ConocoPhillips
76 Broadway
Sacramento, California 95818

October 29, 2008

Barbara Jakub
Alameda County Health Agency
1131 Harbor Bay parkway, Suite250
Alameda, California 94502-577

Re: ***Site Investigation Report***
Former 76 Service Station # 0843 RO # 0450
1629 Webster Street
Alameda, CA

Dear Ms. Jakub,

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

If you have any questions or need additional information, please call me at (916) 558-7666.

Sincerely,

Terry L. Grayson
Site Manager
Risk Management & Remediation

October 29, 2008

Ms. Barbara Jakub
Alameda County Health Care Services Agency
1131 Harbor Bay Parkway, Suite 250
Alameda, California 94502

Subject: Site Investigation Report
Former 76 Station No. 0843
1629 Webster Street
Alameda, California
Fuel Leak Case No. RO0000450

Dear Ms. Jakub:

DELTA

On behalf of ConocoPhillips Company (COP), Delta Consultants (Delta), has prepared this report presenting the results of the advancement of one soil boring in the vicinity of the former eastern most fuel dispenser island at the above-referenced site. The work was performed as proposed in our *Work Plan – Site Investigation and Injection Well Installation* dated January 24, 2007, and approved by the Alameda County Health Care Services Agency (ACHCSA) in a letter dated May 22, 2008. A copy of the letter is presented as Attachment A.

The investigation consisted of the advancement of one soil boring to assess the vertical extent of the petroleum hydrocarbon impact to the soil and groundwater beneath the site.

SITE BACKGROUND AND PREVIOUS ENVIRONMENTAL WORK

The site is currently a parking lot, located at 1629 Webster Street in Alameda, California. The site location is shown on Figure 1. The location of former and current site features are shown on Figure 2.

PREVIOUS ASSESSMENT

June 1998 - Tosco Marketing Company (Tosco, now ConocoPhillips) exhumed and removed two 10,000-gallon gasoline underground storage tanks (USTs), one 550-gallon used oil UST, product lines, and fuel dispensers. Two holes approximately ¾-inch in diameter were observed in the used oil tank during removal. Approximately 338 tons of hydrocarbon impacted soil and backfill were removed from beneath the former USTs, fuel dispensers, and product lines during the UST removal activities.

11050 White Rock Road Suite 110 Rancho Cordova, California 95670 USA
Phone +1 916.638.2085 / USA Toll Free 800.477.7411
Fax +1 916.638.8385 www.deltaenv.com

March 1999 – Four soil borings (B1 through B4) were advanced at the site and converted to monitor wells MW-1 through MW-4. Groundwater was encountered from 8 to 15 feet below ground surface (bgs). Static groundwater was observed at depths ranging from 4 and 6 feet bgs subsequent to well installation.

December 1999 – Two off-site soil borings (B5 and B6) were advanced and subsequently converted to monitor wells MW-5 and MW-6. Groundwater was initially present at approximately 10 feet bgs. Static groundwater was observed at a depth of approximately 7 feet bgs subsequent to well installation.

March 2001 - An underground utility survey was conducted to identify and locate underground utilities beneath and in the vicinity of the site that could provide potential preferential pathways for groundwater flow.

May 2001 - Five direct-push soil borings (GP-1 through GP-5) were advanced to evaluate whether underground utilities in the vicinity of the site are providing preferential pathways for groundwater flow and the migration of dissolved phase hydrocarbons. The results of the investigation indicated insufficient evidence that underground utility lines were providing preferential pathways for the off-site migration of dissolved phase hydrocarbons.

December 2001 - Twelve direct-push soil borings (GP-6 through GP-17) were advanced to further assess the extent of residual hydrocarbons in the vadose zone beneath the site. The results of the investigation indicated that the extent of the residual hydrocarbon impact reported in the previous investigations was limited.

December 2002 - One on-site monitoring well (MW-2) was destroyed during remedial excavation of hydrocarbon-impacted soil. Prior to destruction, monitoring well MW-2 was located near the former eastern dispenser island. During the remedial excavation, monitoring well MW-2 was replaced with on-site backfill monitoring well MW-2A. Approximately 292 tons of hydrocarbon-impacted soil was removed from beneath the former eastern dispenser island.

September 2003 - A *Request and Work Plan for Closure* prepared by ERI was submitted to the Alameda County Health Care Services Agency (ACHCSA), dated September 10, 2003. The report summarized why no further action is needed for the site; the report also included plans to destroy the existing wells upon regulatory acceptance for no further action. Closure was not granted.

June 2004 – A work plan was submitted for the installation of two additional monitor wells down-gradient of MW-5.

May 2005 – A work plan titled *Work Plan Addendum – Site Assessment Activity* dated May 17, 2005 was prepared by ATC Associates Inc. (ATC) for the installation of two off-site monitor wells.

September 2005 – A work plan was prepared by ATC titled *Work Plan Subsurface Investigation*, for the installation of one on-site monitor well.

September 2005 – Site environmental consulting responsibilities were transferred to Delta.

On January 24, 2007 Delta submitted a work plan to the ACHCSA recommending the advancement of one soil boring and the installation of three ozone injection wells at the site.

SENSITIVE RECEPTORS

June/July 2002 - A groundwater receptor survey was conducted. Three irrigation wells were located within a one-half mile radius of the site. The wells are located approximately 1,980 feet west and 2,245 feet southwest of the site, cross-gradient and up-gradient of the site.

November 2006 – A survey entailing a visit to the DWR office in Sacramento was conducted to examine well log records and to identify domestic wells within the survey area. The DWR survey provided 15 potential receptors within one mile of the site; one domestic well located 0.5 mile southwest of the site; one domestic/irrigation well located 0.7 mile southeast of the site; 11 irrigation wells with three located 0.1 mile northwest, west, and southeast of the site; and two industrial wells located 0.3 miles southwest and 0.9 mile northeast of the site.

SITE GEOLOGY AND HYDROGEOLOGY

The subject site is located on an island in the eastern portion of the San Fancisco Bay and is underlain by interbedded Holocene age marine beach and near shore deposits. These deposits are composed of unconsolidated and semi-consolidated deposits of poorly-graded sand, silty sand/sandy silt, and silt.

Data from the quarterly groundwater monitoring conducted at the site indicate that static depth to groundwater varies from approximately 4.5 to 9.5 feet bgs. The groundwater flow direction is generally to the north-northeast with infrequent variations to the northwest.

SITE INVESTIGATION

Pre-Field Activities

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

Delta prepared a site-specific Health and Safety Plan (HASP) in accordance with Title 8, Section 5192 of the California Code of Regulations. The HASP contained a list of emergency contacts, as well as a hospital route map to the nearest emergency facility.

A drilling permit was obtained from the Alameda County Public works Agency prior to drilling. A copy of the drilling permit is presented as Attachment B.

Soil Boring

On August 14, 2008, Gregg Drilling (Gregg), under supervision of a Delta field geologist, advanced one cone penetration test (CPT) boring (CPT-01) to a depth 55 feet bgs. The location of the boring was moved to north of its proposed location due to the

presence of underground utilities. Five boreholes were advanced at the proposed soil boring location. The initial borehole was advanced to collect a depth-discrete soil sample within the capillary fringe and to collect the first depth-discrete groundwater sample at a depth of approximately 25 feet bgs. The second boring was advanced to provide a continuous CPT log of subsurface lithology and stratigraphy. A pore pressure dissipation test was also conducted in this borehole. The third borehole was advanced to collect a depth-discrete groundwater sample at a depth of approximately 35 feet bgs. The fourth borehole was advanced to collect a depth-discrete groundwater sample at a depth of approximately 45 feet bgs and the last borehole was advanced to collect depth-discrete groundwater sample at a depth of approximately 55 feet bgs. Groundwater was first encountered at a depth of approximately 8 feet bgs. A copy of the CPT log is presented as Attachment C. The boring location is shown on Figure 2.

The soil sample collected at a depth of approximately 7 bgs from the boring was retained for laboratory analysis. The soil sample was analyzed by BC Laboratories (BC) for total purgeable petroleum hydrocarbons (TPPH), benzene, toluene, ethyl-benzene, and total xylenes (BTEX), and methyl tertiary butyl ether (MTBE), di-isopropyl ether (DIPE), ethyl tertiary butyl ether (ETBE), tertiary amyl methyl ether (TAME), tertiary butyl alcohol (TBA), 1,2-dichloroethane (1,2-DCA), ethylene di-bromide (EDB), and ethanol - (8 oxygenates) by Environmental Protection Agency (EPA) Method 8260 and total lead by EPA Method 6010B.

Groundwater samples collected for analysis from the boreholes were analyzed for TPPH, BTEX and MTBE, DIPE, ETBE, TAME, TBA, 1,2-DCA, EDB, and ethanol by EPA Method 8260B.

Disposal of Drill Cuttings and Wastewater

Waste generated during air-knife activities and decontamination water generated during the investigation were placed into properly labeled 55-gallon Department of Transportation (DOT) approved steel drums and temporarily stored on-site. Samples were collected, properly labeled, placed on ice, and transported to BC with chain of custody documentation. The samples were analyzed for TPPH, BTEX and MTBE, DIPE, ETBE, TAME, TBA, 1,2-DCA, EDB, and ethanol by EPA Method 8260 and total and soluble lead by EPA Method 6010B. The drummed drill cuttings and wastewater are currently being profiled for transportation to and disposal at a COP-approved facility.

RESULTS OF THE INVESTIGATION

The subsurface materials encountered in the boring consisted of sand, silty sand/sandy silt, silt with some cemented sand lenses at depths of approximately 42 feet bgs, 52 feet bgs, and 53.5 feet bgs. A cross-section showing the subsurface lithology beneath the site and the neighboring Shell station is presented as figure 3.

With the exception of lead at a concentration of 28 milligram per kilogram (mg/kg) in the soil sample collected at a depth of 7 feet bgs, all constituents tested in the soil sample collected during this investigation were below the laboratory's indicated reporting limits. Analytical results are presented in Table 1. A copy of the laboratory report and chain of custody documentation is presented as Attachment D.

TPPH was reported in the groundwater sample collected and submitted for analysis from the boring at a depth of 25 feet bgs at a concentration of 6,500 micrograms per liter (µg/L). However, laboratory notes indicate that the TPPH does not exhibit a "gasoline" pattern. TPPH is entirely due to MTBE.

MTBE was reported in the groundwater samples collected and submitted for analysis from the boring at depths of 25, feet bgs, 35 feet bgs, and 45 feet bgs at concentrations of 21,000 µg/L, 260 µg/L, and 1 µg/L, respectively.

Additionally, TAME was reported in the groundwater sample collected and submitted for analysis from the boring at a depth of 25 feet bgs at a concentration of 17 µg/L. All other constituents tested were below the laboratory's indicated reporting limits.

CONCLUSIONS AND RECOMMENDATIONS

The analytical results from the soil samples collected and submitted for analysis during this investigation indicate TPPH, BTEX and MTBE, DIPE, ETBE, TAME, TBA, 1,2-DCA, EDB, and ethanol were not present in boring CPT-01.

Based on the data obtained during this investigation, MTBE appears to be present in groundwater in the vicinity of boring CPT-01 at depths ranging from 25 feet bgs to 45 feet bgs. However, the MTBE in the 45 foot sample was at the laboratory's indicated reporting limit of 1.0 µg/L. In addition, based on the elevated concentration of MTBE in the 25 foot groundwater sample and the elevated concentrations of MTBE in the groundwater sample collected from monitoring well MW-1 during the third quarter 2008 MTBE is present at a depth of less than 20.5 feet bgs, the constructed depth of monitoring well MW-1.

Based on the data obtained from previous investigations conducted at the neighboring Shell station up-gradient of the subject site and quarterly groundwater monitoring at subject site it appears that the MTBE present in monitoring well MW-1 is originating from the neighboring Shell station. In 2005 a CPT boring, SB-10, was advanced at the neighboring Shell station to a depth of approximately 40 feet bgs. Groundwater samples were collected at depths of approximately 7 feet bgs, 15 feet bgs, 25 feet bgs, and 36 feet bgs. MTBE was present in the groundwater samples collected and submitted for analysis at concentrations of 3,000 µg/L (7 feet bgs), 690 µg/L (15 feet bgs), 2,700 µg/L (25 feet bgs), and 76 µg/L (36 feet bgs). This boring is located along the northern property boundary of the neighboring Shell station approximately 90 feet south, up-gradient, of monitoring well MW-1. The MTBE in this boring likely originated in the vicinity of the Shell station USTs.

Based on the data obtained during this investigation it is not clear where the MTBE in the groundwater samples collected from the CPT-01 boring originated. The concentration of 21,000 µg/L in the groundwater sample collected at the depth of 25 feet bgs is greater than any of the groundwater samples collected to date from the neighboring Shell station.

Based on data from former monitoring well MW-2, destroyed during the excavation of the soil in the vicinity of the former eastern fuel dispenser island in December 2002, it is likely that some of the MTBE present in the CPT-01, 25 foot groundwater sample

originated from the subject site. During December 1999 quarterly groundwater monitoring activities the groundwater sample collected and submitted for analysis from monitoring well MW-2 contained 11,000 µg/L of MTBE. In addition the MTBE currently found in groundwater samples collected and submitted for analysis from monitoring well MW-6, likely originated from the subject site.

Based on the data obtained during this investigation as well as previous investigations at the site the petroleum hydrocarbon impact to the soil beneath appears to be delineated.

Delta recommends that two additional monitoring wells be installed in the vicinity of the CPT-01 boring. One monitoring well is to be screened from approximately 24 to 26 feet bgs and the other from approximately 29 to 31 feet bgs. In addition, Delta recommends that an ozone sparge well be install in the vicinity of monitoring well MW-1 and screened just above the silty sand/sandy silt unit found at a depth of 39 feet bgs in the CPT-01 boring. This well would then be used to conduct feasibility testing at the site. The details of this additional investigation and feasibility testing will be presented in a work plan under a separate cover.

REMARKS/SIGNATURES

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

If you have any questions regarding this project, please contact me at (916) 503-1261 or Mr. Terry Grayson of COP at (916) 558-7666.

Sincerely,
DELTA CONSULTANTS

Dennis S. Dettloff

PROFESSIONAL GEOLOGIST
DENNIS SHANNON DETTLOFF
No. 7480
STATE OF CALIFORNIA

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

Figures:
- Figure 1 – Site Location Map
- Figure 2 – Site Plan
- Figure 3 – Cross-section A – A' – A"

Table:

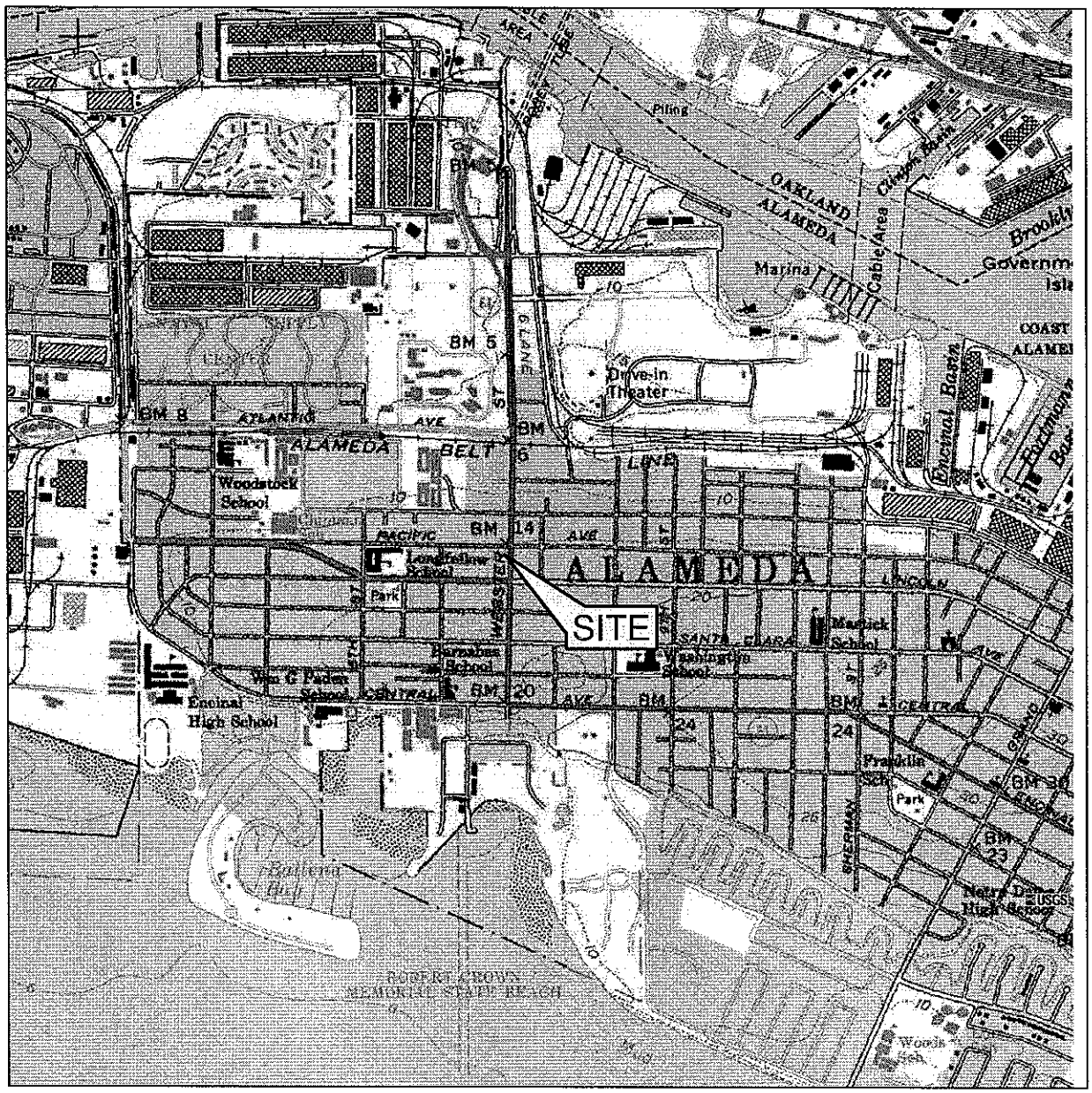
Table 1 – Analytical Results

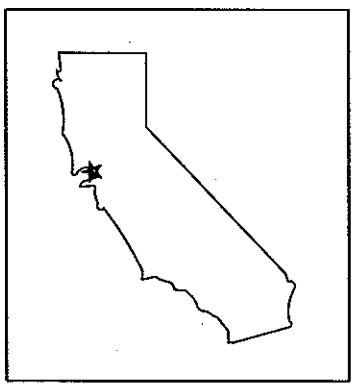
Attachments:

Attachment A – ACHCSA Approval Letter
Attachment B – Drilling Permit
Attachment C – CPT Log
Attachment D – Site Investigation Analytical Reports

cc: Mr. Terry Grayson, ConocoPhillips (electronic copy only)

Figures





North

SOURCE: USGS 7.5 MINUTE TOPOGRAPHIC MAP, OAKLAND WEST QUADRANGLE, 1996

FIGURE 1

SITE LOCATION MAP

76 STATION NO. 0843
1629 WEBSTER STREET
ALAMEDA, CALIFORNIA

PROJECT NO. C100-843	DRAWN BY JH 01/24/07
FILE NO. Site Locator 0843	PREPARED BY JH
REVISION NO. 1	REVIEWED BY

DELTA

A"
MW–5
MW–6
N
0
40 FT
SCALE
PACIFIC AVENUE
GP4
GP3
MW–3
PLANTER
MW–4
GP17
GP12
GP14
FORMER DISPENSER ISLAND
GP6
GP7
MW–2A
GP13
GP2
GP11
GP8
FORMER USED OIL TANK
FORMER UST
FORMER UST
GP10
FORMER DISPENSER ISLAND
CPT–01
GP16
GP15
BUILDING
A'
MW–1
GP1
WEBSTER STREET
SB–14
MW–3
SB–10
SB–9
PLANTER
S–3
S–4
S–2
S–4B
SB–13
TBW–N
SB–11
VENTS
TBW–W
UST
UST
UST
S–5
TBW–E
FORMER UNDERGROUND WASTE OIL TANK
SHELL SERVICE STATION
TBW–S
SB–12
CANOPY
DISPENSER ISLANDS
KIOSK
S–6
S–8
S–7
MW–1
MW–2
FORMER DISPENSER ISLAND
S–9
A
PHONE
RESIDENTIAL
LINCOLN AVENUE

PLAN ADAPTED FROM A DRAWING DATED 9/18/08
TITLED "SITE PLAN" PREPARED BY TRC.

LEGEND:

- PROPERTY BOUNDARY
- FORMER PRODUCT LINE
- FORMER 76 MONITORING WELL
- SHELL MONITORING WELL
- DESTROYED SHELL MONITORING WELL
- TANK BACKFILL WELL
- DIRECT–PUSH SOIL BORING
- CPT SOIL BORING

FIGURE 2
SITE PLAN

FORMER 76 STATION NO. 0843
1629 WEBSTER ROAD
ALAMEDA, CALIFORNIA

PROJECT NO.	PREPARED BY	DRAWN BY
C100843	DD	JH
DATE	REVIEWED BY	FILE NAME
10/22/08	DD	76–0843

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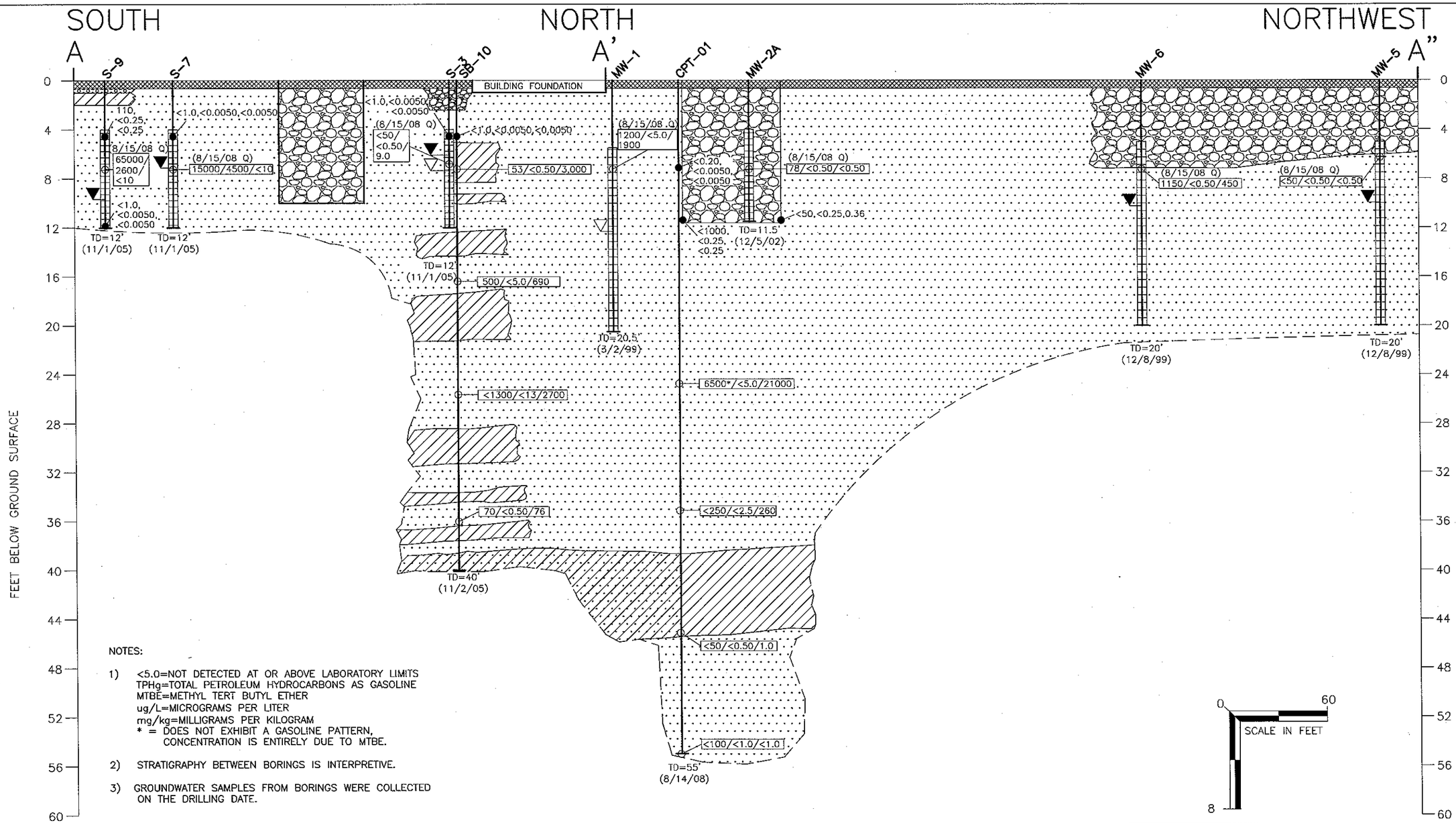


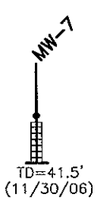
NOTES:

1) <5.0=NOT DETECTED AT OR ABOVE LABORATORY LIMITS
TPHg=TOTAL PETROLEUM HYDROCARBONS AS GASOLINE
MTBE=METHYL TERT BUTYL ETHER
ug/L=MICROGRAMS PER LITER
mg/kg=MILLIGRAMS PER KILOGRAM
* = DOES NOT EXHIBIT A GASOLINE PATTERN, CONCENTRATION IS ENTIRELY DUE TO MTBE.

2) STRATIGRAPHY BETWEEN BORINGS IS INTERPRETIVE.

3) GROUNDWATER SAMPLES FROM BORINGS WERE COLLECTED ON THE DRILLING DATE.

LEGEND



MONITORING WELL/BORING NAME

WELL CASING/EXPLORATORY BORING

SOIL SAMPLE LOCATION

WELL SCREEN

TOTAL DEPTH (DRILLING DATE)

<5.0,<0.5,<0.5

<50/<5.0/<5.0

(8/15/08 Q)

DEPTH TO STATIC GROUNDWATER

DEPTH TO FIRST ENCOUNTERED GROUNDWATER

SOIL SAMPLE LOCATION WITH ANALYTICAL DATA: TPH-G, BENZENE, MTBE (mg/kg)

GROUNDWATER SAMPLE LOCATION WITH ANALYTICAL DATA: TPH-G, BENZENE, MTBE (ug/L)

MONITORING WELL GROUNDWATER SAMPLE DATE

ASPHALT

FILL/ROAD BASE

GRAVEL

FINE GRAINED (SILT AND/OR CLAY)

SAND

APPROXIMATE STRATIGRAPHIC BOUNDARY

FIGURE 3
CROSS SECTION A-A'-A"

FORMER 76 STATION NO. 0843
1629 WEBSTER ROAD
ALAMEDA, CALIFORNIA

PROJECT NO.	PREPARED BY	DRAWN BY
C100843	DD	JH
DATE	REVIEWED BY	FILE NAME
10/22/08	DD	0843-CrossA

DELTA®

Table

Table 1

ANALYTICAL RESULTS
Former ConocoPhillips Station No. 0843
1629 Webster Street, Alameda, California

Sample ID	Date	Sample Depth	TPPH	Benzene	Toluene	Ethyl-benzene	Total Xylenes	MTBE	TBA	TAME	DIPE	ETBE	Ethanol	1,2-DCA	EDB	Total Lead
Soil (mg/kg)																
MW-1	8/14/2008	7	<0.20	<0.005	<0.005	<0.005	<0.01	<0.005	<0.05	<0.005	<0.005	<0.005	<1.0	<0.005	<0.005	**28**
Groundwater (µg/L)																
CPT-1 -25	8/14/2008	25	**6,500**	<5.0	<5.0	<5.0	<10	**21,000**	<100	**17**	<5.0	<5.0	<2,500	<5.0	<5.0	NA
CPT-1 -35	8/14/2008	35	<250	<2.5	<2.5	<2.5	<5.0	**260**	<50	<2.5	<2.5	<2.5	<1,200	<2.5	<2.5	NA
CPT-1 -45	8/14/2008	45	<50	<0.5	<0.5	<0.5	<1.0	**1.0**	<10	<0.5	<0.5	<0.5	<250	<0.5	<0.5	NA
CPT-1 -55	8/14/2008	55	<50	<0.5	<0.5	<0.5	<1.0	<1.0	<10	<0.5	<0.5	<0.5	<250	<0.5	<0.5	NA

Notes:

TPPH = total purgeable petroleum hydrocarbons by EPA Method 8260B
BTEX = benzene, toluene, ethyl-benzene, total xylenes by EPA Method 8260B
MTBE = methyl tertiary butyl ether by EPA Method 8260B
TBA = tertiary butyl alcohol by EPA Method 8260B
TAME = tertiary-amyl methyl ether by EPA Method 8260B
DIPE = Di-isopropyl ether by EPA Method 8260B
ETBE = Ethyl tertiary-butyl ether by EPA Method 8260B
Ethanol = Ethanol by EPA Method 8260B
1,2-DCA = 1,2-Dichloroethane by EPA Method 8260B
EDB = 1,2-Dibromoehtane by EPA Method 8260B
µg/L = micrograms per liter
mg/kg = milligrams per kilogram
NA = Not analyzed
< = Below the laboratory's indicated reporting limit
Bold = Above the laboratory's indicated reporting limit
EPA = US Environmental Protection Agency

Attachment A

ACHCSA Approval Letter

ALAMEDA COUNTY
HEALTH CARE SERVICES
AGENCY
DAVID J. KEARS, Agency Director

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

May 22, 2008

Mr. Bill Borgh
76 Broadway
Sacramento, CA 95818

Subject: Fuel Leak Case No. RO0000450 and Geotracker Global ID T0600102263, Unocal 0843, 1629 Webster St., Alameda, CA

Dear Mr. Borgh:

Alameda County Environmental Health (ACEH) staff has reviewed the fuel leak case file for the above-referenced site including the documents entitled, *Site Status Letter*, dated March 16, 2008 and *Work Plan – Site Investigation and Injection Well Installation* dated January 24, 2007. The 2007 work plan recommends advancing one soil boring to 55 feet below ground surface (bgs) and installing 3 to 5 ozone sparge wells.

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

TECHNICAL COMMENTS

1. **Soil and Groundwater Characterization.** We concur with the location for your proposed deep soil boring and request that you proceed with advancing the soil boring to define the vertical extent of hydrocarbons and oxygenates at the site. We also concur that you should collect discrete groundwater samples using a hydropunch or similar system at 10-foot intervals. However, we request that soil samples be collected and analyzed at areas of obvious contamination, the soil/groundwater interface, at each lithology change, or at a minimum of five-foot intervals. We recommend that you obtain at least two soil samples that are below the detection limits to define the vertical extent of contamination in soil. We request that this boring be continuously cored.

2. **Contaminant Plume Migration, Upgradient Source of MTBE and Ozone Sparge Well Installation.** At this time, we recommend that you postpone installing the ozone sparge wells. MTBE and petroleum hydrocarbons appear to be migrating from the upgradient Shell site as indicated by formerly non-detectable concentrations in upgradient well MW-1. However, concentrations in MW-6 may be coming from either site. We request that you perform further analysis and interpretation of the subsurface lithology at both the Conoco

and Shell sites and reevaluate your remediation proposal. Please include the following in your analysis:

- Results from your deep boring;
- Proposed ozone-sparge screen intervals; and
- Extended cross sections that include the Shell site, soil and groundwater concentrations and contaminant plume contours, areas of previous excavation(s) and utility locations.

Report your results in the Soil and Water Investigation requested below.
Should your evaluation reveal that remediation is necessary; I would like to point out that neither a feasibility study to evaluate of remedial options or an ozone pilot test has been performed at the site. Please provide information that would substantiate that your ozone sparge well placement will remediate the remaining plume including the off-site portion of the plume located at MW-6 and be an effective remedial method for this site.

3. **Site Status Letter.** We have reviewed the Site Status Letter that was submitted via mail to our office. It is missing the required perjury statement, a stamp from a licensed professional (since there are recommendations in the letter) and it was not submitted to the ftp site. Please upload this document with the required additions to the Alameda County ftp site as per the attached instructions.

LANDOWNER NOTIFICATION REQUIREMENTS

Pursuant to California Health & Safety Code Section 25297.15, the active or primary responsible party for a fuel leak case must inform all current property owners of the site of cleanup actions or requests for closure. Furthermore, ACEH may not consider any cleanup proposals or requests for case closure without assurance that this notification requirement has been met. Additionally, the active or primary responsible party is required to forward to ACEH a complete mailing list of all record fee title holders to the site.

At this time we require that you submit a complete mailing list of all record fee title owners of the site by **September 19, 2008**, which states, at a minimum, the following:

A. In accordance with section 25297.15(a) of Chapter 6.7 of the Health & Safety Code, I, (name of primary responsible party), certify that the following is a complete list of current record fee title owners and their mailing addresses for the above site:

- OR -

B. In accordance with section 25297.15(a) of Chapter 6.7 of the Health & Safety Code, I, (name of primary responsible party), certify that I am the sole landowner for the above site.

(Note: Complete item A if there are multiple site landowners. If you are the sole site landowner, skip item A and complete item B.)

In the future, for you to meet these requirements when submitting cleanup proposals or requests for case closure, ACEH requires that you:

1. Notify all current record owners of fee title to the site of any cleanup proposals or requests for case closure;

2. Submit a letter to ACEH which certifies that the notification requirement in 25297.15(a) of the Health and Safety Code has been met;
3. Forward to ACEH a copy of your complete mailing list of all record fee title holders to the site; and
4. Update your mailing list of all record fee titleholders, and repeat the process outlined above prior to submittal of any additional *Corrective Action Plan* or your *Request for Case Closure.*

Your written certification to ACEH (Item 2 above) must state, at a minimum, the following:

A. In accordance with Section 25297.15(a) of the Health & Safety Code, I, (name of primary responsible party), certify that I have notified all responsible landowners of the enclosed proposed action. (Check space for applicable proposed action(s)):
___ cleanup proposal (Corrective Action Plan)
___ request for case closure
___ local agency intention to make a determination that no further action is required
___ local agency intention to issue a closure letter

- OR -

B. In accordance with section 25297.15(a) of Chapter 6.7 of the Health & Safety Code, I, (name of primary responsible party), certify that I am the sole landowner for the above site.

(Note: Complete item A if there are multiple site landowners. If you are the sole site landowner, skip item A and complete item B.)

TECHNICAL REPORT REQUEST

Please conduct the proposed work and submit technical reports to Alameda County Environmental Health (Attention: Barbara Jakub), according to the following schedule:

- **June 5, 2008** – Please resubmit the Site Status Letter to the ACEH ftp site with the required perjury letter and both the signature and stamp of a licensed professional.
- **July 21, 2008** – Complete deep soil boring.
- **September 19, 2008 –** Soil and Water Investigation Report, and Landowner Notification Document.

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

ELECTRONIC SUBMITTAL OF REPORTS

ACEH's Environmental Cleanup Oversight Programs (LOP and SLIC) require submission of reports in electronic form. The electronic copy replaces paper copies and is expected to be used

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

PERJURY STATEMENT

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

PROFESSIONAL CERTIFICATION & CONCLUSIONS/RECOMMENDATIONS

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

UNDERGROUND STORAGE TANK CLEANUP FUND

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

AGENCY OVERSIGHT

If it appears as though significant delays are occurring or reports are not submitted as requested, we will consider referring your case to the Regional Board or other appropriate agency, including

the County District Attorney, for possible enforcement actions. California Health and Safety Code, Section 25299.76 authorizes enforcement including administrative action or monetary penalties of up to $10,000 per day for each day of violation.

If you have any questions, please call me at (510) 639-1287 or send me an electronic mail message at barbara.jakub@acgov.org.

Sincerely,

Barbara Jakub, California P.G. 7304
Hazardous Materials Specialist

Enclosure: ACEH Electronic Report Upload (ftp) Instructions

cc: Dennis Detloff, Delta Consultants, 11050 White Rock Rd., Rancho Cordova, CA 95670

Donna Drogos, ACEH
Barbara Jakub, ACEH
File

Attachment B

Drilling Permit

Alameda County Public Works Agency - Water Resources Well Permit

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

Application Approved on: 08/01/2008 By jamesy

Permit Numbers: W2008-0523
Permits Valid from 08/08/2008 to 08/14/2008

Application Id: 1217021601300
Site Location: 1629 Webster St
City of Project Site: Alameda
Project Start Date: 08/08/2008
Requested Inspection: 08/14/2008
Completion Date: 08/14/2008
Scheduled Inspection: 08/14/2008 at 10:00 AM (Contact your inspector, Ron Smalley at (510) 670-5407, to confirm.)

Applicant: Delta Consultants - Dennis Dettloff
11050 White Rock Road, Ste 110, Rancho Cordova, CA 95670
Phone: 916-503-1261

Property Owner: Conoco Phillips
76 Broadway, Sacramento, CA 95818
Phone: 916-558-7609

Client: ** same as Property Owner **

Receipt Number: WR2008-0269
Payer Name : Delta Consultants

Total Due: $230.00
Total Amount Paid: $230.00
Paid By: CHECK
PAID IN FULL

Works Requesting Permits:

Borehole(s) for Investigation-Environmental/Monitorinig Study - 1 Boreholes
Driller: Gregg Drilling - Lic #: 485165 - Method: CPT

Work Total: $230.00

Specifications

Permit Number	Issued Dt	Expire Dt	# Boreholes	Hole Diam	Max Depth
W2008-0523	08/01/2008	11/06/2008	1	2.00 in.	55.00 ft

Specific Work Permit Conditions

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

2. Boreholes shall not be left open for a period of more than 24 hours. All boreholes left open more than 24 hours will need approval from Alameda County Public Works Agency, Water Resources Section. All boreholes shall be backfilled according to permit destruction requirements and all concrete material and asphalt material shall be to Caltrans Spec or County/City Codes. No borehole(s) shall be left in a manner to act as a conduit at any time.

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

4. Applicant shall contact Ron Smalley for an inspection time at 510-670-5407 at least five (5) working days prior to starting, once the permit has been approved. Confirm the scheduled date(s) at least 24 hours prior to drilling.

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

6. Prior to any drilling activities onto any public right-of-ways, it shall be the applicants responsibilities to contact and coordinate a Underground Service Alert (USA), obtain encroachment permit(s), excavation permit(s) or any other permits

required for that City or to the County and follow all City or County Ordinances. It shall also be the applicants responsibilities to provide to the Cities or to Alameda County a Traffic Safety Plan for any lane closures or detours planned. No work shall begin until all the permits and requirements have been approved or obtained.

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

Attachment C

CPT Log

GREGG DRILLING & TESTING, INC.
GEOTECHNICAL AND ENVIRONMENTAL INVESTIGATION SERVICES

August 18, 2008

Delta Consultants
Attn: Dennis Dettloff
11050 White Rock Rd., Suite 110
Rancho Cordova, California 95670

Subject: CPT Site Investigation
0843 Alameda
Alameda, California
GREGG Project Number: 08-218MA

Dear Mr. Dettloff:

The following report presents the results of GREGG Drilling & Testing's Cone Penetration Test investigation for the above referenced site. The following testing services were performed:

1	Cone Penetration Tests	(CPTU)	☒
2	Pore Pressure Dissipation Tests	(PPD)	☒
3	Seismic Cone Penetration Tests	(SCPTU)	☐
4	Resistivity Cone Penetration Tests	(RCPTU)	☐
5	UVOST Laser Induced Fluorescence	(UVOST)	☐
6	Groundwater Sampling	(GWS)	☒
7	Soil Sampling	(SS)	☒
8	Vapor Sampling	(VS)	☐
9	Vane Shear Testing	(VST)	☐
10	SPT Energy Calibration	(SPTE)	☐

A list of reference papers providing additional background on the specific tests conducted is provided in the bibliography following the text of the report. If you would like a copy of any of these publications or should you have any questions or comments regarding the contents of this report, please do not hesitate to contact our office at (925) 313-5800.

Sincerely,
GREGG Drilling & Testing, Inc.

Mary Walden
Operations Manager

GREGG DRILLING & TESTING, INC.
GEOTECHNICAL AND ENVIRONMENTAL INVESTIGATION SERVICES

Cone Penetration Test Sounding Summary

-Table 1-

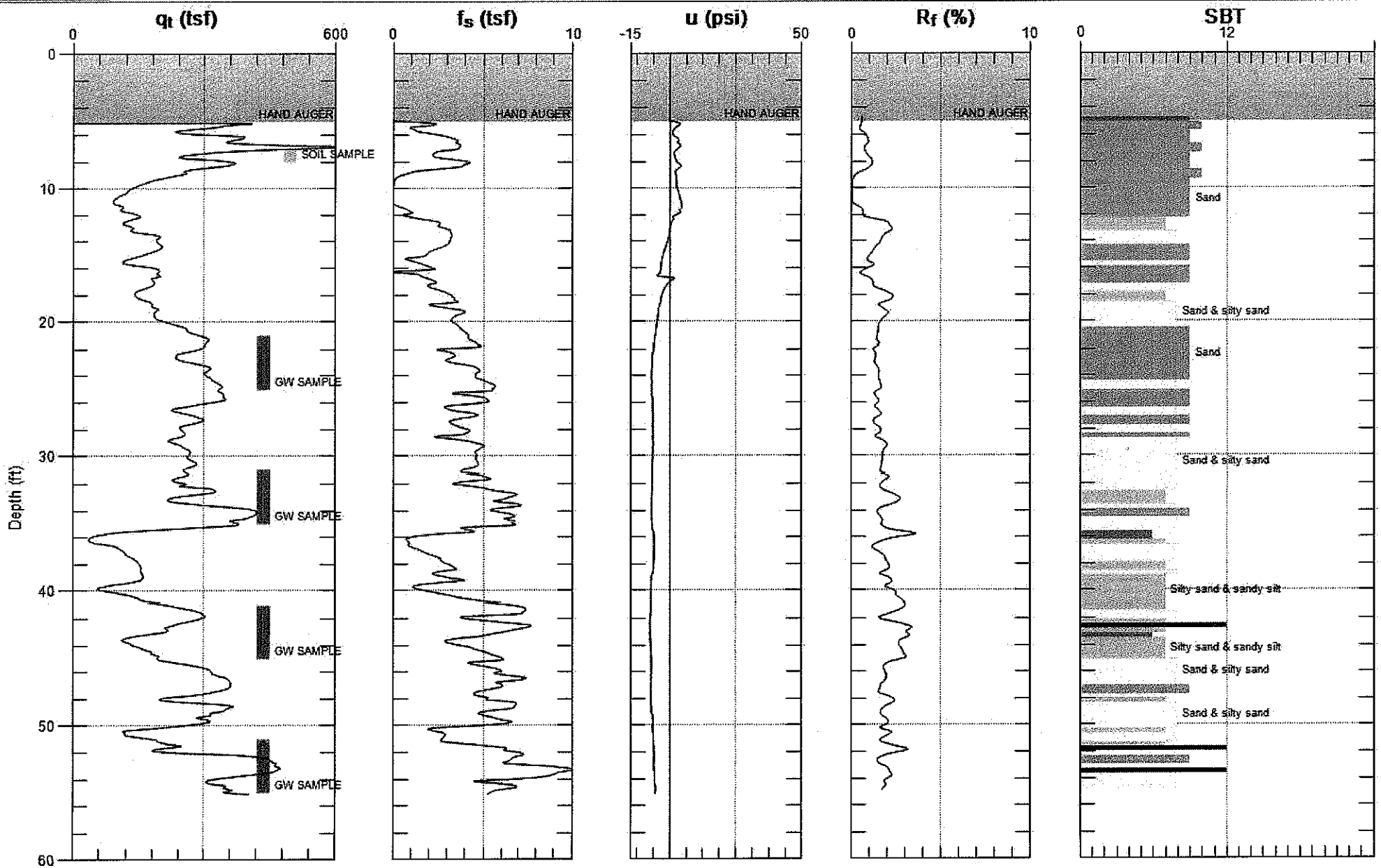
CPT Sounding Identification	Date	Termination Depth (Feet)	Depth of Groundwater Samples (Feet)	Depth of Soil Samples (Feet)	Depth of Pore Pressure Dissipation Tests (Feet)
CPT-01	8/14/08	55	25, 35, 45, 55	7	16.6

950 Howe Rd • Martinez, California 94553 • (925) 313-5800 • FAX (925) 313-0302
OTHER OFFICES: LOS ANGELES • HOUSTON • SOUTH CAROLINA
www.greggdrilling.com

DELTA CONSULTANTS

Site: 0843 ALAMEDA
Sounding: CPT-01

Engineer: J.WELSH
Date: 8/14/2008 08:21



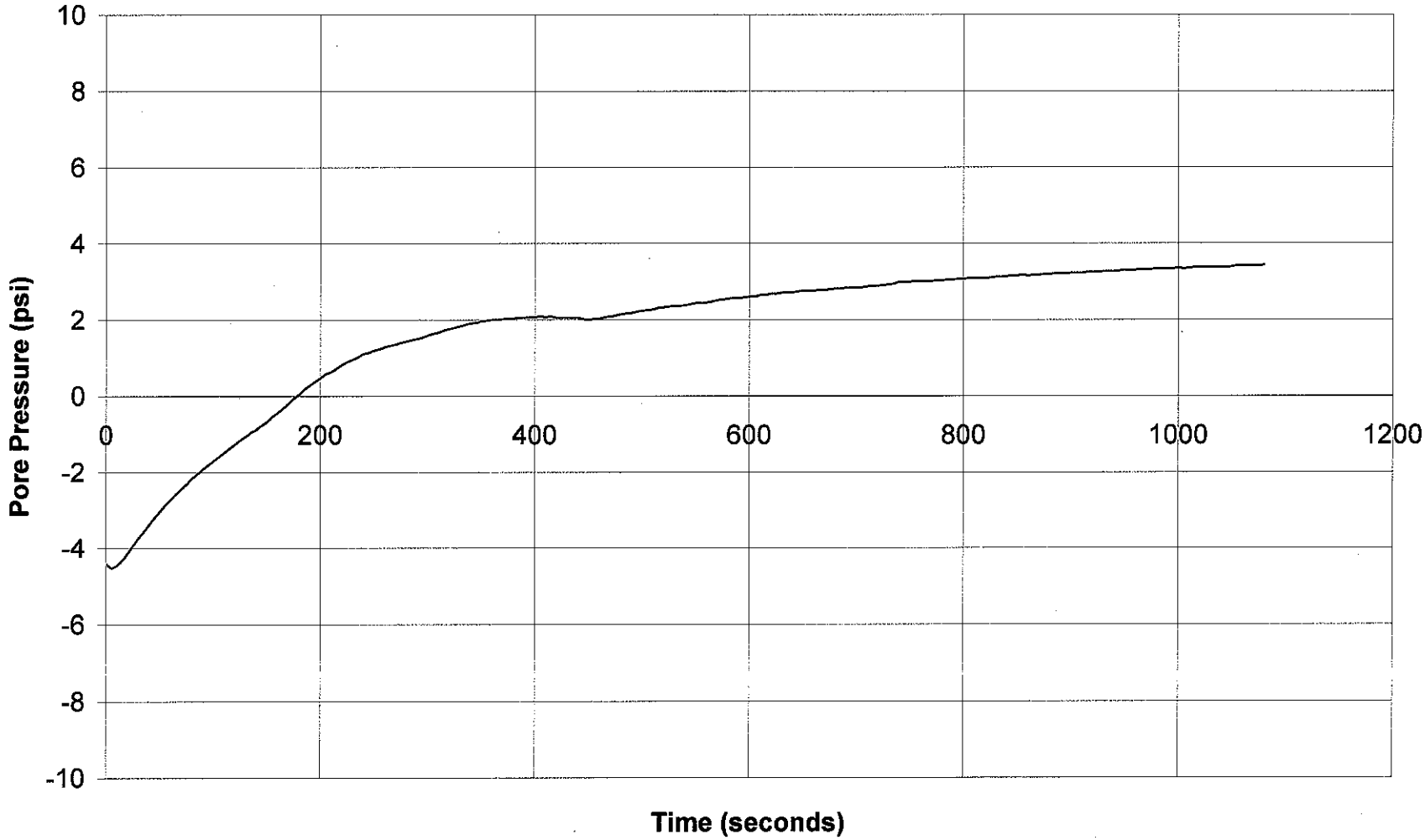
Max. Depth: 55.118 (ft)
Avg. Interval: 0.328 (ft)

SBT: Soil Behavior Type (Robertson 1990)

GREGG DRILLING & TESTING

Pore Pressure Dissipation Test

Sounding: CPT-01
Depth: 16.568
Site: 0843 ALAMEDA
Engineer: J. WELSH



APPENDIX CPT

Cone Penetration Testing Procedure (CPT)

Gregg Drilling carries out all Cone Penetration Tests (CPT) using an integrated electronic cone system, *Figure CPT*. The soundings were conducted using a 20 ton capacity cone with a tip area of 15 cm^2 and a friction sleeve area of 225 cm^2. The cone is designed with an equal end area friction sleeve and a tip end area ratio of 0.80.

The cone takes measurements of cone bearing (q_c), sleeve friction (f_s) and penetration pore water pressure (u_2) at 5-cm intervals during penetration to provide a nearly continuous hydrogeologic log. CPT data reduction and interpretation is performed in real time facilitating on-site decision making. The above mentioned parameters are stored on disk for further analysis and reference. All CPT soundings are performed in accordance with revised (2002) ASTM standards (D 5778-95).

The cone also contains a porous filter element located directly behind the cone tip (u_2), *Figure CPT*. It consists of porous plastic and is 5.0mm thick. The filter element is used to obtain penetration pore pressure as the cone is advanced as well as Pore Pressure Dissipation Tests (PPDT's) during appropriate pauses in penetration. It should be noted that prior to penetration, the element is fully saturated with silicon oil under vacuum pressure to ensure accurate and fast dissipation.

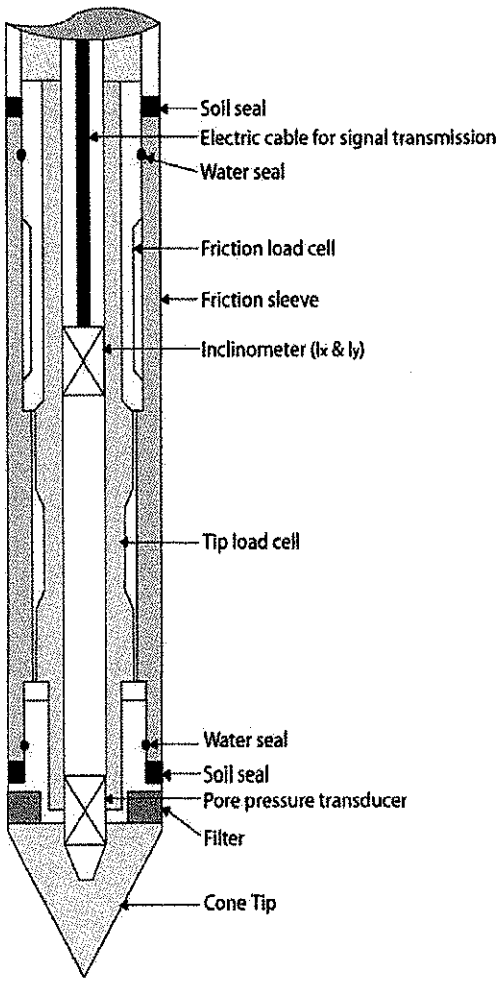


Figure CPT

When the soundings are complete, the test holes are grouted using a Gregg support rig. The grouting procedures generally consist of pushing a hollow CPT rod with a "knock out" plug to the termination depth of the test hole. Grout is then pumped under pressure as the tremie pipe is pulled from the hole. Disruption or further contamination to the site is therefore minimized.

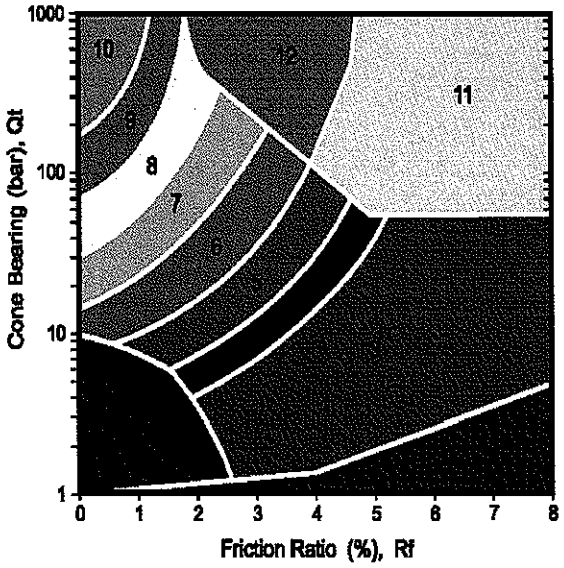
Cone Penetration Test Data & Interpretation

The Cone Penetration Test (CPT) data collected from your site are presented in graphical form in the attached report. The plots include interpreted Soil Behavior Type (SBT) based on the charts described by Robertson (1990). Typical plots display SBT based on the non-normalized charts of Robertson et al (1986). For CPT soundings extending greater than 50 feet, we recommend the use of the normalized charts of Robertson (1990) which can be displayed as SBTn, upon request. The report also includes spreadsheet output of computer calculations of basic interpretation in terms of SBT and SBTn and various geotechnical parameters using current published correlations based on the comprehensive review by Lunne, Robertson and Powell (1997), as well as recent updates by Professor Robertson. The interpretations are presented only as a guide for geotechnical use and should be carefully reviewed. Gregg Drilling & Testing Inc. do not warranty the correctness or the applicability of any of the geotechnical parameters interpreted by the software and do not assume any liability for any use of the results in any design or review. The user should be fully aware of the techniques and limitations of any method used in the software.

Some interpretation methods require input of the groundwater level to calculate vertical effective stress. An estimate of the in-situ groundwater level has been made based on field observations and/or CPT results, but should be verified by the user.

A summary of locations and depths is available in Table 1. Note that all penetration depths referenced in the data are with respect to the existing ground surface.

Note that it is not always possible to clearly identify a soil type based solely on q_t, f_s, and u_2. In these situations, experience, judgment, and an assessment of the pore pressure dissipation data should be used to infer the correct soil behavior type.



(After Robertson, et al., 1986)

ZONE		SBT
1		Sensitive, fine grained
2		Organic materials
3		Clay
4		Silty clay to clay
5		Clayey silt to silty clay
6		Sandy silt to clayey silt
7		Silty sand to sandy silt
8		Sand to silty sand
9		Sand
10		Gravely sand to sand
11		Very stiff fine grained*
12		Sand to clayey sand*

*over consolidated or cemented

Figure SBT

Cone Penetration Test (CPT) Interpretation

Gregg has recently updated their CPT interpretation and plotting software (2007). The software takes the CPT data and performs basic interpretation in terms of soil behavior type (SBT) and various geotechnical parameters using current published empirical correlations based on the comprehensive review by Lunne, Robertson and Powell (1997). The interpretation is presented in tabular format using MS Excel. The interpretations are presented only as a guide for geotechnical use and should be carefully reviewed. Gregg does not warranty the correctness or the applicability of any of the geotechnical parameters interpreted by the software and does not assume any liability for any use of the results in any design or review. The user should be fully aware of the techniques and limitations of any method used in the software.

The following provides a summary of the methods used for the interpretation. Many of the empirical correlations to estimate geotechnical parameters have constants that have a range of values depending on soil type, geologic origin and other factors. The software uses 'default' values that have been selected to provide, in general, conservatively low estimates of the various geotechnical parameters.

Input:

1. Units for display (Imperial or metric) (atm. pressure, pa = 0.96 tsf or 0.1 MPa)
2. Depth interval to average results,(ft or m). Data are collected at either 0.02 or 0.05m and can be averaged every 1, 3 or 5 intervals.
3. Elevation of ground surface (ft or m)
4. Depth to water table, z_w (ft or m) – input required
5. Net area ratio for cone, a (default to 0.80)
6. Relative Density constant, C_{Dr} (default to 350)
7. Young's modulus number for sands, α (default to 5)
8. Small strain shear modulus number
   a. for sands, S_G (default to 180 for SBT_n 5, 6, 7)
   b. for clays, C_G (default to 50 for SBT_n 1, 2, 3 & 4)
9. Undrained shear strength cone factor for clays, N_{kt} (default to 15)
10. Over Consolidation ratio number, k_{ocr} (default to 0.3)
11. Unit weight of water, (default to $\gamma_w = 62.4$ lb/ft^3 or 9.81 kN/m^3)

Column

1. Depth, z, (m) – CPT data is collected in meters
2. Depth (ft)
3. Cone resistance, q_c (tsf or MPa)
4. Sleeve friction, f_s (tsf or MPa)
5. Penetration pore pressure, u (psi or MPa), measured behind the cone (i.e. u_2)
6. Other – any additional data, if collected, e.g. electrical resistivity or UVIF
7. Total cone resistance, q_t (tsf or MPa) $q_t = q_c + u(1-a)$

8	Friction Ratio, R_f (%)	$R_f = (f_s/q_t) \times 100\%$
9	Soil Behavior Type (non-normalized), SBT	see note
10	Unit weight, γ (pcf or kN/m^3)	based on SBT, see note
11	Total overburden stress, σ_v (tsf)	$\sigma_{vo} = \gamma z$
12	Insitu pore pressure, u_o (tsf)	$u_o = \gamma_w (z - z_w)$
13	Effective overburden stress, σ'_{vo} (tsf)	$\sigma'_{vo} = \sigma_{vo} - u_o$
14	Normalized cone resistance, Q_{t1}	$Q_{t1} = (q_t - \sigma_{vo}) / \sigma'_{vo}$
15	Normalized friction ratio, F_r (%)	$F_r = f_s / (q_t - \sigma_{vo}) \times 100\%$
16	Normalized Pore Pressure ratio, B_q	$B_q = u - u_o / (q_t - \sigma_{vo})$
17	Soil Behavior Type (normalized), SBT_n	see note
18	SBT_n Index, I_c	see note
19	Normalized Cone resistance, Q_{tn} (n varies with Ic)	see note
20	Estimated permeability, k_{SBT} (cm/sec or ft/sec)	see note
21	Equivalent SPT N_{60}, blows/ft	see note
22	Equivalent SPT $(N_1)_{60}$ blows/ft	see note
23	Estimated Relative Density, D_r, (%)	see note
24	Estimated Friction Angle, ϕ', (degrees)	see note
25	Estimated Young's modulus, E_s (tsf)	see note
26	Estimated small strain Shear modulus, Go (tsf)	see note
27	Estimated Undrained shear strength, s_u (tsf)	see note
28	Estimated Undrained strength ratio	s_u/σ_v'
29	Estimated Over Consolidation ratio, OCR	see note

Notes:

1 Soil Behavior Type (non-normalized), SBT — Lunne et al. (1997) listed below

2 Unit weight, γ either constant at 119 pcf or based on Non-normalized SBT (Lunne et al., 1997 and table below)

3 Soil Behavior Type (Normalized), SBT_n — Lunne et al. (1997)

4 SBT_n Index, I_c — $I_c = ((3.47 - \log Q_{t1})^2 + (\log F_r + 1.22)^2)^{0.5}$

5 Normalized Cone resistance, Q_{tn} (n varies with Ic)

$Q_{tn} = ((q_t - \sigma_{vo})/pa)\ (pa/(\sigma'_{vo})^n$ and recalculate I_c, then iterate:

When $I_c < 1.64$, $n = 0.5$ (clean sand)
When $I_c > 3.30$, $n = 1.0$ (clays)
When $1.64 < I_c < 3.30$, $n = (I_c - 1.64)0.3 + 0.5$
Iterate until the change in n, $\Delta n < 0.01$

6 Estimated permeability, k_{SBT} (based on Normalized SBT_n)
(Lunne et al., 1997 and table below)

7 Equivalent SPT N_{60}, blows/ft Lunne et al. (1997)

$$\frac{(q_t/p_a)}{N_{60}} = 8.5\left(1 - \frac{I_c}{4.6}\right)$$

8 Equivalent SPT $(N_1)_{60}$ blows/ft $(N_1)_{60} = N_{60} C_N$,
where $C_N = (pa/\sigma'_{vo})^{0.5}$

9 Relative Density, D_r, (%) $D_r^2 = Q_{tn} / C_{Dr}$
Only SBT_n 5, 6, 7 & 8 *Show 'N/A' in zones 1, 2, 3, 4 & 9*

10 Friction Angle, ϕ', (degrees) $\tan\phi' = \frac{1}{2.68}\left[\log\left(\frac{q_c}{\sigma'_{vo}}\right) + 0.29\right]$
Only SBT_n 5, 6, 7 & 8 *Show 'N/A' in zones 1, 2, 3, 4 & 9*

11 Young's modulus, E_s $E_s = \alpha\, q_t$
Only SBT_n 5, 6, 7 & 8 *Show 'N/A' in zones 1, 2, 3, 4 & 9*

12 Small strain shear modulus, Go
a. $G_o = S_G (q_t\ \sigma'_{vo}\ pa)^{1/3}$ *For SBT_n 5, 6, 7*
b. $G_o = C_G\, q_t$ *For SBT_n 1, 2, 3& 4*
Show 'N/A' in zones 8 & 9

13 Undrained shear strength, s_u $s_u = (q_t - \sigma_{vo}) / N_{kt}$
Only SBT_n 1, 2, 3, 4 & 9 *Show 'N/A' in zones 5, 6, 7 & 8*

14 Over Consolidation ratio, OCR $OCR = k_{ocr}\, Q_{tl}$
Only SBT_n 1, 2, 3, 4 & 9 *Show 'N/A' in zones 5, 6, 7 & 8*

SBT Zones		**SBT_n Zones**	
The following updated and simplified SBT descriptions have been used in the software:			
1	sensitive fine grained	1	sensitive fine grained
2	organic soil	2	organic soil
3	clay	3	clay
4	clay & silty clay	4	clay & silty clay
5	clay & silty clay		
6	sandy silt & clayey silt		
7	silty sand & sandy silt	5	silty sand & sandy silt
8	sand & silty sand	6	sand & silty sand
9	sand		
10	sand	7	sand

11	very dense/stiff soil*	8	very dense/stiff soil*
12	very dense/stiff soil*	9	very dense/stiff soil*

*heavily overconsolidated and/or cemented

Track when soils fall with zones of same description and print that description (i.e. if soils fall only within SBT zones 4 & 5, print 'clays & silty clays')

Estimated Permeability (see Lunne et al., 1997)

SBT_n	Permeability (ft/sec)	(m/sec)
1	$3x\ 10^{-8}$	$1x\ 10^{-8}$
2	$3x\ 10^{-7}$	$1x\ 10^{-7}$
3	$1x\ 10^{-9}$	$3x\ 10^{-10}$
4	$3x\ 10^{-8}$	$1x\ 10^{-8}$
5	$3x\ 10^{-6}$	$1x\ 10^{-6}$
6	$3x\ 10^{-4}$	$1x\ 10^{-4}$
7	$3x\ 10^{-2}$	$1x\ 10^{-2}$
8	$3x\ 10^{-6}$	$1x\ 10^{-6}$
9	$1x\ 10^{-8}$	$3x\ 10^{-9}$

Estimated Unit Weight (see Lunne et al., 1997)

SBT	Approximate Unit Weight (lb/ft^3)	(kN/m^3)
1	111.4	17.5
2	79.6	12.5
3	111.4	17.5
4	114.6	18.0
5	114.6	18.0
6	114.6	18.0
7	117.8	18.5
8	120.9	19.0
9	124.1	19.5
10	127.3	20.0
11	130.5	20.5
12	120.9	19.0

APPENDIX PPDT

Pore Pressure Dissipation Tests (PPDT)

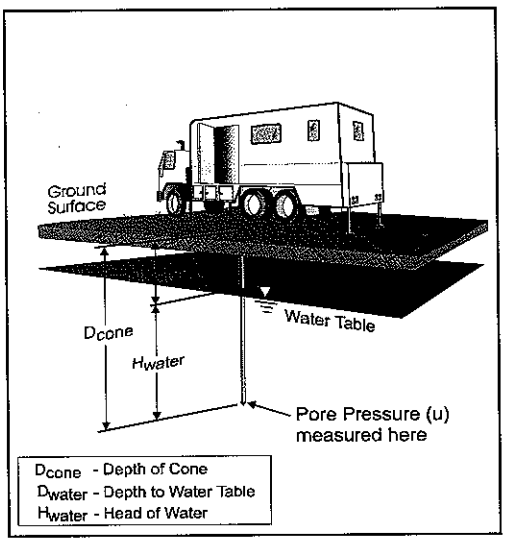
Pore Pressure Dissipation Tests (PPDT's) conducted at various intervals measured hydrostatic water pressures and determined the approximate depth of the ground water table. A PPDT is conducted when the cone is halted at specific intervals determined by the field representative. The variation of the penetration pore pressure (u) with time is measured behind the tip of the cone and recorded by a computer system.
Pore pressure dissipation data can be interpreted to provide estimates of:

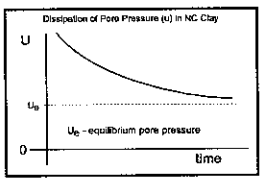
- Equilibrium piezometric pressure
- Phreatic Surface
- In situ horizontal coefficient of consolidation (c_h)
- In situ horizontal coefficient of permeability (k_h)

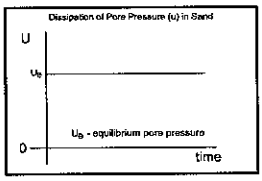
In order to correctly interpret the equilibrium piezometric pressure and/or the phreatic surface, the pore pressure must be monitored until such time as there is no variation in pore pressure with time, *Figure PPDT*. This time is commonly referred to as t_{100}, the point at which 100% of the excess pore pressure has dissipated.

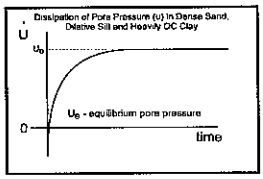
A complete reference on pore pressure dissipation tests is presented by Robertson et al. 1992.

A summary of the pore pressure dissipation tests is summarized in Table 1.









Water Table Calculation

$$D_{water} = D_{cone} - H_{water}$$

where $H_{water} = U_e$ (depth units)

Useful Conversion Factors: 1psi = 0.704m = 2.31 feet (water)
1tsf = 0.958 bar = 13.9 psi
1m = 3.28 feet

Figure PPDT

APPENDIX GWS

Groundwater Sampling (GWS)

Gregg Drilling conducts groundwater sampling using a Hydropunch® type groundwater sampler, *Figure GWS*. The groundwater sampler has a retrievable stainless steel or disposable PVC screen with steel drop off tip. This allows for samples to be taken at multiple depth intervals within the same sounding location. In areas of slower water recharge, provisions may be made to set temporary PVC well screens during sampling to allow the drill rig to advance to the next sample location while the groundwater is allowed to infiltrate.

The groundwater sampler operates by advancing 1 ¾ inch hollow push rods with the filter tip in a closed configuration to the base of the desired sampling interval. Once at the desired sample depth, the push rods are retracted; exposing the encased filter screen and allowing groundwater to infiltrate hydrostatically from the formation into the inlet screen. A small diameter bailer (approximately ½ or ¾ inch) is lowered through the push rods into the screen section for sample collection. The number of downhole trips with the bailer and time necessary to complete the sample collection at each depth interval is a function of sampling protocols, volume requirements, and the yield characteristics and storage capacity of the formation. Upon completion of sample collection, the push rods and sampler, with the exception of the PVC screen and steel drop off tip are retrieved to the ground surface, decontaminated and prepared for the next sampling event.

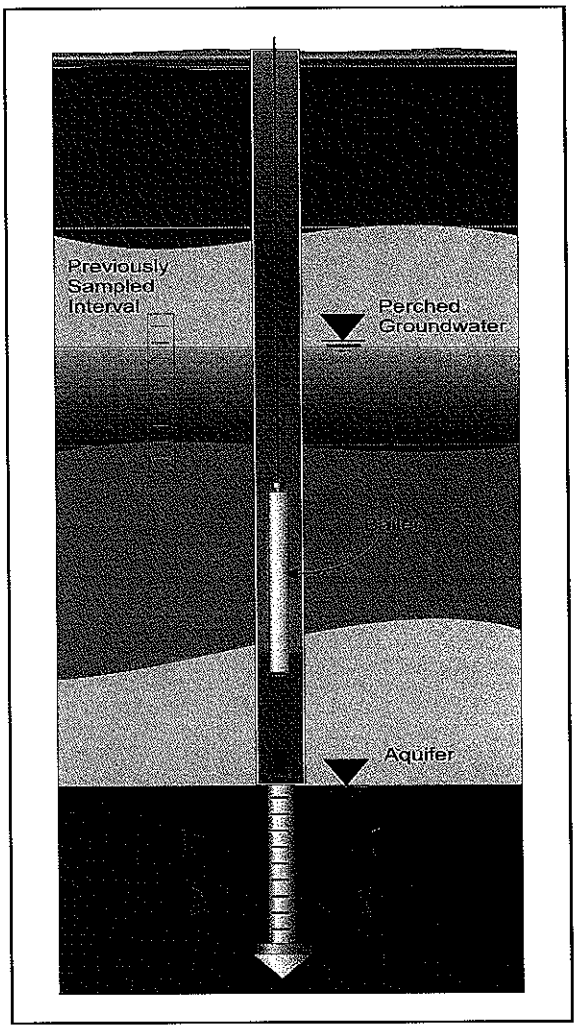


Figure GWS

A summary of the groundwater samples collected, including the sampling date, depth and location identification, is presented in Table 1 and the corresponding CPT plot.

For a detailed reference on direct push groundwater sampling, refer to Zemo et. al., 1992.

APPENDIX SS

Soil Sampling (SS)

Gregg Drilling uses a piston-type sampler to obtain relatively undisturbed soil samples without generating any soil cuttings, *Figure SS*. Two different types of samplers (12 and 18 inch) are used depending on the soil type and density. The soil sampler is initially pushed in a "closed" position to the desired sampling interval using a hydraulic rig. Keeping the sampler closed minimizes the potential of cross contamination caused by sloughing. The inner tip of the sampler is then retracted 12 inches (or 18 inches if using the longer sampler) leaving a hollow soil sampler with two inner 1¼ inch diameter by 6 inch or four 3 inch long soil sample tubes. If using the 18 inch sampler, two 1½ inch diameter by 6 inch long tubes will be exposed. The hollow sampler is then pushed in a locked "open" position to collect a soil sample. The filled sampler and push rods are then retrieved to the ground surface. Because the soil enters the sampler at a constant rate, the opportunity for 100% recovery is increased. For environmental analysis, the soil sample tube ends are sealed with Teflon and plastic caps. Often, a longer "split tube" can be used for geotechnical sampling.

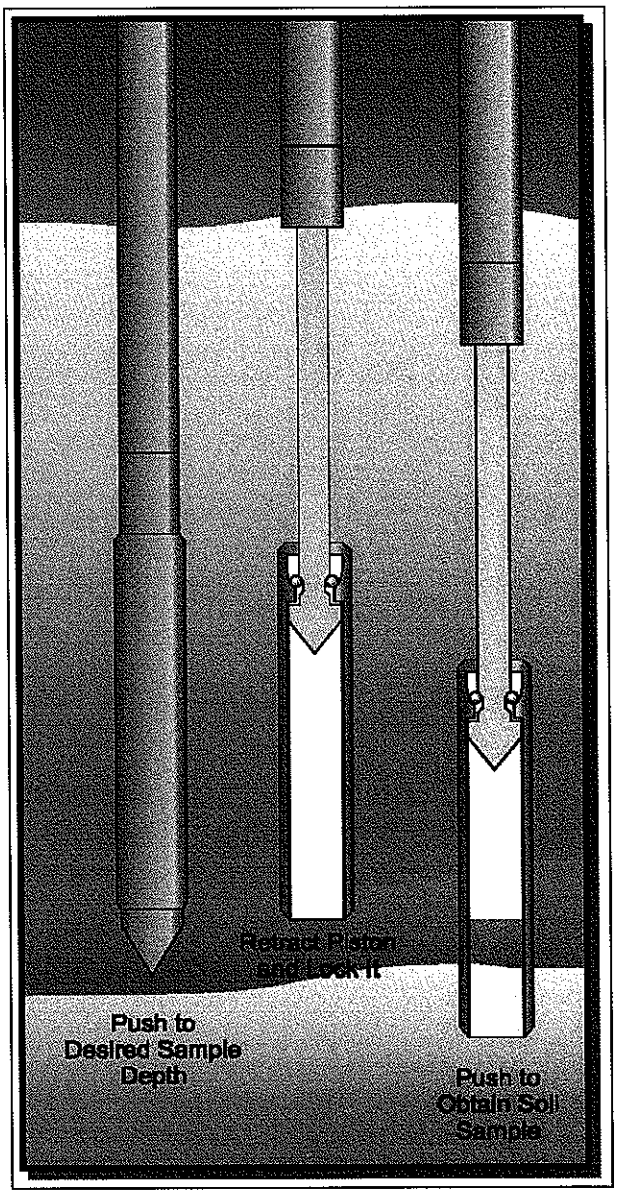


Figure SS

For a detailed reference on direct push soil sampling, refer to Robertson et al, 1998.

A summary of the soil samples collected, including the sampling date, depth and location identification, is presented in Table 1.

Bibliography

Lunne, T., Robertson, P.K. and Powell, J.J.M., "Cone Penetration Testing in Geotechnical Practice" E & FN Spon. ISBN 0 419 23750, 1997

Roberston, P.K., "Soil Classification using the Cone Penetration Test", Canadian Geotechnical Journal, Vol. 27, 1990 pp. 151-158.

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Robertson, P.K., R.G. Campanella, D. Gillespie and A. Rice, "Seismic CPT to Measure In-Situ Shear Wave Velocity", Journal of Geotechnical Engineering ASCE, Vol. 112, No. 8, 1986 pp. 791-803.

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Robertson, P.K., T. Lunne and J.J.M. Powell, "Geo-Environmental Application of Penetration Testing", Geotechnical Site Characterization, Robertson & Mayne (editors), 1998 Balkema, Rotterdam, ISBN 90 5410 939 4 pp 35-47.

Campanella, R.G. and I. Weemees, "Development and Use of An Electrical Resistivity Cone for Groundwater Contamination Studies", Canadian Geotechnical Journal, Vol. 27 No. 5, 1990 pp. 557-567.

DeGroot, D.J. and A.J. Lutenegger, "Reliability of Soil Gas Sampling and Characterization Techniques", International Site Characterization Conference - Atlanta, 1998.

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Zemo, D.A., T.A. Delfino, J.D. Gallinatti, V.A. Baker and L.R. Hilpert, "Field Comparison of Analytical Results from Discrete-Depth Groundwater Samplers" BAT EnviroProbe and QED HydroPunch, Sixth national Outdoor Action Conference, Las Vegas, Nevada Proceedings, 1992, pp 299-312.

Copies of ASTM Standards are available through www.astm.org

Attachment E

Site Investigation Analytical Reports

BC Laboratories, Inc.
Environmental Testing Laboratory Since 1949

Date of Report: 08/28/2008

Dennis Dettloff

Delta Environmental Consultants, Inc.
11050 White Rock Rd, Suite 110
Rancho Cordova, CA 95670

RE: 0843/2349
BC Work Order: 0810762

Enclosed are the results of analyses for samples received by the laboratory on 8/15/2008. 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

BC Laboratories, Inc.
4100 Atlas Court
Bakersfield, CA 93308
(661) 327-4911 (661) 327-1918 fax

ConocoPhillips Chain Of Custody Record

ConocoPhillips Site Manager: Terry Grayson

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

ConocoPhillips Work Order Number: 4510116945
ConocoPhillips Cost Object: 000010121422-00016
DATE: 8/14/08
PAGE: 1 of 1

SAMPLING COMPANY: Delta Consultants	Valid Value ID:
ADDRESS: 11050 White Rock Road, Suite 110 Rancho Cordova, CA 95670	
PROJECT CONTACT (Hardcopy or PDF Report to): Dennis Dettloff	
TELEPHONE: 916-503-1261	FAX: 916-638-8385
E-MAIL: ddettloff@deltaenv.com	
SAMPLER NAME(S) (Print): Joyce Welsh	CONSULTANT PROJECT NUMBER: C102349161

CONOCOPHILLIPS SITE NUMBER: 0843/2349	GLOBAL ID NO.: T0600102263
SITE ADDRESS (Street and City): 1629 Webster Street	CONOCOPHILLIPS SITE MANAGER: ~~Ted Meise~~ TERRY GRAYSON
Joyce Welsh	PHONE NO.: (916) 288-0154
E-MAIL: jwelsh@deltaenv.com	LAB USE ONLY: 08-107107

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 ☑

cc: ~~sdennig~~@deltaenv.com the lab results
JWELSH

* 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.	8260B - TPPH/BTEX/ MTBE/ DIPE/ ETBE/ TBA/ TAME/ 1,2-DCA/ EDB/ Ethanol	6010B - Total Lead
-1	CPT-1-7	8/14	1210	Soil	1	X	X
-2	CPT-1-25	"	1220	GW	1	X	
-3	CPT-1-35	"	1330	"	1	X	
-4	CPT-1-45	"	1410	"	4	X	
-5	CPT-1-55	"	1450	"	1	X	

Please note only 1 VOA for 25, 35, 55
4 VOA for 45 but was transferred from clean water bottle to VOA @ 2006

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

TEMPERATURE ON RECEIPT C°

CHK BY TMS
DISTRIBUTION WHITE, YELLOW
SHIPPED OUT

Relinquished by: (Signature)	Received by: (Signature)	Date:	Time:
[signature]	Ross Wickey BC LAB	8/15/08	1145
Ross Wickey 8/15/08	[signature]	8.15.08	1750
[signature] 8.15.08 2115	[signature]	8.15.08	2115

9/19/03 Revision

BORATORIES INC. **SAMPLE RECEIPT FORM** Rev. No. 12 06/24/08 Page 1 Of 1

mission #: 08-10702

SHIPPING INFORMATION

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

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: .97 Container: VOA Thermometer ID: 48

Temperature: A 3.8 °C / C 2.9 °C

Date/Time 8-15-08 2115

Analyst Init JNW

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	(	A (1)	A (1)	A 4	A (1)	( )	( )	( )	( )	( )
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	A									
PCB VIAL										
PLASTIC BAG										
FERROUS IRON										
ENCORE										

Comments:

Sample Numbering Completed By: JNW Date/Time: 8.16.08 0025

A = Actual / C = Corrected

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

Delta Environmental Consultants, Inc.
11050 White Rock Rd, Suite 110
Rancho Cordova, CA 95670

Project: 0843/2349
Project Number: [none]
Project Manager: Dennis Dettloff

Reported: 08/28/2008 16:08

Laboratory / Client Sample Cross Reference

Laboratory	Client Sample Information				
0810762-01	**COC Number:**	---	**Receive Date:**	08/15/2008 21:15	Delivery Work Order:
	Project Number:	0843/2349	**Sampling Date:**	08/14/2008 12:10	Global ID: T0600102263
	Sampling Location:	CPT-1	**Sample Depth:**	---	Matrix: SO
	Sampling Point:	CPT-1-7	**Sample Matrix:**	Solids	Sample QC Type (SACode): CS
	Sampled By:	DECR			Cooler ID:
0810762-02	**COC Number:**	---	**Receive Date:**	08/15/2008 21:15	Delivery Work Order:
	Project Number:	0843/2349	**Sampling Date:**	08/14/2008 12:20	Global ID: T0600102263
	Sampling Location:	CPT-1	**Sample Depth:**	---	Matrix: W
	Sampling Point:	CPT-1-25	**Sample Matrix:**	Water	Sample QC Type (SACode): CS
	Sampled By:	DECR			Cooler ID:
0810762-03	**COC Number:**	---	**Receive Date:**	08/15/2008 21:15	Delivery Work Order:
	Project Number:	0843/2349	**Sampling Date:**	08/14/2008 13:30	Global ID: T0600102263
	Sampling Location:	CPT-1	**Sample Depth:**	---	Matrix: W
	Sampling Point:	CPT-1-35	**Sample Matrix:**	Water	Sample QC Type (SACode): CS
	Sampled By:	DECR			Cooler ID:
0810762-04	**COC Number:**	---	**Receive Date:**	08/15/2008 21:15	Delivery Work Order:
	Project Number:	0843/2349	**Sampling Date:**	08/14/2008 14:10	Global ID: T0600102263
	Sampling Location:	CPT-1	**Sample Depth:**	---	Matrix: W
	Sampling Point:	CPT-1-45	**Sample Matrix:**	Water	Sample QC Type (SACode): CS
	Sampled By:	DECR			Cooler ID:
0810762-05	**COC Number:**	---	**Receive Date:**	08/15/2008 21:15	Delivery Work Order:
	Project Number:	0843/2349	**Sampling Date:**	08/14/2008 14:50	Global ID: T0600102263
	Sampling Location:	CPT-1	**Sample Depth:**	---	Matrix: W
	Sampling Point:	CPT-1-55	**Sample Matrix:**	Water	Sample QC Type (SACode): CS
	Sampled By:	DECR			Cooler ID:

Delta Environmental Consultants, Inc.
11050 White Rock Rd, Suite 110
Rancho Cordova, CA 95670

Project: 0843/2349
Project Number: [none]
Project Manager: Dennis Dettloff

Reported: 08/28/2008 16:08

Volatile Organic Analysis (EPA Method 8260)

BCL Sample ID: 0810762-01 | **Client Sample Name:** 0843/2349, CPT-1, CPT-1-7, 8/14/2008 12:10:00PM

Constituent	Result	Units	PQL	MDL	Method	Prep Date	Run Date/Time	Analyst	Instrument ID	Dilution	QC Batch ID	MB Bias	Lab Quals
Benzene	ND	mg/kg	0.0050		EPA-8260	08/22/08	08/23/08 18:44	LHS	MS-V2	1	BRH1267	ND	
1,2-Dibromoethane	ND	mg/kg	0.0050		EPA-8260	08/22/08	08/23/08 18:44	LHS	MS-V2	1	BRH1267	ND	
1,2-Dichloroethane	ND	mg/kg	0.0050		EPA-8260	08/22/08	08/23/08 18:44	LHS	MS-V2	1	BRH1267	ND	
Ethylbenzene	ND	mg/kg	0.0050		EPA-8260	08/22/08	08/23/08 18:44	LHS	MS-V2	1	BRH1267	ND	
Methyl t-butyl ether	ND	mg/kg	0.0050		EPA-8260	08/22/08	08/23/08 18:44	LHS	MS-V2	1	BRH1267	ND	
Toluene	ND	mg/kg	0.0050		EPA-8260	08/22/08	08/23/08 18:44	LHS	MS-V2	1	BRH1267	ND	
Total Xylenes	ND	mg/kg	0.010		EPA-8260	08/22/08	08/23/08 18:44	LHS	MS-V2	1	BRH1267	ND	
t-Amyl Methyl ether	ND	mg/kg	0.0050		EPA-8260	08/22/08	08/23/08 18:44	LHS	MS-V2	1	BRH1267	ND	
t-Butyl alcohol	ND	mg/kg	0.050		EPA-8260	08/22/08	08/23/08 18:44	LHS	MS-V2	1	BRH1267	ND	
Diisopropyl ether	ND	mg/kg	0.0050		EPA-8260	08/22/08	08/23/08 18:44	LHS	MS-V2	1	BRH1267	ND	
Ethanol	ND	mg/kg	1.0		EPA-8260	08/22/08	08/23/08 18:44	LHS	MS-V2	1	BRH1267	ND	
Ethyl t-butyl ether	ND	mg/kg	0.0050		EPA-8260	08/22/08	08/23/08 18:44	LHS	MS-V2	1	BRH1267	ND	
Total Purgeable Petroleum Hydrocarbons	ND	mg/kg	0.20		EPA-8260	08/22/08	08/23/08 18:44	LHS	MS-V2	1	BRH1267	ND	
1,2-Dichloroethane-d4 (Surrogate)	98.4	%	70 - 121 (LCL - UCL)		EPA-8260	08/22/08	08/23/08 18:44	LHS	MS-V2	1	BRH1267		
Toluene-d8 (Surrogate)	102	%	81 - 117 (LCL - UCL)		EPA-8260	08/22/08	08/23/08 18:44	LHS	MS-V2	1	BRH1267		
4-Bromofluorobenzene (Surrogate)	78.7	%	74 - 121 (LCL - UCL)		EPA-8260	08/22/08	08/23/08 18:44	LHS	MS-V2	1	BRH1267		

Delta Environmental Consultants, Inc.
11050 White Rock Rd, Suite 110
Rancho Cordova, CA 95670

Project: 0843/2349
Project Number: [none]
Project Manager: Dennis Dettloff

Reported: 08/28/2008 16:08

Total Concentrations (TTLC)

BCL Sample ID: 0810762-01 | **Client Sample Name:** 0843/2349, CPT-1, CPT-1-7, 8/14/2008 12:10:00PM

Constituent	Result	Units	PQL	MDL	Method	Prep Date	Run Date/Time	Analyst	Instrument ID	Dilution	QC Batch ID	MB Bias	Lab Quals
Lead	28	mg/kg	2.5		EPA-6010B	08/25/08	08/27/08 17:31	PPS	PE-OP1	0.980	BRH1548	ND	

Delta Environmental Consultants, Inc.
11050 White Rock Rd, Suite 110
Rancho Cordova, CA 95670

Project: 0843/2349
Project Number: [none]
Project Manager: Dennis Dettloff

Reported: 08/28/2008 16:08

Volatile Organic Analysis (EPA Method 8260)

BCL Sample ID: 0810762-02 | **Client Sample Name:** 0843/2349, CPT-1, CPT-1-25, 8/14/2008 12:20:00PM

Constituent	Result	Units	PQL	MDL	Method	Prep Date	Run Date/Time	Analyst	Instrument ID	Dilution	QC Batch ID	MB Bias	Lab Quals
Benzene	ND	ug/L	5.0		EPA-8260	08/20/08	08/21/08 00:09	mwb	HPCHEM	10	BRH1347	ND	A01
1,2-Dibromoethane	ND	ug/L	5.0		EPA-8260	08/20/08	08/21/08 00:09	mwb	HPCHEM	10	BRH1347	ND	A01
1,2-Dichloroethane	ND	ug/L	5.0		EPA-8260	08/20/08	08/21/08 00:09	mwb	HPCHEM	10	BRH1347	ND	A01
Ethylbenzene	ND	ug/L	5.0		EPA-8260	08/20/08	08/21/08 00:09	mwb	HPCHEM	10	BRH1347	ND	A01
Methyl t-butyl ether	21000	ug/L	120		EPA-8260	08/20/08	08/21/08 17:34	mwb	MS-V13	250	BRH1347	ND	A01
Toluene	ND	ug/L	5.0		EPA-8260	08/20/08	08/21/08 00:09	mwb	HPCHEM	10	BRH1347	ND	A01
Total Xylenes	ND	ug/L	10		EPA-8260	08/20/08	08/21/08 00:09	mwb	HPCHEM	10	BRH1347	ND	A01
t-Amyl Methyl ether	17	ug/L	5.0		EPA-8260	08/20/08	08/21/08 00:09	mwb	HPCHEM	10	BRH1347	ND	A01
t-Butyl alcohol	ND	ug/L	100		EPA-8260	08/20/08	08/21/08 00:09	mwb	HPCHEM	10	BRH1347	ND	A01
Diisopropyl ether	ND	ug/L	5.0		EPA-8260	08/20/08	08/21/08 00:09	mwb	HPCHEM	10	BRH1347	ND	A01
Ethanol	ND	ug/L	2500		EPA-8260	08/20/08	08/21/08 00:09	mwb	HPCHEM	10	BRH1347	ND	A01
Ethyl t-butyl ether	ND	ug/L	5.0		EPA-8260	08/20/08	08/21/08 00:09	mwb	HPCHEM	10	BRH1347	ND	A01
Total Purgeable Petroleum Hydrocarbons	6500	ug/L	500		EPA-8260	08/20/08	08/21/08 00:09	mwb	HPCHEM	10	BRH1347	ND	A01,A90
1,2-Dichloroethane-d4 (Surrogate)	103	%	76 - 114 (LCL - UCL)		EPA-8260	08/20/08	08/21/08 17:34	mwb	MS-V13	250	BRH1347		
1,2-Dichloroethane-d4 (Surrogate)	99.7	%	76 - 114 (LCL - UCL)		EPA-8260	08/20/08	08/21/08 00:09	mwb	HPCHEM	10	BRH1347		
Toluene-d8 (Surrogate)	97.7	%	88 - 110 (LCL - UCL)		EPA-8260	08/20/08	08/21/08 00:09	mwb	HPCHEM	10	BRH1347		
Toluene-d8 (Surrogate)	100	%	88 - 110 (LCL - UCL)		EPA-8260	08/20/08	08/21/08 17:34	mwb	MS-V13	250	BRH1347		
4-Bromofluorobenzene (Surrogate)	98.6	%	86 - 115 (LCL - UCL)		EPA-8260	08/20/08	08/21/08 00:09	mwb	HPCHEM	10	BRH1347		
4-Bromofluorobenzene (Surrogate)	99.3	%	86 - 115 (LCL - UCL)		EPA-8260	08/20/08	08/21/08 17:34	mwb	MS-V13	250	BRH1347		

Delta Environmental Consultants, Inc.
11050 White Rock Rd, Suite 110
Rancho Cordova, CA 95670

Project: 0843/2349
Project Number: [none]
Project Manager: Dennis Dettloff

Reported: 08/28/2008 16:08

Volatile Organic Analysis (EPA Method 8260)

BCL Sample ID: 0810762-03 | **Client Sample Name:** 0843/2349, CPT-1, CPT-1-35, 8/14/2008 1:30:00PM

Constituent	Result	Units	PQL	MDL	Method	Prep Date	Run Date/Time	Analyst	Instrument ID	Dilution	QC Batch ID	MB Bias	Lab Quals
Benzene	ND	ug/L	2.5		EPA-8260	08/20/08	08/21/08 17:51	mwb	MS-V13	5	BRH1347	ND	A01
1,2-Dibromoethane	ND	ug/L	2.5		EPA-8260	08/20/08	08/21/08 17:51	mwb	MS-V13	5	BRH1347	ND	A01
1,2-Dichloroethane	ND	ug/L	2.5		EPA-8260	08/20/08	08/21/08 17:51	mwb	MS-V13	5	BRH1347	ND	A01
Ethylbenzene	ND	ug/L	2.5		EPA-8260	08/20/08	08/21/08 17:51	mwb	MS-V13	5	BRH1347	ND	A01
Methyl t-butyl ether	260	ug/L	2.5		EPA-8260	08/20/08	08/21/08 17:51	mwb	MS-V13	5	BRH1347	ND	A01
Toluene	ND	ug/L	2.5		EPA-8260	08/20/08	08/21/08 17:51	mwb	MS-V13	5	BRH1347	ND	A01
Total Xylenes	ND	ug/L	5.0		EPA-8260	08/20/08	08/21/08 17:51	mwb	MS-V13	5	BRH1347	ND	A01
t-Amyl Methyl ether	ND	ug/L	2.5		EPA-8260	08/20/08	08/21/08 17:51	mwb	MS-V13	5	BRH1347	ND	A01
t-Butyl alcohol	ND	ug/L	50		EPA-8260	08/20/08	08/21/08 17:51	mwb	MS-V13	5	BRH1347	ND	A01
Diisopropyl ether	ND	ug/L	2.5		EPA-8260	08/20/08	08/21/08 17:51	mwb	MS-V13	5	BRH1347	ND	A01
Ethanol	ND	ug/L	1200		EPA-8260	08/20/08	08/21/08 17:51	mwb	MS-V13	5	BRH1347	ND	A01
Ethyl t-butyl ether	ND	ug/L	2.5		EPA-8260	08/20/08	08/21/08 17:51	mwb	MS-V13	5	BRH1347	ND	A01
Total Purgeable Petroleum Hydrocarbons	ND	ug/L	250		EPA-8260	08/20/08	08/21/08 17:51	mwb	MS-V13	5	BRH1347	ND	A01
1,2-Dichloroethane-d4 (Surrogate)	106	%	76 - 114 (LCL - UCL)		EPA-8260	08/20/08	08/21/08 17:51	mwb	MS-V13	5	BRH1347		
Toluene-d8 (Surrogate)	91.6	%	88 - 110 (LCL - UCL)		EPA-8260	08/20/08	08/21/08 17:51	mwb	MS-V13	5	BRH1347		
4-Bromofluorobenzene (Surrogate)	99.3	%	86 - 115 (LCL - UCL)		EPA-8260	08/20/08	08/21/08 17:51	mwb	MS-V13	5	BRH1347		

Delta Environmental Consultants, Inc.
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Rancho Cordova, CA 95670

Project: 0843/2349
Project Number: [none]
Project Manager: Dennis Dettloff

Reported: 08/28/2008 16:08

Volatile Organic Analysis (EPA Method 8260)

BCL Sample ID: 0810762-04 | **Client Sample Name:** 0843/2349, CPT-1, CPT-1-45, 8/14/2008 2:10:00PM

Constituent	Result	Units	PQL	MDL	Method	Prep Date	Run Date/Time	Analyst	Instrument ID	Dilution	QC Batch ID	MB Bias	Lab Quals
Benzene	ND	ug/L	0.50		EPA-8260	08/20/08	08/22/08 15:17	mwb	MS-V13	1	BRH1347	ND	
1,2-Dibromoethane	ND	ug/L	0.50		EPA-8260	08/20/08	08/22/08 15:17	mwb	MS-V13	1	BRH1347	ND	
1,2-Dichloroethane	ND	ug/L	0.50		EPA-8260	08/20/08	08/22/08 15:17	mwb	MS-V13	1	BRH1347	ND	
Ethylbenzene	ND	ug/L	0.50		EPA-8260	08/20/08	08/22/08 15:17	mwb	MS-V13	1	BRH1347	ND	
Methyl t-butyl ether	1.0	ug/L	0.50		EPA-8260	08/20/08	08/22/08 15:17	mwb	MS-V13	1	BRH1347	ND	
Toluene	ND	ug/L	0.50		EPA-8260	08/20/08	08/22/08 15:17	mwb	MS-V13	1	BRH1347	ND	
Total Xylenes	ND	ug/L	1.0		EPA-8260	08/20/08	08/22/08 15:17	mwb	MS-V13	1	BRH1347	ND	
t-Amyl Methyl ether	ND	ug/L	0.50		EPA-8260	08/20/08	08/22/08 15:17	mwb	MS-V13	1	BRH1347	ND	
t-Butyl alcohol	ND	ug/L	10		EPA-8260	08/20/08	08/22/08 15:17	mwb	MS-V13	1	BRH1347	ND	
Diisopropyl ether	ND	ug/L	0.50		EPA-8260	08/20/08	08/22/08 15:17	mwb	MS-V13	1	BRH1347	ND	
Ethanol	ND	ug/L	250		EPA-8260	08/20/08	08/22/08 15:17	mwb	MS-V13	1	BRH1347	ND	
Ethyl t-butyl ether	ND	ug/L	0.50		EPA-8260	08/20/08	08/22/08 15:17	mwb	MS-V13	1	BRH1347	ND	
Total Purgeable Petroleum Hydrocarbons	ND	ug/L	50		EPA-8260	08/20/08	08/22/08 15:17	mwb	MS-V13	1	BRH1347	ND	
1,2-Dichloroethane-d4 (Surrogate)	109	%	76 - 114 (LCL - UCL)		EPA-8260	08/20/08	08/22/08 15:17	mwb	MS-V13	1	BRH1347		
Toluene-d8 (Surrogate)	96.8	%	88 - 110 (LCL - UCL)		EPA-8260	08/20/08	08/22/08 15:17	mwb	MS-V13	1	BRH1347		
4-Bromofluorobenzene (Surrogate)	101	%	86 - 115 (LCL - UCL)		EPA-8260	08/20/08	08/22/08 15:17	mwb	MS-V13	1	BRH1347		

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Project: 0843/2349
Project Number: [none]
Project Manager: Dennis Dettloff

Reported: 08/28/2008 16:08

Volatile Organic Analysis (EPA Method 8260)

BCL Sample ID: 0810762-05 | **Client Sample Name:** 0843/2349, CPT-1, CPT-1-55, 8/14/2008 2:50:00PM

Constituent	Result	Units	PQL	MDL	Method	Prep Date	Run Date/Time	Analyst	Instrument ID	Dilution	QC Batch ID	MB Bias	Lab Quals
Benzene	ND	ug/L	1.0		EPA-8260	08/20/08	08/25/08 11:21	mwb	MS-V13	2	BRH1347	ND	A01,Z1
1,2-Dibromoethane	ND	ug/L	1.0		EPA-8260	08/20/08	08/25/08 11:21	mwb	MS-V13	2	BRH1347	ND	A01,Z1
1,2-Dichloroethane	ND	ug/L	1.0		EPA-8260	08/20/08	08/25/08 11:21	mwb	MS-V13	2	BRH1347	ND	A01,Z1
Ethylbenzene	ND	ug/L	1.0		EPA-8260	08/20/08	08/25/08 11:21	mwb	MS-V13	2	BRH1347	ND	A01,Z1
Methyl t-butyl ether	ND	ug/L	1.0		EPA-8260	08/20/08	08/25/08 11:21	mwb	MS-V13	2	BRH1347	ND	A01,Z1
Toluene	ND	ug/L	1.0		EPA-8260	08/20/08	08/25/08 11:21	mwb	MS-V13	2	BRH1347	ND	A01,Z1
Total Xylenes	ND	ug/L	2.0		EPA-8260	08/20/08	08/25/08 11:21	mwb	MS-V13	2	BRH1347	ND	A01,Z1
t-Amyl Methyl ether	ND	ug/L	1.0		EPA-8260	08/20/08	08/25/08 11:21	mwb	MS-V13	2	BRH1347	ND	A01,Z1
t-Butyl alcohol	ND	ug/L	20		EPA-8260	08/20/08	08/25/08 11:21	mwb	MS-V13	2	BRH1347	ND	A01,Z1
Diisopropyl ether	ND	ug/L	1.0		EPA-8260	08/20/08	08/25/08 11:21	mwb	MS-V13	2	BRH1347	ND	A01,Z1
Ethanol	ND	ug/L	500		EPA-8260	08/20/08	08/25/08 11:21	mwb	MS-V13	2	BRH1347	ND	A01,Z1
Ethyl t-butyl ether	ND	ug/L	1.0		EPA-8260	08/20/08	08/25/08 11:21	mwb	MS-V13	2	BRH1347	ND	A01,Z1
Total Purgeable Petroleum Hydrocarbons	ND	ug/L	100		EPA-8260	08/20/08	08/25/08 11:21	mwb	MS-V13	2	BRH1347	ND	A01,Z1
1,2-Dichloroethane-d4 (Surrogate)	104	%	76 - 114 (LCL - UCL)		EPA-8260	08/20/08	08/25/08 11:21	mwb	MS-V13	2	BRH1347		
Toluene-d8 (Surrogate)	91.2	%	88 - 110 (LCL - UCL)		EPA-8260	08/20/08	08/25/08 11:21	mwb	MS-V13	2	BRH1347		
4-Bromofluorobenzene (Surrogate)	97.7	%	86 - 115 (LCL - UCL)		EPA-8260	08/20/08	08/25/08 11:21	mwb	MS-V13	2	BRH1347		

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Project: 0843/2349
Project Number: [none]
Project Manager: Dennis Dettloff

Reported: 08/28/2008 16:08

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	BRH1267	Matrix Spike	0809520-65	0	0.12004	0.12500	mg/kg		96.0		70 - 130	
		Matrix Spike Duplicate	0809520-65	0	0.11954	0.12500	mg/kg	0.4	95.6	20	70 - 130	
Toluene	BRH1267	Matrix Spike	0809520-65	0	0.11724	0.12500	mg/kg		93.8		70 - 130	
		Matrix Spike Duplicate	0809520-65	0	0.11600	0.12500	mg/kg	1.1	92.8	20	70 - 130	
1,2-Dichloroethane-d4 (Surrogate)	BRH1267	Matrix Spike	0809520-65	ND	0.047136	0.050000	mg/kg		94.3		70 - 121	
		Matrix Spike Duplicate	0809520-65	ND	0.045524	0.050000	mg/kg		91.0		70 - 121	
Toluene-d8 (Surrogate)	BRH1267	Matrix Spike	0809520-65	ND	0.050234	0.050000	mg/kg		100		81 - 117	
		Matrix Spike Duplicate	0809520-65	ND	0.050180	0.050000	mg/kg		100		81 - 117	
4-Bromofluorobenzene (Surrogate)	BRH1267	Matrix Spike	0809520-65	ND	0.045410	0.050000	mg/kg		90.8		74 - 121	
		Matrix Spike Duplicate	0809520-65	ND	0.047177	0.050000	mg/kg		94.4		74 - 121	
Benzene	BRH1347	Matrix Spike	0810740-06	127.39	150.64	25.000	ug/L		93.0		70 - 130	A03
		Matrix Spike Duplicate	0810740-06	127.39	132.49	25.000	ug/L	128	20.4	20	70 - 130	A03
Toluene	BRH1347	Matrix Spike	0810740-06	143.92	155.68	25.000	ug/L		47.0		70 - 130	A03
		Matrix Spike Duplicate	0810740-06	143.92	141.91	25.000	ug/L		-8.0	20	70 - 130	A03
1,2-Dichloroethane-d4 (Surrogate)	BRH1347	Matrix Spike	0810740-06	ND	10.330	10.000	ug/L		103		76 - 114	
		Matrix Spike Duplicate	0810740-06	ND	9.7200	10.000	ug/L		97.2		76 - 114	
Toluene-d8 (Surrogate)	BRH1347	Matrix Spike	0810740-06	ND	9.9300	10.000	ug/L		99.3		88 - 110	
		Matrix Spike Duplicate	0810740-06	ND	9.9900	10.000	ug/L		99.9		88 - 110	
4-Bromofluorobenzene (Surrogate)	BRH1347	Matrix Spike	0810740-06	ND	9.8100	10.000	ug/L		98.1		86 - 115	
		Matrix Spike Duplicate	0810740-06	ND	9.4900	10.000	ug/L		94.9		86 - 115	

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Project: 0843/2349
Project Number: [none]
Project Manager: Dennis Dettloff

Reported: 08/28/2008 16:08

Total Concentrations (TTLC)

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
Lead	BRH1548	Duplicate	0810762-01	28.150	38.787		mg/kg	31.8		20		Q01
		Matrix Spike	0810762-01	28.150	99.694	98.039	mg/kg		73.0		75 - 125	Q03
		Matrix Spike Duplicate	0810762-01	28.150	101.02	98.039	mg/kg	1.8	74.3	20	75 - 125	Q03

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Project: 0843/2349
Project Number: [none]
Project Manager: Dennis Dettloff

Reported: 08/28/2008 16:08

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	BRH1267	BRH1267-BS1	LCS	0.11602	0.12500	0.0050	mg/kg	92.8		70 - 130		
Toluene	BRH1267	BRH1267-BS1	LCS	0.12006	0.12500	0.0050	mg/kg	96.0		70 - 130		
1,2-Dichloroethane-d4 (Surrogate)	BRH1267	BRH1267-BS1	LCS	0.045791	0.050000		mg/kg	91.6		70 - 121		
Toluene-d8 (Surrogate)	BRH1267	BRH1267-BS1	LCS	0.052141	0.050000		mg/kg	104		81 - 117		
4-Bromofluorobenzene (Surrogate)	BRH1267	BRH1267-BS1	LCS	0.046542	0.050000		mg/kg	93.1		74 - 121		
Benzene	BRH1347	BRH1347-BS1	LCS	26.080	25.000	0.50	ug/L	104		70 - 130		
Toluene	BRH1347	BRH1347-BS1	LCS	27.130	25.000	0.50	ug/L	109		70 - 130		
1,2-Dichloroethane-d4 (Surrogate)	BRH1347	BRH1347-BS1	LCS	9.8100	10.000		ug/L	98.1		76 - 114		
Toluene-d8 (Surrogate)	BRH1347	BRH1347-BS1	LCS	9.8500	10.000		ug/L	98.5		88 - 110		
4-Bromofluorobenzene (Surrogate)	BRH1347	BRH1347-BS1	LCS	9.1600	10.000		ug/L	91.6		86 - 115		

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Project: 0843/2349
Project Number: [none]
Project Manager: Dennis Dettloff

Reported: 08/28/2008 16:08

Total Concentrations (TTLC)

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
Lead	BRH1548	BRH1548-BS1	LCS	108.79	100.00	2.5	mg/kg	109		75 - 125		

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Project: 0843/2349
Project Number: [none]
Project Manager: Dennis Dettloff

Reported: 08/28/2008 16:08

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	BRH1267	BRH1267-BLK1	ND	mg/kg	0.0050		
1,2-Dibromoethane	BRH1267	BRH1267-BLK1	ND	mg/kg	0.0050		
1,2-Dichloroethane	BRH1267	BRH1267-BLK1	ND	mg/kg	0.0050		
Ethylbenzene	BRH1267	BRH1267-BLK1	ND	mg/kg	0.0050		
Methyl t-butyl ether	BRH1267	BRH1267-BLK1	ND	mg/kg	0.0050		
Toluene	BRH1267	BRH1267-BLK1	ND	mg/kg	0.0050		
Total Xylenes	BRH1267	BRH1267-BLK1	ND	mg/kg	0.010		
t-Amyl Methyl ether	BRH1267	BRH1267-BLK1	ND	mg/kg	0.0050		
t-Butyl alcohol	BRH1267	BRH1267-BLK1	ND	mg/kg	0.050		
Diisopropyl ether	BRH1267	BRH1267-BLK1	ND	mg/kg	0.0050		
Ethanol	BRH1267	BRH1267-BLK1	ND	mg/kg	1.0		
Ethyl t-butyl ether	BRH1267	BRH1267-BLK1	ND	mg/kg	0.0050		
Total Purgeable Petroleum Hydrocarbons	BRH1267	BRH1267-BLK1	ND	mg/kg	0.20		
1,2-Dichloroethane-d4 (Surrogate)	BRH1267	BRH1267-BLK1	94.3	%	70 - 121 (LCL - UCL)		
Toluene-d8 (Surrogate)	BRH1267	BRH1267-BLK1	99.8	%	81 - 117 (LCL - UCL)		
4-Bromofluorobenzene (Surrogate)	BRH1267	BRH1267-BLK1	88.4	%	74 - 121 (LCL - UCL)		
Benzene	BRH1347	BRH1347-BLK1	ND	ug/L	0.50		
1,2-Dibromoethane	BRH1347	BRH1347-BLK1	ND	ug/L	0.50		
1,2-Dichloroethane	BRH1347	BRH1347-BLK1	ND	ug/L	0.50		
Ethylbenzene	BRH1347	BRH1347-BLK1	ND	ug/L	0.50		
Methyl t-butyl ether	BRH1347	BRH1347-BLK1	ND	ug/L	0.50		
Toluene	BRH1347	BRH1347-BLK1	ND	ug/L	0.50		
Total Xylenes	BRH1347	BRH1347-BLK1	ND	ug/L	1.0		
t-Amyl Methyl ether	BRH1347	BRH1347-BLK1	ND	ug/L	0.50		

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Project: 0843/2349
Project Number: [none]
Project Manager: Dennis Dettloff

Reported: 08/28/2008 16:08

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
t-Butyl alcohol	BRH1347	BRH1347-BLK1	ND	ug/L	10		
Diisopropyl ether	BRH1347	BRH1347-BLK1	ND	ug/L	0.50		
Ethanol	BRH1347	BRH1347-BLK1	ND	ug/L	250		
Ethyl t-butyl ether	BRH1347	BRH1347-BLK1	ND	ug/L	0.50		
Total Purgeable Petroleum Hydrocarbons	BRH1347	BRH1347-BLK1	ND	ug/L	50		
1,2-Dichloroethane-d4 (Surrogate)	BRH1347	BRH1347-BLK1	102	%	76 - 114 (LCL - UCL)		
Toluene-d8 (Surrogate)	BRH1347	BRH1347-BLK1	99.7	%	88 - 110 (LCL - UCL)		
4-Bromofluorobenzene (Surrogate)	BRH1347	BRH1347-BLK1	98.5	%	86 - 115 (LCL - UCL)		

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Project: 0843/2349
Project Number: [none]
Project Manager: Dennis Dettloff

Reported: 08/28/2008 16:08

Total Concentrations (TTLC)

Quality Control Report - Method Blank Analysis

Constituent	Batch ID	QC Sample ID	MB Result	Units	PQL	MDL	Lab Quals
Lead	BRH1548	BRH1548-BLK1	ND	mg/kg	2.5		

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Project: 0843/2349
Project Number: [none]
Project Manager: Dennis Dettloff

Reported: 08/28/2008 16:08

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.
A03	The sample concentration is more than 4 times the spike level.
A90	TPPH does not exhibit a "gasoline" pattern. TPPH is entirely due to MTBE.
Q01	Sample precision is not within the control limits.
Q03	Matrix spike recovery(s) is(are) not within the control limits.
Z1	Only one voa provided.

BC Laboratories, Inc.
Environmental Testing Laboratory Since 1949

Date of Report: 10/20/2008

Dennis Dettloff

Delta Environmental Consultants, Inc.
11050 White Rock Rd, Suite 110
Rancho Cordova, CA 95670

RE: 0843/2349
BC Work Order: 0810762
Invoice ID: B049985

Enclosed are the results of analyses for samples received by the laboratory on 8/15/2008. 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 Consultants, Inc.
11050 White Rock Rd, Suite 110
Rancho Cordova, CA 95670

Project: 0843/2349
Project Number: [none]
Project Manager: Dennis Dettloff

Reported: 10/20/2008 12:22

Laboratory / Client Sample Cross Reference

Laboratory	Client Sample Information				
0810762-01	**COC Number:**	---	**Receive Date:**	08/15/2008 21:15	Delivery Work Order:
	Project Number:	0843/2349	**Sampling Date:**	08/14/2008 12:10	Global ID: T0600102263
	Sampling Location:	CPT-1	**Sample Depth:**	---	Matrix: SO
	Sampling Point:	CPT-1-7	**Sample Matrix:**	Solids	Sample QC Type (SACode): CS
	Sampled By:	DECR			Cooler ID:

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Delta Environmental Consultants, Inc.
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Project: 0843/2349
Project Number: [none]
Project Manager: Dennis Dettloff

Reported: 10/20/2008 12:22

WET Test (STLC)

BCL Sample ID: 0810762-01 | **Client Sample Name:** 0843/2349, CPT-1, CPT-1-7, 8/14/2008 12:10:00PM

Constituent	Result	Units	PQL	MDL	Method	Prep Date	Run Date/Time	Analyst	Instrument ID	Dilution	QC Batch ID	MB Bias	Lab Quals
Lead	0.67	mg/L	0.50		EPA-6010B	10/09/08	10/10/08 11:51	ARD	PE-OP1	1	BRJ0657	ND	

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Project: 0843/2349
Project Number: [none]
Project Manager: Dennis Dettloff

Reported: 10/20/2008 12:22

WET Test (STLC)

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
Lead	BRJ0657	Duplicate	0812141-09	0.10257	ND		mg/L			20		
		Matrix Spike	0812141-09	0.10257	20.407	20.408	mg/L		99.5		75 - 125	
		Matrix Spike Duplicate	0812141-09	0.10257	20.438	20.408	mg/L	0.1	99.6	20	75 - 125	

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Project: 0843/2349
Project Number: [none]
Project Manager: Dennis Dettloff

Reported: 10/20/2008 12:22

WET Test (STLC)

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
Lead	BRJ0657	BRJ0657-BS1	LCS	20.828	20.000	0.50	mg/L	104		85 - 115		

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Project: 0843/2349
Project Number: [none]
Project Manager: Dennis Dettloff

Reported: 10/20/2008 12:22

WET Test (STLC)

Quality Control Report - Method Blank Analysis

Constituent	Batch ID	QC Sample ID	MB Result	Units	PQL	MDL	Lab Quals
Lead	BRJ0657	BRJ0657-BLK1	ND	mg/L	0.50		

Delta Environmental Consultants, Inc. 11050 White Rock Rd, Suite 110 Rancho Cordova, CA 95670	Project: 0843/2349 Project Number: [none] Project Manager: Dennis Dettloff	**Reported:** 10/20/2008 12:22

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