ConocoPhillips
76 Broadway
Sacramento, California 95818

May 7, 2010

Jerry Wickham
Alameda County Health Agency
1131 Harbor Bay parkway, Suite250
Alameda, California 94502-577

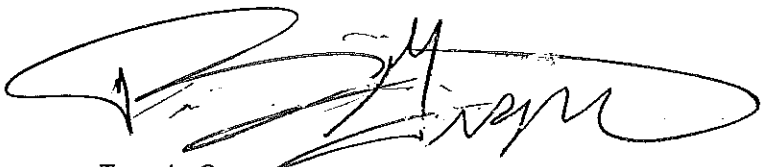
Re: ***Feasibility Study and Additional Soil and Groundwater Investigation Report***
76 Service Station # 7376 RO # 0361
4191 First Street
Pleasanton, CA

Dear Mr. Wickham:

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 me at (916) 558-7666.

Sincerely,



Terry L. Grayson
Site Manager
Risk Management & Remediation

FEASIBILITY STUDY AND
ADDITIONAL SOIL AND GROUNDWATER INVESTIGATION REPORT
76 SERVICE STATION NO. 7376
4191 FIRST STREET
PLEASANTON, CALIFORNIA
ALAMEDA COUNTY FUEL LEAK CASE NO. RO0000361

Prepared for:

ConocoPhillips Company
76 Broadway
Sacramento, CA 95818

Prepared by:

Delta Consultants
312 Piercy Road
San Jose, California 95138

May 15, 2010

CERTIFICATION

The following report was prepared under the supervision and direction of the undersigned California Professional Geologist.

DELTA CONSULTANTS

R. Lee Dooley
California Certified Hydrogeologist #0831

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1.0 INTRODUCTION

Delta Consultants, (Delta), on behalf of ConocoPhillips (COP) has prepared this *Feasibility Study (FS) and Additional Soil and Groundwater Investigation Report* for the 76 Service Station No. 7376, located at 4191 First Street in Pleasanton, California (site) (**Figure 1**). The investigation was first requested by the ACEH in a letter dated October 16, 2009 (**Appendix A**). The investigation was carried out as proposed in Delta's *Work Plan and Feasibility Study* dated December 16, 2009, and in accordance with a letter from the Alameda County Health Services Agency, Environmental Protection (ACEH) dated January 6, 2010 (**Appendix A**). In the January 6, 2010 letter, the ACEH agreed with Delta's proposal to install an additional monitoring well MW-13, and soil vapor extraction (SVE) and observation wells (Clusters A and B). The ACEH also requested that during the SVE testing for Cluster A, induced vacuum measurements be collected periodically in well MW-2C in addition to observation wells. The investigation was first requested by the ACEH in a letter dated October 16, 2009 (**Appendix A**). The purpose of this investigation was to identify the down gradient extent of the groundwater petroleum hydrocarbon and constituent plume in the Alameda county open space corridor adjacent to the site, and to conduct a soil vapor extraction and groundwater extraction (GWE) test in order to evaluate potential remedial options at the site.

The following report provides a site description and history, a summary of regional and site hydrogeologic conditions, a summary of field procedures, results of the soil and groundwater investigation and SVE and GWE extraction pilot tests, and recommendations regarding site remediation

2.0 SITE LOCATION AND DESCRIPTION

The following sections provide a description of the site and surrounding area.

2.1 Site Location

The site (Alameda County Assessor's Parcel # 94-110-12-4) is a rectangular property located at the intersection of Ray Street and First Street in Pleasanton, California (**Figures 1 and 2**).

2.2 Site Description

The site is currently an active 76 Service Station. Current site facilities consist of a cashier's kiosk, four product dispenser islands and two 12,000-gallon double-wall fiberglass gasoline underground storage tanks (USTs) – **Figure 2**. There are currently 12 active groundwater-monitoring wells and four former groundwater monitoring wells at and in the site vicinity. Properties in the immediate site vicinity are used for a mix of residential and commercial purposes. The site is bounded to the northwest by a former Southern Pacific Railroad right-of-way currently owned by Alameda County, to north and northeast by a commercial building, to the southeast by First Street, and to the southwest by Ray Street. There is an underground KinderMorgan petroleum pipeline located on Alameda County property (former Southern Pacific right-of way) adjacent to the northwest edge of the site (**Figure 2**). A Shell service station is located southeast of the site across First Street.

The property was developed around 1907 as a warehouse to store grain and hay (Sanborn Insurance Maps). As shown on a Sanborn map, an "in-ground" bunker fuel storage tank was installed northwest of the property as early as 1907 to support the railway. Overlays of historic site features upon the current arrangement of properties and site features were produced from historic Sanborn maps and presented in **Appendix B**.

A service station was first constructed on the site in approximately 1976. The station was acquired by Unocal Corporation in 1988, and then ConocoPhillips.

3.0 SITE SETTING

The following sections provide a summary of the regional geologic and hydrogeologic setting.

3.1 Regional Geologic Setting

The subject site is located near the southwest portion of the Livermore Valley. The site is situated on a northern facing hill, and slopes slightly to the north at an elevation of approximately 360 feet above mean sea level (MSL). The Arroyo Valley stream is located approximately 1,100 feet to the north of the site (**Figure 1**). The site is underlain by Holocene age alluvial fan deposits, described by the Department of Water Resources (DWR) in Bulletin 118-3 as "unconsolidated, moderately sorted, permeable fine sand and silt, with gravel becoming more abundant toward fan heads with canyons." The site is approximately three miles east of the northwest trending Pleasanton Fault (USGS 2006). Holocene alluvial fan deposits under the site are underlain by the Livermore Formation, consisting of northward dipping sand and gravel deposits. In 1999, Gettler Ryan interpreted deposits beneath the site to be steeply dipping beds. Their cross sections illustrating their interpretation are presented in **Attachment B**.

3.2 Regional Hydrogeologic Setting

The site is located within the Amador Sub-basin of the Livermore Valley Groundwater Basin. The Amador Sub-basin is bounded on the east by the Livermore Fault and on the west by the Pleasanton Fault. The main watercourses in the basin are the Arroyo Valle and Arroyo Mocho, which both drain into the Arroyo de la Laguna. Gravel pits which locally impact groundwater levels are present in the central portion of the subbasin. The estimated depth to the regional groundwater is 40 feet below ground surface (bgs) and the regional flow direction is north and northeast (ACWD-Zone 7, 1993-2006).

Groundwater in the Amador subbasin occurs in both unconfined and confined conditions. In the shallower, unconfined aquifers, groundwater is first encountered generally about 30 to 50 feet bgs. Deeper aquifers are encountered within sand and gravel deposits at a depth of approximately 90 to 100 feet bgs (DWR, 2003). A Zone 7 contour map shows groundwater flow in both confined and unconfined aquifers toward the gravel pits in the center of the subbasin. A contour map from the Zone 7 Well Master Plan shows a flow within the "deeper aquifer" to the west. Sand and gravel pit groundwater extraction areas are located greater

than one mile north of the site in the central portion of the subbasin. The site appears to be outside the area of influence of any groundwater extraction wells.

The City of Pleasanton is served by the Zone 7 Water Agency. Based on information provided by personnel from the Zone 7 Water Agency, the City of Pleasanton obtains 80% of its water from the Hetch-Hetchy reservoir, the San Joaquin/Sacramento Delta and multiple deep-water wells located in the Fremont area. The remaining water is pumped from wells in Pleasanton that range in depth from 50-600 feet bgs (ACWD 1993-2006).

3.3 Site Hydrogeologic Conditions

The site is underlain by complexly interlayered clay (Unified Soil Classification CL), silt (ML), silty sand (SM), clayey sand (SC), silty gravel (GM), sand (SP, SW), and gravel (GW). Contacts between soil types are often gradational. All soils contain various percentages of silt and sand. Site subsurface conditions are illustrated on cross-sections from the current investigation on **Figures 3, 3b, 4 and 4b.** Soils have been combined into three units; 1) generally fine grained silts sand clays (CL, ML), 2) mixed fine and coarse grained deposits consisting of gravelly and sandy clay and silt to clayey/silty sands and gravels (SM, SC, GM), and 3) generally coarse-grained, moderate to high permeable soils consisting of sand and gravel (SP, SW, GP, GW).

4.0 NATURE AND EXTENT OF SOURCE

The following sections describe the source(s) of the petroleum hydrocarbons that have been detected in soil and groundwater beneath and adjacent to the site. A summary of site assessment activities is presented as **Appendix C**.

4.1 Former USTs

The first soil and groundwater investigation report dated September 9, 1987 shows four 12,000-gallon petroleum product USTs near the current tank pit location in the northeastern portion of the site. The four former USTs were replaced with two 12,000 gallon double-walled steel USTs in December 1987 as part of the property sale agreement. A Union Oil Company of California drawing dated November 17, 1987 shows the two 12,000- gallon fuel USTs to be located in the northeastern end of the site in their current location (Enviros 1995).

4.2 Release Reports 1984-1994

November 8, 1982: The Pleasanton Fire Department reported that approximately nine gallons of gasoline had leaked from a damaged fuel filter and collected in the base sand area directly below the pumps.

November 23, 1982: The Valley Times Newspaper (volume 97 No. 230 dated November 23, 1982) reported that approximately 100 gallons of gasoline was discovered welling from an underground storage tank and pooling in a nearby parking lot. The nearby stream, Arroyo Del Valle, was reportedly not affected by the gasoline release.

February 20, 1984: The Pleasanton Fire Department filed a fire incident report for a gasoline leak at the site. According to the report, pump #12 located on the south fuel island was observed to be leaking. Approximately 30 gallons of gasoline was estimated to have leaked from possibly damaged underground product piping. Approximately 10 gallons of pooled gasoline was recovered using a soil berm in the southeast portion of the site.

January 7, 1985: A complaint report was filed against the station, reporting a "strong odor of gasoline around storm drains." Station attendants stated that the site's gasoline USTs were filled that morning and that gasoline from a possible overfill was likely transported to the drain via rain water runoff.

February 8, 1985: The Pleasanton Fire Department filed a Leak Reporting Form documenting an unknown amount of gasoline contaminated rain runoff entering two separate sewer drains. The nature of the spill was likely due to overfilling of the gasoline USTs.

July 16, 1987: A Petro Tite System Test revealed a leak of 0.93 gallons per hour in the North No. 1 regular gasoline UST. This result was followed up by an additional test on July 25th to confirm the leak. Leakage during the confirmation test was reported at 0.028 gallons per hour, and was deemed mathematically tight. It is unclear whether repairs were made to the UST system to repair the leak, or whether the leak detection was false (Environmental Laboratories Inc., 1987).

October 17, 1994: An unauthorized Release Report was filed following soil sampling performed on September 9, 1994. The report did not specify a release date or quantity released, but identified the contaminant as gasoline/waste oil. The report was filed

following product piping replacement, during which old single-walled product lines were discovered, as well as soil contamination.

4.3 Potential Offsite Sources

4.3.1 Shell Oil Service Station

A Shell service station is located approximately 75 feet southeast of the site. This site has had an open leaking underground storage tank (LUST) case since 1995. Petroleum hydrocarbons were detected below the former USTs in the northern portion of the site in 1985 during UST replacement. In January 2005, waste oil was poured into a part of the waste oil tank which releases straight to the surrounding pea gravel. Oil and grease was detected in pea gravel, but soil samples confirmed that waste oil was confined to the pea gravel. Groundwater flow at the site has historically been to the north-northeast (Delta 2006). In September 2006, Shell advanced a CPT boring (CPT-2) in First Street between the Shell and 76 sites. Groundwater samples were collected at depths of approximately 78 and 98 feet bgs. Total petroleum hydrocarbons as gasoline (TPH-G), toluene, ethylbenzene, and xylenes were all below the laboratory reporting limit (LRL) in both samples. Benzene was detected in the 78-foot sample at 0.99 micrograms per liter (µg/L) along with 15 µg/L methyl tertiary butyl ether (MTBE) and 27 µg/L tertiary butyl alcohol (TBA). MTBE was the only constituent detected in the 98-foot sample (47 µg/L) (Delta 2006b). It was concluded that the Shell service station had little or no impact on the site.

4.3.2 Bunker C Oil Tank

A Bunker C fuel oil tank was installed at the site sometime around 1907 according to Sanborn insurance maps. The bunker fuel oil tank is/was located just to the northwest of the site in the vicinity of boring SB-1 (**Figure 2**). The bunker fuel oil tank was used to service the railroad that bordered the site to the northwest. The tank is believed to have been removed from the site, but removal documents are not available. Currently, there are no documents verifying the removal of this bunker tank. Delta utilized ground penetrating radar (GPR) technology to determine the current presence or absence of the bunker tank. The bunker tank was not detected; however, GPR results may not be conclusive depending on the material with which the tank was made.

4.3.3 KinderMorgan Pipeline

A KinderMorgan pipeline is located approximately 20 feet northwest of the site, within the former Southern Pacific right-of-way and is approximately 6 to 8 feet deep. The pipeline is a 10-inch steel pipe which transports gasoline, diesel and jet fuel. An investigation was performed by TRC in 2005 to determine whether the pipeline could be considered a potential source of contamination. The investigation reported that the pipeline is inspected every 5 years by an internal inspection device, and no damage or repairs had been reported. In 2007, BSK reported detections of TPH-jet fuel and TPH-aviation fuel in soil borings SB-5, SB-6 and SB-7, located between the pipeline and the site **(Figure 2)** , with a maximum concentration of 6,300 milligrams per kilogram (mg/kg) in boring SB-5 at a depth of 30 feet bgs. The indication of the petroleum hydrocarbons as jet fuel appeared to be questionable. A note on the soil analytical summary table stated "TPH - total petroleum hydrocarbons - Jet Fuel (Hydrocarbons reported within diesel range)" (BSK 2008).

Fuel fingerprinting has been performed on free product collected from the site in 1997, 1998 and in 2009. In 1997, a fuel fingerprinting analysis determined that the free product in MW-5 was most likely composed of 50% refined gasoline and 50% heavier hydrocarbons resembling crude oil, bunker C fuel, diesel, motor oil, or some combination of the above. The gasoline portion of the product was reported to be relatively “fresh” (Entrix 1997). In 1998, separate phase hydrocarbons (SPH) was collected in soil samples in boring B-11 from depths of 10.5 feet bgs and 61 feet bgs. The SPH was reported to be approximately 90% semi-volatile hydrocarbons consisting of crude oil and 10% slightly weathered gasoline (GR 1999). In 2009, soil samples from the boring for MW-2C were submitted for fuel fingerprinting. The presence of heavy hydrocarbons such as diesel, kerosene and hydraulic oil were reported (Delta 2009). TRC concluded that the source of SPH on site and to the north was likely due to the former underground bunker C fuel tank that was installed at the site in 1907, and not from the Santa Fe Pacific pipeline (TRC 2005)

5.0 ADDITIONAL SOIL AND GROUNDWATER INVESTIGATION

Concentrations of MTBE have been rising in offsite well MW-8. In order to define the downgradient extend to MTBE offsite, Delta installed MW-13 located northeast of MW-8.
Soil vapor extraction wells and observation wells were installed onsite and offsite for source removal evaluation. During their installation, soil samples were collected for laboratory analysis.

5.1 Pre-field Activities

Prior to field activities, Delta produced a Site Health and Safety Plan, which was reviewed daily by field personnel. Prior to drilling, Delta marked all proposed boring locations and contacted Underground Service Alert (USA ticket numbers 0071183, 0071194 and 0071198) to request the locating and marking of all underground utilities at, or adjacent to the proposed boring locations. Delta also employed a private utility locator to identify possible private underground utilities in the vicinity of the proposed boring locations. Delta met with a representative of KinderMorgan to document the exact location of the pipeline. Additionally, all boring locations were cleared by air knife to a depth of five feet bgs prior to drilling. The purpose of first air knifing each location was to ensure that unmarked underground utilities would not be encountered during drilling. Permits to install monitoring wells were obtained from the Zone 7 Water Agency. Copies of permits are presented in **Appendix D.**

5.2 Well Installation

On March 29th through April 7th, 2010, Gregg Drilling and Testing, under the supervision of Delta, installed two well clusters (CWA and CWB), two observation wells (OWA-1/2/3 and OWB-1/2/3) and one groundwater monitoring well (MW-13) (**Figure 2**). Each well cluster consists of three individual soil vapor extraction wells spaced within five to seven feet of one another. CWA-1 and CWB-1 were the deepest in each cluster, CWA-2 and CWB-2 were at an intermediate depth, and CWA-3 and CWB-3 were the shallowest. Cluster wells consist of three individual casings with separate screen intervals within one boring. OWA-1 and OWB-1 are the deepest wells, OWA-2 and OWB-2 are an intermediate depth, and OWA-3 and OWB-3 are the shallowest. Observation wells are designated OWA-1/2/3 and OWB-1/2/3 on **Figure 2**. Soil vapor wells screens correspond with one-inch nested observation wells, so that CWA-1 corresponds to OWA-1, etc…

Well diameters are four-inch for soil vapor cluster wells, one-inch for nested observation wells and two inch for monitoring well MW-13. Well screen and sand pack for all wells was 0.02-inch size machine slotted PCV and 2/12 size sand. Soil boring logs including well construction details are presented in **Appendix E**.

In each well cluster, the deepest well was initially advanced and sampled at 10 feet, then continuously from 15 feet bgs to the total depth. Lithology from the deepest borings was used to set the intermediate and shallow wells in each cluster. The deepest borings (CWA-1 and CWB-1) were first drilled with 6-inch hollow stem augers for soil sampling, and then over drilled with 10-inch augers to install 4-inch wells. Shallow and intermediate wells were drilled without soil sampling to their total depths using 10-inch augers.

CWA-1 was screened from 45 to 55 feet bgs, CWA-2 was screened from 36 to 40 feet bgs and CWA-3 was screened from 30 to 35 feet bgs. CWB-1 was screened from 55 to 65 feet bgs, CWB-2 was screened from 47 to 57 feet bgs, and CWB-3 was screened from 30 to 40 feet bgs. Remedial well screen intervals are shown on **Figures 3 through 4,** and in **Appendix E.** Sand packs were extended two feet above each screen interval, followed by a two-foot bentonite seal and Portland cement to grade.

Observation wells were set approximately 20 feet away from CWA and CWB, and were sampled at five-foot intervals to assure that wells would be screened in target zones identified in CWA and CWB. No soil samples were submitted for laboratory analysis from OWA or OWB. In each boring, three nested one-inch wells were placed at screen depths corresponding to CWA and CWB wells.

OWA-1 was screened from 45 to 50 feet bgs, OWA-2 was screened from 38 to 40 feet bgs, and OWA-3 was screened from 31 to 34 feet bgs. OWB-1 was screened from 55 to 65 feet bgs, OWB-2 was screened from 48 to 53 feet bgs, and OWB-3 was screened from 30 to 40 feet bgs. Sand packs around each screen were extended at least 6 inches above each casing, and at least one foot of bentonite was used as a seal between screened zones.

The boring for MW-13 was advanced to 80 feet bgs using 8-inch augers. The well was set at 77 feet bgs due to flowing sands and gravels encountered between 75 and 80 feet bgs. Soil samples were collected from MW-13 at five foot intervals. Groundwater was encountered at a depth of approximately 75 feet bgs. MW-13 was screened from 62 feet bgs to 77 feet bgs. A sand pack was placed to two feet above the top of the screen, followed by a two-foot bentonite seal, and Portland cement to grade.

5.3 Subsurface Conditions

Continuous coring of the deep boring at each cluster provided a detailed boring log. Borings for wells encountered a mix of coarse grained deposits consisting of sands and gravels with varying amount of silt and clay, separated by thick layers of silt and clay. Beds appeared to be discontinuous and sloping slightly to the north. An approximately 20-foot section of damp orange-tan silt with quartz gravel fragments was used as marker bed to correlate between clusters. From approximately 32 to 35 feet bgs, soil was reportedly wet, indicating the presence of a perched water zone. This perched water zone has also been reported in previous borings at the site. Groundwater, with the exception of a thin perched layer was not encountered in any "A" cluster wells. Groundwater was encountered in the deep boring CWB-1 at a depth of approximately 60 feet bgs. Depth to groundwater in adjacent monitoring well MW-5 was 68 feet below top of casing (BTOC).

Petroleum hydrocarbons including SPH were found throughout the vadose zone. TPH-G and TPH-D concentrations are shown on geologic cross-sections **Figures 3 and 4**.

SPH was reported in the CWA well cluster at a depth of 33 to 39 feet bgs in moist/ wet silt and gravel zones. Directly beneath this zone, the orange clay/ silt zone was reported to a depth of approximately 53.5 feet bgs. No SPH was reported in the orange clay/silt zone indicating a perched zone above. Photo-ionization detector (PID) readings in CWA ranged from 1.5 parts per million volume (ppmv) at a depth of 55 feet bgs (clayey gravel) to 766 ppmv at a depth of 34 feet bgs within a saturated silt zone in which SPH was reported, directly above a gravel zone also with SPH.

In cluster CWB, SPH was reported at a depth of 62 feet bgs within gravelly sand. PID readings in CWA ranged from 0.3 at a depth of 10 feet bgs to 1,620 at a depth of 61 feet bgs within siltly sand, directly above the gravelly sand layer in which SPH was observed.

SPH was in reported OWA from 34 feet bgs to 50 feet bgs within a gravel zone and underlying clay zone. SPH in CWB and OWA was reportedly black and "oily", while SPH in CWA lighter in color with a gasoline odor. PID readings in OWA ranged from 38.6 ppmv at a depth of 20 feet bgs to 1275 ppmv at a depth of 30 feet bgs. The maximum PID reading was reported in a contact between gravelly sand and clay at approximately 30 feet. SPH was not reported in soil samples collected from the OWB boring or MW-13. PID readings in the OWB boring ranged from 1.4 ppmv at a depth of 10 feet bgs to 1,230 ppmv at a depth of 44 feet bgs within a lean clay layer underlying a sandy gravel zone. Below this depth,

PID readings decreased and were reported at less than 5 ppmv from 55 feet bgs to the maximum depth of 65 feet bgs. In MW-13, PID readings ranged from 0.1 ppmv at a depth of 50 feet bgs to 1.4 ppmv at a depth of 60 feet bgs.

On April 26, 2010, monitoring well MW-13 was purged of three additional well casing volumes then sampled. **Appendix F** contains field data collected during well development. Mid-Coast Engineers of Watsonville, California, surveyed the latitude, longitude and elevation of the newly installed wells. The survey reports are contained in **Appendix G**. The GPS survey data has been uploaded into the State of California GeoTracker database.

5.4 Soil and Groundwater Sampling

Soil samples were collected using a split spoon sampler equipped with brass sleeves. The samples were logged by the field geologist, utilizing the Unified Soil Classification System by the American Society for Testing and Materials (ASTM) method D-2487, dated May 2000. A PID was used to measure concentrations of volatile organic compounds in soil samples collected from the boreholes.

Soil samples were submitted for laboratory analysis based on PID reading, change in lithology and for purposes of vertical hydrocarbon delineation.

To obtain a PID reading, a soil sample from each sampling interval was placed in a sealed plastic bag. After approximately five minutes, the PID probe was inserted into the plastic bag and soil gas allowed to pass through the PID until readings stabilized. The resulting concentration reading was recorded in the geologist's field log. Soil Boring Logs with PID readings are presented as **Appendix E**. Selected soil samples in brass sleeves were capped with Teflon® and plastic end caps, then immediately placed on ice. The samples were then logged on to chains-of-custody forms, and submitted to BC Laboratories, Inc. Bakersfield, California for analysis.

Soil samples submitted for laboratory analysis were analyzed for TPH-G, benzene, toluene, ethylbenzene, and total xylenes (BTEX compounds), MTBE, and total petroleum hydrocarbons as diesel (TPH-D) with silica gel cleanup. In addition, soil samples from the deep CWA boring were analyzed for TBA by EPA Method 8260. Soil samples were collected based on lithology, depth and PID reading. Upon receipt of soil sample results for CWA samples, Delta consulted with BC laboratories regarding seemingly low concentrations of TPH-D, considering SPH was observed in several soil samples submitted for analysis. BC

laboratories confirmed that heavier range hydrocarbons appeared to be present in the sample, and that the reported concentrations of TPH-D in soil were an underestimate of actual hydrocarbon concentration. The laboratory recommended a fuel fingerprint analysis, which Delta authorized. Soil samples from CWA were re-analyzed for a fuel fingerprint analysis four days after the 14 day sample hold time.

To ensure the collection of representative groundwater samples, Gregg Drilling and Testing, observed by a Delta geologist, completed well development for well MW-13 on April 7th, 2010. In addition to developing MW-13, well MW-5 was re-developed in preparation for a groundwater pumping test. During well development, wells were surged and ten casing volumes were purged from each well.

Following well development, well MW-13 was purged of an additional three casing volumes, and groundwater samples were collected for laboratory analysis. The groundwater samples were decanted into 40-milliliter glass VOA bottles, preserved with Hydrochloric Acid (HCL), and unpreserved 1-liter amber glass bottles. The bottles were placed on ice for transportation to the laboratory. Chain-of-Custody protocol was followed, providing a continuous record of sample possession before analysis. Groundwater samples were analyzed for TPH-G, BTEX compounds, MTBE, TBA, ethyl tertiary butyl ether (ETBE), tertiary amyl methyl ether (TAME), diisopropyl ether (DIPE), and ethanol by EPA Method 8260B.

5.5 Soil Analytical Results

The following section presents analytical reports for submitted soil samples from borings CWA-1, CWB-1 and MW-13. A summary of soil analytical results is presented in **Table 1**. Crude oil from the fuel fingerprint analysis is included in **Table 1**. For a complete list of compounds included in the fuel fingerprint analysis please see laboratory analytical reports included in **Appendix H**.

5.5.1 CWA-1 Soil Sample Results

TPH-G was reported in four soil samples from CWA-1 between depths of 17.5 feet bgs to 37 feet bgs. Concentrations ranged from 0.5 mg/kg at 26-26.5 feet bgs to 350 mg/kg at a depth of 36.5-37 feet bgs. Only the sample from 36.5-37 feet bgs exceeds the Regional Water Quality Control Board (RWQCB) Environmental Screening Level (ESL) of 83 mg/kg for

leaching to groundwater. The two soil samples collected below the 36.5-37 foot sample did not contain concentrations of TPH-G above the LRL.

TPH-D was reported in two soil samples from CWA-1, at a depth of 31-31.5 feet bgs (120 mg/kg) and 36.5-37 feet bgs (1,000 mg/kg). Both detections of TPH-D in samples from CWA-1 exceed ESLs, however the two soil samples above and the two samples below the depths with TPH-D detections were not reported to contain concentrations above the LRL. The results may reflect horizontal migration within certain beds.

Benzene was reported only in the sample from 36.5-37 feet bgs at a concentration of 0.062 mg/kg. No samples above or below this depth were reported to contain benzene above the LRL. The reported concentration at 36.5-37 feet bgs is slightly above the ESL of 0.044 mg/kg.

Ethylbenzene, toluene and xylenes were reported only in the soil sample from a depth of 36.5-37 feet bgs at concentrations of 0.015 mg/kg, 0.0098 mg/kg and 0.1 mg/kg. All reported concentrations are below their respective ESLs (**Table 1**).

MTBE was reported in all soil samples collected from CWA-1, with concentrations ranging from 0.015 mg/kg at a depth of 52.5-53 feet bgs to a maximum of 1.7 mg/kg at a depth of 31-31.5 feet bgs. With the exception of the sample from 52.5-53 feet bgs, all concentrations of MTBE exceed the ESL of 0.023 mg/kg.

TBA was reported in four of the six samples above the LRL, with concentrations ranging from 0.02 mg/kg at 44-44.5 feet bgs to 2 mg/kg at 31-31.5 feet bgs. The laboratory reporting limits for TBA were 0.05 mg/kg, which is above the ESL of 0.075 mg/kg. Additionally, all reported TBA concentrations were above the ESL.

TPH-crude oil was the only fuel detected in the fuel fingerprint analysis. It was reported in two samples at depths of 31-31.5 feet and 36.5-37 feet bgs at concentrations of 370 mg/kg and 3,300 mg/kg, respectively. TPH-crude oil is assumed to fall under the category of TPH (residual fuels), for which the ESL is 250 mg/kg. Both detections of TPH-crude oil exceed this ESL.

5.5.2 CWB-1 Soil Sample Results

TPH-G was reported in five of the six soil samples collected from CWB-1, with concentrations ranging from 0.62 mg/kg at 33.5-35 feet bgs to 70 mg/kg at 38.5-40 feet bgs. All reported concentrations are below the leaching ESL of 83 mg/kg.

TPH-D was reported in four of the six samples from CWB with concentrations ranging from 30 mg/kg at a depth of 55-57 feet bgs, to 270 mg/kg at 38.5-40 feet bgs. Only the sample from 38.5-40 feet bgs exceeds the ESL of 83 mg/kg.

Benzene was reported in three samples above the LRL, and in two samples above the ESL of 0.044 mg/kg. The samples from 50-52 feet bgs and 55-57 feet bgs were reported to contain concentrations of 0.5 mg/kg and 0.25 mg/kg, respectively.

Ethylbenzene was reported below the ESL of 2.9 mg/kg at depths of 50-52 feet bgs and 55-57 feet bgs, with concentrations of 0.079 mg/kg and 0.041 mg/kg, respectively.

Toluene was reported at a depth of 50-52 feet bgs with a concentration of 0.051 mg/kg, which is below the ESL of 3.3 mg/kg.

Xylenes were reported above the ESL of 2.3 at a depth of 50-52 feet bgs with a concentrations of 5 mg/kg, and below the ESL at 55-57 feet bgs with a concentration of 2.2 mg/kg.

MTBE was reported in three samples, ranging from 0.12 mg/kg at 33.5-35 feet bgs to 0.28 mg/kg at 50-52 feet bgs. All reported MTBE concentrations are above the ESL of 0.023 mg/kg. The LRL was raised above the ESL in samples from 38.5-40 and 55-57 feet bgs to LRLs of 0.5 and 0.25 mg/kg, respectively.

5.5.3 MW-13 Soil Sample Results

MTBE was reported at a depth of 64.5 to 65 feet bgs with a concentration of 0.0063 mg/kg, which is below the ESL of 0.023 mg/kg.

No other analytes were reported in soil samples from MW-13 above the LRLs.

5.6 Groundwater Analytical Results

The following section presents results of the MW-13 groundwater sample. **Table 2** presents a summary of analytical results, and Laboratory analytical reports are presented in **Appendix G**.

The groundwater sample from well MW-13 contained MTBE at 68 ug/L. TPPH was reported at 67 ug/L but the laboratory noted that "TPPH does not exhibit a 'gasoline pattern. TPPH is entirely due to MTBE." TPH-fuel oil #6 was detected in the sample at 170 ug/L.

5.7 Quality Assurance / Quality Control (QA/QC)

Delta performed a QA/QC data validation check on the BC laboratory analytical results for the March through April 2010 soil and groundwater investigation. The following data qualifiers were noted on individual sample and laboratory control samples:

- Laboratory Data Qualifier "A01": The Practical Quantitation Limit's (PQL) and Method Detection Limits (MDL) are raised due to sample dilution. This data qualifier was noted on EPA Method 8260 and EPA Method 8015M analyses for samples CWB-1 @ 38.5-40, CWB-1 @ 47-48.5, CWB-1 @ 50-52, CWB-1 @ 55-57, CWA-1 @ 36.5-37, CWA-1 @31-31.5, CWA-1@17.5-18, and in TPH-D tetracosane surrogate samples CWB-1 @38.5-40, CWB-1 @ 47-48.5 and CWB-1 @ 50-52.

- Laboratory Data Qualifier "A17": Surrogate not reportable due to sample dilution This data qualifier was noted on the tetracosane surrogate for TPH-D analysis in CWB-1 @38.5-40, CWA-1 @36.5-37 and CWA-1 @31-31.5.

No laboratory data qualifiers were noted in the BC Labs report that considered the reported data value to be invalid.

5.8 Discussion

Delta provides the following conclusions for the soil and groundwater investigation :

- Three interlayered main units exist beneath the site. The units consist largely of clay/silts, mixed fine and coarse grained deposits, and sands/gravels with trace fine particles.

- Beds dip slightly to the northwest. Onsite, beds appear to be relatively flat, then transition to more steeply dipping in the Alameda County open space corridor.

- Petroleum hydrocarbons are dispersed throughout the vadose zone. SPH was observed in selected samples.

- Groundwater was first encountered at approximately 70 feet bgs, and a perched groundwater bearing zone was observed at approximately 35 feet bgs in CWB-1.

- Groundwater at the site has historically been directed to the northeast to northwest.

- Main contaminants of concern (COCs) are TPH-G, MTBE, and heavier hydrocarbons including crude oil and TPH-D.

- COCs were released from the site and from the former Bunker C fuel tank, moved downward through the vadose zone. COCs probably moved northwest atop sloping lithologic units beneath the site until groundwater was reached. Once the COCs reached groundwater, TPH-G and constituents originating from the site began migrating downgradient. TPH-D and crude oil have a low solubility in water, and pooled in the vicinity of MW-5 and CWB in their free phase.

- The downgradient extent of MTBE has not been defined by well MW-13.

6.0 SOIL VAPOR EXTRACTION FEASIBILITY STUDY

The following sections provide details regarding the SVE FS and field testing program.

Delta conducted a three day SVE pilot test at ConocoPhillips Site No 7376 on April 20th through April 21st, 2010. The purpose of this test, as outlined in the approved Work Plan dated December 16, 2009, was to determine the feasibility of using SVE to address the vadose zone impacts that exist onsite and offsite and to collect performance data in support of a potential remedial system design. The planned pilot test was broken into three separate phases:

- Phase 1, conducted on April 20, 2010, consisted of three separate 2(+)-hour SVE step tests performed in three onsite extraction wells (CWA-1,2,3). During this phase, observation wells OWA-1,2,3, extraction wells CWA-1,2,3 and monitoring well MW-2C were utilized as monitoring points for the onsite pilot test.
- Phase 2, conducted on April 21, 2010, consisted of three separate 2(+)-hour SVE step tests performed in three offsite extraction wells (CWB-1,2,3). During this phase, observation wells OWB-1,2,3, extraction wells CWB-1,2,3 and monitoring well MW-5 were utilized as monitoring points for offsite pilot test.
- Phase 3, conducted on April 22, 2010, consisted of a combined SVE extraction test using both onsite and offsite extraction wells and the aforementioned observation and monitoring wells.

Delta arrived onsite on April 20, 2010 and coordinated setup of a mobile SVE/Thermox system with Strongarm Environmental Field Services, Inc. (Strongarm), a firm based in Norwalk, California. The SVE equipment provided included a SVE blower capable of achieving a flow of 300 cubic feet per minute (cfm) and a vacuum up to 12 inches of Mercury (in. of Hg), and a propane powered Thermox unit capable of thermally destroying the SVE effluent air to limits set forth by the Bay Area Air Quality Management District (BAAQMD). According to Mr. Darren Zuidema with Strongarm, Strongarm verified with Mr. Glenn Long at BAAQMD that a discharge permit for the SVE Pilot Test was not necessary for a pilot test that was shorter than five consecutive 8-hour days.

The following inserted Table summarizes the construction details for the extraction, observation and monitoring wells construction details utilized during the three day pilot test.

Well Name	Well Diameter (inches)	Total Depth (ft bgs)	Well Screen (feet bgs)
CWA-1	4	55	44 to 55
CWA-2	4	40	36 to 40
CWA-3	4	35	30 to 35
CWB-1	4	65	55 to 65
CWB-2	4	57	47 to 57
CWB-3	4	40	30 to 40
OWA-1	1	50	45 to 50
OWA-2	1	40	38 to 40
OWA-3	1	34	31 to 34
OWB-1	1	65	55 to 65
OWB-2	1	53	48 to 53
OWB-3	1	40	30 to 40
MW-2C	2	45	80-82
MW-5	2	72	52 to 72

Ft bgs = feet below ground surface

It should be noted that during the pilot test well installations, an effort was made to ensure that the extraction well clusters (CWA & CWB) generally had a corresponding observation well (OWA & OWB) installed in the same lithologic interval. The extraction well and the observation well installed in the same interval shared the same well number. For example extraction well CWA-1 is screened from 45 to 55 ft. bgs and its corresponding observation well OWA-1, installed approximately 19 feet away, is screened from 45 to 50 in the same lithologic interval. These corresponding constructions were performed to improve the data collected during the individual SVE step tests.

6.1 April 20, 2010 SVE Step Test - Onsite Wells CWA-1,2,3

Three separate step tests were conducted on April 20, 2010 utilizing well cluster A. Wells CWA-1, CWA-2 and CWA-3 were utilized as the SVE wells. During each 2+-hour step test, the system vacuum was incrementally increased at approximately 40 minute intervals. System measurements that were recorded included system vacuum (measured as in. of Hg), system flow (measured in actual cubic feet per minute (acfm), Thermox exhaust stack temperature {measured in degrees Fahrenheit (°F)}, inlet vapor concentration {measured

in parts per million (ppm)}. Field measurements collected include static depth to water measurements [measured in feet below top of casing elevation (ft. BTOC)], extraction well head pressure (measured as in. of Hg), and observation well head pressure measurements (measured as inches of water).

Generally, the SVE step test at each well was initiated a system vacuum of 7 in. of Hg, and then increased to 9 in. of Hg vacuum after 40 minutes, then increased again to 11-12 in. of Hg vacuum for the final 40 minutes of each step. The system and field data collected for each step test are summarized in **Appendix I.**

6.2 April 21, 2010 SVE Step Test – Offsite / Downgradient Wells CWB-1,2,3

Three separate step tests were conducted on April 21, 2010. Wells CWB-1, CWB-2 and CWB-3 were utilized as the SVE wells. The same general system and field measurements recorded on April 20, 2010 were recorded again during this test. Generally, the SVE step test at each well was initiated a system vacuum of 7 in. of Hg, and then increased to 9 in. of Hg vacuum after 40 minutes, then increased again to 11-12 in. of Hg vacuum for the final 40 minutes of each step. The system and field data collected for each step test are summarized in **Appendix I.**

6.3 April 22, 2010 Combined SVE Step Test – Onsite & Offsite Extraction Wells

The combined extraction test was performed in two phase. The first phase, starting at 8:30 am ran until 1:05 pm. The extraction wells utilized were CWA-1, 2 & 3 and CWB-1 & 2. CWB-3 was not utilized during the combined test. During the previous days step testelevated concentrations of the received vapors at vacuums higher than 2 in. of Hg forced a shutdown of the Thermox treatment unit. The second phase, which started at 1:05 pm focused on utilizing only the onsite extraction wells, CWA-1, 2 & 3, for extraction.

Due to the setup of the extraction manifold to the SVE blower, individual extraction well flow rates and pressures could not be collected. **Appendix I** reports the total system flow rates and pressures, which in Phase 1 of the combined test includes extraction wells CWA-1, CWA-2, CWA-3 and CWB-1 and CWB-2 and in Phase 2 of the combined tests includes only CWA-1, CWA-2, CWA-3.

6.4 SVE Pilot Test Results

The purpose of the SVE Pilot test was to determine the feasibility of the technology for site cleanup by establishing optimum system operating conditions with individual steps tests, determining the radius of influence for extraction wells installed in specific soil lithologies and depths and to determine the effluent concentrations, mass removal rates and operational requirements for a future off-gas treatment system. General industry practices for SVE test analysis consider a measured vacuum at an observation well of 1% of the applied/system vacuum or greater to be a significant indicator of influence. Note that system and extraction wellhead vacuums, recorded as in. of Hg and were converted to inches of water using the following conversion: 1.0 in. of Hg equals 13.6 inches of water. Due to the dipping and extensive interbedded lithology encountered at this site, and the presence of non-aqueous phase liquids (NAPL) in several wells, Delta assumes 0.5% as a significant indicator of SVE influence. Other variables affecting the SVE feasibility determination include measured recovered air flow rates and the calculated hydrocarbon mass removal rates.

6.5 April 20, 2010 – Onsite SVE Step Test

Prior to initiating the step test, the static depth to water measurement at the site (collected from site well MW-2C) was 75.83 ft. bgs. A small amount of water was found in the bottom of the casings of the onsite extraction and observation wells, however this negligible volume is assumed to be due to condensation inside the casing and is not reflective of an actual water table.

6.5.1 Extraction at CWA-1

The first SVE step test conducted on April 20, 2010 used well CWA-1 as the extraction point. CWA-1 is the deep interval extraction well (44 to 55 ft bgs). The boring log indicates that this screen interval is installed mostly in stiff lean clay, with a small interval of gravely clay with sand at the bottom. The follow results are noted

- The induced well head vacuum at CWA-1 was raised incrementally between -6.5 and -12 in. of Hg at flow rates varying between 15.4 and 21.7 standard cubic feet per minute (scfm).
- The 0.5% measured vacuum that would be considered significant over the same extraction vacuum is 4.4 to 8.1 inches of water vacuum.

- The average concentration of influent vapor stream was 199 ppm. This data was collected using a field calibrated photo ionization detector (PID).
- During this step test, an estimated 0.089 pounds (lbs) of hydrocarbons were recovered from this well. This corresponds to an initial extraction rate of 0.94 lbs/day from this well. This calculation is based on the influent PID readings collected, the calculated SCM flow rate and the length of this step test.
- The corresponding deep screened onsite observation well, OWA-1, did not show significant influence (> 0.5% induced vacuum) from the SVE system. The highest well head vacuum recorded in OWA-1 during the step test was 0.30 inches of water vacuum.
- No significant influence (> 0.5% induced vacuum) was noted on the shallow screened extraction and observation wells (CWA-3 and OWA-3) or the intermediate screened extraction and observation wells (CWA-2 & OWA-2). No influence between the interbedded layers is expected for SVE wells screened similarly to CWA-1. Generally, most recorded well head vacuums in these points were less than 0.10 inches of water to not measured.
- No significant influence (> 0.5% induced vacuum) was noted on monitoring well MW-2C. This well, located 36.5 feet away from extraction well CWA-1, is screened from 80 to 82 feet. The highest well head vacuum recorded in MW-2C during the step test was 0.35 inches of water vacuum.

6.5.2 Extraction at CWA-2

The second SVE step test conducted on April 20, 2010 used well CWA-2 as the extraction point. CWA-2 is the intermediate interval extraction well (35.5 to 40 ft bgs). The adjacent boring log for well CWA-1 indicates that CWA-2's screen interval is likely installed in clayey gravel and sandy gravel with clay units. The follow results are noted

- The induced well head vacuum at CWA-2 was raised incrementally between -7.15 and -11.02 in. of Hg at flow rates varying between 14.2 and 22.3 scfm.
- The 0.5% measured vacuum that would be considered significant over the same extraction vacuum is 4.8 to 7.4 inches of water vacuum.
- The average concentration of influent vapor stream was 2,688 ppm.

- During this step test, an estimated 1.518 lbs of hydrocarbons were recovered from this well. This corresponds to an initial extraction rate of 14.9 lbs/day from this well. This calculation is based on the influent PID readings collected, the calculated SCM flow rate and the length of this step test.
- The corresponding deep screened onsite observation well, OWA-2, did not show significant influence (> 0.5% induced vacuum) from the SVE system. The highest well head vacuum recorded in OWA-1 during the step test was 0.70 in. of water vacuum.
- No significant influence (> 0.5% induced vacuum) was noted on the shallow screened extraction well (CWA-3) or the deep screened extraction well (CWA-1). However, well heads pressures as high as 2.0 and 1.7 inches of water vacuum were noted in CWA-1 and CWA-3, respectively during the step test. These wells are located approximately 7 feet away from extraction well CWA-2.
- No significant influence (> 0.5% induced vacuum) was noted on the shallow screened observation well (OWA-3) or the deep screened observation well (OWA-1). These wells are located approximately 24.3 feet away from extraction well CWA-2. Well head vacuums at OWA-1 were generally not recorded, while reported well head vacuums in OWA-3 ranged from 0.01 to 0.60 inches of water.
- No significant influence (> 0.5% induced vacuum) between the interbedded layers is expected for SVE wells screened similarly to CWA-2. There may however be value in closely spaced intermediate zoned SVE wells to address vadose zone impacts in that interval.
- No measured well head vacuums were recorded in MW-2C during the step test in CWA-2. This well is located 38.4 feet away from extraction well CWA-2, is screened from 80 to 82 feet.

6.5.3 Extraction at CWA-3

The third SVE step test conducted on April 20, 2010 used well CWA-3 as the extraction point. CWA-3 is the shallow interval extraction well (30 to 35 ft bgs). The boring log for the adjacent extraction well CWA-1 indicates that CWA-3's screen interval is likely installed mostly in silty lithology. The follow results are noted

- The induced well head vacuum at CWA-3 was raised incrementally between -6.98 and -11.18 in. of Hg at flow rates varying between 24.7 and 33.8 scfm.

- The 0.5% measured vacuum that would be considered significant over the same extraction vacuum is 4.4 to 7.5 inches of water vacuum.
- The average concentration of influent vapor stream was 2,873 ppm.
- During this step test, an estimated 2.608 lbs of hydrocarbons were recovered from this well. This corresponds to an initial extraction rate of 26.16 lbs/day from this well. This calculation is based on the influent PID readings collected, the calculated SCM flow rate and the length of this step test.
- The corresponding shallow screened onsite observation well, OWA-3, did not show significant influence (> 0.5% induced vacuum) from the SVE system. The well head vacuum recorded in OWA-3 during the step test ranged from 1.45 to 2.6 inches of water vacuum.
- Slightly positive (0.20 to 0.30 positive inches of water) well head pressure readings were recorded from the deep screened extraction well CWA-1 during this phase of the step test. This positive reading was re-verified after meter and gauge recalibrations in the field. The positive pressure readings cannot be readily explained, but may be due to the movement and or displacement of water during the SVE step test. Further evaluation may be needed to confirm this hypothesis.
- No measured well head vacuums were recorded in deep observation well OWA-1 or MW-2C during the step test in CWA-3.
- OWA-2 and CWA-2 both showed influences (some > 0.5% induced vacuum from the SVE extraction. It is likely that the intermediate clayey/sandy gravel unit that these wells are installed in is also contiguous with a portion of the lithology that intersects screen interval in CWA-3. A graph presented the radius of influence (ROI) determination for this well (at the various well head vacuums) is presented as **Appendix I.** Using 0.5 % as significant, the estimated ROI for SVE wells installed in this unit is approximately 8 feet.

6.6 April 21, 2010 – Offsite SVE Step Test

Prior to initiating the step test, the static depth to water measurement at the site (collected from offsite well MW-5) was 67.78 ft. bgs. A small amount of water was found in the bottom of the casings of the onsite extraction and observation wells, however this negligible volume is assumed to be due to condensation inside the casing and is not reflective of an actual water table.

6.6.1 Extraction at CWB-1

The first SVE step test conducted on April 21, 2010 used well CWB-1 as the extraction point. CWB-1 is the deep interval extraction well (55 to 65 ft bgs). The boring log indicates that this screen interval is installed mostly in silty-gravel going towards gravelly sand. The follow results are noted

- The induced well head vacuum at CWB-1 was raised incrementally between -7.07 and -12.07 in. of Hg at flow rates varying between 69.6 and 84.5 scfm.
- The 0.5% measured vacuum that would be considered significant over the same extraction vacuum is 4.8 to 8.2 inches of water vacuum.
- The average concentration of influent vapor stream was 3,986 ppm.
- During this step test, an estimated 9.590 lbs of hydrocarbons were recovered from this well. This corresponds to an initial extraction rate of 102.29 lbs/day from this well. This calculation is based on the influent PID readings collected, the calculated SCM flow rate and the length of this step test.
- The corresponding deep screened onsite observation well, OWA-1, did show significant influence (> 0.5% induced vacuum and >1.0% induced vacuum) from the SVE system. A graph presented the radius ROI determination for this well (at the various well head vacuums) is presented as **Appendix I.** Using 0.5 % as significant, the estimated ROI for SVE wells installed in this unit is approximately 16.9 feet. Using 1.0 % as significant, the estimated ROI for SVE wells installed in this unit is approximately 21.7 feet.
- No significant influence (> 0.5% induced vacuum) was noted on the shallow screened extraction and observation wells (CWB-3 and OWB-3) or the intermediate screened extraction and observation wells (CWB-2 & OWB-2). No influence between the interbedded layers is expected for SVE wells screened similarly to CWB-1. Generally, most recorded well head vacuums in these points were less than 0.10 inches of water to not measured.
- A significant influence (> 0.5% induced vacuum and >1.0 % induced vacuum) was noted in monitoring well MW-5. This well, located 12.8 feet away from extraction well CWB-1, is screened from 52 to 72 ft bgs in the same expected lithologic unit as CWB-1.

6.6.2 Extraction at CWB-2

The second SVE step test conducted on April 21, 2010 used well CWB-2 as the extraction point. CWA-2 is the intermediate interval extraction well (47 to 57 ft bgs). The adjacent boring log for CWB-1 indicates that CWB-2's screen interval is likely installed in lean clay. The follow results are noted

- The induced well head vacuum at CWB-2 was raised incrementally between -7.19 and -12.03 in. of Hg at flow rates varying between 48.9 and 71.2 scfm.
- The 0.5% measured vacuum that would be considered significant over the same extraction vacuum is 4.8 to 8.2 inches of water vacuum.
- The average concentration of influent vapor stream was 3,283 ppm.
- During this step test, an estimated 6.291 lbs of hydrocarbons were recovered from this well. This corresponds to an initial extraction rate of 63.14 lbs/day from this well. This calculation is based on the influent PID readings collected, the calculated SCM flow rate and the length of this step test.
- Slightly positive (0.0 to 0.20 positive inches of water) well head pressure readings were recorded from all (CWB-1, CWB-3, OWB-1, OWB-2, OWB-3 and MW-5) other observation, extraction and monitoring wells during this step test. These positive readings were re-verified after meter and gauge recalibrations in the field. The positive pressure readings cannot be readily explained, but may be due to the movement and or displacement of water during the SVE step test. Further evaluation may be needed to confirm this hypothesis. As a result, no ROI could be determined for this well or wells installed in this same unit.
- Despite the slightly positive well head pressures observed in the other wells, air was extracted at an appreciable flow rate during this step test. It is possible that lithology varies slightly between CWB-1 and this well and that a separate, more permeable interbedded layer intersects CWB-2's well screen. Another hypothesis for the measured flow is that because the CWB-2's well screen is thought to be screened across a lower permeable lean clay unit, the recovered vapors may be coming from bottom of the well screen from the more permeable silty gravel unit that starts at 57 ft. bgs.

6.6.3 Extraction at CWB-3

The third SVE step test conducted on April 21, 2010 used well CWB-3 as the extraction point. CWB-3 is the shallow interval extraction well (30 to 40 ft bgs). The adjacent boring log for well CWB-1 indicates that CWA-3's screen interval is likely installed mostly in silty sand to poorly graded sand to silty gravel lithology. The follow results are noted

- The induced well head vacuum at CWB-3 could not be step tested. Due to the concentrations of the recovered vapors, the Thermox unit started to reach the high operating end of its temperature curve. Several times the system was shutdown due to an over-temperature alarm condition. The test in CWB-1was operated as pressures between -1.87 and -2.00 in. of Hg at extraction well head flow rates varying between 64 and 67 scfm.
- The 0.5% measured vacuum that would be considered significant over the same extraction vacuum is approximately 1.4 inches of water vacuum.
- The average concentration of influent vapor stream was 2,873 ppm.
- During this step test, an estimated 2.332 lbs of hydrocarbons were recovered from this well. This corresponds to an initial extraction rate of 49.0704 lbs/day from this well. This calculation is based on the influent PID readings collected, the calculated SCM flow rate and the length of this step test.
- Almost every well head pressure readings recorded from all (CWB-1, CWB-3, OWB-1, OWB-2, OWB-3 and MW-5) other observation, extraction and monitoring wells were significant (> 0.5% induced vacuum and some >1.0% induced vacuum) during this step test. This influence was not expected or from the deep screened extraction and monitoring wells.
- The corresponding shallow screened onsite observation well OWB-3, and intermediate screened extraction well CWB-2 did show significant influence (> 0.5% induced vacuum and >1.0% induced vacuum) from the SVE system. A graph presented the radius ROI determination for this well (at the various well head vacuums) is presented as **Appendix I**. Using 0.5 % as significant, the estimated ROI for SVE wells installed in this unit is approximately 53.4 feet. Using 1.0 % as significant, the estimated ROI for SVE wells installed in this unit is approximately 21.1 feet.

6.7 April 22, 2010 – Combined Onsite and Offsite SVE Test

As note above, the combined extraction test was performed in two phase. The first phase, starting at 8:30 am ran until 1:05 pm. The extraction wells utilized were CWA-1, 2 & 3 and CWB-1 & 2. CWB-3 was not utilized during the combined tests as balancing the induced vacuum against the recovered vapors concentrations during the previous days test proved to be problematic. The second phase, which started at 1:05 pm focused on utilizing only the onsite extraction wells, CWA-1, 2 & 3, for extraction.

Prior to initiating the combined extraction test using both onsite and offsite wells, static depth to water measurement were collected from offsite well MW-5 (67.87 ft. bgs) and onsite well MW-2C (75.39 ft. bgs). These measurements were repeated at the end of the test, and found that that the DTW in these wells had changed by less than 0.10 feet.

6.7.1 Phase 1: Extraction at CWA-1, CWA-2, CWA-3 and CWB-1 and CWB-2

The follow results are noted

- The induced system vacuum at was set at approximately -7.0 in. of Hg at flow rates averaging 51 scfm.
- The average concentration of influent vapor stream was 4,431 ppm.
- During the total combined extraction test (Phase 1 and Phase 2), an estimated 21.02 lbs of hydrocarbons were recovered from this well. This corresponds to an initial extraction rate of 65.07 lbs/day from this well. This calculation is based on the influent PID readings collected, the calculated SCM flow rate and the length of this step test.
- Two air samples were collected during this phase, at 9:30pm and 12:30 pm. These samples were submitted under Chain-of-Custody (COC) procedures to TestAmerica, a state of California certified laboratory (NELAC Certification No. E87652). The air samples were analyzed for GRO, BTEX and MTBE. Copies of the laboratory analytical reports can be found in **Appendix I**. The analytical results and calculated recovery mass are summarized in **Appendix I**.
- Based on the analytical air data, an estimated 147.504 pounds of hydrocarbons were recovered during this phase. It should be noted that this is an order of magnitude

higher estimate than the measurements based purely on PID monitoring of the influent air stream.

- Slightly positive (0.01 to 0.50 positive inches of water) well head pressure readings were recorded from well MW-2C and observation well OWA-1. These positive readings were re-verified after meter and gauge recalibrations in the field.
- Significant influence (> 0.5% induced vacuum and >1.0% induced vacuum) from the SVE system was detected at OWB-1 and MW-5. Influence was detected in other observation wells, but not at >0.5% induced vacuum. This may indicate the preferential extraction of vapors from the more permeable units some of the offsite extraction wells are screened in.

6.7.2 Phase 2: Extraction at CWA-1, CWA-2, CWA-3

The follow results are noted

- The induced system vacuum at was set at approximately -11.0 in. of Hg at flow rates averaging 54 scfm.
- The average concentration of influent vapor stream was 3,004 ppm.
- During the total combined extraction test (Phase 1 and Phase 2), an estimated 21.02 lbs of hydrocarbons were recovered from this well. This corresponds to an initial extraction rate of 65.07 lbs/day from this well. This calculation is based on the influent PID readings collected, the calculated SCM flow rate and the length of this step test.
- One air samples were collected during this phase, at 3:30 pm. This sample was submitted to TestAmerica, for analysis. The air sample was analyzed for GRO, BTEX and MTBE. Copies of the laboratory analytical reports can be found in **Appendix I.** The analytical results and calculated recovery mass are summarized in **Appendix I**.
- Based on the analytical air data, an estimated 227.062 pounds of hydrocarbons were recovered during this phase. It should be noted that this is an order of magnitude higher estimate than the measurements based purely on PID monitoring of the influent air stream.
- Despite halting SVE in the offsite extraction wells, vacuum influence from the SVE system was still measured from the onsite extraction well, although the influence was > 0.5% of the induced vacuum.

- The positive pressures measured in MW-2C changed to negative vacuum levels once the offsite extraction was halted.
- No significant influence (>0.5% induced vacuum) was measured in any onsite observation or monitoring wells during Phase 2.

6.8 SVE Pilot Test Conclusions

Based on the three day SVE Step Test, the following general conclusions can be inferred:

- Onsite extraction pressures ranging from -6.5 to -11.0 in. of Hg induced flow rates ranging from 14 to 34 scfm; and offsite extraction well pressures ranging from -2.0 to -12.0 in. of Hg induced flow rates ranging from 49 to 82 scfm. Generally the higher flow rates were measured when extraction occurred in the sandy/gravely units, decreasing when extracted from silty units, and showing little to no influence measured in lean clay units.
- Despite the extraction flow rates and variable ROI, SVE was effective at removing almost 372 pounds of petroleum hydrocarbons during the 6.5 hour combined SVE test on April 22, 2010.
- The calculated ROI for wells installed varied depending on the lithologic unit the extraction screen interval was exposed across. Using 0.5% induced vacuum as a significant indicator of SVE influence, the ROIs varied between 8.0 and 53.4 feet, averaging 20.9 ft. Using 1.0% induced vacuum as a significant indicator of SVE influence, the ROIs varied between 15.5 and 21.0 feet, averaging 18.3 feet.

Generally, SVE is a feasible remedial technology for the removal of vadose soil impacts at the site. SVE is not an effective strategy in the lean clay to silty-clay interbedded layers at the site, but is feasible in the more permeable sandy to silty units. Future remedial evaluations should include a cost effectiveness evaluation of this technology due to the diminished ROI and number of expected wells to cover the plume area. Careful well installations practices, including the collection of continuous cores in the expected screen interval zone, should be conducted to ensure optimal placement of and future SVE wells.

7.0 GROUNDWATER EXTRACTION FEASIBILITY STUDY

The following sections provide details regarding the GWE FS and field testing program.

7.1 Step Drawdown Test

On April 26, 2010, Delta attempted to perform a step drawdown test utilizing well MW-5. Well MW-5 is located in the Alameda County corridor (**Figure 2**). The well has historically contained SPH and the highest concentration of dissolved petroleum hydrocarbons. SPH was encountered in soil in the boring for the adjacent SVE well cluster CWA.

7.1.2 Well MW-5

Well MW-5 is 72 feet deep constructed of 2-inch diameter PVC casing and well screen. The well screen extends from 52 feet bgs to 72 feet bgs with 0.010-inch slots.

The boring for well drilled on July 23, 1996, encountered three soil zones 1) interlayered silt (ML), silty gravel (GM), well graded gravel (GW), well graded sand (SW), and silty sand to a depth of approximately 32.5 feet bgs, 2) silt (ML) from 32.5 feet bgs to 57.5 feet bgs, 3) interlayered silty sand (SM), well graded sand (SW), clay (CL), and clayey sand (SC) was encountered from 57.5 feet bgs to the bottom of the boring at 73.5 feet bgs.

7.1.3 Step Drawdown Test

On April 26, 2010, the depth to groundwater in well MW-5 was 66.74 feet BTOC with a total well depth of 72.80 feet. Available drawdown was 6.06 feet. A submersible pump was lowered to the bottom of the well reducing available drawdown to approximately 5 feet. The pump was initially set at 1.25 gallons per minute (gpm), however, the well dewatered within 6 minutes. The well was allowed to recover and was pumped at a minimal rate of 0.25 gpm. The pump shut off after approximately 16 minutes. The depth to water in the well was measured at 70.0 feet BTOC.

The pump was withdrawn from the well. The pump and bottom 4 feet of hose was covered with an oily substance. The SVE test performed on adjacent well cluster B, may have temporarily increased the SPH level in well MW-5. The pump was cleaned and replaced into the well. The pump ran for several minutes and then shutdown. The pump was unable to operate in what appeared to be a SPH environment. The sustainable pumping rate for the

well is estimated to be less than 0.25 gpm. A special pump capable of operating in a SPH will be required.

Delta decided that a longer term constant rate pumping test was not feasible.

7.1.4 Water in Well CWB-3

During the MW-5 field test, groundwater was detected in cluster B, well 3 (shallowest) at a depth of 39 feet bgs. Delta collected a grab sample by disposal bailer and decanted it into 40 ml acid preserved VOA bottles. The sample bottles were placed on ice and shipped to PACE laboratory for analysis. The laboratory reported the water sample to contain 7,200 ug/L TPPH (GRO), 910 ug/L TPH-D, 1,700 ug/L benzene, and 1,300 ug/L MTBE. The laboratory report contained a note that the TPH-D "chromatograph not typical of diesel."

7.1.5 Additional Water Levels

Delta returned to the site on May 4, approximately one week after the attempted step drawdown test. Depth to groundwater was measured in wells CWB-1 through CWB_3 and well MW-5. Wells CWB-1 and CWB-3 had less than 6-inches of water in the casing. Well CWB-2 (screened from 47 to 57 feet bgs) had approximately 1.6 feet of water in the casing and approximately 0.01 feet of SPH. The depth to water in well MW-5 was 67.25 feet BTOC. No SPH was detected at the air/water interface.

7.2 Conclusions

GWE does not appear to be a feasible remediation method due to the generally low permeability of much of soil beneath the site and the viscosity of the "heavy" relatively insoluble oil encountered in well MW-5 and other borings.

8.0 SUMMARY AND RECOMMENDATIONS

The site is underlain by gently dipping layers of sediment ranging from clay and silt to sand and gravel. Most soils are a mixture of clay/silt and sand. Depth to groundwater in the site area is approximately 70 feet bgs. Petroleum hydrocarbons, both as gasoline and crude oil, have migrated down through the vadose zone to the north and northeast. Petroleum hydrocarbons were detected throughout the vadose zone including the presence of SPH in selected vadose zone samples. The low solubility of the crude oil resulted in its concentration in the area of well MW-5 where groundwater was encountered by the

downward migrating oil. The more soluble gasoline components dissolved into the groundwater and began migrating to the northeast. The downgradient extent of MTBE, the most soluble gasoline component was not defined by the recently installed well MW-13.

SVE is a feasible remedial technology for the removal of vadose soil impacts at the site. SVE is not an effective strategy in the lean clay to silty-clay interbedded layers at the site, but is feasible in the more permeable sandy to silty units. SVE was effective at removing almost 372 pounds of petroleum hydrocarbons during the 6.5 hour combined SVE test on April 22, 2010.

Groundwater extraction does not appear to be a viable remedial solution to removal of petroleum hydrocarbons from groundwater. The low permeable of soils reduces extraction rates to less than 0.25 gpm. The area of influence is limited. The ability to withdraw "crude oil" is also limited by conventional groundwater pumping methods.

Delta recommends the preparation of Corrective Action Plan (CAP)to using the data from this feasibility study The CAP will present details of a SVE system capable of removing mass from the vadose zone and presenting alternatives for remediation of impacted groundwater.

9.0 REMARKS

The descriptions, conclusions, and 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. For any reports cited that were not generated by Delta, the data from those reports is used "as is" and is assumed to be accurate. Delta does not guarantee the accuracy of this data for the referenced work performed nor the inferences or conclusions stated in these reports. 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 were conducted. 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 express or implied warranty as to the contents of this report.

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TABLES

Table 1: Soil Analytical Data
76 Service Station No. 7376
4191 First Street
Pleasanton, California

Sample Location	Sample Name	Sample Depth (feet)	Sample Date	TPPH mg/kg EPA 8260B		TPH-d mg/kg EPA 8015 Mod.		Benzene mg/kg EPA 8260B		Ethyl-benzene mg/kg EPA 8260B		Toluene mg/kg EPA 8260B		Xylenes mg/kg EPA 8260B		MTBE mg/kg EPA 8260B		TBA mg/kg		TPH-Crude Oil mg/kg	
CWB-1	CWB-1@23.5-25	23.5-25	03/29/10	ND< 0.2		<2.0		ND< 0.005		ND< 0.005		ND< 0.005		ND< 0.01		ND< 0.005		NA		NA	
CWB-1	CWB-1@33.5-35	33.5-35	03/29/10	**0.62**		<2.0		**0.024**		ND< 0.005		ND< 0.005		ND< 0.01		**0.12**		NA		NA	
CWB-1	CWB-1@38.5-40	38.5-40	03/29/10	**70**	A01	**270**	A01	ND< 0.5	A01	ND< 0.5	A01	ND< 0.5	A01	ND< 1	A01	ND< 0.5	A01	NA		NA	
CWB-1	CWB-1@47-48.5	47-48.5	03/29/10	**33**	A01	**49**	A01	ND< 0.05	A01	ND< 0.05	A01	ND< 0.05	A01	ND< 0.1	A01	**0.18**	A01	NA		NA	
CWB-1	CWB-1@50-52	50-52	03/29/10	**43**	A01	**58**	A01	**0.5**	A01	**0.079**		**0.051**		**5**	A01	**0.28**		NA		NA	
CWB-1	CWB-1@55-57	55-57	03/29/10	**42**	A01	**30**		**0.25**	A01	**0.41**	A01	ND< 0.25	A01	**2.2**	A01	ND< 0.25	A01	NA		NA	
MW-13	MW-13@54-54.5	54-54.5	04/01/10	ND< 0.2		<2.0		ND< 0.005		ND< 0.005		ND< 0.005		ND< 0.01		ND< 0.005		NA		NA	
MW-13	MW-13@59-59.5	59-59.5	04/01/10	ND< 0.2		<2.0		ND< 0.005		ND< 0.005		ND< 0.005		ND< 0.01		ND< 0.005		NA		NA	
MW-13	MW-13@64.5-65	64.5-65	04/01/10	ND< 0.2		<2.0		ND< 0.005		ND< 0.005		ND< 0.005		ND< 0.01		**0.0063**		NA		NA	
MW-13	MW-13@69-69.5	69-69.5	04/01/10	ND< 0.2		<2.0		ND< 0.005		ND< 0.005		ND< 0.005		ND< 0.01		ND< 0.005		NA		NA	
CWA-1	CWA-1@17.5-18	17.5-18	04/05/10	**1.2**	A01	<2.0		ND< 0.01	A01	ND< 0.01	A01	ND< 0.01	A01	ND< 0.02	A01	**0.67**	A01	**1.5**	A01	ND< 10	
CWA-1	CWA-1@26-26.5	26-26.5	04/05/10	**0.5**		<2.0		ND< 0.005		ND< 0.005		ND< 0.005		ND< 0.01		**0.21**		**1**		ND< 10	
CWA-1	CWA-1@31-31.5	31-31.5	04/05/10	**20**	A01	**120**	A01	ND< 0.025	A01	ND< 0.025	A01	ND< 0.025	A01	ND< 0.05	A01	**1.7**	A01	**2**	A01	**370**	A01
CWA-1	CWA-1@36.5-37	36.5-37	04/05/10	**350**	A01	**1000**	A01	**0.062**		**0.015**		**0.0098**		**0.1**		**0.086**		ND< 0.05		**3,300**	A01
CWA-1	CWA-1@44-44.5	44-44.5	04/05/10	ND< 0.2		<2.0		ND< 0.005		ND< 0.005		ND< 0.005		ND< 0.01		**0.09**		**0.2**		ND< 10	
CWA-1	CWA-1@52.5-53	52.5-53	04/05/10	ND< 0.2		<2.0		ND< 0.005		ND< 0.005		ND< 0.005		ND< 0.01		**0.015**		ND< 0.05		ND< 10	
ESL	--	--	--	83		83		0.044		2.9		3.3		2.3		0.023		0.075		250	

Notes:
mg/kg - milligrams per kilogram
ND - Not detected above laboratory detection limits
NA - Not analyzed
TPPH - Total Purgeable Petroleum Hydrocarbons
TPH-d - Total Petroleum Hydrocarbons as diesel
MTBE - Methyl tert-butyl ether
TBA - Tert-butyl alcohol
ESL - Environmental Screening Level - Established by the RWQCB for deep soil.

Data Qualifiers and Definitions:
A01 - PQL's and MDL's are raised due to sample dilution.

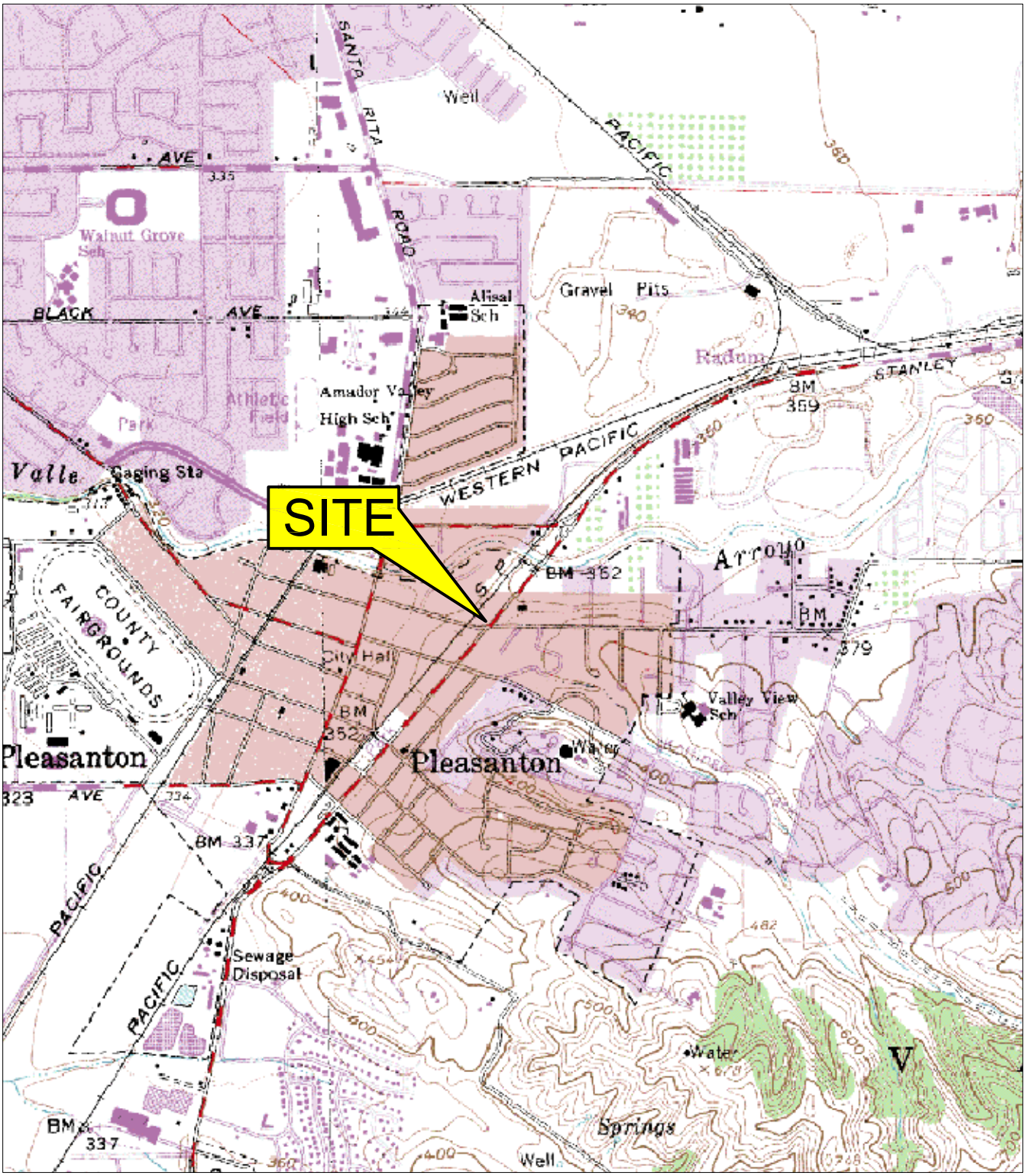
Table 2: Water Analytical Data
76 Service Station No. 7376
4191 First Street
Pleasanton, California

Sample Location	Sample Date	TPPH ug/L EPA 8260B	TPH-d ug/L EPA 8015 Mod.	Benzene ug/L EPA 8260B	Ethyl-benzene ug/L EPA 8260B	Toluene ug/L EPA 8260B	Xylenes ug/L EPA 8260B	MTBE ug/L EPA 8260B
MW-13	04/26/10	**67** A90	ND < 50	ND< 0.005	ND< 0.005	ND< 0.005	ND< 0.01	68
CWB-3	04/26/10	**7200** A01	**910** A52	**1700** A01	**25**	**11**	**30**	**1300** A01

Notes:
TPH-fuel oil #6 was detected in the sample from MW-13 at 170 ug/L.
ug/L = micrograms per liter
ND - Not detected above laboratory detection limits
NA - Not analyzed
TPPH - Total Purgeable Petroleum Hydrocarbons
TPH-d - Total Petroleum Hydrocarbons as diesel
MTBE - Methyl tert-butyl ether

Data Qualifiers and Definitions:
A01 - PQL's and MDL's are raised due to sample dilution.
A52 = chromatogram not typical of diesel
A90 = TPPH does not exhibit a "gasoline" pattern. TPPH is entirely due to MTBE

FIGURES



SOURCE: USGS 7.5 MINUTE TOPOGRAPHIC MAP, LIVERMORE QUADRANGLE (1978)

FIGURE 1

SITE LOCATION MAP

76 STATION NO. 7376
4191 FIRST STREET
PLEASANTON, CALIFORNIA

PROJECT NO. C107376	DRAWN BY JH 03/28/08
FILE NO. 7376-SiteLocator	PREPARED BY LS
REVISION NO.	REVIEWED BY DD

DELTA

LEGEND

Approximate property line

Fence

Approximate location of underground petroleum pipeline (KinderMorgan)

Approximate location of fiber optic utility line

Former railroad right-of-way

MW-12 Groundwater monitoring well

OWB-1/2/3 Observation Well (Delta, 2010)

CWA-1 Soil Vapor Extration Well (Delta, 2010)

MW-2 Abandoned well

SB-1 Soil boring (Delta, June 2009)

CP-1 CPT boring (Delta, February 2008)

SB-1 Soil Boring (BSU, 2007)

B-8 Soil Boring (Gettler-Ryan, 1998-1999)

B-1 Soil Boring (ENGEO, 1997)

EB-1 Soil Boring (KEI, 1995)

PLANTER
RESIDENTIAL
CRAIG COURT
MW-12
B-6
COLBY COURT
B-5
MW-11
CALI COURT
MW-9
MW-13
TESSA PLACE
CP-7
CP-6
MW-8
B-4
MW-7
BENJAMIN COURT
OWB-1/2/3
MW-5
CWB-2
CWB-3
CWB-1
CP-5
B-3
SB-5
BUILDING
WALKWAY
STORAGE BUILDING
MW-10
DRIVEWAY
BUNKER FUEL OIL UST
SB-4
B-13
MW-2B
B-12
OWA-1/2/3
CWA-1
CWA-2
MW-2C
B-11
CWA-3
SB-1
MW-2
CP-1
JAY COURT
B-2
MW-6
CP-4
SB-3
B-10
MW-3
MW-3B
UST
DISPENSER ISLANDS
MW-1
MW-1B
B-9
FIRST STREET
B-1
SB-2
KIOSK
MW-4
EB-1
CP-3
CP-2
CP-2 (SHELL)
SB-1
REDWOOD RETAINING WALL
B-8
RAY STREET
VINEYARD AVENUE
N
APPROXIMATE SCALE (FEET)
0 60 120
COMMERCIAL BUILDINGS
SHELL SERVICE STATION

SOURCE: Site plan adapted from a survey by MidCoast Engineers, April 16, 2010 and Site Plans by TRC, 2008 and Gettler-Ryan, August 2000.

FIGURE 2
SITE PLAN WITH HISTORIC BORING LOCATIONS

76 SERVICE STATION #7376
4191 FIRST STREET
PLEASANTON, CALIFORNIA

PROJECT NO.	PREPARED BY	DRAWN BY
C107376	NP	JH
DATE	REVIEWED BY	FILE NAME
4/28/10	LD	76-7376

DELTA®

NORTH A

SOUTH A'

CROSS B

(PROJ. 20'NE) CPT-5

KINDER MORGAN PIPELINE

(PROJ. 17'NE) MW-2B

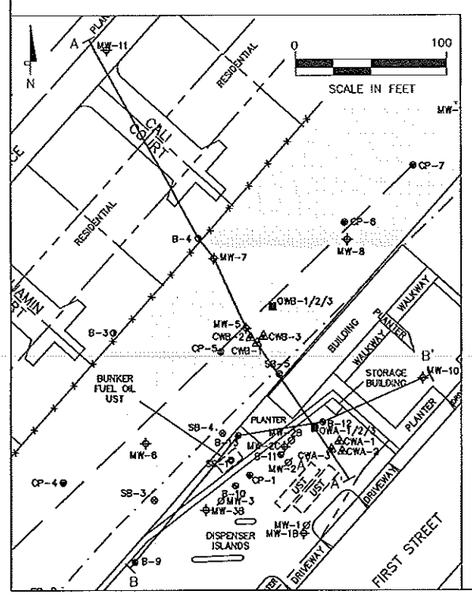
(PROJ. 8'SW) CWA-1

MW-11 — 135' — B-4 — MW-7 — MW-5 — CWB-1 — SB-5

ELEVATION (FEET MSL)

FEET BELOW GROUND SURFACE

NO LOG TO 40'



LEGEND

MW-5 MONITORING WELL/BORING NAME

WELL CASING/EXPLORATORY BORING

(49) SOIL SAMPLE LOCATION WITH TPH-G CONCENTRATION (mg/kg)
ND - NOT DETECTED ABOVE LABORATORY REPORTING LIMIT

FIRST ENCOUNTERED GROUNDWATER

WELL SCREEN

CWA-1 AND CWB-1 IN INDIVIDUAL BORINGS (1, 2, 3)

CLAY (CL) AND SILT (ML)

CLAY, SILT, SAND, GRAVEL MIXTURES (SC, SM, GM, GC, GM, MC)

SAND (SW) AND GRAVEL (GW)

APPROXIMATE STRATIGRAPHIC BOUNDARY
-DASHED WHERE UNCERTAIN, QUIERIED WHERE PROJECTED

PROFESSIONAL GEOLOGIST
R. LEE DOOLEY
NO. 0183
CERTIFIED HYDROGEOLOGIST
STATE OF CALIFORNIA

0 20
SCALE IN FEET

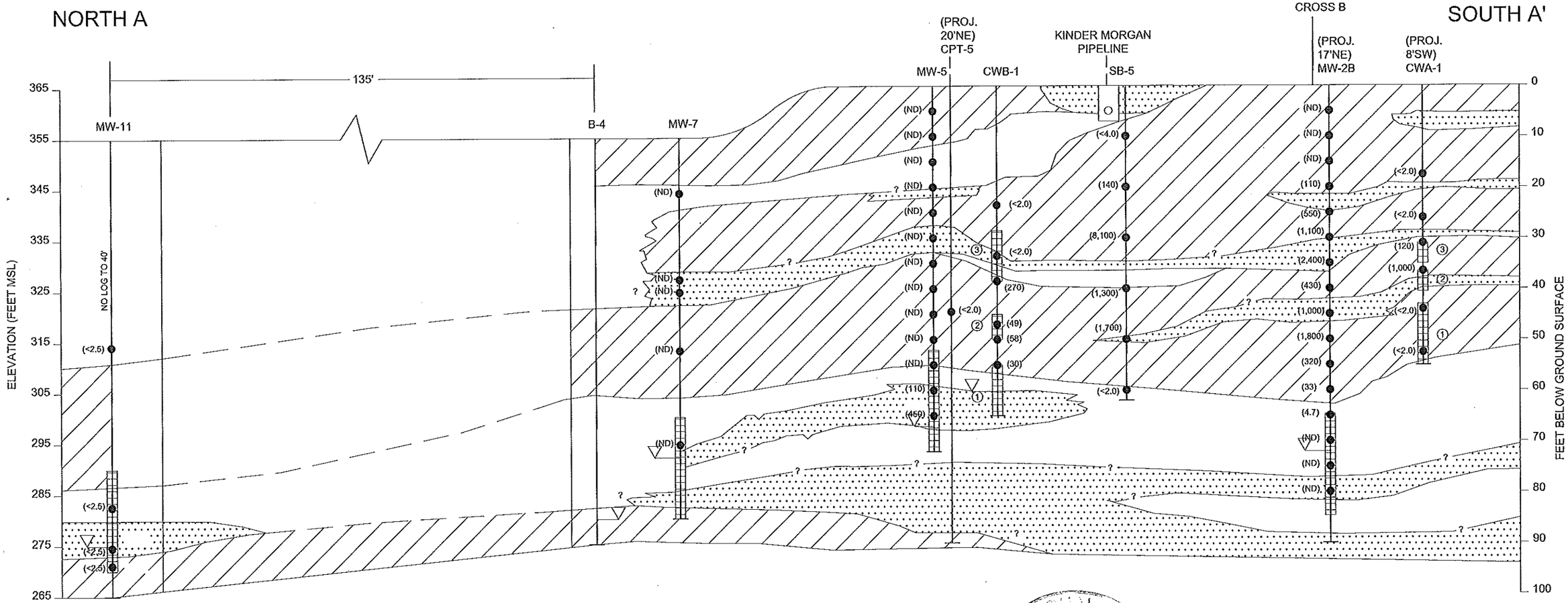
FIGURE 3
CROSS SECTION A–A'
TOTAL PURGEABLE PETROLEUM HYDROCARBONS (TPH-G)
76 SERVICE STATION #7376
4191 FIRST STREET
PLEASANTON, CALIFORNIA

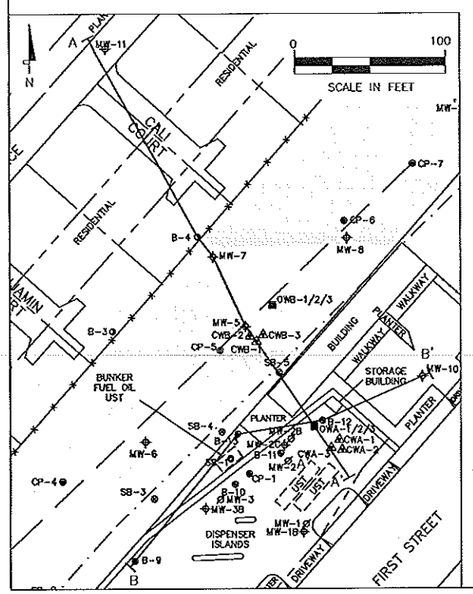
PROJECT NO.	PREPARED BY	DRAWN BY
C107376	LD	JH
DATE	REVIEWED BY	FILE NAME
4/28/10	LD	76-7376

DELTA®

NORTH A

SOUTH A'





LEGEND

MW-5 MONITORING WELL/BORING NAME

WELL CASING/EXPLORATORY BORING

(49) SOIL SAMPLE LOCATION WITH TPH-D CONCENTRATION (mg/kg)
ND - NOT DETECTED ABOVE LABORATORY REPORTING LIMIT

FIRST ENCOUNTERED GROUNDWATER

WELL SCREEN

CWA-1 AND CWB-1 IN INDIVIDUAL BORINGS (1, 2, 3)

CLAY (CL) AND SILT (ML)

CLAY, SILT, SAND, GRAVEL MIXTURES (SC, SM, GM, GC, GM, MC)

SAND (SW) AND GRAVEL (GW)

APPROXIMATE STRATIGRAPHIC BOUNDARY
-DASHED WHERE UNCERTAIN, QUIERIED WHERE PROJECTED

PROFESSIONAL GEOLOGIST
R. LEE DOOLEY
NO. 6193
CERTIFIED HYDROGEOLOGIST
STATE OF CALIFORNIA

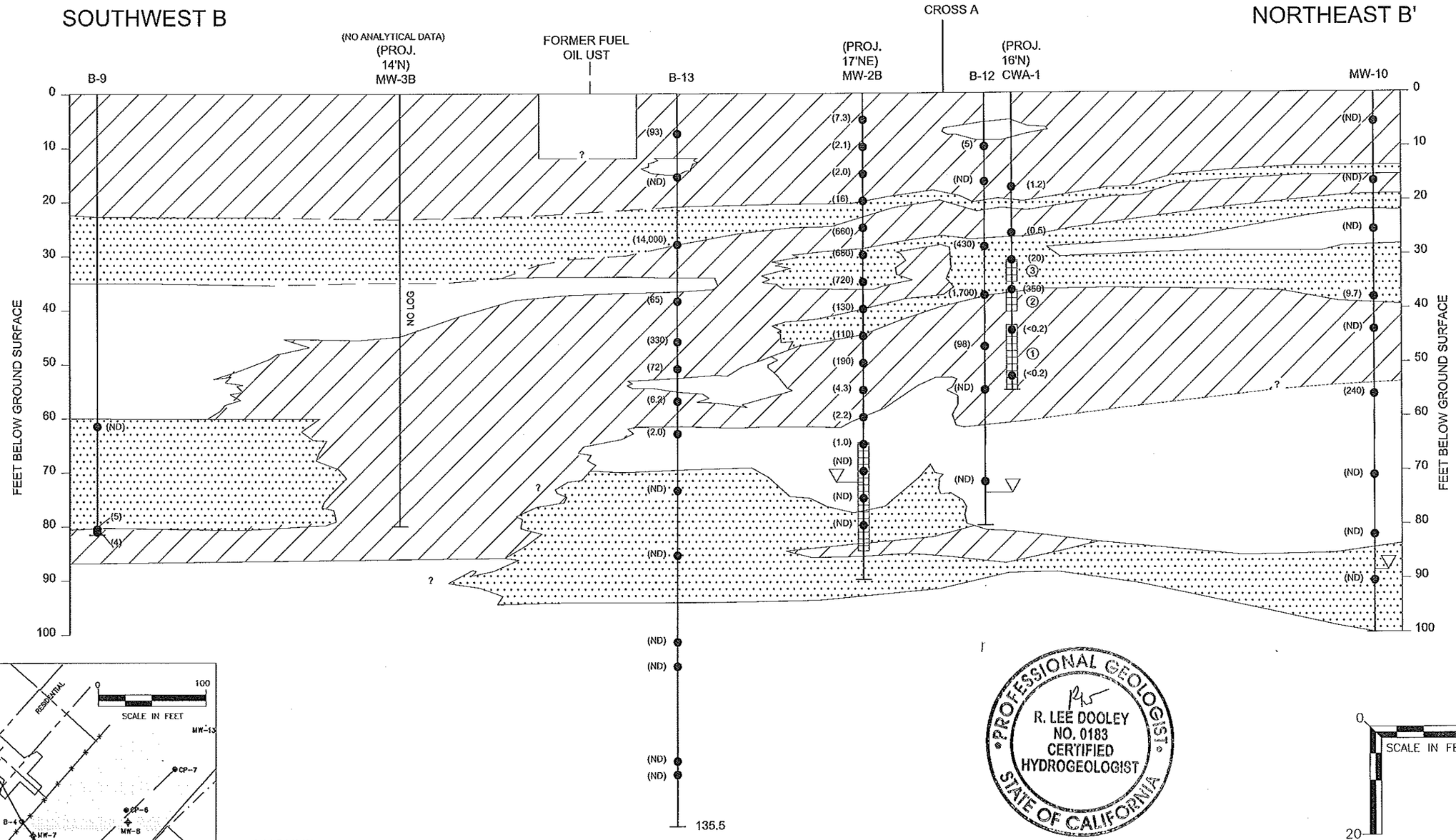
0 20
SCALE IN FEET
20

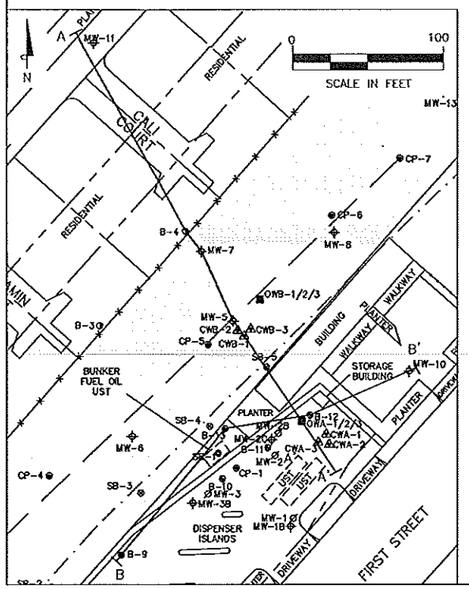
FIGURE 3b
CROSS SECTION A–A'
DIESEL RANGE ORGANICS (C12–C24) SILICA–GEL TREATED
76 SERVICE STATION #7376
4191 FIRST STREET
PLEASANTON, CALIFORNIA

PROJECT NO.	PREPARED BY	DRAWN BY
C107376	LD	JH
DATE	REVIEWED BY	FILE NAME
4/28/10	LD	76-7376

DELTA®

SOUTHWEST B — NORTHEAST B'





LEGEND

- MW-5 — MONITORING WELL/BORING NAME
- WELL CASING/EXPLORATORY BORING
- (49) — SOIL SAMPLE LOCATION WITH TPH-G CONCENTRATION (mg/kg)
  ND - NOT DETECTED ABOVE LABORATORY REPORTING LIMIT
- FIRST ENCOUNTERED GROUNDWATER
- WELL SCREEN

CLUSTERS A & B WELL IN INDIVIDUAL BORINGS (1, 2, 3)

- CLAY (CL) AND SILT (ML)
- CLAY, SILT, SAND, GRAVEL MIXTURES (SC, SM, GM, GC, GM, MC)
- SAND (SW) AND GRAVEL (GW)
- APPROXIMATE STRATIGRAPHIC BOUNDARY -DASHED WHERE UNCERTAIN, QUIERIED WHERE PROJECTED

PROFESSIONAL GEOLOGIST
R. LEE DOOLEY
NO. 0183
CERTIFIED HYDROGEOLOGIST
STATE OF CALIFORNIA

0 20
SCALE IN FEET

FIGURE 4
CROSS SECTION B–B'
TOTAL PURGEABLE PETROLEUM HYDROCARBONS (TPH–G)
76 SERVICE STATION #7376
4191 FIRST STREET
PLEASANTON, CALIFORNIA

PROJECT NO.	PREPARED BY	DRAWN BY
C107376	LD	JH
DATE	REVIEWED BY	FILE NAME
4/28/10	LD	76-7376

DELTA®

SOUTHWEST B

NORTHEAST B'

CROSS A

(NO ANALYTICAL DATA)
(PROJ. 14'N)
MW-3B

FORMER FUEL OIL UST

(PROJ. 17'NE)
MW-2B

(PROJ. 16'N)
B-12 CWA-1

B-9 | B-13 | MW-10

FEET BELOW GROUND SURFACE

0, 10, 20, 30, 40, 50, 60, 70, 80, 90, 100

NO LOG

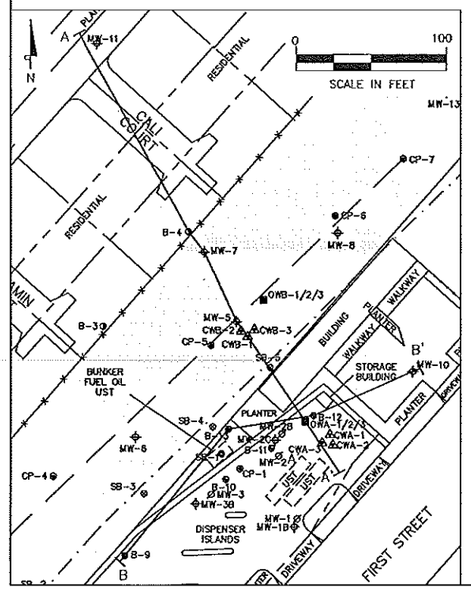
B-9: (ND), (280), (ND)

B-13: (NA), (NA), (NA), (NA), (NA), (NA), (NA), (NA), (NA), (NA), (NA), (NA), (NA), (NA), (NA), (NA), (NA), (NA), 135.5

MW-2B: (ND), (ND), (ND), (110), (550), (1,100), (2,400), (430), (1,000), (1,800), (320), (33), (4.7), (ND), (ND), (ND), (ND)

B-12 CWA-1: (ND), (ND), (<2.0), (<2.0), (14,000), (120), (1,000), (4,700), (<2.0), (2,600), (<2.0), (ND), (ND)

MW-10: (NA), (NA), (NA), (NA), (NA), (NA), (NA), (NA), (NA), (NA), (NA), (NA), (NA), (NA)



LEGEND

MW-5 — MONITORING WELL/BORING NAME
WELL CASING/EXPLORATORY BORING

(49) — SOIL SAMPLE LOCATION WITH TPH-D CONCENTRATION (mg/kg)
ND - NOT DETECTED ABOVE LABORATORY REPORTING LIMIT

FIRST ENCOUNTERED GROUNDWATER

WELL SCREEN

CLUSTERS A & B WELL IN INDIVIDUAL BORINGS (1, 2, 3)

CLAY (CL) AND SILT (ML)

CLAY, SILT, SAND, GRAVEL MIXTURES (SC, SM, GM, GC, GM, MC)

SAND (SW) AND GRAVEL (GW)

APPROXIMATE STRATIGRAPHIC BOUNDARY
-DASHED WHERE UNCERTAIN, QUIERIED WHERE PROJECTED

PROFESSIONAL GEOLOGIST
R. LEE DOOLEY
NO. 0183
CERTIFIED HYDROGEOLOGIST
STATE OF CALIFORNIA

0, 20
SCALE IN FEET

FIGURE 4b
CROSS SECTION B–B'
DIESEL RANGE ORGANICS (C12–C24) SILICA–GEL TREATED
76 SERVICE STATION #7376
4191 FIRST STREET
PLEASANTON, CALIFORNIA

PROJECT NO.	PREPARED BY	DRAWN BY
C107376	LD	JH
DATE	REVIEWED BY	FILE NAME
4/28/10	LD	76-7376

DELTA®

APPENDIX A

ACEH Letters Dated October 16, 2009 and January 6, 2010

ALAMEDA COUNTY
HEALTH CARE SERVICES
AGENCY
ALEX BRISCOE, Acting Director

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

October 16, 2009

Mr. Terry Grayson
ConocoPhillips Company
76 Broadway
Sacramento, CA 95818

De L Liu and Na Li
922 Saddlehorn Court
Danville, CA 94506

Mr. Henry O. Armour
P.O. Box 2527
Olympia, WA 98507

CD & PWS Enterprises, Inc.
8998 Alcosta Boulevard
San Ramon, CA 94583

Subject: Fuel Leak Case No. RO0000361 and Geotracker Global ID T0600100101, Unocal #7376, 4191 First Street, Pleasanton, CA 94566 – Work Plan Approval

Dear Mr. Grayson:

Alameda County Environmental Health (ACEH) staff has reviewed the fuel leak case file for the above-referenced site including the most recent document entitled, "*Site Conceptual Model (SCM), 76 Service Station #7376, RO# 361, 4191 First Street, Pleasanton, CA*," dated September 30, 2009. The SCM was prepared on behalf of ConocoPhillips by Delta Environmental. The SCM summarizes site conditions and recommends installation of a monitoring well in the vicinity of CP-7 and preparation of a work plan for a feasibility study. These recommendations are acceptable and are to be implemented as discussed in the technical comments below.

A review of issues related to the Bunker C fuel tank, off-site remediation access issues, and schedule for additional investigation and remediation may be appropriate at this time. We suggest that you contact representatives of the County of Alameda Public Works Agency to arrange a meeting between ConocoPhillips, Delta Environmental, and the County of Alameda Public Works Agency to review these issues. ACEH will attend if requested.

We request that you address the technical comments below, perform the proposed work, and send us the reports requested below.

TECHNICAL COMMENTS

1. **Monitoring Well in Area of CP-7.** We have no objection to the installation of a monitoring well in the area of CP-7. Please presents plans for the well installation in the Feasibility Study and Work Plan requested below.

2. **Work Plan and Feasibility Study.** We request that you prepare a Feasibility Study that screens and evaluates the feasibility of remedial technologies appropriate for the site and prepare a Work Plan to test the feasibility of the most promising technology or technologies. The Work Plan must describe the field feasibility testing in sufficient detail for ACEH to approve implementation of the feasibility testing. The feasibility testing must include sufficient data collection and monitoring to evaluate the potential for the technology to remediate the targeted areas and vertical intervals and to estimate the time required to achieve cleanup. We request that the Work Plan include the installation of sufficient

monitoring points to assess whether stratigraphic or structural discontinuities are present that will limit the radius of influence of injection or extraction points. Monitoring the area and vertical interval over which injection or extraction achieves influence will also help to assess the accuracy of existing cross sections and our understanding of the site hydrogeology. Please include these plans in the Feasibility Study and Work Plan requested below.

3. **Groundwater Monitoring.** Please continue semi-annual groundwater monitoring and present the results in the groundwater monitoring reports requested below.

TECHNICAL REPORT REQUEST

Please submit technical reports to Alameda County Environmental Health (Attention: Jerry Wickham), according to the following schedule:

- **December 22, 2009** – Feasibility Study and Work Plan
- **January 18, 2010** – Semi-annual Groundwater Monitoring Report, Fourth Quarter 2009
- **July 18, 2010** – Semi-annual Groundwater Monitoring Report, Second Quarter 2010

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/cleanup/electronic_reporting).

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.

If you have any questions, please call me at 510-567-6791 or send me an electronic mail message at jerry.wickham@acgov.org.

Sincerely,

Jerry Wickham, California PG 3766, CEG 1177, and CHG 297
Senior Hazardous Materials Specialist

Enclosure: ACEH Electronic Report Upload (ftp) Instructions

cc: Cheryl Dizon, QIC 80201, Zone 7 Water Agency, 100 North Canyons Parkway, Livermore, CA 94551

Danielle Stefani, Livermore-Pleasanton Fire Department, 3560 Nevada Street Pleasanton, CA 94566

Les Hausrath, Wendel, Rosen, Black & Dean, 1111 Broadway, 24th Floor, Oakland, CA 94607

Rory MacNeil, Alameda County Public Works, 399 Elmhurst Street, Hayward, CA 94544-1307

John Reay, Delta Environmental Consultants, Inc., 11050 White Rock Road, Suite 110, Rancho Cordova, CA 95670

Donna Drogos, ACEH
Jerry Wickham, ACEH
Geotracker, File

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.

ALAMEDA COUNTY
HEALTH CARE SERVICES
AGENCY
ALEX BRISCOE, Acting Director

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

January 6, 2010

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

Mr. Henry O. Armour
P.O. Box 2527
Olympia, WA 98507

CD & PWS Enterprises, Inc.
8998 Alcosta Boulevard
San Ramon, CA 94583

De L Liu and Na Li
922 Saddlehorn Court
Danville, CA 94506

Subject: Fuel Leak Case No. RO0000361 and Geotracker Global ID T0600100101, Unocal #7376, 4191 First Street, Pleasanton, CA 94566 – Work Plan Approval

Dear Mr. Grayson:

Alameda County Environmental Health (ACEH) staff has reviewed the fuel leak case file for the above-referenced site including the most recent document entitled, "*Feasibility Study and Work Plan, 76 Service Station #7376, RO# 361, 4191 First Street, Pleasanton, CA*," dated December 16, 2009 (Work Plan). The Work Plan, which was prepared on behalf of ConocoPhillips by Delta Environmental, proposes a soil vapor extraction (SVE) test, groundwater extraction, and installation of SVE and monitoring wells.

The proposed scope of work is conditionally approved and may be implemented provided that the technical comments below are addressed during implementation of the site investigation. Submittal of a revised Work Plan or Work Plan Addendum is not required unless an alternate scope of work outside that described in the Work Plan and technical comments below is proposed. We request that you address the following technical comments, perform the proposed work, and send us the reports described below.

TECHNICAL COMMENTS

1. **Proposed Monitoring Well MW-13.** The proposed monitoring well location and construction methods for proposed monitoring well MW-13 are acceptable. Please present the results from well installation in the Feasibility Study and Well Installation Report requested below.

2. **SVE Pilot Test.** The proposed SVE well installations and SVE test procedures are generally acceptable. However, we request that induced vacuum measurements be made in additional wells to evaluate the radius of influence and to help assess whether stratigraphic or structural discontinuities are present that will limit the radius of influence in specific directions. During the SVE testing for Cluster A, we request that induced vacuum measurements be collected periodically in well MW-2C in addition to the proposed observation wells. During the SVE testing for Cluster B, we request that induced vacuum measurements be collected periodically in wells MW-7 and MW-8 in addition to the

proposed observation wells. Please present the results from SVE testing in the Feasibility Study and Well Installation Report requested below.

3. **Groundwater Extraction Test.** The proposed groundwater extraction test is generally acceptable. In addition to the proposed observation wells, we request that you use any of the Cluster B wells that encounter groundwater. Please present the results from the groundwater extraction test in the Feasibility Study and Well Installation Report requested below.

4. **Groundwater Monitoring.** Please continue semi-annual groundwater monitoring and present the results in the groundwater monitoring reports requested below.

TECHNICAL REPORT REQUEST

Please submit technical reports to Alameda County Environmental Health (Attention: Jerry Wickham), according to the following schedule:

- **January 18, 2010** – Semi-annual Groundwater Monitoring Report, Fourth Quarter 2009
- **May 14, 2010 –** Feasibility Study and Well Installation Report
- **July 18, 2010** – Semi-annual Groundwater Monitoring Report, Second Quarter 2010

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.

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Sincerely,

Jerry Wickham, California PG 3766, CEG 1177, and CHG 297
Senior Hazardous Materials Specialist

Enclosure: ACEH Electronic Report Upload (ftp) Instructions

cc: Danielle Stefani, Livermore Pleasanton Fire Department, 3560 Nevada St, Pleasanton, CA 94566 (*Sent via E-mail to: dstefani@lpfire.org*)

Cheryl Dizon (QIC 8021), Zone 7 Water Agency, 100 North Canyons Pkwy, Livermore, CA 94551 (*Sent via E-mail to: cdizon@zone7water.com*)

R. Lee Dooley, Delta Consultants, 312 Piercy Road, San Jose, CA 95138

Les Hausrath, Wendel, Rosen, Black & Dean, 1111 Broadway, 24th Floor, Oakland, CA 94607

Rory MacNeil, Alameda County Public Works, 399 Elmhurst Street, Hayward, CA 94544-1307

John Reay, Delta Environmental Consultants, Inc., 11050 White Rock Road, Suite 110, Rancho Cordova, CA 95670

Donna Drogos, ACEH (*Sent via E-mail to: donna.drogos@acgov.org*)
Jerry Wickham, ACEH

Geotracker, File

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

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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.

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   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**.

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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.

APPENDIX B

Historic Sanborn Maps and Geologic Cross Sections

LEGEND

- Approximate property line
- Fence
- Approximate location of underground petroleum pipeline (KinderMorgan)
- Approximate location of fiber optic utility line
- Former railroad right-of-way
- MW-12 Groundwater monitoring well
- MW-2 Abandoned well
- CP-1 CPT boring (Delta, February 2008)
- B-8 Soil Boring (Gettler-Ryan, 1998-1999)
- B-1 Soil Boring (ENGEO, 1997)
- EB-1 Soil Boring (KEI, 1995)
- B-1 Soil Boring (AGS, 1987)
- 1907 Sanborn Map Features

PLANTER
RESIDENTIAL
CRAIG COURT
MW-12
RESIDENTIAL
HALL W. HO. CO NO. 6 HAY
B-6
COLBY COURT
B-5
NO EXPOSURE
PLANTER
MW-11
RESIDENTIAL
MW-9
CALI COURT
TESSA PLACE
STEPS
RESIDENTIAL
CP-7
CP-6
B-4
MW-8
MW-7
BENJAMIN COURT
R
B-3
MW-5
CP-5
BUILDING
PLANTER
WALKWAY
WALKWAY
PLANTER
R
PLANTER
RESIDENTIAL
STORAGE BUILDING
MW-10
PLANING MILL
PLANTER
B-12
B-13
MW-2B
B-11
B-4
MW-2
B-1
CP-1
B-2
B-2
MW-6
JAY COURT
CP-4
OIL TANK
ENG. AMP
UST
UST
DRIVEWAY
B-10
MW-3
B-3
DISPENSER ISLANDS
MW-1
DRIVEWAY
LUMBER 5'
LUMBER 5'
LUMBER 15'
B-9
FIRST STREET
B-1
SOUTHERN PACIFIC MAIN TRACK
KIOSK
PLANTER
DRIVEWAY
LUMBER 5' ON 2' PLATFORM
4' PLATFORM CLOSED
REDWOOD RETAINING WALL
HALL W HO NO 1 GRAIN
MW-4
CP-3
EB-1
DISPENSER ISLANDS
CP-2
DRIVEWAY
B-8
LUMBER 5'
R
RAY STREET
VINEYARD AVENUE
N
SIGE
SIGE
MOULDINGS
HALL W. HO. CO LUMBER SHED
SCALES
OFF.
HALL W. HO. CO. NO. 2 HAY

APPROXIMATE SCALE (FEET)
0 60 120

SOURCE: Site plan by TRC, 2008 and Gettler-Ryan, August 2000.

SITE PLAN WITH 1907 SANBORN MAP

76 SERVICE STATION #7376
4191 FIRST STREET
PLEASANTON, CALIFORNIA

PROJECT NO.	PREPARED BY	DRAWN BY
C107376	JR	JH
DATE	REVIEWED BY	FILE NAME
02/09/09	JR	76-7376

DELTA®

LEGEND

- Approximate property line
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- B-1 Soil Boring (AGS, 1987)
- 1943 Sanborn Map Features

PLANTER
RESIDENTIAL
CRAIG COURT
MW-12
B-6
COLBY COURT
B-5
NO EXPOSURE
MW-11
MW-9
CALI COURT
TESSA PLACE
HAY
CP-7
CP-6
MW-8
B-4
MW-7
BENJAMIN COURT
B-3
MW-5
CP-5
BUILDING
WALKWAY
STORAGE BUILDING
MW-10
DRIVEWAY
SHED
JAY COURT
B-2
CP-4
MW-6
B-12
B-13
MW-2B
B-11
B-4
MW-2
B-1
CP-1
B-2
UST TANK
UST
UST
B-10
MW-3
B-3
MW-1
DISPENSER ISLANDS
LUMBER SHED
BOILER ROOM
SOUTHERN PACIFIC MAIN TRACK
B-9
KIOSK
B-1
MW-4
CP-3
EB-1
DISPENSER ISLANDS
CP-2
HALL W HO NO. 1 GRAIN
REDWOOD RETAINING WALL
B-8
SIGE
4' PLATFORM CLOSED
FIRST STREET
RAY STREET
VINEYARD AVENUE
VACANT
SCALES
JACKSON & PERKINS CO. ROSE GRADING & PACKING

N

APPROXIMATE SCALE (FEET)
0 60 120

SOURCE: Site plan by TRC, 2008 and Gettler-Ryan, August 2000.

SITE PLAN WITH 1943 SANBORN MAP

76 SERVICE STATION #7376
4191 FIRST STREET
PLEASANTON, CALIFORNIA

PROJECT NO.	PREPARED BY	DRAWN BY
C107376	JR	JH
DATE	REVIEWED BY	FILE NAME
02/09/09	JR	76-7376

DELTA®

LEGEND

- Approximate property line
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- EB-1 Soil Boring (KEI, 1995)
- B-1 Soil Boring (AGS, 1987)
- 1953 Sanborn Map Features

PLANTER
RESIDENTIAL
CRAIG COURT
MW-12
B-6
COLBY COURT
B-5
NO EXPOSURE
MW-11
MW-9
CALI COURT
CP-7
TESSA PLACE
CP-6
MW-8
B-4
MW-7
BENJAMIN COURT
MW-5
B-3
CP-5
BUILDING
WALKWAY
STORAGE BUILDING
MW-10
DRIVEWAY
SHED
JAY COURT
B-2
MW-6
B-12
B-13
MW-2B
B-11
B-4
MW-2
B-1
CP-1
CP-4
B-10
MW-3
B-3
UST
BOILER ROOM
DISPENSER ISLANDS
MW-1
SOUTHERN PACIFIC MAIN TRACK
B-9
KIOSK
FIRST STREET
B-1
REDWOOD RETAINING WALL
MW-4
CP-3
EB-1
DISPENSER ISLANDS
CP-2
HALL W HO.NO. 1 GRAIN
B-8
RAY STREET
VINEYARD AVENUE
SCALES
JACKSON & PERKINS CO. ROSE GRADING & PACKING

N

APPROXIMATE SCALE (FEET)
0 60 120

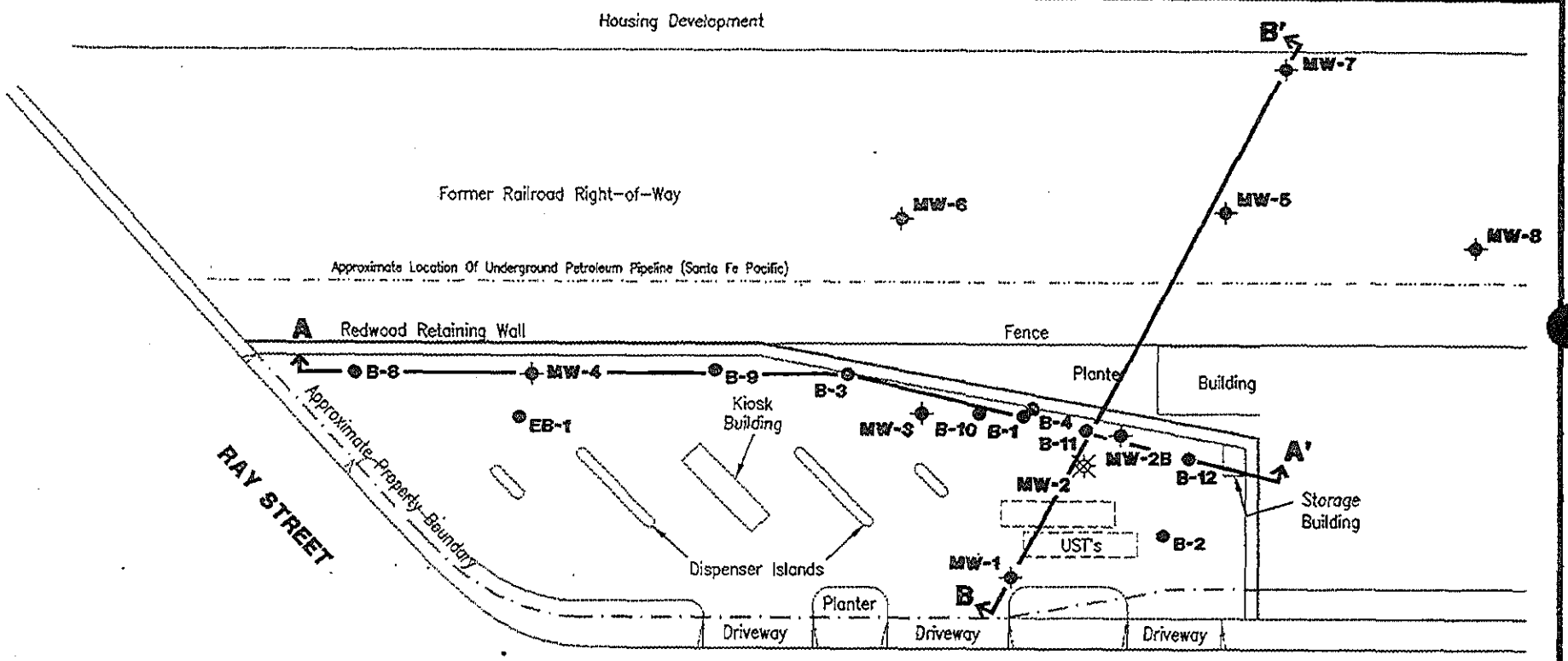
SOURCE: Site plan by TRC, 2008 and Gettler-Ryan, August 2000.

SITE PLAN WITH 1953 SANBORN MAP

76 SERVICE STATION #7376
4191 FIRST STREET
PLEASANTON, CALIFORNIA

PROJECT NO.	PREPARED BY	DRAWN BY
C107376	JR	JH
DATE	REVIEWED BY	FILE NAME
02/09/09	JR	76-7376

DELTA®



Gettler - Ryan Inc.
6747 Sierra Ct., Suite J (925) 551-7555
Dublin, CA 94568

SITE PLAN
Tosco 76 Branded Facility No. 7376
4191 First Street
Pleasanton, California

FIGURE
2

JOB NUMBER	REVIEWED BY	DATE	REVISED DATE
140107.02		September, 1998	02/99

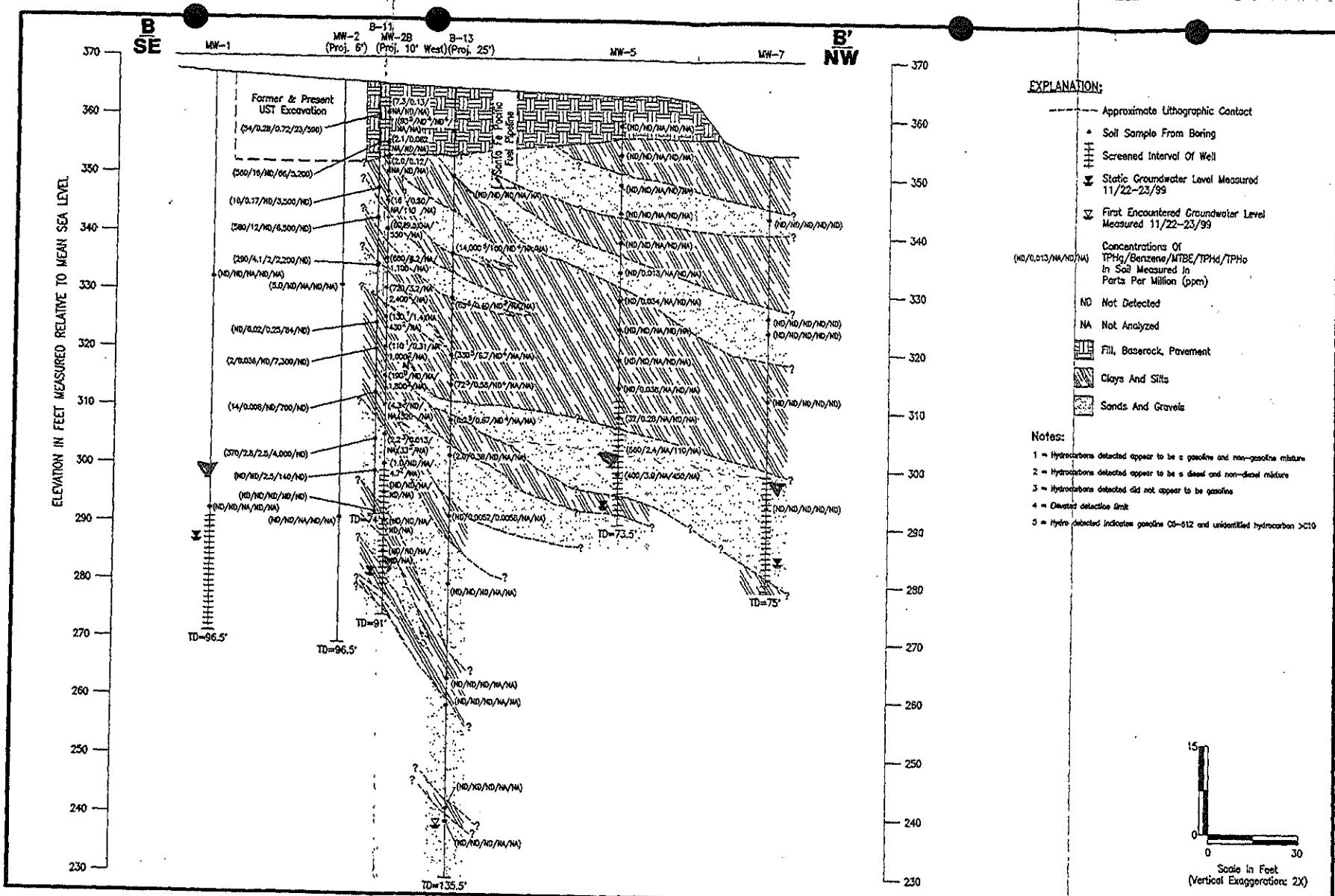


FIGURE 4

GENERALIZED GEOLOGIC CROSS-SECTION B-B'
Tosco (Unocal) Service Station No. 7376
4191 1st Street
Pleasanton, California

REVISED DATE 5/00
DATE 10/98

Gettler - Ryan Inc.
6747 Sierra Ct., Suite J
Dublin, CA 94568
(925) 551-7555

JOB NUMBER 140107.04
REVIEWED BY

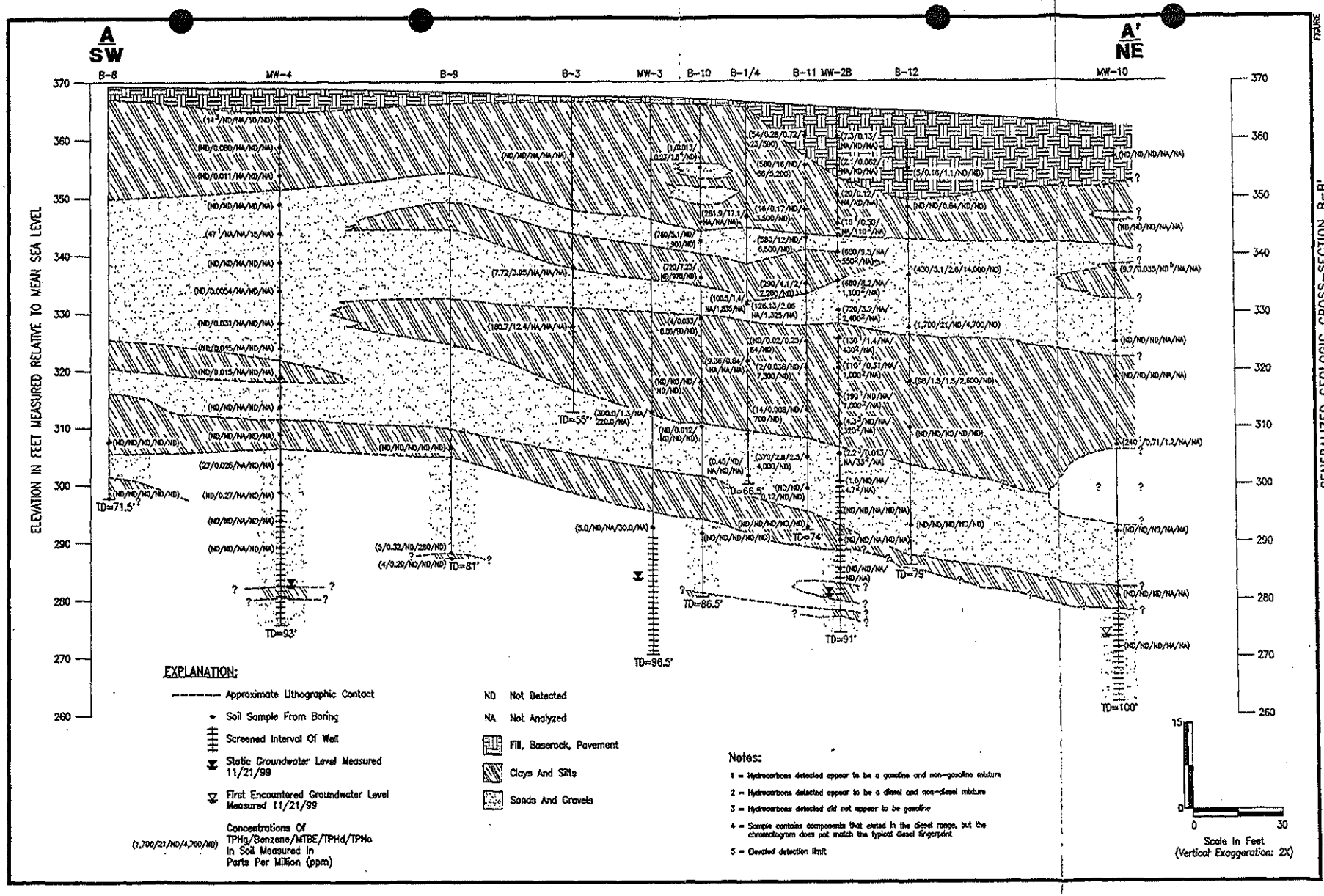


FIGURE 3

GENERALIZED GEOLOGIC CROSS-SECTION B-B'
Tosco (Unocal) Service Station No. 7376
4191 1st Street
Pleasanton, California

Gettler - Ryan Inc.
6747 Sierra Ct., Suite J
Dublin, CA 94568
(925) 551-7555

JOB NUMBER 140107.04
REVIEWED BY
DATE 10/98
REVISED DATE 5/00

APPENDIX C

Summary of Site Assessment Activities

The following section summarizes findings of previous soil and groundwater investigations conducted at the site. Additional details are contained in Delta's *Site Conceptual Model* dated September 15, 2009.

June 30, 1987: Applied GeoSystems (AGS) oversaw the advancement of three soil borings (B-1, B-2 and B-3). The soil borings were advanced to 46.5 feet bgs and 55 feet bgs in the vicinity of the USTs and northern dispenser island. Total volatile hydrocarbons (TVH) were reported in all three borings, ranging from 7.72 milligrams per kilogram (mg/kg) in B-3 at a depth of 30 feet bgs, to 281.9 mg/kg in B-1 at a depth of 20 feet bgs. Total extractable hydrocarbons (TEH) were reported in B-1 at a depth of 35 feet bgs with a concentration of 1325 mg/kg. On August 21, 1987, an additional boring, B-4 was advanced to a depth of 66.5 feet bgs, directly north of B-1. TVH and TEH were reported at 100.5 mg/kg and 1,835 mg/kg, respectively at a depth of 35 feet bgs. Benzene was reported in all borings, with a maximum concentration of 17.1 mg/kg in B-1, located directly west of the fuel USTs, at a depth of 20 feet bgs, (AGS 1987).

December 2 through 7, 1987: Three soil borings (B-4, B-5 and B-6) were advanced at the site and completed in to monitoring wells MW-1, MW-2 and MW-3. The wells were installed to the southeast, north, and southwest of the site's fuel USTs as shown in **Figure 2**. TVH was detected in borings for wells MW-2 and MW-3 with a maximum concentration of 390 mg/kg at a depth of 55 feet bgs in MW-3. Benzene was detected in MW-2 and MW-3 with a maximum concentration of 14 mg/kg in MW-3 at a depth of 55 feet bgs. TEH was reported in MW-2 and MW-3 with a maximum concentration of 6,300 mg/kg in MW-2 at a depth of 35 feet bgs (AGS 1994).

September 9 through 24, 1994: Kaprellian Engineering Inc. (KEI) collected soil samples P1 through P13 from a depth of 3 feet and samples P2(9) and P5(9) from a depth of nine feet during product piping replacement activities. Total petroleum hydrocarbons as gasoline (TPH-G) and benzene were reported at a maximum concentrations of 8,900 mg/kg and 65 mg/kg, respectively, in sample P5 located at the southern end of the No. 2 fuel dispenser (KEI 1994).

February 6 and 7 1995: KEI oversaw the installation of monitoring well MW-2B and soil boring EB-1 in the vicinity of the fuel USTs and southern fuel dispenser, respectively (**Figure 2**). Well MW-2 was destroyed at this time due to introduction of asphalt to the well

during repaving activities. TPH-G, total petroleum hydrocarbons as diesel (TPH-D) and benzene were reported in both borings with maximum concentrations of 15,000 mg/kg, 3,600 mg/kg and 340 mg/kg, respectively, in EB-1 at a depth of five feet. Detections of TPH-G, TPH-D and benzene were reported to depths of approximately 60 feet bgs in each boring (KEI 1995).

July 23 and 24, 1996: KEI oversaw the advancement of three additional soil monitoring wells (MW-4 through MW-6), to total depths of 73.5 to 93 feet bgs. Well MW-4 was installed onsite and wells MW-5 and MW-6 were installed offsite on the former Southern Pacific Railroad right-of-way as shown in **Figure 2**. Soil samples collected from the well borings were analyzed for TPH-G, benzene, toluene, ethylbenzene and xylenes (BTEX compounds), and fuel fingerprinting. Soil samples from boring MW-4 contained low concentrations of petroleum hydrocarbons ranging up to 47 parts per million (ppm) of TPH-G, up to 0.27 ppm of benzene, and up to 15 ppm of TPH-D. Soil samples collected in the upper 50 feet of well boring MW-5 contained benzene up to 0.038 ppm. Samples collected between 55 and 65 feet bgs in MW-5 contained up to 560 ppm of TPH-G, up to 3.9 ppm of benzene, and up to 450 ppm of TPH-D. Samples collected from MW-6 contained up to 5.0 ppm of TPH-G, up to 1.2 ppm of benzene and 200 ppm TPH-D detected at 55 feet bgs. Petroleum hydrocarbon concentrations in the range of kerosene, motor oil, and unidentified extractable hydrocarbons were also identified in the samples collected from the well borings (KEI, 1996).

June 27, 1997: Free product was encountered in well MW-5 during quarterly monitoring activities. In December 1997, Entrix, Inc. (Entrix) performed a forensic geochemical analysis of the free product extracted from well MW-5. The Entrix study determined that the free product was likely composed of a mixture of over 50% refined gasoline and 50% heavier hydrocarbons. The gasoline constituents appeared to be relatively fresh according to Entrix. The heavier hydrocarbon mixture had a carbon distribution ranging from C-13 to C-33. The distribution was similar in nature to a very weathered crude oil or Bunker C fuel, and petroleum products such as diesel #2, motor oil, lube oil, etc., or mixtures of any of the above heavier hydrocarbons (Entrix, 1997).

November 1997: Engeo advanced six soil borings (B-1 through B-5) on the northwest extent of the vacant right-of-way to the northwest of the site. The borings were advanced to determine whether soils in the right-of-way had been impacted as a result of fuel

releases at the site. Borings B-1 through B-5 were advanced to depths of 40 to 80 feet bgs. No analytes were reported above reporting limits in any soil samples. TPH-G, benzene and MTBE were reported in groundwater samples at concentrations of 0.630 ppm, 0.023 ppm, and 0.498 ppm, respectively in groundwater sample W-4.

June and August 1998 : Five additional onsite soil borings (B-8 through B-12) were advanced and two offsite down gradient groundwater monitoring wells (MW-7, MW-8) were installed by Gettler-Ryan (GR). TPH-G, benzene, TPH-D and MTBE reached maximum concentrations in boring B-12 at depths between 28.5 bgs and 37.5 bgs of 1,700 ppm, 21 ppm , 14,000 ppm and 2.6 ppm, respectively. Total petroleum hydrocarbons as hydraulic oil (TPH-ho) was detected in B-11 at 10.5 feet bgs at a maximum concentration of 5,200 ppm. No analytes were reported in samples collected from B-8 and MW-7. Two soil samples containing visible free product were collected from boring B-11 (near the former UST excavation) at 10.5 and 61 feet bgs and submitted to Global Geochemistry Corp. for hydrocarbon fingerprinting chemical analysis. The results of these analyses determined that the free product from both samples was composed of approximately 90% highly to severely weathered crude oil and 10% of slightly weathered gasoline (GR, 1999).

October and November 2000: GR advanced one soil boring located northwest of the fuel USTs (B-13) and installed two offsite groundwater monitoring wells to the north of the site (MW-9 and MW-10) as shown in **Figure 2**. TPH-G and benzene were reported at maximum concentrations of 14,000 mg/kg and 100 mg/kg, respectively in B-13 at a depth of 28 feet bgs. Benzene and TPH-G were detected in B-13 to a depth of approximately 73 feet bgs. MTBE was reported at a maximum concentration of 2 mg/kg in B-13 at a depth of 46 feet bgs. No analytes were reported in MW-9. TPH-G, benzene and MTBE were reported in MW-10 at maximum concentrations of 240 mg/kg, 0.71 mg/kg, and 1.2 mg/kg, respectively, at a depth of 56 feet bgs (GR, 2000).

September 17 through 19, 2001 :Two offsite soil borings were installed by GR and completed as groundwater monitoring wells MW-11 and MW-12 (**Figure 2**). The wells were installed to total depths of approximately 86 and 88 feet bgs, respectively. No analytes were detected above LRLs for all soil samples. No analytes were reported above the reporting limits in groundwater sample MW-12-Grab, collected from a perched groundwater zone at 40 feet bgs in well boring MW-12 (GR 2002).

November 5, 2007: BSK conducted an investigation in the right-of-way northwest of the site and surrounding parcels. The investigation was conducted for the City of Pleasanton to determine the extent of herbicides and heavy metals in the corridor as a result of the property's prior use as a railway. In addition, the investigation took place to determine the impact on soils from fuel releases at the site, and from the Shell service station across First Street.

Surface soil samples were collected at locations shown in Appendix B, and seven soil borings (SB-1 through SB-7) were advanced between the Kinder Morgan Pipeline location and the site. Borings were advanced to depths of 37.5 feet bgs to 61 feet bgs. Arsenic was reported at a maximum concentration of 68 mg/kg in sample RR-3, which is above the California Human Health Screening Levels (CHHSL) for residential and commercial soils of 0.07 mg/kg and 0.24 mg/kg, respectively. Lead was reported above the residential CHHSL of 150 mg/kg in two surface samples with a maximum concentration of 190 mg/kg in sample BG-1 (BSK 2008).

Samples from soil borings were analyzed for TPH-G, TPH-D, BTEX compounds, TPH-jet fuel, TPH-aviation fuel, oil and grease, MTBE and TBA. No analytes were reported above LRLs in SB-1 and SB-3. TPH-G and TPH-D, TPH-aviation fuel, TPH-jet fuel, benzene, oil and grease and MTBE were reported in maximum concentrations of 8,100 mg/kg, 860 mg/kg, 9,600 mg/kg, 37 mg/kg, 11,000 mg/kg and 260 mg/kg, respectively, in SB-5 at a depth of 30 feet bgs. TPH-G was reported at a maximum concentration of 380 mg/kg in SB-6 at a depth of 30 feet bgs. All soil sample locations and data are presented in Appendix B. The original lab report was amended as the indication of the petroleum hydrocarbons as jet fuel appeared to be questionable. A note on the soil analytical summary table stated "TPHg – total petroleum hydrocarbons – Jet Fuel** (Hydrocarbons reported within diesel range)" (BSK 2008).

February 18 through 26, 2008: Delta oversaw the advancement of seven cone penetrometer test (CPT) borings (CP-1 through CP-7). CP-1 and CP-2 were located onsite near the fuel USTs, and at the southeast portion of the site, respectively and CP-3 through CP-7 were located in the right of way directly to the west of the site as shown in **Figure 2**. TPH-G and benzene were reported only in CP-1 with maximum concentrations of 640 mg/kg and 25 feet bgs and 14 mg/kg at 30 feet bgs, respectively. TPH-G was reported in soil in CP-1 to the maximum depth explored of 701 feet bgs. MTBE was reported in borings CP-1, CP-5, CP-6 and CP-7, with a maximum concentration of 1.3 mg/kg in CP-1 at a depth of 30

feet bgs. TPH-G was reported in groundwater from borings CP-1, CP-4, CP-6 and CP-7 ranging from 99 micrograms per liter (µg/l) in CP-4 to a maximum of 1,500 µg/l in CP-1. Benzene was reported in CP-1, CP-2 and CP-6 ranging from 0.67µg/L in CP-2 to a maximum of 250 µg/l in CP-1. MTBE was reported in CP-1, CP-2, CP-4, CP-6 and CP-7 ranging from 1.4 µg/l in CP-2 to a maximum of 530 µg/l in CP-1. No groundwater samples were collected from CP-5 (Delta 2008).

June 8 through 25, 2009: Delta oversaw the destruction of wells MW-1, MW-2B and MW-3, and the installation of replacement wells MW-1B, MW-2C and MW-3B. In addition, one soil boring (SB-1) was advanced in the northwestern portion of the site in the footprint of an old bunker oil tank. Soil samples were collected from SB-1 and MW-2C. Gasoline range organics (GRO) was reported in soil boring SB-1 above the Environmental Screening Level (ESL) of 81 mg/kg from depths of 20 feet to 45 feet bgs. Fuel oil #6 was reported above the ESL of 2,500 mg/kg at depths of 30 feet bgs, 40 feet bgs and 45 feet bgs with a maximum concentration of 1,400 mg/kg at a depth of 20 feet bgs. Benzene was reported below 20 feet bgs in SB-1 to the maximum depth of 45 feet bgs, with a maximum concentration of 3.6 mg/kg at a depth of 30 feet bgs. MTBE was detected only at 10 feet bgs with a concentration of 0.05 mg/kg (Delta 2009).

Soil samples collected from MW-2C were subject to analysis for volatile organic compounds (VOCs) by Environmental Protection Agency (EPA) Method 8260, semi-volatile organic compounds by EPA Method 8270C, and purgeable aromatic and total petroleum hydrocarbons (TPH) by EPA 8015 (leaking underground fuel tank/ fuel finger printing) (LUFT/FFP). With the exception of sample depth 25 bgs Benzene was detected at all sampled depths at concentrations ranging from 28 (ppm) at 30 bgs, to 0.05 mg/kg at 45 bgs generally decreasing in concentration with depth. With the exception of sample depth 25 bgs MTBE was detected at all sampled depths in concentrations ranging from 8.7 mg/kg at 30 bgs to 0.075 mg/kg at 45 bgs generally decreasing in concentration with depth. TPH-G was not detected at or above LRLs from sampled depths. TPH as Kerosene was detected at two sampled depths at concentrations ranging from 93 mg/kg at 20 bgs to 1,800 mg/kg at 25 bgs. TPH-D was detected at all sampled depths at concentrations ranging from 26 mg/kg at 20 bgs 15,000 mg/kg at 35 bgs.

APPENDIX D

Zone 7 Water Agency Well Installation Permit

ZONE 7 WATER AGENCY

100 NORTH CANYONS PARKWAY, LIVERMORE, CALIFORNIA 94551 VOICE (925) 454-5000 FAX (925) 245-9306
E-MAIL whong@zone7water.com

DRILLING PERMIT APPLICATION

FOR APPLICANT TO COMPLETE

LOCATION OF PROJECT 4191 First Street,
Pleasanton

Coordinates Source _____ ft. Accuracy _____ ft.
LAT: 37.66 - _____ ft. LONG: -121.87 ft.
APN _____

CLIENT
Name Terry Grayson (CoP)
Address 7th Broadway Phone (916) 558-7666
City Sacramento Zip 95818

APPLICANT
Name Delta Consultants - Nadine Penat
Email Npenat@Deltaenv.com Fax 408-225-8506
Address 312 Piercy Rd Phone 408-826-1879
City San Jose Zip 95138

TYPE OF PROJECT:

Well Construction	✓	Geotechnical Investigation	—
Well Destruction	—	Contamination Investigation	✓
Cathodic Protection	—	Other _____	—

PROPOSED WELL USE:

Domestic	—	Irrigation	—
Municipal	—	Remediation	✓
Industrial	—	Groundwater Monitoring	✓
Dewatering	—	Other _____	—

DRILLING METHOD:

Mud Rotary	—	Air Rotary	—	Hollow Stem Auger	✓
Cable Tool	—	Direct Push	—	Other _____	—

DRILLING COMPANY Gregg Drilling & Testing
DRILLER'S LICENSE NO. 485165

WELL SPECIFICATIONS:
Drill Hole Diameter 8-10 in. Maximum
Casing Diameter 1, 2, 4 in. Depth 80 ft.
Surface Seal Depth 12 ft. Number 13
Minimum

SOIL BORINGS:
Number of Borings _____ Maximum
Hole Diameter _____ in. Depth _____ ft.

ESTIMATED STARTING DATE 3/10/10
ESTIMATED COMPLETION DATE 3/23/10

I hereby agree to comply with all requirements of this permit and Alameda County Ordinance No. 73-68.

APPLICANT'S SIGNATURE _____ Date 2/22/10

ATTACH SITE PLAN OR SKETCH

FOR OFFICE USE

PERMIT NUMBER 2010016
WELL NUMBER 3S/1E-21C48 to 21C60
APN 94-0110-012-04

PERMIT CONDITIONS
(Circled Permit Requirements Apply)

(A.) GENERAL
1. A permit application should be submitted so as to arrive at the Zone 7 office five days prior to your proposed starting date.
2. Submit to Zone 7 within 60 days after completion of permitted work the original **Department of Water Resources Water Well Drillers Report (DWR Form 188), signed by the driller.**
3. Permit is void if project not begun within 90 days of approval date.
4. **Notify Zone 7 at least 24 hours before the start of work.**

B. WATER SUPPLY WELLS
1. Minimum surface seal diameter is four inches greater than the well casing diameter.
2. Minimum seal depth is 50 feet for municipal and industrial wells or 20 feet for domestic and irrigation wells unless a lesser depth is specially approved.
3. Grout placed by tremie.
4. An access port at least 0.5 inches in diameter is required on the wellhead for water level measurements.
5. A sample port is required on the discharge pipe near the wellhead.

(C.) GROUNDWATER MONITORING WELLS INCLUDING PIEZOMETERS
1. Minimum surface seal diameter is four inches greater than the well or piezometer casing diameter.
2. Minimum seal depth for monitoring wells is the maximum depth practicable or 20 feet.
3. Grout placed by tremie.

D. GEOTECHNICAL. Backfill bore hole with compacted cuttings or heavy bentonite and upper two feet with compacted material. In areas of known or suspected contamination, tremied cement grout shall be used in place of compacted cuttings.

E. CATHODIC. Fill hole above anode zone with concrete placed by tremie.

F. WELL DESTRUCTION. See attached.

(G.) SPECIAL CONDITIONS. Submit to Zone 7 within 60 days after completion of permitted work the well installation report **including all soil and water laboratory analysis results.**

Approved Wyman Hong Date 2/23/10
Wyman Hong

Revised: January 1, 2010

Well Construction Details for 13 wells at 4191 First Street in Pleasanton

Well ID	Borehole Diameter	Casing Diameter	Surface Seal Depth	Maximum Depth	Screen Length	Use
MW-13	8	2	68	80	10	Monitoring
CWA-1	10	4	13	30	15	Monitoring/ Remediation
CWA-2	10	4	33	45	15	Monitoring/ Remediation
CWA-3	10	4	48	55	5	Monitoring/ Remediation
CWB-1	10	4	18	25	5	Monitoring/ Remediation
CWB-2	10	4	28	35	5	Monitoring/ Remediation
CWB-3	10	4	53	65	10	Monitoring/ Remediation
OW-A1	8	1	23	30	5	Observation
OW-A2	8	1	23	45	5	Observation
OW-A3	8	1	23	50	5	Observation
OW-B1	8	1	18	25	5	Observation
OW-B2	8	1	18	35	5	Observation
OW-B3	8	1	18	65	5	Observation

Notes:

OW wells will be installed in same 8" boring (3 casings in OW-A boring and 3 casings in OW-B boring). Each nested well will be installed at maximum boring depth with 5 foot screen. Bentonite will be placed between nested well screens as a seal.

Depth in feet below ground surface

Diameter in inches

APPENDIX E

Soil Boring Logs and Well Construction Diagrams

Delta
Consultants

Project No: c107376		Client:	ConocoPhillips	Well/ Boring ID: CWA-1	
Logged By: Lee Dooley		Location:	4191 First Street, Pleasanton, CA	Page 1 of 3	
Driller: Gregg Drilling and Testing		Date Drilled:	4/5/10-4/6/10	Location Map	
Drilling Method:	Hollow Stem Auger	Hole Diameter:	10"	Please See Site Map	
Sampling Method:	Split Spoon	Hole Depth:	55		
Casing Type:	Sch 40 PVC	Well Diameter:	4		
Slot Size:	0.02 - inch	Well Depth:	55		
Gravel Pack:	2/12 Sand	Casing Stickup:			
Elevation		Northing		Easting	

Well Completion: Backfill	Well Completion: Casing	Static Water Level	Moisture Content	PID Reading (ppm)	Penetration (blows/6")	Depth (feet)	Sample: Recovery	Sample: Interval	Soil Type	LITHOLOGY / DESCRIPTION
					Air knife to 5 feet bgs	1–8				
					5	9			GC	**Clayey Gravel**, brown, 20% clay
			moist	41.5	4				CL	**Lean Clay with Gravel**, brown, 25% gravel,
					5	10				angular, stiff
						11–14				
					3	15				As above, very stiff
			moist	30.2	5	16				
					9					
					10	17				
					8				CL	**Gravelly Lean Clay**, yellowish tan with red, quartz
			moist	22.5	8	18				and chert clasts, very stiff
					12					
					6	19				
			moist	7.4	8				GW	**Sandy Gravel**, greenish gray, trace fines
					14					medium dense
					7	20			CL	**Gravelly Lean Clay**, yellowish tan, rounded 1/2-
			moist	41.2	9	21				inch quartz gravel, very stiff
					12					
					12					
					3	22				As above

PROFESSIONAL GEOLOGIST
R. LEE DOOLEY
NO. 0183
CERTIFIED
HYDROGEOLOGIST
STATE OF CALIFORNIA

Delta
Consultants

Project No: c107376	Client: ConocoPhillips	Well/ Boring ID: CWA-1	
Logged By: Lee Dooley	Location: 4191 First Street, Pleasanton, CA	Page 2 of 3	
Driller: Gregg Drilling and Testing	Date Drilled: 4/5/10-4/6/10	Location Map: Please See Site Map	
Drilling Method: Hollow Stem Auger	Hole Diameter: 10"		
Sampling Method: Split Spoon	Hole Depth: 55		
Casing Type: Sch 40 PVC	Well Diameter: 4		
Slot Size: 0.02 - inch	Well Depth: 55		
Gravel Pack: 2/12 Sand	Casing Stickup:		
Elevation	Northing	Easting	

Well Completion (Backfill / Casing)	Static Water Level	Moisture Content	PID Reading (ppm)	Penetration (blows/6")	Depth (feet)	Sample Recovery / Interval	Soil Type	LITHOLOGY / DESCRIPTION
			21.2	6 7	23		CL	**Gravelly Lean Clay Continued** yellowish tan, rounded 1/2-inch quartz gravel, stiff
		damp	49.5	2 6 7	24 25			As above, gray-tan mottled, less gravel, silty stiff
		moist	29.3	8 12 13 15	26		GC	**Clayey Gravel**, greenish tan, clasts up to 1/2-inch quartz, subangular to subrounded, 30% clay medium dense
		moist	17.9	4 12 13	27 28		SP-SW	As above **Well Graded Gravelly Sand**, 35% gravel medium dense
			393	5 5 9	29 30		ML	**Silt with Gravel**, orange-tan, 20% gravel, stiff
		moist	369	4 6 8 10	31 32		ML	**Silt**, light gray-tan mottled, <5% gravel, stiff As above, gray-green, no gravel, very stiff sheen on surface - sph, medium stiff
			649	2 3 5	33			
		very moist	766	10 16 14	34 35			saturated with SPH- large gravel clasts >1/4-inch very stiff to hard
		moist	598	14 16 26 30	36 37		GC	As above **Clayey Gravel**, greenish dark-gray, SPH on gravel surfaces, very dense
			688	10 13 16	38		GW	**Well Graded Sandy Gravel with Clay**, dark gray, 25% sand, 10% clay, SPH - vertical fractures medium dense
			328	9 11 12	39 40			
			49.4	4 10	41		CL	**Lean Clay**, orange-tan, no gravel, no SPH very stiff
		damp		10 14	42			(as above) (increasing silt)
		damp	35	7 10 7	43		ML	**Silt**, orange-tan, 20% fine sand very stiff
		damp	15.5	4 10	44			As above

Delta
Consultants

Project No:c107376	Client:	ConocoPhillips	Well/ Boring ID: CWA-1
Logged By: Lee Dooley	Location:	4191 First Street, Pleasanton, CA	Page 3 of 3
Driller: Gregg Drilling and Testing	Date Drilled:	4/5/10-4/6/10	Location Map: Please See Site Map
Drilling Method: Hollow Stem Auger	Hole Diameter:	10"	
Sampling Method: Split Spoon	Hole Depth:	55	
Casing Type: Sch 40 PVC	Well Diameter:	4	
Slot Size: 0.02 - inch	Well Depth:	55	
Gravel Pack: 2/12 Sand	Casing Stickup:		
Elevation	Northing		Easting

Well Completion (Backfill / Casing)	Static Water Level	Moisture Content	PID Reading (ppm)	Penetration (blows/6")	Depth (feet)	Sample Recovery / Interval	Soil Type	LITHOLOGY / DESCRIPTION
				11	45			**Silt**, orange-tan, 20% fine sand, very stiff continued.
				6				
		damp	5.5	9	46		CL	**Lean Clay**, orange-tan, 15% fine sand, trace fine
				13				gravel- chert, quartz, very stiff
				15	47			
				5				(as above, black spots of mineralization)
		damp	7.8	6				stiff
				7	48			
				4				
		damp	3.5	6	49			as above, very stiff
				10				
				6	50			
				6				
		damp	2.9	9	51			as above
				14				
				5	52			
		damp	3.5	8				as above
				10	53			
				6			GC	**Clayey Gravel with Sand**, 20% clay, 20% medium
		damp	1.5	10	54			sand, medium dense
				10				
					55			Bottom of Boring at 55 Feet bgs
					56			
					57			
					58			
					59			
					60			
					61			
					62			
					63			
					64			
					65			
					66			

Delta
Consultants

Project No:c107376		Client:	ConocoPhillips
Logged By: Lee Dooley		Location:	4191 First Street, Pleasanton, CA
Driller: Gregg Drilling and Testing		Date Drilled:	4/5/10-4/6/10
Drilling Method:	Hollow Stem Auger	Hole Diameter:	10"
Sampling Method:	Split Spoon	Hole Depth:	40
Casing Type:	Sch 40 PVC	Well Diameter:	4
Slot Size:	0.02 - inch	Well Depth:	40
Gravel Pack:	2/12 Sand	Casing Stickup:	

Well/ Boring ID: CWA-2
Page 1 of 1

Location Map
Please See Site Map

Elevation	Northing	Easting

Well Completion (Backfill, Casing)	Static Water Level	Moisture Content	PID Reading (ppm)	Penetration (blows/6")	Depth (feet)	Sample Recovery	Sample Interval	Soil Type	LITHOLOGY / DESCRIPTION
					2				See CWA-1 for lithology
					4				
					6				
					8				
					10				
					12				
					14				
					16				
					18				
					20				
					22				
					24				
					26				
					28				
					30				
					32				
					34				
					36				
					38				
					40				Bottom of Boring at 40 feet bgs
					42				
					44				

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Project No:c107376		Client:	ConocoPhillips	Well/ Boring ID: CWA-3	
Logged By: Nadine Periat		Location:	4191 First Street, Pleasanton, CA	Page 1 of 1	
Driller: Gregg Drilling and Testing		Date Drilled:	4/5/10-4/6/10	Location Map: Please See Site Map	
Drilling Method:	Hollow Stem Auger	Hole Diameter:	10"		
Sampling Method:	Split Spoon	Hole Depth:	35		
Casing Type:	Sch 40 PVC	Well Diameter:	4		
Slot Size:	0.02 - inch	Well Depth:	35		
Gravel Pack:	2/12 Sand	Casing Stickup:			
Elevation		Northing		Easting	

Well Completion (Backfill, Casing)	Static Water Level	Moisture Content	PID Reading (ppm)	Penetration (blows/6")	Depth (feet)	Sample Recovery	Sample Interval	Soil Type	LITHOLOGY / DESCRIPTION
					2				See CWA-1 for lithology
					4				
					6				
					8				
					10				
					12				
					14				
					16				
					18				
					20				
					22				
					24				
					26				
					28				
					30				
					32				
					34				
					36				Bottom of Boring at 35 feet bgs
					38				
					40				
					42				
					44				

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Project No: C107376		Client:	ConocoPhillips	Well/ Boring ID: CWB-1	
Logged By: Lee Dooley		Location:	4191 First Street, Pleasanton, CA	Page 1 of 3	
Driller: Gregg Drilling and Testing		Date Drilled:	3/29/10	Location Map	
Drilling Method:	Hollow Stem Auger	Hole Diameter:	10"	Please See Site Map	
Sampling Method:	Split Spoon	Hole Depth:	65	▽ = First Encountered Groundwater Depth	
Casing Type:	Sch 40 PVC	Well Diameter:	4		
Slot Size:	0.02 - inch	Well Depth:	65		
Gravel Pack:	2/12 Sand	Casing Stickup:	NA		
Elevation		Northing		Easting	

Well Completion (Backfill / Casing)	Static Water Level	Moisture Content	PID Reading (ppm)	Penetration (blows/6")	Depth (feet)	Sample Recovery	Sample Interval	Soil Type	LITHOLOGY / DESCRIPTION
				Air knife to 5 feet bgs	1			CL	**Lean Clay**, brown, silty, <10% fine sand, very stiff, lithified with fracture planes
					2			GM	**Silty Gravel**, brown, 20-25% silt, gravel is well graded, medium sized to 6" diameter cobbles, chunks of asphalt, brick and concrete mixed with silty gravel
					3				Artificial fill
					4				
					5			SM	**Silty Sand with Gravel**, 25% gravel, 50% fine sand 30% silt, black organic material
					6				
					7				
					8				
		Damp	0.3	5 7 10	9				As above, medium dense
					10				
					11				
					12				
					13				
					14				
					15				
				4					As above, gravel up to 1/2 inch diameter, subrounded
		Wet	0.5	5 5 7	16			GW-GM	**Well Graded Gravel with Silt**, gray, 10% silt, medium dense
				3	17			SM	**Silty Sand with Gravel**, orange-tan mottled, 15% gravel,
		Damp	0.5	7 10	18				15-25% silt, medium dense
				7				CL	**Lean Clay with Sand**, mottled, 20% sand
		Damp	0.9	12 16	19				wood/organic fragments (brown) moderate plasticity, very stiff
				8	20				
				10				CL	**Sandy Lean Clay**, orange tan, 10% fine gravel, 20-30%
			0.8	13 16	21				medium sand, very stiff
				10	22				

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Project No: C107376	Client: ConocoPhillips	Well/ Boring ID: CWB-1	
Logged By: Lee Dooley	Location: 4191 First Street, Pleasanton, CA	Page 2 of 3	
Driller: Gregg Drilling and Testing	Date Drilled: 3/29/10	Location Map: Please See Site Map	
Drilling Method: Hollow Stem Auger	Hole Diameter: 10"	▽ = First Encountered Groundwater Depth	
Sampling Method: Split Spoon	Hole Depth: 65		
Casing Type: Sch 40 PVC	Well Diameter: 4		
Slot Size: 0.02 - inch	Well Depth: 65		
Gravel Pack: 2/12 Sand	Casing Stickup: NA		
Elevation	Northing	Easting	

Well Completion (Backfill / Casing)	Static Water Level	Moisture Content	PID Reading (ppm)	Penetration (blows/6")	Depth (feet)	Sample Recovery	Sample Interval	Soil Type	LITHOLOGY / DESCRIPTION
			0.4	10 17	23			CL	**Sandy Lean Clay continued**, grey
				7 13	24				As above, brown-grey, less sand, 5-10% sand, hard.
			1.1	18	25				
				6				GM	**Silty Gravel**, 1/8"-1/4" quartz gravel, sub angular, dense
				13				CL	**Gravelly Clay with Sand**, 20% fine gravel, 20% quartz
			1.1	18	26				sand, 60% clay, grey root holes, white veining, hard
				19	27				
				4					
		Damp	1.3	13	28				
				17					
				5	29				
			6.3	6					As above, 1/2 frequency of quartz and red chert
				11	30				very stiff
				5				SM	**Silty Sand**, trace gravel, 25% silt, dense
			7.5	6	31				
		Moist		15					
				16	32				
				4				ML	**Sandy Silt**, grey, 35% very fine sand, low plasticity
			34.3	4	33				stiff
		Wet		8					
					34				
		Damp Moist	27.7						
					35			SP	**Poorly Graded Sand**, grey, medium dense
				4					
			28.5	4	36				
		Damp		7					
				11				GC	**Clayey Gravel**, 1/4"-1/2" quartz, subangular gravel, 30%
				6	37			SP	clay, medium dense
				19					**Poorly Graded Sand**, grey, sand is fine to medium,
		Moist		22	38			GM	10% gravel, dense
				21					**Silty Gravel**, grey, 20% silt, gravel is coarse, angular
		Damp	425	35	39				quartzite, very dense
				16					Calcite (effervesces in HCL)
				4	40			CL	**Sandy Lean Clay**, orange-tan, medium plasticity,
		Damp	55	16					very stiff
				8	41				
				10					
				4	42			CL	**Lean Clay**, grey-orange tan mottled,
			110	10					little or no sand, stiff
				12	43				
				6					
			102	7	44				

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Project No: C107376		Client:	ConocoPhillips	Well/ Boring ID: CWB-1	
Logged By: Lee Dooley		Location:	4191 First Street, Pleasanton, CA	Page 3 of 3	
Driller: Gregg Drilling and Testing		Date Drilled:	3/29/10	Location Map: Please See Site Map	
Drilling Method:	Hollow Stem Auger	Hole Diameter:	10"	▽ = First Encountered Groundwater Depth	
Sampling Method:	Split Spoon	Hole Depth:	65		
Casing Type:	Sch 40 PVC	Well Diameter:	4		
Slot Size:	0.02 - inch	Well Depth:	65		
Gravel Pack:	2/12 Sand	Casing Stickup:	NA		
Elevation		Northing		Easting	

Well Completion (Backfill / Casing)	Static Water Level	Moisture Content	PID Reading (ppm)	Penetration (blows/6")	Depth (feet)	Sample Recovery	Sample Interval	Soil Type	LITHOLOGY / DESCRIPTION
				9	45				**Lean Clay continued**
				4				ML	**Silt**, orange-tan, 5-10% sand, very stiff
			102	7	46				
				9					
				13	47				
				3				CL	**Lean Clay**, orange-tan with black spots, silty, moderate
		Damp	711	5	48				plasticity, stiff
				7					
				7	49				
		Damp	101	10					As above, trace fine angular gravel,
				13	50				very stiff
				4					
		Damp	381	7	51				
				8					As above
				13	52				
				14					
			157	10	53				
				10					
				5	54				
		Damp	354	8					sub rounded red chert clasts
				12	55				
				4					scattered medium gravel
			1274	15	56				
				14					As above, hard
				18	57				
				6				GM	**Silty Gravel**, grey-orange-tan mottled, medium dense
		Damp	44.6	9	58				
				10				ML	**Silt with Gravel**, grey-brown, very stiff
				4	59				
		Damp	1406	7					
				9	60			SM	**Silty Sand with Gravel**, grey, 25% gravel, 25% silt
	▽			6					
			1620	12	61			SW	**Gravelly Sand**, grey, 30% gravel, medium rounded,
		Wet		19					dense
				22	62				
				6					SPH-black, as above
			1312	10	63				
				15					
				17	64				
			1268	19					very dense
				40	65				
									Bottom of boring = 65 feet below grade
					66				

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Project No: C107376		Client:	ConocoPhillips
Logged By: Lee Dooley		Location:	4191 First Street, Pleasanton, CA
Driller: Gregg Drilling and Testing		Date Drilled:	3/29-3/30/10
Drilling Method:	Hollow Stem Auger	Hole Diameter:	10"
Sampling Method:	Split Spoon	Hole Depth:	57
Casing Type:	Sch 40 PVC	Well Diameter:	4
Slot Size:	0.02 - inch	Well Depth:	57
Gravel Pack:	2/12 Sand	Casing Stickup:	NA

Well/ Boring ID: CWB-2
Page 1 of 1

Location Map
Please See Site Map

▽ = First Encountered Groundwater Depth

Elevation	Northing	Easting

Well Completion (Backfill / Casing)	Static Water Level	Moisture Content	PID Reading (ppm)	Penetration (blows/6")	Depth (feet)	Sample Recovery	Sample Interval	Soil Type	LITHOLOGY / DESCRIPTION
					4				See CWB-1 for lithology
					8				
					12				
					16				
					20				
					24				
					28				
					32				
					36				
					40				
					44				
					48				
					52				
					56				
					60				Bottom of Boring at 57 feet bgs
					64				
					68				
					72				
					76				
					80				
					84				
					88				

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Project No: C107376		Client:	ConocoPhillips	Well/ Boring ID: CWB-3	
Logged By: Lee Dooley		Location:	4191 First Street, Pleasanton, CA	Page 1 of 1	
Driller: Gregg Drilling and Testing		Date Drilled:	3/29-3/30/10	Location Map	
Drilling Method:	Hollow Stem Auger	Hole Diameter:	10"	Please See Site Map	
Sampling Method:	Split Spoon	Hole Depth:	40	▽ = First Encountered Groundwater Depth	
Casing Type:	Sch 40 PVC	Well Diameter:	4		
Slot Size:	0.02 - inch	Well Depth:	40		
Gravel Pack:	2/12 Sand	Casing Stickup:	NA		
Elevation		Northing		Easting	

Well Completion (Backfill, Casing)	Static Water Level	Moisture Content	PID Reading (ppm)	Penetration (blows/6")	Depth (feet)	Sample Recovery	Sample Interval	Soil Type	LITHOLOGY / DESCRIPTION
					2				See CWB-1 for lithology
					4				
					6				
					8				
					10				
					12				
					14				
					16				
					18				
					20				
					22				
					24				
					26				
					28				
					30				
					32				
					34				
					36				
					38				
					40				Bottom of Boring at 40 feet bgs
					42				
					44				

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Project No: c107376		Client:	ConocoPhillips	Well/ Boring ID: MW-13	
Logged By: Nadine Periat		Location:	4191 First Street, Pleasanton, CA	Page 1 of 4	
Driller: Gregg Drilling and Testing		Date Drilled:	4/1-4/2/10	Location Map	
Drilling Method:	Hollow Stem Auger	Hole Diameter:	8"	Please See Site Map	
Sampling Method:	Split Spoon	Hole Depth:	80	▽ First Encountered Water	
Casing Type:	Sch 40 PVC	Well Diameter:	2	▼ Static Water Level	
Slot Size:	0.02 - inch	Well Depth:	77		
Gravel Pack:	2/12 Sand	Casing Stickup:			
Elevation		Northing		Easting	

Well Completion (Backfill / Casing)	Static Water Level	Moisture Content	PID Reading (ppm)	Penetration (blows/6")	Depth (feet)	Sample Recovery / Interval	Soil Type	LITHOLOGY / DESCRIPTION
				Air knife to 5 feet bgs	1–8		ML	**Silt,** brown, < 10% fine sand, trace cobbles, slight plasticity, clayey, artificial fill
		Damp	0.3	4 4 5	9–10		ML	**Sandy Silt**, brown, 35-45% very fine sand, sand is poorly graded, unconsolidated, stiff
		Damp	1.1	5 4 5	14–15			As above, better consolidation, small root holes stiff
		Damp	0.2	8 10 12	19–20			As above, trace medium gravel, subrounded, 1" in diameter, very stiff

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Project No: c107376		Client: ConocoPhillips	Well/ Boring ID: MW-13
Logged By: Nadine Periat		Location: 4191 First Street, Pleasanton, CA	Page 2 of 4
Driller: Gregg Drilling and Testing		Date Drilled: 4/1-4/2/10	
Drilling Method:	Hollow Stem Auger	Hole Diameter: 8"	
Sampling Method:	Split Spoon	Hole Depth: 80	
Casing Type:	Sch 40 PVC	Well Diameter: 2	
Slot Size:	0.02 - inch	Well Depth: 77	
Gravel Pack:	2/12 Sand	Casing Stickup:	
Elevation		Northing	Easting

Location Map
Please See Site Map

▽ First Encountered Water
▼ Static Water Level

Well Completion: Backfill / Casing	Static Water Level	Moisture Content	PID Reading (ppm)	Penetration (blows/6")	Depth (feet)	Sample: Recovery / Interval	Soil Type	LITHOLOGY / DESCRIPTION
					23			
		Damp	0.5	8 11 12	24 25		CL	**Lean Clay with Sand**, brown-tan, 15-20% coarse sand, trace fine gravel, low plasticity, silty, very stiff.
					26 27 28			
		Moist	0.7	4 7 9	29 30			As above
					31 32 33			
		Very Moist	0.6	5 8 9	34 35		CL	**Lean Clay**, tan/gray mottled, 5-15% fine sand, medium plasticity, root holes, very stiff
					36 37 38			
		Moist	0.5	3 50/3	39 40		GW	**Sandy Gravel**, gray, gravel is <1-inch to >2-inches in diameter, fractured, 25-30% well graded sand, 10% clay, poor recovery, cobble stuck in sampler very dense
					41 42 43			
		Moist	0.5	24 20	44		CL	As above **Lean Clay**, tan-orange mottled, trace gravel, 10-15% fine to medium sand, medium plasticity, hard

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Project No: c107376		Client:	ConocoPhillips	Well/ Boring ID: MW-13
Logged By: Nadine Periat		Location:	4191 First Street, Pleasanton, CA	Page 3 of 4
Driller: Gregg Drilling and Testing		Date Drilled:	4/1-4/2/10	
Drilling Method:	Hollow Stem Auger	Hole Diameter:	8"	
Sampling Method:	Split Spoon	Hole Depth:	80	
Casing Type:	Sch 40 PVC	Well Diameter:	2	
Slot Size:	0.02 - inch	Well Depth:	77	
Gravel Pack:	2/12 Sand	Casing Stickup:		

Location Map
Please See Site Map

▽ First Encountered Water
▼ Static Water Level

Elevation	Northing	Easting

Well Completion (Backfill / Casing)	Static Water Level	Moisture Content	PID Reading (ppm)	Penetration (blows/6")	Depth (feet)	Sample Recovery	Sample Interval	Soil Type	LITHOLOGY / DESCRIPTION
				20	45			CL	**Lean Clay Continued**
					46				
					47				
					48				
				4	49				As above, stiff
		Moist	0.1	7					
				7	50				
					51				
					52				
					53				
				5	54				As above, low plasticity, silty, very stiff
		Moist	0.5	7					
				9	55				
					56				
					57				
					58				
				4	59				As above, chunks of black organic matter, very stiff
		Damp	1.4	9					
				12	60				
					61				
					62				
					63				
				3	64			SC	**Clayey Sand**, brown, 15-20% clay, slight plasticity
		Moist	0.9	6					sand is fine and poorly graded, medium dense
				15	65				
					66				

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Project No: c107376		Client:	ConocoPhillips	Well/ Boring ID: MW-13	
Logged By: Nadine Periat		Location:	4191 First Street, Pleasanton, CA	Page 4 of 4	
Driller: Gregg Drilling and Testing		Date Drilled:	4/1-4/2/10	Location Map	
Drilling Method:	Hollow Stem Auger	Hole Diameter:	8"	Please See Site Map	
Sampling Method:	Split Spoon	Hole Depth:	80	▽ First Encountered Water	
Casing Type:	Sch 40 PVC	Well Diameter:	2	▼ Static Water Level	
Slot Size:	0.02 - inch	Well Depth:	77		
Gravel Pack:	2/12 Sand	Casing Stickup:			
Elevation		Northing		Easting	

Well Completion (Backfill / Casing)	Static Water Level	Moisture Content	PID Reading (ppm)	Penetration (blows/6")	Depth (feet)	Sample Recovery	Sample Interval	Soil Type	LITHOLOGY / DESCRIPTION
	▼				67				**Clayey Sand**, continued
					68				
		Very Moist	0.2	17 32 38	69			SC	**Clayey Sand with Gravel,** tan, 20-25% fine gravel, 20% clay, sand is well graded, gravel is angular. very dense
					70				
					71				
					72				
					73				
	▽	Wet	1	18 23 22	74			SC	**Clayey Sand,** tan, 15-25% clay, sand is well graded, trace fine gravel, dense
					75				
					76				
					77				
					78				
	Cave-in								
		Wet	0.4	17 28 50	79				As above, very dense.
					80				Bottom of Boring at 80' bgs
					81				
					82				
					83				
					84				
					85				
					86				
					87				
					88				

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Consultants

Project No: c107376		Client:	ConocoPhillips	Well/ Boring ID: OWA-1,2,3	
Logged By: Nadine Periat		Location:	4191 First Street, Pleasanton, CA	Page 1 of 3	
Driller: Gregg Drilling and Testing		Date Drilled:	4/7/2010	Location Map: Please See Site Map	
Drilling Method:	Hollow Stem Auger	Hole Diameter:	8"		
Sampling Method:	Split Spoon	Hole Depth:	50'		
Casing Type:	Sch 40 PVC	Well Diameter:	1" (3 casings)		
Slot Size:	0.02 - inch	Well Depth:	50', 40', 34'		
Gravel Pack:	2/12 Sand	Casing Stickup:			
Elevation		Northing		Easting	

Well Completion: Backfill	Well Completion: Casing	Static Water Level	Moisture Content	PID Reading (ppm)	Penetration (blows/6")	Depth (feet)	Sample: Recovery	Sample: Interval	Soil Type	LITHOLOGY / DESCRIPTION
										Asphalt
										Base Rock- sand, gravel, silt mixture
					Air Knife to	1			CL	**Lean Clay**, gray, silty, no sand
						2				
						3			CL	**Lean Clay with Sand**, orange-tan, 30% medium sand, 5-10% fine gravel
						4				
						5				(gray-tan)
						6				
						7				
						8				
					13	9			GP-GC	No Recovery - Driller speculates material is gravel
					16					Dense
					19	10				
						11				
						12				
						13				
					10	14			GC	**Gravel with Silt and Sand**, brown, 30% well graded sand, 15-20% silt, gravel is subrounded and well graded, large cobbles stuck in sampler (chert)
			Damp	44.3	23					Dense
					19	15				
						16				
						17				
						18				
					6	19				**Sandy Lean Clay**, brown-green, 35-45% fine to medium sand, trace fine gravel, silty, very stiff
			Moist	38.6	8					
					9	20				
						21				
						22				

Grout

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Project No: c107376		Client:	ConocoPhillips	Well/ Boring ID: OWA-1,2,3	
Logged By: Nadine Periat		Location:	4191 First Street, Pleasanton, CA	Page 2 of 3	
Driller: Gregg Drilling and Testing		Date Drilled:	4/7/2010	Location Map: Please See Site Map	
Drilling Method:	Hollow Stem Auger	Hole Diameter:	8"		
Sampling Method:	Split Spoon	Hole Depth:	50'		
Casing Type:	Sch 40 PVC	Well Diameter:	1" (3 casings)		
Slot Size:	0.02 - inch	Well Depth:	50', 40', 34'		
Gravel Pack:	2/12 Sand	Casing Stickup:			
Elevation		Northing		Easting	

Well Completion	Static Water Level	Moisture Content	PID Reading (ppm)	Penetration (blows/6")	Depth (feet)	Sample Recovery	Sample Interval	Soil Type	LITHOLOGY / DESCRIPTION
Backfill: Grout; Casing					23				
		Damp	47.5	5 8 7	24 25			SC	**Clayey Sand with Gravel**, brown-green, 15-20% gravel, 20% clay, sand is fine to medium, gravel is subrounded medium dense
					26				
Bentonite					27 28				
Sand		Moist	1275	12 14 17	29 30			SM	**Silty Sand with Gravel**, brown, sand is 70% fine and 30% medium to coarse, gravel is fine to medium and subrounded, 15-20% silt, dense
					31 32			CL	Shoe is: **Lean Clay with Sand**, brown-green, 5% gravel, 15-20% fine sand, medium plasticity
					33				
Bentonite		Moist	1052	7 8 22	34 35			GW-GM	**Well Graded Gravel with Silt and Sand**, brown-green, 10% fines, 35-40% well graded sand, 10% fines, gravel is fine to >2" (angular fragments). dense, brown separate phase hydrocarbon (SPH) Light blue-white soft crystaline precipitate observed. Sample effervesces when mixed with HCL
					36 37				
Sand		Damp	741	5 8 10	38 39 40			CL	**Lean Clay with Sand**, grey-tan mottled, 15-20% fine sand, sample contains large amount of SPH in root holes very stiff
Bentonite					41 42				
Sand			844	7 12	43 44			CL	**Sandy Lean Clay**, brown-green mottled, 35-40% fine sand large amount of oil (SPH), red color at top of sample

Delta
Consultants

Project No: c107376		Client:	ConocoPhillips
Logged By: Nadine Periat		Location:	4191 First Street, Pleasanton, CA
Driller: Gregg Drilling and Testing		Date Drilled:	4/7/2010
Drilling Method:	Hollow Stem Auger	Hole Diameter:	8"
Sampling Method:	Split Spoon	Hole Depth:	50'
Casing Type:	Sch 40 PVC	Well Diameter:	1" (3 casings)
Slot Size:	0.02 - inch	Well Depth:	50', 40', 34'
Gravel Pack:	2/12 Sand	Casing Stickup:	
Elevation		Northing	Easting

Well/ Boring ID: OWA-1,2,3
Page 3 of 3

Location Map
Please See Site Map

Well Completion (Backfill / Casing)	Static Water Level	Moisture Content	PID Reading (ppm)	Penetration (blows/6")	Depth (feet)	Sample Recovery	Sample Interval	Soil Type	LITHOLOGY / DESCRIPTION
Sand				17	45			CL	**Sandy Lean Clay continued** very stiff
					46				
					47				
					48				
				10	49				As above, orange, areas of well cemented green material
		Damp	252	10					some SPH
				17	50				
					51				Bottom of boring = 50'
					52				
					53				
					54				
					55				
					56				
					57				
					58				
					59				
					60				
					61				
					62				
					63				
					64				
					65				
					66				

Delta
Consultants

Project No: c107376		Client:	ConocoPhillips	Well/ Boring ID: OWB-1,2,3	
Logged By: Nadine Periat		Location:	4191 First Street, Pleasanton, CA	Page 1 of 3	
Driller: Gregg Drilling and Testing		Date Drilled:	03/31/10	Location Map: Please See Site Map	
Drilling Method:	Hollow Stem Auger	Hole Diameter:	8"		
Sampling Method:	Split Spoon	Hole Depth:	65		
Casing Type:	Sch 40 PVC	Well Diameter:	1" (3 casings)		
Slot Size:	0.02 - inch	Well Depth:	65', 53', 40'		
Gravel Pack:	2/12 Sand	Casing Stickup:	NA		
Elevation		Northing		Easting	

Well Completion: Backfill	Well Completion: Casing	Static Water Level	Moisture Content	PID Reading (ppm)	Penetration (blows/6")	Depth (feet)	Sample: Recovery	Sample: Interval	Soil Type	LITHOLOGY / DESCRIPTION
Grout			Damp		Air Knife to	1			GC	**Clayey Gravel**, brown, 20% clay, gravel is angular to pea gravel (artificial fill)
						2			ML	**Sandy Silt**, brown, 35% fine sand, slight plasticity trace 3"-6" cobbles, artificial fill from old rail road
						3				
						4				
						5				
						6				
						7				
						8			SM	**Silty Sand with Gravel**, brown, 20% fine-medium gravel, 30% silt, gravel is subrounded, sand is fine, medium stiff
			Damp	1.4	5 4 4	9				
						10			ML	**Sandy Silt**, dark brown, 35-40% fine sand, <10% fine gravel no plasticity, medium stiff
						11				
						12				
						13				
			Damp	2.3	5 2 4	14			ML	**Sandy Silt with Gravel**, brown, 15-20% gravel, gravel is well rounded, medium stiff
						15				
						16				
						17				
						18				
			Damp	1.5	7 23 16	19			SM	**Silty Sand with Gravel**, tan, 15% fine to medium gravel, 50-60% fine sand, hard
						20			CL	**Lean Clay with Sand**, tan-orange, 15-25% fine sand, low plasticity, hard
						21				
						22				

PROFESSIONAL GEOLOGIST
R. LEE DOOLEY
NO. 0183
CERTIFIED
HYDROGEOLOGIST
STATE OF CALIFORNIA

Delta
Consultants

Project No: c107376	Client: ConocoPhillips	Well/ Boring ID: OWB-1,2,3	
Logged By: Nadine Periat	Location: 4191 First Street, Pleasanton, CA	Page 2 of 3	
Driller: Gregg Drilling and Testing	Date Drilled: 03/31/10	Location Map: Please See Site Map	
Drilling Method: Hollow Stem Auger	Hole Diameter: 8"		
Sampling Method: Split Spoon	Hole Depth: 65		
Casing Type: Sch 40 PVC	Well Diameter: 1" (3 casings)		
Slot Size: 0.02 - inch	Well Depth: 65', 53', 40'		
Gravel Pack: 2/12 Sand	Casing Stickup: NA		
Elevation	Northing	Easting	

Well Completion (Backfill / Casing)	Static Water Level	Moisture Content	PID Reading (ppm)	Penetration (blows/6")	Depth (feet)	Sample Recovery	Sample Interval	Soil Type	LITHOLOGY / DESCRIPTION
Grout					23				
		Damp	3.9	5 14 15	24 25			CL	**Sandy Lean Clay**, tan-orange, 5% fine gravel, 25-35% well graded sand, low plasticity, very stiff, silty
Bentonite					26 27 28				
Sand		Damp	4.1	5 12 12	29 30 31			GM CL	**Silty Gravel with Sand**, brown-gray, 15-20% well graded sand, 20-30% silt, gravel is fine and sub angular **Lean Clay with Sand**, green grey, 15-20% sand, low plasticity, trace gravel, silty, very stiff
		Damp	7.2	15 12 6	32 33 34 35			GP-GM SP	**Poorly Graded Gravel with Silt**, grey, 10-15% fine sand, 10% silt, gravel is fine **Poorly Graded Sand**, green, trace fine gravel, <5% silt, sand is very fine toward 35', medium dense
		Damp	6.0	17 35 23	36 37 38 39 40			GM	**Silty Gravel with Sand and Silt**, grey, 30% well graded sand, 15-20% silt, gravel is fine to medium, angular to well rounded, the angular gravel is likely fractured cobbles very dense
Bentonite					41 42 43				
			1230	7 10	44			CL	**Lean Clay**, tan-orange, trace gravel, 5-10% fine sand, low plasticity, orange mottling, very stiff

Delta
Consultants

Project No: c107376	Client:	ConocoPhillips	Well/ Boring ID: OWB-1,2,3
Logged By: Nadine Periat	Location:	4191 First Street, Pleasanton, CA	Page 3 of 3
Driller: Gregg Drilling and Testing	Date Drilled:	03/31/10	Location Map: Please See Site Map
Drilling Method: Hollow Stem Auger	Hole Diameter:	8"	
Sampling Method: Split Spoon	Hole Depth:	65	
Casing Type: Sch 40 PVC	Well Diameter:	1" (3 casings)	
Slot Size: 0.02 - inch	Well Depth:	65', 53', 40'	
Gravel Pack: 2/12 Sand	Casing Stickup:	NA	
Elevation	Northing	Easting	

Well Completion (Backfill / Casing)	Static Water Level	Moisture Content	PID Reading (ppm)	Penetration (blows/6")	Depth (feet)	Sample Recovery	Sample Interval	Soil Type	LITHOLOGY / DESCRIPTION
Bentonite / Casing				11	45			CL	**Lean Clay continued**
					46				
					47				
					48				
Sand / Casing		Damp	75	5 6 9	49 50				As above, black organic chunks, silty, stiff
					51				
					52				
					53				
Bentonite / Casing		Damp	5	7 8 14	54 55				As above, very stiff
					56				
					57				
					58				
Sand / Casing		Damp	2.2	8 8 12	59 60				As above, 5-10% fine gravel
					61				
					62				
					63				
			2.2	3 8 14	64 65			SM	**Silty Sand with Gravel**, orange brown mottled, 15-25% fine gravel, 30-35% silt, sand is fine becomes grey with 35% gravel and 15-20% silt
					66				Bottom of boring = 65'

APPENDIX F

Field Data Sheets from Well Development

GREGG

MONITORING WELL DEVELOPMENT LOG

Page _____ of _____

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

Sample ID _____

Well Number MW-5
Date 4/14/10
Time Start: 9:40 End: _____
Client DELTA
Project _____
Job Number _____
Installation Date _____
Well Diameter 2

Borehole Diameter 5
Screen Length _____
Measured Depth (pre-development) 78.28
Measured Depth (post-development) 78.28
Static Water Level (ft.) 68.1928
Standing Water Column (ft.) 5.722
One Well Volume (gal.) 0.97
One Annulus Vol. (gal.) 9.7

Qty. of Drilling Fluid Lost _____
Minimum Gal. to be Purged _____
Development Method Bail, Surge, Bail
Purging Equipment SS Bailer
Water Level Equipment Solinst
pH/EC Meter HORIBA
Turbidity Meter _____
Other _____

Time	Amount Purged (gal.)	Field Parameters Measured							Comments	Field Tech.
		pH	EC	Turbidity	D.O.	D.O. Temp.	SAL.	GPM / W.L.		
10:02	2	6.36	1.91	799	—	22.3	.08			
10:07	4	6.38	1.92	799	—	21.9	.08			
10:17	6	6.37	1.91	799	—	21.4	.08			
10:28	8								Dewatered	
10:38	8	6.36	190	>999	—	22.7	0.08			
10:49	10	6.37	1.91	799	—	22.6	.08		Dewatered end	
11:46	Water Level only				-1-					

FINAL FIELD PARAMETER MEASUREMENTS

GREGG

MONITORING WELL DEVELOPMENT LOG

Page _____ of _____

Sample ID _____

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

Qty. of Drilling Fluid Lost _____

Well Number MW-13 | Borehole Diameter 8" | Minimum Gal. to be Purged 12

Date 4/14/10 | Screen Length 15' | Development Method Bail, Surge Bail

Time Start: 8:26 End: 9:30 | Measured Depth (pre-development) 72.6

Client DELTA | Measured Depth (post-development) 76.3 | Purging Equipment SS Bailer

Project 7376 | Static Water Level (ft.) 67. | Water Level Equipment Solinst

Job Number _____ | Standing Water Column (ft.) 9.6 | pH/EC Meter HORIBA

Installation Date 4/1/10 | One Well Volume (gal.) 1.2 | Turbidity Meter _____

Well Diameter 2" | One Annulus Vol. (gal.) _____ | Other _____

Time	Amount Purged (gal.)	Field Parameters Measured							Comments	Field Tech.
		pH	EC	Turbidity	D.O.	D.O. Temp.	SAL.	GPM / W.L.		
839	Begin	Surge							Bail, Surge, Bail	
8:54	2	7.03	1.72	>99	—	19.6	0.07		very silty	
9:00	4	7.14	1.86	>99	—	20.2	0.07		"	
9:06	6	6.92	1.87	>99	—	20.3	0.07	7.2		
9:16	8	6.92	1.87	>99	—	20.2	0.07			
9:32	9	6.92	1.87	>99	—	20.2	0.07		Dewatered @ 9 gallons	
11:15	10	7.00	1.87	>99	—	19.4	0.07			
11:18	12	7.01	1.84	>99	—	21	0.07		Dewatered	

FINAL FIELD PARAMETER MEASUREMENTS

APPENDIX G

Mid Coast Engineers Survey Report

Mid Coast Engineers
Civil Engineers and Land Surveyors
70 Penny Lane, Suite A - Watsonville, CA 95076
phone: (831) 724-2580
fax: (831) 724-8025
e-mail: lee@midcoastengineers.com

Richard A. Wadsworth
Civil Engineer
Stanley O. Nielsen
Land Surveyor
Lee D. Vaage
Land Surveyor
Jeff S. Nielsen
Land Surveyor

April 16, 2010

Nadine Periat
Delta Consultants
312 Piercy Road
San Jose, CA 95138

Re: **76 Service Station #7376, 4191 First Street, Pleasanton, California;** DELTA Project Number C107376, MCE Job No. 10033

Dear Ms. Periat,

As you requested, on April 14 we surveyed thirteen new monitoring wells located at the referenced site. Our findings are listed on the attached sheets, expressed in State Plane Coordinates and Latitude/Longitude, and are consistent with the previous survey of 9/9/2009 by Morrow Surveying.

A notch was cut in the north rim of the PVC casing (TOC) and a cross chiseled in the north rim of the box (TOB).

Measurements were obtained from conventional survey techniques in combination with GPS techniques (Code CGPS) using the top of casing (TOC) of wells MW-6 and MW-8, as reported by Morrow Surveying. Latitude and Longitude as shown were determined from the California Coordinate System, Zone 3, NAD 83 Datum. The accuracy range of the reported information is +/- 30cm. GPS equipment is the Trimble 5700/5800 system (Code T57).

The benchmark used for this survey is MW-6 TOC, as reported by Morrow Surveying. Elevation = 366.22 feet, stated by Morrow as "Vertical Datum is NAVD 88 from GPS Observations".

Please let me know if you have questions or need additional information.

Yours truly,

Lee D. Vaage

76 SERVICE STATION #7376
4191 First Street
Pleasanton, California

DELTA Project No. C107376

Project : 10033
User name MCE Date & Time 10:02:04 AM 4/16/2010
Coordinate System US State Plane 1983 Zone California Zone 3 0403
Project Datum NAD 1983 (Conus)
Vertical Datum NAVD 88
Coordinate Units US survey feet
Distance Units US survey feet
Elevation Units US survey feet

Point Number	Latitude	Longitude	Elevation	Description
107	37.663739968°N	121.869622263°W	367.81	CWA-1toc
108	37.663741420°N	121.869622072°W	368.22	CWA-1tob
109	37.663721681°N	121.869615190°W	368.07	CWA-2toc
110	37.663722954°N	121.869614995°W	368.42	CWA-2tob
111	37.663725279°N	121.869640233°W	368.22	CWA-3toc
112	37.663726480°N	121.869640377°W	368.60	CWA-3tob
138	37.663915110°N	121.869814197°W	365.68	CWB-1toc
139	37.663915938°N	121.869813812°W	366.08	CWB-1tob
140	37.663924908°N	121.869829336°W	366.07	CWB-2toc
141	37.663925924°N	121.869829800°W	366.41	CWB-2tob
143	37.663927651°N	121.869799634°W	365.53	CWB-3toc
144	37.663928517°N	121.869799755°W	366.01	CWB-3tob
151	37.664362025°N	121.869365825°W	365.66	MW-13toc
152	37.664363102°N	121.869366331°W	366.19	MW-13tob
113	37.663763568°N	121.869679236°W	368.08	OWA-1toc
114	37.663763986°N	121.869679530°W	368.06	OWA-2toc
115	37.663764183°N	121.869679033°W	368.07	OWA-3toc
116	37.663765187°N	121.869679315°W	368.24	OWA-tob
145	37.663982409°N	121.869779799°W	365.96	OWB-1toc
146	37.663982243°N	121.869778991°W	365.93	OWB-2toc
147	37.663982678°N	121.869779397°W	365.95	OWB-3toc
148	37.663983820°N	121.869779782°W	366.23	OWBtob
6	37.663731220°N	121.870066972°W	366.22	MW-6toc*
8	37.664107285°N	121.869614707°W	365.07	MW-8toc*

76 SERVICE STATION #7376
4191 First Street
Pleasanton, California

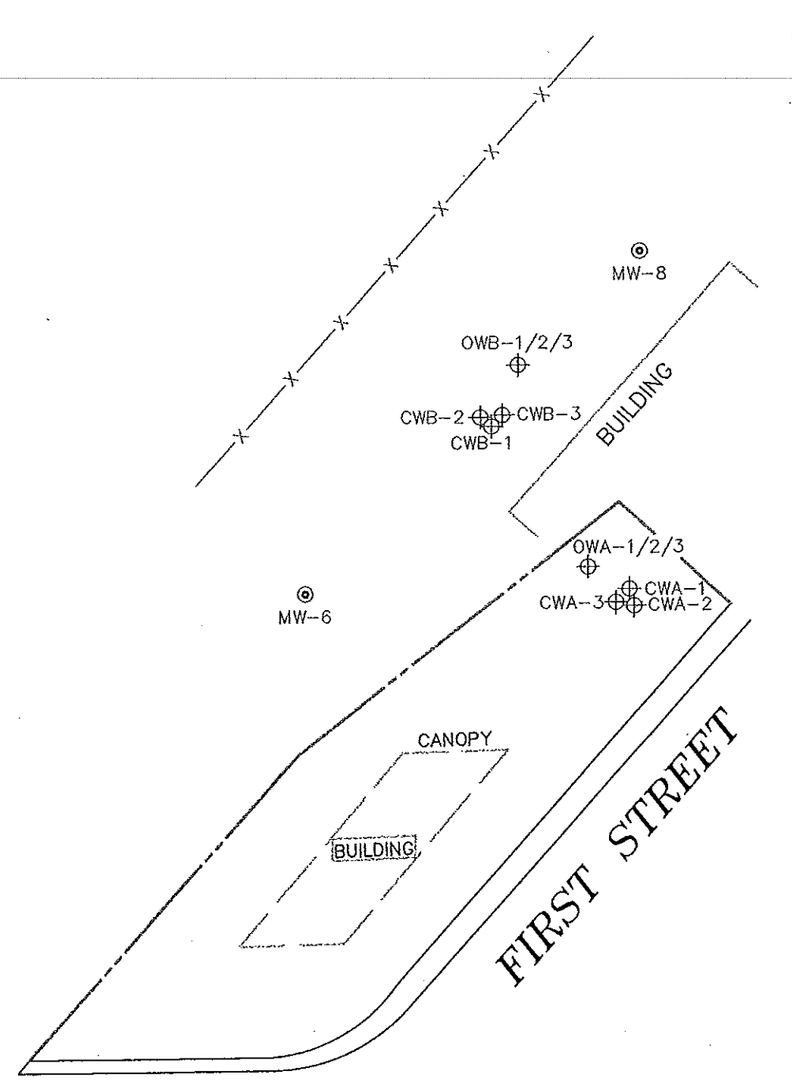
DELTA Project No. C107376

Project : 10033
User name MCE Date & Time 10:02:04 AM 4/16/2010
Coordinate System US State Plane 1983 Zone California Zone 3 0403
Project Datum NAD 1983 (Conus)
Vertical Datum NAVD 88
Coordinate Units US survey feet
Distance Units US survey feet
Elevation Units US survey feet

Point Number	Northing	Easting	Elevation	Description
107	2067046.1	6165237.8	367.81	CWA-1toc
108	2067046.6	6165237.8	368.22	CWA-1tob
109	2067039.4	6165239.7	368.07	CWA-2toc
110	2067039.9	6165239.8	368.42	CWA-2tob
111	2067040.8	6165232.5	368.22	CWA-3toc
112	2067041.3	6165232.4	368.60	CWA-3tob
138	2067110.7	6165183.1	365.68	CWB-1toc
139	2067111.0	6165183.3	366.08	CWB-1tob
140	2067114.3	6165178.8	366.07	CWB-2toc
141	2067114.7	6165178.7	366.41	CWB-2tob
143	2067115.2	6165187.4	365.53	CWB-3toc
144	2067115.5	6165187.4	366.01	CWB-3tob
151	2067271.5	6165315.3	365.66	MW-13toc
152	2067271.9	6165315.1	366.19	MW-13tob
113	2067054.9	6165221.4	368.08	OWA-1toc
114	2067055.1	6165221.3	368.06	OWA-2toc
115	2067055.2	6165221.5	368.07	OWA-3toc
116	2067055.5	6165221.4	368.24	OWA-tob
145	2067135.0	6165193.5	365.96	OWB-1toc
146	2067135.0	6165193.7	365.93	OWB-2toc
147	2067135.1	6165193.6	365.95	OWB-3toc
148	2067135.5	6165193.5	366.23	OWBtob
6	2067044.8	6165109.0	366.22	MW-6toc*
8	2067179.8	6165241.9	365.07	MW-8toc*

	A	B	C	D	E	F	G	H	I	J	K	L
1	**76 SERVICE STATION #7376**											
2	**4191 First Street**											
3	**Pleasanton, California**											
4												
5	**DELTA Project No. C107376**											
6												
7	Project : 10033											
8	User name MCE			Date & Time	10:02:04 AM 4/16/2010							
9	Coordinate System	US State Plane 1983		Zone	California Zone 3 0403							
10	Project Datum	NAD 1983 (Conus)										
11	Vertical Datum	NAVD 88										
12	Coordinate Units	US survey feet										
13	Distance Units	US survey feet										
14	Elevation Units	US survey feet										
15												
16		CWA-1	MW	04/14/2010	37.6637400	-121.8696223	CGPS	NAD83	30	Mid Coast Engineers	T57	top of casing
17		CWA-2	MW	04/14/2010	37.6637217	-121.8696152	CGPS	NAD83	30	Mid Coast Engineers	T57	top of casing
18		CWA-3	MW	04/14/2010	37.6637253	-121.8696402	CGPS	NAD83	30	Mid Coast Engineers	T57	top of casing
19												
20		CWB-1	MW	04/14/2010	37.6639151	-121.8698142	CGPS	NAD83	30	Mid Coast Engineers	T57	top of casing
21		CWB-2	MW	04/14/2010	37.6639249	-121.8698293	CGPS	NAD83	30	Mid Coast Engineers	T57	top of casing
22		CWB-3	MW	04/14/2010	37.6639277	-121.8697996	CGPS	NAD83	30	Mid Coast Engineers	T57	top of casing
23												
24		MW-13	MW	04/14/2010	37.6643620	-121.8693658	CGPS	NAD83	30	Mid Coast Engineers	T57	top of casing
25												
26		OWA-1	MW	04/14/2010	37.6637636	-121.8696792	CGPS	NAD83	30	Mid Coast Engineers	T57	top of casing
27		OWA-2	MW	04/14/2010	37.6637640	-121.8696795	CGPS	NAD83	30	Mid Coast Engineers	T57	top of casing
28		OWA-3	MW	04/14/2010	37.6637642	-121.8696790	CGPS	NAD83	30	Mid Coast Engineers	T57	top of casing
29												
30		OWB-1	MW	04/14/2010	37.6639824	-121.8697798	CGPS	NAD83	30	Mid Coast Engineers	T57	top of casing
31		OWB-2	MW	04/14/2010	37.6639822	-121.8697790	CGPS	NAD83	30	Mid Coast Engineers	T57	top of casing
32		OWB-3	MW	04/14/2010	37.6639827	-121.8697794	CGPS	NAD83	30	Mid Coast Engineers	T57	top of casing

	A	B	C	D	E	F	G	H	I	J
1	**76 SERVICE STATION #7376**									
2	**4191 First Street**									
3	**Pleasanton, California**									
4										
5	**DELTA Project No. C107376**									
6										
7	Project : 10033									
8	User name MCE		Date & Time	10:02:04 AM 4/16/2010						
9	Coordinate System US State Plane 1983				Zone	California Zone 3 0403				
10	Project Datum NAD 1983 (Conus)									
11	Vertical Datum NAVD 88									
12	Coordinate Units US survey feet									
13	Distance Units US survey feet									
14	Elevation Units US survey feet									
15										
16		CWA-1	4/14/2010	367.81	CGPS	88	0.5	Mid Coast Engineers	-0.41	GPS observation from CSDS Virtual Reference Network
17		CWA-2	4/14/2010	368.07	CGPS	88	0.5	Mid Coast Engineers	-0.35	GPS observation from CSDS Virtual Reference Network
18		CWA-3	4/14/2010	368.22	CGPS	88	0.5	Mid Coast Engineers	-0.38	GPS observation from CSDS Virtual Reference Network
19										
20		CWB-1	4/14/2010	365.68	CGPS	88	0.5	Mid Coast Engineers	-0.40	GPS observation from CSDS Virtual Reference Network
21		CWB-2	4/14/2010	366.07	CGPS	88	0.5	Mid Coast Engineers	-0.34	GPS observation from CSDS Virtual Reference Network
22		CWB-3	4/14/2010	365.53	CGPS	88	0.5	Mid Coast Engineers	-0.48	GPS observation from CSDS Virtual Reference Network
23										
24		MW-13	4/14/2010	365.66	CGPS	88	0.5	Mid Coast Engineers	-0.53	GPS observation from CSDS Virtual Reference Network
25										
26		OWA-1	4/14/2010	368.08	CGPS	88	0.5	Mid Coast Engineers	-0.16	GPS observation from CSDS Virtual Reference Network
27		OWA-2	4/14/2010	368.06	CGPS	88	0.5	Mid Coast Engineers	-0.18	GPS observation from CSDS Virtual Reference Network
28		OWA-3	4/14/2010	368.07	CGPS	88	0.5	Mid Coast Engineers	-0.17	GPS observation from CSDS Virtual Reference Network
29										
30		OWB-1	4/14/2010	365.96	CGPS	88	0.5	Mid Coast Engineers	-0.27	GPS observation from CSDS Virtual Reference Network
31		OWB-2	4/14/2010	365.93	CGPS	88	0.5	Mid Coast Engineers	-0.30	GPS observation from CSDS Virtual Reference Network
32		OWB-3	4/14/2010	365.95	CGPS	88	0.5	Mid Coast Engineers	-0.28	GPS observation from CSDS Virtual Reference Network



NOTES:

1. COORDINATES ARE BASED ON THE CALIFORNIA COORDINATE SYSTEM, ZONE III, NAD 83.
2. BENCHMARK IS TOC OF MW-6, AS REPORTED BY MORROW SURVEYING 9/9/2009. ELEVATION = 366.22 FEET, REPORTED AS NAVD 88 DATUM.
3. SURVEYED AT THE REQUEST OF DELTA CONSULTANTS IN APRIL 2010, PROJECT NO. C107376.

MONITORING WELL LOCATION MAP FOR
76 SERVICE STATION #7376

4191 FIRST STREET
PLEASANTON, CALIFORNIA

MCE
MID COAST ENGINEERS
CIVIL ENGINEERS AND LAND SURVEYORS
70 PENNY LANE SUITE A WATSONVILLE, CA 95076
(831) 724-2580

SCALE IN FEET
0 60 120

SCALE:	1"=60'
JOB NO.	10033
DATE:	APRIL 16, 2010
SHEET:	1 OF 1

APPENDIX H
Laboratory Analytical Reports

BC Laboratories, Inc.
Environmental Testing Laboratory Since 1949

Date of Report: 04/23/2010

Lee Dooley

Delta Environmental
312 Piercy Rd
San Jose, CA 95138

RE: 7376
BC Work Order: 1004760
Invoice ID: B078477

Enclosed are the results of analyses for samples received by the laboratory on 4/8/2010. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Molly Meyers

Contact Person: Molly Meyers
Client Service Rep

Authorized Signature

Delta Environmental	Project: 7376	**Reported:** 04/23/2010 15:17
312 Piercy Rd	Project Number: 000010119613-00023	
San Jose, CA 95138	Project Manager: Lee Dooley	

Laboratory / Client Sample Cross Reference

Laboratory	Client Sample Information				
1004760-01	**COC Number:**	---	**Receive Date:**	04/08/2010 08:00	Delivery Work Order:
	Project Number:	7376	**Sampling Date:**	04/05/2010 09:38	Global ID: T0600100101
	Sampling Location:	---	**Sample Depth:**	---	Location ID (FieldPoint): CWA-1
	Sampling Point:	CWA-1@26-26.5	**Sample Matrix:**	Solids	Matrix: SO
	Sampled By:	DECJ			Sample QC Type (SACode): CS
					Cooler ID:
1004760-02	**COC Number:**	---	**Receive Date:**	04/08/2010 08:00	Delivery Work Order:
	Project Number:	7376	**Sampling Date:**	04/05/2010 10:04	Global ID: T0600100101
	Sampling Location:	---	**Sample Depth:**	---	Location ID (FieldPoint): CWA-1
	Sampling Point:	CWA-1@36.5-37	**Sample Matrix:**	Solids	Matrix: SO
	Sampled By:	DECJ			Sample QC Type (SACode): CS
					Cooler ID:
1004760-03	**COC Number:**	---	**Receive Date:**	04/08/2010 08:00	Delivery Work Order:
	Project Number:	7376	**Sampling Date:**	04/05/2010 10:20	Global ID: T0600100101
	Sampling Location:	---	**Sample Depth:**	---	Location ID (FieldPoint): CWA-1
	Sampling Point:	CWA-1@44-44.5	**Sample Matrix:**	Solids	Matrix: SO
	Sampled By:	DECJ			Sample QC Type (SACode): CS
					Cooler ID:
1004760-04	**COC Number:**	---	**Receive Date:**	04/08/2010 08:00	Delivery Work Order:
	Project Number:	7376	**Sampling Date:**	04/05/2010 09:54	Global ID: T0600100101
	Sampling Location:	---	**Sample Depth:**	---	Location ID (FieldPoint): CWA-1
	Sampling Point:	CWA-1@31-31.5	**Sample Matrix:**	Solids	Matrix: SO
	Sampled By:	DECJ			Sample QC Type (SACode): CS
					Cooler ID:

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Laboratory / Client Sample Cross Reference

Laboratory	Client Sample Information				
1004760-05	**COC Number:**	---	**Receive Date:**	04/08/2010 08:00	Delivery Work Order:
	Project Number:	7376	**Sampling Date:**	04/05/2010 10:35	Global ID: T0600100101
	Sampling Location:	---	**Sample Depth:**	---	Location ID (FieldPoint): CWA-1
	Sampling Point:	CWA-1@52.5-53	**Sample Matrix:**	Solids	Matrix: SO
	Sampled By:	DECJ			Sample QC Type (SACode): CS
					Cooler ID:
1004760-06	**COC Number:**	---	**Receive Date:**	04/08/2010 08:00	Delivery Work Order:
	Project Number:	7376	**Sampling Date:**	04/05/2010 09:23	Global ID: T0600100101
	Sampling Location:	---	**Sample Depth:**	---	Location ID (FieldPoint): CWA-1
	Sampling Point:	CWA-1@17.5-18	**Sample Matrix:**	Solids	Matrix: SO
	Sampled By:	DECJ			Sample QC Type (SACode): CS
					Cooler ID:

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Purgeable Aromatics and Total Petroleum Hydrocarbons (Silica Gel Treated)

BCL Sample ID: 1004760-01 | **Client Sample Name:** 7376, CWA-1@26-26.5, 4/5/2010 9:38:00AM

Constituent	Result	Units	PQL	Method	Prep Date	Run Date/Time	Analyst	Instru-ment ID	Dilution	QC Batch ID	MB Bias	Lab Quals
TPH - Light Naptha	ND	mg/kg	20	Luft/FFP	04/09/10	04/21/10 16:06	MWB	GC-2	0.990	BTD0545		
TPH - Aviation Gas	ND	mg/kg	20	Luft/FFP	04/09/10	04/21/10 16:06	MWB	GC-2	0.990	BTD0545		
TPH - Stoddard Solvent	ND	mg/kg	10	Luft/FFP	04/09/10	04/21/10 16:06	MWB	GC-2	0.990	BTD0545		
TPH - Heavy Naptha	ND	mg/kg	5.0	Luft/FFP	04/09/10	04/21/10 16:06	MWB	GC-2	0.990	BTD0545		
TPH - Gasoline	ND	mg/kg	10	Luft/FFP	04/09/10	04/21/10 16:06	MWB	GC-2	0.990	BTD0545		
TPH - Jet Fuel (JP4)	ND	mg/kg	2.0	Luft/FFP	04/09/10	04/21/10 16:06	MWB	GC-2	0.990	BTD0545		
TPH - Jet Fuel (JP5)	ND	mg/kg	2.0	Luft/FFP	04/09/10	04/21/10 16:06	MWB	GC-2	0.990	BTD0545		
TPH - Jet Fuel (JP6)	ND	mg/kg	2.0	Luft/FFP	04/09/10	04/21/10 16:06	MWB	GC-2	0.990	BTD0545		
TPH - Jet Fuel (JP8)	ND	mg/kg	2.0	Luft/FFP	04/09/10	04/21/10 16:06	MWB	GC-2	0.990	BTD0545		
TPH - Kerosene	ND	mg/kg	2.0	Luft/FFP	04/09/10	04/21/10 16:06	MWB	GC-2	0.990	BTD0545		
TPH - Diesel (FFP)	ND	mg/kg	2.0	Luft/FFP	04/09/10	04/21/10 16:06	MWB	GC-2	0.990	BTD0545		
TPH - Fuel Oil	ND	mg/kg	2.0	Luft/FFP	04/09/10	04/21/10 16:06	MWB	GC-2	0.990	BTD0545		
TPH - Crude Oil	ND	mg/kg	10	Luft/FFP	04/09/10	04/21/10 16:06	MWB	GC-2	0.990	BTD0545		
TPH - Hydraulic Oil / Motor Oil	ND	mg/kg	10	Luft/FFP	04/09/10	04/21/10 16:06	MWB	GC-2	0.990	BTD0545		
TPH - Waste Oil	ND	mg/kg	10	Luft/FFP	04/09/10	04/21/10 16:06	MWB	GC-2	0.990	BTD0545		
TPH - WD-40	ND	mg/kg	2.0	Luft/FFP	04/09/10	04/21/10 16:06	MWB	GC-2	0.990	BTD0545		
TPH - Mineral Oil	ND	mg/kg	20	Luft/FFP	04/09/10	04/21/10 16:06	MWB	GC-2	0.990	BTD0545		
TPH - Mineral Spirit	ND	mg/kg	10	Luft/FFP	04/09/10	04/21/10 16:06	MWB	GC-2	0.990	BTD0545		
TPH - Motor Oil	ND	mg/kg	10	Luft/FFP	04/09/10	04/21/10 16:06	MWB	GC-2	0.990	BTD0545		
TPH - Lube Oil	ND	mg/kg	10	Luft/FFP	04/09/10	04/21/10 16:06	MWB	GC-2	0.990	BTD0545		
Tetracosane (Surrogate)	86.9	%	20 - 145 (LCL - UCL)	Luft/FFP	04/09/10	04/21/10 16:06	MWB	GC-2	0.990	BTD0545		

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Purgeable Aromatics and Total Petroleum Hydrocarbons (Silica Gel Treated)

BCL Sample ID: 1004760-02 | **Client Sample Name:** 7376, CWA-1@36.5-37, 4/5/2010 10:04:00AM

Constituent	Result	Units	PQL	Method	Prep Date	Run Date/Time	Analyst	Instru-ment ID	Dilution	QC Batch ID	MB Bias	Lab Quals
TPH - Light Naptha	ND	mg/kg	1000	Luft/FFP	04/09/10	04/20/10 18:10	MWB	GC-13	49.342	BTD0545		A01
TPH - Aviation Gas	ND	mg/kg	1000	Luft/FFP	04/09/10	04/20/10 18:10	MWB	GC-13	49.342	BTD0545		A01
TPH - Stoddard Solvent	ND	mg/kg	500	Luft/FFP	04/09/10	04/20/10 18:10	MWB	GC-13	49.342	BTD0545		A01
TPH - Heavy Naptha	ND	mg/kg	250	Luft/FFP	04/09/10	04/20/10 18:10	MWB	GC-13	49.342	BTD0545		A01
TPH - Gasoline	ND	mg/kg	500	Luft/FFP	04/09/10	04/20/10 18:10	MWB	GC-13	49.342	BTD0545		A01
TPH - Jet Fuel (JP4)	ND	mg/kg	100	Luft/FFP	04/09/10	04/20/10 18:10	MWB	GC-13	49.342	BTD0545		A01
TPH - Jet Fuel (JP5)	ND	mg/kg	100	Luft/FFP	04/09/10	04/20/10 18:10	MWB	GC-13	49.342	BTD0545		A01
TPH - Jet Fuel (JP6)	ND	mg/kg	100	Luft/FFP	04/09/10	04/20/10 18:10	MWB	GC-13	49.342	BTD0545		A01
TPH - Jet Fuel (JP8)	ND	mg/kg	100	Luft/FFP	04/09/10	04/20/10 18:10	MWB	GC-13	49.342	BTD0545		A01
TPH - Kerosene	ND	mg/kg	100	Luft/FFP	04/09/10	04/20/10 18:10	MWB	GC-13	49.342	BTD0545		A01
TPH - Diesel (FFP)	ND	mg/kg	100	Luft/FFP	04/09/10	04/20/10 18:10	MWB	GC-13	49.342	BTD0545		A01
TPH - Fuel Oil	ND	mg/kg	100	Luft/FFP	04/09/10	04/20/10 18:10	MWB	GC-13	49.342	BTD0545		A01
TPH - Crude Oil	**3300**	**mg/kg**	**500**	**Luft/FFP**	**04/09/10**	**04/20/10 18:10**	**MWB**	**GC-13**	**49.342**	**BTD0545**		**A01**
TPH - Hydraulic Oil / Motor Oil	ND	mg/kg	500	Luft/FFP	04/09/10	04/20/10 18:10	MWB	GC-13	49.342	BTD0545		A01
TPH - Waste Oil	ND	mg/kg	500	Luft/FFP	04/09/10	04/20/10 18:10	MWB	GC-13	49.342	BTD0545		A01
TPH - WD-40	ND	mg/kg	100	Luft/FFP	04/09/10	04/20/10 18:10	MWB	GC-13	49.342	BTD0545		A01
TPH - Mineral Oil	ND	mg/kg	1000	Luft/FFP	04/09/10	04/20/10 18:10	MWB	GC-13	49.342	BTD0545		A01
TPH - Mineral Spirit	ND	mg/kg	500	Luft/FFP	04/09/10	04/20/10 18:10	MWB	GC-13	49.342	BTD0545		A01
TPH - Motor Oil	ND	mg/kg	500	Luft/FFP	04/09/10	04/20/10 18:10	MWB	GC-13	49.342	BTD0545		A01
TPH - Lube Oil	ND	mg/kg	500	Luft/FFP	04/09/10	04/20/10 18:10	MWB	GC-13	49.342	BTD0545		A01
Tetracosane (Surrogate)	0	%	20 - 145 (LCL - UCL)	Luft/FFP	04/09/10	04/20/10 18:10	MWB	GC-13	49.342	BTD0545		A01,A17

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Purgeable Aromatics and Total Petroleum Hydrocarbons (Silica Gel Treated)

BCL Sample ID: 1004760-03 | **Client Sample Name:** 7376, CWA-1@44-44.5, 4/5/2010 10:20:00AM

Constituent	Result	Units	PQL	Method	Prep Date	Run Date/Time	Analyst	Instru-ment ID	Dilution	QC Batch ID	MB Bias	Lab Quals
TPH - Light Naptha	ND	mg/kg	20	Luft/FFP	04/09/10	04/21/10 16:29	MWB	GC-2	0.944	BTD0545		
TPH - Aviation Gas	ND	mg/kg	20	Luft/FFP	04/09/10	04/21/10 16:29	MWB	GC-2	0.944	BTD0545		
TPH - Stoddard Solvent	ND	mg/kg	10	Luft/FFP	04/09/10	04/21/10 16:29	MWB	GC-2	0.944	BTD0545		
TPH - Heavy Naptha	ND	mg/kg	5.0	Luft/FFP	04/09/10	04/21/10 16:29	MWB	GC-2	0.944	BTD0545		
TPH - Gasoline	ND	mg/kg	10	Luft/FFP	04/09/10	04/21/10 16:29	MWB	GC-2	0.944	BTD0545		
TPH - Jet Fuel (JP4)	ND	mg/kg	2.0	Luft/FFP	04/09/10	04/21/10 16:29	MWB	GC-2	0.944	BTD0545		
TPH - Jet Fuel (JP5)	ND	mg/kg	2.0	Luft/FFP	04/09/10	04/21/10 16:29	MWB	GC-2	0.944	BTD0545		
TPH - Jet Fuel (JP6)	ND	mg/kg	2.0	Luft/FFP	04/09/10	04/21/10 16:29	MWB	GC-2	0.944	BTD0545		
TPH - Jet Fuel (JP8)	ND	mg/kg	2.0	Luft/FFP	04/09/10	04/21/10 16:29	MWB	GC-2	0.944	BTD0545		
TPH - Kerosene	ND	mg/kg	2.0	Luft/FFP	04/09/10	04/21/10 16:29	MWB	GC-2	0.944	BTD0545		
TPH - Diesel (FFP)	ND	mg/kg	2.0	Luft/FFP	04/09/10	04/21/10 16:29	MWB	GC-2	0.944	BTD0545		
TPH - Fuel Oil	ND	mg/kg	2.0	Luft/FFP	04/09/10	04/21/10 16:29	MWB	GC-2	0.944	BTD0545		
TPH - Crude Oil	ND	mg/kg	10	Luft/FFP	04/09/10	04/21/10 16:29	MWB	GC-2	0.944	BTD0545		
TPH - Hydraulic Oil / Motor Oil	ND	mg/kg	10	Luft/FFP	04/09/10	04/21/10 16:29	MWB	GC-2	0.944	BTD0545		
TPH - Waste Oil	ND	mg/kg	10	Luft/FFP	04/09/10	04/21/10 16:29	MWB	GC-2	0.944	BTD0545		
TPH - WD-40	ND	mg/kg	2.0	Luft/FFP	04/09/10	04/21/10 16:29	MWB	GC-2	0.944	BTD0545		
TPH - Mineral Oil	ND	mg/kg	20	Luft/FFP	04/09/10	04/21/10 16:29	MWB	GC-2	0.944	BTD0545		
TPH - Mineral Spirit	ND	mg/kg	10	Luft/FFP	04/09/10	04/21/10 16:29	MWB	GC-2	0.944	BTD0545		
TPH - Motor Oil	ND	mg/kg	10	Luft/FFP	04/09/10	04/21/10 16:29	MWB	GC-2	0.944	BTD0545		
TPH - Lube Oil	ND	mg/kg	10	Luft/FFP	04/09/10	04/21/10 16:29	MWB	GC-2	0.944	BTD0545		
Tetracosane (Surrogate)	81.9	%	20 - 145 (LCL - UCL)	Luft/FFP	04/09/10	04/21/10 16:29	MWB	GC-2	0.944	BTD0545		

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Purgeable Aromatics and Total Petroleum Hydrocarbons (Silica Gel Treated)

BCL Sample ID: 1004760-04 | **Client Sample Name:** 7376, CWA-1@31-31.5, 4/5/2010 9:54:00AM

Constituent	Result	Units	PQL	Method	Prep Date	Run Date/Time	Analyst	Instru-ment ID	Dilution	QC Batch ID	MB Bias	Lab Quals
TPH - Light Naptha	ND	mg/kg	200	Luft/FFP	04/09/10	04/20/10 18:33	MWB	GC-13	9.901	BTD0545		A01
TPH - Aviation Gas	ND	mg/kg	200	Luft/FFP	04/09/10	04/20/10 18:33	MWB	GC-13	9.901	BTD0545		A01
TPH - Stoddard Solvent	ND	mg/kg	100	Luft/FFP	04/09/10	04/20/10 18:33	MWB	GC-13	9.901	BTD0545		A01
TPH - Heavy Naptha	ND	mg/kg	50	Luft/FFP	04/09/10	04/20/10 18:33	MWB	GC-13	9.901	BTD0545		A01
TPH - Gasoline	ND	mg/kg	100	Luft/FFP	04/09/10	04/20/10 18:33	MWB	GC-13	9.901	BTD0545		A01
TPH - Jet Fuel (JP4)	ND	mg/kg	20	Luft/FFP	04/09/10	04/20/10 18:33	MWB	GC-13	9.901	BTD0545		A01
TPH - Jet Fuel (JP5)	ND	mg/kg	20	Luft/FFP	04/09/10	04/20/10 18:33	MWB	GC-13	9.901	BTD0545		A01
TPH - Jet Fuel (JP6)	ND	mg/kg	20	Luft/FFP	04/09/10	04/20/10 18:33	MWB	GC-13	9.901	BTD0545		A01
TPH - Jet Fuel (JP8)	ND	mg/kg	20	Luft/FFP	04/09/10	04/20/10 18:33	MWB	GC-13	9.901	BTD0545		A01
TPH - Kerosene	ND	mg/kg	20	Luft/FFP	04/09/10	04/20/10 18:33	MWB	GC-13	9.901	BTD0545		A01
TPH - Diesel (FFP)	ND	mg/kg	20	Luft/FFP	04/09/10	04/20/10 18:33	MWB	GC-13	9.901	BTD0545		A01
TPH - Fuel Oil	ND	mg/kg	20	Luft/FFP	04/09/10	04/20/10 18:33	MWB	GC-13	9.901	BTD0545		A01
TPH - Crude Oil	**370**	**mg/kg**	**100**	**Luft/FFP**	**04/09/10**	**04/20/10 18:33**	**MWB**	**GC-13**	**9.901**	**BTD0545**		**A01**
TPH - Hydraulic Oil / Motor Oil	ND	mg/kg	100	Luft/FFP	04/09/10	04/20/10 18:33	MWB	GC-13	9.901	BTD0545		A01
TPH - Waste Oil	ND	mg/kg	100	Luft/FFP	04/09/10	04/20/10 18:33	MWB	GC-13	9.901	BTD0545		A01
TPH - WD-40	ND	mg/kg	20	Luft/FFP	04/09/10	04/20/10 18:33	MWB	GC-13	9.901	BTD0545		A01
TPH - Mineral Oil	ND	mg/kg	200	Luft/FFP	04/09/10	04/20/10 18:33	MWB	GC-13	9.901	BTD0545		A01
TPH - Mineral Spirit	ND	mg/kg	100	Luft/FFP	04/09/10	04/20/10 18:33	MWB	GC-13	9.901	BTD0545		A01
TPH - Motor Oil	ND	mg/kg	100	Luft/FFP	04/09/10	04/20/10 18:33	MWB	GC-13	9.901	BTD0545		A01
TPH - Lube Oil	ND	mg/kg	100	Luft/FFP	04/09/10	04/20/10 18:33	MWB	GC-13	9.901	BTD0545		A01
Tetracosane (Surrogate)	0	%	20 - 145 (LCL - UCL)	Luft/FFP	04/09/10	04/20/10 18:33	MWB	GC-13	9.901	BTD0545		A01,A17

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Purgeable Aromatics and Total Petroleum Hydrocarbons (Silica Gel Treated)

BCL Sample ID: 1004760-05 | **Client Sample Name:** 7376, CWA-1@52.5-53, 4/5/2010 10:35:00AM

Constituent	Result	Units	PQL	Method	Prep Date	Run Date/Time	Analyst	Instru-ment ID	Dilution	QC Batch ID	MB Bias	Lab Quals
TPH - Light Naptha	ND	mg/kg	20	Luft/FFP	04/09/10	04/21/10 16:52	MWB	GC-2	0.997	BTD0545		
TPH - Aviation Gas	ND	mg/kg	20	Luft/FFP	04/09/10	04/21/10 16:52	MWB	GC-2	0.997	BTD0545		
TPH - Stoddard Solvent	ND	mg/kg	10	Luft/FFP	04/09/10	04/21/10 16:52	MWB	GC-2	0.997	BTD0545		
TPH - Heavy Naptha	ND	mg/kg	5.0	Luft/FFP	04/09/10	04/21/10 16:52	MWB	GC-2	0.997	BTD0545		
TPH - Gasoline	ND	mg/kg	10	Luft/FFP	04/09/10	04/21/10 16:52	MWB	GC-2	0.997	BTD0545		
TPH - Jet Fuel (JP4)	ND	mg/kg	2.0	Luft/FFP	04/09/10	04/21/10 16:52	MWB	GC-2	0.997	BTD0545		
TPH - Jet Fuel (JP5)	ND	mg/kg	2.0	Luft/FFP	04/09/10	04/21/10 16:52	MWB	GC-2	0.997	BTD0545		
TPH - Jet Fuel (JP6)	ND	mg/kg	2.0	Luft/FFP	04/09/10	04/21/10 16:52	MWB	GC-2	0.997	BTD0545		
TPH - Jet Fuel (JP8)	ND	mg/kg	2.0	Luft/FFP	04/09/10	04/21/10 16:52	MWB	GC-2	0.997	BTD0545		
TPH - Kerosene	ND	mg/kg	2.0	Luft/FFP	04/09/10	04/21/10 16:52	MWB	GC-2	0.997	BTD0545		
TPH - Diesel (FFP)	ND	mg/kg	2.0	Luft/FFP	04/09/10	04/21/10 16:52	MWB	GC-2	0.997	BTD0545		
TPH - Fuel Oil	ND	mg/kg	2.0	Luft/FFP	04/09/10	04/21/10 16:52	MWB	GC-2	0.997	BTD0545		
TPH - Crude Oil	ND	mg/kg	10	Luft/FFP	04/09/10	04/21/10 16:52	MWB	GC-2	0.997	BTD0545		
TPH - Hydraulic Oil / Motor Oil	ND	mg/kg	10	Luft/FFP	04/09/10	04/21/10 16:52	MWB	GC-2	0.997	BTD0545		
TPH - Waste Oil	ND	mg/kg	10	Luft/FFP	04/09/10	04/21/10 16:52	MWB	GC-2	0.997	BTD0545		
TPH - WD-40	ND	mg/kg	2.0	Luft/FFP	04/09/10	04/21/10 16:52	MWB	GC-2	0.997	BTD0545		
TPH - Mineral Oil	ND	mg/kg	20	Luft/FFP	04/09/10	04/21/10 16:52	MWB	GC-2	0.997	BTD0545		
TPH - Mineral Spirit	ND	mg/kg	10	Luft/FFP	04/09/10	04/21/10 16:52	MWB	GC-2	0.997	BTD0545		
TPH - Motor Oil	ND	mg/kg	10	Luft/FFP	04/09/10	04/21/10 16:52	MWB	GC-2	0.997	BTD0545		
TPH - Lube Oil	ND	mg/kg	10	Luft/FFP	04/09/10	04/21/10 16:52	MWB	GC-2	0.997	BTD0545		
Tetracosane (Surrogate)	79.9	%	20 - 145 (LCL - UCL)	Luft/FFP	04/09/10	04/21/10 16:52	MWB	GC-2	0.997	BTD0545		

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Purgeable Aromatics and Total Petroleum Hydrocarbons (Silica Gel Treated)

BCL Sample ID: 1004760-06 | **Client Sample Name:** 7376, CWA-1@17.5-18, 4/5/2010 9:23:00AM

Constituent	Result	Units	PQL	Method	Prep Date	Run Date/Time	Analyst	Instru-ment ID	Dilution	QC Batch ID	MB Bias	Lab Quals
TPH - Light Naptha	ND	mg/kg	20	Luft/FFP	04/09/10	04/21/10 17:14	MWB	GC-2	0.980	BTD0545		
TPH - Aviation Gas	ND	mg/kg	20	Luft/FFP	04/09/10	04/21/10 17:14	MWB	GC-2	0.980	BTD0545		
TPH - Stoddard Solvent	ND	mg/kg	10	Luft/FFP	04/09/10	04/21/10 17:14	MWB	GC-2	0.980	BTD0545		
TPH - Heavy Naptha	ND	mg/kg	5.0	Luft/FFP	04/09/10	04/21/10 17:14	MWB	GC-2	0.980	BTD0545		
TPH - Gasoline	ND	mg/kg	10	Luft/FFP	04/09/10	04/21/10 17:14	MWB	GC-2	0.980	BTD0545		
TPH - Jet Fuel (JP4)	ND	mg/kg	2.0	Luft/FFP	04/09/10	04/21/10 17:14	MWB	GC-2	0.980	BTD0545		
TPH - Jet Fuel (JP5)	ND	mg/kg	2.0	Luft/FFP	04/09/10	04/21/10 17:14	MWB	GC-2	0.980	BTD0545		
TPH - Jet Fuel (JP6)	ND	mg/kg	2.0	Luft/FFP	04/09/10	04/21/10 17:14	MWB	GC-2	0.980	BTD0545		
TPH - Jet Fuel (JP8)	ND	mg/kg	2.0	Luft/FFP	04/09/10	04/21/10 17:14	MWB	GC-2	0.980	BTD0545		
TPH - Kerosene	ND	mg/kg	2.0	Luft/FFP	04/09/10	04/21/10 17:14	MWB	GC-2	0.980	BTD0545		
TPH - Diesel (FFP)	ND	mg/kg	2.0	Luft/FFP	04/09/10	04/21/10 17:14	MWB	GC-2	0.980	BTD0545		
TPH - Fuel Oil	ND	mg/kg	2.0	Luft/FFP	04/09/10	04/21/10 17:14	MWB	GC-2	0.980	BTD0545		
TPH - Crude Oil	ND	mg/kg	10	Luft/FFP	04/09/10	04/21/10 17:14	MWB	GC-2	0.980	BTD0545		
TPH - Hydraulic Oil / Motor Oil	ND	mg/kg	10	Luft/FFP	04/09/10	04/21/10 17:14	MWB	GC-2	0.980	BTD0545		
TPH - Waste Oil	ND	mg/kg	10	Luft/FFP	04/09/10	04/21/10 17:14	MWB	GC-2	0.980	BTD0545		
TPH - WD-40	ND	mg/kg	2.0	Luft/FFP	04/09/10	04/21/10 17:14	MWB	GC-2	0.980	BTD0545		
TPH - Mineral Oil	ND	mg/kg	20	Luft/FFP	04/09/10	04/21/10 17:14	MWB	GC-2	0.980	BTD0545		
TPH - Mineral Spirit	ND	mg/kg	10	Luft/FFP	04/09/10	04/21/10 17:14	MWB	GC-2	0.980	BTD0545		
TPH - Motor Oil	ND	mg/kg	10	Luft/FFP	04/09/10	04/21/10 17:14	MWB	GC-2	0.980	BTD0545		
TPH - Lube Oil	ND	mg/kg	10	Luft/FFP	04/09/10	04/21/10 17:14	MWB	GC-2	0.980	BTD0545		
Tetracosane (Surrogate)	80.7	%	20 - 145 (LCL - UCL)	Luft/FFP	04/09/10	04/21/10 17:14	MWB	GC-2	0.980	BTD0545		

Delta Environmental	Project: 7376	**Reported:** 04/23/2010 15:17
312 Piercy Rd	Project Number: 000010119613-00023	
San Jose, CA 95138	Project Manager: Lee Dooley	

Purgeable Aromatics and Total Petroleum Hydrocarbons (Silica Gel Treated)

Quality Control Report - Method Blank Analysis

Constituent	Batch ID	QC Sample ID	MB Result	Units	PQL	MDL	Lab Quals
Tetracosane (Surrogate)	BTD0545	BTD0545-BLK1	97.9	%	20 - 145 (LCL - UCL)		

Delta Environmental	Project: 7376	**Reported:** 04/23/2010 15:17
312 Piercy Rd	Project Number: 000010119613-00023	
San Jose, CA 95138	Project Manager: Lee Dooley	

Notes And Definitions

MDL	Method Detection Limit
ND	Analyte Not Detected at or above the reporting limit
PQL	Practical Quantitation Limit
A01	PQL's and MDL's are raised due to sample dilution.
A17	Surrogate not reportable due to sample dilution.

BC Laboratories, Inc.
Environmental Testing Laboratory Since 1949

Date of Report: 04/07/2010

Lee Dooley

Delta Environmental
312 Piercy Rd
San Jose, CA 95138

RE: 7376
BC Work Order: 1004244
Invoice ID: B078230

Enclosed are the results of analyses for samples received by the laboratory on 3/30/2010. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Molly Meyers

Contact Person: Molly Meyers
Client Service Rep

Authorized Signature

Delta Environmental	Project: 7376	**Reported:** 04/07/2010 10:27
312 Piercy Rd	Project Number: 000010119613-00023	
San Jose, CA 95138	Project Manager: Lee Dooley	

Laboratory / Client Sample Cross Reference

Laboratory	Client Sample Information				
1004244-01	**COC Number:**	---	**Receive Date:**	03/30/2010 08:00	Delivery Work Order:
	Project Number:	7376	**Sampling Date:**	03/29/2010 09:52	Global ID: T0600100101
	Sampling Location:	---	**Sample Depth:**	---	Location ID (FieldPoint): CWB-1
	Sampling Point:	CWB-1@23.5-25	**Sample Matrix:**	Solids	Matrix: SO
	Sampled By:	DECJ			Sample QC Type (SACode): CS
					Cooler ID:
1004244-02	**COC Number:**	---	**Receive Date:**	03/30/2010 08:00	Delivery Work Order:
	Project Number:	7376	**Sampling Date:**	03/29/2010 10:19	Global ID: T0600100101
	Sampling Location:	---	**Sample Depth:**	---	Location ID (FieldPoint): CWB-1
	Sampling Point:	CWB-1@33.5-35	**Sample Matrix:**	Solids	Matrix: SO
	Sampled By:	DECJ			Sample QC Type (SACode): CS
					Cooler ID:
1004244-03	**COC Number:**	---	**Receive Date:**	03/30/2010 08:00	Delivery Work Order:
	Project Number:	7376	**Sampling Date:**	03/29/2010 10:32	Global ID: T0600100101
	Sampling Location:	---	**Sample Depth:**	---	Location ID (FieldPoint): CWB-1
	Sampling Point:	CWB-1@38.5-40	**Sample Matrix:**	Solids	Matrix: SO
	Sampled By:	DECJ			Sample QC Type (SACode): CS
					Cooler ID:
1004244-04	**COC Number:**	---	**Receive Date:**	03/30/2010 08:00	Delivery Work Order:
	Project Number:	7376	**Sampling Date:**	03/29/2010 10:56	Global ID: T0600100101
	Sampling Location:	---	**Sample Depth:**	---	Location ID (FieldPoint): CWB-1
	Sampling Point:	CWB-1@47-48.5	**Sample Matrix:**	Solids	Matrix: SO
	Sampled By:	DECJ			Sample QC Type (SACode): CS
					Cooler ID:

Delta Environmental
312 Piercy Rd
San Jose, CA 95138

Project: 7376
Project Number: 000010119613-00023
Project Manager: Lee Dooley

Reported: 04/07/2010 10:27

Laboratory / Client Sample Cross Reference

Laboratory	Client Sample Information				
1004244-05	**COC Number:**	---	**Receive Date:**	03/30/2010 08:00	Delivery Work Order:
	Project Number:	7376	**Sampling Date:**	03/29/2010 11:03	Global ID: T0600100101
	Sampling Location:	---	**Sample Depth:**	---	Location ID (FieldPoint): CWB-1
	Sampling Point:	CWB-1@50-52	**Sample Matrix:**	Solids	Matrix: SO
	Sampled By:	DECJ			Sample QC Type (SACode): CS
					Cooler ID:
1004244-06	**COC Number:**	---	**Receive Date:**	03/30/2010 08:00	Delivery Work Order:
	Project Number:	7376	**Sampling Date:**	03/29/2010 11:12	Global ID: T0600100101
	Sampling Location:	---	**Sample Depth:**	---	Location ID (FieldPoint): CWB-1
	Sampling Point:	CWB-1@55-57	**Sample Matrix:**	Solids	Matrix: SO
	Sampled By:	DECJ			Sample QC Type (SACode): CS
					Cooler ID:

Delta Environmental
312 Piercy Rd
San Jose, CA 95138

Project: 7376
Project Number: 000010119613-00023
Project Manager: Lee Dooley

Reported: 04/07/2010 10:27

Volatile Organic Analysis (EPA Method 8260)

BCL Sample ID: 1004244-01 | **Client Sample Name:** 7376, CWB-1@23.5-25, 3/29/2010 9:52:00AM

Constituent	Result	Units	PQL	Method	Prep Date	Run Date/Time	Analyst	Instru-ment ID	Dilution	QC Batch ID	MB Bias	Lab Quals
Benzene	ND	mg/kg	0.0050	EPA-8260	03/29/10	03/30/10 14:05	JSK	MS-V3	1	BTC1913	ND	
Ethylbenzene	ND	mg/kg	0.0050	EPA-8260	03/29/10	03/30/10 14:05	JSK	MS-V3	1	BTC1913	ND	
Methyl t-butyl ether	ND	mg/kg	0.0050	EPA-8260	03/29/10	03/30/10 14:05	JSK	MS-V3	1	BTC1913	ND	
Toluene	ND	mg/kg	0.0050	EPA-8260	03/29/10	03/30/10 14:05	JSK	MS-V3	1	BTC1913	ND	
Total Xylenes	ND	mg/kg	0.010	EPA-8260	03/29/10	03/30/10 14:05	JSK	MS-V3	1	BTC1913	ND	
Total Purgeable Petroleum Hydrocarbons	ND	mg/kg	0.20	Luft-GC/MS	03/29/10	03/30/10 14:05	JSK	MS-V3	1	BTC1913	ND	
1,2-Dichloroethane-d4 (Surrogate)	92.8	%	70 - 121 (LCL - UCL)	EPA-8260	03/29/10	03/30/10 14:05	JSK	MS-V3	1	BTC1913		
Toluene-d8 (Surrogate)	93.8	%	81 - 117 (LCL - UCL)	EPA-8260	03/29/10	03/30/10 14:05	JSK	MS-V3	1	BTC1913		
4-Bromofluorobenzene (Surrogate)	98.5	%	74 - 121 (LCL - UCL)	EPA-8260	03/29/10	03/30/10 14:05	JSK	MS-V3	1	BTC1913		

Delta Environmental	Project: 7376	**Reported:** 04/07/2010 10:27
312 Piercy Rd	Project Number: 000010119613-00023	
San Jose, CA 95138	Project Manager: Lee Dooley	

Total Petroleum Hydrocarbons (Silica Gel Treated)

BCL Sample ID: 1004244-01 | **Client Sample Name:** 7376, CWB-1@23.5-25, 3/29/2010 9:52:00AM

Constituent	Result	Units	PQL	Method	Prep Date	Run Date/Time	Analyst	Instru-ment ID	Dilution	QC Batch ID	MB Bias	Lab Quals
Diesel Range Organics (C12 - C24)	ND	mg/kg	2.0	Luft/TPHd	04/01/10	04/02/10 21:09	MLR	GC-13	1.003	BTD0146	ND	
Tetracosane (Surrogate)	79.4	%	34 - 136 (LCL - UCL)	Luft/TPHd	04/01/10	04/02/10 21:09	MLR	GC-13	1.003	BTD0146		

Delta Environmental
312 Piercy Rd
San Jose, CA 95138

Project: 7376
Project Number: 000010119613-00023
Project Manager: Lee Dooley

Reported: 04/07/2010 10:27

Volatile Organic Analysis (EPA Method 8260)

BCL Sample ID: 1004244-02 | **Client Sample Name:** 7376, CWB-1@33.5-35, 3/29/2010 10:19:00AM

Constituent	Result	Units	PQL	Method	Prep Date	Run Date/Time	Analyst	Instru-ment ID	Dilution	QC Batch ID	MB Bias	Lab Quals
Benzene	**0.024**	**mg/kg**	**0.0050**	**EPA-8260**	**03/30/10**	**03/30/10 23:51**	**JSK**	**MS-V3**	**1**	**BTC1913**	**ND**	
Ethylbenzene	ND	mg/kg	0.0050	EPA-8260	03/30/10	03/30/10 23:51	JSK	MS-V3	1	BTC1913	ND	
Methyl t-butyl ether	**0.12**	**mg/kg**	**0.0050**	**EPA-8260**	**03/30/10**	**03/30/10 23:51**	**JSK**	**MS-V3**	**1**	**BTC1913**	**ND**	
Toluene	ND	mg/kg	0.0050	EPA-8260	03/30/10	03/30/10 23:51	JSK	MS-V3	1	BTC1913	ND	
Total Xylenes	ND	mg/kg	0.010	EPA-8260	03/30/10	03/30/10 23:51	JSK	MS-V3	1	BTC1913	ND	
Total Purgeable Petroleum Hydrocarbons	**0.62**	**mg/kg**	**0.20**	**Luft-GC/MS**	**03/30/10**	**03/30/10 23:51**	**JSK**	**MS-V3**	**1**	**BTC1913**	**ND**	
1,2-Dichloroethane-d4 (Surrogate)	84.6	%	70 - 121 (LCL - UCL)	EPA-8260	03/30/10	03/30/10 23:51	JSK	MS-V3	1	BTC1913		
Toluene-d8 (Surrogate)	96.1	%	81 - 117 (LCL - UCL)	EPA-8260	03/30/10	03/30/10 23:51	JSK	MS-V3	1	BTC1913		
4-Bromofluorobenzene (Surrogate)	96.0	%	74 - 121 (LCL - UCL)	EPA-8260	03/30/10	03/30/10 23:51	JSK	MS-V3	1	BTC1913		

Delta Environmental	Project: 7376	**Reported:** 04/07/2010 10:27
312 Piercy Rd	Project Number: 000010119613-00023	
San Jose, CA 95138	Project Manager: Lee Dooley	

Total Petroleum Hydrocarbons (Silica Gel Treated)

BCL Sample ID: 1004244-02 | **Client Sample Name:** 7376, CWB-1@33.5-35, 3/29/2010 10:19:00AM

Constituent	Result	Units	PQL	Method	Prep Date	Run Date/Time	Analyst	Instru-ment ID	Dilution	QC Batch ID	MB Bias	Lab Quals
Diesel Range Organics (C12 - C24)	ND	mg/kg	2.0	Luft/TPHd	04/01/10	04/02/10 21:32	MLR	GC-13	0.980	BTD0146	ND	
Tetracosane (Surrogate)	85.8	%	34 - 136 (LCL - UCL)	Luft/TPHd	04/01/10	04/02/10 21:32	MLR	GC-13	0.980	BTD0146		

Delta Environmental
312 Piercy Rd
San Jose, CA 95138

Project: 7376
Project Number: 000010119613-00023
Project Manager: Lee Dooley

Reported: 04/07/2010 10:27

Volatile Organic Analysis (EPA Method 8260)

BCL Sample ID: 1004244-03 | **Client Sample Name:** 7376, CWB-1@38.5-40, 3/29/2010 10:32:00AM

Constituent	Result	Units	PQL	Method	Prep Date	Run Date/Time	Analyst	Instru-ment ID	Dilution	QC Batch ID	MB Bias	Lab Quals
Benzene	ND	mg/kg	0.50	EPA-8260	03/30/10	03/31/10 00:17	JSK	MS-V3	100	BTC1913	ND	A01
Ethylbenzene	ND	mg/kg	0.50	EPA-8260	03/30/10	03/31/10 00:17	JSK	MS-V3	100	BTC1913	ND	A01
Methyl t-butyl ether	ND	mg/kg	0.50	EPA-8260	03/30/10	03/31/10 00:17	JSK	MS-V3	100	BTC1913	ND	A01
Toluene	ND	mg/kg	0.50	EPA-8260	03/30/10	03/31/10 00:17	JSK	MS-V3	100	BTC1913	ND	A01
Total Xylenes	ND	mg/kg	1.0	EPA-8260	03/30/10	03/31/10 00:17	JSK	MS-V3	100	BTC1913	ND	A01
Total Purgeable Petroleum Hydrocarbons	**70**	**mg/kg**	**20**	**Luft-GC/MS**	**03/30/10**	**03/31/10 00:17**	**JSK**	**MS-V3**	**100**	**BTC1913**	**ND**	**A01**
1,2-Dichloroethane-d4 (Surrogate)	82.4	%	70 - 121 (LCL - UCL)	EPA-8260	03/30/10	03/31/10 00:17	JSK	MS-V3	100	BTC1913		
Toluene-d8 (Surrogate)	95.3	%	81 - 117 (LCL - UCL)	EPA-8260	03/30/10	03/31/10 00:17	JSK	MS-V3	100	BTC1913		
4-Bromofluorobenzene (Surrogate)	89.5	%	74 - 121 (LCL - UCL)	EPA-8260	03/30/10	03/31/10 00:17	JSK	MS-V3	100	BTC1913		

Delta Environmental	Project: 7376	**Reported:** 04/07/2010 10:27
312 Piercy Rd	Project Number: 000010119613-00023	
San Jose, CA 95138	Project Manager: Lee Dooley	

Total Petroleum Hydrocarbons (Silica Gel Treated)

BCL Sample ID: 1004244-03 | **Client Sample Name:** 7376, CWB-1@38.5-40, 3/29/2010 10:32:00AM

Constituent	Result	Units	PQL	Method	Prep Date	Run Date/Time	Analyst	Instru-ment ID	Dilution	QC Batch ID	MB Bias	Lab Quals
Diesel Range Organics (C12 - C24)	**270**	**mg/kg**	**20**	**Luft/TPHd**	**04/01/10**	**04/05/10 22:46**	**MWB**	**GC-13**	**10.169**	**BTD0146**	**ND**	**A01**
Tetracosane (Surrogate)	0	%	34 - 136 (LCL - UCL)	Luft/TPHd	04/01/10	04/05/10 22:46	MWB	GC-13	10.169	BTD0146		A01,A17

Delta Environmental
312 Piercy Rd
San Jose, CA 95138

Project: 7376
Project Number: 000010119613-00023
Project Manager: Lee Dooley

Reported: 04/07/2010 10:27

Volatile Organic Analysis (EPA Method 8260)

BCL Sample ID: 1004244-04 | **Client Sample Name:** 7376, CWB-1@47-48.5, 3/29/2010 10:56:00AM

Constituent	Result	Units	PQL	Method	Prep Date	Run Date/Time	Analyst	Instru-ment ID	Dilution	QC Batch ID	MB Bias	Lab Quals
Benzene	ND	mg/kg	0.050	EPA-8260	03/30/10	03/31/10 00:42	JSK	MS-V3	10	BTC1913	ND	A01
Ethylbenzene	ND	mg/kg	0.050	EPA-8260	03/30/10	03/31/10 00:42	JSK	MS-V3	10	BTC1913	ND	A01
Methyl t-butyl ether	**0.18**	**mg/kg**	**0.050**	**EPA-8260**	**03/30/10**	**03/31/10 00:42**	**JSK**	**MS-V3**	**10**	**BTC1913**	**ND**	**A01**
Toluene	ND	mg/kg	0.050	EPA-8260	03/30/10	03/31/10 00:42	JSK	MS-V3	10	BTC1913	ND	A01
Total Xylenes	ND	mg/kg	0.10	EPA-8260	03/30/10	03/31/10 00:42	JSK	MS-V3	10	BTC1913	ND	A01
Total Purgeable Petroleum Hydrocarbons	**33**	**mg/kg**	**20**	**Luft-GC/MS**	**03/30/10**	**04/01/10 00:34**	**JSK**	**MS-V3**	**100**	**BTC1913**	**ND**	**A01**
1,2-Dichloroethane-d4 (Surrogate)	94.6	%	70 - 121 (LCL - UCL)	EPA-8260	03/30/10	04/01/10 00:34	JSK	MS-V3	100	BTC1913		
1,2-Dichloroethane-d4 (Surrogate)	88.9	%	70 - 121 (LCL - UCL)	EPA-8260	03/30/10	03/31/10 00:42	JSK	MS-V3	10	BTC1913		
Toluene-d8 (Surrogate)	98.3	%	81 - 117 (LCL - UCL)	EPA-8260	03/30/10	03/31/10 00:42	JSK	MS-V3	10	BTC1913		
Toluene-d8 (Surrogate)	94.4	%	81 - 117 (LCL - UCL)	EPA-8260	03/30/10	04/01/10 00:34	JSK	MS-V3	100	BTC1913		
4-Bromofluorobenzene (Surrogate)	97.0	%	74 - 121 (LCL - UCL)	EPA-8260	03/30/10	04/01/10 00:34	JSK	MS-V3	100	BTC1913		
4-Bromofluorobenzene (Surrogate)	96.8	%	74 - 121 (LCL - UCL)	EPA-8260	03/30/10	03/31/10 00:42	JSK	MS-V3	10	BTC1913		

Delta Environmental	Project: 7376	**Reported:** 04/07/2010 10:27
312 Piercy Rd	Project Number: 000010119613-00023	
San Jose, CA 95138	Project Manager: Lee Dooley	

Total Petroleum Hydrocarbons (Silica Gel Treated)

BCL Sample ID: 1004244-04 | **Client Sample Name:** 7376, CWB-1@47-48.5, 3/29/2010 10:56:00AM

Constituent	Result	Units	PQL	Method	Prep Date	Run Date/Time	Analyst	Instrument ID	Dilution	QC Batch ID	MB Bias	Lab Quals
Diesel Range Organics (C12 - C24)	**49**	**mg/kg**	**4.0**	**Luft/TPHd**	**04/01/10**	**04/05/10 23:37**	**MWB**	**GC-13**	**2**	**BTD0146**	**ND**	**A01**
Tetracosane (Surrogate)	77.2	%	34 - 136 (LCL - UCL)	Luft/TPHd	04/01/10	04/05/10 23:37	MWB	GC-13	2	BTD0146		A01

Delta Environmental
312 Piercy Rd
San Jose, CA 95138

Project: 7376
Project Number: 000010119613-00023
Project Manager: Lee Dooley

Reported: 04/07/2010 10:27

Volatile Organic Analysis (EPA Method 8260)

BCL Sample ID: 1004244-05 | **Client Sample Name:** 7376, CWB-1@50-52, 3/29/2010 11:03:00AM

Constituent	Result	Units	PQL	Method	Prep Date	Run Date/Time	Analyst	Instru-ment ID	Dilution	QC Batch ID	MB Bias	Lab Quals
Benzene	**0.50**	**mg/kg**	**0.050**	**EPA-8260**	**03/30/10**	**03/31/10 15:27**	**JSK**	**MS-V3**	**10**	**BTC1913**	**ND**	**A01**
Ethylbenzene	**0.079**	**mg/kg**	**0.0050**	**EPA-8260**	**03/30/10**	**03/31/10 01:34**	**JSK**	**MS-V3**	**1**	**BTC1913**	**ND**	
Methyl t-butyl ether	**0.28**	**mg/kg**	**0.0050**	**EPA-8260**	**03/30/10**	**03/31/10 01:34**	**JSK**	**MS-V3**	**1**	**BTC1913**	**ND**	
Toluene	**0.051**	**mg/kg**	**0.0050**	**EPA-8260**	**03/30/10**	**03/31/10 01:34**	**JSK**	**MS-V3**	**1**	**BTC1913**	**ND**	
Total Xylenes	**5.0**	**mg/kg**	**0.10**	**EPA-8260**	**03/30/10**	**03/31/10 15:27**	**JSK**	**MS-V3**	**10**	**BTC1913**	**ND**	**A01**
Total Purgeable Petroleum Hydrocarbons	**43**	**mg/kg**	**10**	**Luft-GC/MS**	**03/30/10**	**03/31/10 17:36**	**JSK**	**MS-V3**	**50**	**BTC1913**	**ND**	**A01**
1,2-Dichloroethane-d4 (Surrogate)	85.8	%	70 - 121 (LCL - UCL)	EPA-8260	03/30/10	03/31/10 17:36	JSK	MS-V3	50	BTC1913		
1,2-Dichloroethane-d4 (Surrogate)	88.4	%	70 - 121 (LCL - UCL)	EPA-8260	03/30/10	03/31/10 15:27	JSK	MS-V3	10	BTC1913		
1,2-Dichloroethane-d4 (Surrogate)	94.0	%	70 - 121 (LCL - UCL)	EPA-8260	03/30/10	03/31/10 01:34	JSK	MS-V3	1	BTC1913		
Toluene-d8 (Surrogate)	110	%	81 - 117 (LCL - UCL)	EPA-8260	03/30/10	03/31/10 01:34	JSK	MS-V3	1	BTC1913		
Toluene-d8 (Surrogate)	95.0	%	81 - 117 (LCL - UCL)	EPA-8260	03/30/10	03/31/10 15:27	JSK	MS-V3	10	BTC1913		
Toluene-d8 (Surrogate)	95.7	%	81 - 117 (LCL - UCL)	EPA-8260	03/30/10	03/31/10 17:36	JSK	MS-V3	50	BTC1913		
4-Bromofluorobenzene (Surrogate)	95.3	%	74 - 121 (LCL - UCL)	EPA-8260	03/30/10	03/31/10 15:27	JSK	MS-V3	10	BTC1913		
4-Bromofluorobenzene (Surrogate)	97.2	%	74 - 121 (LCL - UCL)	EPA-8260	03/30/10	03/31/10 17:36	JSK	MS-V3	50	BTC1913		
4-Bromofluorobenzene (Surrogate)	100	%	74 - 121 (LCL - UCL)	EPA-8260	03/30/10	03/31/10 01:34	JSK	MS-V3	1	BTC1913		

Delta Environmental	Project: 7376	**Reported:** 04/07/2010 10:27
312 Piercy Rd	Project Number: 000010119613-00023	
San Jose, CA 95138	Project Manager: Lee Dooley	

Total Petroleum Hydrocarbons (Silica Gel Treated)

BCL Sample ID: 1004244-05 | **Client Sample Name:** 7376, CWB-1@50-52, 3/29/2010 11:03:00AM

Constituent	Result	Units	PQL	Method	Prep Date	Run Date/Time	Analyst	Instru-ment ID	Dilution	QC Batch ID	MB Bias	Lab Quals
Diesel Range Organics (C12 - C24)	**58**	**mg/kg**	**4.0**	**Luft/TPHd**	**04/01/10**	**04/06/10 00:00**	**MWB**	**GC-13**	**2.034**	**BTD0146**	**ND**	**A01**
Tetracosane (Surrogate)	67.6	%	34 - 136 (LCL - UCL)	Luft/TPHd	04/01/10	04/06/10 00:00	MWB	GC-13	2.034	BTD0146		A01

Delta Environmental
312 Piercy Rd
San Jose, CA 95138

Project: 7376
Project Number: 000010119613-00023
Project Manager: Lee Dooley

Reported: 04/07/2010 10:27

Volatile Organic Analysis (EPA Method 8260)

BCL Sample ID: 1004244-06 | **Client Sample Name:** 7376, CWB-1@55-57, 3/29/2010 11:12:00AM

Constituent	Result	Units	PQL	Method	Prep Date	Run Date/Time	Analyst	Instrument ID	Dilution	QC Batch ID	MB Bias	Lab Quals
Benzene	**0.25**	**mg/kg**	**0.25**	**EPA-8260**	**03/30/10**	**03/31/10 01:08**	**JSK**	**MS-V3**	**50**	**BTC1913**	**ND**	**A01**
Ethylbenzene	**0.41**	**mg/kg**	**0.25**	**EPA-8260**	**03/30/10**	**03/31/10 01:08**	**JSK**	**MS-V3**	**50**	**BTC1913**	**ND**	**A01**
Methyl t-butyl ether	ND	mg/kg	0.25	EPA-8260	03/30/10	03/31/10 01:08	JSK	MS-V3	50	BTC1913	ND	A01
Toluene	ND	mg/kg	0.25	EPA-8260	03/30/10	03/31/10 01:08	JSK	MS-V3	50	BTC1913	ND	A01
Total Xylenes	**2.2**	**mg/kg**	**0.50**	**EPA-8260**	**03/30/10**	**03/31/10 01:08**	**JSK**	**MS-V3**	**50**	**BTC1913**	**ND**	**A01**
Total Purgeable Petroleum Hydrocarbons	**42**	**mg/kg**	**10**	**Luft-GC/MS**	**03/30/10**	**03/31/10 01:08**	**JSK**	**MS-V3**	**50**	**BTC1913**	**ND**	**A01**
1,2-Dichloroethane-d4 (Surrogate)	88.3	%	70 - 121 (LCL - UCL)	EPA-8260	03/30/10	03/31/10 01:08	JSK	MS-V3	50	BTC1913		
Toluene-d8 (Surrogate)	97.5	%	81 - 117 (LCL - UCL)	EPA-8260	03/30/10	03/31/10 01:08	JSK	MS-V3	50	BTC1913		
4-Bromofluorobenzene (Surrogate)	94.6	%	74 - 121 (LCL - UCL)	EPA-8260	03/30/10	03/31/10 01:08	JSK	MS-V3	50	BTC1913		

Delta Environmental	Project: 7376	**Reported:** 04/07/2010 10:27
312 Piercy Rd	Project Number: 000010119613-00023	
San Jose, CA 95138	Project Manager: Lee Dooley	

Total Petroleum Hydrocarbons (Silica Gel Treated)

BCL Sample ID: 1004244-06 | **Client Sample Name:** 7376, CWB-1@55-57, 3/29/2010 11:12:00AM

Constituent	Result	Units	PQL	Method	Prep Date	Run Date/Time	Analyst	Instrument ID	Dilution	QC Batch ID	MB Bias	Lab Quals
Diesel Range Organics (C12 - C24)	**30**	**mg/kg**	**2.0**	**Luft/TPHd**	**04/01/10**	**04/02/10 23:02**	**MLR**	**GC-13**	**1**	**BTD0146**	**ND**	
Tetracosane (Surrogate)	85.3	%	34 - 136 (LCL - UCL)	Luft/TPHd	04/01/10	04/02/10 23:02	MLR	GC-13	1	BTD0146		

Delta Environmental	Project: 7376	**Reported:** 04/07/2010 10:27
312 Piercy Rd	Project Number: 000010119613-00023	
San Jose, CA 95138	Project Manager: Lee Dooley	

Volatile Organic Analysis (EPA Method 8260)

Quality Control Report - Precision & Accuracy

Constituent	Batch ID	QC Sample Type	Source Sample ID	Source Result	Result	Spike Added	Units	RPD	Percent Recovery	Control Limits RPD	Control Limits Percent Recovery	Lab Quals
Benzene	BTC1913	Matrix Spike	1003610-17	ND	0.11982	0.12500	mg/kg		95.9		70 - 130	
		Matrix Spike Duplicate	1003610-17	ND	0.11479	0.12500	mg/kg	4.3	91.8	20	70 - 130	
Toluene	BTC1913	Matrix Spike	1003610-17	ND	0.11631	0.12500	mg/kg		93.1		70 - 130	
		Matrix Spike Duplicate	1003610-17	ND	0.11295	0.12500	mg/kg	2.9	90.4	20	70 - 130	
1,2-Dichloroethane-d4 (Surrogate)	BTC1913	Matrix Spike	1003610-17	ND	0.048611	0.050000	mg/kg		97.2		70 - 121	
		Matrix Spike Duplicate	1003610-17	ND	0.048983	0.050000	mg/kg		98.0		70 - 121	
Toluene-d8 (Surrogate)	BTC1913	Matrix Spike	1003610-17	ND	0.048649	0.050000	mg/kg		97.3		81 - 117	
		Matrix Spike Duplicate	1003610-17	ND	0.048803	0.050000	mg/kg		97.6		81 - 117	
4-Bromofluorobenzene (Surrogate)	BTC1913	Matrix Spike	1003610-17	ND	0.050579	0.050000	mg/kg		101		74 - 121	
		Matrix Spike Duplicate	1003610-17	ND	0.050753	0.050000	mg/kg		102		74 - 121	

Delta Environmental	Project: 7376	**Reported:** 04/07/2010 10:27
312 Piercy Rd	Project Number: 000010119613-00023	
San Jose, CA 95138	Project Manager: Lee Dooley	

Total Petroleum Hydrocarbons (Silica Gel Treated)

Quality Control Report - Precision & Accuracy

Constituent	Batch ID	QC Sample Type	Source Sample ID	Source Result	Result	Spike Added	Units	RPD	Percent Recovery	Control Limits RPD	Control Limits Percent Recovery	Lab Quals
Diesel Range Organics (C12 - C24)	BTD0146	Matrix Spike	1004244-01	ND	11.659	16.779	mg/kg		69.5		40 - 137	
		Matrix Spike Duplicate	1004244-01	ND	14.601	16.779	mg/kg	22.4	87.0	30	40 - 137	
Tetracosane (Surrogate)	BTD0146	Matrix Spike	1004244-01	ND	0.59092	0.67114	mg/kg		88.0		34 - 136	
		Matrix Spike Duplicate	1004244-01	ND	0.58898	0.67114	mg/kg		87.8		34 - 136	

Delta Environmental	Project: 7376	**Reported:** 04/07/2010 10:27
312 Piercy Rd	Project Number: 000010119613-00023	
San Jose, CA 95138	Project Manager: Lee Dooley	

Volatile Organic Analysis (EPA Method 8260)

Quality Control Report - Laboratory Control Sample

Constituent	Batch ID	QC Sample ID	QC Type	Result	Spike Level	PQL	Units	Percent Recovery	RPD	Control Limits Percent Recovery	Control Limits RPD	Lab Quals
Benzene	BTC1913	BTC1913-BS1	LCS	0.10922	0.12500	0.0050	mg/kg	87.4		70 - 130		
Toluene	BTC1913	BTC1913-BS1	LCS	0.10537	0.12500	0.0050	mg/kg	84.3		70 - 130		
1,2-Dichloroethane-d4 (Surrogate)	BTC1913	BTC1913-BS1	LCS	0.048918	0.050000		mg/kg	97.8		70 - 121		
Toluene-d8 (Surrogate)	BTC1913	BTC1913-BS1	LCS	0.049357	0.050000		mg/kg	98.7		81 - 117		
4-Bromofluorobenzene (Surrogate)	BTC1913	BTC1913-BS1	LCS	0.048764	0.050000		mg/kg	97.5		74 - 121		

Delta Environmental	Project: 7376	**Reported:** 04/07/2010 10:27
312 Piercy Rd	Project Number: 000010119613-00023	
San Jose, CA 95138	Project Manager: Lee Dooley	

Total Petroleum Hydrocarbons (Silica Gel Treated)

Quality Control Report - Laboratory Control Sample

Constituent	Batch ID	QC Sample ID	QC Type	Result	Spike Level	PQL	Units	Percent Recovery	RPD	Control Limits Percent Recovery	Control Limits RPD	Lab Quals
Diesel Range Organics (C12 - C24)	BTD0146	BTD0146-BS1	LCS	10.532	16.779	2.0	mg/kg	62.8		50 - 136		
Tetracosane (Surrogate)	BTD0146	BTD0146-BS1	LCS	0.55212	0.67114		mg/kg	82.3		34 - 136		

Delta Environmental
312 Piercy Rd
San Jose, CA 95138

Project: 7376
Project Number: 000010119613-00023
Project Manager: Lee Dooley

Reported: 04/07/2010 10:27

Volatile Organic Analysis (EPA Method 8260)

Quality Control Report - Method Blank Analysis

Constituent	Batch ID	QC Sample ID	MB Result	Units	PQL	MDL	Lab Quals
Benzene	BTC1913	BTC1913-BLK1	ND	mg/kg	0.0050		
Ethylbenzene	BTC1913	BTC1913-BLK1	ND	mg/kg	0.0050		
Methyl t-butyl ether	BTC1913	BTC1913-BLK1	ND	mg/kg	0.0050		
Toluene	BTC1913	BTC1913-BLK1	ND	mg/kg	0.0050		
Total Xylenes	BTC1913	BTC1913-BLK1	ND	mg/kg	0.010		
Total Purgeable Petroleum Hydrocarbons	BTC1913	BTC1913-BLK1	ND	mg/kg	0.20		
1,2-Dichloroethane-d4 (Surrogate)	BTC1913	BTC1913-BLK1	93.7	%	70 - 121 (LCL - UCL)		
Toluene-d8 (Surrogate)	BTC1913	BTC1913-BLK1	100	%	81 - 117 (LCL - UCL)		
4-Bromofluorobenzene (Surrogate)	BTC1913	BTC1913-BLK1	96.6	%	74 - 121 (LCL - UCL)		

Delta Environmental	Project: 7376	**Reported:** 04/07/2010 10:27
312 Piercy Rd	Project Number: 000010119613-00023	
San Jose, CA 95138	Project Manager: Lee Dooley	

Total Petroleum Hydrocarbons (Silica Gel Treated)

Quality Control Report - Method Blank Analysis

Constituent	Batch ID	QC Sample ID	MB Result	Units	PQL	MDL	Lab Quals
Diesel Range Organics (C12 - C24)	BTD0146	BTD0146-BLK1	ND	mg/kg	2.0		
Tetracosane (Surrogate)	BTD0146	BTD0146-BLK1	88.3	%	34 - 136 (LCL - UCL)		

Delta Environmental	Project: 7376	**Reported:** 04/07/2010 10:27
312 Piercy Rd	Project Number: 000010119613-00023	
San Jose, CA 95138	Project Manager: Lee Dooley	

Notes And Definitions

MDL	Method Detection Limit
ND	Analyte Not Detected at or above the reporting limit
PQL	Practical Quantitation Limit
RPD	Relative Percent Difference
A01	PQL's and MDL's are raised due to sample dilution.
A17	Surrogate not reportable due to sample dilution.

Chain Of Custody Record

BC Laboratories
4100 Atlas Court, Bakersfield, CA
(661) 327-4911 (661) 327-1918 fax

INVOICE REMITTANCE ADDRESS:
CONOCOPHILLIPS
Attn: Dee Hutchinson
3611 South Harbor, Suite 200
Santa Ana, CA. 92704

AOC#	DATE
1652	3/29/10
Requesition Number	PAGE: 1 of 1
000010119613-00023	

SAMPLING COMPANY: Delta Consultants	Valid Value ID:	CONOCOPHILLIPS SITE NUMBER: 7376	GLOBAL ID NO.: T0608768452
ADDRESS: 312 Piercy Road, San Jose, California		SITE ADDRESS (Street and City): 4191 Soquel Drive, Santa Cruz, CA	ConocoPhillips Manager: Terry Grayson
PROJECT CONTACT (Hardcopy or PDF Report to): Lee Dooley		EDF DELIVERABLE TO (RP or Designee): Lee Dooley	PHONE NO.: (408)826-1871
TELEPHONE: 408-826-1874 / FAX: 408-225-8506 / E-MAIL: ldooley@deltaenv.com			E-MAIL: Terry.L.Grayson@conocophillips.com
SAMPLER NAME(S) (Print): Nadine Periat	CONSULTANT PROJECT NUMBER: C107376		LAB USE ONLY: 10 04244

TURNAROUND TIME (CALENDAR DAYS):
☑ 14 DAYS ☐ 7 DAYS ☐ 72 HOURS ☐ 48 HOURS ☐ 24 HOURS ☐ LESS THAN 24 HOURS

SPECIAL INSTRUCTIONS OR NOTES:

CHECK BOX IF EDD IS NEEDED ☑

PLEASE CC RESULTS TO
Nperiat@deltaenv.com

REQUESTED ANALYSES

FIELD NOTES:
Container/Preservative or PID Readings or Laboratory Notes

* Field Point name only required if different from Sample ID

LAB USE ONLY	Field Point Name/ ID	SAMPLING DATE	SAMPLING TIME	MATRIX	NO. OF CONT.	TPH-D by EPA Method 8015 With Silica Gel Cleanup	TPH-G, BTEX, MTBE by EPA 8260 B.	TEMPERATURE ON RECEIPT C°
1	CWB-1 @ 23.5-25	3/29/2010	9:52	s	1	X	X	
2	CWB-1 @ 33.5-35	3/29/2010	10:19	s	1	X	X	
3	CWB-1 @ 38.5-40	3/29/2010	10:32	s	1	X	X	
4	CWB-1 @ 47-48.5'	3/29/2010	10:56	s	1	X	X	
5	CWB-1 @ 50-52	3/29/2010	11:03	s	1	X	X	
6	CWB-1 @ 55-57	3/29/2010	11:12	s	1	X	X	

CHK KEY — NON STANDARD — RESOLUTION — SUB-OUT

Relinquished by: (Signature) Jonny Periat 3/29/2010	Received by: (Signature) P. BIUS BCL	Date: 3/29/10	Time: 1705
Relinquished by: (Signature) BCL VIA GSO 3/29/10 1805	Received by: (Signature) P. Hammel	Date: MAR 30 2010	Time: 08:00
Relinquished by: (Signature)	Received by: (Signature)	Date:	Time:

9/19/03 Revision

BC LABORATORIES INC. SAMPLE RECEIPT FORM Rev. No. 12 06/24/08 Page 1 Of 1

Submission #: 10-04244

SHIPPING INFORMATION

Federal Express ☐ UPS ☐ Hand Delivery ☐
BC Lab Field Service ☐ Other ☑ (Specify) GSO

SHIPPING CONTAINER

Ice Chest ☑ None ☐
Box ☐ Other ☐ (Specify)_____

Refrigerant: Ice ☑ Blue Ice ☐ None ☐ Other ☐ Comments:

Custody Seals: Ice Chest ☐ Intact? Yes ☐ No ☐ | Containers ☐ Intact? Yes ☐ No ☐ | None ☑ Comments:

All samples received? Yes ☑ No ☐ All samples containers intact? Yes ☑ No ☐ Description(s) match COC? Yes ☑ No ☐

COC Received ☒ YES ☐ NO

Emissivity: .98 Container: 4oz clear Thermometer ID: #163

Temperature: A 4.6 °C / C 4.7 °C

Date/Time 3/30/10 0800

Analyst Init BLT

SAMPLE CONTAINERS	SAMPLE NUMBERS 1	2	3	4	5	6	7	8	9	10
QT GENERAL MINERAL/ GENERAL PHYSICAL										
PT PE UNPRESERVED										
QT INORGANIC CHEMICAL METALS										
PT INORGANIC CHEMICAL METALS										
PT CYANIDE										
PT NITROGEN FORMS										
PT TOTAL SULFIDE										
2oz. NITRATE / NITRITE										
PT TOTAL ORGANIC CARBON										
PT TOX										
PT CHEMICAL OXYGEN DEMAND										
PtA PHENOLICS										
40ml VOA VIAL TRAVEL BLANK										
40ml VOA VIAL	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )
QT EPA 413.1, 413.2, 418.1										
PT ODOR										
RADIOLOGICAL										
BACTERIOLOGICAL										
40 ml VOA VIAL- 504										
QT EPA 508/608/8080										
QT EPA 515.1/8150										
QT EPA 525										
QT EPA 525 TRAVEL BLANK										
100ml EPA 547										
100ml EPA 531.1										
QT EPA 548										
QT EPA 549										
QT EPA 632										
QT EPA 8015M										
QT AMBER										
8 OZ. JAR										
32 OZ. JAR										
SOIL SLEEVE Brass	A	A	A	A	A	A				
PCB VIAL										
PLASTIC BAG										
FERROUS IRON										
ENCORE										

Comments:_____

Sample Numbering Completed By: CAM Date/Time: 3/30/10 0930

A = Actual / C = Corrected

[H:\DOCS\WP80\LAB_DOCS\FORMS\SAMREC2.WPD]

BC Laboratories, Inc.
Environmental Testing Laboratory Since 1949

Date of Report: 04/09/2010

Lee Dooley

Delta Environmental
312 Piercy Rd
San Jose, CA 95138

RE: 7376
BC Work Order: 1004543
Invoice ID: B078379

Enclosed are the results of analyses for samples received by the laboratory on 4/6/2010. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Molly Meyers

Contact Person: Molly Meyers
Client Service Rep

Authorized Signature

Delta Environmental	Project: 7376	**Reported:** 04/09/2010 11:28
312 Piercy Rd	Project Number: 000010119613-00023	
San Jose, CA 95138	Project Manager: Lee Dooley	

Laboratory / Client Sample Cross Reference

Laboratory	Client Sample Information				
1004543-01	**COC Number:**	---	**Receive Date:**	04/06/2010 08:10	Delivery Work Order:
	Project Number:	7376	**Sampling Date:**	04/01/2010 08:55	Global ID: T0600100101
	Sampling Location:	---	**Sample Depth:**	---	Location ID (FieldPoint): MW-13
	Sampling Point:	MW-13@54-54.5	**Sample Matrix:**	Solids	Matrix: SO
	Sampled By:	DECJ			Sample QC Type (SACode): CS
					Cooler ID:
1004543-02	**COC Number:**	---	**Receive Date:**	04/06/2010 08:10	Delivery Work Order:
	Project Number:	7376	**Sampling Date:**	04/01/2010 09:03	Global ID: T0600100101
	Sampling Location:	---	**Sample Depth:**	---	Location ID (FieldPoint): MW-13
	Sampling Point:	MW-13@59-59.5	**Sample Matrix:**	Solids	Matrix: SO
	Sampled By:	DECJ			Sample QC Type (SACode): CS
					Cooler ID:
1004543-03	**COC Number:**	---	**Receive Date:**	04/06/2010 08:10	Delivery Work Order:
	Project Number:	7376	**Sampling Date:**	04/01/2010 09:12	Global ID: T0600100101
	Sampling Location:	---	**Sample Depth:**	---	Location ID (FieldPoint): MW-13
	Sampling Point:	MW-13@64.5-65	**Sample Matrix:**	Solids	Matrix: SO
	Sampled By:	DECJ			Sample QC Type (SACode): CS
					Cooler ID:
1004543-04	**COC Number:**	---	**Receive Date:**	04/06/2010 08:10	Delivery Work Order:
	Project Number:	7376	**Sampling Date:**	04/01/2010 09:22	Global ID: T0600100101
	Sampling Location:	---	**Sample Depth:**	---	Location ID (FieldPoint): MW-13
	Sampling Point:	MW-13@69-69.5	**Sample Matrix:**	Solids	Matrix: SO
	Sampled By:	DECJ			Sample QC Type (SACode): CS
					Cooler ID:

Delta Environmental
312 Piercy Rd
San Jose, CA 95138

Project: 7376
Project Number: 000010119613-00023
Project Manager: Lee Dooley

Reported: 04/09/2010 11:28

Volatile Organic Analysis (EPA Method 8260)

BCL Sample ID: 1004543-01 | **Client Sample Name:** 7376, MW-13@54-54.5, 4/1/2010 8:55:00AM

Constituent	Result	Units	PQL	Method	Prep Date	Run Date/Time	Analyst	Instru-ment ID	Dilution	QC Batch ID	MB Bias	Lab Quals
Benzene	ND	mg/kg	0.0050	EPA-8260	04/06/10	04/06/10 14:32	JSK	MS-V3	1	BTD0083	ND	
Ethylbenzene	ND	mg/kg	0.0050	EPA-8260	04/06/10	04/06/10 14:32	JSK	MS-V3	1	BTD0083	ND	
Methyl t-butyl ether	ND	mg/kg	0.0050	EPA-8260	04/06/10	04/06/10 14:32	JSK	MS-V3	1	BTD0083	ND	
Toluene	ND	mg/kg	0.0050	EPA-8260	04/06/10	04/06/10 14:32	JSK	MS-V3	1	BTD0083	ND	
Total Xylenes	ND	mg/kg	0.010	EPA-8260	04/06/10	04/06/10 14:32	JSK	MS-V3	1	BTD0083	ND	
Total Purgeable Petroleum Hydrocarbons	ND	mg/kg	0.20	Luft-GC/MS	04/06/10	04/06/10 14:32	JSK	MS-V3	1	BTD0083	ND	
1,2-Dichloroethane-d4 (Surrogate)	104	%	70 - 121 (LCL - UCL)	EPA-8260	04/06/10	04/06/10 14:32	JSK	MS-V3	1	BTD0083		
Toluene-d8 (Surrogate)	103	%	81 - 117 (LCL - UCL)	EPA-8260	04/06/10	04/06/10 14:32	JSK	MS-V3	1	BTD0083		
4-Bromofluorobenzene (Surrogate)	102	%	74 - 121 (LCL - UCL)	EPA-8260	04/06/10	04/06/10 14:32	JSK	MS-V3	1	BTD0083		

Delta Environmental	Project: 7376	**Reported:** 04/09/2010 11:28
312 Piercy Rd	Project Number: 000010119613-00023	
San Jose, CA 95138	Project Manager: Lee Dooley	

Total Petroleum Hydrocarbons (Silica Gel Treated)

BCL Sample ID: 1004543-01 | **Client Sample Name:** 7376, MW-13@54-54.5, 4/1/2010 8:55:00AM

Constituent	Result	Units	PQL	Method	Prep Date	Run Date/Time	Analyst	Instru-ment ID	Dilution	QC Batch ID	MB Bias	Lab Quals
Diesel Range Organics (C12 - C24)	ND	mg/kg	2.0	Luft/TPHd	04/07/10	04/08/10 17:49	MLR	GC-5	0.993	BTD0460	ND	
Tetracosane (Surrogate)	80.5	%	34 - 136 (LCL - UCL)	Luft/TPHd	04/07/10	04/08/10 17:49	MLR	GC-5	0.993	BTD0460		

Delta Environmental
312 Piercy Rd
San Jose, CA 95138

Project: 7376
Project Number: 000010119613-00023
Project Manager: Lee Dooley

Reported: 04/09/2010 11:28

Volatile Organic Analysis (EPA Method 8260)

BCL Sample ID: 1004543-02 | **Client Sample Name:** 7376, MW-13@59-59.5, 4/1/2010 9:03:00AM

Constituent	Result	Units	PQL	Method	Prep Date	Run Date/Time	Analyst	Instru-ment ID	Dilution	QC Batch ID	MB Bias	Lab Quals
Benzene	ND	mg/kg	0.0050	EPA-8260	04/06/10	04/06/10 14:58	JSK	MS-V3	1	BTD0083	ND	
Ethylbenzene	ND	mg/kg	0.0050	EPA-8260	04/06/10	04/06/10 14:58	JSK	MS-V3	1	BTD0083	ND	
Methyl t-butyl ether	ND	mg/kg	0.0050	EPA-8260	04/06/10	04/06/10 14:58	JSK	MS-V3	1	BTD0083	ND	
Toluene	ND	mg/kg	0.0050	EPA-8260	04/06/10	04/06/10 14:58	JSK	MS-V3	1	BTD0083	ND	
Total Xylenes	ND	mg/kg	0.010	EPA-8260	04/06/10	04/06/10 14:58	JSK	MS-V3	1	BTD0083	ND	
Total Purgeable Petroleum Hydrocarbons	ND	mg/kg	0.20	Luft-GC/MS	04/06/10	04/06/10 14:58	JSK	MS-V3	1	BTD0083	ND	
1,2-Dichloroethane-d4 (Surrogate)	97.7	%	70 - 121 (LCL - UCL)	EPA-8260	04/06/10	04/06/10 14:58	JSK	MS-V3	1	BTD0083		
Toluene-d8 (Surrogate)	102	%	81 - 117 (LCL - UCL)	EPA-8260	04/06/10	04/06/10 14:58	JSK	MS-V3	1	BTD0083		
4-Bromofluorobenzene (Surrogate)	99.9	%	74 - 121 (LCL - UCL)	EPA-8260	04/06/10	04/06/10 14:58	JSK	MS-V3	1	BTD0083		

Delta Environmental	Project: 7376	**Reported:** 04/09/2010 11:28
312 Piercy Rd	Project Number: 000010119613-00023	
San Jose, CA 95138	Project Manager: Lee Dooley	

Total Petroleum Hydrocarbons (Silica Gel Treated)

BCL Sample ID: 1004543-02 | **Client Sample Name:** 7376, MW-13@59-59.5, 4/1/2010 9:03:00AM

Constituent	Result	Units	PQL	Method	Prep Date	Run Date/Time	Analyst	Instru-ment ID	Dilution	QC Batch ID	MB Bias	Lab Quals
Diesel Range Organics (C12 - C24)	ND	mg/kg	2.0	Luft/TPHd	04/07/10	04/08/10 18:03	MLR	GC-5	1.017	BTD0460	ND	
Tetracosane (Surrogate)	77.5	%	34 - 136 (LCL - UCL)	Luft/TPHd	04/07/10	04/08/10 18:03	MLR	GC-5	1.017	BTD0460		

Delta Environmental
312 Piercy Rd
San Jose, CA 95138

Project: 7376
Project Number: 000010119613-00023
Project Manager: Lee Dooley

Reported: 04/09/2010 11:28

Volatile Organic Analysis (EPA Method 8260)

BCL Sample ID: 1004543-03 | **Client Sample Name:** 7376, MW-13@64.5-65, 4/1/2010 9:12:00AM

Constituent	Result	Units	PQL	Method	Prep Date	Run Date/Time	Analyst	Instru-ment ID	Dilution	QC Batch ID	MB Bias	Lab Quals
Benzene	ND	mg/kg	0.0050	EPA-8260	04/06/10	04/06/10 15:25	JSK	MS-V3	1	BTD0083	ND	
Ethylbenzene	ND	mg/kg	0.0050	EPA-8260	04/06/10	04/06/10 15:25	JSK	MS-V3	1	BTD0083	ND	
Methyl t-butyl ether	**0.0063**	**mg/kg**	**0.0050**	**EPA-8260**	**04/06/10**	**04/06/10 15:25**	**JSK**	**MS-V3**	**1**	**BTD0083**	**ND**	
Toluene	ND	mg/kg	0.0050	EPA-8260	04/06/10	04/06/10 15:25	JSK	MS-V3	1	BTD0083	ND	
Total Xylenes	ND	mg/kg	0.010	EPA-8260	04/06/10	04/06/10 15:25	JSK	MS-V3	1	BTD0083	ND	
Total Purgeable Petroleum Hydrocarbons	ND	mg/kg	0.20	Luft-GC/MS	04/06/10	04/06/10 15:25	JSK	MS-V3	1	BTD0083	ND	
1,2-Dichloroethane-d4 (Surrogate)	97.3	%	70 - 121 (LCL - UCL)	EPA-8260	04/06/10	04/06/10 15:25	JSK	MS-V3	1	BTD0083		
Toluene-d8 (Surrogate)	101	%	81 - 117 (LCL - UCL)	EPA-8260	04/06/10	04/06/10 15:25	JSK	MS-V3	1	BTD0083		
4-Bromofluorobenzene (Surrogate)	98.8	%	74 - 121 (LCL - UCL)	EPA-8260	04/06/10	04/06/10 15:25	JSK	MS-V3	1	BTD0083		

Delta Environmental	Project: 7376	**Reported:** 04/09/2010 11:28
312 Piercy Rd	Project Number: 000010119613-00023	
San Jose, CA 95138	Project Manager: Lee Dooley	

Total Petroleum Hydrocarbons (Silica Gel Treated)

BCL Sample ID: 1004543-03 | **Client Sample Name:** 7376, MW-13@64.5-65, 4/1/2010 9:12:00AM

Constituent	Result	Units	PQL	Method	Prep Date	Run Date/Time	Analyst	Instru-ment ID	Dilution	QC Batch ID	MB Bias	Lab Quals
Diesel Range Organics (C12 - C24)	ND	mg/kg	2.0	Luft/TPHd	04/07/10	04/08/10 18:17	MLR	GC-5	0.987	BTD0460	ND	
Tetracosane (Surrogate)	76.2	%	34 - 136 (LCL - UCL)	Luft/TPHd	04/07/10	04/08/10 18:17	MLR	GC-5	0.987	BTD0460		

Delta Environmental
312 Piercy Rd
San Jose, CA 95138

Project: 7376
Project Number: 000010119613-00023
Project Manager: Lee Dooley

Reported: 04/09/2010 11:28

Volatile Organic Analysis (EPA Method 8260)

BCL Sample ID: 1004543-04 | **Client Sample Name:** 7376, MW-13@69-69.5, 4/1/2010 9:22:00AM

Constituent	Result	Units	PQL	Method	Prep Date	Run Date/Time	Analyst	Instru-ment ID	Dilution	QC Batch ID	MB Bias	Lab Quals
Benzene	ND	mg/kg	0.0050	EPA-8260	04/06/10	04/06/10 15:50	JSK	MS-V3	1	BTD0083	ND	
Ethylbenzene	ND	mg/kg	0.0050	EPA-8260	04/06/10	04/06/10 15:50	JSK	MS-V3	1	BTD0083	ND	
Methyl t-butyl ether	ND	mg/kg	0.0050	EPA-8260	04/06/10	04/06/10 15:50	JSK	MS-V3	1	BTD0083	ND	
Toluene	ND	mg/kg	0.0050	EPA-8260	04/06/10	04/06/10 15:50	JSK	MS-V3	1	BTD0083	ND	
Total Xylenes	ND	mg/kg	0.010	EPA-8260	04/06/10	04/06/10 15:50	JSK	MS-V3	1	BTD0083	ND	
Total Purgeable Petroleum Hydrocarbons	ND	mg/kg	0.20	Luft-GC/MS	04/06/10	04/06/10 15:50	JSK	MS-V3	1	BTD0083	ND	
1,2-Dichloroethane-d4 (Surrogate)	111	%	70 - 121 (LCL - UCL)	EPA-8260	04/06/10	04/06/10 15:50	JSK	MS-V3	1	BTD0083		
Toluene-d8 (Surrogate)	102	%	81 - 117 (LCL - UCL)	EPA-8260	04/06/10	04/06/10 15:50	JSK	MS-V3	1	BTD0083		
4-Bromofluorobenzene (Surrogate)	108	%	74 - 121 (LCL - UCL)	EPA-8260	04/06/10	04/06/10 15:50	JSK	MS-V3	1	BTD0083		

Delta Environmental	Project: 7376	**Reported:** 04/09/2010 11:28
312 Piercy Rd	Project Number: 000010119613-00023	
San Jose, CA 95138	Project Manager: Lee Dooley	

Total Petroleum Hydrocarbons (Silica Gel Treated)

BCL Sample ID: 1004543-04 | **Client Sample Name:** 7376, MW-13@69-69.5, 4/1/2010 9:22:00AM

Constituent	Result	Units	PQL	Method	Prep Date	Run Date/Time	Analyst	Instru-ment ID	Dilution	QC Batch ID	MB Bias	Lab Quals
Diesel Range Organics (C12 - C24)	ND	mg/kg	2.0	Luft/TPHd	04/07/10	04/08/10 18:32	MLR	GC-5	0.963	BTD0460	ND	
Tetracosane (Surrogate)	79.6	%	34 - 136 (LCL - UCL)	Luft/TPHd	04/07/10	04/08/10 18:32	MLR	GC-5	0.963	BTD0460		

Delta Environmental	Project: 7376	**Reported:** 04/09/2010 11:28
312 Piercy Rd	Project Number: 000010119613-00023	
San Jose, CA 95138	Project Manager: Lee Dooley	

Volatile Organic Analysis (EPA Method 8260)

Quality Control Report - Precision & Accuracy

Constituent	Batch ID	QC Sample Type	Source Sample ID	Source Result	Result	Spike Added	Units	RPD	Percent Recovery	Control Limits RPD	Control Limits Percent Recovery	Lab Quals
Benzene	BTD0083	Matrix Spike	1003610-33	ND	0.12565	0.12500	mg/kg		101		70 - 130	
		Matrix Spike Duplicate	1003610-33	ND	0.13008	0.12500	mg/kg	3.5	104	20	70 - 130	
Toluene	BTD0083	Matrix Spike	1003610-33	ND	0.13310	0.12500	mg/kg		106		70 - 130	
		Matrix Spike Duplicate	1003610-33	ND	0.13318	0.12500	mg/kg	0.1	107	20	70 - 130	
1,2-Dichloroethane-d4 (Surrogate)	BTD0083	Matrix Spike	1003610-33	ND	0.051999	0.050000	mg/kg		104		70 - 121	
		Matrix Spike Duplicate	1003610-33	ND	0.049518	0.050000	mg/kg		99.0		70 - 121	
Toluene-d8 (Surrogate)	BTD0083	Matrix Spike	1003610-33	ND	0.050658	0.050000	mg/kg		101		81 - 117	
		Matrix Spike Duplicate	1003610-33	ND	0.050895	0.050000	mg/kg		102		81 - 117	
4-Bromofluorobenzene (Surrogate)	BTD0083	Matrix Spike	1003610-33	ND	0.057820	0.050000	mg/kg		116		74 - 121	
		Matrix Spike Duplicate	1003610-33	ND	0.053670	0.050000	mg/kg		107		74 - 121	

Delta Environmental	Project: 7376	**Reported:** 04/09/2010 11:28
312 Piercy Rd	Project Number: 000010119613-00023	
San Jose, CA 95138	Project Manager: Lee Dooley	

Total Petroleum Hydrocarbons (Silica Gel Treated)

Quality Control Report - Precision & Accuracy

Constituent	Batch ID	QC Sample Type	Source Sample ID	Source Result	Result	Spike Added	Units	RPD	Percent Recovery	Control Limits RPD	Control Limits Percent Recovery	Lab Quals
Diesel Range Organics (C12 - C24)	BTD0460	Matrix Spike	1004543-01	ND	8.9679	16.779	mg/kg		53.4		40 - 137	
		Matrix Spike Duplicate	1004543-01	ND	10.577	16.722	mg/kg	16.8	63.3	30	40 - 137	
Tetracosane (Surrogate)	BTD0460	Matrix Spike	1004543-01	ND	0.48705	0.67114	mg/kg		72.6		34 - 136	
		Matrix Spike Duplicate	1004543-01	ND	0.55880	0.66890	mg/kg		83.5		34 - 136	

Delta Environmental	Project: 7376	**Reported:** 04/09/2010 11:28
312 Piercy Rd	Project Number: 000010119613-00023	
San Jose, CA 95138	Project Manager: Lee Dooley	

Volatile Organic Analysis (EPA Method 8260)

Quality Control Report - Laboratory Control Sample

Constituent	Batch ID	QC Sample ID	QC Type	Result	Spike Level	PQL	Units	Percent Recovery	RPD	Control Limits Percent Recovery	Control Limits RPD	Lab Quals
Benzene	BTD0083	BTD0083-BS1	LCS	0.13425	0.12500	0.0050	mg/kg	107		70 - 130		
Toluene	BTD0083	BTD0083-BS1	LCS	0.12699	0.12500	0.0050	mg/kg	102		70 - 130		
1,2-Dichloroethane-d4 (Surrogate)	BTD0083	BTD0083-BS1	LCS	0.050013	0.050000		mg/kg	100		70 - 121		
Toluene-d8 (Surrogate)	BTD0083	BTD0083-BS1	LCS	0.049433	0.050000		mg/kg	98.9		81 - 117		
4-Bromofluorobenzene (Surrogate)	BTD0083	BTD0083-BS1	LCS	0.052101	0.050000		mg/kg	104		74 - 121		

Delta Environmental	Project: 7376	**Reported:** 04/09/2010 11:28
312 Piercy Rd	Project Number: 000010119613-00023	
San Jose, CA 95138	Project Manager: Lee Dooley	

Total Petroleum Hydrocarbons (Silica Gel Treated)

Quality Control Report - Laboratory Control Sample

Constituent	Batch ID	QC Sample ID	QC Type	Result	Spike Level	PQL	Units	Percent Recovery	RPD	Control Limits Percent Recovery	Control Limits RPD	Lab Quals
Diesel Range Organics (C12 - C24)	BTD0460	BTD0460-BS1	LCS	13.134	16.949	2.0	mg/kg	77.5		50 - 136		
Tetracosane (Surrogate)	BTD0460	BTD0460-BS1	LCS	0.56254	0.67797		mg/kg	83.0		34 - 136		

Delta Environmental
312 Piercy Rd
San Jose, CA 95138

Project: 7376
Project Number: 000010119613-00023
Project Manager: Lee Dooley

Reported: 04/09/2010 11:28

Volatile Organic Analysis (EPA Method 8260)

Quality Control Report - Method Blank Analysis

Constituent	Batch ID	QC Sample ID	MB Result	Units	PQL	MDL	Lab Quals
Benzene	BTD0083	BTD0083-BLK1	ND	mg/kg	0.0050		
Ethylbenzene	BTD0083	BTD0083-BLK1	ND	mg/kg	0.0050		
Methyl t-butyl ether	BTD0083	BTD0083-BLK1	ND	mg/kg	0.0050		
Toluene	BTD0083	BTD0083-BLK1	ND	mg/kg	0.0050		
Total Xylenes	BTD0083	BTD0083-BLK1	ND	mg/kg	0.010		
Total Purgeable Petroleum Hydrocarbons	BTD0083	BTD0083-BLK1	ND	mg/kg	0.20		
1,2-Dichloroethane-d4 (Surrogate)	BTD0083	BTD0083-BLK1	110	%	70 - 121 (LCL - UCL)		
Toluene-d8 (Surrogate)	BTD0083	BTD0083-BLK1	102	%	81 - 117 (LCL - UCL)		
4-Bromofluorobenzene (Surrogate)	BTD0083	BTD0083-BLK1	101	%	74 - 121 (LCL - UCL)		

Delta Environmental	Project: 7376	**Reported:** 04/09/2010 11:28
312 Piercy Rd	Project Number: 000010119613-00023	
San Jose, CA 95138	Project Manager: Lee Dooley	

Total Petroleum Hydrocarbons (Silica Gel Treated)

Quality Control Report - Method Blank Analysis

Constituent	Batch ID	QC Sample ID	MB Result	Units	PQL	MDL	Lab Quals
Diesel Range Organics (C12 - C24)	BTD0460	BTD0460-BLK1	ND	mg/kg	2.0		
Tetracosane (Surrogate)	BTD0460	BTD0460-BLK1	90.2	%	34 - 136 (LCL - UCL)		

Delta Environmental	Project: 7376	**Reported:** 04/09/2010 11:28
312 Piercy Rd	Project Number: 000010119613-00023	
San Jose, CA 95138	Project Manager: Lee Dooley	

Notes And Definitions

MDL	Method Detection Limit
ND	Analyte Not Detected at or above the reporting limit
PQL	Practical Quantitation Limit
RPD	Relative Percent Difference

Chain Of Custody Record

BC Laboratories
4100 Atlas Court, Bakersfield, CA
(661) 327-4911 (661) 327-1918 fax

INVOICE REMITTANCE ADDRESS:
CONOCOPHILLIPS
Attn: Dee Hutchinson
3611 South Harbor, Suite 200
Santa Ana, CA. 92704

AOC# 1652
Requesition Number 000010119613-00023

DATE: 4/2/10
PAGE: 1 of 1

SAMPLING COMPANY: Delta Consultants	Valid Value ID:	CONOCOPHILLIPS SITE NUMBER: 7376	GLOBAL ID NO.: T0600100101
ADDRESS: 312 Piercy Road, San Jose, California		SITE ADDRESS (Street and City): 4191 Soquel Drive, Santa Cruz, CA	ConocoPhillips Manager: Terry Grayson
PROJECT CONTACT (Hardcopy or PDF Report to): Lee Dooley		EDF DELIVERABLE TO (RP or Designee): Lee Dooley	PHONE NO.: (408)826-1871
TELEPHONE: 408-826-1874	FAX: 408-225-8506	E-MAIL: ldooley@deltaenv.com	E-MAIL: Terry.L.Grayson@contractor.conoc
SAMPLER NAME(S) (Print): Nadine Periat	CONSULTANT PROJECT NUMBER: C107376		LAB USE ONLY: 10-04543

TURNAROUND TIME (CALENDAR DAYS):
☑ 14 DAYS ☐ 7 DAYS ☐ 72 HOURS ☐ 48 HOURS ☐ 24 HOURS ☐ LESS THAN 24 HOURS

SPECIAL INSTRUCTIONS OR NOTES: CHECK BOX IF EDD IS NEEDED ☑

PLEASE CC RESULTS TO
Nperiat@deltaenv.com

REQUESTED ANALYSES

FIELD NOTES:
Container/Preservative or PID Readings or Laboratory Notes

* Field Point name only required if different from Sample ID

LAB USE ONLY	Field Point Name/ ID	SAMPLING DATE	SAMPLING TIME	MATRIX	NO. OF CONT.	TPH-D by EPA Method 8015 With Silica Gel Cleanup	TPH-G, BTEX, MTBE by EPA 8260 B.	TEMPERATURE ON RECEIPT C°
1	MW-13 @ 54-54.5	4/1/2010	8:55	s	1	X	X	
2	MW-13 @59-59.5	4/1/2010	9:03	s	1	X	X	
3	MW-13 @ 64.5-65	4/1/2010	9:12	s	1	X	X	
4	MW-13 @ 69-69.5	4/1/2010	9:22	s	1	X	X	

CHK BY SV DISTRIBUTION SUB-OUT ☐

Relinquished by: (Signature) for Nadine P	Received by: (Signature) P BINS BCL	Date: 4/05/10	Time: 1500
Relinquished by: (Signature) P. BINS BCL VIA GSO 4/5/10 1805	Received by: (Signature) P. Trammel	Date: APR 06 2010	Time: 0810
Relinquished by: (Signature)	Received by: (Signature)	Date:	Time:

9/19/03 Revision

BC LABORATORIES INC. SAMPLE RECEIPT FORM Rev. No. 12 06/24/08 Page 1 Of 1

Submission #: 10-04543

SHIPPING INFORMATION

Federal Express ☐ UPS ☐ Hand Delivery ☐
BC Lab Field Service ☐ Other ☒ (Specify) GSO

SHIPPING CONTAINER

Ice Chest ☒ None ☐
Box ☐ Other ☐ (Specify) _____

Refrigerant: Ice ☒ Blue Ice ☐ None ☐ Other ☐ Comments:

Custody Seals: Ice Chest ☐ Intact? Yes ☐ No ☐ | Containers ☐ Intact? Yes ☐ No ☐ | None ☒ Comments:

All samples received? Yes ☒ No ☐ All samples containers intact? Yes ☒ No ☐ Description(s) match COC? Yes ☒ No ☐

COC Received ☒ YES ☐ NO

Emissivity: .95 Container: Pt AM Thermometer ID: #163

Temperature: A 3.7 °C / C 3.7 °C

Date/Time 4/6/10 0810

Analyst Init BLT

SAMPLE CONTAINERS	SAMPLE NUMBERS 1	2	3	4	5	6	7	8	9	10
QT GENERAL MINERAL/ GENERAL PHYSICAL										
PT PE UNPRESERVED										
QT INORGANIC CHEMICAL METALS										
PT INORGANIC CHEMICAL METALS										
PT CYANIDE										
PT NITROGEN FORMS										
PT TOTAL SULFIDE										
2oz. NITRATE / NITRITE										
PT TOTAL ORGANIC CARBON										
PT TOX										
PT CHEMICAL OXYGEN DEMAND										
PtA PHENOLICS										
40ml VOA VIAL TRAVEL BLANK										
40ml VOA VIAL	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )
QT EPA 413.1, 413.2, 418.1										
PT ODOR										
RADIOLOGICAL										
BACTERIOLOGICAL										
40 ml VOA VIAL- 504										
QT EPA 508/608/8080										
QT EPA 515.1/8150										
QT EPA 525										
QT EPA 525 TRAVEL BLANK										
100ml EPA 547										
100ml EPA 531.1										
QT EPA 548										
QT EPA 549										
QT EPA 632										
QT EPA 8015M										
QT AMBER										
8 OZ. JAR										
32 OZ. JAR										
SOIL SLEEVE BRASS	A	A	A	A						
PCB VIAL										
PLASTIC BAG										
FERROUS IRON										
ENCORE										

Comments: _____

Sample Numbering Completed By: CMM Date/Time: 4/6/10 0930

A = Actual / C = Corrected

[H:\DOCS\WP80\LAB_DOCS\FORMS\SAMREC2.WPD]

BC Laboratories, Inc.
Environmental Testing Laboratory Since 1949

Date of Report: 04/12/2010

Lee Dooley

Delta Environmental
312 Piercy Rd
San Jose, CA 95138

RE: 7376
BC Work Order: 1004760
Invoice ID: B078477

Enclosed are the results of analyses for samples received by the laboratory on 4/8/2010. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Molly Meyers

Contact Person: Molly Meyers
Client Service Rep

Authorized Signature

Delta Environmental	Project: 7376	**Reported:** 04/12/2010 16:28
312 Piercy Rd	Project Number: 000010119613-00023	
San Jose, CA 95138	Project Manager: Lee Dooley	

Laboratory / Client Sample Cross Reference

Laboratory	Client Sample Information				
1004760-01	**COC Number:**	---	**Receive Date:**	04/08/2010 08:00	Delivery Work Order:
	Project Number:	7376	**Sampling Date:**	04/05/2010 09:38	Global ID: T0600100101
	Sampling Location:	---	**Sample Depth:**	---	Location ID (FieldPoint): CWA-1
	Sampling Point:	CWA-1@26-26.5	**Sample Matrix:**	Solids	Matrix: SO
	Sampled By:	DECJ			Sample QC Type (SACode): CS
					Cooler ID:
1004760-02	**COC Number:**	---	**Receive Date:**	04/08/2010 08:00	Delivery Work Order:
	Project Number:	7376	**Sampling Date:**	04/05/2010 10:04	Global ID: T0600100101
	Sampling Location:	---	**Sample Depth:**	---	Location ID (FieldPoint): CWA-1
	Sampling Point:	CWA-1@36.5-37	**Sample Matrix:**	Solids	Matrix: SO
	Sampled By:	DECJ			Sample QC Type (SACode): CS
					Cooler ID:
1004760-03	**COC Number:**	---	**Receive Date:**	04/08/2010 08:00	Delivery Work Order:
	Project Number:	7376	**Sampling Date:**	04/05/2010 10:20	Global ID: T0600100101
	Sampling Location:	---	**Sample Depth:**	---	Location ID (FieldPoint): CWA-1
	Sampling Point:	CWA-1@44-44.5	**Sample Matrix:**	Solids	Matrix: SO
	Sampled By:	DECJ			Sample QC Type (SACode): CS
					Cooler ID:
1004760-04	**COC Number:**	---	**Receive Date:**	04/08/2010 08:00	Delivery Work Order:
	Project Number:	7376	**Sampling Date:**	04/05/2010 09:54	Global ID: T0600100101
	Sampling Location:	---	**Sample Depth:**	---	Location ID (FieldPoint): CWA-1
	Sampling Point:	CWA-1@31-31.5	**Sample Matrix:**	Solids	Matrix: SO
	Sampled By:	DECJ			Sample QC Type (SACode): CS
					Cooler ID:

Delta Environmental	Project: 7376	**Reported:** 04/12/2010 16:28
312 Piercy Rd	Project Number: 000010119613-00023	
San Jose, CA 95138	Project Manager: Lee Dooley	

Laboratory / Client Sample Cross Reference

Laboratory	Client Sample Information				
1004760-05	**COC Number:**	---	**Receive Date:**	04/08/2010 08:00	Delivery Work Order:
	Project Number:	7376	**Sampling Date:**	04/05/2010 10:35	Global ID: T0600100101
	Sampling Location:	---	**Sample Depth:**	---	Location ID (FieldPoint): CWA-1
	Sampling Point:	CWA-1@52.5-53	**Sample Matrix:**	Solids	Matrix: SO
	Sampled By:	DECJ			Sample QC Type (SACode): CS
					Cooler ID:
1004760-06	**COC Number:**	---	**Receive Date:**	04/08/2010 08:00	Delivery Work Order:
	Project Number:	7376	**Sampling Date:**	04/05/2010 09:23	Global ID: T0600100101
	Sampling Location:	---	**Sample Depth:**	---	Location ID (FieldPoint): CWA-1
	Sampling Point:	CWA-1@17.5-18	**Sample Matrix:**	Solids	Matrix: SO
	Sampled By:	DECJ			Sample QC Type (SACode): CS
					Cooler ID:

Delta Environmental	Project: 7376	**Reported:** 04/12/2010 16:28
312 Piercy Rd	Project Number: 000010119613-00023	
San Jose, CA 95138	Project Manager: Lee Dooley	

Volatile Organic Analysis (EPA Method 8260)

BCL Sample ID: 1004760-01 | **Client Sample Name:** 7376, CWA-1@26-26.5, 4/5/2010 9:38:00AM

Constituent	Result	Units	PQL	Method	Prep Date	Run Date/Time	Analyst	Instru-ment ID	Dilution	QC Batch ID	MB Bias	Lab Quals
Benzene	ND	mg/kg	0.0050	EPA-8260	04/09/10	04/09/10 12:37	JSK	MS-V3	1	BTD0319	ND	
Ethylbenzene	ND	mg/kg	0.0050	EPA-8260	04/09/10	04/09/10 12:37	JSK	MS-V3	1	BTD0319	ND	
Methyl t-butyl ether	**0.21**	**mg/kg**	**0.0050**	**EPA-8260**	**04/09/10**	**04/09/10 12:37**	**JSK**	**MS-V3**	**1**	**BTD0319**	**ND**	
Toluene	ND	mg/kg	0.0050	EPA-8260	04/09/10	04/09/10 12:37	JSK	MS-V3	1	BTD0319	ND	
Total Xylenes	ND	mg/kg	0.010	EPA-8260	04/09/10	04/09/10 12:37	JSK	MS-V3	1	BTD0319	ND	
t-Butyl alcohol	**1.0**	**mg/kg**	**0.050**	**EPA-8260**	**04/09/10**	**04/09/10 12:37**	**JSK**	**MS-V3**	**1**	**BTD0319**	**ND**	
Total Purgeable Petroleum Hydrocarbons	**0.50**	**mg/kg**	**0.20**	**Luft-GC/MS**	**04/09/10**	**04/09/10 12:37**	**JSK**	**MS-V3**	**1**	**BTD0319**	**ND**	
1,2-Dichloroethane-d4 (Surrogate)	103	%	70 - 121 (LCL - UCL)	EPA-8260	04/09/10	04/09/10 12:37	JSK	MS-V3	1	BTD0319		
Toluene-d8 (Surrogate)	98.9	%	81 - 117 (LCL - UCL)	EPA-8260	04/09/10	04/09/10 12:37	JSK	MS-V3	1	BTD0319		
4-Bromofluorobenzene (Surrogate)	103	%	74 - 121 (LCL - UCL)	EPA-8260	04/09/10	04/09/10 12:37	JSK	MS-V3	1	BTD0319		

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Total Petroleum Hydrocarbons (Silica Gel Treated)

BCL Sample ID: 1004760-01 | **Client Sample Name:** 7376, CWA-1@26-26.5, 4/5/2010 9:38:00AM

Constituent	Result	Units	PQL	Method	Prep Date	Run Date/Time	Analyst	Instru-ment ID	Dilution	QC Batch ID	MB Bias	Lab Quals
Diesel Range Organics (C12 - C24)	ND	mg/kg	2.0	Luft/TPHd	04/09/10	04/09/10 21:15	MLR	GC-5	0.990	BTD0545		
Tetracosane (Surrogate)	87.0	%	34 - 136 (LCL - UCL)	Luft/TPHd	04/09/10	04/09/10 21:15	MLR	GC-5	0.990	BTD0545		

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Volatile Organic Analysis (EPA Method 8260)

BCL Sample ID: 1004760-02 | **Client Sample Name:** 7376, CWA-1@36.5-37, 4/5/2010 10:04:00AM

Constituent	Result	Units	PQL	Method	Prep Date	Run Date/Time	Analyst	Instrument ID	Dilution	QC Batch ID	MB Bias	Lab Quals
Benzene	**0.062**	**mg/kg**	**0.0050**	**EPA-8260**	**04/09/10**	**04/09/10 16:30**	**JSK**	**MS-V3**	**1**	**BTD0319**	**ND**	
Ethylbenzene	**0.015**	**mg/kg**	**0.0050**	**EPA-8260**	**04/09/10**	**04/09/10 16:30**	**JSK**	**MS-V3**	**1**	**BTD0319**	**ND**	
Methyl t-butyl ether	**0.086**	**mg/kg**	**0.0050**	**EPA-8260**	**04/09/10**	**04/09/10 16:30**	**JSK**	**MS-V3**	**1**	**BTD0319**	**ND**	
Toluene	**0.0098**	**mg/kg**	**0.0050**	**EPA-8260**	**04/09/10**	**04/09/10 16:30**	**JSK**	**MS-V3**	**1**	**BTD0319**	**ND**	
Total Xylenes	**0.10**	**mg/kg**	**0.010**	**EPA-8260**	**04/09/10**	**04/09/10 16:30**	**JSK**	**MS-V3**	**1**	**BTD0319**	**ND**	
t-Butyl alcohol	ND	mg/kg	0.050	EPA-8260	04/09/10	04/09/10 16:30	JSK	MS-V3	1	BTD0319	ND	
Total Purgeable Petroleum Hydrocarbons	**350**	**mg/kg**	**100**	**Luft-GC/MS**	**04/09/10**	**04/09/10 16:56**	**JSK**	**MS-V3**	**500**	**BTD0319**	**ND**	**A01**
1,2-Dichloroethane-d4 (Surrogate)	100	%	70 - 121 (LCL - UCL)	EPA-8260	04/09/10	04/09/10 16:30	JSK	MS-V3	1	BTD0319		
1,2-Dichloroethane-d4 (Surrogate)	92.4	%	70 - 121 (LCL - UCL)	EPA-8260	04/09/10	04/09/10 16:56	JSK	MS-V3	500	BTD0319		
Toluene-d8 (Surrogate)	100	%	81 - 117 (LCL - UCL)	EPA-8260	04/09/10	04/09/10 16:30	JSK	MS-V3	1	BTD0319		
Toluene-d8 (Surrogate)	95.5	%	81 - 117 (LCL - UCL)	EPA-8260	04/09/10	04/09/10 16:56	JSK	MS-V3	500	BTD0319		
4-Bromofluorobenzene (Surrogate)	94.6	%	74 - 121 (LCL - UCL)	EPA-8260	04/09/10	04/09/10 16:56	JSK	MS-V3	500	BTD0319		
4-Bromofluorobenzene (Surrogate)	110	%	74 - 121 (LCL - UCL)	EPA-8260	04/09/10	04/09/10 16:30	JSK	MS-V3	1	BTD0319		

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Total Petroleum Hydrocarbons (Silica Gel Treated)

BCL Sample ID: 1004760-02 | **Client Sample Name:** 7376, CWA-1@36.5-37, 4/5/2010 10:04:00AM

Constituent	Result	Units	PQL	Method	Prep Date	Run Date/Time	Analyst	Instrument ID	Dilution	QC Batch ID	MB Bias	Lab Quals
Diesel Range Organics (C12 - C24)	**1000**	**mg/kg**	**200**	**Luft/TPHd**	**04/09/10**	**04/09/10 22:13**	**MLR**	**GC-5**	**98.684**	**BTD0545**		**A01**
Tetracosane (Surrogate)	0	%	34 - 136 (LCL - UCL)	Luft/TPHd	04/09/10	04/09/10 22:13	MLR	GC-5	98.684	BTD0545		A17

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Volatile Organic Analysis (EPA Method 8260)

BCL Sample ID: 1004760-03 | **Client Sample Name:** 7376, CWA-1@44-44.5, 4/5/2010 10:20:00AM

Constituent	Result	Units	PQL	Method	Prep Date	Run Date/Time	Analyst	Instru-ment ID	Dilution	QC Batch ID	MB Bias	Lab Quals
Benzene	ND	mg/kg	0.0050	EPA-8260	04/09/10	04/09/10 13:03	JSK	MS-V3	1	BTD0319	ND	
Ethylbenzene	ND	mg/kg	0.0050	EPA-8260	04/09/10	04/09/10 13:03	JSK	MS-V3	1	BTD0319	ND	
Methyl t-butyl ether	**0.090**	**mg/kg**	**0.0050**	**EPA-8260**	**04/09/10**	**04/09/10 13:03**	**JSK**	**MS-V3**	**1**	**BTD0319**	**ND**	
Toluene	ND	mg/kg	0.0050	EPA-8260	04/09/10	04/09/10 13:03	JSK	MS-V3	1	BTD0319	ND	
Total Xylenes	ND	mg/kg	0.010	EPA-8260	04/09/10	04/09/10 13:03	JSK	MS-V3	1	BTD0319	ND	
t-Butyl alcohol	**0.20**	**mg/kg**	**0.050**	**EPA-8260**	**04/09/10**	**04/09/10 13:03**	**JSK**	**MS-V3**	**1**	**BTD0319**	**ND**	
Total Purgeable Petroleum Hydrocarbons	ND	mg/kg	0.20	Luft-GC/MS	04/09/10	04/09/10 13:03	JSK	MS-V3	1	BTD0319	ND	
1,2-Dichloroethane-d4 (Surrogate)	94.1	%	70 - 121 (LCL - UCL)	EPA-8260	04/09/10	04/09/10 13:03	JSK	MS-V3	1	BTD0319		
Toluene-d8 (Surrogate)	102	%	81 - 117 (LCL - UCL)	EPA-8260	04/09/10	04/09/10 13:03	JSK	MS-V3	1	BTD0319		
4-Bromofluorobenzene (Surrogate)	100	%	74 - 121 (LCL - UCL)	EPA-8260	04/09/10	04/09/10 13:03	JSK	MS-V3	1	BTD0319		

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Total Petroleum Hydrocarbons (Silica Gel Treated)

BCL Sample ID: 1004760-03 | **Client Sample Name:** 7376, CWA-1@44-44.5, 4/5/2010 10:20:00AM

Constituent	Result	Units	PQL	Method	Prep Date	Run Date/Time	Analyst	Instru-ment ID	Dilution	QC Batch ID	MB Bias	Lab Quals
Diesel Range Organics (C12 - C24)	ND	mg/kg	2.0	Luft/TPHd	04/09/10	04/09/10 21:30	MLR	GC-5	0.944	BTD0545		
Tetracosane (Surrogate)	83.4	%	34 - 136 (LCL - UCL)	Luft/TPHd	04/09/10	04/09/10 21:30	MLR	GC-5	0.944	BTD0545		

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Volatile Organic Analysis (EPA Method 8260)

BCL Sample ID: 1004760-04 | **Client Sample Name:** 7376, CWA-1@31-31.5, 4/5/2010 9:54:00AM

Constituent	Result	Units	PQL	Method	Prep Date	Run Date/Time	Analyst	Instrument ID	Dilution	QC Batch ID	MB Bias	Lab Quals
Benzene	ND	mg/kg	0.025	EPA-8260	04/09/10	04/09/10 17:22	JSK	MS-V3	5	BTD0319	ND	A01
Ethylbenzene	ND	mg/kg	0.025	EPA-8260	04/09/10	04/09/10 17:22	JSK	MS-V3	5	BTD0319	ND	A01
Methyl t-butyl ether	**1.7**	**mg/kg**	**0.025**	**EPA-8260**	**04/09/10**	**04/09/10 17:22**	**JSK**	**MS-V3**	**5**	**BTD0319**	**ND**	**A01**
Toluene	ND	mg/kg	0.025	EPA-8260	04/09/10	04/09/10 17:22	JSK	MS-V3	5	BTD0319	ND	A01
Total Xylenes	ND	mg/kg	0.050	EPA-8260	04/09/10	04/09/10 17:22	JSK	MS-V3	5	BTD0319	ND	A01
t-Butyl alcohol	**2.0**	**mg/kg**	**0.25**	**EPA-8260**	**04/09/10**	**04/09/10 17:22**	**JSK**	**MS-V3**	**5**	**BTD0319**	**ND**	**A01**
Total Purgeable Petroleum Hydrocarbons	**20**	**mg/kg**	**10**	**Luft-GC/MS**	**04/09/10**	**04/09/10 14:21**	**JSK**	**MS-V3**	**50**	**BTD0319**	**ND**	**A01**
1,2-Dichloroethane-d4 (Surrogate)	95.4	%	70 - 121 (LCL - UCL)	EPA-8260	04/09/10	04/09/10 14:21	JSK	MS-V3	50	BTD0319		
1,2-Dichloroethane-d4 (Surrogate)	88.4	%	70 - 121 (LCL - UCL)	EPA-8260	04/09/10	04/09/10 17:22	JSK	MS-V3	5	BTD0319		
Toluene-d8 (Surrogate)	98.1	%	81 - 117 (LCL - UCL)	EPA-8260	04/09/10	04/09/10 17:22	JSK	MS-V3	5	BTD0319		
Toluene-d8 (Surrogate)	103	%	81 - 117 (LCL - UCL)	EPA-8260	04/09/10	04/09/10 14:21	JSK	MS-V3	50	BTD0319		
4-Bromofluorobenzene (Surrogate)	101	%	74 - 121 (LCL - UCL)	EPA-8260	04/09/10	04/09/10 14:21	JSK	MS-V3	50	BTD0319		
4-Bromofluorobenzene (Surrogate)	97.3	%	74 - 121 (LCL - UCL)	EPA-8260	04/09/10	04/09/10 17:22	JSK	MS-V3	5	BTD0319		

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Total Petroleum Hydrocarbons (Silica Gel Treated)

BCL Sample ID: 1004760-04 | **Client Sample Name:** 7376, CWA-1@31-31.5, 4/5/2010 9:54:00AM

Constituent	Result	Units	PQL	Method	Prep Date	Run Date/Time	Analyst	Instrument ID	Dilution	QC Batch ID	MB Bias	Lab Quals
Diesel Range Organics (C12 - C24)	**120**	**mg/kg**	**20**	**Luft/TPHd**	**04/09/10**	**04/09/10 22:27**	**MLR**	**GC-5**	**9.901**	**BTD0545**		**A01**
Tetracosane (Surrogate)	0	%	34 - 136 (LCL - UCL)	Luft/TPHd	04/09/10	04/09/10 22:27	MLR	GC-5	9.901	BTD0545		A17

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Volatile Organic Analysis (EPA Method 8260)

BCL Sample ID: 1004760-05 | **Client Sample Name:** 7376, CWA-1@52.5-53, 4/5/2010 10:35:00AM

Constituent	Result	Units	PQL	Method	Prep Date	Run Date/Time	Analyst	Instru-ment ID	Dilution	QC Batch ID	MB Bias	Lab Quals
Benzene	ND	mg/kg	0.0050	EPA-8260	04/09/10	04/09/10 13:29	JSK	MS-V3	1	BTD0319	ND	
Ethylbenzene	ND	mg/kg	0.0050	EPA-8260	04/09/10	04/09/10 13:29	JSK	MS-V3	1	BTD0319	ND	
Methyl t-butyl ether	**0.015**	**mg/kg**	**0.0050**	**EPA-8260**	**04/09/10**	**04/09/10 13:29**	**JSK**	**MS-V3**	**1**	**BTD0319**	**ND**	
Toluene	ND	mg/kg	0.0050	EPA-8260	04/09/10	04/09/10 13:29	JSK	MS-V3	1	BTD0319	ND	
Total Xylenes	ND	mg/kg	0.010	EPA-8260	04/09/10	04/09/10 13:29	JSK	MS-V3	1	BTD0319	ND	
t-Butyl alcohol	ND	mg/kg	0.050	EPA-8260	04/09/10	04/09/10 13:29	JSK	MS-V3	1	BTD0319	ND	
Total Purgeable Petroleum Hydrocarbons	ND	mg/kg	0.20	Luft-GC/MS	04/09/10	04/09/10 13:29	JSK	MS-V3	1	BTD0319	ND	
1,2-Dichloroethane-d4 (Surrogate)	97.9	%	70 - 121 (LCL - UCL)	EPA-8260	04/09/10	04/09/10 13:29	JSK	MS-V3	1	BTD0319		
Toluene-d8 (Surrogate)	100	%	81 - 117 (LCL - UCL)	EPA-8260	04/09/10	04/09/10 13:29	JSK	MS-V3	1	BTD0319		
4-Bromofluorobenzene (Surrogate)	100	%	74 - 121 (LCL - UCL)	EPA-8260	04/09/10	04/09/10 13:29	JSK	MS-V3	1	BTD0319		

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Total Petroleum Hydrocarbons (Silica Gel Treated)

BCL Sample ID: 1004760-05 | **Client Sample Name:** 7376, CWA-1@52.5-53, 4/5/2010 10:35:00AM

Constituent	Result	Units	PQL	Method	Prep Date	Run Date/Time	Analyst	Instru-ment ID	Dilution	QC Batch ID	MB Bias	Lab Quals
Diesel Range Organics (C12 - C24)	ND	mg/kg	2.0	Luft/TPHd	04/09/10	04/09/10 21:44	MLR	GC-5	0.997	BTD0545		
Tetracosane (Surrogate)	79.3	%	34 - 136 (LCL - UCL)	Luft/TPHd	04/09/10	04/09/10 21:44	MLR	GC-5	0.997	BTD0545		

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Volatile Organic Analysis (EPA Method 8260)

BCL Sample ID: 1004760-06 | **Client Sample Name:** 7376, CWA-1@17.5-18, 4/5/2010 9:23:00AM

Constituent	Result	Units	PQL	Method	Prep Date	Run Date/Time	Analyst	Instru-ment ID	Dilution	QC Batch ID	MB Bias	Lab Quals
Benzene	ND	mg/kg	0.010	EPA-8260	04/09/10	04/09/10 17:48	JSK	MS-V3	2	BTD0319	ND	A01
Ethylbenzene	ND	mg/kg	0.010	EPA-8260	04/09/10	04/09/10 17:48	JSK	MS-V3	2	BTD0319	ND	A01
Methyl t-butyl ether	**0.67**	**mg/kg**	**0.010**	**EPA-8260**	**04/09/10**	**04/09/10 17:48**	**JSK**	**MS-V3**	**2**	**BTD0319**	**ND**	**A01**
Toluene	ND	mg/kg	0.010	EPA-8260	04/09/10	04/09/10 17:48	JSK	MS-V3	2	BTD0319	ND	A01
Total Xylenes	ND	mg/kg	0.020	EPA-8260	04/09/10	04/09/10 17:48	JSK	MS-V3	2	BTD0319	ND	A01
t-Butyl alcohol	**1.5**	**mg/kg**	**0.10**	**EPA-8260**	**04/09/10**	**04/09/10 17:48**	**JSK**	**MS-V3**	**2**	**BTD0319**	**ND**	**A01**
Total Purgeable Petroleum Hydrocarbons	**1.2**	**mg/kg**	**0.40**	**Luft-GC/MS**	**04/09/10**	**04/09/10 17:48**	**JSK**	**MS-V3**	**2**	**BTD0319**	**ND**	**A01**
1,2-Dichloroethane-d4 (Surrogate)	93.5	%	70 - 121 (LCL - UCL)	EPA-8260	04/09/10	04/09/10 17:48	JSK	MS-V3	2	BTD0319		
Toluene-d8 (Surrogate)	98.1	%	81 - 117 (LCL - UCL)	EPA-8260	04/09/10	04/09/10 17:48	JSK	MS-V3	2	BTD0319		
4-Bromofluorobenzene (Surrogate)	98.6	%	74 - 121 (LCL - UCL)	EPA-8260	04/09/10	04/09/10 17:48	JSK	MS-V3	2	BTD0319		

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Total Petroleum Hydrocarbons (Silica Gel Treated)

BCL Sample ID: 1004760-06 | **Client Sample Name:** 7376, CWA-1@17.5-18, 4/5/2010 9:23:00AM

Constituent	Result	Units	PQL	Method	Prep Date	Run Date/Time	Analyst	Instru-ment ID	Dilution	QC Batch ID	MB Bias	Lab Quals
Diesel Range Organics (C12 - C24)	ND	mg/kg	2.0	Luft/TPHd	04/09/10	04/09/10 21:58	MLR	GC-5	0.980	BTD0545		
Tetracosane (Surrogate)	80.6	%	34 - 136 (LCL - UCL)	Luft/TPHd	04/09/10	04/09/10 21:58	MLR	GC-5	0.980	BTD0545		

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Volatile Organic Analysis (EPA Method 8260)

Quality Control Report - Precision & Accuracy

Constituent	Batch ID	QC Sample Type	Source Sample ID	Source Result	Result	Spike Added	Units	RPD	Percent Recovery	Control Limits RPD	Control Limits Percent Recovery	Lab Quals
Benzene	BTD0319	Matrix Spike	1003610-34	ND	0.11122	0.12500	mg/kg		89.0		70 - 130	
		Matrix Spike Duplicate	1003610-34	ND	0.11625	0.12500	mg/kg	4.4	93.0	20	70 - 130	
Toluene	BTD0319	Matrix Spike	1003610-34	ND	0.11488	0.12500	mg/kg		91.9		70 - 130	
		Matrix Spike Duplicate	1003610-34	ND	0.11252	0.12500	mg/kg	2.1	90.0	20	70 - 130	
1,2-Dichloroethane-d4 (Surrogate)	BTD0319	Matrix Spike	1003610-34	ND	0.050951	0.050000	mg/kg		102		70 - 121	
		Matrix Spike Duplicate	1003610-34	ND	0.052005	0.050000	mg/kg		104		70 - 121	
Toluene-d8 (Surrogate)	BTD0319	Matrix Spike	1003610-34	ND	0.050558	0.050000	mg/kg		101		81 - 117	
		Matrix Spike Duplicate	1003610-34	ND	0.049363	0.050000	mg/kg		98.7		81 - 117	
4-Bromofluorobenzene (Surrogate)	BTD0319	Matrix Spike	1003610-34	ND	0.051711	0.050000	mg/kg		103		74 - 121	
		Matrix Spike Duplicate	1003610-34	ND	0.052365	0.050000	mg/kg		105		74 - 121	

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Total Petroleum Hydrocarbons (Silica Gel Treated)

Quality Control Report - Precision & Accuracy

Constituent	Batch ID	QC Sample Type	Source Sample ID	Source Result	Result	Spike Added	Units	RPD	Percent Recovery	Control Limits RPD	Control Limits Percent Recovery	Lab Quals
Diesel Range Organics (C12 - C24)	BTD0545	Matrix Spike	0915623-37	ND	14.154	16.779	mg/kg		84.4		40 - 137	
		Matrix Spike Duplicate	0915623-37	ND	14.412	16.667	mg/kg	2.5	86.5	30	40 - 137	
Tetracosane (Surrogate)	BTD0545	Matrix Spike	0915623-37	ND	0.62970	0.67114	mg/kg		93.8		34 - 136	
		Matrix Spike Duplicate	0915623-37	ND	0.64193	0.66667	mg/kg		96.3		34 - 136	

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Volatile Organic Analysis (EPA Method 8260)

Quality Control Report - Laboratory Control Sample

Constituent	Batch ID	QC Sample ID	QC Type	Result	Spike Level	PQL	Units	Percent Recovery	RPD	Control Limits Percent Recovery	Control Limits RPD	Lab Quals
Benzene	BTD0319	BTD0319-BS1	LCS	0.11976	0.12500	0.0050	mg/kg	95.8		70 - 130		
Toluene	BTD0319	BTD0319-BS1	LCS	0.11631	0.12500	0.0050	mg/kg	93.1		70 - 130		
1,2-Dichloroethane-d4 (Surrogate)	BTD0319	BTD0319-BS1	LCS	0.050200	0.050000		mg/kg	100		70 - 121		
Toluene-d8 (Surrogate)	BTD0319	BTD0319-BS1	LCS	0.050545	0.050000		mg/kg	101		81 - 117		
4-Bromofluorobenzene (Surrogate)	BTD0319	BTD0319-BS1	LCS	0.053143	0.050000		mg/kg	106		74 - 121		

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Total Petroleum Hydrocarbons (Silica Gel Treated)

Quality Control Report - Laboratory Control Sample

Constituent	Batch ID	QC Sample ID	QC Type	Result	Spike Level	PQL	Units	Percent Recovery	RPD	Control Limits Percent Recovery	Control Limits RPD	Lab Quals
Diesel Range Organics (C12 - C24)	BTD0545	BTD0545-BS1	LCS	13.950	16.502	2.0	mg/kg	84.5		50 - 136		
Tetracosane (Surrogate)	BTD0545	BTD0545-BS1	LCS	0.63577	0.66007		mg/kg	96.3		34 - 136		

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San Jose, CA 95138

Project: 7376
Project Number: 000010119613-00023
Project Manager: Lee Dooley

Reported: 04/12/2010 16:28

Volatile Organic Analysis (EPA Method 8260)

Quality Control Report - Method Blank Analysis

Constituent	Batch ID	QC Sample ID	MB Result	Units	PQL	MDL	Lab Quals
Benzene	BTD0319	BTD0319-BLK1	ND	mg/kg	0.0050		
Ethylbenzene	BTD0319	BTD0319-BLK1	ND	mg/kg	0.0050		
Methyl t-butyl ether	BTD0319	BTD0319-BLK1	ND	mg/kg	0.0050		
Toluene	BTD0319	BTD0319-BLK1	ND	mg/kg	0.0050		
Total Xylenes	BTD0319	BTD0319-BLK1	ND	mg/kg	0.010		
t-Butyl alcohol	BTD0319	BTD0319-BLK1	ND	mg/kg	0.050		
Total Purgeable Petroleum Hydrocarbons	BTD0319	BTD0319-BLK1	ND	mg/kg	0.20		
1,2-Dichloroethane-d4 (Surrogate)	BTD0319	BTD0319-BLK1	99.1	%	70 - 121 (LCL - UCL)		
Toluene-d8 (Surrogate)	BTD0319	BTD0319-BLK1	103	%	81 - 117 (LCL - UCL)		
4-Bromofluorobenzene (Surrogate)	BTD0319	BTD0319-BLK1	101	%	74 - 121 (LCL - UCL)		

Delta Environmental	Project: 7376	**Reported:** 04/12/2010 16:28
312 Piercy Rd	Project Number: 000010119613-00023	
San Jose, CA 95138	Project Manager: Lee Dooley	

Notes And Definitions

MDL	Method Detection Limit
ND	Analyte Not Detected at or above the reporting limit
PQL	Practical Quantitation Limit
RPD	Relative Percent Difference
A01	PQL's and MDL's are raised due to sample dilution.
A17	Surrogate not reportable due to sample dilution.

RUSH

Chain Of Custody Record

BC Laboratories

4100 Atlas Court, Bakersfield, CA

(661) 327-4911 (661) 327-1918 fax

INVOICE REMITTANCE ADDRESS:

CONOCOPHILLIPS
Attn: Dee Hutchinson
3611 South Harbor, Suite 200
Santa Ana, CA. 92704

AOC#
1652
Requesition Number
000010119613-00023

DATE: 4/5/10

PAGE: 1 of 1

SAMPLING COMPANY:	Valid Value ID:	CONOCOPHILLIPS SITE NUMBER	GLOBAL ID NO.:
Delta Consultants		7376	T0600100101

ADDRESS:	SITE ADDRESS (Street and City):	ConocoPhillips Manager
312 Piercy Road, San Jose, California	~~4101 Soquel Drive, Santa Cruz, CA~~ 4191 First Street Pleasanton	Terry Grayson

PROJECT CONTACT (Hardcopy or PDF Report to):	EDF DELIVERABLE TO (RP or Designee):	PHONE NO.:	E-MAIL:	LAB USE ONLY
Lee Dooley	Lee Dooley	(408)826-1871	Terry.L.Grayson@contractor.cono	10-04760

TELEPHONE:	FAX:	E-MAIL:
408-826-1874	408-225-8506	ldooley@deltaenv.com

SAMPLER NAME(S) (Print):	CONSULTANT PROJECT NUMBER
~~Nadine Periat~~ Evan Chantrell EC 4/5/10	C107376

TURNAROUND TIME (CALENDAR DAYS):
~~14 DAYS~~ ☒ 7 DAYS ☐ 72 HOURS ☐ 48 HOURS ☐ 24 HOURS ☐ LESS THAN 24 HOURS

SPECIAL INSTRUCTIONS OR NOTES:

CHECK BOX IF EDD IS NEEDED ☑

PLEASE CC RESULTS TO
Nperiat@deltaenv.com
Ldooley@deltaenv.com

REQUESTED ANALYSES

CHK BY EMC 4/5/10 DISTRIBUTION SUB-OUT

FIELD NOTES:
Container/Preservative or PID Readings or Laboratory Notes

* Field Point name only required if different from Sample ID

LAB USE ONLY	Field Point Name/ ID	SAMPLING DATE	SAMPLING TIME	MATRIX	NO. OF CONT.	TPH-D by EPA Method 8015 With Silica Gel Cleanup	TPH-G, BTEX, MTBE by EPA 8260 B. + TBA	TEMPERATURE ON RECEIPT C°
-1	CWA-1@26-26.5	4/5/2010	9:30am	Soil	1	X	X	AD 29.3
-2	CWA-1@36.5-37		10:04		1	X	X	PID 598 (possible SPH)
-3	CWA-1@44-44.5		10:30am		1	X	X	PID 5.5
-4	CWA-1@31-31.5		9:54		1	X	X	PID 369 (possible SPH)
-5	CWA-1@52.5-53		10:35		1	X	X	PID 3.5
-6	CWA-1@17.5-18	↓	9:23am	↓	1	X	X	

Relinquished by: (Signature)	Received by: (Signature)	Date:	Time:
Evan Chantrell	P.BINS BCL	4/07/10	1125
BCL VIA ONTRAC 4/7/10 1750	B. Hammel	4/8/10	0800

9/19/03 Revision

BC LABORATORIES INC. SAMPLE RECEIPT FORM Rev. No. 12 06/24/08 Page 1 of 1

Submission #: 10-04760

SHIPPING INFORMATION

Federal Express ☐ UPS ☐ Hand Delivery ☐
BC Lab Field Service ☐ Other ☒ (Specify) contract

SHIPPING CONTAINER

Ice Chest ☒ None ☐
Box ☐ Other ☐ (Specify)_____

Refrigerant: Ice ☒ Blue Ice ☐ None ☐ Other ☐ Comments:

Custody Seals: Ice Chest ☐ (Intact? Yes ☐ No ☐) Containers ☐ (Intact? Yes ☐ No ☐) None ☒ Comments:

All samples received? Yes ☒ No ☐ All samples containers intact? Yes ☒ No ☐ Description(s) match COC? Yes ☒ No ☐

COC Received ☒ YES ☐ NO

Emissivity: .95 Container: QHAM Thermometer ID: #163

Temperature: A 4.3 °C / C 4.3 °C

Date/Time 4/8/10 0800

Analyst Init BLT

SAMPLE CONTAINERS	SAMPLE NUMBERS 1	2	3	4	5	6	7	8	9	10
QT GENERAL MINERAL/ GENERAL PHYSICAL										
PT PE UNPRESERVED										
QT INORGANIC CHEMICAL METALS										
PT INORGANIC CHEMICAL METALS										
PT CYANIDE										
PT NITROGEN FORMS										
PT TOTAL SULFIDE										
2oz. NITRATE / NITRITE										
PT TOTAL ORGANIC CARBON										
PT TOX										
PT CHEMICAL OXYGEN DEMAND										
PtA PHENOLICS										
40ml VOA VIAL TRAVEL BLANK										
40ml VOA VIAL	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )
QT EPA 413.1, 413.2, 418.1										
PT ODOR										
RADIOLOGICAL										
BACTERIOLOGICAL										
40 ml VOA VIAL- 504										
QT EPA 508/608/8080										
QT EPA 515.1/8150										
QT EPA 525										
QT EPA 525 TRAVEL BLANK										
100ml EPA 547										
100ml EPA 531.1										
QT EPA 548										
QT EPA 549										
QT EPA 632										
QT EPA 8015M										
QT AMBER										
8 OZ. JAR										
32 OZ. JAR										
SOIL SLEEVE BRASS	A	A	A	A	A	A				
PCB VIAL										
PLASTIC BAG										
FERROUS IRON										
ENCORE										

Comments:

Sample Numbering Completed By: ANM Date/Time: 4/8/10 0910

A = Actual / C = Corrected

[H:\DOCS\WP80\LAB_DOCS\FORMS\SAMREC2.WPD]

10-04760

BC Laboratories, Inc.

OFF – SITE SERVICES BILLING WORKSHEET

Service Request No.: _____

Project Manager: MARIAN DUNCAN

Project ID/#: _____

Company: HITACHI GST

Project name: WASTEWATER-QZ

Address: SAN JOSE, CA

P.O. #: _____

Sampler's Name: P. BINS

Sampler's Signature: [signature]

Sampling Date: 4/7/10

Sampling Time: _____

ITEMIZED CHARGES:

1) Labor Costs 1 HR @ $60/HR

2) Travel Time _____

3) ISCO Sample Set-Up _____

4) Extra Equipment _____

_____

_____

5) Miscellaneous _____

_____

_____

TOTAL CHARGES: $60.00

4100 Atlas Court · Bakersfield, CA 93308 · (661)327-4911 · Fax(661)327-1918 · www.bclabs.com

BC Laboratories, Inc.
Environmental Testing Laboratory Since 1949

Date of Report: 05/06/2010

Lee Dooley

Delta Environmental
312 Piercy Rd
San Jose, CA 95138

RE: 7376
BC Work Order: 1005775
Invoice ID: B079757

Enclosed are the results of analyses for samples received by the laboratory on 4/28/2010. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Molly Meyers

Contact Person: Molly Meyers
Client Service Rep

Authorized Signature

Delta Environmental	Project: 7376	**Reported:** 05/06/2010 14:03
312 Piercy Rd	Project Number: 4513373219	
San Jose, CA 95138	Project Manager: Lee Dooley	

Laboratory / Client Sample Cross Reference

Laboratory	Client Sample Information				
1005775-01	**COC Number:**	---	**Receive Date:**	04/28/2010 10:50	Delivery Work Order:
	Project Number:	7376	**Sampling Date:**	04/26/2010 12:50	Global ID: T0600100101
	Sampling Location:	---	**Sample Depth:**	---	Location ID (FieldPoint): MW-13
	Sampling Point:	MW-13	**Sample Matrix:**	Water	Matrix: W
	Sampled By:	DECJ			Sample QC Type (SACode): CS
					Cooler ID:

Delta Environmental
312 Piercy Rd
San Jose, CA 95138

Project: 7376
Project Number: 4513373219
Project Manager: Lee Dooley

Reported: 05/06/2010 14:03

Volatile Organic Analysis (EPA Method 8260)

BCL Sample ID: 1005775-01 | **Client Sample Name:** 7376, MW-13, 4/26/2010 12:50:00PM

Constituent	Result	Units	PQL	Method	Prep Date	Run Date/Time	Analyst	Instru-ment ID	Dilution	QC Batch ID	MB Bias	Lab Quals
Benzene	ND	ug/L	0.50	EPA-8260	04/29/10	04/29/10 14:30	KEA	MS-V12	1	BTD1546	ND	
Ethylbenzene	ND	ug/L	0.50	EPA-8260	04/29/10	04/29/10 14:30	KEA	MS-V12	1	BTD1546	ND	
Methyl t-butyl ether	**68**	**ug/L**	**0.50**	**EPA-8260**	**04/29/10**	**04/29/10 14:30**	**KEA**	**MS-V12**	**1**	**BTD1546**	**ND**	
Toluene	ND	ug/L	0.50	EPA-8260	04/29/10	04/29/10 14:30	KEA	MS-V12	1	BTD1546	ND	
Total Xylenes	ND	ug/L	1.0	EPA-8260	04/29/10	04/29/10 14:30	KEA	MS-V12	1	BTD1546	ND	
Total Purgeable Petroleum Hydrocarbons	**67**	**ug/L**	**50**	**Luft-GC/MS**	**04/29/10**	**04/29/10 14:30**	**KEA**	**MS-V12**	**1**	**BTD1546**	**ND**	**A90**
1,2-Dichloroethane-d4 (Surrogate)	102	%	76 - 114 (LCL - UCL)	EPA-8260	04/29/10	04/29/10 14:30	KEA	MS-V12	1	BTD1546		
Toluene-d8 (Surrogate)	97.1	%	88 - 110 (LCL - UCL)	EPA-8260	04/29/10	04/29/10 14:30	KEA	MS-V12	1	BTD1546		
4-Bromofluorobenzene (Surrogate)	98.7	%	86 - 115 (LCL - UCL)	EPA-8260	04/29/10	04/29/10 14:30	KEA	MS-V12	1	BTD1546		

Delta Environmental
312 Piercy Rd
San Jose, CA 95138

Project: 7376
Project Number: 4513373219
Project Manager: Lee Dooley

Reported: 05/06/2010 14:03

Purgeable Aromatics and Total Petroleum Hydrocarbons

BCL Sample ID: 1005775-01 | **Client Sample Name:** 7376, MW-13, 4/26/2010 12:50:00PM

Constituent	Result	Units	PQL	Method	Prep Date	Run Date/Time	Analyst	Instru-ment ID	Dilution	QC Batch ID	MB Bias	Lab Quals
TPH - Light Naptha	ND	ug/L	200	Luft/FFP	04/28/10	05/04/10 13:42	MWB	GC-13	0.990	BTD1786	ND	
TPH - Aviation Gas	ND	ug/L	200	Luft/FFP	04/28/10	05/04/10 13:42	MWB	GC-13	0.990	BTD1786	ND	
TPH - Stoddard Solvent	ND	ug/L	50	Luft/FFP	04/28/10	05/04/10 13:42	MWB	GC-13	0.990	BTD1786	ND	
TPH - Heavy Naptha	ND	ug/L	50	Luft/FFP	04/28/10	05/04/10 13:42	MWB	GC-13	0.990	BTD1786	ND	
TPH - Gasoline	ND	ug/L	200	Luft/FFP	04/28/10	05/04/10 13:42	MWB	GC-13	0.990	BTD1786	ND	
TPH - Jet Fuel (JP4)	ND	ug/L	50	Luft/FFP	04/28/10	05/04/10 13:42	MWB	GC-13	0.990	BTD1786	ND	
TPH - Jet Fuel (JP5)	ND	ug/L	50	Luft/FFP	04/28/10	05/04/10 13:42	MWB	GC-13	0.990	BTD1786	ND	
TPH - Jet Fuel (JP8)	ND	ug/L	50	Luft/FFP	04/28/10	05/04/10 13:42	MWB	GC-13	0.990	BTD1786	ND	
TPH - Kerosene	ND	ug/L	50	Luft/FFP	04/28/10	05/04/10 13:42	MWB	GC-13	0.990	BTD1786	ND	
TPH - Diesel (FFP)	ND	ug/L	50	Luft/FFP	04/28/10	05/04/10 13:42	MWB	GC-13	0.990	BTD1786	ND	
TPH - Fuel Oil #6	**170**	**ug/L**	**50**	**Luft/FFP**	**04/28/10**	**05/04/10 13:42**	**MWB**	**GC-13**	**0.990**	**BTD1786**	**ND**	
TPH - Crude Oil	ND	ug/L	200	Luft/FFP	04/28/10	05/04/10 13:42	MWB	GC-13	0.990	BTD1786	ND	
TPH - Hydraulic Oil / Motor Oil	ND	ug/L	200	Luft/FFP	04/28/10	05/04/10 13:42	MWB	GC-13	0.990	BTD1786	ND	
TPH - WD-40	ND	ug/L	50	Luft/FFP	04/28/10	05/04/10 13:42	MWB	GC-13	0.990	BTD1786	ND	
Tetracosane (Surrogate)	70.5	%	37 - 134 (LCL - UCL)	Luft/FFP	04/28/10	05/04/10 13:42	MWB	GC-13	0.990	BTD1786		

Delta Environmental	Project: 7376	**Reported:** 05/06/2010 14:03
312 Piercy Rd	Project Number: 4513373219	
San Jose, CA 95138	Project Manager: Lee Dooley	

Total Petroleum Hydrocarbons (Silica Gel Treated)

BCL Sample ID: 1005775-01 **Client Sample Name:** 7376, MW-13, 4/26/2010 12:50:00PM

Constituent	Result	Units	PQL	Method	Prep Date	Run Date/Time	Analyst	Instru-ment ID	Dilution	QC Batch ID	MB Bias	Lab Quals
Diesel Range Organics (C12 - C24)	ND	ug/L	50	Luft/TPHd	04/28/10	05/04/10 13:42	MWB	GC-13	0.990	BTD1785	72	
Tetracosane (Surrogate)	70.5	%	28 - 139 (LCL - UCL)	Luft/TPHd	04/28/10	05/04/10 13:42	MWB	GC-13	0.990	BTD1785		

Delta Environmental
312 Piercy Rd
San Jose, CA 95138

Project: 7376
Project Number: 4513373219
Project Manager: Lee Dooley

Reported: 05/06/2010 14:03

Volatile Organic Analysis (EPA Method 8260)

Quality Control Report - Precision & Accuracy

Constituent	Batch ID	QC Sample Type	Source Sample ID	Source Result	Result	Spike Added	Units	RPD	Percent Recovery	Control Limits RPD	Control Limits Percent Recovery	Lab Quals
Benzene	BTD1546	Matrix Spike	1003610-95	ND	20.140	25.000	ug/L		80.6		70 - 130	
		Matrix Spike Duplicate	1003610-95	ND	23.310	25.000	ug/L	14.6	93.2	20	70 - 130	
Toluene	BTD1546	Matrix Spike	1003610-95	ND	22.170	25.000	ug/L		88.7		70 - 130	
		Matrix Spike Duplicate	1003610-95	ND	24.610	25.000	ug/L	10.4	98.4	20	70 - 130	
1,2-Dichloroethane-d4 (Surrogate)	BTD1546	Matrix Spike	1003610-95	ND	9.7200	10.000	ug/L		97.2		76 - 114	
		Matrix Spike Duplicate	1003610-95	ND	9.5600	10.000	ug/L		95.6		76 - 114	
Toluene-d8 (Surrogate)	BTD1546	Matrix Spike	1003610-95	ND	10.040	10.000	ug/L		100		88 - 110	
		Matrix Spike Duplicate	1003610-95	ND	9.9800	10.000	ug/L		99.8		88 - 110	
4-Bromofluorobenzene (Surrogate)	BTD1546	Matrix Spike	1003610-95	ND	10.040	10.000	ug/L		100		86 - 115	
		Matrix Spike Duplicate	1003610-95	ND	10.000	10.000	ug/L		100		86 - 115	

Delta Environmental	Project: 7376	**Reported:** 05/06/2010 14:03
312 Piercy Rd	Project Number: 4513373219	
San Jose, CA 95138	Project Manager: Lee Dooley	

Purgeable Aromatics and Total Petroleum Hydrocarbons

Quality Control Report - Precision & Accuracy

Constituent	Batch ID	QC Sample Type	Source Sample ID	Source Result	Result	Spike Added	Units	RPD	Percent Recovery	Control Limits RPD	Control Limits Percent Recovery	Lab Quals
TPH - Diesel (FFP)	BTD1786	Matrix Spike	1003610-93	ND	542.29	500.00	ug/L		108		50 - 127	
		Matrix Spike Duplicate	1003610-93	ND	507.90	500.00	ug/L	6.5	102	24	50 - 127	
Tetracosane (Surrogate)	BTD1786	Matrix Spike	1003610-93	ND	22.912	20.000	ug/L		115		37 - 134	
		Matrix Spike Duplicate	1003610-93	ND	20.871	20.000	ug/L		104		37 - 134	

Delta Environmental
312 Piercy Rd
San Jose, CA 95138

Project: 7376
Project Number: 4513373219
Project Manager: Lee Dooley

Reported: 05/06/2010 14:03

Total Petroleum Hydrocarbons (Silica Gel Treated)

Quality Control Report - Precision & Accuracy

Constituent	Batch ID	QC Sample Type	Source Sample ID	Source Result	Result	Spike Added	Units	RPD	Percent Recovery	Control Limits RPD	Control Limits Percent Recovery	Lab Quals
Diesel Range Organics (C12 - C24)	BTD1785	Matrix Spike	0917254-46	71.645	487.62	500.00	ug/L		83.2		36 - 130	
		Matrix Spike Duplicate	0917254-46	71.645	384.37	500.00	ug/L	28.3	62.5	30	36 - 130	
Tetracosane (Surrogate)	BTD1785	Matrix Spike	0917254-46	ND	21.118	20.000	ug/L		106		28 - 139	
		Matrix Spike Duplicate	0917254-46	ND	16.357	20.000	ug/L		81.8		28 - 139	

Delta Environmental
312 Piercy Rd
San Jose, CA 95138

Project: 7376
Project Number: 4513373219
Project Manager: Lee Dooley

Reported: 05/06/2010 14:03

Volatile Organic Analysis (EPA Method 8260)

Quality Control Report - Laboratory Control Sample

Constituent	Batch ID	QC Sample ID	QC Type	Result	Spike Level	PQL	Units	Percent Recovery	RPD	Control Limits Percent Recovery	Control Limits RPD	Lab Quals
Benzene	BTD1546	BTD1546-BS1	LCS	24.560	25.000	0.50	ug/L	98.2		70 - 130		
Toluene	BTD1546	BTD1546-BS1	LCS	25.710	25.000	0.50	ug/L	103		70 - 130		
1,2-Dichloroethane-d4 (Surrogate)	BTD1546	BTD1546-BS1	LCS	10.080	10.000		ug/L	101		76 - 114		
Toluene-d8 (Surrogate)	BTD1546	BTD1546-BS1	LCS	10.000	10.000		ug/L	100		88 - 110		
4-Bromofluorobenzene (Surrogate)	BTD1546	BTD1546-BS1	LCS	10.030	10.000		ug/L	100		86 - 115		

Delta Environmental	Project: 7376	**Reported:** 05/06/2010 14:03
312 Piercy Rd	Project Number: 4513373219	
San Jose, CA 95138	Project Manager: Lee Dooley	

Purgeable Aromatics and Total Petroleum Hydrocarbons

Quality Control Report - Laboratory Control Sample

Constituent	Batch ID	QC Sample ID	QC Type	Result	Spike Level	PQL	Units	Control Limits: Percent Recovery	RPD	Control Limits: Percent Recovery	RPD	Lab Quals
TPH - Diesel (FFP)	BTD1786	BTD1786-BS1	LCS	492.31	500.00	50	ug/L	98.5		52 - 128		
Tetracosane (Surrogate)	BTD1786	BTD1786-BS1	LCS	21.294	20.000		ug/L	106		37 - 134		

Delta Environmental	Project: 7376	**Reported:** 05/06/2010 14:03
312 Piercy Rd	Project Number: 4513373219	
San Jose, CA 95138	Project Manager: Lee Dooley	

Total Petroleum Hydrocarbons (Silica Gel Treated)

Quality Control Report - Laboratory Control Sample

Constituent	Batch ID	QC Sample ID	QC Type	Result	Spike Level	PQL	Units	Percent Recovery	RPD	Control Limits Percent Recovery	Control Limits RPD	Lab Quals
Diesel Range Organics (C12 - C24)	BTD1785	BTD1785-BS1	LCS	409.20	500.00	50	ug/L	81.8		48 - 125		
Tetracosane (Surrogate)	BTD1785	BTD1785-BS1	LCS	16.495	20.000		ug/L	82.5		28 - 139		

Delta Environmental
312 Piercy Rd
San Jose, CA 95138

Project: 7376
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Reported: 05/06/2010 14:03

Volatile Organic Analysis (EPA Method 8260)

Quality Control Report - Method Blank Analysis

Constituent	Batch ID	QC Sample ID	MB Result	Units	PQL	MDL	Lab Quals
Benzene	BTD1546	BTD1546-BLK1	ND	ug/L	0.50		
Ethylbenzene	BTD1546	BTD1546-BLK1	ND	ug/L	0.50		
Methyl t-butyl ether	BTD1546	BTD1546-BLK1	ND	ug/L	0.50		
Toluene	BTD1546	BTD1546-BLK1	ND	ug/L	0.50		
Total Xylenes	BTD1546	BTD1546-BLK1	ND	ug/L	1.0		
Total Purgeable Petroleum Hydrocarbons	BTD1546	BTD1546-BLK1	ND	ug/L	50		
1,2-Dichloroethane-d4 (Surrogate)	BTD1546	BTD1546-BLK1	101	%	76 - 114 (LCL - UCL)		
Toluene-d8 (Surrogate)	BTD1546	BTD1546-BLK1	99.2	%	88 - 110 (LCL - UCL)		
4-Bromofluorobenzene (Surrogate)	BTD1546	BTD1546-BLK1	98.3	%	86 - 115 (LCL - UCL)		

Delta Environmental
312 Piercy Rd
San Jose, CA 95138

Project: 7376
Project Number: 4513373219
Project Manager: Lee Dooley

Reported: 05/06/2010 14:03

Purgeable Aromatics and Total Petroleum Hydrocarbons

Quality Control Report - Method Blank Analysis

Constituent	Batch ID	QC Sample ID	MB Result	Units	PQL	MDL	Lab Quals
TPH - Light Naptha	BTD1786	BTD1786-BLK1	ND	ug/L	200		
TPH - Aviation Gas	BTD1786	BTD1786-BLK1	ND	ug/L	200		
TPH - Stoddard Solvent	BTD1786	BTD1786-BLK1	ND	ug/L	50		
TPH - Heavy Naptha	BTD1786	BTD1786-BLK1	ND	ug/L	50		
TPH - Gasoline	BTD1786	BTD1786-BLK1	ND	ug/L	200		
TPH - Jet Fuel (JP4)	BTD1786	BTD1786-BLK1	ND	ug/L	50		
TPH - Jet Fuel (JP5)	BTD1786	BTD1786-BLK1	ND	ug/L	50		
TPH - Jet Fuel (JP8)	BTD1786	BTD1786-BLK1	ND	ug/L	50		
TPH - Kerosene	BTD1786	BTD1786-BLK1	ND	ug/L	50		
TPH - Diesel (FFP)	BTD1786	BTD1786-BLK1	ND	ug/L	50		
TPH - Fuel Oil #6	BTD1786	BTD1786-BLK1	ND	ug/L	50		
TPH - Crude Oil	BTD1786	BTD1786-BLK1	ND	ug/L	200		
TPH - Hydraulic Oil / Motor Oil	BTD1786	BTD1786-BLK1	ND	ug/L	200		
TPH - WD-40	BTD1786	BTD1786-BLK1	ND	ug/L	50		
Tetracosane (Surrogate)	BTD1786	BTD1786-BLK1	107	%	37 - 134 (LCL - UCL)		

Delta Environmental	Project: 7376	**Reported:** 05/06/2010 14:03
312 Piercy Rd	Project Number: 4513373219	
San Jose, CA 95138	Project Manager: Lee Dooley	

Total Petroleum Hydrocarbons (Silica Gel Treated)

Quality Control Report - Method Blank Analysis

Constituent	Batch ID	QC Sample ID	MB Result	Units	PQL	MDL	Lab Quals
Diesel Range Organics (C12 - C24)	BTD1785	BTD1785-BLK1	71.645	ug/L	50		M01
Tetracosane (Surrogate)	BTD1785	BTD1785-BLK1	117	%	28 - 139 (LCL - UCL)		

Delta Environmental	Project: 7376	**Reported:** 05/06/2010 14:03
312 Piercy Rd	Project Number: 4513373219	
San Jose, CA 95138	Project Manager: Lee Dooley	

Notes And Definitions

MDL	Method Detection Limit
ND	Analyte Not Detected at or above the reporting limit
PQL	Practical Quantitation Limit
RPD	Relative Percent Difference
A90	TPPH does not exhibit a "gasoline" pattern. TPPH is entirely due to MTBE.
M01	Analyte detected in the Method Blank at or above the PQL.

RUSH

Chain Of Custody Record

BC Laboratories
4100 Atlas Court, Bakersfield, CA
(661) 327-4911 (661) 327-1918 fax

INVOICE REMITTANCE ADDRESS: 1005775

CONOCOPHILLIPS
Attn: Dee Hutchinson
3611 South Harbor, Suite 200
Santa Ana, CA. 92704

AOC#
1652
Requesition Number
000010119613-00023

DATE: 04.26.10
PAGE: 1 of 1

SAMPLING COMPANY:	Valid Value ID:	CONOCOPHILLIPS SITE NUMBER	GLOBAL ID NO.:
Delta Consultants		7376	T0600100101
ADDRESS:		**SITE ADDRESS (Street and City):**	**ConocoPhillips Manager**
312 Piercy Road, San Jose, California		4191 First Street, Pleasonton, CA	Terry Grayson
PROJECT CONTACT (Hardcopy or PDF Report to):			
Lee Dooley			
TELEPHONE: 408-826-1874	**FAX:** 408-225-8506	**E-MAIL:** ldooley@deltaenv.com	
SAMPLER NAME(S) (Print): Evan Chantikian/Lee Dooley/Jerry Falcon	**CONSULTANT PROJECT NUMBER** C107376		

EDF DELIVERABLE TO (RP or Designee):	PHONE NO.:	E-MAIL:	LAB USE ONLY
Lee Dooley	(408)826-1871	Terry.L.Grayson@contractor.cono	

REQUESTED ANALYSES

TURNAROUND TIME (CALENDAR DAYS):
☐ 14 DAYS ☐ 7 DAYS ☐ 72 HOURS ☐ 48 HOURS ☐ 24 HOURS ☐ LESS THAN 24 HOURS

* 5 DAY TAT *

SPECIAL INSTRUCTIONS OR NOTES: CHECK BOX IF EDD IS NEEDED ☑

PLEASE CC RESULTS TO
Nperiat@deltaenv.com
echantikian@deltaenv.com
jfalcon@deltaenv.com

* Field Point name only required if different from Sample ID

FIELD NOTES:
Container/Preservative or PID Readings or Laboratory Notes

LAB USE ONLY	Field Point Name/ ID	SAMPLING DATE	SAMPLING TIME	MATRIX	NO. OF CONT.	TPH-D by EPA Method 8015 With Silica Gel Cleanup	TPH-G, BTEX, MTBE by EPA 8260 B.	Fingerprint	TEMPERATURE ON RECEIPT C°
1	MW-13	4/26/10	12:36	W	8	x	x	x	

CHK BY JW
DISTRIBUTION
SUB-OUT
4-27

Relinquished by: (Signature)	Received by: (Signature)	Date:	Time:
	P. BINS BCL	4/27/10	1600
BCL VIA GSO 4/27/10 1705	B Rammel	APR 28 2010	1050

9/19/03 Revision

BC LABORATORIES INC. SAMPLE RECEIPT FORM Rev. No. 12 06/24/08 Page 1 Of 2

Submission #: 1005775

SHIPPING INFORMATION

Federal Express ☐ UPS ☐ Hand Delivery ☐
BC Lab Field Service ☐ Other ☑ (Specify) GSO

SHIPPING CONTAINER

Ice Chest ☑ None ☐
Box ☐ Other ☐ (Specify)_____

Refrigerant: Ice ☑ Blue Ice ☐ None ☐ Other ☐ Comments:

Custody Seals Ice Chest ☐ Intact? Yes ☐ No ☐ Containers ☐ Intact? Yes ☐ No ☐ None ☑ Comments:

All samples received? Yes ☑ No ☐ All samples containers intact? Yes ☐ No ☑ Description(s) match COC? Yes ☑ No ☐

COC Received ☑ YES ☐ NO

Emissivity: .98 Container: PtPe Thermometer ID: #1103

Temperature: A 4.7 °C / C 4.7 °C

Date/Time APR 28 2010 1050

Analyst Init BLT

SAMPLE CONTAINERS	SAMPLE NUMBERS 1	2	3	4	5	6	7	8	9	10
QT GENERAL MINERAL/ GENERAL PHYSICAL										
PT PE UNPRESERVED										
QT INORGANIC CHEMICAL METALS										
PT INORGANIC CHEMICAL METALS										
PT CYANIDE										
PT NITROGEN FORMS										
PT TOTAL SULFIDE										
2oz. NITRATE / NITRITE										
PT TOTAL ORGANIC CARBON										
PT TOX										
PT CHEMICAL OXYGEN DEMAND										
PtA PHENOLICS										
40ml VOA VIAL TRAVEL BLANK										
40ml VOA VIAL	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )
QT EPA 413.1, 413.2, 418.1										
PT ODOR										
RADIOLOGICAL										
BACTERIOLOGICAL										
40 ml VOA VIAL- 504										
QT EPA 508/608/8080										
QT EPA 515.1/8150										
QT EPA 525										
QT EPA 525 TRAVEL BLANK										
100ml EPA 547										
100ml EPA 531.1										
QT EPA 548										
QT EPA 549										
QT EPA 632										
QT EPA 8015M										
QT AMBER	AB									
8 OZ. JAR										
32 OZ. JAR										
SOIL SLEEVE										
PCB VIAL										
PLASTIC BAG										
FERROUS IRON										
ENCORE										

Comments:

Sample Numbering Completed By: RMJ Date/Time: 4-28-10 1400

A = Actual / C = Corrected

[H:\DOCS\WP80\LAB_DOCS\FORMS\SAMREC2.WPD]

BC LABORATORIES INC. SAMPLE RECEIPT FORM Rev. No. 12 06/24/08 Page 2 Of 2

Submission #: 1005775

SHIPPING INFORMATION

Federal Express ☐ UPS ☐ Hand Delivery ☐
BC Lab Field Service ☐ Other ☑ (Specify) GSO

SHIPPING CONTAINER

Ice Chest ☑ None ☐
Box ☐ Other ☐ (Specify)_____

Refrigerant: Ice ☑ Blue Ice ☐ None ☐ Other ☐ Comments:

Custody Seals: Ice Chest ☐ Intact? Yes ☐ No ☐ | Containers ☐ Intact? Yes ☐ No ☐ | None ☑ Comments:

All samples received? Yes ☑ No ☐ All samples containers intact? Yes ☑ No ☐ Description(s) match COC? Yes ☑ No ☐

COC Received ☑ YES ☐ NO

Emissivity: .98 Container: P/Pe Thermometer ID: #163

Temperature: A 4.2 °C / C 4.2 °C

Date/Time APR 28 2010 1050

Analyst Init BLT

SAMPLE CONTAINERS	SAMPLE NUMBERS 1	2	3	4	5	6	7	8	9	10
QT GENERAL MINERAL/ GENERAL PHYSICAL										
PT PE UNPRESERVED										
QT INORGANIC CHEMICAL METALS										
PT INORGANIC CHEMICAL METALS										
PT CYANIDE										
PT NITROGEN FORMS										
PT TOTAL SULFIDE										
2oz. NITRATE / NITRITE										
PT TOTAL ORGANIC CARBON										
PT TOX										
PT CHEMICAL OXYGEN DEMAND										
PtA PHENOLICS										
40ml VOA VIAL TRAVEL BLANK										
40ml VOA VIAL (EM 4-28)	BC-10	( )	( )	( )	( )	( )	( )	( )	( )	( )
QT EPA 413.1, 413.2, 418.1										
PT ODOR										
RADIOLOGICAL										
BACTERIOLOGICAL										
40 ml VOA VIAL- 504										
QT EPA 508/608/8080										
QT EPA 515.1/8150										
QT EPA 525										
QT EPA 525 TRAVEL BLANK										
100ml EPA 547										
100ml EPA 531.1										
QT EPA 548										
QT EPA 549										
QT EPA 632										
QT EPA 8015M										
QT AMBER										
8 OZ. JAR										
32 OZ. JAR										
SOIL SLEEVE										
PCB VIAL										
PLASTIC BAG										
FERROUS IRON										
ENCORE										

Comments:_____

Sample Numbering Completed By: [illegible] Date/Time: 4-28-10 1400

A = Actual / C = Corrected

[H:\DOCS\WP80\LAB_DOCS\FORMS\SAMREC2.WPD]

BC Laboratories, Inc.
Environmental Testing Laboratory Since 1949

Date of Report: 05/06/2010

Lee Dooley

Delta Environmental
312 Piercy Rd
San Jose, CA 95138

RE: 7376
BC Work Order: 1005776
Invoice ID: B079760

Enclosed are the results of analyses for samples received by the laboratory on 4/28/2010. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Molly Meyers

Contact Person: Molly Meyers
Client Service Rep

Authorized Signature

Delta Environmental
312 Piercy Rd
San Jose, CA 95138

Project: 7376
Project Number: 4513373219
Project Manager: Lee Dooley

Reported: 05/06/2010 14:28

Laboratory / Client Sample Cross Reference

Laboratory	Client Sample Information				
1005776-01	**COC Number:**	---	**Receive Date:**	04/28/2010 10:50	Delivery Work Order:
	Project Number:	7376	**Sampling Date:**	04/26/2010 12:25	Global ID: T0600100101
	Sampling Location:	---	**Sample Depth:**	---	Location ID (FieldPoint): CWB-3
	Sampling Point:	CWB-3_042610	**Sample Matrix:**	Water	Matrix: W
	Sampled By:	DECJ			Sample QC Type (SACode): CS
					Cooler ID:
1005776-02	**COC Number:**	---	**Receive Date:**	04/28/2010 10:50	Delivery Work Order:
	Project Number:	7376	**Sampling Date:**	04/22/2010 07:30	Global ID: T0600100101
	Sampling Location:	---	**Sample Depth:**	---	Location ID (FieldPoint): CWB-3
	Sampling Point:	CWB-3_042210	**Sample Matrix:**	Water	Matrix: W
	Sampled By:	DECJ			Sample QC Type (SACode): CS
					Cooler ID:

Delta Environmental
312 Piercy Rd
San Jose, CA 95138

Project: 7376
Project Number: 4513373219
Project Manager: Lee Dooley

Reported: 05/06/2010 14:28

Purgeable Aromatics and Total Petroleum Hydrocarbons

BCL Sample ID: 1005776-01 | **Client Sample Name:** 7376, CWB-3_042610, 4/26/2010 12:25:00PM

Constituent	Result	Units	PQL	Method	Prep Date	Run Date/Time	Analyst	Instru-ment ID	Dilution	QC Batch ID	MB Bias	Lab Quals
TPH - Light Naptha	ND	ug/L	200	Luft/FFP	04/28/10	05/05/10 16:03	MWB	GC-13	1	BTD1786	ND	
TPH - Aviation Gas	ND	ug/L	200	Luft/FFP	04/28/10	05/05/10 16:03	MWB	GC-13	1	BTD1786	ND	
TPH - Stoddard Solvent	ND	ug/L	50	Luft/FFP	04/28/10	05/05/10 16:03	MWB	GC-13	1	BTD1786	ND	
TPH - Heavy Naptha	ND	ug/L	50	Luft/FFP	04/28/10	05/05/10 16:03	MWB	GC-13	1	BTD1786	ND	
TPH - Gasoline	ND	ug/L	200	Luft/FFP	04/28/10	05/05/10 16:03	MWB	GC-13	1	BTD1786	ND	
TPH - Jet Fuel (JP4)	ND	ug/L	50	Luft/FFP	04/28/10	05/05/10 16:03	MWB	GC-13	1	BTD1786	ND	
TPH - Jet Fuel (JP5)	ND	ug/L	50	Luft/FFP	04/28/10	05/05/10 16:03	MWB	GC-13	1	BTD1786	ND	
TPH - Jet Fuel (JP8)	ND	ug/L	50	Luft/FFP	04/28/10	05/05/10 16:03	MWB	GC-13	1	BTD1786	ND	
TPH - Kerosene	ND	ug/L	50	Luft/FFP	04/28/10	05/05/10 16:03	MWB	GC-13	1	BTD1786	ND	
TPH - Diesel (FFP)	**910**	**ug/L**	**50**	**Luft/FFP**	**04/28/10**	**05/05/10 16:03**	**MWB**	**GC-13**	**1**	**BTD1786**	**ND**	**A52**
TPH - Fuel Oil #6	ND	ug/L	50	Luft/FFP	04/28/10	05/05/10 16:03	MWB	GC-13	1	BTD1786	ND	
TPH - Crude Oil	ND	ug/L	200	Luft/FFP	04/28/10	05/05/10 16:03	MWB	GC-13	1	BTD1786	ND	
TPH - Hydraulic Oil / Motor Oil	ND	ug/L	200	Luft/FFP	04/28/10	05/05/10 16:03	MWB	GC-13	1	BTD1786	ND	
TPH - WD-40	ND	ug/L	50	Luft/FFP	04/28/10	05/05/10 16:03	MWB	GC-13	1	BTD1786	ND	
Tetracosane (Surrogate)	84.3	%	37 - 134 (LCL - UCL)	Luft/FFP	04/28/10	05/05/10 16:03	MWB	GC-13	1	BTD1786		

Delta Environmental
312 Piercy Rd
San Jose, CA 95138

Project: 7376
Project Number: 4513373219
Project Manager: Lee Dooley

Reported: 05/06/2010 14:28

Volatile Organic Analysis (EPA Method 8260)

BCL Sample ID: 1005776-02 | **Client Sample Name:** 7376, CWB-3_042210, 4/22/2010 7:30:00AM

Constituent	Result	Units	PQL	Method	Prep Date	Run Date/Time	Analyst	Instru-ment ID	Dilution	QC Batch ID	MB Bias	Lab Quals
Benzene	**1700**	**ug/L**	**25**	**EPA-8260**	**04/29/10**	**04/30/10 15:50**	**KEA**	**MS-V12**	**50**	**BTD1546**	**ND**	**A01**
Ethylbenzene	**25**	**ug/L**	**0.50**	**EPA-8260**	**04/29/10**	**04/29/10 14:48**	**KEA**	**MS-V12**	**1**	**BTD1546**	**ND**	
Methyl t-butyl ether	**1300**	**ug/L**	**25**	**EPA-8260**	**04/29/10**	**04/30/10 15:50**	**KEA**	**MS-V12**	**50**	**BTD1546**	**ND**	**A01**
Toluene	**11**	**ug/L**	**0.50**	**EPA-8260**	**04/29/10**	**04/29/10 14:48**	**KEA**	**MS-V12**	**1**	**BTD1546**	**ND**	
Total Xylenes	**30**	**ug/L**	**1.0**	**EPA-8260**	**04/29/10**	**04/29/10 14:48**	**KEA**	**MS-V12**	**1**	**BTD1546**	**ND**	
t-Amyl Methyl ether	ND	ug/L	0.50	EPA-8260	04/29/10	04/29/10 14:48	KEA	MS-V12	1	BTD1546	ND	
t-Butyl alcohol	ND	ug/L	10	EPA-8260	04/29/10	04/29/10 14:48	KEA	MS-V12	1	BTD1546	ND	
Diisopropyl ether	ND	ug/L	0.50	EPA-8260	04/29/10	04/29/10 14:48	KEA	MS-V12	1	BTD1546	ND	
Ethanol	ND	ug/L	250	EPA-8260	04/29/10	04/29/10 14:48	KEA	MS-V12	1	BTD1546		
Ethyl t-butyl ether	ND	ug/L	0.50	EPA-8260	04/29/10	04/29/10 14:48	KEA	MS-V12	1	BTD1546	ND	
Total Purgeable Petroleum Hydrocarbons	**7200**	**ug/L**	**2500**	**Luft-GC/MS**	**04/29/10**	**04/30/10 15:50**	**KEA**	**MS-V12**	**50**	**BTD1546**	**ND**	**A01**
1,2-Dichloroethane-d4 (Surrogate)	104	%	76 - 114 (LCL - UCL)	EPA-8260	04/29/10	04/30/10 15:50	KEA	MS-V12	50	BTD1546		
1,2-Dichloroethane-d4 (Surrogate)	110	%	76 - 114 (LCL - UCL)	EPA-8260	04/29/10	04/29/10 14:48	KEA	MS-V12	1	BTD1546		
Toluene-d8 (Surrogate)	103	%	88 - 110 (LCL - UCL)	EPA-8260	04/29/10	04/29/10 14:48	KEA	MS-V12	1	BTD1546		
Toluene-d8 (Surrogate)	101	%	88 - 110 (LCL - UCL)	EPA-8260	04/29/10	04/30/10 15:50	KEA	MS-V12	50	BTD1546		
4-Bromofluorobenzene (Surrogate)	97.0	%	86 - 115 (LCL - UCL)	EPA-8260	04/29/10	04/29/10 14:48	KEA	MS-V12	1	BTD1546		
4-Bromofluorobenzene (Surrogate)	96.4	%	86 - 115 (LCL - UCL)	EPA-8260	04/29/10	04/30/10 15:50	KEA	MS-V12	50	BTD1546		

Delta Environmental
312 Piercy Rd
San Jose, CA 95138

Project: 7376
Project Number: 4513373219
Project Manager: Lee Dooley

Reported: 05/06/2010 14:28

Volatile Organic Analysis (EPA Method 8260)

Quality Control Report - Precision & Accuracy

Constituent	Batch ID	QC Sample Type	Source Sample ID	Source Result	Result	Spike Added	Units	RPD	Percent Recovery	Control Limits RPD	Control Limits Percent Recovery	Lab Quals
Benzene	BTD1546	Matrix Spike	1003610-95	ND	20.140	25.000	ug/L		80.6		70 - 130	
		Matrix Spike Duplicate	1003610-95	ND	23.310	25.000	ug/L	14.6	93.2	20	70 - 130	
Toluene	BTD1546	Matrix Spike	1003610-95	ND	22.170	25.000	ug/L		88.7		70 - 130	
		Matrix Spike Duplicate	1003610-95	ND	24.610	25.000	ug/L	10.4	98.4	20	70 - 130	
1,2-Dichloroethane-d4 (Surrogate)	BTD1546	Matrix Spike	1003610-95	ND	9.7200	10.000	ug/L		97.2		76 - 114	
		Matrix Spike Duplicate	1003610-95	ND	9.5600	10.000	ug/L		95.6		76 - 114	
Toluene-d8 (Surrogate)	BTD1546	Matrix Spike	1003610-95	ND	10.040	10.000	ug/L		100		88 - 110	
		Matrix Spike Duplicate	1003610-95	ND	9.9800	10.000	ug/L		99.8		88 - 110	
4-Bromofluorobenzene (Surrogate)	BTD1546	Matrix Spike	1003610-95	ND	10.040	10.000	ug/L		100		86 - 115	
		Matrix Spike Duplicate	1003610-95	ND	10.000	10.000	ug/L		100		86 - 115	

Delta Environmental
312 Piercy Rd
San Jose, CA 95138

Project: 7376
Project Number: 4513373219
Project Manager: Lee Dooley

Reported: 05/06/2010 14:28

Purgeable Aromatics and Total Petroleum Hydrocarbons

Quality Control Report - Precision & Accuracy

Constituent	Batch ID	QC Sample Type	Source Sample ID	Source Result	Result	Spike Added	Units	RPD	Percent Recovery	Control Limits RPD	Control Limits Percent Recovery	Lab Quals
TPH - Diesel (FFP)	BTD1786	Matrix Spike	1003610-93	ND	542.29	500.00	ug/L		108		50 - 127	
		Matrix Spike Duplicate	1003610-93	ND	507.90	500.00	ug/L	6.5	102	24	50 - 127	
Tetracosane (Surrogate)	BTD1786	Matrix Spike	1003610-93	ND	22.912	20.000	ug/L		115		37 - 134	
		Matrix Spike Duplicate	1003610-93	ND	20.871	20.000	ug/L		104		37 - 134	

Delta Environmental	Project: 7376	**Reported:** 05/06/2010 14:28
312 Piercy Rd	Project Number: 4513373219	
San Jose, CA 95138	Project Manager: Lee Dooley	

Volatile Organic Analysis (EPA Method 8260)

Quality Control Report - Laboratory Control Sample

Constituent	Batch ID	QC Sample ID	QC Type	Result	Spike Level	PQL	Units	Percent Recovery	RPD	Control Limits Percent Recovery	Control Limits RPD	Lab Quals
Benzene	BTD1546	BTD1546-BS1	LCS	24.560	25.000	0.50	ug/L	98.2		70 - 130		
Toluene	BTD1546	BTD1546-BS1	LCS	25.710	25.000	0.50	ug/L	103		70 - 130		
1,2-Dichloroethane-d4 (Surrogate)	BTD1546	BTD1546-BS1	LCS	10.080	10.000		ug/L	101		76 - 114		
Toluene-d8 (Surrogate)	BTD1546	BTD1546-BS1	LCS	10.000	10.000		ug/L	100		88 - 110		
4-Bromofluorobenzene (Surrogate)	BTD1546	BTD1546-BS1	LCS	10.030	10.000		ug/L	100		86 - 115		

Delta Environmental	Project: 7376	**Reported:** 05/06/2010 14:28
312 Piercy Rd	Project Number: 4513373219	
San Jose, CA 95138	Project Manager: Lee Dooley	

Purgeable Aromatics and Total Petroleum Hydrocarbons

Quality Control Report - Laboratory Control Sample

Constituent	Batch ID	QC Sample ID	QC Type	Result	Spike Level	PQL	Units	Control Limits: Percent Recovery	RPD	Control Limits: Percent Recovery	RPD	Lab Quals
TPH - Diesel (FFP)	BTD1786	BTD1786-BS1	LCS	492.31	500.00	50	ug/L	98.5		52 - 128		
Tetracosane (Surrogate)	BTD1786	BTD1786-BS1	LCS	21.294	20.000		ug/L	106		37 - 134		

Delta Environmental
312 Piercy Rd
San Jose, CA 95138

Project: 7376
Project Number: 4513373219
Project Manager: Lee Dooley

Reported: 05/06/2010 14:28

Volatile Organic Analysis (EPA Method 8260)

Quality Control Report - Method Blank Analysis

Constituent	Batch ID	QC Sample ID	MB Result	Units	PQL	MDL	Lab Quals
Benzene	BTD1546	BTD1546-BLK1	ND	ug/L	0.50		
Ethylbenzene	BTD1546	BTD1546-BLK1	ND	ug/L	0.50		
Methyl t-butyl ether	BTD1546	BTD1546-BLK1	ND	ug/L	0.50		
Toluene	BTD1546	BTD1546-BLK1	ND	ug/L	0.50		
Total Xylenes	BTD1546	BTD1546-BLK1	ND	ug/L	1.0		
t-Amyl Methyl ether	BTD1546	BTD1546-BLK1	ND	ug/L	0.50		
t-Butyl alcohol	BTD1546	BTD1546-BLK1	ND	ug/L	10		
Diisopropyl ether	BTD1546	BTD1546-BLK1	ND	ug/L	0.50		
Ethyl t-butyl ether	BTD1546	BTD1546-BLK1	ND	ug/L	0.50		
Total Purgeable Petroleum Hydrocarbons	BTD1546	BTD1546-BLK1	ND	ug/L	50		
1,2-Dichloroethane-d4 (Surrogate)	BTD1546	BTD1546-BLK1	101	%	76 - 114 (LCL - UCL)		
Toluene-d8 (Surrogate)	BTD1546	BTD1546-BLK1	99.2	%	88 - 110 (LCL - UCL)		
4-Bromofluorobenzene (Surrogate)	BTD1546	BTD1546-BLK1	98.3	%	86 - 115 (LCL - UCL)		

Delta Environmental
312 Piercy Rd
San Jose, CA 95138

Project: 7376
Project Number: 4513373219
Project Manager: Lee Dooley

Reported: 05/06/2010 14:28

Purgeable Aromatics and Total Petroleum Hydrocarbons

Quality Control Report - Method Blank Analysis

Constituent	Batch ID	QC Sample ID	MB Result	Units	PQL	MDL	Lab Quals
TPH - Light Naptha	BTD1786	BTD1786-BLK1	ND	ug/L	200		
TPH - Aviation Gas	BTD1786	BTD1786-BLK1	ND	ug/L	200		
TPH - Stoddard Solvent	BTD1786	BTD1786-BLK1	ND	ug/L	50		
TPH - Heavy Naptha	BTD1786	BTD1786-BLK1	ND	ug/L	50		
TPH - Gasoline	BTD1786	BTD1786-BLK1	ND	ug/L	200		
TPH - Jet Fuel (JP4)	BTD1786	BTD1786-BLK1	ND	ug/L	50		
TPH - Jet Fuel (JP5)	BTD1786	BTD1786-BLK1	ND	ug/L	50		
TPH - Jet Fuel (JP8)	BTD1786	BTD1786-BLK1	ND	ug/L	50		
TPH - Kerosene	BTD1786	BTD1786-BLK1	ND	ug/L	50		
TPH - Diesel (FFP)	BTD1786	BTD1786-BLK1	ND	ug/L	50		
TPH - Fuel Oil #6	BTD1786	BTD1786-BLK1	ND	ug/L	50		
TPH - Crude Oil	BTD1786	BTD1786-BLK1	ND	ug/L	200		
TPH - Hydraulic Oil / Motor Oil	BTD1786	BTD1786-BLK1	ND	ug/L	200		
TPH - WD-40	BTD1786	BTD1786-BLK1	ND	ug/L	50		
Tetracosane (Surrogate)	BTD1786	BTD1786-BLK1	107	%	37 - 134 (LCL - UCL)		

Delta Environmental	Project: 7376	**Reported:** 05/06/2010 14:28
312 Piercy Rd	Project Number: 4513373219	
San Jose, CA 95138	Project Manager: Lee Dooley	

Notes And Definitions

MDL	Method Detection Limit
ND	Analyte Not Detected at or above the reporting limit
PQL	Practical Quantitation Limit
RPD	Relative Percent Difference
A01	PQL's and MDL's are raised due to sample dilution.
A52	Chromatogram not typical of diesel.

Chain Of Custody Record

RUSH

BC Laboratories
4100 Atlas Court, Bakersfield, CA
(661) 327-4911 (661) 327-1918 fax

Site Manager:
INVOICE REMITTANCE ADDRESS:
Lee Dooley
Delta Consultants
312 Piercy Rd
San Jose, CA 95138
1005776

PO Number: C107376300
Requisition /Line Number:

DATE: ~~12.01.09~~ 04.26.10
PAGE: 1 of 1

SAMPLING COMPANY: Delta Consultants	Valid Value ID:
ADDRESS: 312 Piercy Rd, San Jose, CA 95138	
PROJECT CONTACT (Hardcopy or PDF Report to): Lee Dooley	
TELEPHONE: 408-826-1871	FAX: 408-225-8506
E-MAIL: Ldooley@deltaenv.com	
SAMPLER NAME(S) (Print): Jerry Falcon	CONSULTANT PROJECT NUMBER: C107376300
SITE NUMBER: C107376300	GLOBAL ID NO.: T0600100101
SITE ADDRESS (Street and City): 4191 First Street, Pleasanton, CA	SITE MANAGER: Lee Dooley
EDF DELIVERABLE TO (RP or Designee): Lee Dooley	PHONE NO.: (408) 826-1871
E-MAIL: Ldooley@deltaenv.com	LAB USE ONLY

TURNAROUND TIME (CALENDAR DAYS):
☐ 14 DAYS ☐ 7 DAYS ☐ 72 HOURS ☐ 48 HOURS ☐ 24 HOURS ☐ LESS THAN 24 HOURS
Standard TAT 5 Day TAT

SPECIAL INSTRUCTIONS OR NOTES: CHECK BOX IF EDD IS NEEDED ☐

Please C.C. - jmahoney@deltaenv.com

* Field Point name only required if different from Sample ID

REQUESTED ANALYSES

LAB USE ONLY	Sample Identification/Field Point Name*	SAMPLING DATE	SAMPLING TIME	MATRIX	NO. OF CONT.	8015m - TPHd	8015m - TPHg (GRO)	8260B - BTEX/MTBE/ 5 Oxygenates + TPH-G	8260B - TPHg / BTEX / 8 oxygenates + methanol (8015M)	8260B - Full Scan VOCs (does not include oxygenates)	8270C - Semi-Volatiles	8015M / 8021B - TPHg/BTEX/MtBE	Lead ☐Total ☐STLC ☐TCLP	TOG	1664 TRPH	Total Lead 6010	8015m - TPHmo	RCI	Full Scan 8260B	Total/Reactive Cyanides	Total/Reactive Sulfides	CAM17 Metals	Pesticdes by 8081	Fish Bioassay	Field Point
	~~CWB-3~~	~~04.22.10~~	~~7:30~~	~~H20~~	~~6~~	X						X					X								X
2	CWB-3 -1	04.26.10	12:25	H_2O	2	X						X													X
	CWB-3 -2	4/22/10	7:30	H_2O	6			X																	

CHK BY: JLH
DISTRIBUTION: SUB-OUT ☐

FIELD NOTES:
Container/Preservative or PID Readings or Laboratory Notes

TEMPERATURE ON RECEIPT C°

Relinquished by: (Signature)	Received by: (Signature) PBL BCL	Date: 04/27/10	Time: ~~0900~~ 1600
Relinquished by: (Signature) BCL VIA GSO 4/27/10 1705	Received by: (Signature) B Hammel	Date: APR 28 2010	Time: 1050
Relinquished by: (Signature)	Received by: (Signature)	Date:	Time:

9/19/03 Revision

BC LABORATORIES INC. SAMPLE RECEIPT FORM Rev. No. 12 06/24/08 Page 1 Of 2

Submission #: 10057746

SHIPPING INFORMATION

Federal Express ☐ UPS ☐ Hand Delivery ☐
BC Lab Field Service ☐ Other ☑ (Specify) GSO

SHIPPING CONTAINER

Ice Chest ☑ None ☐
Box ☐ Other ☐ (Specify)_____

Refrigerant: Ice ☑ Blue Ice ☐ None ☐ Other ☐ Comments:

Custody Seals: Ice Chest ☐ Intact? Yes ☐ No ☐ | Containers ☐ Intact? Yes ☐ No ☐ | None ☑ Comments:

All samples received? Yes ☐ No ☐ All samples containers intact? Yes ☐ No ☐ Description(s) match COC? Yes ☐ No ☐

COC Received ☑ YES ☐ NO

Emissivity: .98 Container: PtPe Thermometer ID: #163

Temperature: A 4.7 °C / C 4.7 °C

Date/Time APR 28 2010 1050

Analyst Init BLT

SAMPLE CONTAINERS	SAMPLE NUMBERS 1	2	3	4	5	6	7	8	9	10
QT GENERAL MINERAL/ GENERAL PHYSICAL										
PT PE UNPRESERVED										
QT INORGANIC CHEMICAL METALS										
PT INORGANIC CHEMICAL METALS										
PT CYANIDE										
PT NITROGEN FORMS										
PT TOTAL SULFIDE										
2oz. NITRATE / NITRITE										
PT TOTAL ORGANIC CARBON										
PT TOX										
PT CHEMICAL OXYGEN DEMAND										
PtA PHENOLICS										
40ml VOA VIAL TRAVEL BLANK										
40ml VOA VIAL	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )
QT EPA 413.1, 413.2, 418.1										
PT ODOR										
RADIOLOGICAL										
BACTERIOLOGICAL										
40 ml VOA VIAL- 504										
QT EPA 508/608/8080										
QT EPA 515.1/8150										
QT EPA 525										
QT EPA 525 TRAVEL BLANK										
100ml EPA 547										
100ml EPA 531.1										
QT EPA 548										
QT EPA 549										
QT EPA 632										
QT EPA 8015M										
QT AMBER	AB									
8 OZ. JAR										
32 OZ. JAR										
SOIL SLEEVE										
PCB VIAL										
PLASTIC BAG										
FERROUS IRON										
ENCORE										

Comments: -1B has about 500mL of sample

Sample Numbering Completed By: PMH Date/Time: 4-28-10 1400

A = Actual / C = Corrected

[H:\DOCS\WP80\LAB_DOCS\FORMS\SAMREC2.WPD]

BC LABORATORIES INC. SAMPLE RECEIPT FORM Rev. No. 12 06/24/08 Page 2 of 2

Submission #: 1005776

SHIPPING INFORMATION

Federal Express ☐ UPS ☐ Hand Delivery ☐
BC Lab Field Service ☐ Other ☒ (Specify) GSO

SHIPPING CONTAINER

Ice Chest ☒ None ☐
Box ☐ Other ☐ (Specify)_____

Refrigerant: Ice ☒ Blue Ice ☐ None ☐ Other ☐ Comments:

Custody Seals: Ice Chest ☐ Intact? Yes ☐ No ☐ | Containers ☐ Intact? Yes ☐ No ☐ | None ☒ Comments:

All samples received? Yes ☐ No ☐ All samples containers intact? Yes ☐ No ☐ Description(s) match COC? Yes ☐ No ☐

COC Received ☒ YES ☐ NO

Emissivity: .98 Container: P+Pe Thermometer ID: #163

Temperature: A 4.2 °C / C 4.2 °C

Date/Time APR 28 2010 1050

Analyst Init BLT

SAMPLE CONTAINERS	SAMPLE NUMBERS 1	2	3	4	5	6	7	8	9	10
QT GENERAL MINERAL/ GENERAL PHYSICAL										
PT PE UNPRESERVED										
QT INORGANIC CHEMICAL METALS										
PT INORGANIC CHEMICAL METALS										
PT CYANIDE										
PT NITROGEN FORMS										
PT TOTAL SULFIDE										
2oz. NITRATE / NITRITE										
PT TOTAL ORGANIC CARBON										
PT TOX										
PT CHEMICAL OXYGEN DEMAND										
P1A PHENOLICS										
40ml VOA VIAL TRAVEL BLANK										
40ml VOA VIAL		H (6)								
QT EPA 413.1, 413.2, 418.1										
PT ODOR										
RADIOLOGICAL										
BACTERIOLOGICAL										
40 ml VOA VIAL- 504										
QT EPA 508/608/8080										
QT EPA 515.1/8150										
QT EPA 525										
QT EPA 525 TRAVEL BLANK										
100ml EPA 547										
100ml EPA 531.1										
QT EPA 548										
QT EPA 549										
QT EPA 632	4-28									
QT EPA 8015M	AB									
QT AMBER										
8 OZ. JAR										
32 OZ. JAR										
SOIL SLEEVE										
PCB VIAL										
PLASTIC BAG										
FERROUS IRON										
ENCORE										

Comments:_____

Sample Numbering Completed By: RM Date/Time: 4-28-10 1400

A = Actual / C = Corrected

[H:\DOCS\WP80\LAB_DOCS\FORMS\SAMREC2.WPD]

APPENDIX I
SVE Tables and Graphs

SVE Step Test Summary: CWA-1
76 Service Station No. 7376
4194 First Street
Pleasanton, California

Name	Date	Time	System Pressure (in. Hg.)	System Pressure (in. H_20)	Well Flow Rate (acfm)	Extraction Well Pressure (in. Hg.)	Observation Wellhead Pressure (in. H_20)	Inlet Vapor Concentration (ppm)	Exhaust Temp (F)	Extraction Well (Y/N)	Observation Well (Y/N)	Distance from extraction well (feet)	Comments
CWA-1	4/20/2010	9:45 AM	-7.0	-95.2	23	-6.5	-88.4	160	1484	Y	N	0	Step Test #1. Extraction from CWA-1. Well Screened from 44-55 ft bgs (Deep)
	4/20/2010	9:55 AM	-7.0	-95.2	23	-6.5	-88.4	165	1434	Y	N	0	
	4/20/2010	10:10 AM	-8.0	-108.8	21	-7.5	-102	174	1481	Y	N	0	System vacuum self adjust from -6.5 in. Hg to -7.5 in Hg.
	4/20/2010	10:25 AM	-8.0	-108.8	25	-7.5	-102	117	1485	Y	N	0	*Step #1 adjusted to -9.0 in. Hg.*
	4/20/2010	10:30 AM	-9.0	-122.4		-9.0	-122.4	124	1492	Y	N	0	
	4/20/2010	10:40 AM	-9.0	-122.4	27	-8.5	-115.6	40	1446	Y	N	0	
	4/20/2010	10:55 AM	-9.0	-122.4	24	-8.5	-115.6	147	1445	Y	N	0	
	4/20/2010	11:10 AM	-9.0	-122.4	28	-8.5	-115.6	82.5	1444	Y	N	0	
	4/20/2010	11:15 AM	-12.0	-163.2		-12	-163.2	80.4	1479	Y	N	0	*Step #2 adjusted to -12.0 in. Hg.*
	4/20/2010	11:25 AM	-12.0	-163.2	36	-12	-163.2	61.2	1458	Y	N	0	
	4/20/2010	11:40 AM	-12.0	-163.2	36	-11.5	-156.4	43.3	1452	Y	N	0	
	4/20/2010	11:55 AM	-12.0	-163.2	32	-11.5	-156.4	40.2	1451	Y	N	0	
	4/20/2010	12:00 PM	-11.0	-149.6	31	-10.5	-142.8		1432	Y	N	0	*Step #3. Decrease to -11 in.*
	4/20/2010	12:10 PM	-11.0	-149.6	31	-10.5	-142.8	1164		Y	N	0	
	4/20/2010	12:15 PM											Stop Step Test and Move to CWA-2 for extraction
CWA-2	4/20/2010	9:45 AM					-0.02			N	Y	7.0	CWA-2 screened from 35.5 to 40 feet bgs (Intermediate)
	4/20/2010	9:55 AM					-0.02			N	Y	7.0	
	4/20/2010	10:10 AM					-0.08			N	Y	7.0	
	4/20/2010	10:25 AM					-0.02			N	Y	7.0	
	4/20/2010	10:40 AM					-0.06			N	Y	7.0	
	4/20/2010	10:55 AM					-0.08			N	Y	7.0	
	4/20/2010	11:10 AM					0			N	Y	7.0	
	4/20/2010	11:25 AM					-0.02			N	Y	7.0	
	4/20/2010	11:40 AM					0			N	Y	7.0	
	4/20/2010	11:55 AM					0			N	Y	7.0	
	4/20/2010	12:10 PM					-0.06			N	Y	7.0	
CWA-3	4/20/2010	9:45 AM					-0.02			N	Y	7.5	CWA-3 screened from 30.0 to 35.0 feet bgs (Shallow)
	4/20/2010	9:55 AM					-0.02			N	Y	7.5	
	4/20/2010	10:10 AM					-0.10			N	Y	7.5	
	4/20/2010	10:25 AM					-0.06			N	Y	7.5	
	4/20/2010	10:40 AM					-0.08			N	Y	7.5	
	4/20/2010	10:55 AM					-0.06			N	Y	7.5	
	4/20/2010	11:10 AM					-0.02			N	Y	7.5	
	4/20/2010	11:25 AM					0			N	Y	7.5	
	4/20/2010	11:40 AM					-0.02			N	Y	7.5	
	4/20/2010	11:55 AM					-0.04			N	Y	7.5	
	4/20/2010	12:10 PM					-0.06			N	Y	7.5	

SVE Step Test Summary: CWA-1
76 Service Station No. 7376
4194 First Street
Pleasanton, California

Name	Date	Time	System Pressure (in. Hg.)	System Pressure (in. H_20)	Well Flow Rate (acfm)	Extraction Well Pressure (in. Hg.)	Observation Wellhead Pressure (in. H_20)	Inlet Vapor Concentration (ppm)	Exhaust Temp (F)	Extraction Well (Y/N)	Observation Well (Y/N)	Distance from extraction well (feet)	Comments
MW-2C	4/20/2010	9:45 AM					-0.04			N	Y	36.5	MW-2C screened from 43 to 45 ft. bgs
	4/20/2010	9:55 AM					-0.04			N	Y	36.5	
	4/20/2010	10:10 AM					-0.25			N	Y	36.5	
	4/20/2010	10:25 AM					-0.25			N	Y	36.5	
	4/20/2010	10:40 AM					-0.30			N	Y	36.5	
	4/20/2010	10:55 AM					-0.35			N	Y	36.5	
	4/20/2010	11:10 AM					-0.25			N	Y	36.5	
	4/20/2010	11:25 AM					-0.20			N	Y	36.5	
	4/20/2010	11:40 AM					-0.10			N	Y	36.5	
	4/20/2010	11:55 AM					-0.10			N	Y	36.5	
	4/20/2010	12:10 PM					0.00			N	Y	36.5	
OWA-1	4/20/2010	9:45 AM					-0.02			N	Y	19.2	OWA-1 screened from 45 to 50 feet bgs
	4/20/2010	9:55 AM					-0.02			N	Y	19.2	
	4/20/2010	10:10 AM					-0.18			N	Y	19.2	
	4/20/2010	10:25 AM					-0.22			N	Y	19.2	
	4/20/2010	10:40 AM					-0.26			N	Y	19.2	
	4/20/2010	10:55 AM					-0.30			N	Y	19.2	
	4/20/2010	11:10 AM					-0.22			N	Y	19.2	
	4/20/2010	11:25 AM					-0.18			N	Y	19.2	
	4/20/2010	11:40 AM					-0.06			N	Y	19.2	
	4/20/2010	11:55 AM					-0.02			N	Y	19.2	
	4/20/2010	12:10 PM								N	Y	19.2	
OWA-2	4/20/2010	9:45 AM					0.00			N	Y	19.2	OWA-2 screened from 38-40 feet bgs
	4/20/2010	9:55 AM					0.00			N	Y	19.2	
	4/20/2010	10:10 AM					-0.15			N	Y	19.2	
	4/20/2010	10:25 AM					-0.05			N	Y	19.2	
	4/20/2010	10:40 AM					-0.05			N	Y	19.2	
	4/20/2010	10:55 AM					0.00			N	Y	19.2	
	4/20/2010	11:10 AM					0.00			N	Y	19.2	
	4/20/2010	11:25 AM					0.00			N	Y	19.2	
	4/20/2010	11:40 AM					0.00			N	Y	19.2	
	4/20/2010	11:55 AM					0.00			N	Y	19.2	
	4/20/2010	12:10 PM					0.00			N	Y	19.2	
OWA-3	4/20/2010	9:45 AM					-0.02			N	Y	19.2	OWA-3 screened from 31-34 feet bgs
	4/20/2010	9:55 AM					-0.02			N	Y	19.2	
	4/20/2010	10:10 AM					-0.06			N	Y	19.2	
	4/20/2010	10:25 AM					-0.04			N	Y	19.2	
	4/20/2010	10:40 AM					-0.02			N	Y	19.2	
	4/20/2010	10:55 AM					-0.02			N	Y	19.2	
	4/20/2010	11:10 AM					0.00			N	Y	19.2	
	4/20/2010	11:25 AM					0.00			N	Y	19.2	
	4/20/2010	11:40 AM					0.00			N	Y	19.2	
	4/20/2010	11:55 AM					0.00			N	Y	19.2	

SVE Step Test Summary: CWA-1
76 Service Station No. 7376
4194 First Street
Pleasanton, Calfornia

Name	Date	Time	System Pressure (in. Hg.)	System Pressure (in. H_20)	Well Flow Rate (acfm)	Extraction Well Pressure (in. Hg.)	Observation Wellhead Pressure (in. H_20)	Inlet Vapor Concentration (ppm)	Exhaust Temp (F)	Extraction Well (Y/N)	Observation Well (Y/N)	Distance from extraction well (feet)	Comments
	4/20/2010	12:10 PM					0.00			N	Y	19.2	

SVE Step Test Summary: CWA-1
76 Service Station No. 7376
4194 First Street
Pleasanton, California

Name	Date	Time	System Pressure (in. Hg.)	System Pressure (in. H_20)	Well Flow Rate (acfm)	Extraction Well Pressure (in. Hg.)	Observation Wellhead Pressure (in. H_20)	Inlet Vapor Concentration (ppm)	Exhaust Temp (F)	Extraction Well (Y/N)	Observation Well (Y/N)	Distance from extraction well (feet)	Comments

Notes:
in. Hg = inches of Mercury, vacuum "+" = Positive
in. H20 = inches of water, vacuum "-" = Negative
acfm = actual cubic feet per minute
scfm = standard cubic feet per minute
ppm = parts per million
F = degress Fahrenheit
Y/N: Yes/No
ft. bgs = feet below ground surface

DELTA

SVE Step Test Summary: CWA-2
76 Service Station No. 7376
4194 First Street
Pleasanton, Calfornia

Name	Date	Time	System Pressure (in. Hg.)	System Pressure (in. H_20)	Well Flow Rate (acfm)	Extraction Well Pressure (in. Hg.)	Observation Wellhead Pressure (in. H_20)	Inlet Vapor Concentration (ppm)	Exhaust Temp (F)	Extraction Well (Y/N)	Observation Well (Y/N)	Distance from extraction well	Comments
CWA-2	4/20/2010	12:25 PM	-6.5	-88.4	23	-7.15		2875	1452	Y	N	0	Step Test #2. Extraction from CWA-2. Well Screened from 35.5 to 40 ft bgs (Intermedi
	4/20/2010	12:40 PM	-7.0	-95.2	23	-7.15		2584	1431	Y	N	0	
	4/20/2010	12:55 PM	-7.0	-95.2	19	-7.10		2610	1454	Y	N	0	
	4/20/2010	1:10 PM	-7.0	-95.2	19	-7.06		2636	1456	Y	N	0	*After 1:10pm reading, increased vacuum to -9 in. of Hg.*
	4/20/2010	1:15 PM	-8.5	-115.6		-9.04		2612	1490	Y	N	0	
	4/20/2010	1:30 PM	-8.5	-115.6	25	-9.02		2806	1471	Y	N	0	
	4/20/2010	1:45 PM	-8.5	-115.6	29	-9.00		2796	1473	Y	N	0	
	4/20/2010	2:00 PM	-8.5	-115.6	23	-9.00		2785	1472	Y	N	0	After 2:00 pm reading, increased vacuum to -9 in. of Hg.
	4/20/2010	2:15 PM	-10.5	-142.8	32	-10.89		2681	1465	Y	N	0	
	4/20/2010	2:30 PM	-10.5	-142.8	31	-10.93		2628	1462	Y	N	0	
	4/20/2010	2:45 PM	-10.5	-142.8	36	-11.02		2479	1457	Y	N	0	Stopped Step test in CWA-2. Moved to CWA-3
	4/20/2010	2:46 PM											
CWA-1	4/20/2010	12:25 PM					-2.00			N	Y	7	CWA-1 screened from44 to 55 feet bgs (Deep)
	4/20/2010	12:40 PM					-1.40			N	Y	7	
	4/20/2010	12:55 PM					-1.40			N	Y	7	
	4/20/2010	1:10 PM					-1.00			N	Y	7.0	
	4/20/2010	1:30 PM					-0.70			N	Y	7.0	
	4/20/2010	1:45 PM					-0.60			N	Y	7.0	
	4/20/2010	2:00 PM					-0.50			N	Y	7.0	
	4/20/2010	2:15 PM					-0.40			N	Y	7.0	
	4/20/2010	2:30 PM					-0.40			N	Y	7.0	
	4/20/2010	2:45 PM					-0.40			N	Y	7.0	
CWA-3	4/20/2010	12:25 PM					-0.65			N	Y	7.4	CWA-3 screened from 30.0 to 35.0 feet bgs (Shallow)
	4/20/2010	12:40 PM					-0.81			N	Y	7.4	
	4/20/2010	12:55 PM					-0.86			N	Y	7.4	
	4/20/2010	1:10 PM					-0.90			N	Y	7.4	
	4/20/2010	1:30 PM					-1.15			N	Y	7.4	
	4/20/2010	1:45 PM					-1.15			N	Y	7.4	
	4/20/2010	2:00 PM					-1.20			N	Y	7.4	
	4/20/2010	2:15 PM					-1.65			N	Y	7.4	
	4/20/2010	2:30 PM					-1.65			N	Y	7.4	
	4/20/2010	2:45 PM					-1.70			N	Y	7.4	
MW-2C	4/20/2010	12:25 PM					0			N	Y	38.4	MW-2C screened from 43 to 45 ft. bgs
	4/20/2010	12:40 PM					0			N	Y	38.4	
	4/20/2010	12:55 PM					0			N	Y	38.4	
	4/20/2010	1:10 PM					0			N	Y	38.4	
	4/20/2010	1:30 PM					0			N	Y	38.4	
	4/20/2010	1:45 PM					0			N	Y	38.4	
	4/20/2010	2:00 PM					0			N	Y	38.4	
	4/20/2010	2:15 PM					0			N	Y	38.4	
	4/20/2010	2:30 PM					0			N	Y	38.4	
	4/20/2010	2:45 PM					0			N	Y	38.4	

SVE Step Test Summary: CWA-2
76 Service Station No. 7376
4194 First Street
Pleasanton, Calfornia

Name	Date	Time	System Pressure (in. Hg.)	System Pressure (in. H_20)	Well Flow Rate (acfm)	Extraction Well Pressure (in. Hg.)	Observation Wellhead Pressure (in. H_20)	Inlet Vapor Concentration (ppm)	Exhaust Temp (F)	Extraction Well (Y/N)	Observation Well (Y/N)	Distance from extraction well	Comments
OWA-1	4/20/2010	12:25 PM					-0.20			N	Y	24.3	OWA-1 screened from 45 to 50 feet bgs
	4/20/2010	12:40 PM					0.00			N	Y	24.3	
	4/20/2010	12:55 PM					0.00			N	Y	24.3	
	4/20/2010	1:10 PM					0.00			N	Y	24.3	
	4/20/2010	1:30 PM					0.00			N	Y	24.3	
	4/20/2010	1:45 PM					0.00			N	Y	24.3	
	4/20/2010	2:00 PM					0.00			N	Y	24.3	
	4/20/2010	2:15 PM					0.00			N	Y	24.3	
	4/20/2010	2:30 PM					0.00			N	Y	24.3	
	4/20/2010	2:45 PM					0.00			N	Y	24.3	
OWA-2	4/20/2010	12:25 PM					0.00			N	Y	24.3	OWA-2 screened from 38-40 feet bgs
	4/20/2010	12:40 PM					-0.18			N	Y	24.3	
	4/20/2010	12:55 PM					-0.28			N	Y	24.3	
	4/20/2010	1:10 PM					-0.30			N	Y	24.3	
	4/20/2010	1:30 PM					-0.40			N	Y	24.3	
	4/20/2010	1:45 PM					-0.40			N	Y	24.3	
	4/20/2010	2:00 PM					-0.40			N	Y	24.3	
	4/20/2010	2:15 PM					-0.42			N	Y	24.3	
	4/20/2010	2:30 PM					-0.65			N	Y	24.3	
	4/20/2010	2:45 PM					-0.70			N	Y	24.3	
OWA-3	4/20/2010	12:25 PM					-0.01			N	Y	24.3	OWA-3 screened from 31-34 feet bgs
	4/20/2010	12:40 PM					-0.20			N	Y	24.3	
	4/20/2010	12:55 PM					-0.25			N	Y	24.3	
	4/20/2010	1:10 PM					-0.25			N	Y	24.3	
	4/20/2010	1:30 PM					-0.30			N	Y	24.3	
	4/20/2010	1:45 PM					-0.35			N	Y	24.3	
	4/20/2010	2:00 PM					-0.35			N	Y	24.3	
	4/20/2010	2:15 PM					-0.55			N	Y	24.3	
	4/20/2010	2:30 PM					-0.50			N	Y	24.3	
	4/20/2010	2:45 PM					-0.60			N	Y	24.3	

Notes:

in. Hg = inches of Mercury, vacuum "+" = Positive
in. H20 = inches of water, vacuum "-" = Negative
acfm = actual cubic feet per minute
scfm = standard cubic feet per minute
ppm = parts per million
F = degress Fahrenheit
Y/N: Yes/No
ft. bgs = feet below ground surface

SVE Step Test Summary: CWA-3
76 Service Station No. 7376
4194 First Street
Pleasanton, California

Name	Date	Time	System Pressure (in. Hg.)	System Pressure (in. H_20)	Well Flow Rate (acfm)	Extraction Well Pressure (in. Hg.)	Observation Wellhead Pressure (in. H_20)	Inlet Vapor Concentration (ppm)	Exhaust Temp (F)	Extraction Well (Y/N)	Observation Well (Y/N)	Distance from extraction well	Comments
CWA-3	4/20/2010	2:50 PM	-7.0	-95.2		-7.08			1452	Y	N	0	Step Test #3. Extraction from CWA-3. Well Screened from 30-35 ft bgs (Shallow)
	4/20/2010	3:05 PM	-7.0	-95.2	33	-7.02		2861	1468	Y	N	0	
	4/20/2010	3:20 PM	-7.0	-95.2	33	-6.98		2855	1468	Y	N	0	
	4/20/2010	3:35 PM	-9.0	-122.4	35	-6.99		2720	1470	Y	N	0	*After 3:35 pm reading, increased vacuum to -9 in. of Hg*
	4/20/2010	3:50 PM	-9.0	-122.4	40	-9.01		2802	1473	Y	N	0	
	4/20/2010	4:05 PM	-9.0	-122.4	47	-9.13		3003	1487	Y	N	0	
	4/20/2010	4:20 PM	-9.0	-122.4	44	-9.04		2997	1489	Y	N	0	After 4:20 pm reading, increased vacuum to -11 in. of Hg
	4/20/2010	4:35 PM	-11.0	-149.6	55	-11.18		2984	1481	Y	N	0	
	4/20/2010	4:50 PM	-11.0	-149.6	53	-11.01		2863	1485	Y	N	0	
	4/20/2010	5:05 PM	-11.0	-149.6	54	-11.07		2850	1503	Y	N	0	
CWA-1	4/20/2010	3:05 PM					+0.30			N	Y	7.5	CWA-1 screened from 44 to 55 feet bgs (Deep)
	4/20/2010	3:20 PM					+0.30			N	Y	7.5	
	4/20/2010	3:35 PM					+0.30			N	Y	7.5	
	4/20/2010	3:50 PM					+0.30			N	Y	7.5	
	4/20/2010	4:05 PM					+0.30			N	Y	7.5	
	4/20/2010	4:20 PM					+0.20			N	Y	7.5	
	4/20/2010	4:35 PM					+0.20			N	Y	7.5	
	4/20/2010	4:50 PM					+0.20			N	Y	7.5	
	4/20/2010	5:05 PM					+0.20			N	Y	7.5	
CWA-2	4/20/2010	3:05 PM					-5.14			N	Y	7.4	CWA-2 screened from 35.5 to 40.0 feet bgs (Intermediate)
	4/20/2010	3:20 PM					-5.20			N	Y	7.4	
	4/20/2010	3:35 PM					-5.40			N	Y	7.4	
	4/20/2010	3:50 PM					-5.40			N	Y	7.4	
	4/20/2010	4:05 PM					-7.00			N	Y	7.4	
	4/20/2010	4:20 PM					-7.20			N	Y	7.4	
	4/20/2010	4:35 PM					-8.40			N	Y	7.4	
	4/20/2010	4:50 PM					-8.40			N	Y	7.4	
	4/20/2010	5:05 PM					-8.40			N	Y	7.4	
MW-2C	4/20/2010	3:05 PM					0			N	Y	31.1	MW-2C screened from 43 to 45 ft. bgs
	4/20/2010	3:20 PM					0			N	Y	31.1	
	4/20/2010	3:35 PM					0			N	Y	31.1	
	4/20/2010	3:50 PM					0			N	Y	31.1	
	4/20/2010	4:05 PM					0			N	Y	31.1	
	4/20/2010	4:20 PM					0			N	Y	31.1	
	4/20/2010	4:35 PM					0			N	Y	31.1	
	4/20/2010	4:50 PM					0			N	Y	31.1	
	4/20/2010	5:05 PM					0			N	Y	31.1	

DELTA

SVE Step Test Summary: CWA-3
76 Service Station No. 7376
4194 First Street
Pleasanton, Calfornia

Name	Date	Time	System Pressure (in. Hg.)	System Pressure (in. H_20)	Well Flow Rate (acfm)	Extraction Well Pressure (in. Hg.)	Observation Wellhead Pressure (in. H_20)	Inlet Vapor Concentration (ppm)	Exhaust Temp (F)	Extraction Well (Y/N)	Observation Well (Y/N)	Distance from extraction well	Comments
OWA-1	4/20/2010	3:05 PM					0			N	Y	18.3	OWA-1 screened from 45 to 50 feet bgs
	4/20/2010	3:20 PM					0			N	Y	18.3	
	4/20/2010	3:35 PM					0			N	Y	18.3	
	4/20/2010	3:50 PM					0			N	Y	18.3	
	4/20/2010	4:05 PM					0			N	Y	18.3	
	4/20/2010	4:20 PM					0			N	Y	18.3	
	4/20/2010	4:35 PM					0			N	Y	18.3	
	4/20/2010	4:50 PM					0			N	Y	18.3	
	4/20/2010	5:05 PM					0			N	Y	18.3	
OWA-2	4/20/2010	3:05 PM					-0.90			N	Y	18.3	OWA-2 screened from 38-40 feet bgs
	4/20/2010	3:20 PM					-1.15			N	Y	18.3	
	4/20/2010	3:35 PM					-1.30			N	Y	18.3	
	4/20/2010	3:50 PM					-1.55			N	Y	18.3	
	4/20/2010	4:05 PM					-1.90			N	Y	18.3	
	4/20/2010	4:20 PM					-1.90			N	Y	18.3	
	4/20/2010	4:35 PM					-2.40			N	Y	18.3	
	4/20/2010	4:50 PM					-2.50			N	Y	18.3	
	4/20/2010	5:05 PM					-2.50			N	Y	18.3	
OWA-3	4/20/2010	3:05 PM					-1.45			N	Y	18.3	OWA-3 screened from 31-34 feet bgs
	4/20/2010	3:20 PM					-1.55			N	Y	18.3	
	4/20/2010	3:35 PM					-1.60			N	Y	18.3	
	4/20/2010	3:50 PM					-1.80			N	Y	18.3	
	4/20/2010	4:05 PM					-2.00			N	Y	18.3	
	4/20/2010	4:20 PM					-2.00			N	Y	18.3	
	4/20/2010	4:35 PM					-2.60			N	Y	18.3	
	4/20/2010	4:50 PM					-2.60			N	Y	18.3	
	4/20/2010	5:05 PM					-2.50			N	Y	18.3	

Notes:
in. Hg = inches of Mercury, vacuum "+" = Positive
in. H20 = inches of water, vacuum "-" = Negative
acfm = actual cubic feet per minute
scfm = standard cubic feet per minute
ppm = parts per million
F = degress Fahrenheit
Y/N: Yes/No
ft. bgs = feet below ground surface

SVE Step Test Summary: CWB-1
76 Service Station No. 7376
4194 First Street
Pleasanton, California

Name	Date	Time	System Pressure (in. Hg.)	System Pressure (in. H_20)	Well Flow Rate (acfm)	Extraction Well Pressure (in. Hg.)	Observation Wellhead Pressure (in. H_20)	Inlet Vapor Concentration (ppm)	Exhaust Temp (F)	Extraction Well (Y/N)	Observation Well (Y/N)	Distance from extraction well (feet)	Comments
CWB-1	4/21/2010	8:20 AM	-7.0	-95.20		-7.20	-97.92		1451	Y	N	0	Step Test #1. Extraction from CWB-1. Well Screened from 55 to 65 ft bgs (Deep)
	4/21/2010	8:35 AM	-7.0	-95.20	120	-7.12	-96.83	3494	1457	Y	N	0	
	4/21/2010	8:50 AM	-7.0	-95.20	103	-7.07	-96.15	3458	1462	Y	N	0	
	4/21/2010	9:05 AM	-7.0	-95.20	93	-7.10	-96.56	3868	1453	Y	N	0	*Step #1 After 9:05 am measurement, adjusted to -9.0 in. Hg.*
	4/21/2010	9:20 AM	-9.0	-122.40	115	-9.35	-127.16	4620	1441	Y	N	0	
	4/21/2010	9:35 AM	-9.0	-122.40	110	-9.34	-127.02	4528	1430	Y	N	0	
	4/21/2010	9:50 AM	-9.0	-122.40	122	-9.25	-125.80	4812	1415	Y	N	0	*Step #1 After 9:50 am measurement, adjusted to -11.5 in. Hg.*
	4/21/2010	10:05 AM	-11.5	-156.40	141	-12.07	-164.15	7705	1459	Y	N	0	
	4/21/2010	10:20 AM	-11.5	-156.40	144	-12.04	-163.74	2551	1450	Y	N	0	
	4/21/2010	10:35 AM	-11.5	-156.40	133	-11.97	-162.79	844	1468	Y	N	0	
													Stop Step Test and Move to CWB-2 for extraction
CWB-2	4/21/2010	8:35 AM					0			N	Y	5.7	CWB-2 screened from 47 to 57 feet bgs (Intermediate)
	4/21/2010	8:50 AM					0			N	Y	5.7	
	4/21/2010	9:05 AM					0			N	Y	5.7	
	4/21/2010	9:20 AM					0			N	Y	5.7	
	4/21/2010	9:35 AM					0			N	Y	5.7	
	4/21/2010	9:50 AM					0			N	Y	5.7	
	4/21/2010	10:05 AM					0			N	Y	5.7	
	4/21/2010	10:20 AM					0			N	Y	5.7	
	4/21/2010	10:35 AM					0			N	Y	5.7	
CWB-3	4/21/2010	8:35 AM					-0.03			N	Y	6.2	CWB-3 screened from 30.0 to 40.0 feet bgs (Shallow)
	4/21/2010	8:50 AM					-0.05			N	Y	6.2	
	4/21/2010	9:05 AM					-0.05			N	Y	6.2	
	4/21/2010	9:20 AM					-0.10			N	Y	6.2	
	4/21/2010	9:35 AM					-0.10			N	Y	6.2	
	4/21/2010	9:50 AM					-0.10			N	Y	6.2	
	4/21/2010	10:05 AM					-0.10			N	Y	6.2	
	4/21/2010	10:20 AM					-0.15			N	Y	6.2	
	4/21/2010	10:35 AM					-0.15			N	Y	6.2	
MW-5	4/21/2010	8:35 AM					-9.8			N	Y	12.3	MW-5 screened from 52 to 72 ft. bgs
	4/21/2010	8:50 AM					-11.5			N	Y	12.3	
	4/21/2010	9:05 AM					-12.5			N	Y	12.3	
	4/21/2010	9:20 AM					-14.0			N	Y	12.3	
	4/21/2010	9:35 AM					-15.0			N	Y	12.3	
	4/21/2010	9:50 AM					-16.0			N	Y	12.3	
	4/21/2010	10:05 AM					-21.0			N	Y	12.3	
	4/21/2010	10:20 AM					-22.0			N	Y	12.3	
	4/21/2010	10:35 AM					-23.0			N	Y	12.3	

SVE Step Test Summary: CWB-1
76 Service Station No. 7376
4194 First Street
Pleasanton, California

Name	Date	Time	System Pressure (in. Hg.)	System Pressure (in. H_20)	Well Flow Rate (acfm)	Extraction Well Pressure (in. Hg.)	Observation Wellhead Pressure (in. H_20)	Inlet Vapor Concentration (ppm)	Exhaust Temp (F)	Extraction Well (Y/N)	Observation Well (Y/N)	Distance from extraction well (feet)	Comments
OWB-1	4/21/2010	8:35 AM					-0.25			N	Y	27.1	OWB-1 screened from 55 to 65 feet bgs
	4/21/2010	8:50 AM					-1.55			N	Y	27.1	
	4/21/2010	9:05 AM					-1.85			N	Y	27.1	
	4/21/2010	9:20 AM					-3.30			N	Y	27.1	
	4/21/2010	9:35 AM					-4.60			N	Y	27.1	
	4/21/2010	9:50 AM					-5.20			N	Y	27.1	
	4/21/2010	10:05 AM					-6.80			N	Y	27.1	
	4/21/2010	10:20 AM					-8.00			N	Y	27.1	
	4/21/2010	10:35 AM					-9.00			N	Y	27.1	
OWB-2	4/21/2010	8:35 AM					0			N	Y	27.1	OWB-2 screened from 48 to 53 feet bgs
	4/21/2010	8:50 AM					-0.05			N	Y	27.1	
	4/21/2010	9:05 AM					-0.05			N	Y	27.1	
	4/21/2010	9:20 AM					-0.05			N	Y	27.1	
	4/21/2010	9:35 AM					-0.05			N	Y	27.1	
	4/21/2010	9:50 AM					-0.05			N	Y	27.1	
	4/21/2010	10:05 AM					-0.05			N	Y	27.1	
	4/21/2010	10:20 AM					-0.10			N	Y	27.1	
	4/21/2010	10:35 AM					-0.05			N	Y	27.1	
OWB-3	4/21/2010	8:35 AM					-0.03			N	Y	27.1	OWB-3 screened from 30 to 40 feet bgs
	4/21/2010	8:50 AM					-0.06			N	Y	27.1	
	4/21/2010	9:05 AM					-0.08			N	Y	27.1	
	4/21/2010	9:20 AM					-0.10			N	Y	27.1	
	4/21/2010	9:35 AM					-0.08			N	Y	27.1	
	4/21/2010	9:50 AM					-0.10			N	Y	27.1	
	4/21/2010	10:05 AM					-0.08			N	Y	27.1	
	4/21/2010	10:20 AM					-0.10			N	Y	27.1	
	4/21/2010	10:35 AM					-0.10			N	Y	27.1	

Notes:

in. Hg = inches of Mercury, vacuum
in. H20 = inches of water, vacuum
acfm = actual cubic feet per minute
scfm = standard cubic feet per minute
ppm = parts per million
F = degress Fahrenheit
Y/N: Yes/No
ft. bgs = feet below ground surface

"+" = Positive
"-" = Negative

SVE Step Test Summary: CWB-2
76 Service Station No. 7376
4194 First Street
Pleasanton, California

Name	Date	Time	System Pressure (in. Hg.)	System Pressure (in. H_20)	Well Flow Rate (acfm)	Extraction Well Pressure (in. Hg.)	Observation Wellhead Pressure (in. H_20)	Inlet Vapor Concentration (ppm)	Exhaust Temp (F)	Extraction Well (Y/N)	Observation Well (Y/N)	Distance from extraction well (feet)	Comments
CWB-2	4/21/2010	11:45 AM	-7.0	-95.20	66	-7.25	-98.60	3432	1432	Y	N	0	Step Test #2. Extraction from CWB-2. Well Screened from 47 to 57 ft bgs (Intermediat
	4/21/2010	12:00 PM	-7.0	-95.20	68	-7.22	-98.19	3546	1437	Y	N	0	
	4/21/2010	12:15 PM	-7.0	-95.20	85	-7.22	-98.19	3444	1466	Y	N	0	
	4/21/2010	12:30 PM	-7.0	-95.20	82	-7.19	-97.78	3341	1469	Y	N	0	*Step #1 After 12:30 pm measurement, adjusted to -9.0 in. Hg.*
	4/21/2010	12:45 PM	-9.0	-122.40	72	-9.23	-125.53	3028	1476	Y	N	0	
	4/21/2010	1:00 PM	-9.0	-122.40	85	-9.19	-124.98	3014	1454	Y	N	0	
	4/21/2010	1:15 PM	-9.0	-122.40	103	-9.09	-123.62	3007	1458	Y	N	0	*Step #1 After 1:15 pm measurement, adjusted to -12.0 in. Hg.*
	4/21/2010	1:30 PM	-12.0	-163.20	120	-12.03	-163.61	3112	1466	Y	N	0	
	4/21/2010	1:45 PM	-11.5	-156.40	121	-11.98	-162.93	3750	1450	Y	N	0	
	4/21/2010	2:00 PM	-11.5	-156.40	119	-11.99	-163.06	3156	1446	Y	N	0	
													Stop Step Test and Move to CWB-3 for extraction
CWB-1	4/21/2010	8:35 AM					+0.20			N	Y	5.7	CW1-2 screened from 55 to 65 feet bgs (Deep)
	4/21/2010	8:50 AM					+0.12			N	Y	5.7	
	4/21/2010	9:05 AM					+0.12			N	Y	5.7	
	4/21/2010	9:20 AM					+0.10			N	Y	5.7	
	4/21/2010	9:35 AM					+0.10			N	Y	5.7	
	4/21/2010	9:50 AM					+0.16			N	Y	5.7	
	4/21/2010	10:05 AM					+0.18			N	Y	5.7	
	4/21/2010	10:20 AM					+0.16			N	Y	5.7	
	4/21/2010	10:35 AM					+0.18			N	Y	5.7	
CWB-3	4/21/2010	8:35 AM					+0.05			N	Y	8.6	CWB-3 screened from 30.0 to 40.0 feet bgs (Shallow)
	4/21/2010	8:50 AM					+0.05			N	Y	8.6	
	4/21/2010	9:05 AM					+0.05			N	Y	8.6	
	4/21/2010	9:20 AM					+0.05			N	Y	8.6	
	4/21/2010	9:35 AM					+0.05			N	Y	8.6	
	4/21/2010	9:50 AM					+0.05			N	Y	8.6	
	4/21/2010	10:05 AM					+0.05			N	Y	8.6	
	4/21/2010	10:20 AM					0			N	Y	8.6	
	4/21/2010	10:35 AM					0			N	Y	8.6	
MW-5	4/21/2010	8:35 AM					-0.0			N	Y	6.95	MW-5 screened from 52 to 72 ft. bgs
	4/21/2010	8:50 AM					-0.0			N	Y	6.95	
	4/21/2010	9:05 AM					+0.10			N	Y	6.95	
	4/21/2010	9:20 AM					+0.10			N	Y	6.95	
	4/21/2010	9:35 AM					+0.10			N	Y	6.95	
	4/21/2010	9:50 AM					+0.15			N	Y	6.95	
	4/21/2010	10:05 AM					+0.15			N	Y	6.95	
	4/21/2010	10:20 AM					+0.10			N	Y	6.95	
	4/21/2010	10:35 AM					+0.10			N	Y	6.95	

SVE Step Test Summary: CWB-2
76 Service Station No. 7376
4194 First Street
Pleasanton, California

Name	Date	Time	System Pressure (in. Hg.)	System Pressure (in. H_20)	Well Flow Rate (acfm)	Extraction Well Pressure (in. Hg.)	Observation Wellhead Pressure (in. H_20)	Inlet Vapor Concentration (ppm)	Exhaust Temp (F)	Extraction Well (Y/N)	Observation Well (Y/N)	Distance from extraction well (feet)	Comments
OWB-1	4/21/2010	8:35 AM					-0.20			N	Y	26.26	OWB-1 screened from 55 to 65 feet bgs
	4/21/2010	8:50 AM					-0.14			N	Y	26.26	
	4/21/2010	9:05 AM					-0.02			N	Y	26.26	
	4/21/2010	9:20 AM					-0.02			N	Y	26.26	
	4/21/2010	9:35 AM					0			N	Y	26.26	
	4/21/2010	9:50 AM					+0.16			N	Y	26.26	
	4/21/2010	10:05 AM					+0.22			N	Y	26.26	
	4/21/2010	10:20 AM					+0.20			N	Y	26.26	
	4/21/2010	10:35 AM					+0.20			N	Y	26.26	
OWB-2	4/21/2010	8:35 AM					+0.10			N	Y	26.26	OWB-2 screened from 48 to 53 feet bgs
	4/21/2010	8:50 AM					+0.10			N	Y	26.26	
	4/21/2010	9:05 AM					+0.05			N	Y	26.26	
	4/21/2010	9:20 AM					+0.05			N	Y	26.26	
	4/21/2010	9:35 AM					+0.05			N	Y	26.26	
	4/21/2010	9:50 AM					+0.05			N	Y	26.26	
	4/21/2010	10:05 AM					+0.05			N	Y	26.26	
	4/21/2010	10:20 AM					+0.05			N	Y	26.26	
	4/21/2010	10:35 AM					+0.05			N	Y	26.26	
OWB-3	4/21/2010	8:35 AM					+0.04			N	Y	26.26	OWB-3 screened from 30 to 40 feet bgs
	4/21/2010	8:50 AM					+0.02			N	Y	26.26	
	4/21/2010	9:05 AM					+0.04			N	Y	26.26	
	4/21/2010	9:20 AM					+0.04			N	Y	26.26	
	4/21/2010	9:35 AM					+0.04			N	Y	26.26	
	4/21/2010	9:50 AM					+0.04			N	Y	26.26	
	4/21/2010	10:05 AM					+0.02			N	Y	26.26	
	4/21/2010	10:20 AM					0			N	Y	26.26	
	4/21/2010	10:35 AM					0			N	Y	26.26	

Notes:

in. Hg = inches of Mercury, vacuum
in. H20 = inches of water, vacuum
acfm = actual cubic feet per minute
scfm = standard cubic feet per minute
ppm = parts per million
F = degress Fahrenheit
Y/N: Yes/No
ft. bgs = feet below ground surface

"+" = Positive
"-" = Negative

SVE Step Test Summary: CWB-3
76 Service Station No. 7376
4194 First Street
Pleasanton, California

Name	Date	Time	System Pressure (in. Hg.)	System Pressure (in. H_20)	Well Flow Rate (acfm)	Extraction Well Pressure (in. Hg.)	Observation Wellhead Pressure (in. H_20)	Inlet Vapor Concentration (ppm)	Exhaust Temp (F)	Extraction Well (Y/N)	Observation Well (Y/N)	Distance from extraction well (feet)	Comments
CWB-3	4/21/2010	3:15 PM	-3.0	-40.80	90	-2.00	-27.20	2441	1586	Y	N	0	Step Test #3. Extraction from CWB-3. Well Screened from 30 to 40 ft bgs (Shallow)
	4/21/2010	3:30 PM	-1.5	-20.40	66	-1.92	-26.11	2638	1559	Y	N	0	
	4/21/2010	3:40 PM	-1.5	-20.40	67	-1.89	-25.70	2559	1560	Y	N	0	*Unable to perform Step Test on CWA-3 as the high influent concentrations*
	4/21/2010	3:50 PM	-1.5	-20.40	64	-1.88	-25.57	2506	1560	Y	N	0	*keeps shutting down the Thermox system*
	4/21/2010	4:00 PM	-1.5	-20.40	64	-1.91	-25.98	2713	1561	Y	N	0	
	4/21/2010	4:10 PM	-1.5	-20.40	66	-1.87	-25.43	2802	1561	Y	N	0	
	4/21/2010	4:20 PM	-1.5	-20.40	65	-1.87	-25.43	2781	1556	Y	N	0	
													Stop Step Test.
CWB-1	4/21/2010	3:15 PM					-2.00			N	Y	6.2	CWB-1 screened from 55 to 65 feet bgs (Deep)
	4/21/2010	3:30 PM					-1.00			N	Y	6.2	
	4/21/2010	3:40 PM					-0.50			N	Y	6.2	
	4/21/2010	3:50 PM					-0.50			N	Y	6.2	
	4/21/2010	4:00 PM					-0.50			N	Y	6.2	
	4/21/2010	4:10 PM					-0.50			N	Y	6.2	
	4/21/2010	4:20 PM					-0.50			N	Y	6.2	
CWB-2	4/21/2010	3:15 PM					-4.20			N	Y	8.6	CWB-2 screened from 47 to 57 feet bgs (Intermediate)
	4/21/2010	3:30 PM					-3.20			N	Y	8.6	
	4/21/2010	3:40 PM					-3.20			N	Y	8.6	
	4/21/2010	3:50 PM					-3.20			N	Y	8.6	
	4/21/2010	4:00 PM					-3.20			N	Y	8.6	
	4/21/2010	4:10 PM					-3.20			N	Y	8.6	
	4/21/2010	4:20 PM					-3.20			N	Y	8.6	
MW-5	4/21/2010	3:15 PM					-1.4			N	Y	12.8	MW-5 screened from 52 to 72 ft. bgs
	4/21/2010	3:30 PM					-1.0			N	Y	12.8	
	4/21/2010	3:40 PM					-0.8			N	Y	12.8	
	4/21/2010	3:50 PM					-0.8			N	Y	12.8	
	4/21/2010	4:00 PM					-0.8			N	Y	12.8	
	4/21/2010	4:10 PM					-0.8			N	Y	12.8	
	4/21/2010	4:20 PM					-0.8			N	Y	12.8	

SVE Step Test Summary: CWB-3
76 Service Station No. 7376
4194 First Street
Pleasanton, California

Name	Date	Time	System Pressure (in. Hg.)	System Pressure (in. H_20)	Well Flow Rate (acfm)	Extraction Well Pressure (in. Hg.)	Observation Wellhead Pressure (in. H_20)	Inlet Vapor Concentration (ppm)	Exhaust Temp (F)	Extraction Well (Y/N)	Observation Well (Y/N)	Distance from extraction well (feet)	Comments
OWB-1	4/21/2010	3:15 PM					-2.9			N	Y	21.8	OWB-1 screened from 55 to 65 feet bgs
	4/21/2010	3:30 PM					-1.6			N	Y	21.8	
	4/21/2010	3:40 PM					-1.6			N	Y	21.8	
	4/21/2010	3:50 PM					-1.0			N	Y	21.8	
	4/21/2010	4:00 PM					-0.8			N	Y	21.8	
	4/21/2010	4:10 PM					-0.8			N	Y	21.8	
	4/21/2010	4:20 PM					-0.8			N	Y	21.8	
OWB-2	4/21/2010	3:15 PM					-3.4			N	Y	21.8	OWB-2 screened from 48 to 53 feet bgs
	4/21/2010	3:30 PM					-2.5			N	Y	21.8	
	4/21/2010	3:40 PM					-2.5			N	Y	21.8	
	4/21/2010	3:50 PM					-2.5			N	Y	21.8	
	4/21/2010	4:00 PM					-2.5			N	Y	21.8	
	4/21/2010	4:10 PM					-2.5			N	Y	21.8	
	4/21/2010	4:20 PM					-2.5			N	Y	21.8	
OWB-3	4/21/2010	3:15 PM					-3.7			N	Y	21.8	OWB-3 screened from 30 to 40 feet bgs
	4/21/2010	3:30 PM					-2.7			N	Y	21.8	
	4/21/2010	3:40 PM					-2.6			N	Y	21.8	
	4/21/2010	3:50 PM					-2.7			N	Y	21.8	
	4/21/2010	4:00 PM					-2.4			N	Y	21.8	
	4/21/2010	4:10 PM					-2.6			N	Y	21.8	
	4/21/2010	4:20 PM					-2.7			N	Y	21.8	

Notes:

in. Hg = inches of Mercury, vacuum
in. H20 = inches of water, vacuum
acfm = actual cubic feet per minute
scfm = standard cubic feet per minute
ppm = parts per million
F = degress Fahrenheit
Y/N: Yes/No
ft. bgs = feet below ground surface

"+" = Positive
"-" = Negative

Combined SVE Test Summary
76 Service Station No. 7376
4194 First Street
Pleasanton, Calfornia

Name	Date	Time	System Pressure (in. Hg.)	System Pressure (in. H_20)	System Flow Rate (acfm)	Manifold Well Pressure (in. Hg.)	Observation Wellhead Pressure (in. H_20)	Inlet Vapor Concentration (ppm)	Exhaust Temp (F)
System Influent	4/22/2010	8:30 AM							
	4/22/2010	8:35 AM	-7.0	-95.20	73	-7.72	-104.99	4672	1503
	4/22/2010	9:05 AM	-7.0	-95.20	89	-7.08	-96.29	4555	1579
	4/22/2010	9:35 AM	-7.0	-95.20	87	-7.12	-96.83	4598	1553
	4/22/2010	10:05 AM	-7.0	-95.20	80	-7.07	-96.15	4537	1540
	4/22/2010	10:35 AM	-7.0	-95.20	59	-7.07	-96.15	4490	1573
	4/22/2010	11:05 AM	-7.0	-95.20	98	-7.03	-95.61	4528	1558
	4/22/2010	11:35 AM	-7.0	-95.20	63	-7.08	-96.29	4496	1557
	4/22/2010	12:05 PM	-7.0	-95.20	49	-7.12	-96.83	4591	1552
	4/22/2010	12:35 PM	-7.0	-95.20	49	-7.12	-96.83	3982	1568
	4/22/2010	1:05 PM	-7.0	-95.20	56	-7.06	-96.02	3861	1564
	4/22/2010	1:35 AM	-10.5	-142.80	81	-11.09	-150.82	2563	1560
	4/22/2010	2:05 PM	-11.0	-149.60	107	-11.12	-151.23	3107	1502
	4/22/2010	2:35 PM	-11.0	-149.60	86	-11.10	-150.96	3007	1499
	4/22/2010	3:05 PM	-11.0	-149.60	103	-11.01	-149.74	2720	1553
	4/22/2010	3:35 PM	-11.0	-149.60	94	-11.10	-150.96	2792	1513
	4/22/2010	4:05 PM	-11.0	-149.60	89	-11.10	-150.96	2978	1520
	4/22/2010	4:35 PM							
OWA-1	4/22/2010	9:35 AM					+0.12		
	4/22/2010	10:05 AM					+0.11		
	4/22/2010	10:35 AM					+0.12		
	4/22/2010	11:05 AM					+0.14		
	4/22/2010	11:35 AM					+0.06		
	4/22/2010	12:05 PM					+0.06		
	4/22/2010	12:35 PM					+0.06		
	4/22/2010	1:05 PM					+0.02		
	4/22/2010	1:35 PM					+0.01		
	4/22/2010	2:05 PM					+0.08		
	4/22/2010	2:35 PM					+0.02		
	4/22/2010	3:05 PM					+0.02		
	4/22/2010	3:35 PM					0		
	4/22/2010	4:05 PM					0		
OWA-2	4/22/2010	9:35 AM					-1.4		
	4/22/2010	10:05 AM					-1.6		
	4/22/2010	10:35 AM					-1.4		
	4/22/2010	11:05 AM					-1.2		
	4/22/2010	11:35 AM					-1.2		
	4/22/2010	12:05 PM					-1.2		

Name	Date	Time	System Pressure (in. Hg.)	System Pressure (in. H_20)	System Flow Rate (acfm)	Manifold Well Pressure (in. Hg.)	Observation Wellhead Pressure (in. H_20)	Inlet Vapor Concentration (ppm)	Exhaust Temp (F)
	4/22/2010	12:35 PM					-1.2		

Name	Date	Time	System Pressure (in. Hg.)	System Pressure (in. H_20)	System Flow Rate (acfm)	Manifold Well Pressure (in. Hg.)	Observation Wellhead Pressure (in. H_20)	Inlet Vapor Concentration (ppm)	Exhaust Temp (F)
OWA-2	4/22/2010	1:05 PM					-1.2		
	4/22/2010	1:35 PM					-1.6		
	4/22/2010	2:05 PM					-1.6		
	4/22/2010	2:35 PM					-1.6		
	4/22/2010	3:05 PM					-1.6		
	4/22/2010	3:35 PM					-1.6		
	4/22/2010	4:05 PM					-1.6		
OWA-3	4/22/2010	9:35 AM					-2.2		
	4/22/2010	10:05 AM					-2.0		
	4/22/2010	10:35 AM					-2.2		
	4/22/2010	11:05 AM					-2.2		
	4/22/2010	11:35 AM					-2.2		
	4/22/2010	12:05 PM					-2.2		
	4/22/2010	12:35 PM					-2.2		
	4/22/2010	1:05 PM					-2.2		
	4/22/2010	1:35 PM					-2.8		
	4/22/2010	2:05 PM					-3.0		
	4/22/2010	2:35 PM					-3.0		
	4/22/2010	3:05 PM					-3.0		
	4/22/2010	3:35 PM					-3.0		
	4/22/2010	4:05 PM					-3.0		
OWB-1	4/22/2010	9:35 AM					-17.0		
	4/22/2010	10:05 AM					-16.0		
	4/22/2010	10:35 AM					-17.0		
	4/22/2010	11:05 AM					-19.0		
	4/22/2010	11:35 AM					-17.0		
	4/22/2010	12:05 PM					-16.0		
	4/22/2010	12:35 PM					-16.0		
	4/22/2010	1:05 PM					-16.0		
	4/22/2010	1:35 PM					-7.0		
	4/22/2010	2:05 PM					-2.0		
	4/22/2010	2:35 PM					-1.0		
	4/22/2010	3:05 PM					-1.0		
	4/22/2010	3:35 PM					-1.0		
	4/22/2010	4:05 PM					-1.0		
OWB-2	4/22/2010	9:35 AM					-0.45		
	4/22/2010	10:05 AM					-0.40		
	4/22/2010	10:35 AM					-0.45		
	4/22/2010	11:05 AM					-0.40		
	4/22/2010	11:35 AM					-0.50		
	4/22/2010	12:05 PM					-0.40		
	4/22/2010	12:35 PM					-0.40		
	4/22/2010	1:05 PM					-0.45		

Name	Date	Time	System Pressure (in. Hg.)	System Pressure (in. H_20)	System Flow Rate (acfm)	Manifold Well Pressure (in. Hg.)	Observation Wellhead Pressure (in. H_20)	Inlet Vapor Concentration (ppm)	Exhaust Temp (F)
	4/22/2010	1:35 PM					-0.30		
OWB-2	4/22/2010	2:05 PM					-0.45		
	4/22/2010	2:35 PM					-0.45		
	4/22/2010	3:05 PM					-0.45		
	4/22/2010	3:35 PM					-0.45		
	4/22/2010	4:05 PM					-0.45		
OWB-3	4/22/2010	9:35 AM					-0.42		
	4/22/2010	10:05 AM					-0.42		
	4/22/2010	10:35 AM					-0.42		
	4/22/2010	11:05 AM					-0.44		
	4/22/2010	11:35 AM					-0.50		
	4/22/2010	12:05 PM					-0.44		
	4/22/2010	12:35 PM					-0.44		
	4/22/2010	1:05 PM					-0.48		
	4/22/2010	1:35 PM					-0.36		
	4/22/2010	2:05 PM					-0.50		
	4/22/2010	2:35 PM					-0.50		
	4/22/2010	3:05 PM					-0.50		
	4/22/2010	3:35 PM					-0.52		
	4/22/2010	4:05 PM					-0.52		
MW-2C	4/22/2010	9:35 AM					+0.15		
	4/22/2010	10:05 AM					+0.15		
	4/22/2010	10:35 AM					+0.15		
	4/22/2010	11:05 AM					+0.05		
	4/22/2010	11:35 AM					+0.05		
	4/22/2010	12:05 PM					0		
	4/22/2010	12:35 PM					0		
	4/22/2010	1:05 PM					+0.05		
	4/22/2010	1:35 PM					+0.05		
	4/22/2010	2:05 PM					0		
	4/22/2010	2:35 PM					-0.05		
	4/22/2010	3:05 PM					-0.05		
	4/22/2010	3:35 PM					-0.10		
	4/22/2010	4:05 PM					-0.10		

Name	Date	Time	System Pressure (in. Hg.)	System Pressure (in. H_20)	System Flow Rate (acfm)	Manifold Well Pressure (in. Hg.)	Observation Wellhead Pressure (in. H_20)	Inlet Vapor Concentration (ppm)	Exhaust Temp (F)
MW-5	4/22/2010	9:35 AM					-16.00		
	4/22/2010	10:05 AM					-16.00		
	4/22/2010	10:35 AM					-16.00		
	4/22/2010	11:05 AM					-16.00		
	4/22/2010	11:35 AM					-17.00		
	4/22/2010	12:05 PM					-17.00		
	4/22/2010	12:35 PM					-17.00		
	4/22/2010	1:05 PM					-16.00		
	4/22/2010	1:35 PM					-1.50		
	4/22/2010	2:05 PM					-1.00		
	4/22/2010	2:35 PM					-1.00		
	4/22/2010	3:05 PM					-1.00		
	4/22/2010	3:35 PM					-1.00		
	4/22/2010	4:05 PM					-1.00		

Notes:

in. Hg = inches of Mercury, vacuum
in. H20 = inches of water, vacuum
acfm = actual cubic feet per minute
scfm = standard cubic feet per minute
ppm = parts per million
F = degress Fahrenheit
Y/N: Yes/No
ft. bgs = feet below ground surface

"+" = Positive
"-" = Negative

Comments
Combined Phase 1 Test Start:
Simultaneous extraction from CWA-1, CWA-2, CWA-3 and CWB-1 and CWB-2
By 9:35 am, all Phase 1 extraction wells are online/actively recovering.
After 1:05 pm measurement, stop Phase 1 extraction from CWB-1 and CWB-2.
Combined Phase 2 Test Start:
Simultaneous extraction from CWA-1, CWA-2, CWA-3. No offsite extraction.
System Shutdown
Combined Phase 1 Test Start:
Simultaneous extraction from CWA-1, CWA-2, CWA-3 and CWB-1 and CWB-2
After 1:05 pm measurement, stop Phase 1 extraction from CWB-1 and CWB-2.
Combined Phase 2 Test Start:
Simultaneous extraction from CWA-1, CWA-2, CWA-3. No offsite extraction.
Combined Phase 1 Test Start:
Simultaneous extraction from CWA-1, CWA-2, CWA-3 and CWB-1 and CWB-2

Comments

Comments
After 1:05 pm measurement, stop Phase 1 extraction from CWB-1 and CWB-2.
Combined Phase 2 Test Start:
Simultaneous extraction from CWA-1, CWA-2, CWA-3. No offsite extraction.
Combined Phase 1 Test Start:
Simultaneous extraction from CWA-1, CWA-2, CWA-3 and CWB-1 and CWB-2
After 1:05 pm measurement, stop Phase 1 extraction from CWB-1 and CWB-2.
Combined Phase 2 Test Start:
Simultaneous extraction from CWA-1, CWA-2, CWA-3. No offsite extraction.
Combined Phase 1 Test Start:
Simultaneous extraction from CWA-1, CWA-2, CWA-3 and CWB-1 and CWB-2
After 1:05 pm measurement, stop Phase 1 extraction from CWB-1 and CWB-2.
Combined Phase 2 Test Start:
Simultaneous extraction from CWA-1, CWA-2, CWA-3. No offsite extraction.
Combined Phase 1 Test Start:
Simultaneous extraction from CWA-1, CWA-2, CWA-3 and CWB-1 and CWB-2
After 1:05 pm measurement, stop Phase 1 extraction from CWB-1 and CWB-2.

Comments
Combined Phase 2 Test Start:
Simultaneous extraction from CWA-1, CWA-2, CWA-3. No offsite extraction.
Combined Phase 1 Test Start:
Simultaneous extraction from CWA-1, CWA-2, CWA-3 and CWB-1 and CWB-2
After 1:05 pm measurement, stop Phase 1 extraction from CWB-1 and CWB-2.
Combined Phase 2 Test Start:
Simultaneous extraction from CWA-1, CWA-2, CWA-3. No offsite extraction.
Combined Phase 1 Test Start:
Simultaneous extraction from CWA-1, CWA-2, CWA-3 and CWB-1 and CWB-2
After 1:05 pm measurement, stop Phase 1 extraction from CWB-1 and CWB-2.
Combined Phase 2 Test Start:
Simultaneous extraction from CWA-1, CWA-2, CWA-3. No offsite extraction.

Comments
Combined Phase 1 Test Start:
Simultaneous extraction from CWA-1, CWA-2, CWA-3 and CWB-1 and CWB-2
After 1:05 pm measurement, stop Phase 1 extraction from CWB-1 and CWB-2.
Combined Phase 2 Test Start:
Simultaneous extraction from CWA-1, CWA-2, CWA-3. No offsite extraction.

DELTA®

Onsite SVE Step Test Recovered Vapor Calculations
76 Service Station No. 7376
4194 First Street
Pleasanton, Calfornia

Well	Date	Time	Influent Vapor (ppm)	Flow Rate (acfm)	Flow Rate (scfm)	System Vacuum In. of Hg	System Vacuum In. of H20	Temp (F)	Recovery Rate (lb/min)	Elapsed Time (min)	Period Hydrocarbon Extracted (lbs)	Cumulative Hydrocarbon Extracted (lbs)
CWA-1	4/20/2010	9:45 AM	160	23.0	17.7	-6.5	-88.40	70	-	0	0.000	0.000
	4/20/2010	9:55 AM	165	23.0	17.7	-6.5	-88.40	70	0.00065	5	0.003	0.003
	4/20/2010	10:10 AM	174	21.0	15.4	-7.5	-102.00	70	0.00059	15	0.009	0.012
	4/20/2010	10:25 AM	117	25.0	18.4	-7.5	-102.00	70	0.00061	10	0.006	0.018
	4/20/2010	10:40 AM	40	27.0	19.0	-8.5	-115.60	70	0.00034	15	0.005	0.023
	4/20/2010	10:55 AM	147	24.0	16.9	-8.5	-115.60	70	0.00036	15	0.005	0.029
	4/20/2010	11:10 AM	82.5	28.0	19.7	-8.5	-115.60	70	0.00051	15	0.008	0.036
	4/20/2010	11:25 AM	61.2	36.0	21.2	-12	-163.20	70	0.00034	15	0.005	0.042
	4/20/2010	11:40 AM	43.3	36.0	21.7	-11.5	-156.40	70	0.00026	15	0.004	0.045
	4/20/2010	11:55 AM	40.2	32.0	19.3	-11.5	-156.40	70	0.00018	15	0.003	0.048
	4/20/2010	12:10 PM	1164	31.0	19.7	-10.5	-142.80	70	0.00270	15	0.040	0.089
CWA-2	4/20/2010	12:25 PM	2875	23.0	17.2	-7.15	-97.24	70	0.00560	0	0.000	0.000
	4/20/2010	12:40 PM	2584	23.0	17.2	-7.15	-97.24	70	0.01064	15	0.160	0.160
	4/20/2010	12:55 PM	2610	19.0	14.2	-7.10	-96.56	70	0.00838	15	0.126	0.285
	4/20/2010	1:10 PM	2636	19.0	14.2	-7.06	-96.02	70	0.00848	15	0.127	0.412
	4/20/2010	1:30 PM	2806	25.0	17.1	-9.02	-122.67	70	0.01058	20	0.212	0.624
	4/20/2010	1:45 PM	2796	29.0	19.9	-9.00	-122.40	70	0.01265	15	0.190	0.814
	4/20/2010	2:00 PM	2785	23.0	15.8	-9.00	-122.40	70	0.00999	15	0.150	0.964
	4/20/2010	2:15 PM	2681	32.0	20.0	-10.89	-148.10	70	0.01239	15	0.186	1.149
	4/20/2010	2:30 PM	2628	31.0	19.3	-10.93	-148.65	70	0.01163	15	0.174	1.324
	4/20/2010	2:45 PM	2479	36.0	22.3	-11.02	-149.87	70	0.01293	15	0.194	1.518
CWA-3	4/20/2010	2:50 PM	2800	33	24.7	-7.08	-96.29	70	0.00785	0	0.000	0.000
	4/20/2010	3:05 PM	2861	33	24.8	-7.02	-95.47	70	0.01592	15	0.239	0.239
	4/20/2010	3:20 PM	2855	33	24.8	-6.98	-94.93	70	0.01610	15	0.241	0.480
	4/20/2010	3:35 PM	2720	35	26.3	-6.99	-95.06	70	0.01665	15	0.250	0.730
	4/20/2010	3:50 PM	2802	40	27.4	-9.01	-122.54	70	0.01718	15	0.258	0.988
	4/20/2010	4:05 PM	3003	47	32.0	-9.13	-124.17	70	0.02111	15	0.317	1.304
	4/20/2010	4:20 PM	2997	44	30.1	-9.04	-122.94	70	0.02051	15	0.308	1.612
	4/20/2010	4:35 PM	2984	55	33.8	-11.18	-152.05	70	0.02294	15	0.344	1.956
	4/20/2010	4:50 PM	2863	53	32.9	-11.01	-149.74	70	0.02180	15	0.327	2.283
	4/20/2010	5:05 PM	2850	54	33.4	-11.07	-150.55	70	0.02164	15	0.325	2.608

Notes:
ppm = parts per million
acfm = actual cubic feet per miunte
scfm = standard cubic feet per minute
In. of Hg: inches of Mercury, vacuum
In. oh H20 = inches of water, vacuum
F= degrees of Fahrenheit
lb/min: pounds per minute
lbs= pounds
min = minutes

Offsite SVE Step Test Recovered Vapor Calculations
76 Service Station No. 7376
4194 First Street
Pleasanton, Calfornia

Well	Date	Time	Influent Vapor (ppm)	Flow Rate (acfm)	Flow Rate (scfm)	System Vacuum In. of Hg	System Vacuum In. of H20	Temp (F)	Recovery Rate (lb/min)	Elapsed Time (min)	Period Hydrocarbon Extracted (lbs)	Cumulative Hydrocarbon Extracted (lbs)
CWB-1	4/20/2010	8:20 AM			0.0	7.2	-97.92	70	-	0	0.000	0.000
	4/20/2010	8:35 AM	3494	120.0	89.7	7.12	-96.83	70	0.03557	15	0.534	0.534
	4/20/2010	8:50 AM	3458	103.0	77.2	7.07	-96.15	70	0.06088	15	0.913	1.447
	4/20/2010	9:05 AM	3868	93.0	69.6	7.1	-96.56	70	0.05785	15	0.868	2.314
	4/20/2010	9:20 AM	4620	115.0	77.6	9.35	-127.16	70	0.07471	15	1.121	3.435
	4/20/2010	9:35 AM	4528	110.0	74.2	9.34	-127.02	70	0.07706	15	1.156	4.591
	4/20/2010	9:50 AM	4812	122.0	82.7	9.25	-125.80	70	0.08764	15	1.315	5.905
	4/20/2010	10:05 AM	7705	141.0	82.5	12.07	-164.15	70	0.11722	15	1.758	7.664
	4/20/2010	10:20 AM	2551	144.0	84.4	12.04	-163.74	70	0.09826	15	1.474	9.138
	4/20/2010	10:35 AM	844	133.0	78.3	11.97	-162.79	70	0.03016	15	0.452	9.590
CWB-2	40288	0.489583333	3432	66	49.06721061	7.25	-98.60	70	0.01911	0	0.000	0.000
	4/20/2010	12:00 PM	3546	68.0	50.6	-7.22	-98.19	70	0.04008	15	0.601	0.601
	4/20/2010	12:15 PM	3444	85.0	63.3	-7.22	-98.19	70	0.05018	15	0.753	1.354
	4/20/2010	12:30 PM	3341	82.0	61.1	-7.19	-97.78	70	0.04705	15	0.706	2.060
	4/20/2010	12:45 PM	3028	72.0	48.9	-9.23	-125.53	70	0.03530	15	0.530	2.589
	4/20/2010	1:00 PM	3014	85.0	57.8	-9.19	-124.98	70	0.03961	15	0.594	3.183
	4/20/2010	1:15 PM	3007	103.0	70.4	-9.09	-123.62	70	0.04807	15	0.721	3.904
	4/20/2010	1:30 PM	3112	120.0	70.4	-12.03	-163.61	70	0.04888	15	0.733	4.638
	4/20/2010	1:45 PM	3750	121.0	71.2	-11.98	-162.93	70	0.05543	15	0.831	5.469
	4/20/2010	2:00 PM	3156	119.0	70.0	-11.99	-163.06	70	0.05483	15	0.822	6.291
CWB-3	40288	3:15 PM	2441	90	82.4	2	-27.20	70	0.02282	0	0.000	0.000
	4/20/2010	3:30 PM	2638	66	60.6	-1.92	-26.11	70	0.03492	15	0.524	0.524
	4/20/2010	3:40 PM	2559	67	61.6	-1.89	-25.70	70	0.03631	10	0.363	0.887
	4/20/2010	3:50 PM	2506	64	58.8	-1.88	-25.57	70	0.03382	10	0.338	1.225
	4/20/2010	4:00 PM	2713	64	58.8	-1.91	-25.98	70	0.03481	10	0.348	1.573
	4/20/2010	4:10 PM	2802	66	60.7	-1.87	-25.43	70	0.03799	10	0.380	1.953
	4/20/2010	4:20 PM	2781	65	59.8	-1.87	-25.43	70	0.03787	10	0.379	2.332

Notes:
ppm = parts per million
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scfm = standard cubic feet per minute
In. of Hg: inches of Mercury, vacuum
In. oh H20 = inches of water, vacuum
F= degrees of Fahrenheit
lb/min: pounds per minute
lbs= pounds
min = minutes

DELTA

Combined SVE Test: Recovered Vapor Calculations
76 Service Station No. 7376
4194 First Street
Pleasanton, Calfornia

Well ID	Date	Time	Influent Vapor (ppm)	Flow Rate (acfm)	Flow Rate (scfm)	System Vacuum In. of Hg	System Vacuum In. of H20	Temp (F)	Recovery Rate (lb/min)	Elapsed Time (min)	Period Hydrocarbon Extracted (lbs)
System Influent	4/22/2010	8:30 AM			0.0		-0.00	80	-	0	0.000
	4/22/2010	8:35 AM	4672	73.0	52.2	7.72	-104.99	80	0.02765	5	0.138
	4/22/2010	9:05 AM	4555	89.0	65.4	7.08	-96.29	80	0.06849	30	2.055
	4/22/2010	9:35 AM	4598	87.0	63.8	7.12	-96.83	80	0.06630	30	1.989
	4/22/2010	10:05 AM	4537	80.0	58.8	7.07	-96.15	80	0.06098	30	1.829
	4/22/2010	10:35 AM	4490	59.0	43.4	7.07	-96.15	80	0.04444	30	1.333
	4/22/2010	11:05 AM	4528	98.0	72.2	7.03	-95.61	80	0.07387	30	2.216
	4/22/2010	11:35 AM	4496	63.0	46.3	7.08	-96.29	80	0.04742	30	1.423
	4/22/2010	12:05 PM	4591	49.0	36.0	7.12	-96.83	80	0.03707	30	1.112
	4/22/2010	12:35 PM	3982	49.0	36.0	7.12	-96.83	80	0.03498	30	1.049
	4/22/2010	1:05 PM	3861	56.0	41.2	7.06	-96.02	80	0.03667	30	1.100
	40290	0.0659722	2563	81	49.09515	11.09	-150.82	80	0.03578	30	1.073
	4/22/2010	2:05 PM	3107	107.0	64.8	-11.12	-151.23	80	0.04165	30	1.250
	4/22/2010	2:35 PM	3007	86.0	52.1	-11.10	-150.96	80	0.03614	30	1.084
	4/22/2010	3:05 PM	2720	103.0	62.7	-11.01	-149.74	80	0.04074	30	1.222
	4/22/2010	3:35 PM	2792	94.0	56.9	-11.10	-150.96	80	0.03561	30	1.068
	4/22/2010	4:05 PM	2978	89.0	53.9	-11.10	-150.96	80	0.03530	30	1.059

Notes:
ppm = parts per million
acfm = actual cubic feet per miunte
scfm = standard cubic feet per minute
In. of Hg: inches of Mercury, vacuum
In. oh H20 = inches of water, vacuum
F= degrees of Fahrenheit
lb/min: pounds per minute
lbs= pounds
min = minutes

Cumulative Hydrocarbon Extracted (lbs)
0.000
0.138
2.193
4.182
6.012
7.345
9.561
10.984
12.096
13.145
14.245
15.318
16.568
17.652
18.874
19.943
21.002

SVE System Influent Analytical Data
76 Station No. 7376
4196 First Street
Pleasanton, California

Name	Elapsed Time (days)	Time	Average Influent Flow Rate	System Influent Concentrations						GRO Recovery			B Recovery			T Recovery			E Recovery			X Recovery			MTBE Recovery		
				GRO	B	T	E	X	M	Rate	Period	Total	Rate	Period	Total	Rate	Period	Total	Rate	Period	Total	Rate	Period	Total	Rate	Period	Total
			(scfm)	(ppmv)						(lbs/day)	(lbs)	(lbs)	(lbs/day)	(lbs)	(lbs)	(lbs/day)	(lbs)	(lbs)	(lbs/day)	(lbs)	(lbs)	(lbs/day)	(lbs)	(lbs)	(lbs/day)	(lbs)	(lbs)
Influent Air	0.042	9:30 AM	63.8	60,000	350	81	82	190	400	1337.48	55.73	55.73	6.52	0.27	0.27	1.78	0.07	0.07	2.08	0.09	0.09	4.81	0.20	0.20	8.41	0.35	0.35
Influent Air	0.125	12:30 PM	36.0	57,000	340	79	84	200	440	716.96	89.62	145.35	3.57	0.45	0.72	0.98	0.12	0.197	1.20	0.15	0.24	2.86	0.36	0.56	5.22	0.65	1.00
Influent Air	0.292	3:30 PM	56.9	38,000	250	6.7	55	39.0	420	755.46	220.34	365.69	4.15	1.21	1.93	0.13	0.038	0.235	1.24	0.36	0.60	0.88	0.26	0.81	7.87	2.30	3.30
Minimum:			36.0	38000	250	6.7	55	39.0	400																		
Average:			52.2	51667	313	55.6	74	143	420																		
Maximum:			63.8	60000	350	81	84	200	440																		
Total Recovered Mass this Period (lbs):											365.69			1.93			0.23			0.60			0.81			3.30
372.57																											

Definitions:

< = Below laboratory method reporting limit
GRO = Gasoline range organics
B = Benzene
T = Toluene
E = Ethylbenzene
X = Xylenes
MTBE = Methyl tert-butyl ether
scfm = Standard cubic feet per minute
ppmv = Parts per million by volume
lbs = Pounds

Molecular Weights (based on Calscience Environmental Laboratories, Inc):

GRO:	93.50
Benzene:	78.11
Toluene:	92.14
Ethylbenzene:	106.17
Xylenes(total):	106.17
MTBE:	88.15

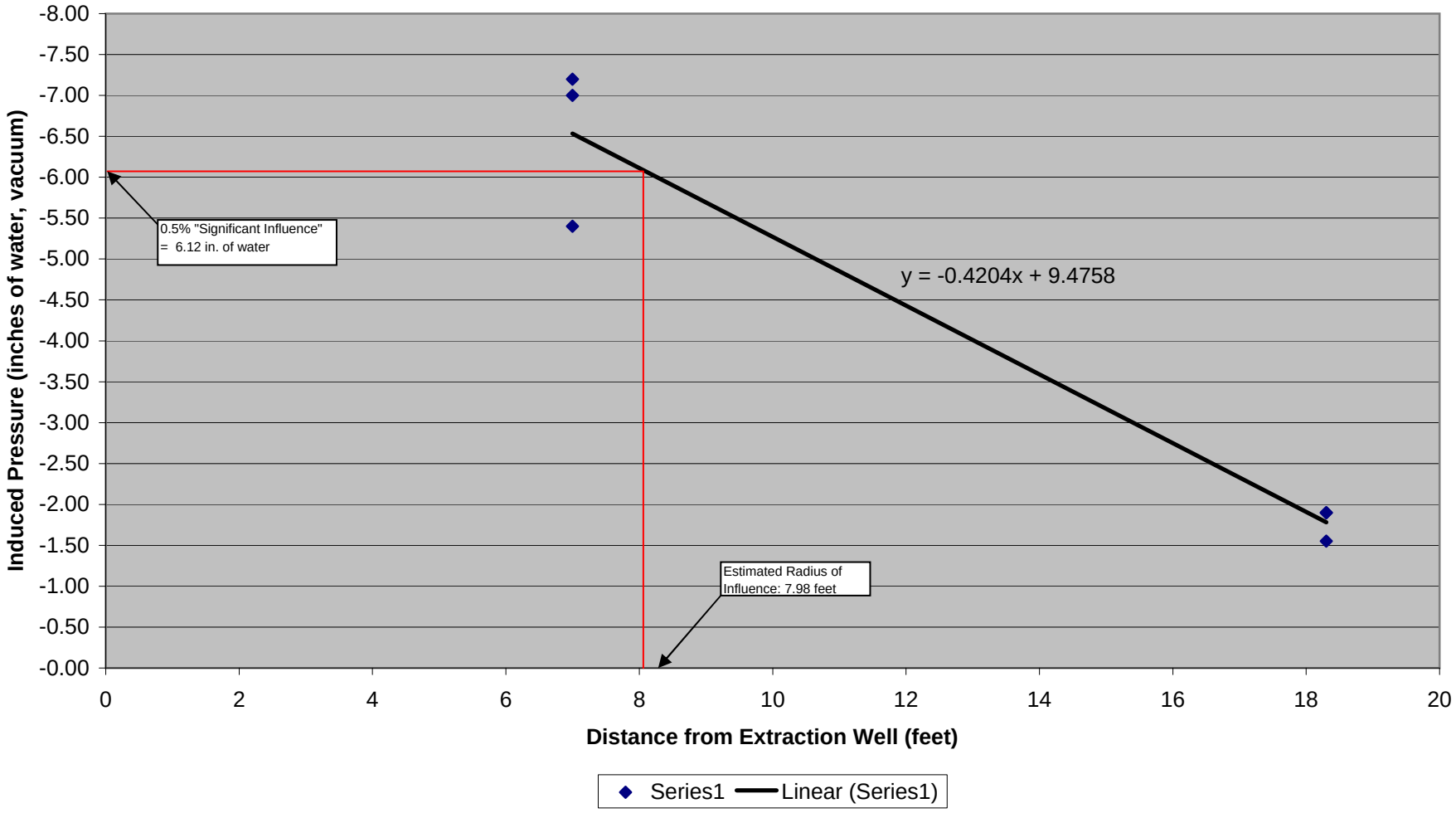
Equation:

Recovery Rate = (Influent Concentration in ppmv) / 10^6 x (Average Flow Rate in scfm) x (Molecular Weight in g/mol) x ($1.177 mol/ft^3$) x (1 lb/453.56 g) x (1440 min/day)

Notes

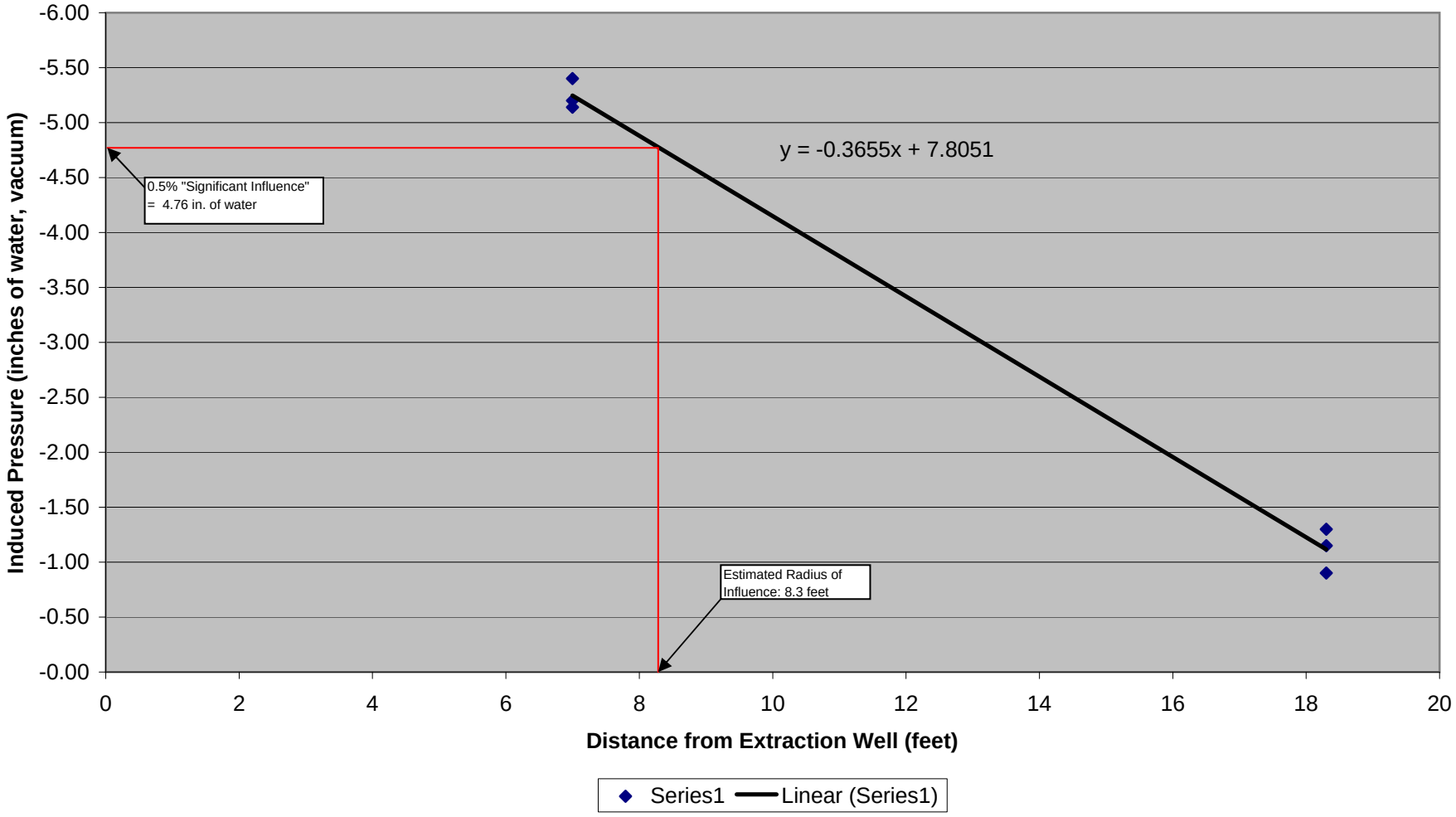
76 Station No. 7376
4194 First Street
Pleasanton, California

Distance vs Vacuum Induced (Extraction Well CWA-3 operating at 9 in. of Hg)



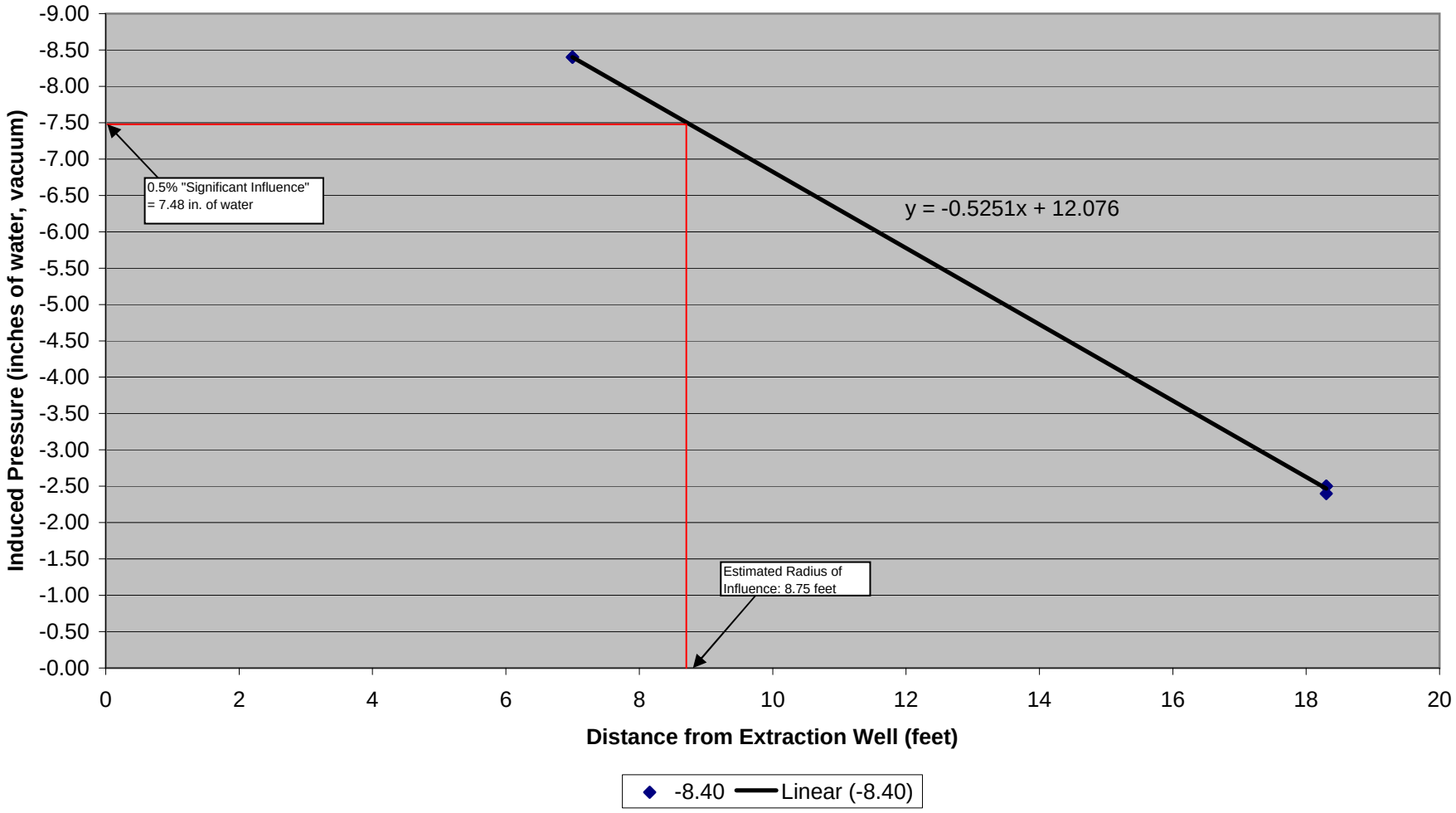
76 Station No. 7376
4194 First Street
Pleasanton, California

Distance vs Vacuum Induced (Extraction Well CWA-3 operating at 7 in. of Hg)



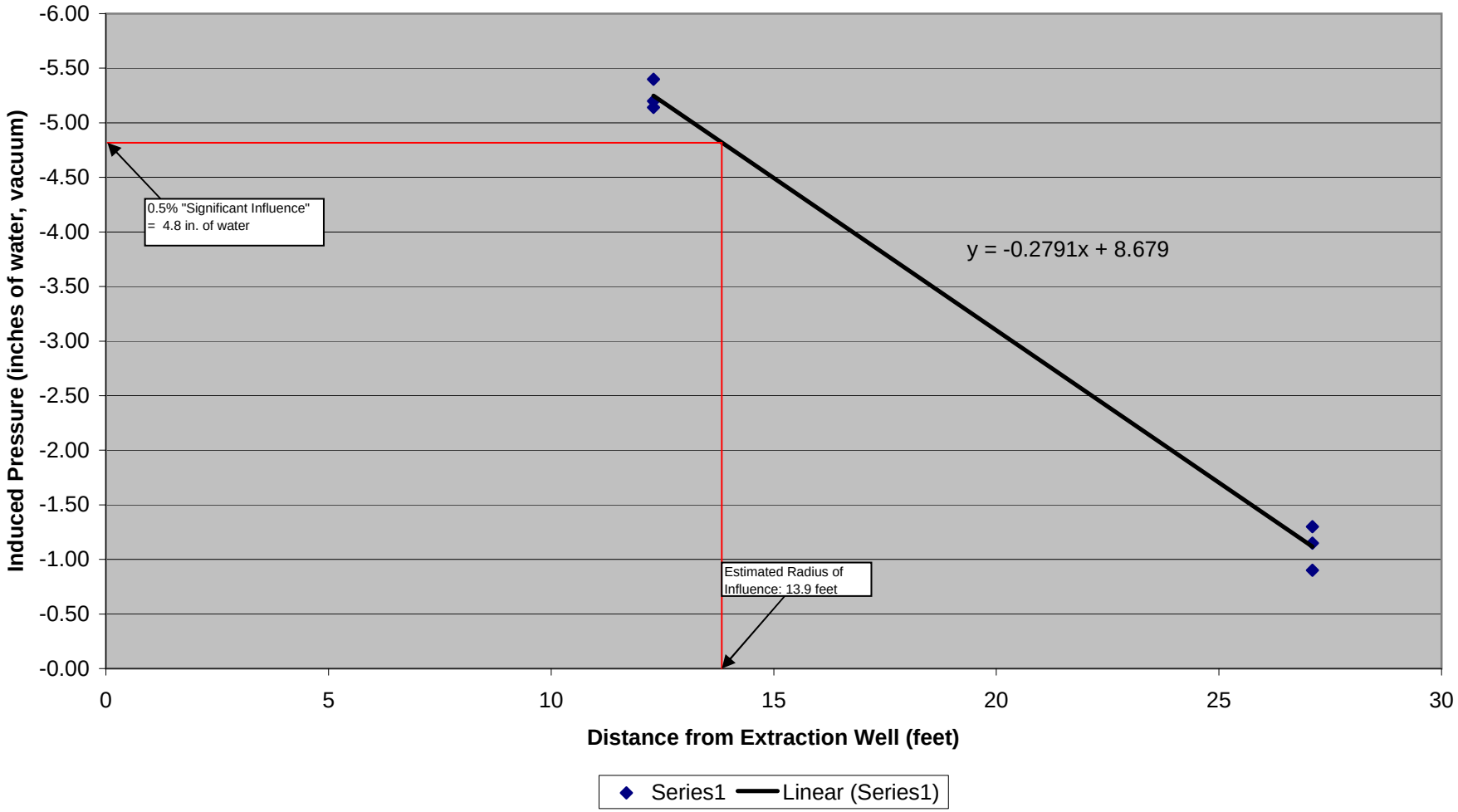
76 Station No. 7376
4194 First Street
Pleasanton, California

Distance vs Vacuum Induced (Extraction Well CWA-3 operating at 11 in. of Hg)



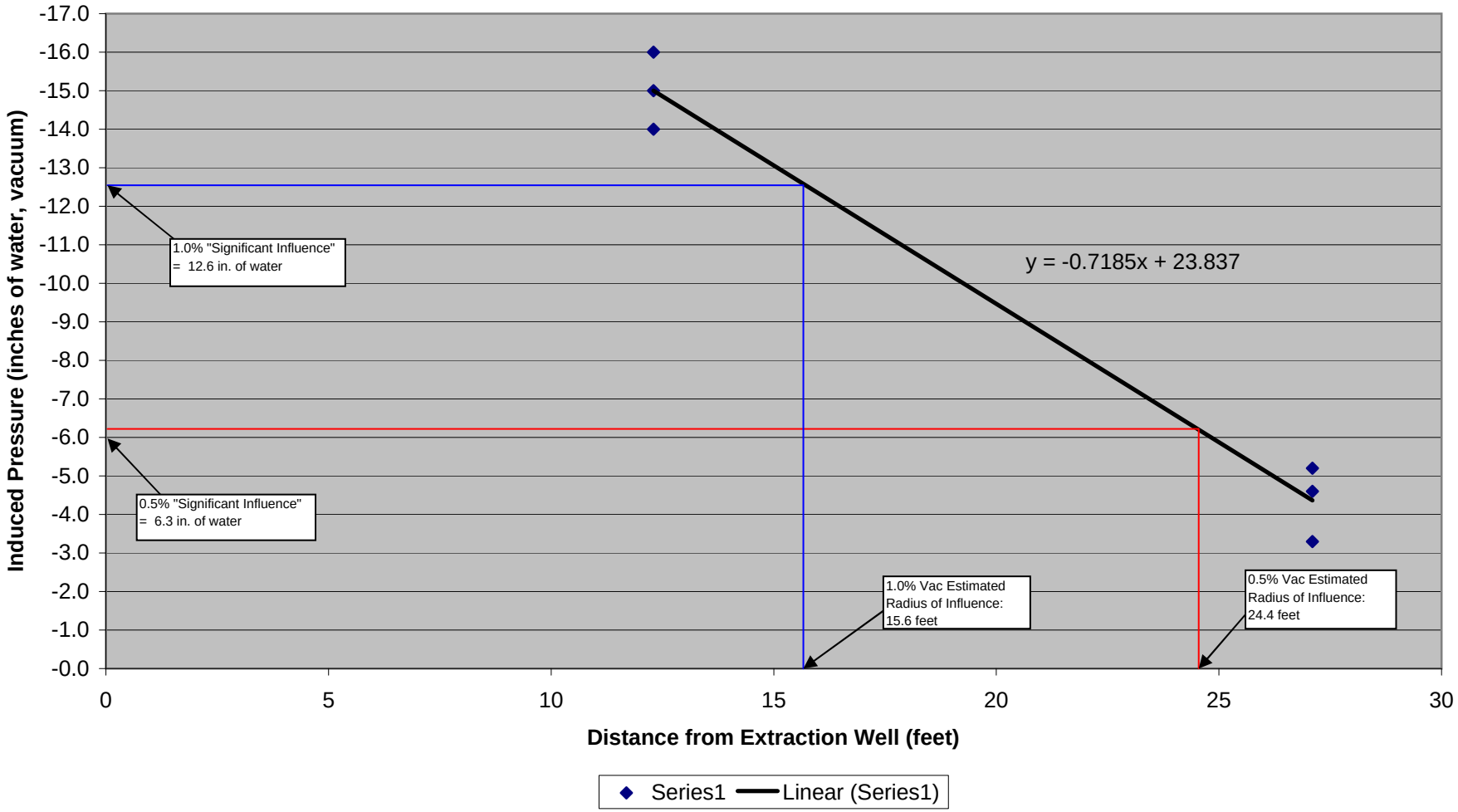
76 Station No. 7376
4194 First Street
Pleasanton, California

Distance vs Vacuum Induced (Extraction Well CWB-1 operating at 7.1 in. of Hg)



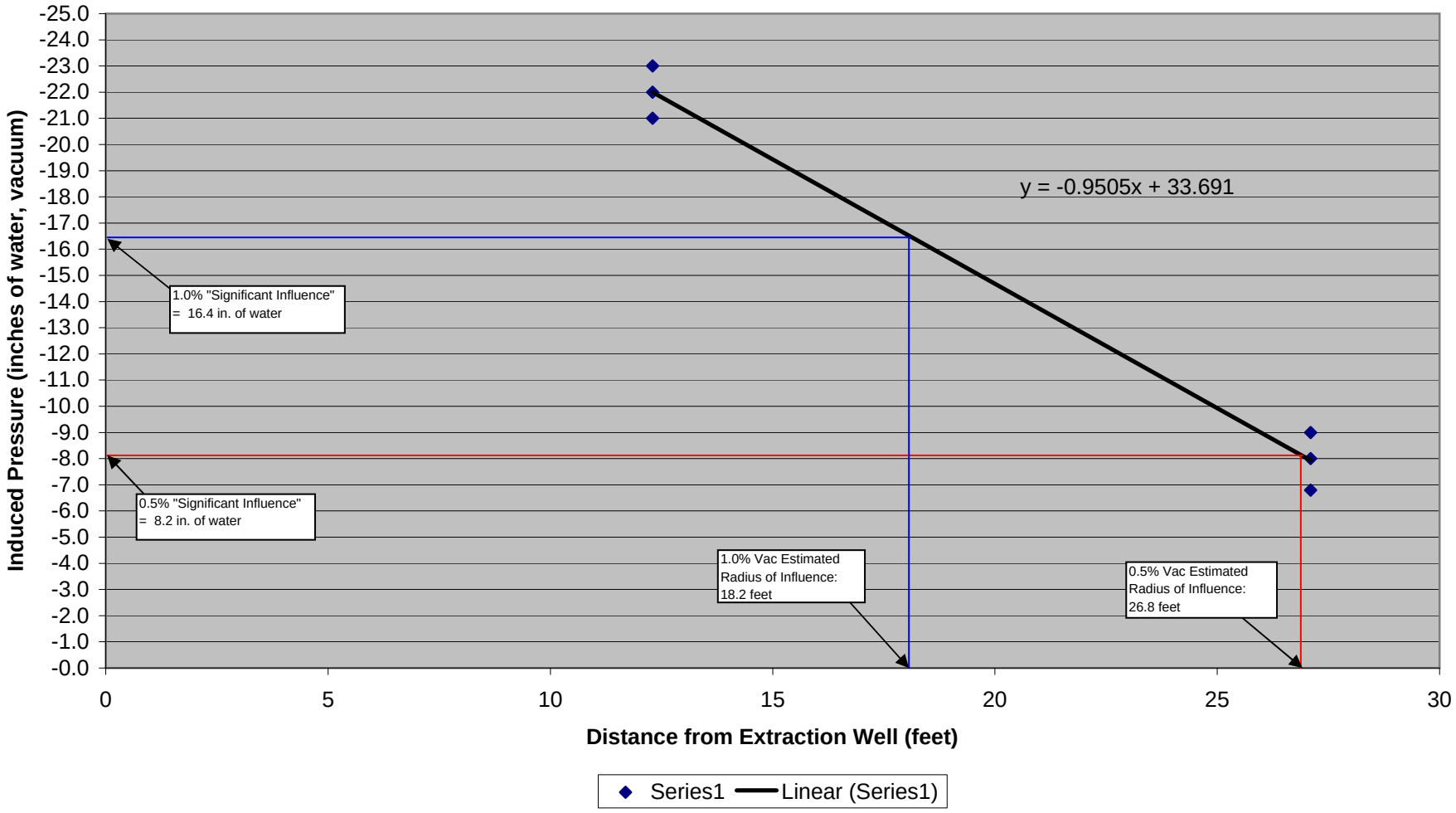
76 Station No. 7376
4194 First Street
Pleasanton, California

Distance vs Vacuum Induced (Extraction Well CWB-1 operating at 9.3 in. of Hg)



76 Station No. 7376
4194 First Street
Pleasanton, California

Distance vs Vacuum Induced (Extraction Well CWB-1 operating at 9.3 in. of Hg)



76 Station No. 7376
4194 First Street
Pleasanton, California

Distance vs Vacuum Induced (Extraction Well CWB-2 operating at 2.0 in. of Hg)