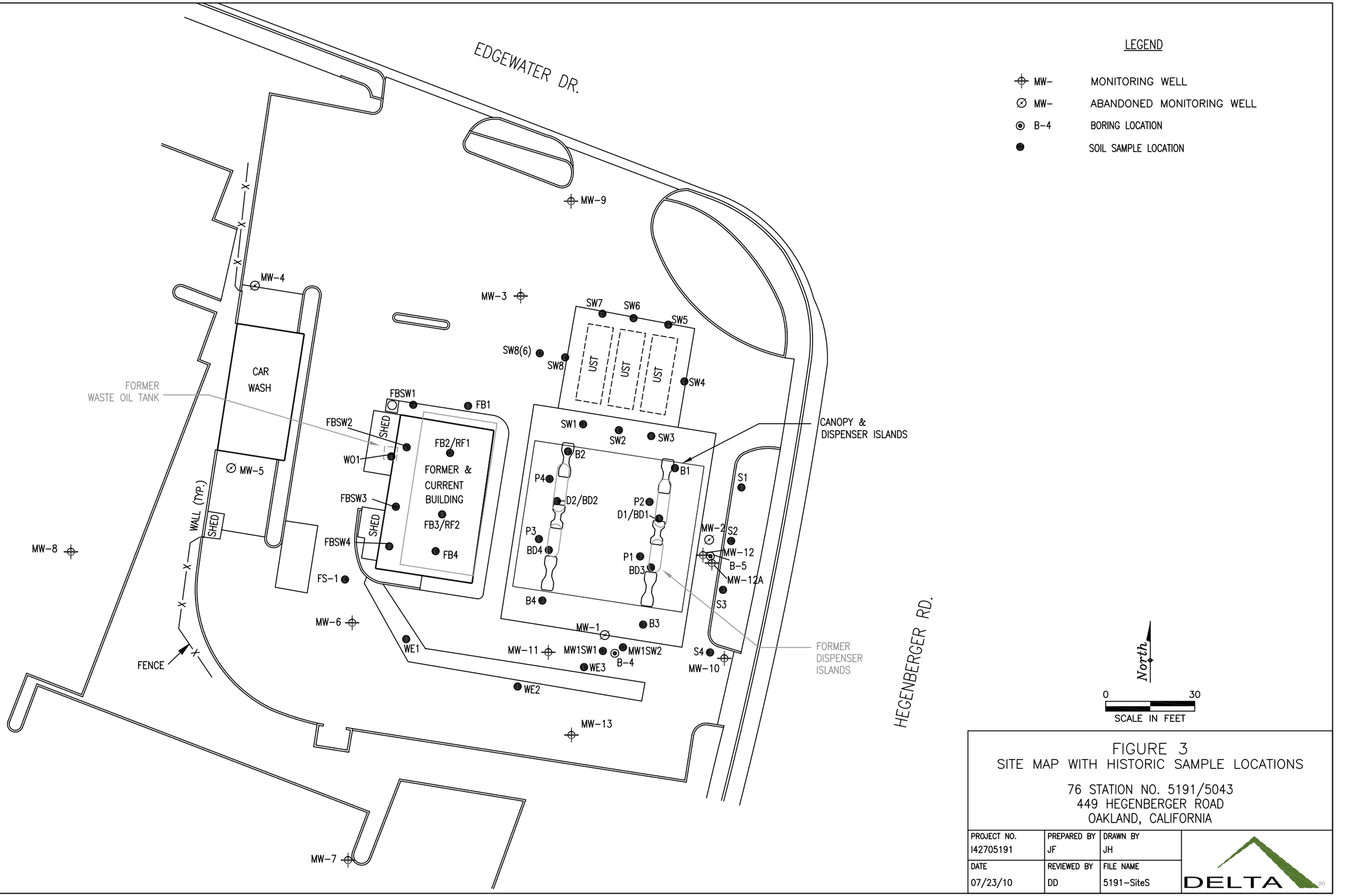
SCALE IN FEET

FIGURE 2
SITE MAP

76 STATION NO. 5191/5043
449 HEGENBERGER ROAD
OAKLAND, CALIFORNIA

PROJECT NO.	PREPARED BY	DRAWN BY
142705191	JF	JH
DATE	REVIEWED BY	FILE NAME
07/23/10	DD	5191-SiteS

DELTA



LEGEND

- MW– MONITORING WELL
- MW– ABANDONED MONITORING WELL
- B–4 BORING LOCATION
- SOIL SAMPLE LOCATION

FIGURE 3
SITE MAP WITH HISTORIC SAMPLE LOCATIONS

76 STATION NO. 5191/5043
449 HEGENBERGER ROAD
OAKLAND, CALIFORNIA

PROJECT NO.	PREPARED BY	DRAWN BY
142705191	JF	JH
DATE	REVIEWED BY	FILE NAME
07/23/10	DD	5191–SiteS

DELTA®

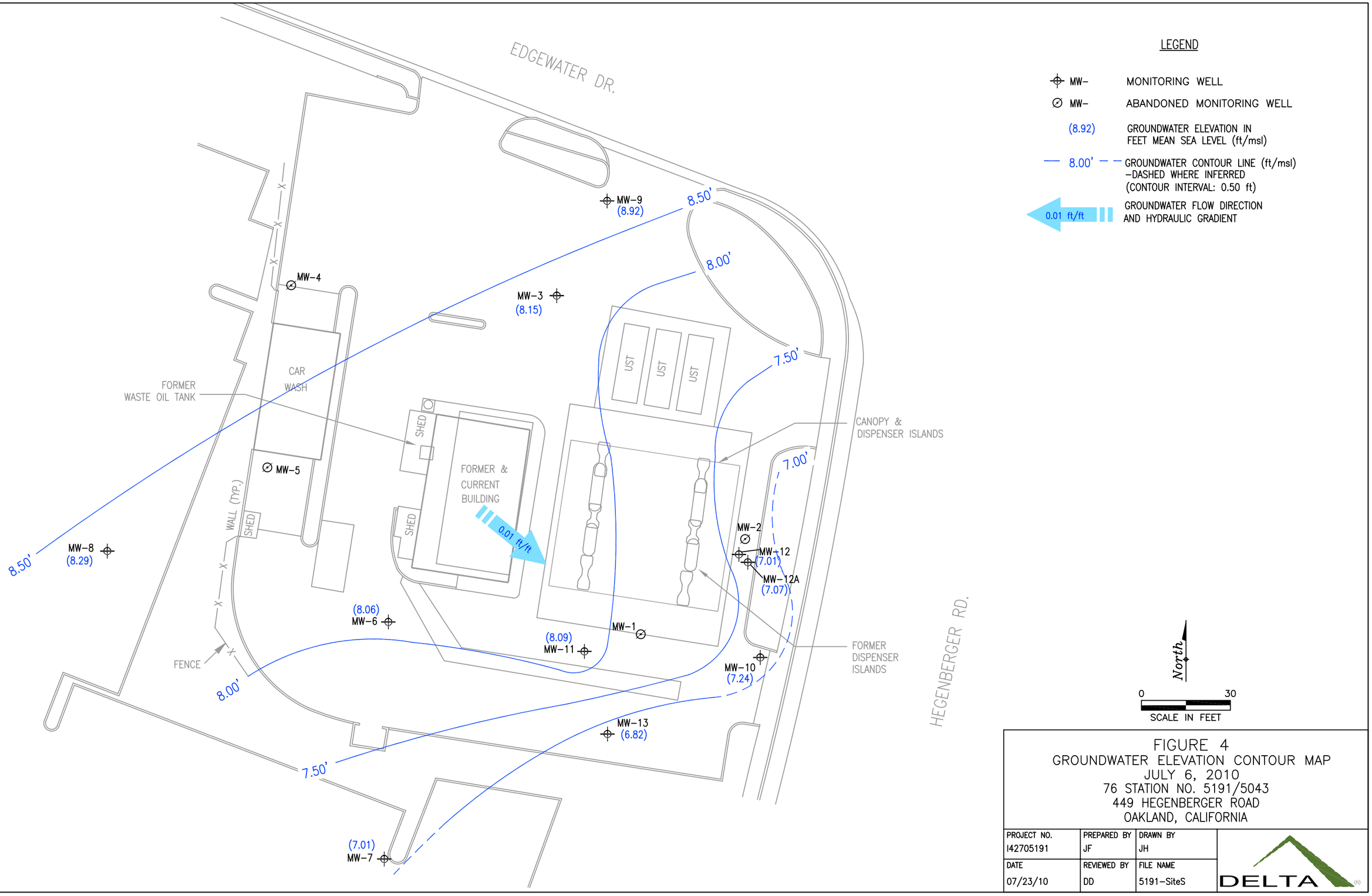


FIGURE 4
GROUNDWATER ELEVATION CONTOUR MAP
JULY 6, 2010
76 STATION NO. 5191/5043
449 HEGENBERGER ROAD
OAKLAND, CALIFORNIA

PROJECT NO.	PREPARED BY	DRAWN BY
142705191	JF	JH
DATE	REVIEWED BY	FILE NAME
07/23/10	DD	5191-SiteS

DELTA®

Tables

TABLE 1

HISTORICAL SOIL ANALYTICAL RESULTS
76 Station No. 5191/5043
449 Hegenberger Raod, Oakland, California

Sample ID	Date	Sample Depth (feet)	TPHg (mg/kg)	TPHg* (mg/kg)	TPHd (mg/kg)	TPHd* (mg/Kg)	Benzene (mg/kg)	Toluene (mg/kg)	Ethyl-benzene (mg/kg)	Total Xylenes (mg/kg)	MTBE (mg/kg)	TBA (mg/kg)	TAME (mg/kg)	Lead (mg/kg)
P1	10/25/1991	3	3,200	NA	420	NA	33	120	110	540	NA	NA	NA	NA
P2	10/25/1991	3	9,000	NA	8,400	NA	46	120	330	1,500	NA	NA	NA	NA
P3	10/25/1991	3	7,100	NA	1,100	NA	48	410	220	1,200	NA	NA	NA	NA
P4	10/25/1991	3	370	NA	460	NA	7.4	39	12	77	NA	NA	NA	NA
MW1(2.5)	2/5/1992	2.5	14,000	NA	1,200	NA	160	680	470	2,400	NA	NA	NA	NA
MW2(3.5)	2/5/1992	3.5	9,000	NA	2,400	NA	74	440	280	1,400	NA	NA	NA	NA
MW2(4.5)	2/5/1992	4.5	31	NA	29	NA	2.4	0.14	3.0	9.0	NA	NA	NA	NA
MW3(3)	2/5/1992	3	<1.0	NA	49	NA	<0.005	<0.005	<0.005	0.011	NA	NA	NA	NA
MW3(4.5)	2/5/1992	4.5	<1.0	NA	<1.0	NA	<0.005	<0.005	<0.005	<0.005	NA	NA	NA	NA
MW4(5)	8/21/1992	5	<1.0	NA	<1.0	NA	<0.005	<0.005	<0.005	0.0066	NA	NA	NA	NA
MW5(6)	8/21/1992	6	340	NA	43	NA	1.1	1.2	7.8	13	NA	NA	NA	NA
MW6(5)	8/21/1992	5	3.7	NA	1.2	NA	0.9	<0.005	1.0	0.05	NA	NA	NA	NA
WO1	9/20/1994	9	<1.0	NA	NA	NA	<0.005	<0.005	<0.005	<0.005	NA	NA	NA	5.0
MW9(3)	1/25/1995	3	1.7	NA	2.6	NA	0.016	<0.005	<0.005	<0.005	NA	NA	NA	NA
MW10(2.5)	1/25/1995	2.5	44	NA	17	NA	2.0	1.5	2.3	5.4	NA	NA	NA	NA
SW1	3/10/1995	8	11	NA	NA	NA	2.8	<0.005	1.6	0.067	NA	NA	NA	NA
SW2	3/10/1995	8	11	NA	NA	NA	3.8	<0.005	0.79	0.034	NA	NA	NA	NA
SW2(4)	3/10/1995	4	2,000	NA	140	NA	<0.005	53	42	240	NA	NA	NA	NA
SW3	3/10/1995	8	1	NA	<1.0	NA	0.009	0.006	0.007	0.014	NA	NA	NA	NA
SW4	3/10/1995	8	<1.0	NA	1.8	NA	<0.005	<0.005	<0.005	<0.005	NA	NA	NA	NA
SW5	3/10/1995	8	<1.0	NA	1.4	NA	<0.005	<0.005	<0.005	<0.005	NA	NA	NA	NA
SW6	3/10/1995	8	<1.0	NA	NA	NA	<0.005	<0.005	<0.005	<0.005	NA	NA	NA	NA
SW7	3/10/1995	8	<1.0	NA	NA	NA	<0.005	<0.005	<0.005	<0.005	NA	NA	NA	NA
SW8	3/10/1995	8	140	NA	NA	NA	2.6	5.3	2.7	12	NA	NA	NA	NA
D1	3/24/1995	3	760	NA	46	NA	1.5	19	15	73	NA	NA	NA	NA
D2	3/24/1995	3	1,200	NA	97	NA	1.6	16	22	110	NA	NA	NA	NA
B1	3/28/1995	6	<1.0	NA	<1.0	NA	0.13	0.026	0.0088	0.059	NA	NA	NA	NA
B2	3/28/1995	6	3.4	NA	<1.0	NA	2.8	0.041	0.19	0.28	NA	NA	NA	NA
B3	3/28/1995	6	<1.0	NA	<1.0	NA	<0.005	0.01	<0.005	0.017	NA	NA	NA	NA
B4	3/28/1995	6	<1.0	NA	<1.0	NA	<0.005	0.017	<0.005	0.032	NA	NA	NA	NA
BD1	3/28/1995	6	<1.0	NA	<1.0	NA	0.21	0.011	0.018	0.038	NA	NA	NA	NA
BD2	3/28/1995	6	12	NA	4.8	NA	2.6	0.68	0.56	1.7	NA	NA	NA	NA
BD3	3/28/1995	6	<1.0	NA	<1.0	NA	0.012	0.014	0.012	0.043	NA	NA	NA	NA
BD4	3/28/1995	6	<1.0	NA	<1.0	NA	<0.005	0.011	0.0072	0.037	NA	NA	NA	NA
S1	3/28/1995	4	110	NA	<1.0	NA	3.5	0.61	7.0	13	NA	NA	NA	NA
S2	3/28/1995	4	1.4	NA	9.4	NA	0.028	0.012	0.015	0.019	NA	NA	NA	NA
S3	3/28/1995	4	22	NA	2.9	NA	1.2	1.2	0.65	1.9	NA	NA	NA	NA
S4	3/28/1995	4	150	NA	5.8	NA	6.8	5.6	5.3	27	NA	NA	NA	NA
RF1	3/31/1995	3	2,000	NA	330	NA	8.8	68	55	280	NA	NA	NA	NA
RF2	3/31/1995	3	3,300	NA	230	NA	18	160	110	550	NA	NA	NA	NA
SW8(6)	4/3/1995	8	<1.0	NA	<1.0	NA	0.0085	<0.005	0.0084	0.011	NA	NA	NA	NA
FB1	4/3/1995	4.5	25	NA	8.6	NA	2.1	0.058	2.2	1.3	NA	NA	NA	NA
FB2	4/3/1995	4.5	7.1	NA	1.6	NA	0.4	0.018	0.81	1.7	NA	NA	NA	NA
FB3	4/3/1995	4.5	1.6	NA	<1.0	NA	0.028	<0.005	0.13	0.26	NA	NA	NA	NA
FB4	4/3/1995	4.5	1.4	NA	<1.0	NA	0.23	0.022	0.05	0.15	NA	NA	NA	NA
FBSW1	4/3/1995	3	7.4	NA	1.3	NA	0.066	0.021	1.0	<0.005	NA	NA	NA	NA
FBSW2	4/3/1995	3	70	NA	7.6	NA	0.11	0.096	2.1	6.7	NA	NA	NA	NA
FBSW3	4/3/1995	3	2.3	NA	7.8	NA	0.012	0.01	0.018	0.012	NA	NA	NA	NA
FBSW4	4/3/1995	3	9	NA	3.7	NA	0.25	0.036	0.93	0.062	NA	NA	NA	NA
MW1SW1	4/5/1995	5	25	NA	2.8	NA	2.1	0.025	2.4	0.19	NA	NA	NA	NA
MW1SW2	4/5/1995	5	4.2	NA	1.2	NA	0.17	0.01	0.68	0.048	NA	NA	NA	NA
WE1	4/5/1995	4.5	26	NA	3.4	NA	0.31	0.3	0.59	2.6	NA	NA	NA	NA
WE2	4/5/1995	4.5	2.7	NA	5.1	NA	0.0054	0.0065	0.038	0.17	NA	NA	NA	NA
WE3	4/5/1995	4.5	8.2	NA	1.6	NA	0.21	0.074	1.6	0.0076	NA	NA	NA	NA
FS-1	4/5/1995	4	12	NA	<1.0	NA	0.28	<0.005	1.5	0.016	NA	NA	NA	NA
MW8(6)	4/21/1997	6	1.3	NA	<1.0	NA	0.0051	<0.005	0.015	0.041	<0.005	NA	NA	NA

TABLE 1

HISTORICAL SOIL ANALYTICAL RESULTS
76 Station No. 5191/5043
449 Hegenberger Raod, Oakland, California

Sample ID	Date	Sample Depth (feet)	TPHg (mg/kg)	TPHg* (mg/kg)	TPHd (mg/kg)	TPHd* (mg/Kg)	Benzene (mg/kg)	Toluene (mg/kg)	Ethyl-benzene (mg/kg)	Total Xylenes (mg/kg)	MTBE (mg/kg)	TBA (mg/kg)	TAME (mg/kg)	Lead (mg/kg)
Delta 2009														
B-4@6	12/17/2009	6	**20.4**	NA	**11.4**	**10.1**	**0.046**	**0.18**	**1.0**	**4.2**	**0.061**	**0.091**	<0.0029	NA
B-4@15	12/17/2009	15	<4.9	NA	<5.8	<5.8	**0.0036**	**0.0069**	**0.011**	**0.049**	**0.0081**	**0.036**	<0.003	NA
B-4@20	12/17/2009	20	<4.9	NA	<5.6	<5.6	<0.003	<0.003	<0.003	<0.006	<0.003	<0.015	<0.003	NA
B-5@8	12/17/2009	8	**1,060**	NA	**285**	**269**	**6.2**	**21.6**	**30.9**	**143**	<0.0029	**0.079**	**0.068**	NA
B-5@17.5	12/17/2009	17.5	**136**	NA	**27.8**	**26.9**	**0.55**	**1.4**	**2.7**	**15.8**	<0.003	**0.035**	<0.003	NA
B-5@26.5	12/17/2009	26.5	**1,570**	NA	**338**	**346**	**16.2**	**73.5**	**52.8**	**255**	**0.02**	**0.11**	<0.0028	NA
B-5@32	12/17/2009	32	<4.8	NA	<5.9	<5.9	**0.007**	**0.0087**	**0.0057**	**0.031**	<0.0029	<0.015	<0.0029	NA
Delta 2010														
MW-11@10	6/22/2010	10	NA	<0.18	NA	**3.2**	<0.0022	<0.0022	<0.0022	<0.0066	**0.011**	<0.011	<0.0022	**6.1**
MW-11@20	6/22/2010	20	NA	<0.25	NA	**27.3**	<0.0027	<0.0027	<0.0027	<0.0081	<0.0027	<0.013	<0.0027	**3.4**
MW-12@8	6/22/2010	8	NA	**210**	NA	**45.7**	**5.2**	**9.1**	**6.7**	**33.3**	<0.0028	**0.021**	<0.0028	**8.6**
MW-12@10	6/22/2010	10	NA	**422**	NA	**73.6**	**4.0**	**3.5**	**11.0**	**31.4**	<0.0029	<0.015	**0.023**	**9.5**
MW-12@20	6/22/2010	20	NA	<0.24	NA	<2.0	**0.019**	<0.0028	<0.0028	<0.0085	<0.0028	<0.014	<0.0028	**6.6**
MW-12A@26	6/23/2010	26	NA	**6,840**	NA	**2,210**	**80.9**	**232**	**178**	**607**	<0.0027	<0.014	<0.0027	**13.1**
MW-12A@32	6/23/2010	32	NA	**943**	NA	**267**	**4.9**	**15.5**	**12.0**	**42.6**	**0.045**	**0.044**	**0.048**	**6.6**
MW-12A@34	6/23/2010	34	NA	<0.22	NA	<1.9	<0.0027	**0.0097**	**0.0074**	**0.033**	<0.0027	<0.013	<0.0027	**4.9**
MW-13@8	6/22/2010	8	NA	<0.21	NA	<2.0	<0.0026	<0.0026	<0.0026	<0.0077	**0.064**	<0.013	<0.0026	**3.6**
MW-13@15	6/22/2010	15	NA	<0.24	NA	<2.0	<0.0029	<0.0029	<0.0029	<0.0087	<0.0029	<0.014	<0.0029	**5.9**

Notes:
TPHg = total petroleum hydrocarbons as gasoline by EPA Method 8015
TPHg* = total petroleum hydrocarbons as gasoline by CA LUFT
TPHd = total petroleum hydrocarbons as diesel by EPA Method 8015B
TPHd* = total petroleum hydrocarbons as diesel by EPA Method 8015 Silica Gel Treated
BTEX = benzene, toluene, ethylbenzene, total xylenes by EPA Method 8260B
MTBE = methyl tertiary-butyl ether by EPA Method 8260
TBA = tertiary-butyl alcohol by EPA Method 8260
TAME = tert-amyl methyl ether by EPA Method 8260
mg/kg = milligrams per kilogram
NA = not applicable

TABLE 2

GROUNDWATER ANALYTICAL RESULTS
76 Station No. 5191/5043
449 Hegenberger Road, Oakland, California

Sample ID	Date	Sample Depth	TPHg (µg/L)	TPH-DRO (µg/L)	TPH-DRO[1] (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethyl-benzene (µg/L)	Total Xylenes (µg/L)	MTBE (µg/L)	TBA (µg/L)	TAME (µg/L)	1,2-DCA (µg/L)
Delta 2009													
B-4	12/17/2009	20	**97,100**	**11,300**	**13,500**	**6,960**	**8,310**	**6,420**	**26,000**	**241**	**167**	<25.0	<50
B-5@20W	12/17/2009	20	**23,500,000**	**19,900,000**	**20,400,000**	**324,000**	**1,050,000**	**918,000**	**4,120,000**	<50	<500	<50.0	<100
B-5@32W	12/17/2009	32	**422,000**	**294,000**	**291,000**	**8,100**	**20,200**	**9,580**	**60,800**	**632**	<250	<25.0	**511**
Delta 2010													
MW-11	7/6/2010	NA	**99.2***	NA	**226**	<0.50	<0.50	<0.50	<1.5	**165**	**174**	<0.50	<1.0
MW-12	7/6/2010	NA	**20,300***	NA	**990**	**1,030**	**955**	**311**	**2,450**	**1,650**	**1,430**	**1.0**	<1.0
MW-12A	7/6/2010	NA	**664***	NA	**89.3**	**18.3**	**0.78**	**2.3**	**50.2**	**14.3**	**11.9**	<0.50	<1.0
MW-13	7/6/2010	NA	**122***	NA	**469**	<0.50	<0.50	<0.50	<1.5	**217**	**199**	<0.50	<1.0

Notes:

TPHg = total petroleum hydrocarbons as gasoline by EPA Method 8015

TPH-DRO = total petroleum hydrocarbons as diesel range organis by EPA Method 8015

*TPHg = total petroleum hydrocarbons as gasoline by the California LUFT Method

BTEX = benzene, toluene, ethyl-benzene, total xylenes by EPA Method 8260

MTBE = methyl tertiary-butyl ether by EPA Method 8260

1,2-DCA = 1,2-Dichlorethane by EPA Method 8260

1 = TPHd (silica gel treated)

µg/L = micrograms per liter

NA = not applicable

Attachment A

ACHCSA Letter Dated April 22, 2010

ALAMEDA COUNTY
HEALTH CARE SERVICES
AGENCY
ALEX BRISCOE, Agency Director

ENVIRONMENTAL HEALTH SERVICES
ENVIRONMENTAL PROTECTION
1131 Harbor Bay Parkway, Suite 250
Alameda, CA 94502-6577
(510) 567-6700
FAX (510) 337-9335

April 22, 2010

Mr. Terry Grayson (Sent via e-mail: Terry.L.Grayson@contractor.conocophillips.com)
ConocoPhillips
76 Broadway
Sacramento, CA 95818

Ms. Liz Bermudez (Sent via e-mail: lbermudez@pcandf.com)
Pacific Convenience and Fuel
2603 Camino Ramon, Suite 350
San Ramon, CA 94583

Subject: Fuel Leak Case No. RO00000219 and Geotracker Global ID T0600101476, Unocal #5043, 449 Hegenberger Rd., Oakland, CA 94621

Dear Mr. Grayson and Ms. Bermudez:

Thank you for the recently submitted documents entitled, *Site Investigation Report* and *Work Plan – Additional Site Investigation* dated February 12 and February 19, 2010, respectively, which were prepared by Delta Consultants for the subject site. Alameda County Environmental Health (ACEH) staff has reviewed the case file including the above-mentioned report/work plan for the above-referenced site. The SWI and work plan discuss separate phase hydrocarbons discovered at the site in borings B-4 and B-5 and a proposal for the installation of wells to monitor SPH on- and off-site.

ACEH generally concurs with the proposed scope of work and requests that you address the following technical comments, perform the proposed work, and send us the technical reports described below.

We request that you move forward with installing the on-site wells if the City of Oakland does not easily give you an encroachment permit so that SPH removal can begin. Please perform quarterly monitoring on all new wells. After one year, reevaluate your monitoring network and propose an appropriate monitoring frequency.

NOTIFICATION OF FIELDWORK ACTIVITIES

Please schedule and complete the fieldwork activities by the date specified below and provide ACEH with at least three (3) business days notification prior to conducting the fieldwork.

TECHNICAL REPORT REQUEST

Please submit technical reports to ACEH (Attention: Barbara Jakub), according to the following schedule:

- **July 31, 2010** – Soil and Water Investigation Report
- **Due within 30 Days of Sampling** – Quarterly/Semi-annual Monitoring Report (2nd Quarter 2010)
- **Due within 30 Days of Sampling** – Quarterly/Semi-annual Monitoring Report (3rd Quarter 2010)
- **Due within 30 Days of Sampling** – Quarterly/Semi-annual Monitoring Report (4th Quarter 2010)
- **Due within 30 Days of Sampling** – Quarterly/Semi-annual Monitoring Report (1st Quarter 2011)

Thank you for your cooperation. Should you have any questions or concerns regarding this correspondence or your case, please call me at (510) 639-1287 or send me an electronic mail message at barbara.jakub@acgov.org.

Sincerely,

Digitally signed by Barbara Jakub
DN: cn=Barbara Jakub, o=Local Oversight Program, ou=Alameda County Environmental Health, email=barbara.jakub@acgov.org, c=US
Date: 2010.04.22 15:07:10 -07'00'

Barbara J. Jakub, P.G.
Hazardous Materials Specialist

Enclosures: Responsible Party(ies) Legal Requirements/Obligations
ACEH Electronic Report Upload (ftp) Instructions

cc: Dennis Detloff, Delta, 11050 White Rock Rd., Suite 110, Rancho Cordova, CA, 94670 (Sent via E-mail to: DDettloff@deltaenv.com)
Leroy Griffin, Oakland Fire Department, 250 Frank H. Ogawa Plaza, Ste. 3341, Oakland, CA 94612-2032 (*Sent via E-mail to: lgriffin@oaklandnet.com*)
Donna Drogos, ACEH (*Sent via E-mail to: donna.drogos@acgov.org*)
Barbara Jakub, ACEH (*Sent via E-mail to: barbara.jakub@acgov.org*)
GeoTracker
File

Attachment 1
Responsible Party(ies) Legal Requirements/Obligations

REPORT REQUESTS

These reports are being requested pursuant to California Health and Safety Code Section 25296.10. 23 CCR Sections 2652 through 2654, and 2721 through 2728 outline the responsibilities of a responsible party in response to an unauthorized release from a petroleum UST system, and require your compliance with this request.

ELECTRONIC SUBMITTAL OF REPORTS

ACEH's Environmental Cleanup Oversight Programs (LOP and SLIC) require submission of reports in electronic form. The electronic copy replaces paper copies and is expected to be used for all public information requests, regulatory review, and compliance/enforcement activities. Instructions for submission of electronic documents to the Alameda County Environmental Cleanup Oversight Program FTP site are provided on the attached "Electronic Report Upload Instructions." Submission of reports to the Alameda County FTP site is an addition to existing requirements for electronic submittal of information to the State Water Resources Control Board (SWRCB) GeoTracker website. In September 2004, the SWRCB adopted regulations that require electronic submittal of information for all groundwater cleanup programs. For several years, responsible parties for cleanup of leaks from underground storage tanks (USTs) have been required to submit groundwater analytical data, surveyed locations of monitoring wells, and other data to the GeoTracker database over the Internet. Beginning July 1, 2005, these same reporting requirements were added to Spills, Leaks, Investigations, and Cleanup (SLIC) sites. Beginning July 1, 2005, electronic submittal of a complete copy of all reports for all sites is required in GeoTracker (in PDF format). Please visit the SWRCB website for more information on these requirements (http://www.swrcb.ca.gov/ust/electronic_submittal/report_rqmts.shtml.

PERJURY STATEMENT

All work plans, technical reports, or technical documents submitted to ACEH must be accompanied by a cover letter from the responsible party that states, at a minimum, the following: "I declare, under penalty of perjury, that the information and/or recommendations contained in the attached document or report is true and correct to the best of my knowledge." This letter must be signed by an officer or legally authorized representative of your company. Please include a cover letter satisfying these requirements with all future reports and technical documents submitted for this fuel leak case.

PROFESSIONAL CERTIFICATION & CONCLUSIONS/RECOMMENDATIONS

The California Business and Professions Code (Sections 6735, 6835, and 7835.1) requires that work plans and technical or implementation reports containing geologic or engineering evaluations and/or judgments be performed under the direction of an appropriately registered or certified professional. For your submittal to be considered a valid technical report, you are to present site specific data, data interpretations, and recommendations prepared by an appropriately licensed professional and include the professional registration stamp, signature, and statement of professional certification. Please ensure all that all technical reports submitted for this fuel leak case meet this requirement.

UNDERGROUND STORAGE TANK CLEANUP FUND

Please note that delays in investigation, later reports, or enforcement actions may result in your becoming ineligible to receive grant money from the state's Underground Storage Tank Cleanup Fund (Senate Bill 2004) to reimburse you for the cost of cleanup.

AGENCY OVERSIGHT

If it appears as though significant delays are occurring or reports are not submitted as requested, we will consider referring your case to the Regional Board or other appropriate agency, including the County District Attorney, for possible enforcement actions. California Health and Safety Code, Section 25299.76 authorizes enforcement including administrative action or monetary penalties of up to $10,000 per day for each day of violation.

Alameda County Environmental Cleanup Oversight Programs (LOP and SLIC)	**ISSUE DATE:** July 5, 2005
	REVISION DATE: March 27, 2009
	PREVIOUS REVISIONS: December 16, 2005, October 31, 2005
SECTION: Miscellaneous Administrative Topics & Procedures	**SUBJECT:** Electronic Report Upload (ftp) Instructions

The Alameda County Environmental Cleanup Oversight Programs (LOP and SLIC) require submission of all reports in electronic form to the county's ftp site. Paper copies of reports will no longer be accepted. The electronic copy replaces the paper copy and will be used for all public information requests, regulatory review, and compliance/enforcement activities.

REQUIREMENTS

- Entire report including cover letter must be submitted to the ftp site as **a single portable document format (PDF) with no password protection**. (Please do not submit reports as attachments to electronic mail.)
- It is **preferable** that reports be converted to PDF format from their original format, (e.g., Microsoft Word) rather than scanned.
- Signature pages and perjury statements **must** be included and have either original or electronic signature.
- **Do not password protect the document**. Once indexed and inserted into the correct electronic case file, the document will be secured in compliance with the County's current security standards and a password. **Documents with password protection will not be accepted.**
- Each page in the PDF document should be rotated in the direction that will make it easiest to read on a computer monitor.
- Reports must be named and saved using the following naming convention:
  RO#_Report Name_Year-Month-Date (e.g., RO#5555_WorkPlan_2005-06-14)

Additional Recommendations

- A separate copy of the tables in the document should be submitted by e-mail to your Caseworker in **Excel** format. These are for use by assigned Caseworker only.

Submission Instructions

1) Obtain User Name and Password:
   a) Contact the Alameda County Environmental Health Department to obtain a User Name and Password to upload files to the ftp site.
      i) Send an e-mail to dehloptoxic@acgov.org
         Or
      ii) Send a fax on company letterhead to (510) 337-9335, to the attention of My Le Huynh.
   b) In the subject line of your request, be sure to include **"ftp PASSWORD REQUEST"** and in the body of your request, include the **Contact Information, Site Addresses**, and the **Case Numbers (RO# available in Geotracker) you will be posting for.**

2) Upload Files to the ftp Site
   a) Using Internet Explorer (IE4+), go to ftp://alcoftp1.acgov.org
      (i) Note: Netscape and Firefox browsers will not open the FTP site.
   b) Click on File, then on Login As.
   c) Enter your User Name and Password. (Note: Both are Case Sensitive.)
   d) Open "My Computer" on your computer and navigate to the file(s) you wish to upload to the ftp site.
   e) With both "My Computer" and the ftp site open in separate windows, drag and drop the file(s) from "My Computer" to the ftp window.

3) Send E-mail Notifications to the Environmental Cleanup Oversight Programs
   a) Send email to dehloptoxic@acgov.org notify us that you have placed a report on our ftp site.
   b) Copy your Caseworker on the e-mail. Your Caseworker's e-mail address is the entire first name then a period and entire last name @acgov.org. (e.g., firstname.lastname@acgov.org)
   c) The subject line of the e-mail must start with the RO# followed by **Report Upload**. (e.g., Subject: RO1234 Report Upload) If site is a new case without an RO# use the street address instead.
   d) If your document meets the above requirements and you follow the submission instructions, you will receive a notification by email indicating that your document was successfully uploaded to the ftp site.

Attachment B

Drilling Permits

Alameda County Public Works Agency - Water Resources Well Permit

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

Application Approved on: 05/19/2010 By jamesy

Permit Numbers: W2010-0353 to W2010-0357
Permits Valid from 06/21/2010 to 06/23/2010

Application Id: 1274292138999
City of Project Site: Oakland
Site Location: 449 Hegenberger Rd, Oakland, CA
Project Start Date: 06/21/2010
Completion Date: 06/23/2010
Assigned Inspector: Contact Vicky Hamlin at (510) 670-5443 or vickyh@acpwa.org

Applicant: Delta - Jonathan Fillingame
11050 White Rock Rd, Ste 110, Rancho Cordova, CA 95670
Phone: 916-288-0150

Property Owner: The PC&F
2603 Camino Ramon, Ste 350, San Ramon, CA 94583
Phone: 925-884-0840

Client: ** same as Property Owner **

Total Due: $1985.00
Receipt Number: WR2010-0177 **Total Amount Paid:** $1985.00
Payer Name : Delta Paid By: CHECK **PAID IN FULL**

Works Requesting Permits:

Well Construction-Monitoring-Monitoring - 5 Wells
Driller: Gregg Drilling - Lic #: 485165 - Method: auger

Work Total: $1985.00

Specifications

Permit #	Issued Date	Expire Date	Owner Well Id	Hole Diam.	Casing Diam.	Seal Depth	Max. Depth
W2010-0353	05/19/2010	09/19/2010	MW-11	11.00 in.	4.00 in.	4.00 ft	20.00 ft
W2010-0354	05/19/2010	09/19/2010	MW-12	11.00 in.	4.00 in.	4.00 ft	20.00 ft
W2010-0355	05/19/2010	09/19/2010	MW-12A	8.00 in.	2.00 in.	29.00 ft	34.00 ft
W2010-0356	05/19/2010	09/19/2010	MW-13	8.00 in.	2.00 in.	4.00 ft	15.00 ft
W2010-0357	05/19/2010	09/19/2010	MW-14	8.00 in.	2.00 in.	4.00 ft	15.00 ft

Specific Work Permit Conditions

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

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

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

or to Alameda County an Traffic Safety Plan for any lane closures or detours planned. No work shall begin until all the permits and requirements have been approved or obtained.

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

5. Applicant shall submit the copies of the approved encroachment permit to this office within 60 days.

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

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

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

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

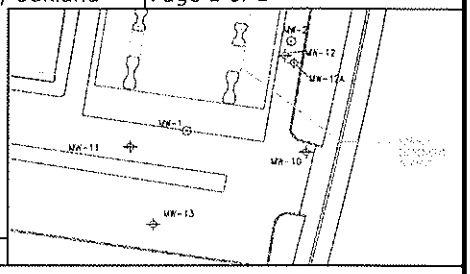
10. Copy of approved drilling permit must be on site at all times. Failure to present or show proof of the approved permit application on site shall result in a fine of $500.00.

Attachment C

Boring Logs

Delta
Consultants

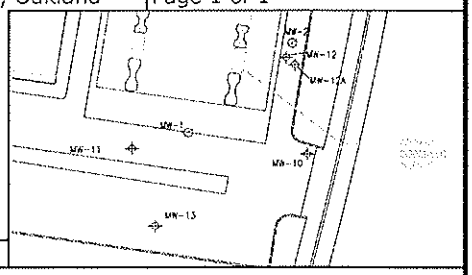
Project No:	I42705191	Client:	Delta/ELT	**Well No: MW-11**	
Logged By:	Jonathan Fillingame	Location:	449 Hegenberger Road, Oakland	Page 1 of 1	
Driller:	Gregg	Date Drilled:	6/22/2010		
Drilling Method:	Hollow Stem Auger	Hole Diameter:	11"		
Sampling Method:	Direct Push	Hole Depth:	20'		
Casing Type:	Sch 40 PVC	Well Diameter:	4"		
Slot Size:	0.020	Well Depth:	20'		
Gravel Pack:	#3 Monterey Sand	First Water Depth:	3'		
		Static Water Depth:	2.5'		
Elevation:		Northing:		Easting:	



Well Completion (Backfill / Casing)	Water Level	Blow Counts	PID Reading (ppm)	Sample Identification	Depth (feet)	Sample: Recovery	Sample: Analyzed	Soil Type	LITHOLOGY / DESCRIPTION
Neat Cement	▼ / ▽			Air-Knife	1				4" Asphalt
					2				**Clayey SAND (SC)**; brown, 60% fine to coarse sand, dense, 30% clay, medium plasticity, 10% fine gravel, damp.
					3				**Clayey GRAVEL with Sand (GC)**; brown, 60% fine to coarse gravel, loose, 20% clay, 20% fine to coarse sand, wet.
					4				
					5				**Clayey GRAVEL with Sand (GC)**; brown, 50% fine to coarse gravel, loose, 30% clay, 20% fine to coarse sand, wet.
					6				
					7				
			0.2		8				
					9				
				MW-11 @10	10				**Clayey GRAVEL (GC)**; brown, 60% fine gravel, loose, 30% clay, 10% fine to coarse sand, moist.
					11				
			0.7		12				**Clayey GRAVEL (GC)**; brown, 60% fine gravel, loose, 30% clay, 10% fine to coarse sand, wet.
					13				
					14				
			0.4		15				**Lean CLAY (CL)**; green-grey, medium plasticity, stiff, moist.
					16				
					17				No Recovery
					18				
				MW-11 @20	19				**Poorly Graded GRAVEL with Sand (GP)**; brown, 80% fine gravel, loose, 20% medium to coarse sand, wet.
			4.6		20				
					21				
					22				

Delta
Consultants

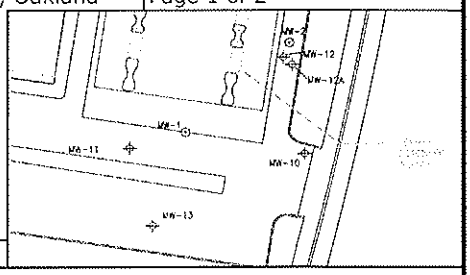
Project No:	I42705191	Client:	Delta/ELT	**Well No: MW-12**	
Logged By:	Jonathan Fillingame	Location:	449 Hegenberger Road, Oakland	Page 1 of 1	
Driller:	Gregg	Date Drilled:	6/22/2010		
Drilling Method:	Hollow Stem Auger	Hole Diameter:	11"		
Sampling Method:	Direct Push	Hole Depth:	20'		
Casing Type:	Sch 40 PVC	Well Diameter:	4"		
Slot Size:	0.020	Well Depth:	20'		
Gravel Pack:	#3 Monterey Sand	First Water Depth:	5.5'		
		Static Water Depth:	4.5'		
Elevation:		Northing:		Easting:	



Well Completion (Backfill / Casing)	Water Level	Blow Counts	PID Reading (ppm)	Sample Identification	Depth (feet)	Sample Recovery	Sample Analyzed	Soil Type	LITHOLOGY / DESCRIPTION
Neat Cement	▼			Air-Knife	1				4" Asphalt
									Fill (Silty SAND with Gravel); brown, 60% fine to coarse sand, 20% silt, 20% fine to coarse gravel, chuncks of asphalt, damp.
					2				**Lean CLAY (CL)**; dark greenish grey, 95% clay, medium stiff, medium plasticity, 5% fine sand, moist.
					3				
					4				**Lean CLAY (CL)**; dark brownish grey and black, 90% clay, stiff, medium plasticity, 5% fine sand, 5% organics/roots, moist, hydrocarbon odor.
	▽		32.9		5				
					6				**Lean CLAY with Gravel (CL)**; dark brownish grey, 80% clay, stiff, low plasticity, 20% fine gravel,
					7				**Clayey GRAVEL (GC)**; dark brown, 50% fine gravel, loose, 40% clay, low plasticity, 10% fine to coarse sand, moist.
			2365	MW-12 @8	8				
					9				
				MW-12 @10	10				**Lean CLAY (CL)**; dark grey to black, soft, medium plasticity, wet, hydrocarbon odor.
					11				
			203		12				
					13				
					14				**Lean CLAY with Sand (CL)**; green grey, 85% clay, stiff, medium plasticity, 15% fine to medium sand, moist.
					15				Color Change to Brown.
			160		16				**Fat CLAY (CH)**; black, very soft, high plasticity, wet.
					17				**Fat CLAY (CH)**; greenish grey, 90% clay, soft, high plasticity, 10% fine sand, moist.
					18				
					19				**Lean CLAY (CL)**; brown with black spots, very stiff, medium plasticity, damp.
			335	MW-12 @20	20				
					21				
					22				

Delta
Consultants

Project No:	I42705191	Client:	Delta/ELT	**Well No: MW-12A**	
Logged By:	Jonathan Fillingame	Location:	449 Hegenberger Road, Oakland	Page 1 of 2	
Driller:	Gregg	Date Drilled:	6/23/2010		
Drilling Method:	Hollow Stem Auger	Hole Diameter:	8"		
Sampling Method:	Direct Push	Hole Depth:	44'		
Casing Type:	Sch 40 PVC	Well Diameter:	2"		
Slot Size:	0.020	Well Depth:	34'		
Gravel Pack:	#3 Monterey Sand	First Water Depth:	5.5'		
		Static Water Depth:	6'		
Elevation:		Northing:		Easting:	

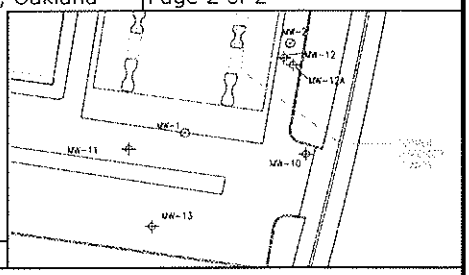


Well Completion: Backfill	Well Completion: Casing	Water Level	Blow Counts	PID Reading (ppm)	Sample Identification	Depth (feet)	Sample: Recovery	Sample: Analyzed	Soil Type	LITHOLOGY / DESCRIPTION
Neat Cement						0				4" Asphalt
						1				**Fill (Silty SAND with Gravel)**; brown, 60% fine to coarse sand, 20% silt, 20% fine to coarse gravel, chuncks of asphalt, damp.
					Air-Knife	2				**Lean CLAY (CL)**; dark greenish grey, 95% clay, medium stiff, medium plasticity, 5% fine sand, moist.
						3				**Lean CLAY (CL)**; dark brownish grey and black, 90% clay, stiff, medium plasticity, 5% fine sand, 5% organics/roots, moist, hydrocarbon odor.
		▽		32.9		4				
		▼				5				**Lean CLAY with Gravel (CL)**; dark brownish grey, 80% clay, stiff, low plasticity, 20% fine gravel,
						6				**Clayey GRAVEL (GC)**; dark brown, 50% fine gravel, loose, 40% clay, low plasticity, 10% fine to coarse sand, moist.
						7				
				2365		8				
						9				
						10				**Lean CLAY (CL)**; dark grey to black, soft, medium plasticity, wet, hydrocabon odor.
						11				
				203		12				
						13				
						14				**Lean CLAY with Sand (CL)**; green grey, 85% clay, stiff, medium plasticity, 15% fine to medium sand, moist.
						15				Color Change to Brown.
				160		16				**Fat CLAY (CH)**; black, very soft, high plasticity, wet.
						17				**Fat CLAY (CH)**; greenish grey, 90% clay, soft, high plasticity, 10% fine sand, moist.
						18				
						19				**Lean CLAY (CL)**; brown with black spots, very stiff, medium plasticity, damp.
				335		20				No Recovery
						21				
						22				

Delta
Consultants

Project No:	I42705191	Client:	Delta/ELT
Logged By:	Jonathan Fillingame	Location:	449 Hegenberger Road, Oakland
Driller:	Gregg	Date Drilled:	6/23/2010
Drilling Method:	Hollow Stem Auger	Hole Diameter:	8"
Sampling Method:	Direct Push	Hole Depth:	44'
Casing Type:	Sch 40 PVC	Well Diameter:	2"
Slot Size:	0.020	Well Depth:	34'
Gravel Pack:	#3 Monterey Sand	First Water Depth:	5.5'
		Static Water Depth:	6'
Elevation:		Northing:	Easting:

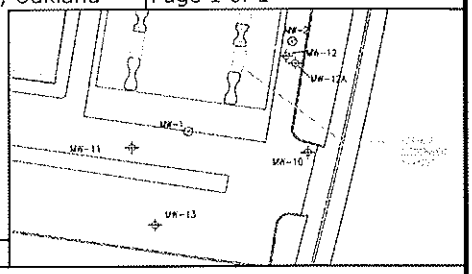
Well No: MW-12A



Well Completion (Backfill / Casing)	Water Level	Blow Counts	PID Reading (ppm)	Sample Identification	Depth (feet)	Sample: Recovery	Sample: Analyzed	Soil Type	LITHOLOGY / DESCRIPTION
Neat Cement					23				No recovery
					24				
					25				
			1277	MW-12A @26	26				**Fat CLAY (CH)**; black, soft, high plasticity, wet, hydrocarbon odor.
					27				
					28				**Lean CLAY (CL)**; brown, greenish grey, 90% clay, stiff, medium plasticity, 10% fine to coarse sand, moist.
					29				
					30				
			3400	MW-12A @32	31				**Sandy Lean CLAY (CL)**; brown, 70% clay, stiff, medium plasticity, 30% fine to coarse sand, moist.
					32				
					33				**Clayey SAND (SC)**; brown, 60% fine to medium sand, loose, 40% clay, stiff, medium plasticity, wet.
			47.9	MW-12A @34	34				**Well Graded SAND with Clay (SW-SC)**; brown, 90% fine to coarse sand, dense, 10% clay, wet.
					35				
					36				**Clayey SAND (SC)**; brown, 60% fine to medium sand, 40% clay, wet.
					37				**Well Graded SAND (SW)**; brown, fine to coarse, wet.
					38				
					39				**Well Graded SAND (SW)**; brown, 90% medium to coarse sand, loose, 10% fine gravel, wet.
Sand Caved in while Augers were removed (slough)					40				**Well Graded SAND (SW)**; brown, 95% fine to coarse sand, loose, 5% clay, wet.
					41				**Well Graded SAND (SW)**; brown, 95% fine to coarse sand, loose, 5% fine gravel, wet.
					42				
					43				**Clayey SAND (SC)**; brown, 60% fine to medium sand, loose, 40% clay, wet.
					44				

Delta
Consultants

Project No:	I42705191	Client:	Delta/ELT	**Well No: MW-13**	
Logged By:	Jonathan Fillingame	Location:	449 Hegenberger Road, Oakland	Page 1 of 1	
Driller:	Gregg	Date Drilled:	6/22/2010		
Drilling Method:	Hollow Stem Auger	Hole Diameter:	8"		
Sampling Method:	Direct Push	Hole Depth:	15'		
Casing Type:	Sch 40 PVC	Well Diameter:	2"		
Slot Size:	0.020	Well Depth:	15'		
Gravel Pack:	#3 Monterey Sand	First Water Depth:	3.5'		
		Static Water Depth:	4.5'		
Elevation:		Northing:		Easting:	



Well Completion (Backfill / Casing)	Water Level	Blow Counts	PID Reading (ppm)	Sample Identification	Depth (feet)	Sample: Recovery	Sample: Analyzed	Soil Type	LITHOLOGY / DESCRIPTION
Neat Cement	▽			Air-Knife	1				4" Asphalt
					1				**Well Graded SAND with Clay and Gravel (SW-SC)**; brown, 50% fine to coarse sand, 40% fine gravel 10% clay, moist.
					2				**Fat CLAY with Sand (CL)**; dark greenish grey, 80% Clay, soft, high plasticity, 20% fine to coarse sand, moist.
					3				**Lean CLAY (CL)**; brown, 85% clay, stiff, medium plasticity, 10% medium sand, 5% peat, damp.
	▼				4				**Clayey GRAVEL with Sand (GC)**; brown, 50% fine to coarse gravel, loose, 30% clay, 20% fine to coarse sand, wet.
					5				
					6				**Clayey SAND (SC)**; grey, 70% fine to medium sand, loose, 30% clay, wet.
					7				
			2.8	MW-13 @8	8				**Clayey SAND (SC)**; grey, 60% fine to medium sand, loose, 30% clay, 10% fine gravel, wet.
					9				**Clayey SAND (SC)**; grey, 60% fine to medium sand, loose, 40% clay, wet.
					10				**Sandy Lean CLAY (CL)**; grey, 60% clay, stiff, medium plasticity, 40% fine sand, wet.
					11				
			0.2		12				**Lean CLAY (CL)**; dark grey, 90% clay, stiff, medium plasticity, 10% fine sand, moist.
					13				**Clayey SAND (SC)**; grey, 60% fine to medium sand, dense, 40% clay, wet.
			0.1	MW-13 @15	14				**Lean CLAY (CL)**; dark grey to black, 90% clay, stiff, medium plasticity, 10% fine sand, moist.
					15				
					16				
					17				
					18				
					19				
					20				
					21				
					22				

Attachment D

Well Development Logs

GREGG

MONITORING WELL DEVELOPMENT LOG

Page _____ of _____

All measurements taken from: ☒ Top of Casing ☐ Protective Casing ☐ Ground Level

Sample ID _____

Well Number MW-1
Date 6-28-10
Time Start: 9:30 End: 11:35
Client DELTA
Project UNOCAL STATION
Job Number _____
Installation Date _____
Well Diameter 4"

Borehole Diameter 10"
Screen Length 15'
Measured Depth (pre-development) 18.41
Measured Depth (post-development) 19.70
Static Water Level (ft.) 2.32
Standing Water Column (ft.) 16.09
One ~~Well~~ CASING Volume (gal.) 10.62
One Annulus Vol. (gal.) _____

Qty. of Drilling Fluid Lost _____
Minimum Gal. to be Purged 106
Development Method BAIL - SURGE - PUMP
Purging Equipment SS BAILER 4" PUMP
Water Level Equipment SOLINST
pH/EC Meter HORIBA U-10
Turbidity Meter HORIBA U-10
Other _____

Time	Amount Purged (gal.)	Field Parameters Measured							Comments	Field Tech.
		pH	EC	Turbidity	~~DO~~	~~DO~~. Temp.	SAL.	GPM / W.L.		
1040	40	6.43	2.56	>999	—	21.6	0.13	3G / 5.55	BOTTOM SOFT - BAILED 15 GAL	
1049	50	6.39	2.61	>999	~	21.2	0.12	3.2 / 5.73	SURGED ~15 MIN	
1053	60	6.40	2.56	>999	—	21.1	0.12	3.1 / 6.21	BAILED TO 90'	
1058	75	6.43	2.50	>999	—	21.2	0.12	3.1 / 6.19	STARTED PUMPING @ TOP	
1101	85	6.36	2.41	793	—	21.1	0.11	3.1 / 6.86	OF SCREEN	
1105	95	6.34	2.40	945	—	21.1	0.11	3.15 / 6.92	END W.L. 2.75 @ 1121	
1108	106	6.33	2.35	522	~	21.1	0.11	3.15 / 6.95		

FINAL FIELD PARAMETER MEASUREMENTS

GREGG

MONITORING WELL DEVELOPMENT LOG

Page _____ of _____

All measurements taken from: ☒ Top of Casing ☐ Protective Casing ☐ Ground Level

Sample ID _____

Well Number MW-12
Date 6/28/10
Time Start: 11:50 End: 1405
Client DELTA
Project UNOCAL STATION
Job Number _____
Installation Date _____
Well Diameter 4"

Borehole Diameter 10"
Screen Length 15'
Measured Depth (pre-development) 19.65
Measured Depth (post-development) 19.65
Static Water Level (ft.) 4.12
Standing Water Column (ft.) 15.53
One Well Volume (gal.) 10.25
One Annulus Vol. (gal.) _____

Qty. of Drilling Fluid Lost _____
Minimum Gal. to be Purged 102
Development Method BAIL-SURGE-PUMP
Purging Equipment SS BAILER, 4" PUMP
Water Level Equipment SOLINST
pH/EC Meter HORIBA U-10
Turbidity Meter HORIBA U-10
Other _____

Time	Amount Purged (gal.)	Field Parameters Measured							Comments	Field Tech.
		pH	EC	Turbidity	~~ORP~~	Temp.	SAL.	GPM / W.L.		
1234	40	5.75	29.4	>999	—	20.5	1.84	2.0 / 15.75	BAILED 10 gal	
1243	50	5.79	29.3	>999	—	20.3	1.82	1.0 / 16.95	SURGED 10 MIN	
1253	60	5.73	28.5	511	—	20.5	1.78	1.0 / ↓17.1	BAILED 10 gal	
1303	70	5.69	28.3	130	—	21.1	1.75	~1.0 / ↓17'	W.L. 13.9 @ 1357	
1315	80	5.69	28.3	126	—	20.8	1.75	~1.0 / ↓17'		
1328	90	5.69	28.3	129	—	20.9	1.75	~1.0 / ↓17'		
1344	102	5.67	28.2	71	—	21.0	1.74	~1.0 / ↓17'		

FINAL FIELD PARAMETER MEASUREMENTS

GREGG

MONITORING WELL DEVELOPMENT LOG

Page _____ of _____

All measurements taken from: ☒ Top of Casing ☐ Protective Casing ☐ Ground Level

Sample ID _____

Well Number MW-12A
Date 6/28/10
Time Start: 1415 End: 1535
Client DELTA
Project UNOCAL STATION
Job Number _____
Installation Date _____
Well Diameter 2"

Borehole Diameter 8"
Screen Length 4'
Measured Depth (pre-development) 31.72
Measured Depth (post-development) 32.85
Static Water Level (ft.) 5.74
Standing Water Column (ft.) 25.98
One Well Volume (gal.) 4.42
One Annulus Vol. (gal.) _____

Qty. of Drilling Fluid Lost _____
Minimum Gal. to be Purged 44.2
Development Method BAIL - SURGE - PUMP

Purging Equipment SS BAILER, 2" PUMP
Water Level Equipment SOLINST
pH/EC Meter HORIBA U-10
Turbidity Meter HORIBA U-10
Other _____

Time	Amount Purged (gal.)	Field Parameters Measured							Comments	Field Tech.
		pH	EC	Turbidity	~~D.O.~~	~~ORP~~ Temp.	SAL.	GPM / W.L.		
1455	15	6.34	3.83	>999	—	19.9	0.19	2.0/6.90	BAILED 5gal	
1458	20	6.23	3.54	>999	—	19.7	0.17	2.0/6.85	SURGED ~10 min	
1500	25	6.21	3.53	>999	—	19.7	0.17	2.0/6.80	BAILED 5gal	
1503	30	6.24	3.52	>999	—	19.6	0.17	2.0/6.75	FOR W.L. 4.31 @ 1522	
1505	35	6.22	3.51	>999	—	19.6	0.17	2.0/		
1511	40	6.19	3.50	>999	—	19.5	0.17	2.0/		
1514	45	6.20	3.49	>999	—	19.5	0.17	2.0/		

FINAL FIELD PARAMETER MEASUREMENTS

GREGG

MONITORING WELL DEVELOPMENT LOG

Page _____ of _____

All measurements taken from: ☒ Top of Casing ☐ Protective Casing ☐ Ground Level

Sample ID _____

Well Number MW13
Date 6/28/10
Time Start: 1545 End: 1655
Client DELTA
Project ~~Chevron~~ UNOCAL STATION
Job Number _____
Installation Date _____
Well Diameter 2"

Borehole Diameter 8"
Screen Length 10'
Measured Depth (pre-development) 14.79
Measured Depth (post-development) 14.79
Static Water Level (ft.) 4.07
Standing Water Column (ft.) 10.72
One Well Volume (gal.) 1.82
One Annulus Vol. (gal.) _____

Qty. of Drilling Fluid Lost _____
Minimum Gal. to be Purged 18.2
Development Method BAIL - SURGE - PUMP
_____
Purging Equipment SS BAILER, 2" PUMP
Water Level Equipment SOLINST
pH/EC Meter HORIBA U-10
Turbidity Meter HORIBA U-10
Other _____

Time	Amount Purged (gal.)	Field Parameters Measured							Comments	Field Tech.
		pH	EC	Turbidity	D.O.	~~ORP~~ Temp.	SAL.	GPM / W.L.		
1619	8	6.56	11.2	>999	—	20.8	0.63	1.5 / -	BAILED 2 gal	
1621	11	6.36	14.1	>999	—	20.4	0.81	1.5 / -	SURGED ~ 10 min	
1623	14	6.29	15.7	>999	—	20.1	0.92	1.5 / -	BAILED 2 gal	
1625	17	6.00	22.5	>999	—	19.7	1.37	1.5 / -	8.3 (w.l.) @ 1644	
1627	19	5.99	23.1	>999	—	19.7	1.40	1.0 / -		
1632	21	6.07	24.0	662	—	20.2	1.46	~1.0 / -		

FINAL FIELD PARAMETER MEASUREMENTS

Attachment E

Groundwater Sampling Forms

COP-ELT Well-Head Inspection & Well Gauging Form

Project No: 270519 Site Address: 449 HEGENBERGER RD, OAKLAND, CA

Field Technician: WW Date: 7/6/10 Weather: Overcast

Sample Order	Field Point	Well Condition: Bolts	Seal	Lid Secure	Lock	Expanding Cap	Water in Well Box	Well Casing Dia.	Gauging Information: Time	Depth to Water (Feet)	Depth to Bottom (Feet)	Depth to LNAPL (Feet)	LNAPL Thickness (Feet)	Comments
3	MW-3	P	P	G	G	G	Y	2	0914	2.66	13.92	—	—	1/2 TABS STRIPPED
5	MW-6	G	G	G	G	G	Y	2	0905	3.49	12.65	—	—	1/2 TABS BROKEN
1	MW-7	G	G	G	G	G	N	2	0902	4.63	12.97	—	—	
2	MW-8	G	G	G	G	G	Y	2	0909	3.03	14.73	—	—	
4	MW-9	P	G	P	G	G	Y	2	0912	2.02	12.62	—	—	1/3 TABS BROKEN / 3/3 BOLTS MISSING
6	MW-10	G	P/G	G	G	G	N	2	0900	3.73	12.66	—	—	2/3 TABS BROKEN
8	MW-11	G	G	G	G	G	N	4	0847	2.44	19.50	—	—	
10	MW-12	G	G	G	G	G	N	4	0855	4.00	19.48	—	—	
9	MW-12A	G	G	G	G	G	N	2	0853	4.22	32.71	—	—	
7	MW-13	G	G	G	G	G	N	2	0849	4.26	14.65	—	—	

Notes:

DELTA

Note: Use G=good and P=poor for well condition

COP-ELT Groundwater Sampling Form

Site Address:	449 HEGENBERGER RD, OAKLAND, CA		
Project No:	2705191	Field Technician:	WW
Field Point:	MW-11	Date:	7/6/10
Depth to Water (DTW) (ft bgs):	2.44	Well Diameter (in):	2 (4) 6 8 ___
Depth to LNAPL (ft bgs):	—	Thickness of LNAPL (ft):	—
Total Depth of Well (ft bgs):	19.50	Water Column Height (ft):	17.06

Purging Info and Calculations:

Purge Method:
Low-Flow
X 3 casing volumes
Other:_____

Purge Equipment:
Disposable Bailer
X Electric Submersible
Peristaltic Pump
Bladder Pump
Other:_____

Sample Collection Method:
X Disposable Bailer w/BRD
Extraction Port
Dedicated Tubing
Disposable Tubing
Other:_____

Water Column Height (ft): 17.06 X Conversion Factor (gal/ft): 0.66 = Casing Volume (gal): 11.26

Casing Volume (gal): 11.26 X Specified Volumes: 3 = Calculated Purge (gal): 33.78

Conversion Factors (gal/ft): 2" = 0.17 4" = 0.66 6" = 1.5 8" = 2.6 Other = radius^2 * 0.163

Purge: **Start Time:** 1026 **Stop Time:** 1045

Time	Temp (°C)	pH	Conductivity (uS/cm)	ORP (mV)	Turbidity (NTU)	D.O. (mg/L)	Volume Purged (gal)	Water Level (for Low-Flow only)
Pre-Purge				64		0.53		—
1032	20.4	7.23	2413	—	191	—	11.3	—
1039	20.4	7.03	2275	—	148	—	22.6	—
1049	20.4	7.03	2259	—	33	—	33.9	—
Post-Purge				196		0.34		—

Did Well dewater? Yes (No) Total Purge volume (gal): 33.9

Other Comments: 80% @ 3.85 ; DTW: 3.27

Sample Info:

Sample ID:	MW-11_20100730	Sample Date and Time:	7/6/10 @ 1055
Selected Analysis:	See COC		

Signature: _____ Date: 7/6/10

DELTA Consultants, 1-800-477-7411

LNAPL= light non-aqueous phase liquids
bgs = below ground surface
ORP = Oxidation-Reduction Potential
D.O.= dissolved oxygen
gal = gallon/s
temp = temperature
NTU = Nephelometric Turbidity Units
mV = millivolts

DELTA

COC-ELT Groundwater Sampling Form

Site Address:	449 HEGENBERGER RD, OAKLAND, CA		
Project No:	2705191	Field Technician:	WW
Field Point:	MW-12A	Date:	7/6/10
Depth to Water (DTW) (ft bgs):	4.22	Well Diameter (in):	(2) 4 6 8 ___
Depth to LNAPL (ft bgs):	—	Thickness of LNAPL (ft):	—
Total Depth of Well (ft bgs):	32.71	Water Column Height (ft):	28.49

Purging Info and Calculations:

Purge Method:
Low-Flow
X 3 casing volumes
Other:_____

Purge Equipment:
X Disposable Bailer
Electric Submersible
Peristaltic Pump
Bladder Pump
Other:_____

Sample Collection Method:
X Disposable Bailer w/BED
Extraction Port
Dedicated Tubing
Disposable Tubing
Other:_____

Water Column Height (ft): 28.49 X Conversion Factor (gal/ft): 0.17 = Casing Volume (gal): 4.8

Casing Volume (gal): 4.8 X Specified Volumes: 3 = Calculated Purge (gal): 14.4

Conversion Factors (gal/ft): 2" = 0.17 4" = 0.66 6" = 1.5 8" = 2.6 Other = radius² * 0.163

Purge: Start Time: 1200 Stop Time: 1220

Time	Temp (°C)	pH	Conductivity (µS/cm)	ORP (mV)	Turbidity (NTU)	D.O. (mg/L)	Volume Purged (gal)	Water Level (for Low-Flow only)
Pre-Purge				147		0.46		—
1214	19.1	7.30	3452	—	65	—	4.8	—
1217	19.7	6.57	4670	—	>1000	—	9.6	—
1220	19.4	6.75	4403	—	>1000	—	14.4	—
Post-Purge				190		0.71		—

Did Well dewater? Yes (No) Total Purge volume (gal): 14.4

Other Comments: 80% @ 9.92 ; DTW: 4.30

Sample Info:

Sample ID:	MW-12A_20100730	Sample Date and Time:	7/6/10 @ 1225
Selected Analysis:	See COC		

Signature: _____ Date: 7/6/10

DELTA Consultants, 1-800-477-7411

LNAPL= light non-aqueous phase liquids
bgs = below ground surface
ORP = Oxidation-Reduction Potential
D.O.= dissolved oxygen

gal = gallon/s
temp = temperature
NTU = Nephelometric Turbidity Units
mV = millivolts

DELTA

COP-ELT Groundwater Sampling Form

Site Address:	449 HEGENBERGER RD, OAKLAND, CA		
Project No:	2705191	Field Technician:	MW
Field Point:	MW-12	Date:	7/6/10
Depth to Water (DTW) (ft bgs):	4.00	Well Diameter (in):	2 (4) 6 8 ___
Depth to LNAPL (ft bgs):	—	Thickness of LNAPL (ft):	—
Total Depth of Well (ft bgs):	19.48	Water Column Height (ft):	15.48

Purging Info and Calculations:

Purge Method:

Low-Flow
>3 casing volumes
Other:_____

Purge Equipment:

Disposable Bailer
Electric Submersible
Peristaltic Pump
Bladder Pump
X Other: POSITIVE AIR DISPLACEMENT

Sample Collection Method:

X Disposable Bailer w/ BED
Extraction Port
Dedicated Tubing
Disposable Tubing
Other:_____

Water Column Height (ft): 15.48 X Conversion Factor (gal/ft): 0.66 = Casing Volume (gal): 10.2

Casing Volume (gal): 10.2 X Specified Volumes: 3 = Calculated Purge (gal): 30.6

Conversion Factors (gal/ft): 2" = 0.17 4" = 0.66 6" = 1.5 8" = 2.6 Other = radius^2 * 0.163

Purge: **Start Time:** 1250 **Stop Time:**

Time	Temp (°C)	pH	Conductivity (µS/cm)	ORP (mV)	Turbidity (NTU)	D.O. (mg/L)	Volume Purged (gal)	Water Level (for Low-Flow only)
Pre-Purge				207		0.56		—
1300	19.0	7.28	29040	—	>1000	—	10.2	—
1316	19.0	7.55	28780	—	>1000	—	20.4	—
1324	18.9	7.35	28580	—	>1000	—	30.6	—
Post-Purge				197		0.47		—

Did Well dewater? Yes (No) Total Purge volume (gal): 30.6

Other Comments: 80% @ ~~7.09~~ 7.10 DTW: 7.80

Sample Info:

Sample ID:	MW-12_20100730	Sample Date and Time:	7/6/10 @ 1345
Selected Analysis:	see COC		

Signature: _____ Date: 7/6/10

DELTA Consultants, 1-800-477-7411

LNAPL= light non-aqueous phase liquids
bgs = below ground surface
ORP = Oxidation-Reduction Potential
D.O.= dissolved oxygen

gal = gallon/s
temp = temperature
NTU = Nephelometric Turbidity Units
mV = millivolts

DELTA

COC-ELT Groundwater Sampling Form

Site Address:	449 HEGENBERGER RD, OAKLAND, CA		
Project No:	2705191	Field Technician:	WW
Field Point:	MW-13	Date:	7/6/10
Depth to Water (DTW) (ft bgs):	4.26	Well Diameter (in):	(2) 4 6 8 ___
Depth to LNAPL (ft bgs):	—	Thickness of LNAPL (ft):	—
Total Depth of Well (ft bgs):	14.65	Water Column Height (ft):	10.39

Purging Info and Calculations:

Purge Method:
Low-Flow
X 3 casing volumes
Other:_____

Purge Equipment:
X Disposable Bailer
Electric Submersible
Peristaltic Pump
Bladder Pump
Other:_____

Sample Collection Method:
X Disposable Bailer w/BED
Extraction Port
Dedicated Tubing
Disposable Tubing
Other:_____

Water Column Height (ft): 10.39 X Conversion Factor (gal/ft): ~~0.17~~ 0.17 (no) = Casing Volume (gal): 1.77

Casing Volume (gal): 1.77 X Specified Volumes: 3 = Calculated Purge (gal): 5.3

Conversion Factors (gal/ft): 2" = 0.17 4" = 0.66 6" = 1.5 8" = 2.6 Other = radius^2 * 0.163

Purge: Start Time: 0933 Stop Time: 0939

Time	Temp (°C)	pH	Conductivity (µS/cm)	ORP (mV)	Turbidity (NTU)	D.O. (mg/L)	Volume Purged (gal)	Water Level (for Low-Flow only)
Pre-Purge				194		0.25		—
0935	20.8	7.68	3016	—	>1000	—	1.8	—
0937	20.6	7.70	3852	—	>1000	—	3.6	—
0939	20.3	7.61	4237	—	>1000	—	5.4	—
Post-Purge				193		0.26		—

Did Well dewater? Yes (No) Total Purge volume (gal): 5.4

Other Comments: 80% @ 6.34 ; DTW: 6.32

Sample Info:

Sample ID: MW-13_20100730 Sample Date and Time: 7/6/10 @ 0950

Selected Analysis: See COC

Signature: _____ Date: 7/6/10

DELTA Consultants, 1-800-477-7411

LNAPL= light non-aqueous phase liquids
bgs = below ground surface
ORP = Oxidation-Reduction Potential
D.O.= dissolved oxygen

gal = gallon/s
temp = temperature
NTU = Nephelometric Turbidity Units
mV = millivolts

DELTA

20100730 2705191 WG_Q_201007 BO (3)

DELTA

COP ELT CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed and accurate.

Page: 1 of 1
Cooler # ____ of ____

☐ COPY ☐ COPY

GW event, new wells

Required Lab Information:		Required Project Information:				Required Invoice Information:			
Lab Name:	Pace-Seattle	Site ID #:	2705191	Task:	WG_Q_201007	Send Invoice to:	David Sowle		
Address:		Delta project #				Address:	11050 White Rock Road, Suite 110		
940 S. Harney Street Seattle WA 98108		Site Address	449 Hegenberger			City/State	Rancho Cordova CA 95670	Phone #:	1-800-477-7411
Lab PM:	Regina Ste. Marie	City	Oakland	State	CA 94621	Reimbursement project?		Non-reimbursement project?	Y
Phone/Fax:	P: 206-957-2433 F: 206-767-5063	Delta PM Name	Dennis Dettloff			Send EDD to	copeltdata@intelligentehs.com		
Lab PM email	Regina.SteMarie@pacelabs.com	Phone/Fax:	P: 1-800-477-7411 F: 916-638-8385			CC Hardcopy report to			
Applicable Lab Quote #:		Delta PM Email:	ddettloff@deltaenv.com			CC Hardcopy report to			

Turn around time (days)	10			
QC level Required: Standard		Special		Mark one
NJ Reduced Deliverable Package?				
MA MCP Cert?		CT RCP Cert?		Mark One
Lab Project ID (lab use)				

Valid Matrix Codes

MATRIX		MATRIX	
DRINKING WATER	WP	WATER	W
GROUND WATER	WG	SURFACE WATER	WS
WASTE WATER	WW	WATER QC	WQ
FREE PRODUCT	LP	SLUDGE	SL
SOIL	SO	RINSEATE	WX
OIL	OL	OTHER	OT
WIPE	SW	ANIMAL TISSUE	TA
AMBIENT AIR	AA		
SVE AIR	AE		
SOIL GAS	GS		

ITEM #	SAMPLE ID One Character per box. (A-Z, 0-9 / ,-) Samples IDs MUST BE UNIQUE	MATRIX CODE	SAMPLE TYPE G=GRAB C=COMP	SAMPLE DATE	SAMPLE TIME	#OF CONTAINERS	FIELD FILTERED? (Y/N)	Preservatives: Unpreserved	H_2SO_4	HNO_3	HCl	NaOH	$Na_2S_2O_3$	Methanol	Other	Requested Analyses: 353.2Nitrate/N	300Sulfate	6010Iron Total	8015TPHDiesel	8260 GC/MS GRO	8260BTEXMTBE7OxyCA	6010IronDissolved	1500Nitrite	Comments/Lab Sample I.D.
1	MW-11_20100730	WG	G	7/6/10	1055	13	Y	4	1	2	6					X	X	X	X	X	X	X	X	***TPH-D 8015 samples to be Silica Gel Treated**
2	MW-12_20100730	WG			1345	13	Y	4	1	2	6					X	X	X	X	X	X	X	X	
3	MW-12A_20100730	WG			1225	13	Y	4	1	2	6					X	X	X	X	X	X	X	X	
4	MW-13_20100730	WG			0950	21	Y	8	1	2	10					X	X	X	X	X	X	X	X	7 OXYs = DIPE, TBA, TAME, ETBE, 1,2-DCA, EDB and ethanol
5	TB1_20100730	W			0900	4	N				4									X	X			
6																								
7																								
8																								Dissolved Iron samples are Field Filtered
9																								
10																								
11																								
12																								

Additional Comments/Special Instructions:

GLOBAL ID: T0600101476

RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME
[signature]	7/6/10	1445	[signature] SAMPLE IN COOLER	7/6/10	1445

Sample Receipt Conditions			
	Y/N	Y/N	Y/N
	Y/N	Y/N	Y/N
	Y/N	Y/N	Y/N
	Y/N	Y/N	Y/N
Temp in °C	Samples on ice?	Sample intact?	Trip Blank?

SHIPPING METHOD: (mark as appropriate)

UPS COURIER FEDEX

US MAIL

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: WILLIAM WONG

SIGNATURE of SAMPLER: [signature]

DATE Signed: 7/6/10

Time:

Final 11/13/06. AMTait

Inogen Environmental Alliance

TEST EQUIPMENT CALIBRATION LOG

PROJECT NAME 449 HELVENBERGER RD, OAKLAND, CA				PROJECT NUMBER 100706-WW1			
EQUIPMENT NAME	EQUIPMENT NUMBER	DATE/TIME OF TEST	STANDARDS USED	EQUIPMENT READING	CALIBRATED TO: OR WITHIN 10%:	TEMP.	INITIALS
YSI 550 A	06E1424 AJ	7/6/10 0918	DO: 100%@ 10 mg/L	DO: 100.0% @9.0 mg/L	Yes	20.4°C	WW
MYRON ULTRAMETER 2	6207755	7/6/10 0920	pH: 4.7.10 cond: 3900 us	pH: 7.00, 10.00 4.00 cond: 3900 uS/cm	Yes	20.2°C	WW
"	"	"	ORP: 237.5 mV	ORP: 213 mV	Yes	"	"

Attachment F

Waste Manifest

NON-HAZARDOUS WASTE MANIFEST

Please print or type (Form designed for use on elite (12 pitch) typewriter)

NON-HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No. Na

Manifest Document No. 2705791-0610

2. Page 1 of 1

3. Generator's Name and Mailing Address
Attn: Duane Blair
RC&F Acquisition Co
2603 Camino Ramon Suite 350
San Ramon 94583

Site # 2705791
449 Hegenberger Rd.
Oakland, CA 94621

4. Generator's Phone (925) 884-0840

5. Transporter 1 Company Name
Blaine Tean Services

6. US EPA ID Number

A. State Transporter's ID

B. Transporter 1 Phone 310-885-4455

7. Transporter 2 Company Name

8. US EPA ID Number

C. State Transporter's ID

D. Transporter 2 Phone

9. Designated Facility Name and Site Address
Seaport Environmental
700 Seaport Blvd.
Redwood City, CA 94063

10. US EPA ID Number
0000135572

E. State Facility's ID

F. Facility's Phone 650-364-1024

11. WASTE DESCRIPTION	12. Containers No.	12. Containers Type	13. Total Quantity	14. Unit Wt./Vol.
a. Non hazardous Groundwater	1	TT	33	G
b. Non hazardous Groundwater	1	TT	87	G
c.				
d.				

G. Additional Descriptions for Materials Listed Above

H. Handling Codes for Wastes Listed Above

15. Special Handling Instructions and Additional Information

16. GENERATOR'S CERTIFICATION: I hereby certify that the contents of this shipment are fully and accurately described and are in all respects in proper condition for transport. The materials described on this manifest are not subject to federal hazardous waste regulations.

Printed/Typed Name: Tara L Bosch on behalf of RC&F
Signature: Tara L Bosch
Date: Month 5 Day 24 Year 10

17. Transporter 1 Acknowledgement of Receipt of Materials

Printed/Typed Name: Jeff Parker
Signature:
Date: Month 6 Day 30 Year 10

18. Transporter 2 Acknowledgement of Receipt of Materials

Printed/Typed Name:
Signature:
Date: Month Day Year

19. Discrepancy Indication Space

20. Facility Owner or Operator: Certification of receipt of the waste materials covered by this manifest, except as noted in item 19.

Printed/Typed Name: Joaquin D. Camara
Signature:
Date: Month 07 Day 12 Year 10

NON-HAZARDOUS WASTE

GENERATOR

TRANSPORTER

FACILITY

Attachment G

DWR Well Completion Forms

CONFIDENTIAL

STATE OF CALIFORNIA DWR
WELL COMPLETION REPORT
(WELL LOGS)

REMOVED

CONFIDENTIAL

STATE OF CALIFORNIA DWR
WELL COMPLETION REPORT
(WELL LOGS)

REMOVED

CONFIDENTIAL

STATE OF CALIFORNIA DWR
WELL COMPLETION REPORT
(WELL LOGS)

REMOVED

CONFIDENTIAL

STATE OF CALIFORNIA DWR
WELL COMPLETION REPORT
(WELL LOGS)

REMOVED

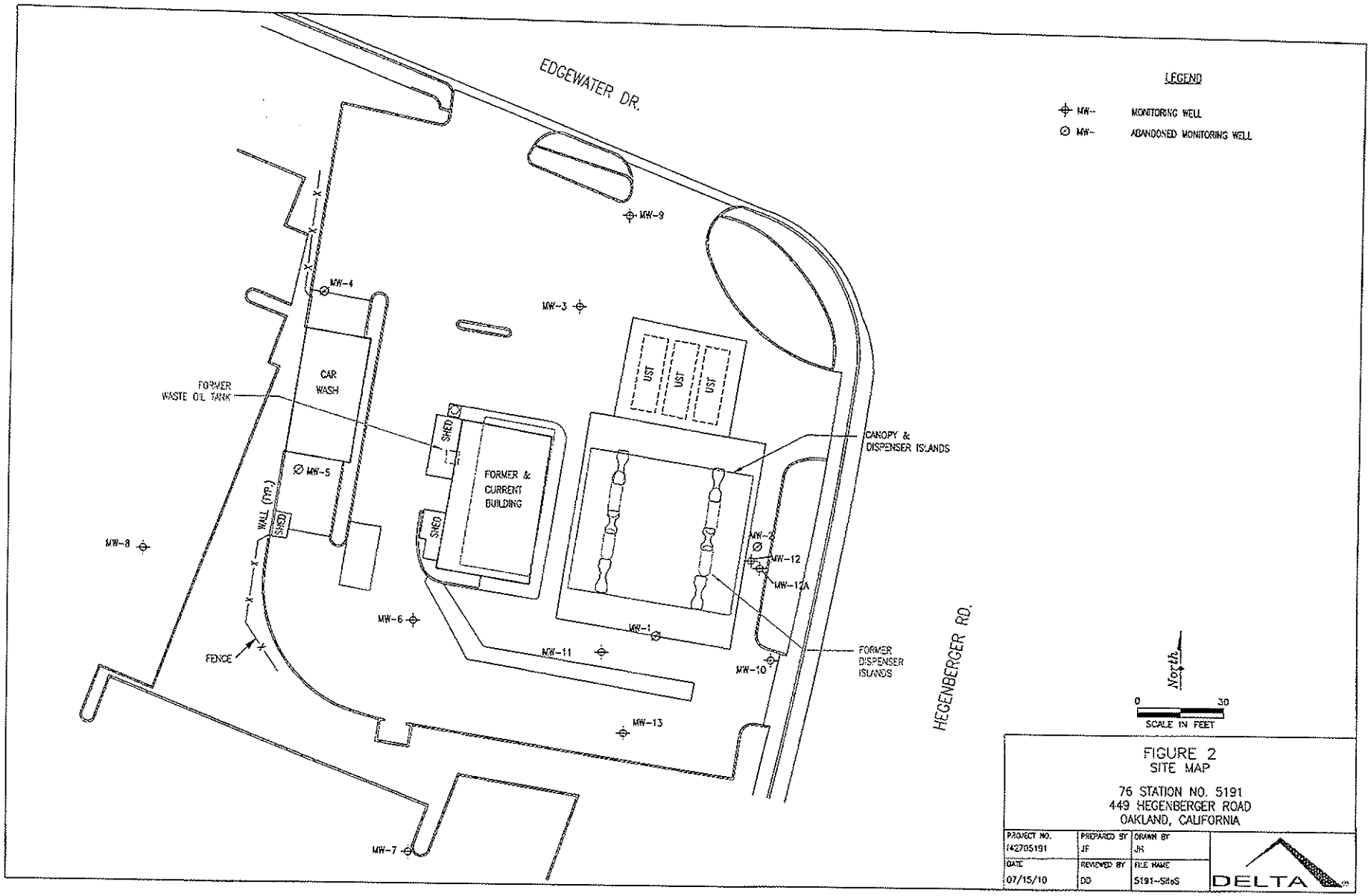


FIGURE 2
SITE MAP

76 STATION NO. 5191
449 HEGENBERGER ROAD
OAKLAND, CALIFORNIA

PROJECT NO.	PREPARED BY	DRAWN BY
142705191	JF	JR
DATE	REVIEWED BY	FILE NAME
07/15/10	DD	5191-SiteS

DELTA

Attachment H

Analytical Reports
and
Chain-of-Custody Documentation

Pace Analytical Services, Inc.
940 South Harney
Seattle, WA 98108
(206)767-5060

July 09, 2010

Dennis Dettloff
ELT_Delta Consultants Sacramen
11050 White Rock Rd. #110
Rancho Cordova, CA 95670

RE: Project: 2705191 449 Hegenbereger
Pace Project No.: 254043

Dear Dennis Dettloff:
Enclosed are the analytical results for sample(s) received by the laboratory on June 24, 2010. The results relate only to the samples included in this report. Results reported herein conform to the most current NELAC standards, where applicable, unless otherwise narrated in the body of the report.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Regina Ste. Marie

Regina SteMarie

regina.stemarie@pacelabs.com
Project Manager

Enclosures

cc: Tara Bosch, ELT_Delta Consultants Sacramento
Jonathon Fillingame, ELT_Delta Consultants Sacramento
Josh Mahoney, ELT_Delta Consultants San Jose
Tony Perini, ELT_Delta Consultants San Jose
Don Pinkerton, ELT_Delta Consultants Sacramento
David Sowle, ELT_Delta Consultants Sacramento
Doug Umland, ELT_Delta Consultants San Jose
Ed Weyrens, ELT_Delta Consultants San Jose

Pace Analytical Services, Inc.
940 South Harney
Seattle, WA 98108
(206)767-5060

CERTIFICATIONS

Project: 2705191 449 Hegenbereger
Pace Project No.: 254043

Washington Certification IDs

940 South Harney Street, Seattle, WA 98108
Alaska CS Certification #: UST-025
Alaska Drinking Water VOC Certification #: WA01230
Alaska Drinking Water Micro Certification #: WA01230
California Certification #: 01153CA
Florida/NELAP Certification #: E87617
Oregon Certification #: WA200007
Washington Certification #: C1229

Pace Analytical Services, Inc.
940 South Harney
Seattle, WA 98108
(206)767-5060

SAMPLE ANALYTE COUNT

Project: 2705191 449 Hegenbereger
Pace Project No.: 254043

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
254043001	**MW-11@10_20100622**	EPA 8015B	ERB	3	PASI-S
		EPA 6010	BGA	1	PASI-S
		EPA 8260	LPM	16	PASI-S
		CA LUFT	LPM	2	PASI-S
254043002	**MW-11@20_20100622**	EPA 8015B	ERB	3	PASI-S
		EPA 6010	BGA	1	PASI-S
		EPA 8260	LPM	16	PASI-S
		CA LUFT	LPM	2	PASI-S
254043003	**MW-12@8_20100622**	EPA 8015B	ERB	3	PASI-S
		EPA 6010	BGA	1	PASI-S
		EPA 8260	LNH	8	PASI-S
		EPA 8260	LPM	12	PASI-S
		CA LUFT	LNH	2	PASI-S
254043004	**MW-12@10_20100622**	EPA 8015B	ERB	3	PASI-S
		EPA 6010	BGA	1	PASI-S
		EPA 8260	LNH	8	PASI-S
		EPA 8260	LPM	12	PASI-S
		CA LUFT	LNH	2	PASI-S
254043005	**MW-12@20_20100622**	EPA 8015B	ERB	3	PASI-S
		EPA 6010	BGA	1	PASI-S
		EPA 8260	LPM	16	PASI-S
		CA LUFT	LPM	2	PASI-S
254043006	**MW-13@8_20100622**	EPA 8015B	ERB	3	PASI-S
		EPA 6010	BGA	1	PASI-S
		EPA 8260	LPM	16	PASI-S
		CA LUFT	LPM	2	PASI-S
254043007	**MW-13@15_20100622**	EPA 8015B	ERB	3	PASI-S
		EPA 6010	BGA	1	PASI-S
		EPA 8260	LPM	16	PASI-S
		CA LUFT	LPM	2	PASI-S
254043008	**MW-12A@26_20100622**	EPA 8015B	ERB	3	PASI-S
		EPA 6010	BGA	1	PASI-S
		EPA 8260	LNH	8	PASI-S
		EPA 8260	LPM	12	PASI-S
		CA LUFT	LNH	2	PASI-S
254043009	**MW-12A@32_20100622**	EPA 8015B	ERB	3	PASI-S
		EPA 6010	BGA	1	PASI-S

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SAMPLE ANALYTE COUNT

Project: 2705191 449 Hegenbereger
Pace Project No.: 254043

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
		EPA 8260	LNH	8	PASI-S
		EPA 8260	LPM	12	PASI-S
		CA LUFT	LNH	2	PASI-S
254043010	**MW-12A@34_20100622**	EPA 8015B	ERB	3	PASI-S
		EPA 6010	BGA	1	PASI-S
		EPA 8260	LPM	16	PASI-S
		CA LUFT	LPM	2	PASI-S

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ANALYTICAL RESULTS

Project: 2705191 449 Hegenbereger
Pace Project No.: 254043

Sample: MW-11@10_20100622 **Lab ID: 254043001** Collected: 06/22/10 08:45 Received: 06/24/10 09:00 Matrix: Solid

Results reported on a "wet-weight" basis

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8015B CA Diesel Range Org SG	Analytical Method: EPA 8015B Preparation Method: EPA 3546							
TPH-DRO (C10-C24) SG	**3.2**	mg/kg	1.9	1	06/25/10 17:10	06/28/10 20:32		
o-Terphenyl (S) SG	110	%	50-150	1	06/25/10 17:10	06/28/10 20:32	84-15-1	
n-Octacosane (S) SG	115	%	50-150	1	06/25/10 17:10	06/28/10 20:32	630-02-4	
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3050							
Lead	**6.1**	mg/kg	0.81	1	06/26/10 16:45	06/27/10 15:28	7439-92-1	
8260 MSV 5030	Analytical Method: EPA 8260							
tert-Amylmethyl ether	ND	mg/kg	0.0022	1		06/28/10 13:19	994-05-8	M0
Benzene	ND	mg/kg	0.0022	1		06/28/10 13:19	71-43-2	
tert-Butyl Alcohol	ND	mg/kg	0.011	1		06/28/10 13:19	75-65-0	
1,2-Dibromoethane (EDB)	ND	mg/kg	0.0022	1		06/28/10 13:19	106-93-4	M0
1,2-Dichloroethane	ND	mg/kg	0.0022	1		06/28/10 13:19	107-06-2	
Diisopropyl ether	ND	mg/kg	0.0022	1		06/28/10 13:19	108-20-3	
Ethanol	ND	mg/kg	0.29	1		06/28/10 13:19	64-17-5	
Ethylbenzene	ND	mg/kg	0.0022	1		06/28/10 13:19	100-41-4	
Ethyl-tert-butyl ether	ND	mg/kg	0.0022	1		06/28/10 13:19	637-92-3	M0
Methyl-tert-butyl ether	**0.011**	mg/kg	0.0022	1		06/28/10 13:19	1634-04-4	M0
Toluene	ND	mg/kg	0.0022	1		06/28/10 13:19	108-88-3	
Xylene (Total)	ND	mg/kg	0.0066	1		06/28/10 13:19	1330-20-7	M0
Dibromofluoromethane (S)	92	%	80-136	1		06/28/10 13:19	1868-53-7	
Toluene-d8 (S)	88	%	80-120	1		06/28/10 13:19	2037-26-5	
4-Bromofluorobenzene (S)	80	%	72-122	1		06/28/10 13:19	460-00-4	
1,2-Dichloroethane-d4 (S)	107	%	80-143	1		06/28/10 13:19	17060-07-0	
CA LUFT MSV GRO	Analytical Method: CA LUFT							
TPH-Gasoline (C05-C12)	ND	mg/kg	0.18	1		06/28/10 13:19		
4-Bromofluorobenzene (S)	80	%	72-122	1		06/28/10 13:19	460-00-4	

Sample: MW-11@20_20100622 **Lab ID: 254043002** Collected: 06/22/10 08:50 Received: 06/24/10 09:00 Matrix: Solid

Results reported on a "wet-weight" basis

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8015B CA Diesel Range Org SG	Analytical Method: EPA 8015B Preparation Method: EPA 3546							
TPH-DRO (C10-C24) SG	**27.3**	mg/kg	2.0	1	06/25/10 17:10	06/28/10 21:20		
o-Terphenyl (S) SG	108	%	50-150	1	06/25/10 17:10	06/28/10 21:20	84-15-1	
n-Octacosane (S) SG	0	%	50-150	10	06/25/10 17:10	06/29/10 15:15	630-02-4	S4
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3050							
Lead	**3.4**	mg/kg	0.96	1	06/26/10 16:45	06/27/10 15:31	7439-92-1	
8260 MSV 5030	Analytical Method: EPA 8260							
tert-Amylmethyl ether	ND	mg/kg	0.0027	1		07/06/10 15:39	994-05-8	

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ANALYTICAL RESULTS

Project: 2705191 449 Hegenbereger
Pace Project No.: 254043

Sample: MW-11@20_20100622 **Lab ID: 254043002** Collected: 06/22/10 08:50 Received: 06/24/10 09:00 Matrix: Solid

Results reported on a "wet-weight" basis

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV 5030	Analytical Method: EPA 8260							
Benzene	ND	mg/kg	0.0027	1		07/06/10 15:39	71-43-2	
tert-Butyl Alcohol	ND	mg/kg	0.013	1		07/06/10 15:39	75-65-0	
1,2-Dibromoethane (EDB)	ND	mg/kg	0.0027	1		07/06/10 15:39	106-93-4	
1,2-Dichloroethane	ND	mg/kg	0.0027	1		07/06/10 15:39	107-06-2	
Diisopropyl ether	ND	mg/kg	0.0027	1		07/06/10 15:39	108-20-3	
Ethanol	ND	mg/kg	0.36	1		07/06/10 15:39	64-17-5	
Ethylbenzene	ND	mg/kg	0.0027	1		07/06/10 15:39	100-41-4	
Ethyl-tert-butyl ether	ND	mg/kg	0.0027	1		07/06/10 15:39	637-92-3	
Methyl-tert-butyl ether	ND	mg/kg	0.0027	1		07/06/10 15:39	1634-04-4	
Toluene	ND	mg/kg	0.0027	1		07/06/10 15:39	108-88-3	
Xylene (Total)	ND	mg/kg	0.0081	1		07/06/10 15:39	1330-20-7	
Dibromofluoromethane (S)	86	%	80-136	1		07/06/10 15:39	1868-53-7	
Toluene-d8 (S)	96	%	80-120	1		07/06/10 15:39	2037-26-5	
4-Bromofluorobenzene (S)	92	%	72-122	1		07/06/10 15:39	460-00-4	
1,2-Dichloroethane-d4 (S)	86	%	80-143	1		07/06/10 15:39	17060-07-0	
CA LUFT MSV GRO	Analytical Method: CA LUFT							
TPH-Gasoline (C05-C12)	ND	mg/kg	0.25	1		06/28/10 14:55		
4-Bromofluorobenzene (S)	99	%	72-122	1		06/28/10 14:55	460-00-4	

Sample: MW-12@8_20100622 **Lab ID: 254043003** Collected: 06/22/10 10:45 Received: 06/24/10 09:00 Matrix: Solid

Results reported on a "wet-weight" basis

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8015B CA Diesel Range Org SG	Analytical Method: EPA 8015B Preparation Method: EPA 3546							
TPH-DRO (C10-C24) SG	**45.7**	mg/kg	2.0	1	06/25/10 17:10	06/28/10 21:37		
o-Terphenyl (S) SG	105	%	50-150	1	06/25/10 17:10	06/28/10 21:37	84-15-1	
n-Octacosane (S) SG	118	%	50-150	1	06/25/10 17:10	06/28/10 21:37	630-02-4	
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3050							
Lead	**8.6**	mg/kg	0.85	1	06/26/10 16:45	06/27/10 15:33	7439-92-1	
8260 MSV 5030 Med Level VOA	Analytical Method: EPA 8260 Preparation Method: EPA 5030							
Benzene	**5.2**	mg/kg	0.048	1	07/01/10 15:00	07/02/10 07:49	71-43-2	
Ethylbenzene	**6.7**	mg/kg	0.048	1	07/01/10 15:00	07/02/10 07:49	100-41-4	
Toluene	**9.1**	mg/kg	0.048	1	07/01/10 15:00	07/02/10 07:49	108-88-3	
Xylene (Total)	**33.3**	mg/kg	0.14	1	07/01/10 15:00	07/02/10 07:49	1330-20-7	
Dibromofluoromethane (S)	95	%	81-114	1	07/01/10 15:00	07/02/10 07:49	1868-53-7	
Toluene-d8 (S)	96	%	84-121	1	07/01/10 15:00	07/02/10 07:49	2037-26-5	
4-Bromofluorobenzene (S)	102	%	78-127	1	07/01/10 15:00	07/02/10 07:49	460-00-4	
1,2-Dichloroethane-d4 (S)	96	%	76-115	1	07/01/10 15:00	07/02/10 07:49	17060-07-0	

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ANALYTICAL RESULTS

Project: 2705191 449 Hegenbereger
Pace Project No.: 254043

Sample: MW-12@8_20100622 **Lab ID: 254043003** Collected: 06/22/10 10:45 Received: 06/24/10 09:00 Matrix: Solid

Results reported on a "wet-weight" basis

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV 5030	Analytical Method: EPA 8260							
tert-Amylmethyl ether	ND	mg/kg	0.0028	1		06/28/10 17:46	994-05-8	
tert-Butyl Alcohol	**0.021**	mg/kg	0.014	1		06/28/10 17:46	75-65-0	
1,2-Dibromoethane (EDB)	ND	mg/kg	0.0028	1		06/28/10 17:46	106-93-4	
1,2-Dichloroethane	ND	mg/kg	0.0028	1		06/28/10 17:46	107-06-2	
Diisopropyl ether	ND	mg/kg	0.0028	1		06/28/10 17:46	108-20-3	
Ethanol	ND	mg/kg	0.37	1		06/28/10 17:46	64-17-5	
Ethyl-tert-butyl ether	ND	mg/kg	0.0028	1		06/28/10 17:46	637-92-3	
Methyl-tert-butyl ether	ND	mg/kg	0.0028	1		06/28/10 17:46	1634-04-4	
Dibromofluoromethane (S)	93	%	80-136	1		06/28/10 17:46	1868-53-7	
Toluene-d8 (S)	109	%	80-120	1		06/28/10 17:46	2037-26-5	
4-Bromofluorobenzene (S)	101	%	72-122	1		06/28/10 17:46	460-00-4	
1,2-Dichloroethane-d4 (S)	95	%	80-143	1		06/28/10 17:46	17060-07-0	
CA LUFT MSV GRO Medium Soil	Analytical Method: CA LUFT Preparation Method: CA LUFT							
TPH-Gasoline (C05-C12)	**210**	mg/kg	2.4	1	07/01/10 15:00	07/02/10 07:49		
4-Bromofluorobenzene (S)	102	%	72-122	1	07/01/10 15:00	07/02/10 07:49	460-00-4	

Sample: MW-12@10_20100622 **Lab ID: 254043004** Collected: 06/22/10 10:48 Received: 06/24/10 09:00 Matrix: Solid

Results reported on a "wet-weight" basis

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8015B CA Diesel Range Org SG	Analytical Method: EPA 8015B Preparation Method: EPA 3546							
TPH-DRO (C10-C24) SG	**73.6**	mg/kg	2.0	1	06/25/10 17:10	06/28/10 22:25		
o-Terphenyl (S) SG	103	%	50-150	1	06/25/10 17:10	06/28/10 22:25	84-15-1	
n-Octacosane (S) SG	114	%	50-150	1	06/25/10 17:10	06/28/10 22:25	630-02-4	
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3050							
Lead	**9.5**	mg/kg	0.98	1	06/26/10 16:45	06/27/10 15:36	7439-92-1	
8260 MSV 5030 Med Level VOA	Analytical Method: EPA 8260 Preparation Method: EPA 5030							
Benzene	**4.0**	mg/kg	0.048	1	07/01/10 15:00	07/02/10 07:25	71-43-2	
Ethylbenzene	**11.0**	mg/kg	0.048	1	07/01/10 15:00	07/02/10 07:25	100-41-4	
Toluene	**3.5**	mg/kg	0.048	1	07/01/10 15:00	07/02/10 07:25	108-88-3	
Xylene (Total)	**31.4**	mg/kg	0.14	1	07/01/10 15:00	07/02/10 07:25	1330-20-7	
Dibromofluoromethane (S)	97	%	81-114	1	07/01/10 15:00	07/02/10 07:25	1868-53-7	
Toluene-d8 (S)	98	%	84-121	1	07/01/10 15:00	07/02/10 07:25	2037-26-5	
4-Bromofluorobenzene (S)	107	%	78-127	1	07/01/10 15:00	07/02/10 07:25	460-00-4	
1,2-Dichloroethane-d4 (S)	99	%	76-115	1	07/01/10 15:00	07/02/10 07:25	17060-07-0	
8260 MSV 5030	Analytical Method: EPA 8260							
tert-Amylmethyl ether	**0.023**	mg/kg	0.0029	1		06/28/10 17:27	994-05-8	
tert-Butyl Alcohol	ND	mg/kg	0.015	1		06/28/10 17:27	75-65-0	
1,2-Dibromoethane (EDB)	ND	mg/kg	0.0029	1		06/28/10 17:27	106-93-4	

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ANALYTICAL RESULTS

Project: 2705191 449 Hegenbereger
Pace Project No.: 254043

Sample: MW-12@10_20100622 **Lab ID: 254043004** Collected: 06/22/10 10:48 Received: 06/24/10 09:00 Matrix: Solid

Results reported on a "wet-weight" basis

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV 5030	Analytical Method: EPA 8260							
1,2-Dichloroethane	ND	mg/kg	0.0029	1		06/28/10 17:27	107-06-2	
Diisopropyl ether	ND	mg/kg	0.0029	1		06/28/10 17:27	108-20-3	
Ethanol	ND	mg/kg	0.39	1		06/28/10 17:27	64-17-5	
Ethyl-tert-butyl ether	ND	mg/kg	0.0029	1		06/28/10 17:27	637-92-3	
Methyl-tert-butyl ether	ND	mg/kg	0.0029	1		06/28/10 17:27	1634-04-4	
Dibromofluoromethane (S)	94	%	80-136	1		06/28/10 17:27	1868-53-7	
Toluene-d8 (S)	100	%	80-120	1		06/28/10 17:27	2037-26-5	
4-Bromofluorobenzene (S)	109	%	72-122	1		06/28/10 17:27	460-00-4	
1,2-Dichloroethane-d4 (S)	136	%	80-143	1		06/28/10 17:27	17060-07-0	
CA LUFT MSV GRO Medium Soil	Analytical Method: CA LUFT Preparation Method: CA LUFT							
TPH-Gasoline (C05-C12)	**422**	mg/kg	2.4	1	07/01/10 15:00	07/02/10 07:25		
4-Bromofluorobenzene (S)	107	%	72-122	1	07/01/10 15:00	07/02/10 07:25	460-00-4	

Sample: MW-12@20_20100622 **Lab ID: 254043005** Collected: 06/22/10 10:54 Received: 06/24/10 09:00 Matrix: Solid

Results reported on a "wet-weight" basis

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8015B CA Diesel Range Org SG	Analytical Method: EPA 8015B Preparation Method: EPA 3546							
TPH-DRO (C10-C24) SG	ND	mg/kg	2.0	1	06/25/10 17:10	06/28/10 22:42		
o-Terphenyl (S) SG	100	%	50-150	1	06/25/10 17:10	06/28/10 22:42	84-15-1	
n-Octacosane (S) SG	109	%	50-150	1	06/25/10 17:10	06/28/10 22:42	630-02-4	
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3050							
Lead	**6.6**	mg/kg	4.1	5	06/26/10 16:45	06/27/10 16:07	7439-92-1	
8260 MSV 5030	Analytical Method: EPA 8260							
tert-Amylmethyl ether	ND	mg/kg	0.0028	1		06/28/10 15:14	994-05-8	
Benzene	**0.019**	mg/kg	0.0028	1		06/28/10 15:14	71-43-2	
tert-Butyl Alcohol	ND	mg/kg	0.014	1		06/28/10 15:14	75-65-0	
1,2-Dibromoethane (EDB)	ND	mg/kg	0.0028	1		06/28/10 15:14	106-93-4	
1,2-Dichloroethane	ND	mg/kg	0.0028	1		06/28/10 15:14	107-06-2	
Diisopropyl ether	ND	mg/kg	0.0028	1		06/28/10 15:14	108-20-3	
Ethanol	ND	mg/kg	0.38	1		06/28/10 15:14	64-17-5	
Ethylbenzene	ND	mg/kg	0.0028	1		06/28/10 15:14	100-41-4	
Ethyl-tert-butyl ether	ND	mg/kg	0.0028	1		06/28/10 15:14	637-92-3	
Methyl-tert-butyl ether	ND	mg/kg	0.0028	1		06/28/10 15:14	1634-04-4	
Toluene	ND	mg/kg	0.0028	1		06/28/10 15:14	108-88-3	
Xylene (Total)	ND	mg/kg	0.0085	1		06/28/10 15:14	1330-20-7	
Dibromofluoromethane (S)	85	%	80-136	1		06/28/10 15:14	1868-53-7	
Toluene-d8 (S)	104	%	80-120	1		06/28/10 15:14	2037-26-5	
4-Bromofluorobenzene (S)	95	%	72-122	1		06/28/10 15:14	460-00-4	
1,2-Dichloroethane-d4 (S)	106	%	80-143	1		06/28/10 15:14	17060-07-0	

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ANALYTICAL RESULTS

Project: 2705191 449 Hegenbereger
Pace Project No.: 254043

Sample: MW-12@20_20100622 **Lab ID: 254043005** Collected: 06/22/10 10:54 Received: 06/24/10 09:00 Matrix: Solid

Results reported on a "wet-weight" basis

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
CA LUFT MSV GRO	Analytical Method: CA LUFT							
TPH-Gasoline (C05-C12)	ND	mg/kg	0.24	1		06/28/10 15:14		
4-Bromofluorobenzene (S)	95	%	72-122	1		06/28/10 15:14	460-00-4	

Sample: MW-13@8_20100622 **Lab ID: 254043006** Collected: 06/22/10 13:20 Received: 06/24/10 09:00 Matrix: Solid

Results reported on a "wet-weight" basis

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8015B CA Diesel Range Org SG	Analytical Method: EPA 8015B Preparation Method: EPA 3546							
TPH-DRO (C10-C24) SG	ND	mg/kg	2.0	1	06/25/10 17:10	06/28/10 22:58		
o-Terphenyl (S) SG	96	%	50-150	1	06/25/10 17:10	06/28/10 22:58	84-15-1	
n-Octacosane (S) SG	99	%	50-150	1	06/25/10 17:10	06/28/10 22:58	630-02-4	
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3050							
Lead	**3.6**	mg/kg	0.95	1	06/26/10 16:45	06/27/10 15:42	7439-92-1	
8260 MSV 5030	Analytical Method: EPA 8260							
tert-Amylmethyl ether	ND	mg/kg	0.0026	1		06/28/10 15:33	994-05-8	
Benzene	ND	mg/kg	0.0026	1		06/28/10 15:33	71-43-2	
tert-Butyl Alcohol	ND	mg/kg	0.013	1		06/28/10 15:33	75-65-0	
1,2-Dibromoethane (EDB)	ND	mg/kg	0.0026	1		06/28/10 15:33	106-93-4	
1,2-Dichloroethane	ND	mg/kg	0.0026	1		06/28/10 15:33	107-06-2	
Diisopropyl ether	ND	mg/kg	0.0026	1		06/28/10 15:33	108-20-3	
Ethanol	ND	mg/kg	0.34	1		06/28/10 15:33	64-17-5	
Ethylbenzene	ND	mg/kg	0.0026	1		06/28/10 15:33	100-41-4	
Ethyl-tert-butyl ether	ND	mg/kg	0.0026	1		06/28/10 15:33	637-92-3	
Methyl-tert-butyl ether	**0.064**	mg/kg	0.0026	1		06/28/10 15:33	1634-04-4	
Toluene	ND	mg/kg	0.0026	1		06/28/10 15:33	108-88-3	
Xylene (Total)	ND	mg/kg	0.0077	1		06/28/10 15:33	1330-20-7	
Dibromofluoromethane (S)	86	%	80-136	1		06/28/10 15:33	1868-53-7	
Toluene-d8 (S)	104	%	80-120	1		06/28/10 15:33	2037-26-5	
4-Bromofluorobenzene (S)	95	%	72-122	1		06/28/10 15:33	460-00-4	
1,2-Dichloroethane-d4 (S)	89	%	80-143	1		06/28/10 15:33	17060-07-0	
CA LUFT MSV GRO	Analytical Method: CA LUFT							
TPH-Gasoline (C05-C12)	ND	mg/kg	0.21	1		06/28/10 15:33		
4-Bromofluorobenzene (S)	95	%	72-122	1		06/28/10 15:33	460-00-4	

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ANALYTICAL RESULTS

Project: 2705191 449 Hegenbereger
Pace Project No.: 254043

Sample: MW-13@15_20100622 **Lab ID: 254043007** Collected: 06/22/10 13:26 Received: 06/24/10 09:00 Matrix: Solid

Results reported on a "wet-weight" basis

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8015B CA Diesel Range Org SG	Analytical Method: EPA 8015B Preparation Method: EPA 3546							
TPH-DRO (C10-C24) SG	ND	mg/kg	2.0	1	06/25/10 17:10	06/28/10 23:14		
o-Terphenyl (S) SG	108	%	50-150	1	06/25/10 17:10	06/28/10 23:14	84-15-1	
n-Octacosane (S) SG	119	%	50-150	1	06/25/10 17:10	06/28/10 23:14	630-02-4	
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3050							
Lead	**5.9**	mg/kg	0.78	1	06/26/10 16:45	06/27/10 15:50	7439-92-1	
8260 MSV 5030	Analytical Method: EPA 8260							
tert-Amylmethyl ether	ND	mg/kg	0.0029	1		06/28/10 15:52	994-05-8	
Benzene	ND	mg/kg	0.0029	1		06/28/10 15:52	71-43-2	
tert-Butyl Alcohol	ND	mg/kg	0.014	1		06/28/10 15:52	75-65-0	
1,2-Dibromoethane (EDB)	ND	mg/kg	0.0029	1		06/28/10 15:52	106-93-4	
1,2-Dichloroethane	ND	mg/kg	0.0029	1		06/28/10 15:52	107-06-2	
Diisopropyl ether	ND	mg/kg	0.0029	1		06/28/10 15:52	108-20-3	
Ethanol	ND	mg/kg	0.39	1		06/28/10 15:52	64-17-5	
Ethylbenzene	ND	mg/kg	0.0029	1		06/28/10 15:52	100-41-4	
Ethyl-tert-butyl ether	ND	mg/kg	0.0029	1		06/28/10 15:52	637-92-3	
Methyl-tert-butyl ether	ND	mg/kg	0.0029	1		06/28/10 15:52	1634-04-4	
Toluene	ND	mg/kg	0.0029	1		06/28/10 15:52	108-88-3	
Xylene (Total)	ND	mg/kg	0.0087	1		06/28/10 15:52	1330-20-7	
Dibromofluoromethane (S)	88	%	80-136	1		06/28/10 15:52	1868-53-7	
Toluene-d8 (S)	101	%	80-120	1		06/28/10 15:52	2037-26-5	
4-Bromofluorobenzene (S)	95	%	72-122	1		06/28/10 15:52	460-00-4	
1,2-Dichloroethane-d4 (S)	106	%	80-143	1		06/28/10 15:52	17060-07-0	
CA LUFT MSV GRO	Analytical Method: CA LUFT							
TPH-Gasoline (C05-C12)	ND	mg/kg	0.24	1		06/28/10 15:52		
4-Bromofluorobenzene (S)	95	%	72-122	1		06/28/10 15:52	460-00-4	

Sample: MW-12A@26_20100622 **Lab ID: 254043008** Collected: 06/23/10 08:40 Received: 06/24/10 09:00 Matrix: Solid

Results reported on a "wet-weight" basis

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8015B CA Diesel Range Org SG	Analytical Method: EPA 8015B Preparation Method: EPA 3546							
TPH-DRO (C10-C24) SG	**2210**	mg/kg	99.3	50	06/25/10 17:10	06/29/10 15:32		
o-Terphenyl (S) SG	0	%	50-150	50	06/25/10 17:10	06/29/10 15:32	84-15-1	S4
n-Octacosane (S) SG	0	%	50-150	50	06/25/10 17:10	06/29/10 15:32	630-02-4	S4
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3050							
Lead	**13.1**	mg/kg	0.93	1	06/26/10 16:45	06/27/10 15:53	7439-92-1	
8260 MSV 5030 Med Level VOA	Analytical Method: EPA 8260 Preparation Method: EPA 5030							
Benzene	**80.9**	mg/kg	0.45	10	07/01/10 15:00	07/02/10 09:04	71-43-2	

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ANALYTICAL RESULTS

Project: 2705191 449 Hegenbereger
Pace Project No.: 254043

Sample: MW-12A@26_20100622 **Lab ID: 254043008** Collected: 06/23/10 08:40 Received: 06/24/10 09:00 Matrix: Solid

Results reported on a "wet-weight" basis

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV 5030 Med Level VOA	Analytical Method: EPA 8260 Preparation Method: EPA 5030							
Ethylbenzene	**178**	mg/kg	0.45	10	07/01/10 15:00	07/02/10 09:04	100-41-4	
Toluene	**232**	mg/kg	2.3	50	07/01/10 15:00	07/02/10 10:20	108-88-3	
Xylene (Total)	**607**	mg/kg	6.8	50	07/01/10 15:00	07/02/10 10:20	1330-20-7	
Dibromofluoromethane (S)	100	%	81-114	10	07/01/10 15:00	07/02/10 09:04	1868-53-7	
Toluene-d8 (S)	100	%	84-121	10	07/01/10 15:00	07/02/10 09:04	2037-26-5	
4-Bromofluorobenzene (S)	97	%	78-127	10	07/01/10 15:00	07/02/10 09:04	460-00-4	
1,2-Dichloroethane-d4 (S)	102	%	76-115	10	07/01/10 15:00	07/02/10 09:04	17060-07-0	
8260 MSV 5030	Analytical Method: EPA 8260							
tert-Amylmethyl ether	ND	mg/kg	0.0027	1		06/28/10 17:09	994-05-8	
tert-Butyl Alcohol	ND	mg/kg	0.014	1		06/28/10 17:09	75-65-0	
1,2-Dibromoethane (EDB)	ND	mg/kg	0.0027	1		06/28/10 17:09	106-93-4	
1,2-Dichloroethane	ND	mg/kg	0.0027	1		06/28/10 17:09	107-06-2	
Diisopropyl ether	ND	mg/kg	0.0027	1		06/28/10 17:09	108-20-3	
Ethanol	ND	mg/kg	0.36	1		06/28/10 17:09	64-17-5	
Ethyl-tert-butyl ether	ND	mg/kg	0.0027	1		06/28/10 17:09	637-92-3	
Methyl-tert-butyl ether	ND	mg/kg	0.0027	1		06/28/10 17:09	1634-04-4	
Dibromofluoromethane (S)	50	%	80-136	1		06/28/10 17:09	1868-53-7	S5
Toluene-d8 (S)	81	%	80-120	1		06/28/10 17:09	2037-26-5	
4-Bromofluorobenzene (S)	681	%	72-122	1		06/28/10 17:09	460-00-4	S5
1,2-Dichloroethane-d4 (S)	0	%	80-143	1		06/28/10 17:09	17060-07-0	S5
CA LUFT MSV GRO Medium Soil	Analytical Method: CA LUFT Preparation Method: CA LUFT							
TPH-Gasoline (C05-C12)	**6840**	mg/kg	113	50	07/01/10 15:00	07/02/10 10:20		
4-Bromofluorobenzene (S)	95	%	72-122	50	07/01/10 15:00	07/02/10 10:20	460-00-4	

Sample: MW-12A@32_20100622 **Lab ID: 254043009** Collected: 06/23/10 08:45 Received: 06/24/10 09:00 Matrix: Solid

Results reported on a "wet-weight" basis

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8015B CA Diesel Range Org SG	Analytical Method: EPA 8015B Preparation Method: EPA 3546							
TPH-DRO (C10-C24) SG	**267**	mg/kg	2.0	1	06/25/10 17:10	06/28/10 23:47		
o-Terphenyl (S) SG	95	%	50-150	1	06/25/10 17:10	06/28/10 23:47	84-15-1	
n-Octacosane (S) SG	101	%	50-150	1	06/25/10 17:10	06/28/10 23:47	630-02-4	
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3050							
Lead	**6.6**	mg/kg	0.85	1	06/26/10 16:45	06/27/10 15:56	7439-92-1	
8260 MSV 5030 Med Level VOA	Analytical Method: EPA 8260 Preparation Method: EPA 5030							
Benzene	**4.9**	mg/kg	0.045	1	07/01/10 15:00	07/02/10 08:13	71-43-2	
Ethylbenzene	**12.0**	mg/kg	0.045	1	07/01/10 15:00	07/02/10 08:13	100-41-4	
Toluene	**15.5**	mg/kg	0.045	1	07/01/10 15:00	07/02/10 08:13	108-88-3	
Xylene (Total)	**42.6**	mg/kg	0.13	1	07/01/10 15:00	07/02/10 08:13	1330-20-7	

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ANALYTICAL RESULTS

Project: 2705191 449 Hegenbereger
Pace Project No.: 254043

Sample: MW-12A@32_20100622 **Lab ID: 254043009** Collected: 06/23/10 08:45 Received: 06/24/10 09:00 Matrix: Solid

Results reported on a "wet-weight" basis

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV 5030 Med Level VOA	Analytical Method: EPA 8260 Preparation Method: EPA 5030							
Dibromofluoromethane (S)	98	%	81-114	1	07/01/10 15:00	07/02/10 08:13	1868-53-7	
Toluene-d8 (S)	99	%	84-121	1	07/01/10 15:00	07/02/10 08:13	2037-26-5	
4-Bromofluorobenzene (S)	102	%	78-127	1	07/01/10 15:00	07/02/10 08:13	460-00-4	
1,2-Dichloroethane-d4 (S)	100	%	76-115	1	07/01/10 15:00	07/02/10 08:13	17060-07-0	
8260 MSV 5030	Analytical Method: EPA 8260							
tert-Amylmethyl ether	**0.048**	mg/kg	0.0028	1		06/28/10 16:49	994-05-8	
tert-Butyl Alcohol	**0.044**	mg/kg	0.014	1		06/28/10 16:49	75-65-0	
1,2-Dibromoethane (EDB)	ND	mg/kg	0.0028	1		06/28/10 16:49	106-93-4	
1,2-Dichloroethane	ND	mg/kg	0.0028	1		06/28/10 16:49	107-06-2	
Diisopropyl ether	ND	mg/kg	0.0028	1		06/28/10 16:49	108-20-3	
Ethanol	ND	mg/kg	0.38	1		06/28/10 16:49	64-17-5	
Ethyl-tert-butyl ether	ND	mg/kg	0.0028	1		06/28/10 16:49	637-92-3	
Methyl-tert-butyl ether	**0.045**	mg/kg	0.0028	1		06/28/10 16:49	1634-04-4	
Dibromofluoromethane (S)	86	%	80-136	1		06/28/10 16:49	1868-53-7	
Toluene-d8 (S)	99	%	80-120	1		06/28/10 16:49	2037-26-5	
4-Bromofluorobenzene (S)	107	%	72-122	1		06/28/10 16:49	460-00-4	
1,2-Dichloroethane-d4 (S)	138	%	80-143	1		06/28/10 16:49	17060-07-0	
CA LUFT MSV GRO Medium Soil	Analytical Method: CA LUFT Preparation Method: CA LUFT							
TPH-Gasoline (C05-C12)	**943**	mg/kg	22.4	10	07/01/10 15:00	07/02/10 09:56		
4-Bromofluorobenzene (S)	101	%	72-122	10	07/01/10 15:00	07/02/10 09:56	460-00-4	

Sample: MW-12A@34_20100622 **Lab ID: 254043010** Collected: 06/23/10 08:55 Received: 06/24/10 09:00 Matrix: Solid

Results reported on a "wet-weight" basis

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8015B CA Diesel Range Org SG	Analytical Method: EPA 8015B Preparation Method: EPA 3546							
TPH-DRO (C10-C24) SG	ND	mg/kg	1.9	1	06/25/10 17:10	06/29/10 00:03		
o-Terphenyl (S) SG	110	%	50-150	1	06/25/10 17:10	06/29/10 00:03	84-15-1	
n-Octacosane (S) SG	122	%	50-150	1	06/25/10 17:10	06/29/10 00:03	630-02-4	
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3050							
Lead	**4.9**	mg/kg	0.95	1	06/26/10 16:45	06/27/10 15:59	7439-92-1	
8260 MSV 5030	Analytical Method: EPA 8260							
tert-Amylmethyl ether	ND	mg/kg	0.0027	1		06/28/10 16:11	994-05-8	
Benzene	ND	mg/kg	0.0027	1		06/28/10 16:11	71-43-2	
tert-Butyl Alcohol	ND	mg/kg	0.013	1		06/28/10 16:11	75-65-0	
1,2-Dibromoethane (EDB)	ND	mg/kg	0.0027	1		06/28/10 16:11	106-93-4	
1,2-Dichloroethane	ND	mg/kg	0.0027	1		06/28/10 16:11	107-06-2	
Diisopropyl ether	ND	mg/kg	0.0027	1		06/28/10 16:11	108-20-3	
Ethanol	ND	mg/kg	0.35	1		06/28/10 16:11	64-17-5	

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ANALYTICAL RESULTS

Project: 2705191 449 Hegenbereger
Pace Project No.: 254043

Sample: MW-12A@34_20100622 **Lab ID: 254043010** Collected: 06/23/10 08:55 Received: 06/24/10 09:00 Matrix: Solid

Results reported on a "wet-weight" basis

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV 5030	Analytical Method: EPA 8260							
Ethylbenzene	**0.0074**	mg/kg	0.0027	1		06/28/10 16:11	100-41-4	
Ethyl-tert-butyl ether	ND	mg/kg	0.0027	1		06/28/10 16:11	637-92-3	
Methyl-tert-butyl ether	ND	mg/kg	0.0027	1		06/28/10 16:11	1634-04-4	
Toluene	**0.0097**	mg/kg	0.0027	1		06/28/10 16:11	108-88-3	
Xylene (Total)	**0.033**	mg/kg	0.0080	1		06/28/10 16:11	1330-20-7	
Dibromofluoromethane (S)	84	%	80-136	1		06/28/10 16:11	1868-53-7	
Toluene-d8 (S)	102	%	80-120	1		06/28/10 16:11	2037-26-5	
4-Bromofluorobenzene (S)	92	%	72-122	1		06/28/10 16:11	460-00-4	
1,2-Dichloroethane-d4 (S)	91	%	80-143	1		06/28/10 16:11	17060-07-0	
CA LUFT MSV GRO	Analytical Method: CA LUFT							
TPH-Gasoline (C05-C12)	ND	mg/kg	0.22	1		06/28/10 16:11		
4-Bromofluorobenzene (S)	92	%	72-122	1		06/28/10 16:11	460-00-4	

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QUALITY CONTROL DATA

Project: 2705191 449 Hegenbereger
Pace Project No.: 254043

QC Batch: OEXT/2313 Analysis Method: EPA 8015B
QC Batch Method: EPA 3546 Analysis Description: EPA 8015B CA TPH Silca Gel
Associated Lab Samples: 254043001, 254043002, 254043003, 254043004, 254043005, 254043006, 254043007, 254043008, 254043009, 254043010

METHOD BLANK: 31233 Matrix: Solid
Associated Lab Samples: 254043001, 254043002, 254043003, 254043004, 254043005, 254043006, 254043007, 254043008, 254043009, 254043010

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
TPH-DRO (C10-C24) SG	mg/kg	ND	2.0	06/28/10 19:59	
n-Octacosane (S) SG	%	122	50-150	06/28/10 19:59	
o-Terphenyl (S) SG	%	112	50-150	06/28/10 19:59	

LABORATORY CONTROL SAMPLE: 31234

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
TPH-DRO (C10-C24) SG	mg/kg	83.3	81.1	97	56-124	
n-Octacosane (S) SG	%			114	50-150	
o-Terphenyl (S) SG	%			117	50-150	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 31235 31236

Parameter	Units	254043001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Qual
TPH-DRO (C10-C24) SG	mg/kg	3.2	81.3	81.9	83.3	85.7	98	101	56-124	3	
n-Octacosane (S) SG	%						122	126	50-150		
o-Terphenyl (S) SG	%						125	126	50-150		

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QUALITY CONTROL DATA

Project: 2705191 449 Hegenbereger
Pace Project No.: 254043

QC Batch: MPRP/1612 Analysis Method: EPA 6010
QC Batch Method: EPA 3050 Analysis Description: 6010 MET
Associated Lab Samples: 254043001, 254043002, 254043003, 254043004, 254043005, 254043006, 254043007, 254043008, 254043009, 254043010

METHOD BLANK: 31485 Matrix: Solid
Associated Lab Samples: 254043001, 254043002, 254043003, 254043004, 254043005, 254043006, 254043007, 254043008, 254043009, 254043010

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Lead	mg/kg	ND	1.0	06/27/10 14:44	

LABORATORY CONTROL SAMPLE: 31486

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Lead	mg/kg	25	27.5	110	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 31487 31488

Parameter	Units	253969007 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Qual
Lead	mg/kg	1.6	19.4	19.2	23.3	22.9	112	111	75-125	2	

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QUALITY CONTROL DATA

Project: 2705191 449 Hegenbereger
Pace Project No.: 254043

QC Batch: MSV/2586 Analysis Method: EPA 8260
QC Batch Method: EPA 5030 Analysis Description: 8260 MSV 5030 Medium Soil
Associated Lab Samples: 254043003, 254043004, 254043008, 254043009

METHOD BLANK: 32061 Matrix: Solid
Associated Lab Samples: 254043003, 254043004, 254043008, 254043009

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Benzene	mg/kg	ND	0.050	07/02/10 06:37	
Ethylbenzene	mg/kg	ND	0.050	07/02/10 06:37	
Toluene	mg/kg	ND	0.050	07/02/10 06:37	
Xylene (Total)	mg/kg	ND	0.15	07/02/10 06:37	
1,2-Dichloroethane-d4 (S)	%	95	76-115	07/02/10 06:37	
4-Bromofluorobenzene (S)	%	96	78-127	07/02/10 06:37	
Dibromofluoromethane (S)	%	96	81-114	07/02/10 06:37	
Toluene-d8 (S)	%	94	84-121	07/02/10 06:37	

LABORATORY CONTROL SAMPLE & LCSD: 32062 32063

Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS % Rec	LCSD % Rec	% Rec Limits	RPD	Max RPD	Qualifiers
Benzene	mg/kg	1	0.86	0.90	86	90	79-127	5	30	
Ethylbenzene	mg/kg	1	0.80	0.84	80	84	77-126	5	30	
Toluene	mg/kg	1	0.81	0.85	81	85	77-124	5	30	
Xylene (Total)	mg/kg	3	2.5	2.6	82	86	77-127	5	30	
1,2-Dichloroethane-d4 (S)	%				99	95	76-115			
4-Bromofluorobenzene (S)	%				101	101	78-127			
Dibromofluoromethane (S)	%				98	95	81-114			
Toluene-d8 (S)	%				95	95	84-121			

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QUALITY CONTROL DATA

Project: 2705191 449 Hegenbereger
Pace Project No.: 254043

QC Batch: MSV/2545 Analysis Method: EPA 8260
QC Batch Method: EPA 8260 Analysis Description: 8260 MSV 5030 Volatile Organics
Associated Lab Samples: 254043001, 254043003, 254043004, 254043005, 254043006, 254043007, 254043008, 254043009, 254043010

METHOD BLANK: 31512 Matrix: Solid
Associated Lab Samples: 254043001, 254043003, 254043004, 254043005, 254043006, 254043007, 254043008, 254043009, 254043010

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1,2-Dibromoethane (EDB)	mg/kg	ND	0.0030	06/28/10 12:22	
1,2-Dichloroethane	mg/kg	ND	0.0030	06/28/10 12:22	
Benzene	mg/kg	ND	0.0030	06/28/10 12:22	
Diisopropyl ether	mg/kg	ND	0.0030	06/28/10 12:22	
Ethanol	mg/kg	ND	0.40	06/28/10 12:22	
Ethyl-tert-butyl ether	mg/kg	ND	0.0030	06/28/10 12:22	
Ethylbenzene	mg/kg	ND	0.0030	06/28/10 12:22	
Methyl-tert-butyl ether	mg/kg	ND	0.0030	06/28/10 12:22	
tert-Amylmethyl ether	mg/kg	ND	0.0030	06/28/10 12:22	
tert-Butyl Alcohol	mg/kg	ND	0.015	06/28/10 12:22	
Toluene	mg/kg	ND	0.0030	06/28/10 12:22	
Xylene (Total)	mg/kg	ND	0.0090	06/28/10 12:22	
1,2-Dichloroethane-d4 (S)	%	110	80-143	06/28/10 12:22	
4-Bromofluorobenzene (S)	%	89	72-122	06/28/10 12:22	
Dibromofluoromethane (S)	%	90	80-136	06/28/10 12:22	
Toluene-d8 (S)	%	102	80-120	06/28/10 12:22	

LABORATORY CONTROL SAMPLE: 31513

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,2-Dibromoethane (EDB)	mg/kg	.05	0.052	103	71-123	
1,2-Dichloroethane	mg/kg	.05	0.051	102	70-124	
Benzene	mg/kg	.05	0.059	119	75-133	
Diisopropyl ether	mg/kg	.05	0.057	113	63-139	
Ethanol	mg/kg	1	1.1	110	53-134	
Ethyl-tert-butyl ether	mg/kg	.05	0.048	96	63-135	
Ethylbenzene	mg/kg	.05	0.055	109	68-131	
Methyl-tert-butyl ether	mg/kg	.05	0.050	99	52-143	
tert-Amylmethyl ether	mg/kg	.05	0.048	96	62-138	
tert-Butyl Alcohol	mg/kg	.25	0.19	75	35-151	
Toluene	mg/kg	.05	0.057	113	73-124	
Xylene (Total)	mg/kg	.15	0.16	110	68-130	
1,2-Dichloroethane-d4 (S)	%			96	80-143	
4-Bromofluorobenzene (S)	%			101	72-122	
Dibromofluoromethane (S)	%			96	80-136	
Toluene-d8 (S)	%			101	80-120	

Pace Analytical Services, Inc.
940 South Harney
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(206)767-5060

QUALITY CONTROL DATA

Project: 2705191 449 Hegenbereger
Pace Project No.: 254043

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 31808 31809

Parameter	Units	254043001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Qual
1,2-Dibromoethane (EDB)	mg/kg	ND	.048	.048	0.033	0.036	69	75	71-123	7	M0
1,2-Dichloroethane	mg/kg	ND	.048	.048	0.039	0.038	80	81	71-124	1	
Benzene	mg/kg	ND	.048	.048	0.039	0.040	80	85	68-124	3	
Diisopropyl ether	mg/kg	ND	.048	.048	0.042	0.037	86	77	20-160	13	
Ethanol	mg/kg	ND	.97	.95	0.93	0.92	96	97	60-140	1	
Ethyl-tert-butyl ether	mg/kg	ND	.048	.048	0.036	0.033	75	69	70-140	10	M0
Ethylbenzene	mg/kg	ND	.048	.048	0.036	0.033	72	68	63-131	7	
Methyl-tert-butyl ether	mg/kg	0.011	.048	.048	0.045	0.038	69	57	68-139	15	M0
tert-Amylmethyl ether	mg/kg	ND	.048	.048	0.032	0.035	67	73	74-125	7	M0
tert-Butyl Alcohol	mg/kg	ND	.24	.24	0.15	0.14	61	59	49-122	4	
Toluene	mg/kg	ND	.048	.048	0.038	0.037	79	77	61-126	5	
Xylene (Total)	mg/kg	ND	.15	.14	0.10	0.096	71	66	68-129	9	M0
1,2-Dichloroethane-d4 (S)	%						96	99	80-143		
4-Bromofluorobenzene (S)	%						100	99	72-122		
Dibromofluoromethane (S)	%						88	96	80-136		
Toluene-d8 (S)	%						105	113	80-120		

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QUALITY CONTROL DATA

Project: 2705191 449 Hegenbereger
Pace Project No.: 254043

QC Batch: MSV/2595
QC Batch Method: EPA 8260
Analysis Method: EPA 8260
Analysis Description: 8260 MSV 5030 Volatile Organics
Associated Lab Samples: 254043002

METHOD BLANK: 32370 Matrix: Solid
Associated Lab Samples: 254043002

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1,2-Dibromoethane (EDB)	mg/kg	ND	0.0030	07/06/10 13:26	
1,2-Dichloroethane	mg/kg	ND	0.0030	07/06/10 13:26	
Benzene	mg/kg	ND	0.0030	07/06/10 13:26	
Diisopropyl ether	mg/kg	ND	0.0030	07/06/10 13:26	
Ethanol	mg/kg	ND	0.40	07/06/10 13:26	
Ethyl-tert-butyl ether	mg/kg	ND	0.0030	07/06/10 13:26	
Ethylbenzene	mg/kg	ND	0.0030	07/06/10 13:26	
Methyl-tert-butyl ether	mg/kg	ND	0.0030	07/06/10 13:26	
tert-Amylmethyl ether	mg/kg	ND	0.0030	07/06/10 13:26	
tert-Butyl Alcohol	mg/kg	ND	0.015	07/06/10 13:26	
Toluene	mg/kg	ND	0.0030	07/06/10 13:26	
Xylene (Total)	mg/kg	ND	0.0090	07/06/10 13:26	
1,2-Dichloroethane-d4 (S)	%	84	80-143	07/06/10 13:26	
4-Bromofluorobenzene (S)	%	91	72-122	07/06/10 13:26	
Dibromofluoromethane (S)	%	86	80-136	07/06/10 13:26	
Toluene-d8 (S)	%	97	80-120	07/06/10 13:26	

LABORATORY CONTROL SAMPLE: 32371

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,2-Dibromoethane (EDB)	mg/kg	.05	0.050	100	71-123	
1,2-Dichloroethane	mg/kg	.05	0.051	102	70-124	
Benzene	mg/kg	.05	0.059	117	75-133	
Diisopropyl ether	mg/kg	.05	0.053	106	63-139	
Ethanol	mg/kg	1	0.96	96	53-134	
Ethyl-tert-butyl ether	mg/kg	.05	0.048	96	63-135	
Ethylbenzene	mg/kg	.05	0.051	101	68-131	
Methyl-tert-butyl ether	mg/kg	.05	0.048	96	52-143	
tert-Amylmethyl ether	mg/kg	.05	0.053	105	62-138	
tert-Butyl Alcohol	mg/kg	.25	0.21	84	35-151	
Toluene	mg/kg	.05	0.052	104	73-124	
Xylene (Total)	mg/kg	.15	0.15	103	68-130	
1,2-Dichloroethane-d4 (S)	%			88	80-143	
4-Bromofluorobenzene (S)	%			95	72-122	
Dibromofluoromethane (S)	%			96	80-136	
Toluene-d8 (S)	%			96	80-120	

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QUALITY CONTROL DATA

Project: 2705191 449 Hegenbereger
Pace Project No.: 254043

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 32372 32373

Parameter	Units	254056002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Qual
1,2-Dibromoethane (EDB)	mg/kg	ND	.046	.044	0.029	0.025	64	57	71-123	15	M0
1,2-Dichloroethane	mg/kg	ND	.046	.044	0.029	0.025	64	56	71-124	16	M0
Benzene	mg/kg	ND	.046	.044	0.032	0.026	70	59	68-124	20	M0
Diisopropyl ether	mg/kg	ND	.046	.044	0.030	0.025	66	56	20-160	19	
Ethanol	mg/kg	ND	.92	.88	0.63	0.57	68	65	60-140	9	
Ethyl-tert-butyl ether	mg/kg	ND	.046	.044	0.027	0.023	60	52	70-140	17	M0
Ethylbenzene	mg/kg	ND	.046	.044	0.026	0.021	55	46	63-131	21	M0
Methyl-tert-butyl ether	mg/kg	ND	.046	.044	0.028	0.024	61	54	68-139	15	M0
tert-Amylmethyl ether	mg/kg	ND	.046	.044	0.029	0.024	63	54	74-125	18	M0
tert-Butyl Alcohol	mg/kg	ND	.23	.22	0.12	0.12	54	52	49-122	7	
Toluene	mg/kg	ND	.046	.044	0.028	0.022	60	50	61-126	21	M0
Xylene (Total)	mg/kg	ND	.14	.13	0.078	0.062	56	47	68-129	22	M0
1,2-Dichloroethane-d4 (S)	%						90	93	80-143		
4-Bromofluorobenzene (S)	%						97	96	72-122		
Dibromofluoromethane (S)	%						96	97	80-136		
Toluene-d8 (S)	%						96	94	80-120		

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QUALITY CONTROL DATA

Project: 2705191 449 Hegenbereger
Pace Project No.: 254043

QC Batch: MSV/2594 Analysis Method: CA LUFT
QC Batch Method: CA LUFT Analysis Description: CA LUFT MSV GRO
Associated Lab Samples: 254043003, 254043004, 254043008, 254043009

METHOD BLANK: 32280 Matrix: Solid
Associated Lab Samples: 254043003, 254043004, 254043008, 254043009

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
TPH-Gasoline (C05-C12)	mg/kg	ND	2.5	07/02/10 06:37	
4-Bromofluorobenzene (S)	%	96	72-122	07/02/10 06:37	

LABORATORY CONTROL SAMPLE & LCSD: 32281 32282

Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS % Rec	LCSD % Rec	% Rec Limits	RPD	Max RPD	Qualifiers
TPH-Gasoline (C05-C12)	mg/kg	25	32.9	30.9	131	124	60-140	6	30	
4-Bromofluorobenzene (S)	%				97	95	72-122			

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QUALITY CONTROL DATA

Project: 2705191 449 Hegenbereger
Pace Project No.: 254043

QC Batch: MSV/2546 Analysis Method: CA LUFT
QC Batch Method: CA LUFT Analysis Description: CA LUFT MSV GRO
Associated Lab Samples: 254043001, 254043002, 254043005, 254043006, 254043007, 254043010

METHOD BLANK: 31514 Matrix: Solid
Associated Lab Samples: 254043001, 254043002, 254043005, 254043006, 254043007, 254043010

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
TPH-Gasoline (C05-C12)	mg/kg	ND	0.25	06/28/10 12:22	
4-Bromofluorobenzene (S)	%	89	72-122	06/28/10 12:22	

LABORATORY CONTROL SAMPLE: 31515

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
TPH-Gasoline (C05-C12)	mg/kg	.5	0.53	105	60-140	
4-Bromofluorobenzene (S)	%			91	72-122	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 31516 31517

Parameter	Units	253969007 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Qual
TPH-Gasoline (C05-C12)	mg/kg	ND	.45	.37	0.33	0.21	61	41	60-140	44	M0
4-Bromofluorobenzene (S)	%						96	94	72-122		

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QUALIFIERS

Project: 2705191 449 Hegenbereger
Pace Project No.: 254043

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to changes in sample preparation, dilution of the sample aliquot, or moisture content.

ND - Not Detected at or above adjusted reporting limit.

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

S - Surrogate

1,2-Diphenylhydrazine (8270 listed analyte) decomposes to Azobenzene.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Pace Analytical is NELAP accredited. Contact your Pace PM for the current list of accredited analytes.

LABORATORIES

PASI-S	Pace Analytical Services - Seattle

ANALYTE QUALIFIERS

M0	Matrix spike recovery and/or matrix spike duplicate recovery was outside laboratory control limits.
S4	Surrogate recovery not evaluated against control limits due to sample dilution.
S5	Surrogate recovery outside control limits due to matrix interferences (not confirmed by re-analysis).

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: 2705191 449 Hegenbereger
Pace Project No.: 254043

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
254043001	**MW-11@10_20100622**	EPA 3546	OEXT/2313	EPA 8015B	GCSV/1685
254043002	**MW-11@20_20100622**	EPA 3546	OEXT/2313	EPA 8015B	GCSV/1685
254043003	**MW-12@8_20100622**	EPA 3546	OEXT/2313	EPA 8015B	GCSV/1685
254043004	**MW-12@10_20100622**	EPA 3546	OEXT/2313	EPA 8015B	GCSV/1685
254043005	**MW-12@20_20100622**	EPA 3546	OEXT/2313	EPA 8015B	GCSV/1685
254043006	**MW-13@8_20100622**	EPA 3546	OEXT/2313	EPA 8015B	GCSV/1685
254043007	**MW-13@15_20100622**	EPA 3546	OEXT/2313	EPA 8015B	GCSV/1685
254043008	**MW-12A@26_20100622**	EPA 3546	OEXT/2313	EPA 8015B	GCSV/1685
254043009	**MW-12A@32_20100622**	EPA 3546	OEXT/2313	EPA 8015B	GCSV/1685
254043010	**MW-12A@34_20100622**	EPA 3546	OEXT/2313	EPA 8015B	GCSV/1685
254043001	**MW-11@10_20100622**	EPA 3050	MPRP/1612	EPA 6010	ICP/1537
254043002	**MW-11@20_20100622**	EPA 3050	MPRP/1612	EPA 6010	ICP/1537
254043003	**MW-12@8_20100622**	EPA 3050	MPRP/1612	EPA 6010	ICP/1537
254043004	**MW-12@10_20100622**	EPA 3050	MPRP/1612	EPA 6010	ICP/1537
254043005	**MW-12@20_20100622**	EPA 3050	MPRP/1612	EPA 6010	ICP/1537
254043006	**MW-13@8_20100622**	EPA 3050	MPRP/1612	EPA 6010	ICP/1537
254043007	**MW-13@15_20100622**	EPA 3050	MPRP/1612	EPA 6010	ICP/1537
254043008	**MW-12A@26_20100622**	EPA 3050	MPRP/1612	EPA 6010	ICP/1537
254043009	**MW-12A@32_20100622**	EPA 3050	MPRP/1612	EPA 6010	ICP/1537
254043010	**MW-12A@34_20100622**	EPA 3050	MPRP/1612	EPA 6010	ICP/1537
254043003	**MW-12@8_20100622**	EPA 5030	MSV/2586	EPA 8260	MSV/2607
254043004	**MW-12@10_20100622**	EPA 5030	MSV/2586	EPA 8260	MSV/2607
254043008	**MW-12A@26_20100622**	EPA 5030	MSV/2586	EPA 8260	MSV/2607
254043009	**MW-12A@32_20100622**	EPA 5030	MSV/2586	EPA 8260	MSV/2607
254043001	**MW-11@10_20100622**	EPA 8260	MSV/2545		
254043002	**MW-11@20_20100622**	EPA 8260	MSV/2595		
254043003	**MW-12@8_20100622**	EPA 8260	MSV/2545		
254043004	**MW-12@10_20100622**	EPA 8260	MSV/2545		
254043005	**MW-12@20_20100622**	EPA 8260	MSV/2545		
254043006	**MW-13@8_20100622**	EPA 8260	MSV/2545		
254043007	**MW-13@15_20100622**	EPA 8260	MSV/2545		
254043008	**MW-12A@26_20100622**	EPA 8260	MSV/2545		
254043009	**MW-12A@32_20100622**	EPA 8260	MSV/2545		
254043010	**MW-12A@34_20100622**	EPA 8260	MSV/2545		
254043003	**MW-12@8_20100622**	CA LUFT	MSV/2594	CA LUFT	MSV/2603
254043004	**MW-12@10_20100622**	CA LUFT	MSV/2594	CA LUFT	MSV/2603
254043008	**MW-12A@26_20100622**	CA LUFT	MSV/2594	CA LUFT	MSV/2603
254043009	**MW-12A@32_20100622**	CA LUFT	MSV/2594	CA LUFT	MSV/2603
254043001	**MW-11@10_20100622**	CA LUFT	MSV/2546		
254043002	**MW-11@20_20100622**	CA LUFT	MSV/2546		
254043005	**MW-12@20_20100622**	CA LUFT	MSV/2546		
254043006	**MW-13@8_20100622**	CA LUFT	MSV/2546		
254043007	**MW-13@15_20100622**	CA LUFT	MSV/2546		
254043010	**MW-12A@34_20100622**	CA LUFT	MSV/2546		

254043

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CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

Page : 1 Of 1

Section A Required Client Information:		Section B Required Project Information:		Section C Invoice Information:	
Company:	Delta Consultants	Report To:	Dennis Dettloff	Attention:	Dennis Dettloff
Address:	11050 White Rock Road, Suite 110	Copy To:		Company Name:	Delta Consultants
	Rancho Cordova, CA 95670			Address:	11050 White Rock Road, Suite 110
Email To:	ddettloff@deltaenv.com	Purchase Order No.		Pace Quote Reference:	
Phone:	916 503-1261 Fax:	Client Project ID:	I42705191	Pace Project Manager:	
Requested Due Date/TAT:	10 Day (Default)	Container Order Number:		Pace Profile #:	21800/L4

Regulatory Agency
Alameda County Health Care Services Agency
State / Location
CA

ITEM#	SAMPLE ID (One Character per box. (A-Z, 0-9 / , -) Sample Ids must be unique)	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED Composite START DATE	COLLECTED Composite START TIME	COLLECTED Composite END/Grab DATE	COLLECTED Composite END/Grab TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H2SO4	HNO3	HCl	NaOH	Na2S2O3	Methanol	Other	Analyses Test Y/N	TPH-G/BTEX/8 Oxys* By 8260	Total Lead by 6010	TPH-D By 8260 Silicagel treated	TPHg/BTEX/MTBE by 8260	Total lead by 6010	Residual Chlorine (Y/N)
1	MW-11@10_20100622_*	SL	G			6/22	8:45		1										X	X	X	X		
2	MW-11@20_20100622	SL	G			6/22	8:50		1										X	X	X	X		
3	MW-12@8_20100622	SL	G			6/22	10:45		1										X	X	X	X		
4	MW-12@10_20100622	SL	G			6/22	10:48		1										X	X	X	X		
5	MW-12@20_20100622	SL	G			6/22	10:54		1										X	X	X	X		
6	MW-13@8_20100622	SL	G			6/22	1:20		1										X	X	X	X		
7	MW-13@15_20100622	SL	G			6/22	1:26		1										X	X	X	X		
8	MW-12A@26_20100622	SL	G			6/23	8:40		1										X	X	X	X		
9	MW-12A@32_20100622	SL	G			6/23	8:45		1										X	X	X	X		
10	~~Pace~~ MW-12A@34_20100622	SL	G			6/23	8:55		1										X	X	X	X		
11																								
12																								

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS			
* 8 Oxys - MTBE/TBA/DIPE/EDB/1,2-DCA/ETBE/TAME/Ethanol	Jon Fillingame	6/23/10	2:30	Amber Berry / Pace	6/24/10	0900	9.5	Y	Y	Y
* Sample IDs edited to reflect Delta naming conventions RSM 06/24/10										

SAMPLER NAME AND SIGNATURE		TEMP in C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)
PRINT Name of SAMPLER:	Jonathan Fillingame				
SIGNATURE of SAMPLER: Jon Fillingame	DATE Signed: 6/23/10				

CLIENT: Terra Consultants

COC PAGE 1 of 1

COC ID# _____

Sample Line Item	VG9H	AG1H	AG1U	BG1H	BP1U	BP2U	BP3U	BP2N	BP2S	WGFU	WGKU	WG2U	VG9U		Comments
1											1	1	3		
2															
3															
4															
5															
6															
7															
8															
9															
10															Trip Blank? N/A
11															
12															

AG1H	1 liter HCL amber glass
AG1U	1liter unpreserved amber glass
AG2S	500mL H2SO4 amber glass
AG2U	500mL unpreserved amber glass
AG3S	250mL H2SO4 amber glass
BG1H	1 liter HCL clear glass
BG1U	1 liter unpreserved glass
BP1N	1 liter HNO3 plastic
BP1S	1 liter H2SO4 plastic
BP1U	1 liter unpreserved plastic
BP1Z	1 liter NaOH, Zn, Ac
BP2N	500mL HNO3 plastic
BP2O	500mL NaOH plastic

BP2S	500mL H2SO4 plastic
BP2U	500mL unpreserved plastic
BP2Z	500mL NaOH, Zn Ac
BP3C	250mL NaOH plastic
BP3N	250mL HNO3 plastic
BP3S	250mL H2SO4 plastic
BP3U	250mL unpreserved plastic
DG9B	40mL Na Bisulfate amber vial
DG9H	40mL HCL amber voa vial
DG9M	40mL MeOH clear vial
DG9T	40mL Na Thio amber vial
DG9U	40mL unpreserved amber vial
I	Wipe/Swab

JGFU	4oz unpreserved amber wide
R	terra core kit
U	Summa Can
VG9H	40mL HCL clear vial
VG9T	40mL Na Thio, clear vial
VG9U	40mL unpreserved clear vial
VG9W	40mL glass vial prewelghted (EPA 5035)
VSG	Headspace septa vial & HCL
WGFU	4oz clear soil jar
WGFX	4oz wide jar w/hexane wipe
ZPLC	Ziploc Bag

Sample Condition Upon Receipt

Pace Analytical

Client Name: Delta Consultants

Project # 254043

Courier: ☑ Fed Ex ☐ UPS ☐ USPS ☐ Client ☐ Commercial ☐ Pace Other _____

Optional: Proj. Due Date: Proj. Name:

Tracking #: 8715 5060 6526

Custody Seal on Cooler/Box Present: ☑ yes ☐ no Seals intact: ☑ yes ☐ no

Packing Material: ☐ Bubble Wrap ☑ Bubble Bags ☐ None ☐ Other _____

Thermometer Used: Horiba 132013 Type of Ice: (Wet) Blue None ☐ Samples on ice, cooling process has begun

Cooler Temperature: 4.5 Biological Tissue is Frozen: Yes No

Temp should be above freezing to 6°C Comments:

Date and Initials of person examining contents: 6/24/10 AR

Chain of Custody Present:	☑Yes ☐No ☐N/A	1.
Chain of Custody Filled Out:	☑Yes ☐No ☐N/A	2.
Chain of Custody Relinquished:	☑Yes ☐No ☐N/A	3.
Sampler Name & Signature on COC:	☑Yes ☐No ☐N/A	4.
Samples Arrived within Hold Time:	☑Yes ☐No ☐N/A	5.
Short Hold Time Analysis (<72hr):	☐Yes ☑No ☐N/A	6.
Rush Turn Around Time Requested:	☐Yes ☑No ☐N/A	7.
Sufficient Volume:	☑Yes ☐No ☐N/A	8.
Correct Containers Used:	☑Yes ☐No ☐N/A	9.
-Pace Containers Used:	☐Yes ☑No ☐N/A	
Containers Intact:	☑Yes ☐No ☐N/A	10.
Filtered volume received for Dissolved tests	☐Yes ☐No ☑N/A	11.
Sample Labels match COC: -Includes date/time/ID/Analysis Matrix: SL	☑Yes ☐No ☐N/A	12.
All containers needing preservation have been checked.	☐Yes ☐No ☑N/A	13.
All containers needing preservation are found to be in compliance with EPA recommendation. exceptions: (VOA), coliform, TOC, O&G, WI-DRO (water)	☐Yes ☐No ☑N/A ☑Yes ☐No	Initial when completed / Lot # of added preservative
Samples checked for dechlorination:	☐Yes ☐No ☑N/A	14.
Headspace in VOA Vials (>6mm):	☐Yes ☐No ☑N/A	15.
Trip Blank Present:	☐Yes ☑No ☐N/A	16.
Trip Blank Custody Seals Present	☐Yes ☐No ☑N/A	
Pace Trip Blank Lot # (if purchased):		

Field Data Required? Y / N

Client Notification/ Resolution:

Person Contacted: _____ Date/Time: _____

Comments/ Resolution: _____

Project Manager Review: RSM Date: 06/25/10

Note: Whenever there is a discrepancy affecting North Carolina compliance samples, a copy of this form will be sent to the North Carolina DEHNR Certification Office (i.e out of hold, incorrect preservative, out of temp, incorrect containers)

Pace Analytical Services, Inc.
940 South Harney
Seattle, WA 98108
(206)767-5060

July 14, 2010

Dennis Dettloff
ELT_Delta Consultants Sacramen
11050 White Rock Rd. #110
Rancho Cordova, CA 95670

RE: Project: 2705191 449 Hegenberger
Pace Project No.: 254097

Dear Dennis Dettloff:
Enclosed are the analytical results for sample(s) received by the laboratory on June 30, 2010. The results relate only to the samples included in this report. Results reported herein conform to the most current NELAC standards, where applicable, unless otherwise narrated in the body of the report.

Samples received at 6.2 degrees C which is above the method requirement. Client requested that the lab proceed with analysis.

All VOA vials for sample ID Waste Water were received with headspace greater than 6mm. Client requested that the lab proceed with analysis.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Regina SteMarie

regina.stemarie@pacelabs.com
Project Manager

Enclosures

cc: Tara Bosch, ELT_Delta Consultants Sacramento
Jonathon Fillingame, ELT_Delta Consultants Sacramento
Josh Mahoney, ELT_Delta Consultants San Jose
Tony Perini, ELT_Delta Consultants San Jose

Pace Analytical Services, Inc.
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Seattle, WA 98108
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cc: Don Pinkerton, ELT_Delta Consultants Sacramento
David Sowle, ELT_Delta Consultants Sacramento
Doug Umland, ELT_Delta Consultants San Jose
Ed Weyrens, ELT_Delta Consultants San Jose

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CERTIFICATIONS

Project: 2705191 449 Hegenberger
Pace Project No.: 254097

Washington Certification IDs

940 South Harney Street, Seattle, WA 98108
Alaska CS Certification #: UST-025
Alaska Drinking Water VOC Certification #: WA01230
Alaska Drinking Water Micro Certification #: WA01230
California Certification #: 01153CA
Florida/NELAP Certification #: E87617
Oregon Certification #: WA200007
Washington Certification #: C1229

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SAMPLE ANALYTE COUNT

Project: 2705191 449 Hegenberger
Pace Project No.: 254097

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
254097001	**Waste Water_20100628**	EPA 6010	BGA	1	PASI-S
		EPA 5030B/8260	LNH, LPM	9	PASI-S
		CA LUFT	LPM	2	PASI-S
254097002	**Trip Blank_20100628**	EPA 5030B/8260	LNH	9	PASI-S
		CA LUFT	LNH	2	PASI-S

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ANALYTICAL RESULTS

Project: 2705191 449 Hegenberger
Pace Project No.: 254097

Sample: Waste Water_20100628 **Lab ID: 254097001** Collected: 06/28/10 13:00 Received: 06/30/10 09:05 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010							
Lead	ND	ug/L	10.0	1	07/06/10 09:16	07/06/10 15:15	7439-92-1	
8260 MSV	Analytical Method: EPA 5030B/8260							
Benzene	**188**	ug/L	0.50	1		07/01/10 17:36	71-43-2	
Ethylbenzene	**174**	ug/L	0.50	1		07/01/10 17:36	100-41-4	
Methyl-tert-butyl ether	**1630**	ug/L	5.0	10		07/08/10 07:39	1634-04-4	
Toluene	**323**	ug/L	0.50	1		07/01/10 17:36	108-88-3	
Xylene (Total)	**1040**	ug/L	15.0	10		07/08/10 07:39	1330-20-7	
4-Bromofluorobenzene (S)	100	%	80-120	1		07/01/10 17:36	460-00-4	
Dibromofluoromethane (S)	92	%	80-122	1		07/01/10 17:36	1868-53-7	
1,2-Dichloroethane-d4 (S)	100	%	80-124	1		07/01/10 17:36	17060-07-0	
Toluene-d8 (S)	101	%	80-123	1		07/01/10 17:36	2037-26-5	
CA LUFT MSV GRO	Analytical Method: CA LUFT							
TPH-Gasoline (C05-C12)	**6800**	ug/L	500	10		07/08/10 07:39		
4-Bromofluorobenzene (S)	108	%	82-116	10		07/08/10 07:39	460-00-4	

Sample: Trip Blank_20100628 **Lab ID: 254097002** Collected: 06/28/10 00:00 Received: 06/30/10 09:05 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 5030B/8260							
Benzene	ND	ug/L	0.50	1		07/01/10 14:39	71-43-2	
Ethylbenzene	ND	ug/L	0.50	1		07/01/10 14:39	100-41-4	
Methyl-tert-butyl ether	ND	ug/L	0.50	1		07/01/10 14:39	1634-04-4	
Toluene	ND	ug/L	0.50	1		07/01/10 14:39	108-88-3	
Xylene (Total)	ND	ug/L	1.5	1		07/01/10 14:39	1330-20-7	
4-Bromofluorobenzene (S)	93	%	80-120	1		07/01/10 14:39	460-00-4	
Dibromofluoromethane (S)	104	%	80-122	1		07/01/10 14:39	1868-53-7	
1,2-Dichloroethane-d4 (S)	89	%	80-124	1		07/01/10 14:39	17060-07-0	
Toluene-d8 (S)	93	%	80-123	1		07/01/10 14:39	2037-26-5	
CA LUFT MSV GRO	Analytical Method: CA LUFT							
TPH-Gasoline (C05-C12)	ND	ug/L	50.0	1		07/06/10 16:08		
4-Bromofluorobenzene (S)	93	%	82-116	1		07/06/10 16:08	460-00-4	

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QUALITY CONTROL DATA

Project: 2705191 449 Hegenberger
Pace Project No.: 254097

QC Batch: MPRP/1629
QC Batch Method: EPA 3010
Analysis Method: EPA 6010
Analysis Description: 6010 MET
Associated Lab Samples: 254097001

METHOD BLANK: 32375 Matrix: Water
Associated Lab Samples: 254097001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Lead	ug/L	ND	10.0	07/06/10 15:00	

LABORATORY CONTROL SAMPLE: 32376

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Lead	ug/L	500	444	89	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 32377 32378

Parameter	Units	254078001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Qual
Lead	ug/L	45.5	500	500	467	468	84	85	75-125	.2	

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QUALITY CONTROL DATA

Project: 2705191 449 Hegenberger
Pace Project No.: 254097

QC Batch: MSV/2583
QC Batch Method: EPA 5030B/8260
Analysis Method: EPA 5030B/8260
Analysis Description: 8260 MSV Water 10 mL Purge
Associated Lab Samples: 254097001, 254097002

METHOD BLANK: 32020 Matrix: Water
Associated Lab Samples: 254097001, 254097002

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Benzene	ug/L	ND	0.50	07/01/10 12:33	
Ethylbenzene	ug/L	ND	0.50	07/01/10 12:33	
Methyl-tert-butyl ether	ug/L	ND	0.50	07/01/10 12:33	
Toluene	ug/L	ND	0.50	07/01/10 12:33	
Xylene (Total)	ug/L	ND	1.5	07/01/10 12:33	
1,2-Dichloroethane-d4 (S)	%	89	80-124	07/01/10 12:33	
4-Bromofluorobenzene (S)	%	90	80-120	07/01/10 12:33	
Dibromofluoromethane (S)	%	108	80-122	07/01/10 12:33	
Toluene-d8 (S)	%	94	80-123	07/01/10 12:33	

LABORATORY CONTROL SAMPLE: 32021

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Benzene	ug/L	20	22.1	110	75-124	
Ethylbenzene	ug/L	20	20.5	103	76-124	
Methyl-tert-butyl ether	ug/L	20	14.7	73	72-130	
Toluene	ug/L	20	21.2	106	75-124	
Xylene (Total)	ug/L	60	66.6	111	76-123	
1,2-Dichloroethane-d4 (S)	%			87	80-124	
4-Bromofluorobenzene (S)	%			96	80-120	
Dibromofluoromethane (S)	%			103	80-122	
Toluene-d8 (S)	%			95	80-123	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 32022 32023

Parameter	Units	254089001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Qual
Benzene	ug/L	ND	20	20	20.0	19.6	100	98	75-124	2	
Ethylbenzene	ug/L	ND	20	20	19.5	18.3	97	91	76-124	6	
Methyl-tert-butyl ether	ug/L	ND	20	20	17.9	17.0	90	85	72-130	5	
Toluene	ug/L	ND	20	20	19.7	19.2	98	96	75-124	3	
Xylene (Total)	ug/L	ND	60	60	61.7	58.4	102	97	76-123	5	
1,2-Dichloroethane-d4 (S)	%						81	81	80-124		
4-Bromofluorobenzene (S)	%						96	97	80-120		
Dibromofluoromethane (S)	%						98	99	80-122		
Toluene-d8 (S)	%						95	95	80-123		

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QUALITY CONTROL DATA

Project: 2705191 449 Hegenberger
Pace Project No.: 254097

QC Batch: MSV/2605 Analysis Method: CA LUFT
QC Batch Method: CA LUFT Analysis Description: CA LUFT MSV GRO
Associated Lab Samples: 254097002

METHOD BLANK: 32497 Matrix: Water
Associated Lab Samples: 254097002

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
TPH-Gasoline (C05-C12)	ug/L	ND	50.0	07/06/10 14:31	
4-Bromofluorobenzene (S)	%	90	82-116	07/06/10 14:31	

LABORATORY CONTROL SAMPLE & LCSD: 32498 32499

Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS % Rec	LCSD % Rec	% Rec Limits	RPD	Max RPD	Qualifiers
TPH-Gasoline (C05-C12)	ug/L	500	642	598	128	120	60-140	7	30	
4-Bromofluorobenzene (S)	%				95	96	82-116			

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QUALITY CONTROL DATA

Project: 2705191 449 Hegenberger
Pace Project No.: 254097

QC Batch: MSV/2624 Analysis Method: CA LUFT
QC Batch Method: CA LUFT Analysis Description: CA LUFT MSV GRO
Associated Lab Samples: 254097001

METHOD BLANK: 32683 Matrix: Water
Associated Lab Samples: 254097001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
TPH-Gasoline (C05-C12)	ug/L	ND	50.0	07/08/10 01:05	
4-Bromofluorobenzene (S)	%	107	82-116	07/08/10 01:05	

LABORATORY CONTROL SAMPLE: 32684

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
TPH-Gasoline (C05-C12)	ug/L	500	608	122	60-140	
4-Bromofluorobenzene (S)	%			114	82-116	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 32790 32791

Parameter	Units	254167002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Qual
TPH-Gasoline (C05-C12)	ug/L	897	500	500	1660	1280	152	76	60-140	26	M0
4-Bromofluorobenzene (S)	%						119	117	82-116		S2

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QUALIFIERS

Project: 2705191 449 Hegenberger
Pace Project No.: 254097

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to changes in sample preparation, dilution of the sample aliquot, or moisture content.

ND - Not Detected at or above adjusted reporting limit.

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

S - Surrogate

1,2-Diphenylhydrazine (8270 listed analyte) decomposes to Azobenzene.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Pace Analytical is NELAP accredited. Contact your Pace PM for the current list of accredited analytes.

LABORATORIES

PASI-S	Pace Analytical Services - Seattle

ANALYTE QUALIFIERS

M0	Matrix spike recovery and/or matrix spike duplicate recovery was outside laboratory control limits.
S2	Surrogate recovery outside laboratory control limits due to matrix interferences (confirmed by similar results from sample re-analysis).

Pace Analytical Services, Inc.
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(206)767-5060

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: 2705191 449 Hegenberger
Pace Project No.: 254097

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
254097001	**Waste Water_20100628**	EPA 3010	MPRP/1629	EPA 6010	ICP/1552
254097001	**Waste Water_20100628**	EPA 5030B/8260	MSV/2583		
254097002	**Trip Blank_20100628**	EPA 5030B/8260	MSV/2583		
254097001	**Waste Water_20100628**	CA LUFT	MSV/2624		
254097002	**Trip Blank_20100628**	CA LUFT	MSV/2605		

254097

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CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

Page : 1 Of 1

Section A Required Client Information:		Section B Required Project Information:		Section C Invoice Information:	
Company:	Delta Consultants	Report To:	Dennis Dettloff	Attention:	Dennis Dettloff
Address:	11050 White Rock Road, Suite 110	Copy To:		Company Name:	Delta Consultants
	Rancho Cordova, CA 95670			Address:	11050 White Rock Road, Suite 110
Email To:	ddettloff@deltaenv.com	Purchase Order No.		Pace Quote Reference:	
Phone:	916 503-1261 Fax:	Client Project ID:	142705191	Pace Project Manager:	
Requested Due Date/TAT:	10 Day (Default)	Container Order Number:		Pace Profile #:	21800 / 5526

Regulatory Agency
Alameda County Health Care Services Agency
State / Location
CA

ITEM#	SAMPLE ID One Character per box. (A-Z, 0-9 / , -) Sample Ids must be unique MATRIX: Drinking Water DW, Water WT, Waste Water WW, Product P, Soil/Solid SL, Oil OL, Wipe WP, Air AR, Other OT, Tissue TS	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED Composite START DATE	Composite START TIME	Composite END/Grab DATE	Composite END/Grab TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H2SO4	HNO3	HCl	NaOH	Na2S2O3	Methanol	Other	Analyses Test Y/N	TPH-G/BTEX/8 Oxys* By 8260	Total Lead by 6010	TPHg/BTEX/MTBE by 8260	Total lead by 6010	Residual Chlorine (Y/N)
1	Waste Water_20100628 *		G			6/28	1:00		4			X	X							X	X	
2																						
3																						
4																						
5	Trip Blank - 20100628																			X	X	
6																						
7																						
8																						
9																						
10																						
11																						
12																						

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS			
* 8 Oxys - MTBE/TBA/DIPE/EDB/1,2-DCA/ETBE/TAME/Ethanol	Jonathan Fillingame	6/29/10	9:00am	Arnold Ruby / Pace	6/30/10	0905	6.2	Y	Y	Y
* Sample IDs edited to reflect Delta naming conventions. RSM 6/30/10										

SAMPLER NAME AND SIGNATURE			TEMP in C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)
PRINT Name of SAMPLER:	Jonathan Fillingame					
SIGNATURE of SAMPLER:	Jonathan Fillingame	DATE Signed: 6/28/2010				

Sample Container Count

CLIENT: Delta Consultants

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www.pacelabs.com

COC PAGE 1 of 1
COC ID# _____

Sample Line Item	VG9H	AG1H	AG1U	BG1H	BP1U	BP2U	BP3U	BP2N	BP2S	WGFU	WGKU				Comments
1	3							1/7.0							
2	2														Trip Blank
3															
4															
5															
6															
7															
8															
9															
10															
11															
12															Trip Blank? Yes

AG1H	1 liter HCL amber glass		BP2S	500mL H2SO4 plastic		JGFU	4oz unpreserved amber wide
AG1U	1liter unpreserved amber glass		BP2U	500mL unpreserved plastic		R	terra core kit
AG2S	500mL H2SO4 amber glass		BP2Z	500mL NaOH, Zn Ac		U	Summa Can
AG2U	500mL unpreserved amber glass		BP3C	250mL NaOH plastic		VG9H	40mL HCL clear vial
AG3S	250mL H2SO4 amber glass		BP3N	250mL HNO3 plastic		VG9T	40mL Na Thio. clear vial
BG1H	1 liter HCL clear glass		BP3S	250mL H2SO4 plastic		VG9U	40mL unpreserved **clear** vial
BG1U	1 liter unpreserved glass		BP3U	250mL unpreserved plastic		VG9W	40mL glass vial preweighted (EPA 5035)
BP1N	1 liter HNO3 plastic		DG9B	40mL Na Bisulfate amber vial		VSG	Headspace septa vial & HCL
BP1S	1 liter H2SO4 plastic		DG9H	40mL HCL amber voa vial		WGFU	4oz clear soil jar
BP1U	1 liter unpreserved plastic		DG9M	40mL MeOH clear vial		WGFX	4oz wide jar w/hexane wipe
BP1Z	1 liter NaOH, Zn, Ac		DG9T	40mL Na Thio amber vial		ZPLC	Ziploc Bag
BP2N	500mL HNO3 plastic		DG9U	40mL unpreserved **amber** vial			
BP2O	500mL NaOH plastic		I	Wipe/Swab			

Sample Condition Upon Receipt

e Analytical Client Name: Delta Consultants Project # 254097

Fed Ex ☐ UPS ☐ USPS ☐ Client ☐ Commercial ☐ Pace Other _____

Optional: Proj. Due Date: Proj. Name:

8715 0606 6515

al on Cooler/Box Present: ☑ yes ☐ no Seals intact: ☑ yes ☐ no

terial: ☐ Bubble Wrap ☑ Bubble Bags ☐ None ☐ Other _____

er Used: Horiba 132013 Type of Ice: (Wet) Blue None ☐ Samples on ice, cooling process has begun

perature: 6.2 Sample received above 6.0°C Biological Tissue is Frozen: Yes No

Date and Initials of person examining contents: 6/30/10 AR

be above freezing to 6°C temp. requirement

Comments:

tody Present:	☑Yes ☐No ☐N/A	1.
tody Filled Out:	☑Yes ☐No ☐N/A	2.
tody Relinquished:	☑Yes ☐No ☐N/A	3.
ne & Signature on COC:	☑Yes ☐No ☐N/A	4.
ved within Hold Time:	☑Yes ☐No ☐N/A	5.
Time Analysis (<72hr):	☐Yes ☑No ☐N/A	6.
round Time Requested:	☐Yes ☑No ☐N/A	7.
lume:	☑Yes ☐No ☐N/A	8.
ainers Used:	☑Yes ☐No ☐N/A	9.
ntainers Used:	☑Yes ☐No ☐N/A	
tact:	☑Yes ☐No ☐N/A	10.
ne received for Dissolved tests	☐Yes ☐No ☑N/A	11.
ls match COC:	☑Yes ☐No ☐N/A	12.
date/time/ID/Analysis Matrix: WT		
eeding preservation have been checked.	☑Yes ☐No ☐N/A	13. Waste water sample for total Pb received with neutral pH. pH adjusted to <2 with HNO3
needing preservation are found to be in h EPA recommendation.	☐Yes ☑No ☐N/A	Initial when completed: AR Lot # of added preservative: 1108040
coliform, TOC, O&G, WI-DRO (water)	☑Yes ☐No	
cked for dechlorination:	☐Yes ☐No ☑N/A	14.
VOA Vials (>6mm):	☑Yes ☐No ☐N/A	15. 3 of 3 vials of waste water contain
esent:	☑Yes ☐No ☐N/A	16. headspace >6mm
ustody Seals Present	☐Yes ☐No ☑N/A	
ink Lot # (if purchased):		

Field Data Required? Y / N

cation/ Resolution:

n Contacted: Dennis Dettloff Date/Time: 6/30/10 11:40

Resolution: Proceed with analysis per Dennis Dettloff, RSM.

anager Review: RSM Date: 06/30/10

ver there is a discrepancy affecting North Carolina compliance samples, a copy of this form will be sent to the North Carolina DEHNR ffice (i.e out of hold, incorrect preservative, out of temp, incorrect containers)

F-ALLC003rev.3, 11September2006

CLIENT: Delta Consultants

Sample Container Count

Pace Analytical www.pacelabs.com

Sample Condition Upon Receipt

Pace Analytical

Client Name: Delta Consultants

Project # 254097

Courier: ☑ Fed Ex ☐ UPS ☐ USPS ☐ Client ☐ Commercial ☐ Pace Other *

Optional: Proj. Due Date: Proj. Name:

Tracking #: 8715 0606 6515

Custody Seal on Cooler/Box Present: ☑ yes ☐ no Seals intact: ☑ yes ☐ no

Packing Material: ☐ Bubble Wrap ☑ Bubble Bags ☐ None ☐ Other

Thermometer Used: Horiba 132013 Type of Ice: (Wet) Blue None ☐ Samples on ice, cooling process has begun

Cooler Temperature: 6.2 Sample received above 6.0°C Biological Tissue is Frozen: Yes No

Temp should be above freezing to 6°C temp. requirement

Comments:

Date and Initials of person examining contents: 6/30/10 AR

Chain of Custody Present:	☑Yes ☐No ☐N/A	1.
Chain of Custody Filled Out:	☑Yes ☐No ☐N/A	2.
Chain of Custody Relinquished:	☑Yes ☐No ☐N/A	3.
Sampler Name & Signature on COC:	☑Yes ☐No ☐N/A	4.
Samples Arrived within Hold Time:	☑Yes ☐No ☐N/A	5.
Short Hold Time Analysis (<72hr):	☐Yes ☑No ☐N/A	6.
Rush Turn Around Time Requested:	☐Yes ☑No ☐N/A	7.
Sufficient Volume:	☑Yes ☐No ☐N/A	8.
Correct Containers Used:	☑Yes ☐No ☐N/A	9.
-Pace Containers Used:	☑Yes ☐No ☐N/A	
Containers Intact:	☑Yes ☐No ☐N/A	10.
Filtered volume received for Dissolved tests	☐Yes ☐No ☑N/A	11.
Sample Labels match COC:	☑Yes ☐No ☐N/A	12.
-Includes date/time/ID/Analysis Matrix: WT		
All containers needing preservation have been checked.	☑Yes ☐No ☐N/A	13. Waste water sample for total Pb received with neutral pH. pH adjusted to <2 with HNO3
All containers needing preservation are found to be in compliance with EPA recommendation.	☐Yes ☑No ☐N/A	Initial when completed: AR Lot # of added preservative: 1108040
exceptions: (VOA) coliform, TOC, O&G, WI-DRO (water)	☑Yes ☐No	
Samples checked for dechlorination:	☐Yes ☐No ☑N/A	14.
Headspace in VOA Vials (>6mm):	☑Yes ☐No ☐N/A	15. 3 of 3 vials of waste water contain
Trip Blank Present:	☑Yes ☐No ☐N/A	16. headspace >6mm
Trip Blank Custody Seals Present	☐Yes ☐No ☑N/A	
Pace Trip Blank Lot # (if purchased):		

Field Data Required? Y / N

Client Notification/ Resolution:

Person Contacted: Dennis Dettloff Date/Time: 6/30/10 11:40

Comments/ Resolution: Proceed with analysis per Dennis Dettloff. RSM.

Project Manager Review: RSM Date: 06/30/10

Note: Whenever there is a discrepancy affecting North Carolina compliance samples, a copy of this form will be sent to the North Carolina DEHNR Certification Office (i.e out of hold, incorrect preservative, out of temp, incorrect containers)

Sample Container Count

CLIENT: Delta Consultants

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COC PAGE 1 **of** 1

COC ID# _____

Sample Line Item	VG9H	AG1H	AG1U	BG1H	BP1U	BP2U	BP3U	BP2N	BP2S	WGFU	WGKU				Comments
1	3							1/7.0							
2	2														Trip Blank
3															
4															
5															
6															
7															
8															
9															
10															
11															
12															Trip Blank? Yes

AG1H	1 liter HCL amber glass		BP2S	500mL H2SO4 plastic		JGFU	4oz unpreserved amber wide
AG1U	1liter unpreserved amber glass		BP2U	500mL unpreserved plastic		R	terra core kit
AG2S	500mL H2SO4 amber glass		BP2Z	500mL NaOH, Zn Ac		U	Summa Can
AG2U	500mL unpreserved amber glass		BP3C	250mL NaOH plastic		VG9H	40mL HCL clear vial
AG3S	250mL H2SO4 amber glass		BP3N	250mL HNO3 plastic		VG9T	40mL Na Thio. clear vial
BG1H	1 liter HCL clear glass		BP3S	250mL H2SO4 plastic		VG9U	40mL unpreserved **clear** vial
BG1U	1 liter unpreserved glass		BP3U	250mL unpreserved plastic		VG9W	40mL glass vial preweighted (EPA 5035)
BP1N	1 liter HNO3 plastic		DG9B	40mL Na Bisulfate amber vial		VSG	Headspace septa vial & HCL
BP1S	1 liter H2SO4 plastic		DG9H	40mL HCL amber voa vial		WGFU	4oz clear soil jar
BP1U	1 liter unpreserved plastic		DG9M	40mL MeOH clear vial		WGFX	4oz wide jar w/hexane wipe
BP1Z	1 liter NaOH, Zn, Ac		DG9T	40mL Na Thio amber vial		ZPLC	Ziploc Bag
BP2N	500mL HNO3 plastic		DG9U	40mL unpreserved **amber** vial			
BP2O	500mL NaOH plastic		I	Wipe/Swab			

Pace Analytical Services, Inc.
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(206)767-5060

July 21, 2010

Dennis Dettloff
ELT_Delta Consultants Sacramen
11050 White Rock Rd. #110
Rancho Cordova, CA 95670

RE: Project: 2705191 449 Hegenberger
Pace Project No.: 254170

Dear Dennis Dettloff:
Enclosed are the analytical results for sample(s) received by the laboratory on July 07, 2010. The results relate only to the samples included in this report. Results reported herein conform to the most current NELAC standards, where applicable, unless otherwise narrated in the body of the report.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Regina Ste. Marie

Regina SteMarie

regina.stemarie@pacelabs.com
Project Manager

Enclosures

cc: Tara Bosch, ELT_Delta Consultants Sacramento
Jonathon Fillingame, ELT_Delta Consultants Sacramento
Lia Holden, ELT-Delta Consultants
Josh Mahoney, ELT_Delta Consultants San Jose
Tony Perini, ELT_Delta Consultants San Jose
Nicole Persaud, ELT-Delta Consultants
Don Pinkerton, ELT_Delta Consultants Sacramento
David Sowle, Delta Consultants
Doug Umland, ELT_Delta Consultants San Jose
Ed Weyrens, ELT_Delta Consultants San Jose

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CERTIFICATIONS

Project: 2705191 449 Hegenberger
Pace Project No.: 254170

Washington Certification IDs

940 South Harney Street, Seattle, WA 98108
Alaska CS Certification #: UST-025
Alaska Drinking Water VOC Certification #: WA01230
Alaska Drinking Water Micro Certification #: WA01230
California Certification #: 01153CA
Florida/NELAP Certification #: E87617
Oregon Certification #: WA200007
Washington Certification #: C1229

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SAMPLE ANALYTE COUNT

Project: 2705191 449 Hegenberger
Pace Project No.: 254170

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
254170001	**MW-11_20100730**	EPA 8015B	ERB	3	PASI-S
		EPA 6010	BGA	1	PASI-S
		EPA 6010	BGA	1	PASI-S
		EPA 5030B/8260	LNH	16	PASI-S
		CA LUFT	LPM	2	PASI-S
		EPA 300.0	CMS	1	PASI-S
		EPA 353.2	CMS	2	PASI-S
		SM 4500-NO2 B	BPR	1	PASI-S
254170002	**MW-12_20100730**	EPA 8015B	ERB	3	PASI-S
		EPA 6010	BGA	1	PASI-S
		EPA 6010	BGA	1	PASI-S
		EPA 5030B/8260	LNH	16	PASI-S
		CA LUFT	LNH	2	PASI-S
		EPA 300.0	CMS	1	PASI-S
		EPA 353.2	CMS	2	PASI-S
		SM 4500-NO2 B	BPR	1	PASI-S
254170003	**MW-12A_20100730**	EPA 8015B	ERB	3	PASI-S
		EPA 6010	BGA	1	PASI-S
		EPA 6010	BGA	1	PASI-S
		EPA 5030B/8260	LNH	16	PASI-S
		CA LUFT	LPM	2	PASI-S
		EPA 300.0	CMS	1	PASI-S
		EPA 353.2	CMS	2	PASI-S
		SM 4500-NO2 B	BPR	1	PASI-S
254170004	**MW-13_20100730**	EPA 8015B	ERB	3	PASI-S
		EPA 6010	BGA	1	PASI-S
		EPA 6010	BGA	1	PASI-S
		EPA 5030B/8260	LNH	16	PASI-S
		CA LUFT	LPM	2	PASI-S
		EPA 300.0	CMS	1	PASI-S
		EPA 353.2	CMS	2	PASI-S
		SM 4500-NO2 B	BPR	1	PASI-S
254170005	**TB1_20100730**	EPA 5030B/8260	LNH	16	PASI-S
		CA LUFT	LNH	2	PASI-S

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ANALYTICAL RESULTS

Project: 2705191 449 Hegenberger
Pace Project No.: 254170

Sample: MW-11_20100730 **Lab ID: 254170001** Collected: 07/06/10 10:55 Received: 07/07/10 10:00 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8015B CA TPH DRO SG	Analytical Method: EPA 8015B Preparation Method: EPA 3510 Modified							
TPH-DRO (C10-C24) SG	**226**	ug/L	50.0	1	07/13/10 12:45	07/13/10 23:41		
o-Terphenyl (S) SG	83	%	51-147	1	07/13/10 12:45	07/13/10 23:41	84-15-1	
n-Octacosane (S) SG	89	%	50-150	1	07/13/10 12:45	07/13/10 23:41	630-02-4	
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010							
Iron	**3510**	ug/L	100	1	07/08/10 08:45	07/12/10 12:19	7439-89-6	
6010 MET ICP, Dissolved	Analytical Method: EPA 6010 Preparation Method: EPA 3010							
Iron, Dissolved	ND	ug/L	100	1	07/08/10 08:45	07/12/10 13:30	7439-89-6	
8260 MSV	Analytical Method: EPA 5030B/8260							
tert-Amylmethyl ether	ND	ug/L	0.50	1		07/15/10 20:29	994-05-8	
Benzene	ND	ug/L	0.50	1		07/15/10 20:29	71-43-2	
tert-Butyl Alcohol	**174**	ug/L	5.0	1		07/15/10 20:29	75-65-0	
1,2-Dibromoethane (EDB)	ND	ug/L	1.0	1		07/15/10 20:29	106-93-4	
1,2-Dichloroethane	ND	ug/L	1.0	1		07/15/10 20:29	107-06-2	
Diisopropyl ether	ND	ug/L	0.50	1		07/15/10 20:29	108-20-3	
Ethanol	ND	ug/L	250	1		07/15/10 20:29	64-17-5	
Ethylbenzene	ND	ug/L	0.50	1		07/15/10 20:29	100-41-4	
Ethyl-tert-butyl ether	ND	ug/L	0.50	1		07/15/10 20:29	637-92-3	
Methyl-tert-butyl ether	**165**	ug/L	0.50	1		07/15/10 20:29	1634-04-4	
Toluene	ND	ug/L	0.50	1		07/15/10 20:29	108-88-3	
Xylene (Total)	ND	ug/L	1.5	1		07/15/10 20:29	1330-20-7	
4-Bromofluorobenzene (S)	99	%	80-120	1		07/15/10 20:29	460-00-4	
Dibromofluoromethane (S)	102	%	80-122	1		07/15/10 20:29	1868-53-7	
1,2-Dichloroethane-d4 (S)	105	%	80-124	1		07/15/10 20:29	17060-07-0	
Toluene-d8 (S)	104	%	80-123	1		07/15/10 20:29	2037-26-5	
CA LUFT MSV GRO	Analytical Method: CA LUFT							
TPH-Gasoline (C05-C12)	**99.2**	ug/L	50.0	1		07/15/10 00:24		T4
4-Bromofluorobenzene (S)	101	%	82-116	1		07/15/10 00:24	460-00-4	
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0							
Sulfate	**82100**	ug/L	20000	20		07/15/10 15:06	14808-79-8	
353.2 Nitrogen, NO2/NO3 pres.	Analytical Method: EPA 353.2							
Nitrogen, Nitrate	ND	ug/L	50.0	1		07/13/10 14:45		
Nitrogen, NO2 plus NO3	**66.9**	ug/L	50.0	1		07/13/10 14:45		
SM4500NO2-B, Nitrite, unpres	Analytical Method: SM 4500-NO2 B							
Nitrite as N	**31.0**	ug/L	10.0	1		07/07/10 19:09	14797-65-0	

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ANALYTICAL RESULTS

Project: 2705191 449 Hegenberger
Pace Project No.: 254170

Sample: MW-12_20100730 **Lab ID: 254170002** Collected: 07/06/10 13:45 Received: 07/07/10 10:00 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8015B CA TPH DRO SG	Analytical Method: EPA 8015B Preparation Method: EPA 3510 Modified							
TPH-DRO (C10-C24) SG	**990**	ug/L	50.0	1	07/13/10 12:45	07/13/10 23:58		
o-Terphenyl (S) SG	87	%	51-147	1	07/13/10 12:45	07/13/10 23:58	84-15-1	
n-Octacosane (S) SG	94	%	50-150	1	07/13/10 12:45	07/13/10 23:58	630-02-4	
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010							
Iron	**30200**	ug/L	100	1	07/08/10 08:45	07/12/10 12:22	7439-89-6	
6010 MET ICP, Dissolved	Analytical Method: EPA 6010 Preparation Method: EPA 3010							
Iron, Dissolved	ND	ug/L	100	1	07/08/10 08:45	07/12/10 13:38	7439-89-6	
8260 MSV	Analytical Method: EPA 5030B/8260							
tert-Amylmethyl ether	**1.0**	ug/L	0.50	1		07/19/10 18:24	994-05-8	
Benzene	**1030**	ug/L	5.0	10		07/19/10 18:58	71-43-2	
tert-Butyl Alcohol	**1430**	ug/L	5.0	1		07/19/10 18:24	75-65-0	
1,2-Dibromoethane (EDB)	ND	ug/L	1.0	1		07/19/10 18:24	106-93-4	
1,2-Dichloroethane	ND	ug/L	1.0	1		07/19/10 18:24	107-06-2	
Diisopropyl ether	ND	ug/L	0.50	1		07/19/10 18:24	108-20-3	
Ethanol	ND	ug/L	250	1		07/19/10 18:24	64-17-5	
Ethylbenzene	**311**	ug/L	0.50	1		07/19/10 18:24	100-41-4	
Ethyl-tert-butyl ether	ND	ug/L	0.50	1		07/19/10 18:24	637-92-3	
Methyl-tert-butyl ether	**1650**	ug/L	5.0	10		07/19/10 18:58	1634-04-4	
Toluene	**955**	ug/L	5.0	10		07/19/10 18:58	108-88-3	
Xylene (Total)	**2450**	ug/L	15.0	10		07/19/10 18:58	1330-20-7	
4-Bromofluorobenzene (S)	100	%	80-120	1		07/19/10 18:24	460-00-4	
Dibromofluoromethane (S)	105	%	80-122	1		07/19/10 18:24	1868-53-7	
1,2-Dichloroethane-d4 (S)	111	%	80-124	1		07/19/10 18:24	17060-07-0	
Toluene-d8 (S)	106	%	80-123	1		07/19/10 18:24	2037-26-5	
CA LUFT MSV GRO	Analytical Method: CA LUFT							
TPH-Gasoline (C05-C12)	**20300**	ug/L	500	10		07/19/10 18:58		
4-Bromofluorobenzene (S)	100	%	82-116	10		07/19/10 18:58	460-00-4	
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0							
Sulfate	**3030000**	ug/L	200000	200		07/16/10 14:26	14808-79-8	
353.2 Nitrogen, NO2/NO3 pres.	Analytical Method: EPA 353.2							
Nitrogen, Nitrate	ND	ug/L	50.0	1		07/13/10 14:46		
Nitrogen, NO2 plus NO3	ND	ug/L	50.0	1		07/13/10 14:46		
SM4500NO2-B, Nitrite, unpres	Analytical Method: SM 4500-NO2 B							
Nitrite as N	**60.5**	ug/L	10.0	1		07/07/10 19:09	14797-65-0	

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ANALYTICAL RESULTS

Project: 2705191 449 Hegenberger
Pace Project No.: 254170

Sample: MW-12A_20100730 **Lab ID: 254170003** Collected: 07/06/10 12:25 Received: 07/07/10 10:00 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8015B CA TPH DRO SG	Analytical Method: EPA 8015B Preparation Method: EPA 3510 Modified							
TPH-DRO (C10-C24) SG	**89.3**	ug/L	50.0	1	07/13/10 12:45	07/14/10 00:14		
o-Terphenyl (S) SG	79	%	51-147	1	07/13/10 12:45	07/14/10 00:14	84-15-1	
n-Octacosane (S) SG	80	%	50-150	1	07/13/10 12:45	07/14/10 00:14	630-02-4	
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010							
Iron	**57300**	ug/L	100	1	07/08/10 08:45	07/12/10 12:25	7439-89-6	
6010 MET ICP, Dissolved	Analytical Method: EPA 6010 Preparation Method: EPA 3010							
Iron, Dissolved	**716**	ug/L	100	1	07/08/10 08:45	07/12/10 13:41	7439-89-6	
8260 MSV	Analytical Method: EPA 5030B/8260							
tert-Amylmethyl ether	ND	ug/L	0.50	1		07/15/10 21:15	994-05-8	
Benzene	**18.3**	ug/L	0.50	1		07/15/10 21:15	71-43-2	M0
tert-Butyl Alcohol	**11.9**	ug/L	5.0	1		07/15/10 21:15	75-65-0	M0
1,2-Dibromoethane (EDB)	ND	ug/L	1.0	1		07/15/10 21:15	106-93-4	
1,2-Dichloroethane	ND	ug/L	1.0	1		07/15/10 21:15	107-06-2	
Diisopropyl ether	ND	ug/L	0.50	1		07/15/10 21:15	108-20-3	
Ethanol	ND	ug/L	250	1		07/15/10 21:15	64-17-5	
Ethylbenzene	**2.3**	ug/L	0.50	1		07/15/10 21:15	100-41-4	
Ethyl-tert-butyl ether	ND	ug/L	0.50	1		07/15/10 21:15	637-92-3	
Methyl-tert-butyl ether	**14.3**	ug/L	0.50	1		07/15/10 21:15	1634-04-4	M0
Toluene	**0.78**	ug/L	0.50	1		07/15/10 21:15	108-88-3	
Xylene (Total)	**50.2**	ug/L	1.5	1		07/15/10 21:15	1330-20-7	M0
4-Bromofluorobenzene (S)	100	%	80-120	1		07/15/10 21:15	460-00-4	
Dibromofluoromethane (S)	104	%	80-122	1		07/15/10 21:15	1868-53-7	
1,2-Dichloroethane-d4 (S)	106	%	80-124	1		07/15/10 21:15	17060-07-0	
Toluene-d8 (S)	103	%	80-123	1		07/15/10 21:15	2037-26-5	
CA LUFT MSV GRO	Analytical Method: CA LUFT							
TPH-Gasoline (C05-C12)	**664**	ug/L	50.0	1		07/15/10 01:10		
4-Bromofluorobenzene (S)	103	%	82-116	1		07/15/10 01:10	460-00-4	
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0							
Sulfate	**100000**	ug/L	50000	50		07/15/10 16:15	14808-79-8	
353.2 Nitrogen, NO2/NO3 pres.	Analytical Method: EPA 353.2							
Nitrogen, Nitrate	**3680**	ug/L	100	2		07/13/10 16:16		
Nitrogen, NO2 plus NO3	**3840**	ug/L	100	2		07/13/10 16:16		
SM4500NO2-B, Nitrite, unpres	Analytical Method: SM 4500-NO2 B							
Nitrite as N	**164**	ug/L	50.0	1		07/07/10 19:09	14797-65-0	

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ANALYTICAL RESULTS

Project: 2705191 449 Hegenberger
Pace Project No.: 254170

Sample: MW-13_20100730 **Lab ID: 254170004** Collected: 07/06/10 09:50 Received: 07/07/10 10:00 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8015B CA TPH DRO SG	Analytical Method: EPA 8015B Preparation Method: EPA 3510 Modified							
TPH-DRO (C10-C24) SG	**469**	ug/L	50.0	1	07/13/10 12:45	07/14/10 00:31		
o-Terphenyl (S) SG	76	%	51-147	1	07/13/10 12:45	07/14/10 00:31	84-15-1	
n-Octacosane (S) SG	75	%	50-150	1	07/13/10 12:45	07/14/10 00:31	630-02-4	
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010							
Iron	**92600**	ug/L	100	1	07/08/10 08:45	07/12/10 12:33	7439-89-6	
6010 MET ICP, Dissolved	Analytical Method: EPA 6010 Preparation Method: EPA 3010							
Iron, Dissolved	**116**	ug/L	100	1	07/08/10 08:45	07/12/10 13:44	7439-89-6	
8260 MSV	Analytical Method: EPA 5030B/8260							
tert-Amylmethyl ether	ND	ug/L	0.50	1		07/16/10 02:47	994-05-8	
Benzene	ND	ug/L	0.50	1		07/16/10 02:47	71-43-2	
tert-Butyl Alcohol	**199**	ug/L	5.0	1		07/16/10 02:47	75-65-0	
1,2-Dibromoethane (EDB)	ND	ug/L	1.0	1		07/16/10 02:47	106-93-4	
1,2-Dichloroethane	ND	ug/L	1.0	1		07/16/10 02:47	107-06-2	
Diisopropyl ether	ND	ug/L	0.50	1		07/16/10 02:47	108-20-3	
Ethanol	ND	ug/L	250	1		07/16/10 02:47	64-17-5	
Ethylbenzene	ND	ug/L	0.50	1		07/16/10 02:47	100-41-4	
Ethyl-tert-butyl ether	ND	ug/L	0.50	1		07/16/10 02:47	637-92-3	
Methyl-tert-butyl ether	**217**	ug/L	0.50	1		07/16/10 02:47	1634-04-4	
Toluene	ND	ug/L	0.50	1		07/16/10 02:47	108-88-3	
Xylene (Total)	ND	ug/L	1.5	1		07/16/10 02:47	1330-20-7	
4-Bromofluorobenzene (S)	100	%	80-120	1		07/16/10 02:47	460-00-4	
Dibromofluoromethane (S)	103	%	80-122	1		07/16/10 02:47	1868-53-7	
1,2-Dichloroethane-d4 (S)	106	%	80-124	1		07/16/10 02:47	17060-07-0	
Toluene-d8 (S)	102	%	80-123	1		07/16/10 02:47	2037-26-5	
CA LUFT MSV GRO	Analytical Method: CA LUFT							
TPH-Gasoline (C05-C12)	**122**	ug/L	50.0	1		07/15/10 01:34		T4
4-Bromofluorobenzene (S)	102	%	82-116	1		07/15/10 01:34	460-00-4	
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0							
Sulfate	**450000**	ug/L	200000	200		07/15/10 16:15	14808-79-8	
353.2 Nitrogen, NO2/NO3 pres.	Analytical Method: EPA 353.2							
Nitrogen, Nitrate	ND	ug/L	50.0	1		07/13/10 14:49		
Nitrogen, NO2 plus NO3	**70.4**	ug/L	50.0	1		07/13/10 14:49		
SM4500NO2-B, Nitrite, unpres	Analytical Method: SM 4500-NO2 B							
Nitrite as N	**64.9**	ug/L	10.0	1		07/07/10 19:09	14797-65-0	

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ANALYTICAL RESULTS

Project: 2705191 449 Hegenberger
Pace Project No.: 254170

Sample: TB1_20100730 **Lab ID: 254170005** Collected: 07/06/10 09:00 Received: 07/07/10 10:00 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 5030B/8260							
tert-Amylmethyl ether	ND	ug/L	0.50	1		07/13/10 22:58	994-05-8	L3
Benzene	ND	ug/L	0.50	1		07/13/10 22:58	71-43-2	
tert-Butyl Alcohol	ND	ug/L	5.0	1		07/13/10 22:58	75-65-0	
1,2-Dibromoethane (EDB)	ND	ug/L	1.0	1		07/13/10 22:58	106-93-4	
1,2-Dichloroethane	ND	ug/L	1.0	1		07/13/10 22:58	107-06-2	
Diisopropyl ether	ND	ug/L	0.50	1		07/13/10 22:58	108-20-3	L3
Ethanol	ND	ug/L	250	1		07/13/10 22:58	64-17-5	
Ethylbenzene	ND	ug/L	0.50	1		07/13/10 22:58	100-41-4	
Ethyl-tert-butyl ether	ND	ug/L	0.50	1		07/13/10 22:58	637-92-3	L3
Methyl-tert-butyl ether	ND	ug/L	0.50	1		07/13/10 22:58	1634-04-4	L3
Toluene	ND	ug/L	0.50	1		07/13/10 22:58	108-88-3	
Xylene (Total)	ND	ug/L	1.5	1		07/13/10 22:58	1330-20-7	
4-Bromofluorobenzene (S)	89	%	80-120	1		07/13/10 22:58	460-00-4	
Dibromofluoromethane (S)	133	%	80-122	1		07/13/10 22:58	1868-53-7	S3
1,2-Dichloroethane-d4 (S)	121	%	80-124	1		07/13/10 22:58	17060-07-0	
Toluene-d8 (S)	115	%	80-123	1		07/13/10 22:58	2037-26-5	
CA LUFT MSV GRO	Analytical Method: CA LUFT							
TPH-Gasoline (C05-C12)	ND	ug/L	50.0	1		07/13/10 22:58		L3
4-Bromofluorobenzene (S)	89	%	82-116	1		07/13/10 22:58	460-00-4	

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QUALITY CONTROL DATA

Project: 2705191 449 Hegenberger
Pace Project No.: 254170

QC Batch: OEXT/2378 Analysis Method: EPA 8015B
QC Batch Method: EPA 3510 Modified Analysis Description: 8015B CA DRO Silica Gel
Associated Lab Samples: 254170001, 254170002, 254170003, 254170004

METHOD BLANK: 33236 Matrix: Water
Associated Lab Samples: 254170001, 254170002, 254170003, 254170004

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
TPH-DRO (C10-C24) SG	ug/L	ND	50.0	07/13/10 23:08	
n-Octacosane (S) SG	%	88	50-150	07/13/10 23:08	
o-Terphenyl (S) SG	%	88	51-147	07/13/10 23:08	

LABORATORY CONTROL SAMPLE: 33237

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
TPH-DRO (C10-C24) SG	ug/L	3120	2300	73	51-147	
n-Octacosane (S) SG	%			93	50-150	
o-Terphenyl (S) SG	%			102	51-147	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 33238 33239

Parameter	Units	254170004 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Qual
TPH-DRO (C10-C24) SG	ug/L	469	3120	3120	2570	2380	67	61	51-147	7	
n-Octacosane (S) SG	%						82	73	50-150		
o-Terphenyl (S) SG	%						87	77	51-147		

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QUALITY CONTROL DATA

Project: 2705191 449 Hegenberger
Pace Project No.: 254170

QC Batch: MPRP/1635 Analysis Method: EPA 6010
QC Batch Method: EPA 3010 Analysis Description: 6010 MET
Associated Lab Samples: 254170001, 254170002, 254170003, 254170004

METHOD BLANK: 32772 Matrix: Water
Associated Lab Samples: 254170001, 254170002, 254170003, 254170004

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Iron	ug/L	ND	100	07/12/10 11:28	

LABORATORY CONTROL SAMPLE: 32773

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Iron	ug/L	10000	9390	94	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 32774 32775

Parameter	Units	254107001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Qual
Iron	ug/L	1260	10000	10000	10200	10200	89	90	75-125	.4	

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QUALITY CONTROL DATA

Project: 2705191 449 Hegenberger
Pace Project No.: 254170

QC Batch: MPRP/1636 Analysis Method: EPA 6010
QC Batch Method: EPA 3010 Analysis Description: 6010 MET Dissolved
Associated Lab Samples: 254170001, 254170002, 254170003, 254170004

METHOD BLANK: 32776 Matrix: Water
Associated Lab Samples: 254170001, 254170002, 254170003, 254170004

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Iron, Dissolved	ug/L	ND	100	07/12/10 12:36	

LABORATORY CONTROL SAMPLE: 32777

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Iron, Dissolved	ug/L	10000	9000	90	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 32778 32779

Parameter	Units	254107001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Qual
Iron, Dissolved	ug/L	3810	10000	10000	12800	12600	90	88	75-125	2	

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QUALITY CONTROL DATA

Project: 2705191 449 Hegenberger
Pace Project No.: 254170

QC Batch: MSV/2672
QC Batch Method: EPA 5030B/8260
Analysis Method: EPA 5030B/8260
Analysis Description: 8260 MSV Water 10 mL Purge
Associated Lab Samples: 254170005

METHOD BLANK: 33381 Matrix: Water
Associated Lab Samples: 254170005

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1,2-Dibromoethane (EDB)	ug/L	ND	1.0	07/13/10 21:50	
1,2-Dichloroethane	ug/L	ND	1.0	07/13/10 21:50	
Benzene	ug/L	ND	0.50	07/13/10 21:50	
Diisopropyl ether	ug/L	ND	0.50	07/13/10 21:50	
Ethanol	ug/L	ND	250	07/13/10 21:50	
Ethyl-tert-butyl ether	ug/L	ND	0.50	07/13/10 21:50	
Ethylbenzene	ug/L	ND	0.50	07/13/10 21:50	
Methyl-tert-butyl ether	ug/L	ND	0.50	07/13/10 21:50	
tert-Amylmethyl ether	ug/L	ND	0.50	07/13/10 21:50	
tert-Butyl Alcohol	ug/L	ND	5.0	07/13/10 21:50	
Toluene	ug/L	ND	0.50	07/13/10 21:50	
Xylene (Total)	ug/L	ND	1.5	07/13/10 21:50	
1,2-Dichloroethane-d4 (S)	%	125	80-124	07/13/10 21:50	S3
4-Bromofluorobenzene (S)	%	92	80-120	07/13/10 21:50	
Dibromofluoromethane (S)	%	136	80-122	07/13/10 21:50	S3
Toluene-d8 (S)	%	114	80-123	07/13/10 21:50	

LABORATORY CONTROL SAMPLE: 33382

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,2-Dibromoethane (EDB)	ug/L	20	18.5	92	78-117	
1,2-Dichloroethane	ug/L	20	18.8	94	73-127	
Benzene	ug/L	20	18.7	94	75-124	
Diisopropyl ether	ug/L	20	27.5	137	69-130	L3
Ethanol	ug/L	400	537	134	36-177	
Ethyl-tert-butyl ether	ug/L	20	26.7	134	67-131	L3
Ethylbenzene	ug/L	20	23.1	115	76-124	
Methyl-tert-butyl ether	ug/L	20	30.1	150	72-130	L3
tert-Amylmethyl ether	ug/L	20	26.6	133	67-132	L3
tert-Butyl Alcohol	ug/L	100	144	144	36-164	
Toluene	ug/L	20	21.2	106	75-124	
Xylene (Total)	ug/L	60	70.1	117	76-123	
1,2-Dichloroethane-d4 (S)	%			113	80-124	
4-Bromofluorobenzene (S)	%			96	80-120	
Dibromofluoromethane (S)	%			119	80-122	
Toluene-d8 (S)	%			123	80-123	

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QUALITY CONTROL DATA

Project: 2705191 449 Hegenberger
Pace Project No.: 254170

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 33383 33384

Parameter	Units	254199003 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Qual
1,2-Dibromoethane (EDB)	ug/L	ND	20	20	14.2	8.3	71	41	78-117	52	M0,R1
1,2-Dichloroethane	ug/L	ND	20	20	13.4	8.5	67	42	73-127	45	M0,R1
Benzene	ug/L	ND	20	20	14.6	9.7	73	48	75-124	40	M0,R1
Diisopropyl ether	ug/L	ND	20	20	21.1	12.6	105	63	69-130	50	M0,R1
Ethanol	ug/L	ND	400	400	486	306	122	77	36-177	45	
Ethyl-tert-butyl ether	ug/L	ND	20	20	20.2	12.4	101	62	67-131	47	M0,R1
Ethylbenzene	ug/L	ND	20	20	17.4	9.9	87	50	76-124	55	M0,R1
Methyl-tert-butyl ether	ug/L	ND	20	20	22.4	13.9	112	70	72-130	47	M0,R1
tert-Amylmethyl ether	ug/L	ND	20	20	19.8	12.3	99	61	67-132	47	M0,R1
tert-Butyl Alcohol	ug/L	ND	100	100	117	65.8	117	66	36-164	56	R1
Toluene	ug/L	ND	20	20	15.7	9.0	78	45	75-124	55	M0,R1
Xylene (Total)	ug/L	ND	60	60	53.9	30.7	90	51	76-123	55	M0,R1
1,2-Dichloroethane-d4 (S)	%						116	117	80-124		
4-Bromofluorobenzene (S)	%						94	89	80-120		
Dibromofluoromethane (S)	%						121	129	80-122		S0
Toluene-d8 (S)	%						122	118	80-123		

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QUALITY CONTROL DATA

Project: 2705191 449 Hegenberger
Pace Project No.: 254170

QC Batch: MSV/2687 Analysis Method: EPA 5030B/8260
QC Batch Method: EPA 5030B/8260 Analysis Description: 8260 MSV Water 10 mL Purge
Associated Lab Samples: 254170001, 254170003, 254170004

METHOD BLANK: 33637 Matrix: Water
Associated Lab Samples: 254170001, 254170003, 254170004

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1,2-Dibromoethane (EDB)	ug/L	ND	1.0	07/15/10 19:42	
1,2-Dichloroethane	ug/L	ND	1.0	07/15/10 19:42	
Benzene	ug/L	ND	0.50	07/15/10 19:42	
Diisopropyl ether	ug/L	ND	0.50	07/15/10 19:42	
Ethanol	ug/L	ND	250	07/15/10 19:42	
Ethyl-tert-butyl ether	ug/L	ND	0.50	07/15/10 19:42	
Ethylbenzene	ug/L	ND	0.50	07/15/10 19:42	
Methyl-tert-butyl ether	ug/L	ND	0.50	07/15/10 19:42	
tert-Amylmethyl ether	ug/L	ND	0.50	07/15/10 19:42	
tert-Butyl Alcohol	ug/L	ND	5.0	07/15/10 19:42	
Toluene	ug/L	ND	0.50	07/15/10 19:42	
Xylene (Total)	ug/L	ND	1.5	07/15/10 19:42	
1,2-Dichloroethane-d4 (S)	%	104	80-124	07/15/10 19:42	
4-Bromofluorobenzene (S)	%	101	80-120	07/15/10 19:42	
Dibromofluoromethane (S)	%	101	80-122	07/15/10 19:42	
Toluene-d8 (S)	%	104	80-123	07/15/10 19:42	

LABORATORY CONTROL SAMPLE: 33638

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,2-Dibromoethane (EDB)	ug/L	20	18.7	94	78-117	
1,2-Dichloroethane	ug/L	20	18.6	93	73-127	
Benzene	ug/L	20	19.2	96	75-124	
Diisopropyl ether	ug/L	20	20.2	101	69-130	
Ethanol	ug/L	400	313	78	36-177	
Ethyl-tert-butyl ether	ug/L	20	20.5	102	67-131	
Ethylbenzene	ug/L	20	19.4	97	76-124	
Methyl-tert-butyl ether	ug/L	20	21.1	105	72-130	
tert-Amylmethyl ether	ug/L	20	20.3	101	67-132	
tert-Butyl Alcohol	ug/L	100	102	102	36-164	
Toluene	ug/L	20	19.0	95	75-124	
Xylene (Total)	ug/L	60	58.8	98	76-123	
1,2-Dichloroethane-d4 (S)	%			102	80-124	
4-Bromofluorobenzene (S)	%			104	80-120	
Dibromofluoromethane (S)	%			104	80-122	
Toluene-d8 (S)	%			101	80-123	

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QUALITY CONTROL DATA

Project: 2705191 449 Hegenberger
Pace Project No.: 254170

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 33639 33640

Parameter	Units	254170003 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Qual
1,2-Dibromoethane (EDB)	ug/L	ND	20	20	20.4	20.5	102	102	78-117	.4	
1,2-Dichloroethane	ug/L	ND	20	20	20.1	20.1	101	100	73-127	.4	
Benzene	ug/L	18.3	20	20	20.5	20.8	11	13	75-124	2	M0
Diisopropyl ether	ug/L	ND	20	20	20.8	20.8	104	104	69-130	.3	
Ethanol	ug/L	ND	400	400	449	559	112	140	36-177	22	
Ethyl-tert-butyl ether	ug/L	ND	20	20	19.6	16.2	98	81	67-131	19	
Ethylbenzene	ug/L	2.3	20	20	20.7	20.9	92	93	76-124	.8	
Methyl-tert-butyl ether	ug/L	14.3	20	20	213	223	994	1050	72-130	5	M0
tert-Amylmethyl ether	ug/L	ND	20	20	20.1	15.5	101	77	67-132	26	
tert-Butyl Alcohol	ug/L	11.9	100	100	308	353	296	341	36-164	13	M0
Toluene	ug/L	0.78	20	20	20.6	20.7	99	100	75-124	.5	
Xylene (Total)	ug/L	50.2	60	60	61.8	63.1	19	22	76-123	2	M0
1,2-Dichloroethane-d4 (S)	%						104	105	80-124		
4-Bromofluorobenzene (S)	%						105	101	80-120		
Dibromofluoromethane (S)	%						102	104	80-122		
Toluene-d8 (S)	%						103	104	80-123		

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QUALITY CONTROL DATA

Project: 2705191 449 Hegenberger
Pace Project No.: 254170

QC Batch: MSV/2698
QC Batch Method: EPA 5030B/8260
Analysis Method: EPA 5030B/8260
Analysis Description: 8260 MSV Water 10 mL Purge
Associated Lab Samples: 254170002

METHOD BLANK: 33933 Matrix: Water
Associated Lab Samples: 254170002

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1,2-Dibromoethane (EDB)	ug/L	ND	1.0	07/19/10 13:14	
1,2-Dichloroethane	ug/L	ND	1.0	07/19/10 13:14	
Benzene	ug/L	ND	0.50	07/19/10 13:14	
Diisopropyl ether	ug/L	ND	0.50	07/19/10 13:14	
Ethanol	ug/L	ND	250	07/19/10 13:14	
Ethyl-tert-butyl ether	ug/L	ND	0.50	07/19/10 13:14	
Ethylbenzene	ug/L	ND	0.50	07/19/10 13:14	
Methyl-tert-butyl ether	ug/L	ND	0.50	07/19/10 13:14	
tert-Amylmethyl ether	ug/L	ND	0.50	07/19/10 13:14	
tert-Butyl Alcohol	ug/L	ND	5.0	07/19/10 13:14	
Toluene	ug/L	ND	0.50	07/19/10 13:14	
Xylene (Total)	ug/L	ND	1.5	07/19/10 13:14	
1,2-Dichloroethane-d4 (S)	%	104	80-124	07/19/10 13:14	
4-Bromofluorobenzene (S)	%	101	80-120	07/19/10 13:14	
Dibromofluoromethane (S)	%	101	80-122	07/19/10 13:14	
Toluene-d8 (S)	%	102	80-123	07/19/10 13:14	

LABORATORY CONTROL SAMPLE: 33934

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,2-Dibromoethane (EDB)	ug/L	20	18.9	95	78-117	
1,2-Dichloroethane	ug/L	20	19.2	96	73-127	
Benzene	ug/L	20	19.8	99	75-124	
Diisopropyl ether	ug/L	20	20.6	103	69-130	
Ethanol	ug/L	400	431	108	36-177	
Ethyl-tert-butyl ether	ug/L	20	21.1	106	67-131	
Ethylbenzene	ug/L	20	19.5	98	76-124	
Methyl-tert-butyl ether	ug/L	20	22.7	114	72-130	
tert-Amylmethyl ether	ug/L	20	20.8	104	67-132	
tert-Butyl Alcohol	ug/L	100	109	109	36-164	
Toluene	ug/L	20	19.7	98	75-124	
Xylene (Total)	ug/L	60	59.4	99	76-123	
1,2-Dichloroethane-d4 (S)	%			102	80-124	
4-Bromofluorobenzene (S)	%			102	80-120	
Dibromofluoromethane (S)	%			102	80-122	
Toluene-d8 (S)	%			102	80-123	

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QUALITY CONTROL DATA

Project: 2705191 449 Hegenberger
Pace Project No.: 254170

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 33935 33936

Parameter	Units	254244015 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Qual
1,2-Dibromoethane (EDB)	ug/L	ND	20	20	23.7	19.6	118	98	78-117	19	M0
1,2-Dichloroethane	ug/L	ND	20	20	24.4	20.5	122	103	73-127	17	
Benzene	ug/L	ND	20	20	25.2	21.4	125	106	75-124	16	M0
Diisopropyl ether	ug/L	ND	20	20	26.1	22.1	131	110	69-130	17	M0
Ethanol	ug/L	ND	400	400	817	546	204	136	36-177	40	M0,R1
Ethyl-tert-butyl ether	ug/L	ND	20	20	25.5	21.2	127	106	67-131	18	
Ethylbenzene	ug/L	ND	20	20	25.1	20.9	125	104	76-124	18	M0
Methyl-tert-butyl ether	ug/L	ND	20	20	27.5	22.5	138	113	72-130	20	M0
tert-Amylmethyl ether	ug/L	ND	20	20	24.9	20.3	124	102	67-132	20	
tert-Butyl Alcohol	ug/L	ND	100	100	146	121	145	120	36-164	19	
Toluene	ug/L	ND	20	20	25.3	21.0	126	105	75-124	19	M0
Xylene (Total)	ug/L	ND	60	60	75.7	62.6	126	104	76-123	19	M0
1,2-Dichloroethane-d4 (S)	%						104	104	80-124		
4-Bromofluorobenzene (S)	%						103	104	80-120		
Dibromofluoromethane (S)	%						103	103	80-122		
Toluene-d8 (S)	%						102	103	80-123		

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QUALITY CONTROL DATA

Project: 2705191 449 Hegenberger
Pace Project No.: 254170

QC Batch: MSV/2674 Analysis Method: CA LUFT
QC Batch Method: CA LUFT Analysis Description: CA LUFT MSV GRO
Associated Lab Samples: 254170005

METHOD BLANK: 33386 Matrix: Water
Associated Lab Samples: 254170005

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
TPH-Gasoline (C05-C12)	ug/L	ND	50.0	07/13/10 21:50	
4-Bromofluorobenzene (S)	%	92	82-116	07/13/10 21:50	

LABORATORY CONTROL SAMPLE: 33387

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
TPH-Gasoline (C05-C12)	ug/L	500	1100	219	60-140	L3
4-Bromofluorobenzene (S)	%			95	82-116	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 33388 33389

Parameter	Units	254199007 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Qual
TPH-Gasoline (C05-C12)	ug/L	ND	500	500	788	665	149	125	60-140	17	M0
4-Bromofluorobenzene (S)	%						97	96	82-116		

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QUALITY CONTROL DATA

Project: 2705191 449 Hegenberger
Pace Project No.: 254170

QC Batch: MSV/2686 Analysis Method: CA LUFT
QC Batch Method: CA LUFT Analysis Description: CA LUFT MSV GRO
Associated Lab Samples: 254170001, 254170003, 254170004

METHOD BLANK: 33576 Matrix: Water
Associated Lab Samples: 254170001, 254170003, 254170004

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
TPH-Gasoline (C05-C12)	ug/L	ND	50.0	07/14/10 23:39	
4-Bromofluorobenzene (S)	%	102	82-116	07/14/10 23:39	

LABORATORY CONTROL SAMPLE: 33577

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
TPH-Gasoline (C05-C12)	ug/L	500	532	106	60-140	
4-Bromofluorobenzene (S)	%			105	82-116	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 33578 33579

Parameter	Units	254256001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Qual
TPH-Gasoline (C05-C12)	ug/L	11300	250	250	12000	12000	289	278	60-140	.2	E,M0
4-Bromofluorobenzene (S)	%						109	109	82-116		

Pace Analytical Services, Inc.
940 South Harney
Seattle, WA 98108
(206)767-5060

QUALITY CONTROL DATA

Project: 2705191 449 Hegenberger
Pace Project No.: 254170

QC Batch: MSV/2701 Analysis Method: CA LUFT
QC Batch Method: CA LUFT Analysis Description: CA LUFT MSV GRO
Associated Lab Samples: 254170002

METHOD BLANK: 33952 Matrix: Water
Associated Lab Samples: 254170002

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
TPH-Gasoline (C05-C12)	ug/L	ND	50.0	07/19/10 13:14	
4-Bromofluorobenzene (S)	%	101	82-116	07/19/10 13:14	

LABORATORY CONTROL SAMPLE: 33953

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
TPH-Gasoline (C05-C12)	ug/L	500	662	132	60-140	
4-Bromofluorobenzene (S)	%			104	82-116	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 33954 33955

Parameter	Units	254244016 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Qual
TPH-Gasoline (C05-C12)	ug/L	642	500	500	1260	1380	124	147	60-140	9	M0
4-Bromofluorobenzene (S)	%						101	102	82-116		

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QUALITY CONTROL DATA

Project: 2705191 449 Hegenberger
Pace Project No.: 254170

QC Batch: WETA/1609 Analysis Method: EPA 300.0
QC Batch Method: EPA 300.0 Analysis Description: 300.0 IC Anions
Associated Lab Samples: 254170001, 254170002, 254170003, 254170004

METHOD BLANK: 33134 Matrix: Water
Associated Lab Samples: 254170001, 254170002, 254170003, 254170004

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Sulfate	ug/L	ND	1000	07/15/10 13:57	

LABORATORY CONTROL SAMPLE: 33135

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Sulfate	ug/L	15000	14400	96	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 33136 33137

Parameter	Units	254170001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Qual
Sulfate	ug/L	82100	300000	300000	372000	367000	97	95	90-110	1	

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QUALITY CONTROL DATA

Project: 2705191 449 Hegenberger
Pace Project No.: 254170

QC Batch: WETA/1610 Analysis Method: EPA 353.2
QC Batch Method: EPA 353.2 Analysis Description: 353.2 Nitrate + Nitrite, preserved
Associated Lab Samples: 254170001, 254170002, 254170003, 254170004

METHOD BLANK: 33138 Matrix: Water
Associated Lab Samples: 254170001, 254170002, 254170003, 254170004

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Nitrogen, NO2 plus NO3	ug/L	ND	50.0	07/13/10 14:25	

LABORATORY CONTROL SAMPLE: 33139

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Nitrogen, NO2 plus NO3	ug/L	1000	1020	102	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 33140 33141

Parameter	Units	254111003 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Qual
Nitrogen, NO2 plus NO3	ug/L	69.3	1000	1000	1060	1020	99	95	90-110	4	

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QUALITY CONTROL DATA

Project: 2705191 449 Hegenberger
Pace Project No.: 254170

QC Batch: WETA/1605 Analysis Method: SM 4500-NO2 B
QC Batch Method: SM 4500-NO2 B Analysis Description: SM4500NO2-B, Nitrite, unpres
Associated Lab Samples: 254170001, 254170002, 254170003, 254170004

METHOD BLANK: 32703 Matrix: Water
Associated Lab Samples: 254170001, 254170002, 254170003, 254170004

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Nitrite as N	ug/L	ND	10.0	07/07/10 19:09	

LABORATORY CONTROL SAMPLE: 32704

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Nitrite as N	ug/L	50	45.6	91	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 32705 32706

Parameter	Units	254170001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Qual
Nitrite as N	ug/L	31.0	50	50	72.8	83.4	84	105	71-109	14	R1

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Seattle, WA 98108
(206)767-5060

QUALIFIERS

Project: 2705191 449 Hegenberger
Pace Project No.: 254170

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to changes in sample preparation, dilution of the sample aliquot, or moisture content.

ND - Not Detected at or above adjusted reporting limit.

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

S - Surrogate

1,2-Diphenylhydrazine (8270 listed analyte) decomposes to Azobenzene.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Pace Analytical is NELAP accredited. Contact your Pace PM for the current list of accredited analytes.

LABORATORIES

PASI-S	Pace Analytical Services - Seattle

ANALYTE QUALIFIERS

E	Analyte concentration exceeded the calibration range. The reported result is estimated.
L3	Analyte recovery in the laboratory control sample (LCS) exceeded QC limits. Analyte presence below reporting limits in associated samples. Results unaffected by high bias.
M0	Matrix spike recovery and/or matrix spike duplicate recovery was outside laboratory control limits.
R1	RPD value was outside control limits.
S0	Surrogate recovery outside laboratory control limits.
S3	Surrogate recovery exceeded laboratory control limits. Analyte presence below reporting limits in associated samples. Results unaffected by high bias.
T4	Result reported for hydrocarbons within the method-specific range that do not match pattern of laboratory standard.

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: 2705191 449 Hegenberger
Pace Project No.: 254170

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
254170001	**MW-11_20100730**	EPA 3510 Modified	OEXT/2378	EPA 8015B	GCSV/1724
254170002	**MW-12_20100730**	EPA 3510 Modified	OEXT/2378	EPA 8015B	GCSV/1724
254170003	**MW-12A_20100730**	EPA 3510 Modified	OEXT/2378	EPA 8015B	GCSV/1724
254170004	**MW-13_20100730**	EPA 3510 Modified	OEXT/2378	EPA 8015B	GCSV/1724
254170001	**MW-11_20100730**	EPA 3010	MPRP/1635	EPA 6010	ICP/1557
254170002	**MW-12_20100730**	EPA 3010	MPRP/1635	EPA 6010	ICP/1557
254170003	**MW-12A_20100730**	EPA 3010	MPRP/1635	EPA 6010	ICP/1557
254170004	**MW-13_20100730**	EPA 3010	MPRP/1635	EPA 6010	ICP/1557
254170001	**MW-11_20100730**	EPA 3010	MPRP/1636	EPA 6010	ICP/1558
254170002	**MW-12_20100730**	EPA 3010	MPRP/1636	EPA 6010	ICP/1558
254170003	**MW-12A_20100730**	EPA 3010	MPRP/1636	EPA 6010	ICP/1558
254170004	**MW-13_20100730**	EPA 3010	MPRP/1636	EPA 6010	ICP/1558
254170001	**MW-11_20100730**	EPA 5030B/8260	MSV/2687		
254170002	**MW-12_20100730**	EPA 5030B/8260	MSV/2698		
254170003	**MW-12A_20100730**	EPA 5030B/8260	MSV/2687		
254170004	**MW-13_20100730**	EPA 5030B/8260	MSV/2687		
254170005	**TB1_20100730**	EPA 5030B/8260	MSV/2672		
254170001	**MW-11_20100730**	CA LUFT	MSV/2686		
254170002	**MW-12_20100730**	CA LUFT	MSV/2701		
254170003	**MW-12A_20100730**	CA LUFT	MSV/2686		
254170004	**MW-13_20100730**	CA LUFT	MSV/2686		
254170005	**TB1_20100730**	CA LUFT	MSV/2674		
254170001	**MW-11_20100730**	EPA 300.0	WETA/1609		
254170002	**MW-12_20100730**	EPA 300.0	WETA/1609		
254170003	**MW-12A_20100730**	EPA 300.0	WETA/1609		
254170004	**MW-13_20100730**	EPA 300.0	WETA/1609		
254170001	**MW-11_20100730**	EPA 353.2	WETA/1610		
254170002	**MW-12_20100730**	EPA 353.2	WETA/1610		
254170003	**MW-12A_20100730**	EPA 353.2	WETA/1610		
254170004	**MW-13_20100730**	EPA 353.2	WETA/1610		
254170001	**MW-11_20100730**	SM 4500-NO2 B	WETA/1605		
254170002	**MW-12_20100730**	SM 4500-NO2 B	WETA/1605		
254170003	**MW-12A_20100730**	SM 4500-NO2 B	WETA/1605		
254170004	**MW-13_20100730**	SM 4500-NO2 B	WETA/1605		

20100730 2705191 WG_Q_201007 BO (3)

254170

COP ELT CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed and accurate.

Page: 1 of 2
Cooler # 1 of 1

DELTA

Required Lab Information:

Lab Name:	Pace-Seattle
Address:	940 S. Harney Street Seattle WA 98108
Lab PM:	Regina Ste. Marie
Phone/Fax:	P: 206-957-2433 F: 206-767-5063
Lab PM email	Regina.SteMarie@pacelabs.com
Applicable Lab Quote #:	

Required Project Information:

Site ID #:	2705191
Task:	WG_Q_201007
Delta project #	
Site Address	449 Hegenberger
City	Oakland
State	CA 94621
Delta PM Name	Dennis Dettloff
Phone/Fax:	P: 1-800-477-7411 F: 916-638-8385
Delta PM Email:	ddettloff@deltaenv.com

Required Invoice Information:

Send Invoice to:	David Sowle
Address:	11050 White Rock Road, Suite 110
City/State	Rancho Cordova CA 95670
Phone #:	1-800-477-7411
Reimbursement project?	
Non-reimbursement project?	Y
Mark one	
Send EDD to	copeltdata@intelligentehs.com
CC Hardcopy report to	
CC Hardcopy report to	

GW event, new wells

21789/L1&L2

Turn around time (days)	10
QC level Required: Standard	Special
Mark one	
NJ Reduced Deliverable Package?	
MA MCP Cert?	CT RCP Cert?
Mark One	
Lab Project ID (lab use)	

Valid Matrix Codes

MATRIX		MATRIX	
DRINKING WATER	WP	WATER	W
GROUND WATER	WG	SURFACE WATER	WS
WASTE WATER	WW	WATER QC	WQ
FREE PRODUCT	LF	SLUDGE	SL
SOIL	SO	RINSEATE	WH
OIL	OL	OTHER	OT
WIPE	SW	ANIMAL TISSUE	TA
AMBIENT AIR	AA		
SVE AIR	AE		
SOIL GAS	GS		

ITEM #	SAMPLE ID (One Character per box. (A-Z, 0-9 / ,-) Samples IDs MUST BE UNIQUE)	MATRIX CODE	SAMPLE TYPE G=GRAB C=COMP	SAMPLE DATE	SAMPLE TIME	#OF CONTAINERS	FIELD FILTERED? (Y/N)	Preservatives: Unpreserved	H_2SO_4	HNO_3	HCl	NaOH	$Na_2S_2O_3$	Methanol	Other	Requested Analyses: 353.2NitrateN	300Sulfate	6010IronTotal	8015TPHDiesel	8260 GC/MS GRO	8260BtexMTBE/OxyCA	6010IronDissolved	4500Nitrite	Comments/Lab Sample I.D.
1	MW-11_20100730	WG	G	7/6/10	1055	13	Y	4	1	2	6					X	X	X	X	X	X	X	X	***TPH-D 8015 samples to be Silica Gel Treated**
2	MW-12_20100730	WG			1345	13	Y	4	1	2	6					X	X	X	X	X	X	X	X	
3	MW-12A_20100730	WG			1225	13	Y	4	1	2	6					X	X	X	X	X	X	X	X	7 OXYs = DIPE, TBA, TAME, ETBE, 1,2-DCA, EDB and ethanol
4	MW-13_20100730	WG			0950	21	Y	8	1	2	10					X	X	X	X	X	X	X	X	
5	TB1_20100730	W			0900	4	N				4									X	X			Dissolved Iron samples are Field Filtered
6																								
7																								
8																								
9																								
10																								
11																								
12																								

Additional Comments/Special Instructions:

GLOBAL ID: T0600101476

RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME
	7/6/10	1445	SAMPLE INCLUDED	7/6/10	1445
			MATTHEW COONS	7/7/10	10:00

Sample Receipt Conditions

Temp in °C	Samples on Ice?	Sample intact?	Trip Blank?
	Y/N	Y/N	Y/N
3.0	Y/N	Y/N	Y/N
D.W	Y/N	Y/N	Y/N
	Y/N	Y/N	Y/N

SHIPPING METHOD: (mark as appropriate) UPS COURIER FEDEX US MAIL

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: WILLIAM WONG

SIGNATURE of SAMPLER:

DATE Signed: 7/6/10

Time:

Final 11/13/06. AMTait

Inogen Environmental Alliance

Sample Container Count

CLIENT: Delta / Blaine Tech

Pace Analytical™ www.pacelabs.com

COC PAGE 1 of 1

COC ID# _____

Sample Line Item	VG9H	AG1H	AG1U	BG1H	BP1U	BP2U	BP3U	~~BP2N~~ BP3N	BP2S	WGFU	WGKU	AG2U	BP2F		Comments
1	6						1	1/42	1/42			2	1/42		
2	↓						↓	↓	↓			↓	↓		
3	↓											↓			
4	10						↓	↓	↓			6	↓		
5	4														Trip Blank
6															
7															
8															
9															
10															
11															
12															Trip Blank? Yes

AG1H	1 liter HCL amber glass		BP2S	500mL H2SO4 plastic	JGFU	4oz unpreserved amber wide
AG1U	1liter unpreserved amber glass		BP2U	500mL unpreserved plastic	R	terra core kit
AG2S	500mL H2SO4 amber glass		BP2Z	500mL NaOH, Zn Ac	U	Summa Can
AG2U	500mL unpreserved amber glass		BP3C	250mL NaOH plastic	VG9H	40mL HCL clear vial
AG3S	250mL H2SO4 amber glass		BP3N	250mL HNO3 plastic	VG9T	40mL Na Thio. clear vial
BG1H	1 liter HCL clear glass		BP3S	250mL H2SO4 plastic	VG9U	40mL unpreserved **clear** vial
BG1U	1 liter unpreserved glass		BP3U	250mL unpreserved plastic	VG9W	40mL glass vial preweighted (EPA 5035)
BP1N	1 liter HNO3 plastic		DG9B	40mL Na Bisulfate amber vial	VSG	Headspace septa vial & HCL
BP1S	1 liter H2SO4 plastic		DG9H	40mL HCL amber voa vial	WGFU	4oz clear soil jar
BP1U	1 liter unpreserved plastic		DG9M	40mL MeOH clear vial	WGFX	4oz wide jar w/hexane wipe
BP1Z	1 liter NaOH, Zn, Ac		DG9T	40mL Na Thio amber vial	ZPLC	Ziploc Bag
BP2N	500mL HNO3 plastic		DG9U	40mL unpreserved **amber** vial		
BP2O	500mL NaOH plastic		I	Wipe/Swab		

Sample Condition Upon Receipt

Pace Analytical

Client Name: Delta / Blaine Tech Project # 254170

Courier: ☑ Fed Ex ☐ UPS ☐ USPS ☐ Client ☐ Commercial ☐ Pace Other _____

Optional
Proj. Due Date:
Proj. Name:

Tracking #: 8715 0406 5405

Custody Seal on Cooler/Box Present: ☑ yes ☐ no Seals intact: ☑ yes ☐ no

Packing Material: ☐ Bubble Wrap ☑ Bubble Bags ☐ None ☐ Other _____

Thermometer Used: Horiba 132013 Type of Ice: (Wet) Blue None ☐ Samples on ice, cooling process has begun

Cooler Temperature: 3.0, 0.6 Biological Tissue is Frozen: Yes No

Date and Initials of person examining contents: 7/7/10 AR

Temp should be above freezing to 6°C

Comments:

Chain of Custody Present:	☑Yes ☐No ☐N/A	1.
Chain of Custody Filled Out:	☑Yes ☐No ☐N/A	2.
Chain of Custody Relinquished:	☑Yes ☐No ☐N/A	3.
Sampler Name & Signature on COC:	☑Yes ☐No ☐N/A	4.
Samples Arrived within Hold Time:	☑Yes ☐No ☐N/A	5.
Short Hold Time Analysis (<72hr):	☑Yes ☐No ☐N/A	6. NO_2/NO_3
Rush Turn Around Time Requested:	☐Yes ☑No ☐N/A	7.
Sufficient Volume:	☑Yes ☐No ☐N/A	8.
Correct Containers Used:	☑Yes ☐No ☐N/A	9.
-Pace Containers Used:	☑Yes ☐No ☐N/A	
Containers Intact:	☑Yes ☐No ☐N/A	10.
Filtered volume received for Dissolved tests	☑Yes ☐No ☐N/A	11.
Sample Labels match COC:	☑Yes ☐No ☐N/A	12.
-Includes date/time/ID/Analysis Matrix: WT		
All containers needing preservation have been checked.	☑Yes ☐No ☐N/A	13.
All containers needing preservation are found to be in compliance with EPA recommendation.	☑Yes ☐No ☐N/A	
exceptions: (VOA) coliform, TOC, O&G, WI-DRO (water)	☐Yes ☐No	Initial when completed: ____ Lot # of added preservative: ____
Samples checked for dechlorination:	☐Yes ☐No ☑N/A	14.
Headspace in VOA Vials (>6mm):	☑Yes ☐No ☐N/A	15. 1 of 4 trip blanks received with headspace.
Trip Blank Present:	☑Yes ☐No ☐N/A	16.
Trip Blank Custody Seals Present	☐Yes ☐No ☑N/A	
Pace Trip Blank Lot # (if purchased): _____		

Client Notification/ Resolution: Field Data Required? Y / N

Person Contacted: _____ Date/Time: _____

Comments/ Resolution: _____

Project Manager Review: RSM **Date:** 07/07/10

Note: Whenever there is a discrepancy affecting North Carolina compliance samples, a copy of this form will be sent to the North Carolina DEHNR Certification Office (i.e out of hold, incorrect preservative, out of temp, incorrect containers)