

Chevron Environmental  
Management Company  
6001 Bollinger Canyon Rd, K2236  
P.O. Box 6012  
San Ramon, CA 94583-2324  
Tel 925-842-9559  
Fax 925-842-8370

Dana Thurman  
Project Manager

**RECEIVED**

*By dehloptoxic at 1:54 pm, Mar 01, 2007*

February 28, 2007

(date)

**ChevronTexaco**

Alameda County Health Care Services  
1131 Harbor Bay Parkway, Suite 250  
Alameda, CA 94502-6577

Re: Chevron Service Station # 9-1583

Address: 5509 Martin Luther King Jr., Way, Oakland, CA

I have reviewed the attached report titled Subsurface Investigation Report  
and dated February 28, 2007.

I agree with the conclusions and recommendations presented in the referenced report. The information in this report is accurate to the best of my knowledge and all local Agency/Regional Board guidelines have been followed. This report was prepared by Cambria Environmental Technology, Inc., upon whose assistance and advice I have relied.

This letter is submitted pursuant to the requirements of California Water Code Section 13267(b)(1) and the regulating implementation entitled Appendix A pertaining thereto.

I declare under penalty of perjury that the foregoing is true and correct.

Sincerely,



Dana Thurman  
Project Manager

Enclosure: Report

February 28, 2007

Mr. Barney Chan  
Alameda County Health Care Services Agency  
1131 Harbor Bay Parkway  
Alameda, CA 94502

Re: **Subsurface Investigation Report**  
Chevron Service Station 9-1583  
5509 Martin Luther King Jr. Way  
Oakland, California

Dear Mr. Chan:



Cambria Environmental Technology, Inc. (Cambria) is submitting this *Subsurface Investigation Report* on behalf of Chevron Environmental Management Company (Chevron) for the site referenced above. The work was performed in accordance with Cambria's October 11, 2006 *Subsurface Investigation Workplan* and approved by the ACHCS in a letter dated November 7, 2006 (Attachment A). The site background, details of the investigation and Cambria's conclusions and recommendations are presented below.

## SITE BACKGROUND

**Site Description:** The site is located on the northwest corner of Martin Luther King, Jr. Way and 55<sup>th</sup> Street in Oakland, California (Figure 1), at an elevation of approximately 85 feet above mean sea level (msl). The surrounding topography slopes towards the west. Land use in the vicinity of the site is mixed commercial, residential, and transportation. Prior to November 1998, the service station facilities included a station building, service islands, fuel and used-oil underground storage tanks (USTs), and product lines. The used-oil UST and hydraulic hoists in the service bays were removed in 1995 and 1998, respectively. Since November 1998, the site has been utilized as a gasoline fueling station only. Locations of former and current site features are indicated on Figure 2.

**Site Hydrogeology:** The site is located on the East Bay Plain, approximately 1.5 miles east of the Outer Harbor on the eastern shore of San Francisco Bay, and approximately 2 miles north of Lake Merritt. The site is a relatively flat lot approximately 85 msl. As mapped by Helley and others (1979, Flatland Deposits of the San Francisco Bay Region, California: U.S. Geological Survey Professional Paper 943), soil in the vicinity consists of Pleistocene beach and dune sand deposits (Merritt Sand) of loose, well sorted fine to medium sand. The nearest surface water is the San Francisco Bay.

**Cambria  
Environmental  
Technology, Inc.**

2000 Opportunity Drive  
Suite 110  
Roseville, CA 95678  
Tel (916) 677-3407  
Fax (916) 677-3687

The site surface is paved with cement and asphalt from approximately 2 to 8 inches thick. Based on a review of the subsurface materials encountered during soil boring installations, the site consists of sandy silt to clay from beneath the surface extending between 8 and 10 fbg.

Depth to groundwater beneath the site has historically ranged from approximately 6.5 to 14 fbg. Based on historical monitoring data, groundwater flow beneath the site fluctuates between a northeast and southeast direction.

## PREVIOUS INVESTIGATIONS



**1983 Subsurface Investigation:** In December 1983, Gettler-Ryan, Inc. (G-R) advanced three on-site soil borings and completed the borings as monitoring wells MW-1 through MW-3. The borings were drilled to a depth of 21 fbg. Groundwater was encountered at depths ranging from 13 to 16 fbg. Although reports indicate these wells were installed in response to a suspected leak, no record exists of soil samples being collected and analyzed from MW-1 through MW-3.

**1989 Product Piping Upgrade:** In December 1989, Geotest removed product piping from the site and collected six soil samples from the piping trenches in the vicinity of the product dispenser islands. Sample B, collected at a depth of 3 feet below grade (fbg), contained 1,700 milligrams per kilogram (mg/kg) total petroleum hydrocarbons as gasoline (TPHg). No TPHg was detected in the other five samples. Benzene, toluene, ethylbenzene, and xylenes (BTEX) compounds were not analyzed.

**1990 Well Redevelopment:** In March 1990, G-R redeveloped and sampled wells MW-1 through MW-3. Laboratory analyses of the groundwater samples indicated the presence of TPHg at concentrations ranging from 800 to 50,000 micrograms per liter ( $\mu\text{g/L}$ ), and BTEX concentrations ranging from 18 to 18,000  $\mu\text{g/L}$ .

**1990 Subsurface Investigation:** In October 1990, H.E.W. Drilling, Inc. advanced three soil borings and completed the borings as monitoring wells MW-4 through MW-6 to further evaluate the off-site extent of hydrocarbons in groundwater. Well MW-4 was installed in the northeast corner of the subject property and wells MW-5 and MW-6 were installed off-site, along the southern shoulder of 55<sup>th</sup> Street. The borings were drilled to depths ranging between 20 and 26.5 fbg. Six soil samples collected from the borings at depths between 10.5 and 20.5 fbg were analyzed for TPHg only. TPHg was detected in MW-5 at 190 mg/kg and in MW-6 at 11 mg/kg at 10.5 fbg. No TPHg was detected in soil collected from MW-4.

**1994 Subsurface Investigation:** In February 1994, Groundwater Technology Inc. (GTI) advanced two on-site soil borings and completed them as monitoring wells MW-7 and MW-8 to evaluate the extent of petroleum hydrocarbons in groundwater near the former used-oil UST. Wells MW-7 and MW-8 were installed to depths of 20 fbg. Four soil samples were collected from the soil borings at depths between 5 and 15 fbg. No TPHg or BTEX was detected.

**1995 Used-Oil Tank Removal and Soil Excavation:** In April 1995, Golden West/American Construction excavated and removed the used-oil UST from the northwest corner of the site. Touchstone Developments (TD) collected four soil samples from the base of the excavation at a depth of 10.5 to 11 fbg. Total petroleum hydrocarbons as motor oil (TPHmo) was detected in all four samples at concentrations ranging from 76 to 2,700 mg/kg. The pit was further over-excavated to 12.5 fbg. In May 1995, approximately 80 cubic yards of used-oil bearing soil was transported and disposed of at BFI Waste Systems in Livermore, California.


**1998 Hydraulic Hoist and Clarifier Removal and Excavation:** In November 1998, Musco Excavators removed two single post semi-hydraulic hoists and one dual post hydraulic hoist with clarifier from the site. TD collected one soil sample from beneath each of the hoists at depths ranging from 7.5 to 8 fbg. No TOG, TPHg, TPHd, BTEX or methyl tertiary butyl ether (MTBE) was detected in the samples.

## INVESTIGATION RESULTS

The objective of this investigation was to evaluate hydrocarbon impact in soil and groundwater. To meet this objective, Cambria advanced a total of 5 hand auger soil borings, B-1 through B-5. The results of Cambria's January 3 and 4, 2007 subsurface investigation are summarized below. Soil and grab-groundwater sample results are summarized in Tables 1 and 2, respectively. Drilling permits and boring logs are presented as Attachment B. The analytical report of soil and groundwater samples is presented as Attachment C. Standard Field Procedures for soil borings are presented as Attachment D.

**Permits:** Alameda County Public Works Agency – Water Resources Well Permit #W2006-1051, (Attachment B).

**Drilling Dates:** January 3 and 4, 2007.

- 
- Sampling Personnel:** Staff Scientists John Bostick and Leon Gearhart conducted all fieldwork under the supervision of California Professional Geologist David Herzog (P.G. #7211).
- Number of Borings:** Five borings (B-1 through B-5).
- Drilling Method:** Boring B-1, B-2, B-3, B-4 were advanced using a 3-inch hand auger, up to 13 fbg by Cambria personnel, and backfilled with Portland I/II cement. Boring B-5 was advanced until refusal at 5 fbg.
- Soil Sampling:** Soil samples were collected every three feet, beginning at 3 fbg. The samples were collected by grab sampling of disturbed sediments. Three soil samples from each of the borings were submitted for analyses except for boring B-5 where samples were only collected at 3 and 5 fbg. Table 1 summarizes soil analytical data. Standard Field Procedures for Soil Borings are included as Attachment D.
- Grab-groundwater Sampling:** Grab-groundwater samples were collected in borings B-1 through B-4. No sample was collected in boring B-5 due to refusal at 5.5 fbg. Table 2 summarizes grab-groundwater analytical results.
- Soil Screening:** Soil samples were screened using a photo-ionization detector (PID).
- Laboratory Analyses:** Soil and grab-groundwater samples were analyzed for:
- TPHg by EPA Method 8015B, and
  - BTEX, MTBE, tert-butyl ether (TBA) di-isopropyl ether (DIPE) tert-amyl methyl ether (TAME) and ethyl tert-butyl ether (ETBE) 1,2-Dichloroethane (1,2-DCA), and 1,2-Dibromoethane(EDB) by EPA Method 8260B.

**Soil Disposal:** Soil cuttings were stored on-site in a 55-gallon drum. Pending landfill approval, the cuttings are scheduled to be removed by Integrated Waste Management and will be disposed of at a Chevron approved facility.

**Groundwater Depth:** Groundwater was encountered at approximately 11 fbg in borings B-2 and B-3, 12 fbg in B-1, and 13 fbg in B-4. Groundwater was not encountered in boring B-5 due to refusal at 5.5 fbg.



### **EXTENT OF HYDROCARBONS IN SOIL**

No TPHg, benzene or MTBE was detected in any of the soil samples with the exception of 0.0006 mg/kg MTBE in B-1.

### **EXTENT OF HYDROCARBONS IN GROUNDWATER**

No benzene was reported in grab-groundwater samples from boring B-1 through B-4. TPHg was reported in borings B-1 and B-2 at concentrations of 2,600  $\mu\text{g/L}$  and 4,500  $\mu\text{g/L}$ , respectively. MTBE was reported in B-1 and B-2 at 2  $\mu\text{g/L}$  and 5  $\mu\text{g/L}$ , respectively. TPHg impact in groundwater appears to be limited on-site and does not likely extend far beyond down-gradient as indicated by monitoring wells MW-2 and MW-5. MTBE impact appears to be defined to levels that fall below environmental screening levels (ESL) set forth by the San Francisco Bay regional Water Quality Control Board (SF Bay RWQCB) of 1,800  $\mu\text{g/l}^1$ .

### **CONCLUSIONS AND RECOMMENDATIONS**

There appears to be only limited minor hydrocarbon impact to soil near the current USTs which appears defined down-gradient of the site within SF Bay RWQCB ESL limits. Although boring B-

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<sup>1</sup> ESL from Table B: Shallow Soil ( $\leq 3\text{m}$ )-Water is not a current potential source of drinking water in Chapter 4 of *Screening for Environmental Concerns at Sites with Contaminated Soil and Groundwater* prepared by the California Regional Water Quality Control Board San Francisco Bay Region, interim final dated February 2005.

5 had refusal at 5.5 fbg and a grab-groundwater sample could not be collected as requested by the ACHCS in the area of the former used-oil UST, declining TPHg and MTBE concentrations in MW-7 and MW-8 and down-gradient delineation be MW-2, MW-4 and B-4 indicate that impact present in the northwest corner of the site does not pose a significant risk. Cambria will review the historical and current site conditions and submit a site closure request which includes an updated site conceptual model.

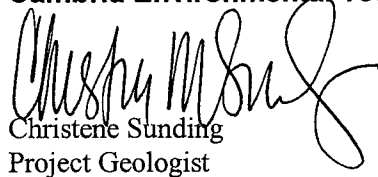


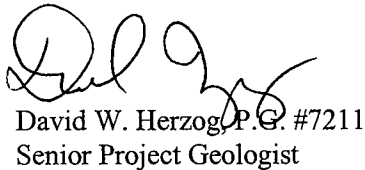
**CLOSING**

Please contact Christene Sunding at (916) 677-3407 (ext. 109) with any questions or if you require additional information.

Sincerely,  
**Cambria Environmental Technology, Inc.**



  
Christene Sunding  
Project Geologist

  
David W. Herzog, P.G. #7211  
Senior Project Geologist



Figures: 1 – Vicinity Map  
2 – Site Map

Tables: 1 – Soil Analytical Data  
2 – Grab-groundwater Analytical Data

Attachments: A – Regulatory Correspondence  
B – Drilling Permits and Boring Logs  
C – Soil and Grab-groundwater Analytical Reports  
D – Standard Field Procedures for Hand Augered Borings

cc: Mr. Dana Thurman, Chevron Environmental Management Company, PO Box 6012,  
K2236, San Ramon, CA 94583



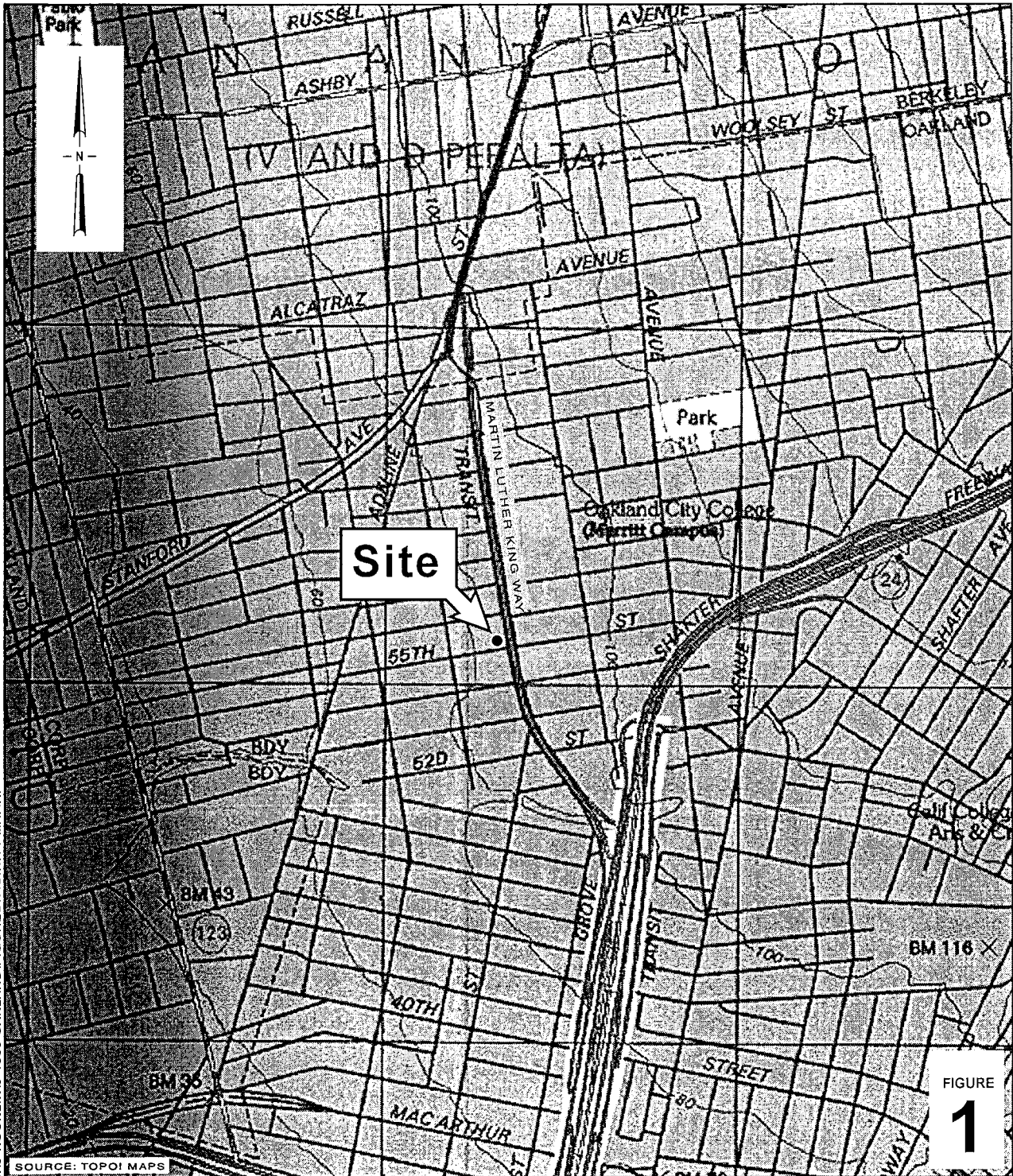


FIGURE  
**1**

0 1/8 1/4 1/2 1  
SCALE : 1" = 1/4 MILE

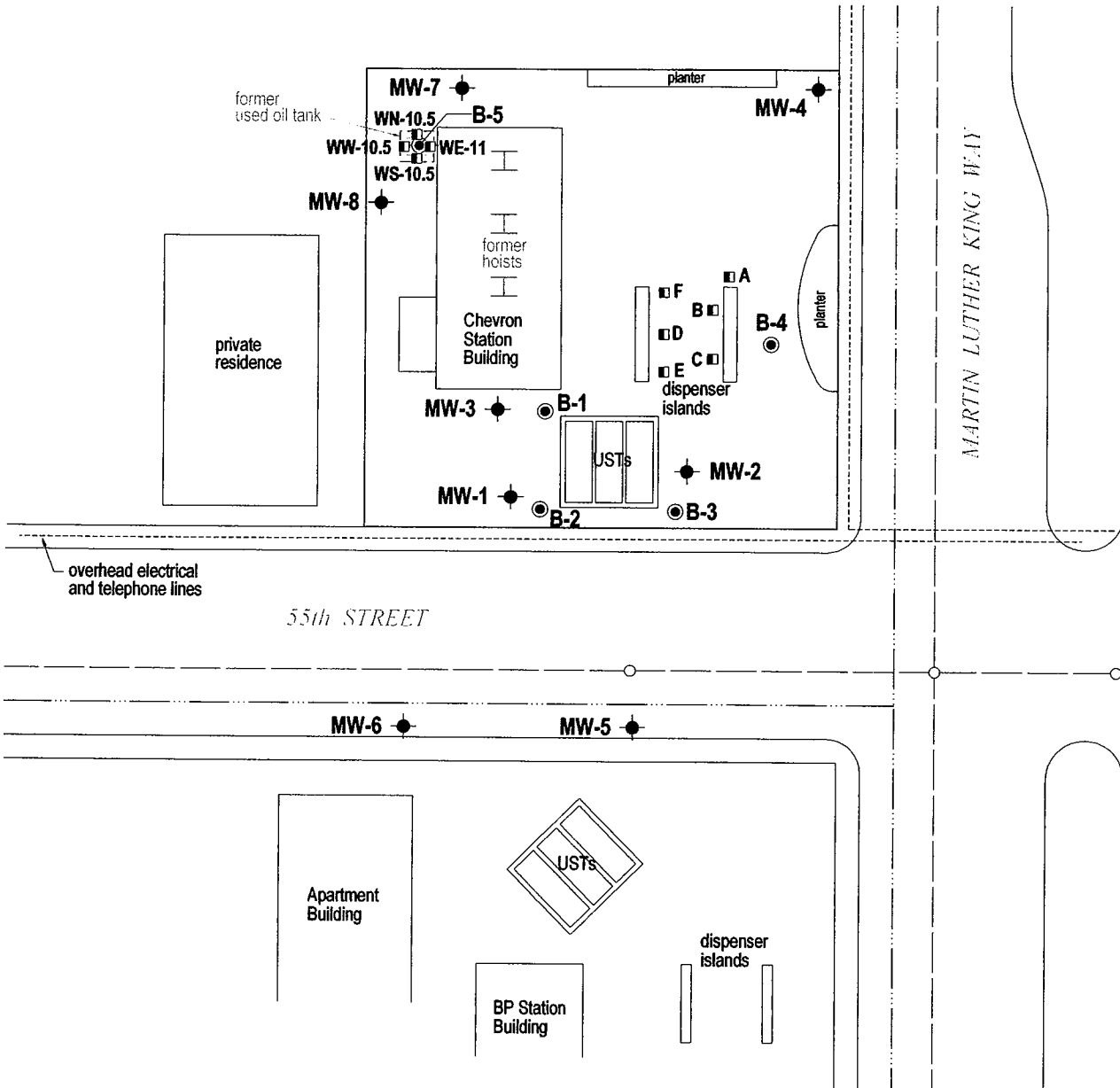
**Chevron Service Station 9-1583**  
5509 Martin Luther King Way  
Oakland, California



Vicinity Map

C A M B R I A

140-ROCKLINE-1693 OAKLAND/FIGURE/SITEPLAN.DWG



EXPLANATION	
MW-1	Monitoring well location
B-1	Hand auger boring location
A	Soil sample location
-----	Electrical line (overhead where labeled)
-----	Storm drain
-----	Water line

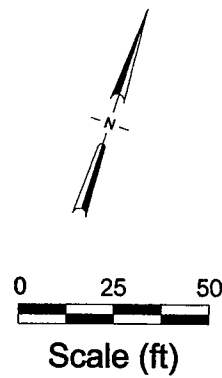
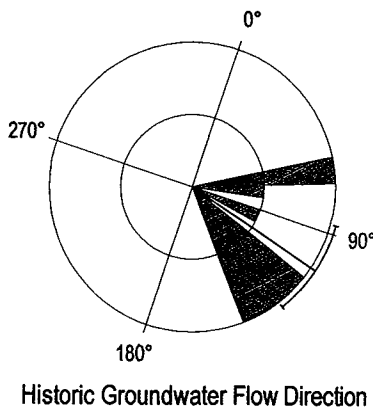


FIGURE 2

**Chevron Service Station 9-1583**

5509 Martin Luther King Way



C A M B R I A

**Site Plan**

**Table 1**  
Soil Sample Results  
Chevron Station # 9-1583, 5509 Martin Luther King Jr. Way, Oakland, California

Sample ID	Depth (fbg)	Date Sampled	TPHg	Benzene	Toluene	Ethylbenzene	Xylenes	MTBE	DIPE	ETBE	TAME	TBA	1,2-DCA	EDB
B-1	3	1/4/2007	<1	<0.0005	0.001	<0.001	<0.001	<0.0005	<0.001	<0.001	<0.001	<0.020	<0.001	<0.001
B-1	6	1/4/2007	<1	<0.0005	<0.001	<0.001	<0.001	<0.0005	<0.001	<0.001	<0.001	<0.020	<0.001	<0.001
B-1	9	1/4/2007	<1	<0.0005	<0.001	<0.001	<0.001	0.0006	<0.001	<0.001	<0.001	<0.020	<0.001	<0.001
B-2	3	1/4/2007	<1	<0.0005	<0.001	<0.001	<0.001	<0.0005	<0.001	<0.001	<0.001	<0.020	<0.001	<0.001
B-2	6	1/4/2007	<1	<0.0005	<0.001	<0.001	<0.001	<0.0005	<0.001	<0.001	<0.001	<0.020	<0.001	<0.001
B-2	9	1/4/2007	<1	<0.0005	<0.001	<0.001	<0.001	<0.0005	<0.001	<0.001	<0.001	<0.020	<0.001	<0.001
B-3	3	1/3/2007	<1	<0.0005	<0.001	<0.001	<0.001	<0.0005	<0.001	<0.001	<0.001	<0.020	<0.001	<0.001
B-3	6	1/3/2007	<1	<0.0005	<0.001	<0.001	<0.001	<0.0005	<0.001	<0.001	<0.001	<0.020	<0.001	<0.001
B-3	9	1/3/2007	<1	<0.0005	<0.001	<0.001	<0.001	<0.0005	<0.001	<0.001	<0.001	<0.020	<0.001	<0.001
B-4	3	1/3/2007	<1	<0.0005	<0.001	<0.001	<0.001	<0.0005	<0.001	<0.001	<0.001	<0.020	<0.001	<0.001
B-4	6	1/3/2007	<1	<0.0005	<0.001	<0.001	<0.001	<0.0005	<0.001	<0.001	<0.001	<0.020	<0.001	<0.001
B-4	8	1/3/2007	<1	<0.0005	<0.001	<0.001	<0.001	<0.0005	<0.001	<0.001	<0.001	<0.020	<0.001	<0.001
B-5	3	1/4/2007	<1	<0.0005	<0.001	<0.001	<0.001	<0.0005	<0.001	<0.001	<0.001	<0.020	<0.001	<0.001
B-5	5	1/4/2007	<1	<0.0005	<0.001	<0.001	<0.001	<0.0005	<0.001	<0.001	<0.001	<0.020	<0.001	<0.001

**Abbreviations:**

TPHg = Total petroleum hydrocarbons as gasoline by EPA Method 8015B

Benzene, toluene, ethylbenzene, and xylenes by EPA Method 8260B

MTBE = Methyl tertiary butyl ether by EPA Method 8260B

DIPE = Di-isopropyl ether by EPA Method 8260B

ETBE = Ethyl t-butyl ether by EPA Method 8260B

TAME = t-Amyl methyl ether by EPA Method 8260B

TBA = t-Butyl alcohol by EPA Method 8260B

1,2 DCA= 1,2-Dichloroethane by EPA Method 8260B

EDB= 1,2-Dibromoethane by EPA Method 8260B

fbg= feet below grade

<x = below laboratory detection limits

# CAMBRIA

**Table 2**

Grab-groundwater Sample Results

Chevron Station # 9-1583, 5509 Martin Luther King Jr. Way, Oakland, California

Sample ID	Date Sampled	TPHg	Benzene	Toluene	Ethyl- benzene	Xylenes	MTBE	DIPE	ETBE	TAME	TBA	1,2-DCA	EDB
Concentrations in micrograms per liter (µg/L)													
B-1	1/4/2007	<b>2,600</b>	<0.50	<0.50	<b>0.9</b>	<0.50	<b>2</b>	<0.50	<0.50	<0.50	<2	<0.50	<0.50
B-2	1/4/2007	<b>4,500</b>	<0.50	<0.50	<0.50	<0.50	<b>5</b>	<0.50	<0.50	<0.50	<2	<0.50	<0.50
B-3	1/3/2007	<50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<2	<0.50	<0.50
B-4	1/3/2007	<50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<2	<0.50	<0.50

**Abbreviations:**

TPHg = Total petroleum hydrocarbons as gasoline by EPA Method 8015B

BTEX = Benzene, toluene, ethylbenzene, and xylenes by EPA Method 8260B

MTBE = Methyl tertiary butyl ether by EPA Method 8260B

DIPE = Di-isopropyl ether by EPA Method 8260B

ETBE = Ethyl t-butyl ether by EPA Method 8260B

TAME = t-Amyl methyl ether by EPA Method 8260B

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EDB= 1,2-Dibromoethane by EPA Method 8260B

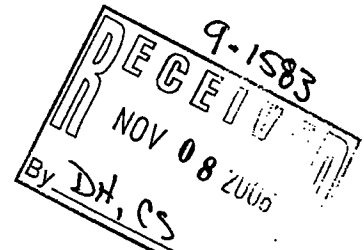
<x = below laboratory detection limits

**ATTACHMENT A**

**Regulatory Correspondence**

ALAMEDA COUNTY  
HEALTH CARE SERVICES

AGENCY  
DAVID J. KEARS, Agency Director



November 7, 2006

Mr. Dana Thurman  
Chevron Environmental Management Co.  
6001 Bollinger Canyon Rd., K2236  
P.O. Box 6012  
San Ramon, CA 94583-2324

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

Dear Mr. Thurman:

Subject: Fuel Leak Case RO0000002, 5509 Martin Luther King Jr. Way, Oakland, CA

Alameda County Environmental Health (ACEH) staff has reviewed the case file for the subject site including the October 11, 2006 Workplan for Soil Borings by Cambria. This work plan follows up our site September 2006 discussions at the County offices with you and your consultant. The intent of the work plan is to fill in identified data gaps and move the site towards closure. Our technical comments are intended to address those areas where additional information is needed. Please address the following comments when performing the proposed work.

#### TECHNICAL COMMENTS

1. We concur with your proposal to drill three borings adjacent to monitoring wells MW-1 through MW-3. This will provide the shallow soil data near these wells and the existing UST tank pit, previously missing and identified as a data gap.
2. The compounds, BTEX, MTBE, other ether oxygenates and the lead scavengers were not analyzed in soil boring B, which detected 1700 ppm TPHg. Therefore, we request that an additional boring be drilled down-gradient (to the southeast) of former boring B. Both soil and groundwater samples should be collected for chemical analysis. We recommend the same suite of chemicals be analyzed as proposed for the three borings in number.
3. The historic presence of TPHg and MTBE in wells MW-7 and MW-8 has not been explained. In the absence of additional information, we assume this contamination originated from the former waste oil tank. Groundwater was insufficient to collect during the tank removal. We recommend an additional boring be drilled within the former waste oil tank pit and a groundwater sample collected and sampled for TPHmo, TPHg, BTEX, MTBE, ether oxygenates and the lead scavengers.

#### TECHNICAL REPORT REQUEST

Please submit the following report according to the following schedule:

- December 29, 2006- Soil and groundwater investigation report

Mr. Dana Thurman  
November 7, 2006  
Page 2 of 3

### ELECTRONIC SUBMITTAL OF REPORTS

Effective **January 31, 2006**, 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. Please do not submit reports as attachments to electronic mail.

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. Submission of reports to the Geotracker website does not fulfill the requirement to submit documents to the Alameda County ftp site. In September 2004, the SWRCB adopted regulations that require electronic submittal of information for 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 monitor wells, and other data to the Geotracker database over the Internet. Beginning July 1, 2005, electronic submittal of a complete copy of all necessary reports was 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](http://www.swrcb.ca.gov/ust/cleanup/electronic%20reporting)).

In order to facilitate electronic correspondence, we request that you provide up to date electronic mail addresses for all responsible and interested parties. Please provide current electronic mail addresses and notify us of future changes to electronic mail addresses by sending an electronic mail message to me at [barney.chan@acgov.org](mailto:barney.chan@acgov.org).

### 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.

Mr. Dana Thurman  
November 7, 2006  
Page 3 of 3

UNDERGROUND STORAGE TANK CLEANUP FUND

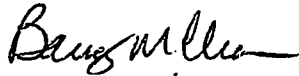
Please note that delays in investigation, later reports, or enforcement actions may result in your becoming ineligible to receive grant money from the state's Underground Storage Tank Cleanup Fund (Senate Bill 2004) to reimburse you for the cost of cleanup.

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) 567-6765.

Sincerely,



Barney M. Chan  
Hazardous Materials Specialist

cc: files, D. Drogos

✓ Mr. David Herzog, Cambria Environmental, 2000 Opportunity Drive, Suite 110,  
Roseville, CA 95678



**ATTACHMENT B**

**Drilling Permits and Boring Logs**

# 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: 12/15/2006 By jamesy**

**Permit Numbers: W2006-1051**  
**Permits Valid from 12/20/2006 to 12/21/2006**

**Application Id:** 1166211242276  
**Site Location:** 5509 MLK Jr. Way, Oakland, CA 94609  
**Project Start Date:** 12/20/2006

**City of Project Site:** Oakland  
**Completion Date:** 12/21/2006

**Applicant:** Cambria - John Bostick  
2000 Opportunity Dr #110, Roseville, CA 95678  
**Property Owner:** Chevron EMC  
6001 Bollinger Canyon Rd. #K2236, San Ramon, CA 94583  
**Client:** \*\* same as Property Owner \*\*

**Phone:** 916-677-3407  
**Phone:** 925-842-9559

	<b>Total Due:</b>	\$200.00
<b>Receipt Number: WR2006-0556</b>	<b>Total Amount Paid:</b>	\$200.00
<b>Payer Name : Cambria</b>	<b>Paid By: CHECK</b>	<b>PAID IN FULL</b>

**Works Requesting Permits:**

Borehole(s) for Investigation-Contamination Study - 5 Boreholes  
Driller: Taber Consultants - Lic #: 466270 - Method: other

**Work Total: \$200.00**

**Specifications**

Permit Number	Issued Dt	Expire Dt	# Boreholes	Hole Diam	Max Depth
W2006-1051	12/15/2006	03/20/2007	5	3.00 in.	10.00 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.
  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. 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.
  4. 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.
  5. No Inspector Assigned to this site.
- Applicant shall contact this office by email at wells@acpwa.org and certify in writing that work was completed and according to County Standards within 5 working days after the completion of work.



Cambria Environmental Technology, Inc.  
 2000 Opportunity Dr. Suite 110  
 Roseville, CA  
 Telephone: 916.677.3407  
 Fax: 916.677.3687

# BORING/WELL LOG

CLIENT NAME	Chevron Environmental Management Co.	BORING/WELL NAME	B-1
JOB/SITE NAME	9-1583	DRILLING STARTED	04-Jan-07
LOCATION	5509 Martin Luther King Blvd., Oakland	DRILLING COMPLETED	04-Jan-07
PROJECT NUMBER	61H-1960	WELL DEVELOPMENT DATE (YIELD)	NA
DRILLER	Cambria	GROUND SURFACE ELEVATION	Not Surveyed
DRILLING METHOD	Hand Auger	TOP OF CASING ELEVATION	Not Surveyed
BORING DIAMETER	3 inches	SCREENED INTERVAL	NA
LOGGED BY	L. Gearhart	DEPTH TO WATER (First Encountered)	12.0 fbg (04-Jan-07)
REVIEWED BY	D. Herzog, PG# 7211	DEPTH TO WATER (Static)	NA
REMARKS			

PID (ppm)	BLOW COUNTS	SAMPLE ID	EXTENT DEPTH (fbg)	U.S.C.S.	GRAPHIC LOG	LITHOLOGIC DESCRIPTION	CONTACT DEPTH (fbg)	WELL DIAGRAM
						Asphalt Fill	0.5	<p>Concrete</p> <p>Portland Type I/II</p> <p>Bottom of Boring @ 12 fbg</p>
0		B-1@3	3	CH		CLAY: dark brown; damp; 60% clay, 30% silt, 10% sand; high plasticity; low estimated permeability.	2.0	
0		B-1@6	6	CH		CLAY: brown; moist; 70% clay, 30% silt; high plasticity; low estimated permeability. @ 6 fbg: dark brown.	4.0	
0		B-1@9	9	CH		CLAY with sand; grey; wet; 60% clay, 25% silt, 15% sand; high plasticity; low estimated permeability.	11.0	
			12.0				12.0	

WELL LOG (PID) R:\9-1583 OAKLAND\GINT9-1583.GPJ\_DEFAULT.GDT 2/20/07



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# BORING/WELL LOG

CLIENT NAME	Chevron Environmental Management Co.	BORING/WELL NAME	B-2
JOB/SITE NAME	9-1583	DRILLING STARTED	04-Jan-07
LOCATION	5509 Martin Luther King Blvd., Oakland	DRILLING COMPLETED	04-Jan-07
PROJECT NUMBER	61H-1960	WELL DEVELOPMENT DATE (YIELD)	NA
DRILLER	Cambria	GROUND SURFACE ELEVATION	Not Surveyed
DRILLING METHOD	Hand Auger	TOP OF CASING ELEVATION	Not Surveyed
BORING DIAMETER	3 inches	SCREENED INTERVAL	NA
LOGGED BY	J. Bostick	DEPTH TO WATER (First Encountered)	11.0 fbg (04-Jan-07)
REVIEWED BY	D. Herzog, PG# 7211	DEPTH TO WATER (Static)	NA
REMARKS			

PID (ppm)	BLOW COUNTS	SAMPLE ID	EXTENT	DEPTH (fbg)	U.S.C.S.	GRAPHIC LOG	LITHOLOGIC DESCRIPTION	CONTACT DEPTH (fbg)	WELL DIAGRAM
							Fill		
0		B-2@3			CL		<b>CLAY with sand:</b> brown; dry; 60% clay, 20% silt, 20% sand; medium plasticity; moderate estimated permeability.	2.0	
0		B-2@6		5	CH		<b>CLAY:</b> brown with red mottling; dry; fine grained sand; 75% clay, 15% silt, 10% sand; high plasticity; low estimated permeability.	5.0	
0		B-2@9		10	CH		<b>CLAY:</b> dark brown; dry; firm; 80% clay, 15% silt, 5% sand; high plasticity; low estimated permeability.	7.0	
								11.0	

WELL LOG (PID) R:\9-1583 OAKLAND\GINT9-1583.GPJ DEFAULT.GDT 2/20/07



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# BORING/WELL LOG

CLIENT NAME	Chevron Environmental Management Co.	BORING/WELL NAME	B-3
JOB/SITE NAME	9-1583	DRILLING STARTED	03-Jan-07
LOCATION	5509 Martin Luther King Blvd., Oakland	DRILLING COMPLETED	03-Jan-07
PROJECT NUMBER	61H-1960	WELL DEVELOPMENT DATE (YIELD)	NA
DRILLER	Cambria	GROUND SURFACE ELEVATION	Not Surveyed
DRILLING METHOD	Hand Auger	TOP OF CASING ELEVATION	Not Surveyed
BORING DIAMETER	3 inches	SCREENED INTERVAL	NA
LOGGED BY	L. Gearhart	DEPTH TO WATER (First Encountered)	11.0 fbg (03-Jan-07)
REVIEWED BY	D. Herzog, PG# 7211	DEPTH TO WATER (Static)	NA

REMARKS

PID (ppm)	BLOW COUNTS	SAMPLE ID	EXTENT DEPTH (fbg)	U.S.C.S.	GRAPHIC LOG	LITHOLOGIC DESCRIPTION	CONTACT DEPTH (fbg)	WELL DIAGRAM
0		B-3@3	0-3	CH		Asphalt Base Rock CLAY: brown; moist; 60% clay, 30% silt, 10% sand; high plasticity; low estimated permeability.	0.5 1.0	Concrete
0		B-3@6	3-6	CH		CLAY: brown; dry; 70% clay, 25% silt, 5% sand; high plasticity; low estimated permeability.  @ 7 fbg: dark brown; moist. @ 8 fbg: gray with brown mottling; moist.	5.0	Portland Type I/II
0		B-3@9	6-9	CH			11.0	Bottom of Boring @ 11 fbg

WELL LOG (PID) R:19-1583 OAKLAND\GINT19-1583.GPJ DEFAULT.GDT 2/20/07



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# BORING/WELL LOG

CLIENT NAME	Chevron Environmental Management Co.	BORING/WELL NAME	B-4
JOB/SITE NAME	9-1583	DRILLING STARTED	03-Jan-07
LOCATION	5509 Martin Luther King Blvd., Oakland	DRILLING COMPLETED	03-Jan-07
PROJECT NUMBER	61H-1960	WELL DEVELOPMENT DATE (YIELD)	NA
DRILLER	Cambria	GROUND SURFACE ELEVATION	Not Surveyed
DRILLING METHOD	Hand Auger	TOP OF CASING ELEVATION	Not Surveyed
BORING DIAMETER	3 inches	SCREENED INTERVAL	NA
LOGGED BY	J. Bostick	DEPTH TO WATER (First Encountered)	13.0 fbg (03-Jan-07) ▽
REVIEWED BY	D. Herzog, PG# 7211	DEPTH TO WATER (Static)	NA ▼
REMARKS			

PID (ppm)	BLOW COUNTS	SAMPLE ID	EXTENT DEPTH (fbg)	U.S.C.S.	GRAPHIC LOG	LITHOLOGIC DESCRIPTION	CONTACT DEPTH (fbg)	WELL DIAGRAM
				SP		Concrete	0.5	<p>Concrete</p> <p>Portland Type I/II</p> <p>Bottom of Boring @ 13 fbg</p>
0		B-4@3	1.0	CH		<b>SAND</b> CLAY: dark brown with black mottling; moist; 60% clay, 30% silt 10% sand; high plasticity; low estimated permeability.	1.0	
			3.0	CH		CLAY: dark brown; moist; 70% clay, 25% silt, 5% sand; high plasticity; low estimated permeability.	3.0	
0		B-4@6	5.0	CL		<b>Sandy CLAY</b> : light brown; moist; fine grained sand; 50% clay, 30% sand, 20% silt; medium plasticity; moderate estimated permeability.	5.0	
			8.0				8.0	
0		B-4@9	10.0	CH		CLAY: dark brown with red mottling; moist; 70% clay, 20% silt, 10% sand; high plasticity; low estimated permeability.	10.0	
			13.0	CL		CLAY with sand: gray with red mottling; moist; 50% clay, 25% sand, 25% silt; medium plasticity; moderate estimated permeability.	13.0	

WELL LOG (PID) R:19-1583 OAKLAND\GINT19-1583.GPJ DEFAULT.GDT 2/20/07



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# BORING/WELL LOG

CLIENT NAME	Chevron Environmental Management Co.	BORING/WELL NAME	B-5
JOB/SITE NAME	9-1583	DRILLING STARTED	04-Jan-07
LOCATION	5509 Martin Luther King Blvd., Oakland	DRILLING COMPLETED	04-Jan-07
PROJECT NUMBER	61H-1960	WELL DEVELOPMENT DATE (YIELD)	NA
DRILLER	Cambria	GROUND SURFACE ELEVATION	Not Surveyed
DRILLING METHOD	Hand Auger	TOP OF CASING ELEVATION	Not Surveyed
BORING DIAMETER	3 inches	SCREENED INTERVAL	NA
LOGGED BY	J. Bostick	DEPTH TO WATER (First Encountered)	(04-Jan-07)
REVIEWED BY	D. Herzog, PG# 7211	DEPTH TO WATER (Static)	NA
REMARKS			

PID (ppm)	BLOW COUNTS	SAMPLE ID	EXTENT	DEPTH (ft bgs)	U.S.C.S.	GRAPHIC LOG	LITHOLOGIC DESCRIPTION	CONTACT DEPTH (ft bgs)	WELL DIAGRAM
0		B-5@3					Asphalt FILL: brown; dry; medium to large grained sands; 40% sand, 35% gravel, 15% silt, 10% clay; high estimated permeability.	0.5	
0		B-5@5		5			@ 5 fbg: Refusal	5.5	Bottom of Boring @ 5.5 ft

WELL LOG (PID) R:\9-1583-1\GINT\9-1583.GPJ DEFAULT.GDT 2/28/07

**ATTACHMENT C**

**Soil and Grab-groundwater Analytical Reports**



## ANALYTICAL RESULTS

Prepared for:

Chevron c/o Cambria  
Suite 110  
2000 Opportunity Drive  
Roseville CA 95678

916-677-3407

Prepared by:

Lancaster Laboratories  
2425 New Holland Pike  
Lancaster, PA 17605-2425SAMPLE GROUP

The sample group for this submittal is 1020559. Samples arrived at the laboratory on Saturday, January 06, 2007. The PO# for this group is 91583 and the release number is MTI.

<u>Client Description</u>		<u>Lancaster Labs Number</u>
B-4-S-3-070103	Grab Soil	4953847
B-4-S-6-070103	Grab Soil	4953848
B-4-S-8-070103	Grab Soil	4953849
B-3-S-3-070103	Grab Soil	4953850
B-3-S-6-070103	Grab Soil	4953851
B-3-S-9-070103	Grab Soil	4953852
B-2-S-3-070104	Grab Soil	4953853
B-2-S-6-070104	Grab Soil	4953854
B-2-S-9-070104	Grab Soil	4953855
B-1-S-3-070104	Grab Soil	4953856
B-1-S-6-070104	Grab Soil	4953857
B-1-S-9-070104	Grab Soil	4953858
B-5-S-3-070104	Grab Soil	4953859
B-5-S-5-070104	Grab Soil	4953860
B-4-W-070103	Grab Water	4953861
B-3-W-070103	Grab Water	4953862
B-1-W-070104	Grab Water	4953863
B-2-W-070104	Grab Water	4953864

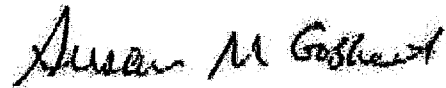
ELECTRONIC  
COPY TO

Cambria Environmental

Attn: Jami Shaffer

Questions? Contact your Client Services Representative  
Angela M Miller at (717) 656-2300

Respectfully Submitted,



**Susan M. Goshert**  
Group Leader

**Lancaster Laboratories Sample No. SW 4953847**
**B-4-S-3-070103 Grab Soil**  
**Facility# 91583 MTI# 61H-1960 CETR**  
**5509 Martin Luther King T0600100348 B-4**  
 Collected: 01/03/2007 11:44 by JB

Account Number: 11997

 Submitted: 01/06/2007 10:10  
 Reported: 01/17/2007 at 12:37  
 Discard: 02/17/2007

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 2000 Opportunity Drive  
 Roseville CA 95678

B4--3

CAT No.	Analysis Name	CAS Number	As Received	As Received	Units	Dilution Factor
			Result	Method		
01725	TPH-GRO - Soils	n.a.	N.D.	Detection Limit 1.0	mg/kg	25
The analysis for volatiles was performed on a sample which was preserved in methanol. Therefore, the reporting limits were raised. The reported concentration of TPH-GRO does not include MTBE or other gasoline constituents eluting prior to the C6 (n-hexane) TPH-GRO range start time.						
07361	BTEX+5 Oxygenates+EDC+EDB					
02016	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.0005	mg/kg	1
02017	di-Isopropyl ether	108-20-3	N.D.	0.001	mg/kg	1
02018	Ethyl t-butyl ether	637-92-3	N.D.	0.001	mg/kg	1
02019	t-Amyl methyl ether	994-05-8	N.D.	0.001	mg/kg	1
02020	t-Butyl alcohol	75-65-0	N.D.	0.020	mg/kg	1
05460	Benzene	71-43-2	N.D.	0.0005	mg/kg	1
05461	1,2-Dichloroethane	107-06-2	N.D.	0.001	mg/kg	1
05466	Toluene	108-88-3	N.D.	0.001	mg/kg	1
05471	1,2-Dibromoethane	106-93-4	N.D.	0.001	mg/kg	1
05474	Ethylbenzene	100-41-4	N.D.	0.001	mg/kg	1
06301	Xylene (Total)	1330-20-7	N.D.	0.001	mg/kg	1

State of California Lab Certification No. 2116

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

### Laboratory Chronicle

CAT No.	Analysis Name	Method	Trial#	Analysis	Analyst	Dilution Factor
				Date and Time		
01725	TPH-GRO - Soils	TPH GRO SW-846 8015B mod	1	01/08/2007 16:28	Linda C Pape	25
07361	BTEX+5 Oxygenates+EDC+EDB	SW-846 8260B	1	01/08/2007 20:06	Emiley A King	1
00374	GC/MS - Bulk Sample Prep	SW-846 5030A	1	01/08/2007 13:40	Emiley A King	n.a.
01150	GC - Bulk Soil Prep	SW-846 5035	1	01/08/2007 01:31	Jesse L Mertz	n.a.

**Lancaster Laboratories Sample No. SW 4953848**
**B-4-S-6-070103 Grab Soil**  
**Facility# 91583 MTI# 61H-1960 CETR**  
**5509 Martin Luther King T0600100348 B-4**  
 Collected: 01/03/2007 11:52 by JB

Account Number: 11997

 Submitted: 01/06/2007 10:10  
 Reported: 01/17/2007 at 12:37  
 Discard: 02/17/2007

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 Suite 110  
 2000 Opportunity Drive  
 Roseville CA 95678

B4--6

CAT No.	Analysis Name	CAS Number	As Received Result	As Received		Dilution Factor
				Method	Units	
01725	TPH-GRO - Soils	n.a.	N.D.	Detection Limit 1.0	mg/kg	25
The analysis for volatiles was performed on a sample which was preserved in methanol. Therefore, the reporting limits were raised. The reported concentration of TPH-GRO does not include MTBE or other gasoline constituents eluting prior to the C6 (n-hexane) TPH-GRO range start time.						
07361	BTEX+5 Oxygenates+EDC+EDB					
02016	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.0005	mg/kg	1.01
02017	di-Isopropyl ether	108-20-3	N.D.	0.001	mg/kg	1.01
02018	Ethyl t-butyl ether	637-92-3	N.D.	0.001	mg/kg	1.01
02019	t-Amyl methyl ether	994-05-8	N.D.	0.001	mg/kg	1.01
02020	t-Butyl alcohol	75-65-0	N.D.	0.020	mg/kg	1.01
05460	Benzene	71-43-2	N.D.	0.0005	mg/kg	1.01
05461	1,2-Dichloroethane	107-06-2	N.D.	0.001	mg/kg	1.01
05466	Toluene	108-88-3	N.D.	0.001	mg/kg	1.01
05471	1,2-Dibromoethane	106-93-4	N.D.	0.001	mg/kg	1.01
05474	Ethylbenzene	100-41-4	N.D.	0.001	mg/kg	1.01
06301	Xylene (Total)	1330-20-7	N.D.	0.001	mg/kg	1.01

State of California Lab Certification No. 2116

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

### Laboratory Chronicle

CAT No.	Analysis Name	Method	Trial#	Analysis		Analyst	Dilution Factor
				Date and Time			
01725	TPH-GRO - Soils	TPH GRO SW-846 8015B mod	1	01/08/2007 17:06		Linda C Pape	25
07361	BTEX+5 Oxygenates+EDC+EDB	SW-846 8260B	1	01/08/2007 20:28		Emiley A King	1.01
00374	GC/MS - Bulk Sample Prep	SW-846 5030A	1	01/08/2007 13:42		Emiley A King	n.a.
01150	GC - Bulk Soil Prep	SW-846 5035	1	01/08/2007 01:34		Jesse L Mertz	n.a.

**Lancaster Laboratories Sample No. SW 4953849**
**B-4-S-8-070103 Grab Soil**  
**Facility# 91583 MTI# 61H-1960 CETR**  
**5509 Martin Luther King T0600100348 B-4**  
**Collected:01/03/2007 12:08 by JB**

Account Number: 11997

**Submitted: 01/06/2007 10:10**  
**Reported: 01/17/2007 at 12:37**  
**Discard: 02/17/2007**

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 Suite 110  
 2000 Opportunity Drive  
 Roseville CA 95678

B4--8

CAT No.	Analysis Name	CAS Number	As Received Result	As Received		Dilution Factor
				Method	Units	
01725	TPH-GRO - Soils	n.a.	N.D.	Detection Limit 1.0	mg/kg	25
The analysis for volatiles was performed on a sample which was preserved in methanol. Therefore, the reporting limits were raised. The reported concentration of TPH-GRO does not include MTBE or other gasoline constituents eluting prior to the C6 (n-hexane) TPH-GRO range start time.						
07361	BTEX+5 Oxygenates+EDC+EDB					
02016	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.0005	mg/kg	1
02017	di-Isopropyl ether	108-20-3	N.D.	0.001	mg/kg	1
02018	Ethyl t-butyl ether	637-92-3	N.D.	0.001	mg/kg	1
02019	t-Amyl methyl ether	994-05-8	N.D.	0.001	mg/kg	1
02020	t-Butyl alcohol	75-65-0	N.D.	0.020	mg/kg	1
05460	Benzene	71-43-2	N.D.	0.0005	mg/kg	1
05461	1,2-Dichloroethane	107-06-2	N.D.	0.001	mg/kg	1
05466	Toluene	108-88-3	N.D.	0.001	mg/kg	1
05471	1,2-Dibromoethane	106-93-4	N.D.	0.001	mg/kg	1
05474	Ethylbenzene	100-41-4	N.D.	0.001	mg/kg	1
06301	Xylene (Total)	1330-20-7	N.D.	0.001	mg/kg	1

State of California Lab Certification No. 2116

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

### Laboratory Chronicle

CAT No.	Analysis Name	Method	Trial#	Analysis		Analyst	Dilution Factor
				Date and Time			
01725	TPH-GRO - Soils	TPH GRO SW-846 8015B mod	1	01/08/2007 17:43		Linda C Pape	25
07361	BTEX+5 Oxygenates+EDC+EDB	SW-846 8260B	1	01/08/2007 20:51		Emiley A King	1
00374	GC/MS - Bulk Sample Prep	SW-846 5030A	1	01/08/2007 13:44		Emiley A King	n.a.
01150	GC - Bulk Soil Prep	SW-846 5035	1	01/08/2007 01:38		Jesse L Mertz	n.a.

**Lancaster Laboratories Sample No. SW 4953850**
**B-3-S-3-070103 Grab Soil**  
**Facility# 91583 MTI# 61H-1960 CETR**  
**5509 Martin Luther King T0600100348 B-3**  
 Collected: 01/03/2007 13:28 by JB

Account Number: 11997

 Submitted: 01/06/2007 10:10  
 Reported: 01/17/2007 at 12:37  
 Discard: 02/17/2007

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 Suite 110  
 2000 Opportunity Drive  
 Roseville CA 95678

B3--3

CAT No.	Analysis Name	CAS Number	As Received Result	As Received		Units	Dilution Factor
				Method	Detection Limit		
01725	TPH-GRO - Soils	n.a.	N.D.		1.0	mg/kg	25
	The analysis for volatiles was performed on a sample which was preserved in methanol. Therefore, the reporting limits were raised. The reported concentration of TPH-GRO does not include MTBE or other gasoline constituents eluting prior to the C6 (n-hexane) TPH-GRO range start time.						
07361	BTEX+5 Oxygenates+EDC+EDB						
02016	Methyl Tertiary Butyl Ether	1634-04-4	N.D.		0.0005	mg/kg	1
02017	di-Isopropyl ether	108-20-3	N.D.		0.001	mg/kg	1
02018	Ethyl t-butyl ether	637-92-3	N.D.		0.001	mg/kg	1
02019	t-Amyl methyl ether	994-05-8	N.D.		0.001	mg/kg	1
02020	t-Butyl alcohol	75-65-0	N.D.		0.020	mg/kg	1
05460	Benzene	71-43-2	N.D.		0.0005	mg/kg	1
05461	1,2-Dichloroethane	107-06-2	N.D.		0.001	mg/kg	1
05466	Toluene	108-88-3	N.D.		0.001	mg/kg	1
05471	1,2-Dibromoethane	106-93-4	N.D.		0.001	mg/kg	1
05474	Ethylbenzene	100-41-4	N.D.		0.001	mg/kg	1
06301	Xylene (Total)	1330-20-7	N.D.		0.001	mg/kg	1

State of California Lab Certification No. 2116

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

### Laboratory Chronicle

CAT No.	Analysis Name	Method	Trial#	Analysis		Analyst	Dilution Factor
				Date and Time			
01725	TPH-GRO - Soils	TPH GRO SW-846 8015B mod	1	01/08/2007 18:20		Linda C Pape	25
07361	BTEX+5 Oxygenates+EDC+EDB	SW-846 8260B	1	01/08/2007 21:14		Emiley A King	1
00374	GC/MS - Bulk Sample Prep	SW-846 5030A	1	01/08/2007 13:45		Emiley A King	n.a.
01150	GC - Bulk Soil Prep	SW-846 5035	1	01/08/2007 01:41		Jesse L Mertz	n.a.

**Lancaster Laboratories Sample No. SW 4953851**
**B-3-S-6-070103 Grab Soil**  
**Facility# 91583 MTI# 61H-1960 CETR**  
**5509 Martin Luther King T0600100348 B-3**  
 Collected: 01/03/2007 13:39 by JB

Account Number: 11997

 Submitted: 01/06/2007 10:10  
 Reported: 01/17/2007 at 12:37  
 Discard: 02/17/2007

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 Suite 110  
 2000 Opportunity Drive  
 Roseville CA 95678

B3--6

CAT No.	Analysis Name	CAS Number	As Received Result	As Received		Dilution Factor
				Method	Units	
01725	TPH-GRO - Soils	n.a.	N.D.	Detection Limit 1.0	mg/kg	25
The analysis for volatiles was performed on a sample which was preserved in methanol. Therefore, the reporting limits were raised. The reported concentration of TPH-GRO does not include MTBE or other gasoline constituents eluting prior to the C6 (n-hexane) TPH-GRO range start time.						
07361	BTEX+5 Oxygenates+EDC+EDB					
02016	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.0005	mg/kg	1
02017	di-Isopropyl ether	108-20-3	N.D.	0.001	mg/kg	1
02018	Ethyl t-butyl ether	637-92-3	N.D.	0.001	mg/kg	1
02019	t-Amyl methyl ether	994-05-8	N.D.	0.001	mg/kg	1
02020	t-Butyl alcohol	75-65-0	N.D.	0.020	mg/kg	1
05460	Benzene	71-43-2	N.D.	0.0005	mg/kg	1
05461	1,2-Dichloroethane	107-06-2	N.D.	0.001	mg/kg	1
05466	Toluene	108-88-3	N.D.	0.001	mg/kg	1
05471	1,2-Dibromoethane	106-93-4	N.D.	0.001	mg/kg	1
05474	Ethylbenzene	100-41-4	N.D.	0.001	mg/kg	1
06301	Xylene (Total)	1330-20-7	N.D.	0.001	mg/kg	1

State of California Lab Certification No. 2116

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

### Laboratory Chronicle

CAT No.	Analysis Name	Method	Trial#	Analysis		Analyst	Dilution Factor
				Date and Time			
01725	TPH-GRO - Soils	TPH GRO SW-846 8015B mod	1	01/08/2007 18:57		Linda C Pape	25
07361	BTEX+5 Oxygenates+EDC+EDB	SW-846 8260B	1	01/09/2007 11:10		Emiley A King	1
00374	GC/MS - Bulk Sample Prep	SW-846 5030A	1	01/08/2007 13:46		Emiley A King	n.a.
01150	GC - Bulk Soil Prep	SW-846 5035	1	01/08/2007 01:44		Jesse L Mertz	n.a.

**Lancaster Laboratories Sample No. SW 4953852**
**B-3-S-9-070103**                      **Grab**                      **Soil**  
**Facility# 91583**    **MTI# 61H-1960**                      **CETR**  
**5509 Martin Luther King**    **T0600100348**    **B-3**  
 Collected: 01/03/2007 13:49                      by JB

Account Number: 11997

 Submitted: 01/06/2007 10:10  
 Reported: 01/17/2007 at 12:37  
 Discard: 02/17/2007

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CAT No.	Analysis Name	CAS Number	As Received Result	As Received		Dilution Factor
				Method	Units	
01725	TPH-GRO - Soils	n.a.	N.D.	Detection Limit 1.0	mg/kg	25
The analysis for volatiles was performed on a sample which was preserved in methanol. Therefore, the reporting limits were raised. The reported concentration of TPH-GRO does not include MTBE or other gasoline constituents eluting prior to the C6 (n-hexane) TPH-GRO range start time.						
07361	BTEX+5 Oxygenates+EDC+EDB					
02016	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.0005	mg/kg	1
02017	di-Isopropyl ether	108-20-3	N.D.	0.001	mg/kg	1
02018	Ethyl t-butyl ether	637-92-3	N.D.	0.001	mg/kg	1
02019	t-Amyl methyl ether	994-05-8	N.D.	0.001	mg/kg	1
02020	t-Butyl alcohol	75-65-0	N.D.	0.020	mg/kg	1
05460	Benzene	71-43-2	N.D.	0.0005	mg/kg	1
05461	1,2-Dichloroethane	107-06-2	N.D.	0.001	mg/kg	1
05466	Toluene	108-88-3	N.D.	0.001	mg/kg	1
05471	1,2-Dibromoethane	106-93-4	N.D.	0.001	mg/kg	1
05474	Ethylbenzene	100-41-4	N.D.	0.001	mg/kg	1
06301	Xylene (Total)	1330-20-7	N.D.	0.001	mg/kg	1

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### Laboratory Chronicle

CAT No.	Analysis Name	Method	Trial#	Analysis		Analyst	Dilution Factor
				Date and Time			
01725	TPH-GRO - Soils	TPH GRO SW-846 8015B mod	1	01/08/2007 19:34		Linda C Pape	25
07361	BTEX+5 Oxygenates+EDC+EDB	SW-846 8260B	1	01/09/2007 11:33		Emiley A King	1
00374	GC/MS - Bulk Sample Prep	SW-846 5030A	1	01/08/2007 13:48		Emiley A King	n.a.
01150	GC - Bulk Soil Prep	SW-846 5035	1	01/08/2007 01:47		Jesse L Mertz	n.a.



**Lancaster Laboratories Sample No. SW 4953853**
**B-2-S-3-070104 Grab Soil**  
**Facility# 91583 MTI# 61H-1960 CETR**  
**5509 Martin Luther King T0600100348 B-2**  
 Collected: 01/04/2007 09:26 by B

Account Number: 11997

 Submitted: 01/06/2007 10:10  
 Reported: 01/17/2007 at 12:37  
 Discard: 02/17/2007

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CAT No.	Analysis Name	CAS Number	As Received	As Received	Units	Dilution Factor
			Result	Method		
01725	TPH-GRO - Soils	n.a.	N.D.	1.0	mg/kg	25
The analysis for volatiles was performed on a sample which was preserved in methanol. Therefore, the reporting limits were raised. The reported concentration of TPH-GRO does not include MTBE or other gasoline constituents eluting prior to the C6 (n-hexane) TPH-GRO range start time.						
07361	BTEX+5 Oxygenates+EDC+EDB					
02016	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.0005	mg/kg	1
02017	di-Isopropyl ether	108-20-3	N.D.	0.001	mg/kg	1
02018	Ethyl t-butyl ether	637-92-3	N.D.	0.001	mg/kg	1
02019	t-Amyl methyl ether	994-05-8	N.D.	0.001	mg/kg	1
02020	t-Butyl alcohol	75-65-0	N.D.	0.020	mg/kg	1
05460	Benzene	71-43-2	N.D.	0.0005	mg/kg	1
05461	1,2-Dichloroethane	107-06-2	N.D.	0.001	mg/kg	1
05466	Toluene	108-88-3	N.D.	0.001	mg/kg	1
05471	1,2-Dibromoethane	106-93-4	N.D.	0.001	mg/kg	1
05474	Ethylbenzene	100-41-4	N.D.	0.001	mg/kg	1
06301	Xylene (Total)	1330-20-7	N.D.	0.001	mg/kg	1

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### Laboratory Chronicle

CAT No.	Analysis Name	Method	Trial#	Analysis	Analyst	Dilution Factor
				Date and Time		
01725	TPH-GRO - Soils	TPH GRO SW-846 8015B mod	1	01/08/2007 20:11	Linda C Pape	25
07361	BTEX+5 Oxygenates+EDC+EDB	SW-846 8260B	1	01/09/2007 11:55	Emiley A King	1
00374	GC/MS - Bulk Sample Prep	SW-846 5030A	1	01/09/2007 11:19	Emiley A King	n.a.
01150	GC - Bulk Soil Prep	SW-846 5035	1	01/08/2007 01:51	Esse L Mertz	n.a.

**Lancaster Laboratories Sample No. SW 4953854**
**B-2-S-6-070104 Grab Soil**  
**Facility# 91583 MTI# 61H-1960 CETR**  
**5509 Martin Luther King T0600100348 B-2**  
 Collected: 01/04/2007 09:36 by **H**

Account Number: 11997

 Submitted: 01/06/2007 10:10  
 Reported: 01/17/2007 at 12:37  
 Discard: 02/17/2007

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CAT No.	Analysis Name	CAS Number	As Received Result	As Received		Dilution Factor
				Method	Units	
01725	TPH-GRO - Soils	n.a.	N.D.	Detection Limit 1.0	mg/kg	25
The analysis for volatiles was performed on a sample which was preserved in methanol. Therefore, the reporting limits were raised. The reported concentration of TPH-GRO does not include MTBE or other gasoline constituents eluting prior to the C6 (n-hexane) TPH-GRO range start time.						
07361	BTEX+5 Oxygenates+EDC+EDB					
02016	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.0005	mg/kg	1
02017	di-Isopropyl ether	108-20-3	N.D.	0.001	mg/kg	1
02018	Ethyl t-butyl ether	637-92-3	N.D.	0.001	mg/kg	1
02019	t-Amyl methyl ether	994-05-8	N.D.	0.001	mg/kg	1
02020	t-Butyl alcohol	75-65-0	N.D.	0.020	mg/kg	1
05460	Benzene	71-43-2	N.D.	0.0005	mg/kg	1
05461	1,2-Dichloroethane	107-06-2	N.D.	0.001	mg/kg	1
05466	Toluene	108-88-3	N.D.	0.001	mg/kg	1
05471	1,2-Dibromoethane	106-93-4	N.D.	0.001	mg/kg	1
05474	Ethylbenzene	100-41-4	N.D.	0.001	mg/kg	1
06301	Xylene (Total)	1330-20-7	N.D.	0.001	mg/kg	1

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### Laboratory Chronicle

CAT No.	Analysis Name	Method	Trial#	Analysis		Analyst	Dilution Factor
				Date and Time			
01725	TPH-GRO - Soils	TPH GRO SW-846 8015B mod	1	01/09/2007 00:31		Linda C Pape	25
07361	BTEX+5 Oxygenates+EDC+EDB	SW-846 8260B	1	01/09/2007 13:03		Emiley A King	1
00374	GC/MS - Bulk Sample Prep	SW-846 5030A	1	01/09/2007 11:24		Emiley A King	n.a.
01150	GC - Bulk Soil Prep	SW-846 5035	1	01/08/2007 01:54		asse L Mertz	n.a.

**Lancaster Laboratories Sample No. SW 4953855**
**B-2-S-9-070104 Grab Soil**  
**Facility# 91583 MTI# 61H-1960 CETR**  
**5509 Martin Luther King T0600100348 B-2**  
 Collected: 01/04/2007 09:50 by B

Account Number: 11997

 Submitted: 01/06/2007 10:10  
 Reported: 01/17/2007 at 12:37  
 Discard: 02/17/2007

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CAT No.	Analysis Name	CAS Number	As Received	As Received	Units	Dilution Factor
			Result	Method		
01725	TPH-GRO - Soils	n.a.	N.D.	Detection Limit 1.0	mg/kg	25
The analysis for volatiles was performed on a sample which was preserved in methanol. Therefore, the reporting limits were raised. The reported concentration of TPH-GRO does not include MTBE or other gasoline constituents eluting prior to the C6 (n-hexane) TPH-GRO range start time.						
07361	BTEX+5 Oxygenates+EDC+EDB					
02016	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.0005	mg/kg	1
02017	di-Isopropyl ether	108-20-3	N.D.	0.001	mg/kg	1
02018	Ethyl t-butyl ether	637-92-3	N.D.	0.001	mg/kg	1
02019	t-Amyl methyl ether	994-05-8	N.D.	0.001	mg/kg	1
02020	t-Butyl alcohol	75-65-0	N.D.	0.020	mg/kg	1
05460	Benzene	71-43-2	N.D.	0.0005	mg/kg	1
05461	1,2-Dichloroethane	107-06-2	N.D.	0.001	mg/kg	1
05466	Toluene	108-88-3	N.D.	0.001	mg/kg	1
05471	1,2-Dibromoethane	106-93-4	N.D.	0.001	mg/kg	1
05474	Ethylbenzene	100-41-4	N.D.	0.001	mg/kg	1
06301	Xylene (Total)	1330-20-7	N.D.	0.001	mg/kg	1

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### Laboratory Chronicle

CAT No.	Analysis Name	Method	Trial#	Analysis	Analyst	Dilution Factor
				Date and Time		
01725	TPH-GRO - Soils	TPH GRO SW-846 8015B mod	1	01/09/2007 01:08	Linda C Pape	25
07361	BTEX+5 Oxygenates+EDC+EDB	SW-846 8260B	1	01/09/2007 13:26	Emiley A King	1
00374	GC/MS - Bulk Sample Prep	SW-846 5030A	1	01/09/2007 11:25	Emiley A King	n.a.
01150	GC - Bulk Soil Prep	SW-846 5035	1	01/08/2007 01:57	Esse L Mertz	n.a.

**Lancaster Laboratories Sample No. SW 4953856**
**B-1-S-3-070104 Grab Soil**  
**Facility# 91583 MTI# 61H-1960 CETR**  
**5509 Martin Luther King T0600100348 B-1**  
 Collected: 01/04/2007 10:57 by B

Account Number: 11997

 Submitted: 01/06/2007 10:10  
 Reported: 01/17/2007 at 12:37  
 Discard: 02/17/2007

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CAT No.	Analysis Name	CAS Number	As Received Result	As Received		Dilution Factor
				Method	Units	
01725	TPH-GRO - Soils	n.a.	N.D.	Detection Limit 1.0	mg/kg	25
The analysis for volatiles was performed on a sample which was preserved in methanol. Therefore, the reporting limits were raised. The reported concentration of TPH-GRO does not include MTBE or other gasoline constituents eluting prior to the C6 (n-hexane) TPH-GRO range start time.						
07361	BTEX+5 Oxygenates+EDC+EDB					
02016	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.0005	mg/kg	1
02017	di-Isopropyl ether	108-20-3	N.D.	0.001	mg/kg	1
02018	Ethyl t-butyl ether	637-92-3	N.D.	0.001	mg/kg	1
02019	t-Amyl methyl ether	994-05-8	N.D.	0.001	mg/kg	1
02020	t-Butyl alcohol	75-65-0	N.D.	0.020	mg/kg	1
05460	Benzene	71-43-2	N.D.	0.0005	mg/kg	1
05461	1,2-Dichloroethane	107-06-2	N.D.	0.001	mg/kg	1
05466	Toluene	108-88-3	0.001	0.001	mg/kg	1
05471	1,2-Dibromoethane	106-93-4	N.D.	0.001	mg/kg	1
05474	Ethylbenzene	100-41-4	N.D.	0.001	mg/kg	1
06301	Xylene (Total)	1330-20-7	N.D.	0.001	mg/kg	1

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All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

### Laboratory Chronicle

CAT No.	Analysis Name	Method	Trial#	Analysis		Analyst	Dilution Factor
				Date and Time			
01725	TPH-GRO - Soils	TPH GRO SW-846 8015B mod	1	01/09/2007 01:45		Linda C Pape	25
07361	BTEX+5 Oxygenates+EDC+EDB	SW-846 8260B	1	01/09/2007 13:49		Emiley A King	1
00374	GC/MS - Bulk Sample Prep	SW-846 5030A	1	01/09/2007 11:27		Emiley A King	n.a.
01150	GC - Bulk Soil Prep	SW-846 5035	1	01/08/2007 02:00		Esse L Mertz	n.a.

**Lancaster Laboratories Sample No. SW 4953857**
**B-1-S-6-070104**                      **Grab**                      **Soil**  
**Facility# 91583**    **MTI# 61H-1960**                      **CETR**  
**5509 Martin Luther King**    **T0600100348**    **B-1**  
 Collected: 01/04/2007 11:01                      by **B**

Account Number: 11997

 Submitted: 01/06/2007 10:10  
 Reported: 01/17/2007 at 12:37  
 Discard: 02/17/2007

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CAT No.	Analysis Name	CAS Number	As Received Result	As Received		Dilution Factor
				Method	Units	
01725	TPH-GRO - Soils	n.a.	N.D.	Detection Limit 1.0	mg/kg	25
The analysis for volatiles was performed on a sample which was preserved in methanol. Therefore, the reporting limits were raised. The reported concentration of TPH-GRO does not include MTBE or other gasoline constituents eluting prior to the C6 (n-hexane) TPH-GRO range start time.						
07361	BTEX+5 Oxygenates+EDC+EDB					
02016	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.0005	mg/kg	1
02017	di-Isopropyl ether	108-20-3	N.D.	0.001	mg/kg	1
02018	Ethyl t-butyl ether	637-92-3	N.D.	0.001	mg/kg	1
02019	t-Amyl methyl ether	994-05-8	N.D.	0.001	mg/kg	1
02020	t-Butyl alcohol	75-65-0	N.D.	0.020	mg/kg	1
05460	Benzene	71-43-2	N.D.	0.0005	mg/kg	1
05461	1,2-Dichloroethane	107-06-2	N.D.	0.001	mg/kg	1
05466	Toluene	108-88-3	N.D.	0.001	mg/kg	1
05471	1,2-Dibromoethane	106-93-4	N.D.	0.001	mg/kg	1
05474	Ethylbenzene	100-41-4	N.D.	0.001	mg/kg	1
06301	Xylene (Total)	1330-20-7	N.D.	0.001	mg/kg	1

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### Laboratory Chronicle

CAT No.	Analysis Name	Method	Trial#	Analysis		Analyst	Dilution Factor
				Date	Time		
01725	TPH-GRO - Soils	TPH GRO SW-846 8015B mod	1	01/09/2007	02:21	Linda C Pape	25
07361	BTEX+5 Oxygenates+EDC+EDB	SW-846 8260B	1	01/09/2007	14:11	Emiley A King	1
00374	GC/MS - Bulk Sample Prep	SW-846 5030A	1	01/09/2007	11:28	Emiley A King	n.a.
01150	GC - Bulk Soil Prep	SW-846 5035	1	01/08/2007	02:02	Esse L Mertz	n.a.

**Lancaster Laboratories Sample No. SW 4953858**
**B-1-S-9-070104 Grab Soil**  
**Facility# 91583 MTI# 61H-1960 CETR**  
**5509 Martin Luther King T0600100348 B-1**  
 Collected: 01/04/2007 11:13 by B

Account Number: 11997

 Submitted: 01/06/2007 10:10  
 Reported: 01/17/2007 at 12:37  
 Discard: 02/17/2007

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CAT No.	Analysis Name	CAS Number	As Received Result	As Received		Dilution Factor
				Method	Detection Limit	
01725	TPH-GRO - Soils	n.a.	N.D.	1.0	mg/kg	25
The analysis for volatiles was performed on a sample which was preserved in methanol. Therefore, the reporting limits were raised. The reported concentration of TPH-GRO does not include MTBE or other gasoline constituents eluting prior to the C6 (n-hexane) TPH-GRO range start time.						
07361	BTEX+5 Oxygenates+EDC+EDB					
02016	Methyl Tertiary Butyl Ether	1634-04-4	0.0006	0.0005	mg/kg	0.99
02017	di-Isopropyl ether	108-20-3	N.D.	0.001	mg/kg	0.99
02018	Ethyl t-butyl ether	637-92-3	N.D.	0.001	mg/kg	0.99
02019	t-Amyl methyl ether	994-05-8	N.D.	0.001	mg/kg	0.99
02020	t-Butyl alcohol	75-65-0	N.D.	0.020	mg/kg	0.99
05460	Benzene	71-43-2	N.D.	0.0005	mg/kg	0.99
05461	1,2-Dichloroethane	107-06-2	N.D.	0.001	mg/kg	0.99
05466	Toluene	108-88-3	N.D.	0.001	mg/kg	0.99
05471	1,2-Dibromoethane	106-93-4	N.D.	0.001	mg/kg	0.99
05474	Ethylbenzene	100-41-4	N.D.	0.001	mg/kg	0.99
06301	Xylene (Total)	1330-20-7	N.D.	0.001	mg/kg	0.99

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### Laboratory Chronicle

CAT No.	Analysis Name	Method	Trial#	Analysis		Analyst	Dilution Factor
				Date and Time			
01725	TPH-GRO - Soils	TPH GRO SW-846 8015B mod	1	01/09/2007 02:58		Linda C Pape	25
07361	BTEX+5 Oxygenates+EDC+EDB	SW-846 8260B	1	01/09/2007 14:34		Emiley A King	0.99
00374	GC/MS - Bulk Sample Prep	SW-846 5030A	1	01/09/2007 11:30		Emiley A King	n.a.
01150	GC - Bulk Soil Prep	SW-846 5035	1	01/08/2007 02:04		Esse L Mertz	n.a.

**Lancaster Laboratories Sample No. SW 4953859**
**B-5-S-3-070104**                      **Grab**                      **Soil**  
**Facility# 91583**    **MTI# 61H-1960**                      **CETR**  
**5509 Martin Luther King**    **T0600100348**    **B-5**  
 Collected: 01/04/2007 12:26                      by **B**

Account Number: 11997

 Submitted: 01/06/2007 10:10  
 Reported: 01/17/2007 at 12:37  
 Discard: 02/17/2007

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CAT No.	Analysis Name	CAS Number	As Received	As Received	Units	Dilution Factor
			Result	Method Detection Limit		
01725	TPH-GRO - Soils	n.a.	N.D.	1.0	mg/kg	25
	The analysis for volatiles was performed on a sample which was preserved in methanol. Therefore, the reporting limits were raised. The reported concentration of TPH-GRO does not include MTBE or other gasoline constituents eluting prior to the C6 (n-hexane) TPH-GRO range start time.					
07361	BTEX+5 Oxygenates+EDC+EDB					
02016	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.0005	mg/kg	1
02017	di-Isopropyl ether	108-20-3	N.D.	0.001	mg/kg	1
02018	Ethyl t-butyl ether	637-92-3	N.D.	0.001	mg/kg	1
02019	t-Amyl methyl ether	994-05-8	N.D.	0.001	mg/kg	1
02020	t-Butyl alcohol	75-65-0	N.D.	0.020	mg/kg	1
05460	Benzene	71-43-2	N.D.	0.0005	mg/kg	1
05461	1,2-Dichloroethane	107-06-2	N.D.	0.001	mg/kg	1
05466	Toluene	108-88-3	N.D.	0.001	mg/kg	1
05471	1,2-Dibromoethane	106-93-4	N.D.	0.001	mg/kg	1
05474	Ethylbenzene	100-41-4	N.D.	0.001	mg/kg	1
06301	Xylene (Total)	1330-20-7	N.D.	0.001	mg/kg	1

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### Laboratory Chronicle

CAT No.	Analysis Name	Method	Trial#	Analysis	Analyst	Dilution Factor
				Date and Time		
01725	TPH-GRO - Soils	TPH GRO SW-846 8015B mod	1	01/09/2007 03:35	Linda C Pape	25
07361	BTEX+5 Oxygenates+EDC+EDB	SW-846 8260B	1	01/09/2007 14:56	Emiley A King	1
00374	GC/MS - Bulk Sample Prep	SW-846 5030A	1	01/09/2007 11:32	Emiley A King	n.a.
01150	GC - Bulk Soil Prep	SW-846 5035	1	01/08/2007 02:06	dsse L Mertz	n.a.

**Lancaster Laboratories Sample No. SW 4953860**
**B-5-S-5-070104 Grab Soil**  
**Facility# 91583 MTI# 61H-1960 CETR**  
**5509 Martin Luther King T0600100348 B-5**  
 Collected: 01/04/2007 12:51 by B

Account Number: 11997

 Submitted: 01/06/2007 10:10  
 Reported: 01/17/2007 at 12:37  
 Discard: 02/17/2007

 Chevron c/o Cambria  
 Suite 110  
 2000 Opportunity Drive  
 Roseville CA 95678

B5--5

CAT No.	Analysis Name	CAS Number	As Received Result	As Received		Units	Dilution Factor
				Method	Detection Limit		
01725	TPH-GRO - Soils	n.a.	N.D.		1.0	mg/kg	25
	The analysis for volatiles was performed on a sample which was preserved in methanol. Therefore, the reporting limits were raised. The reported concentration of TPH-GRO does not include MTBE or other gasoline constituents eluting prior to the C6 (n-hexane) TPH-GRO range start time.						
07361	BTEX+5 Oxygenates+EDC+EDB						
02016	Methyl Tertiary Butyl Ether	1634-04-4	N.D.		0.0005	mg/kg	1
02017	di-Isopropyl ether	108-20-3	N.D.		0.001	mg/kg	1
02018	Ethyl t-butyl ether	637-92-3	N.D.		0.001	mg/kg	1
02019	t-Amyl methyl ether	994-05-8	N.D.		0.001	mg/kg	1
02020	t-Butyl alcohol	75-65-0	N.D.		0.020	mg/kg	1
05460	Benzene	71-43-2	N.D.		0.0005	mg/kg	1
05461	1,2-Dichloroethane	107-06-2	N.D.		0.001	mg/kg	1
05466	Toluene	108-88-3	N.D.		0.001	mg/kg	1
05471	1,2-Dibromoethane	106-93-4	N.D.		0.001	mg/kg	1
05474	Ethylbenzene	100-41-4	N.D.		0.001	mg/kg	1
06301	Xylene (Total)	1330-20-7	N.D.		0.001	mg/kg	1

State of California Lab Certification No. 2116

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

### Laboratory Chronicle

CAT No.	Analysis Name	Method	Trial#	Analysis		Analyst	Dilution Factor
				Date	Time		
01725	TPH-GRO - Soils	TPH GRO SW-846 8015B mod	1	01/09/2007	04:12	Linda C Pape	25
07361	BTEX+5 Oxygenates+EDC+EDB	SW-846 8260B	1	01/09/2007	15:18	Emiley A King	1
00374	GC/MS - Bulk Sample Prep	SW-846 5030A	1	01/09/2007	11:34	Emiley A King	n.a.
01150	GC - Bulk Soil Prep	SW-846 5035	1	01/08/2007	02:08	Esse L Mertz	n.a.



**Lancaster Laboratories Sample No. WW 4953861**
**B-4-W-070103**                      **Grab**                      **Water**  
**Facility# 91583**    **MTI# 61H-1960**  
**5509 Martin Luther King**    **T0600100348**    **B-4**  
 Collected: 01/03/2007 12:30                      by **B**
**CETR**

Account Number: 11997

 Submitted: 01/06/2007 10:10  
 Reported: 01/17/2007 at 12:37  
 Discard: 02/17/2007

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 2000 Opportunity Drive  
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CAT No.	Analysis Name	CAS Number	As Received	As Received	Units	Dilution Factor
			Result	Method		
01728	TPH-GRO - Waters	n.a.	N.D.	50.	ug/l	1
	The reported concentration of TPH-GRO does not include MTBE or other gasoline constituents eluting prior to the C6 (n-hexane) TPH-GRO range start time.					
06058	BTEX+5 Oxygenates+EDC+EDB					
02010	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.5	ug/l	1
02011	di-Isopropyl ether	108-20-3	N.D.	0.5	ug/l	1
02013	Ethyl t-butyl ether	637-92-3	N.D.	0.5	ug/l	1
02014	t-Amyl methyl ether	994-05-8	N.D.	0.5	ug/l	1
02015	t-Butyl alcohol	75-65-0	N.D.	2.	ug/l	1
05401	Benzene	71-43-2	N.D.	0.5	ug/l	1
05402	1,2-Dichloroethane	107-06-2	N.D.	0.5	ug/l	1
05407	Toluene	108-88-3	N.D.	0.5	ug/l	1
05412	1,2-Dibromoethane	106-93-4	N.D.	0.5	ug/l	1
05415	Ethylbenzene	100-41-4	N.D.	0.5	ug/l	1
06310	Xylene (Total)	1330-20-7	N.D.	0.5	ug/l	1

State of California Lab Certification.No. 2116

Trip blank vials were not received by the laboratory for this sample group.

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

### Laboratory Chronicle

CAT No.	Analysis Name	Method	Trial#	Analysis		Analyst	Dilution Factor
				Date and Time			
01728	TPH-GRO - Waters	TPH GRO SW-846 8015B mod	1	01/09/2007 00:37		Martha L Seidel	1
06058	BTEX+5 Oxygenates+EDC+EDB	SW-846 8260B	1	01/10/2007 23:24		Kelly E Brickley	1
01146	GC WA Water Prep	SW-846 5030B	1	01/09/2007 00:37		Martha L Seidel	1
01163	GC/MS WA Water Prep	SW-846 5030B	1	01/10/2007 23:24		Kelly E Brickley	1

**Lancaster Laboratories Sample No. WW 4953862**
**B-3-W-070103**                      **Grab**                      **Water**  
**Facility# 91583**    **MTI# 61H-1960**                      **CETR**  
**5509 Martin Luther King**    **T0600100348**    **B-3**  
**Collected: 01/03/2007 14:00**                      **by B**                      **Account Number: 11997**
**Submitted: 01/06/2007 10:10**  
**Reported: 01/17/2007 at 12:37**  
**Discard: 02/17/2007**
**Chevron c/o Cambria**  
**Suite 110**  
**2000 Opportunity Drive**  
**Roseville CA 95678**

B3---

CAT No.	Analysis Name	CAS Number	As Received	As Received	Units	Dilution Factor
			Result	Method		
01728	TPH-GRO - Waters	n.a.	N.D.	Detection Limit 50.	ug/l	1
	The reported concentration of TPH-GRO does not include MTBE or other gasoline constituents eluting prior to the C6 (n-hexane) TPH-GRO range start time.					
06058	BTEX+5 Oxygenates+EDC+EDB					
02010	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.5	ug/l	1
02011	di-Isopropyl ether	108-20-3	N.D.	0.5	ug/l	1
02013	Ethyl t-butyl ether	637-92-3	N.D.	0.5	ug/l	1
02014	t-Amyl methyl ether	994-05-8	N.D.	0.5	ug/l	1
02015	t-Butyl alcohol	75-65-0	N.D.	2.	ug/l	1
05401	Benzene	71-43-2	N.D.	0.5	ug/l	1
05402	1,2-Dichloroethane	107-06-2	N.D.	0.5	ug/l	1
05407	Toluene	108-88-3	N.D.	0.5	ug/l	1
05412	1,2-Dibromoethane	106-93-4	N.D.	0.5	ug/l	1
05415	Ethylbenzene	100-41-4	N.D.	0.5	ug/l	1
06310	Xylene (Total)	1330-20-7	N.D.	0.5	ug/l	1

State of California Lab Certification No. 2116

Trip blank vials were not received by the laboratory for this sample group.

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

### Laboratory Chronicle

CAT No.	Analysis Name	Method	Analysis		Analyst	Dilution Factor
			Trial#	Date and Time		
01728	TPH-GRO - Waters	TPH GRO SW-846 8015B mod	1	01/09/2007 00:58	Martha L Seidel	1
06058	BTEX+5 Oxygenates+EDC+EDB	SW-846 8260B	1	01/10/2007 23:47	Kelly E Brickley	1
01146	GC WA Water Prep	SW-846 5030B	1	01/09/2007 00:58	Martha L Seidel	1
01163	GC/MS WA Water Prep	SW-846 5030B	1	01/10/2007 23:47	Kelly E Brickley	1

**Lancaster Laboratories Sample No. WW 4953863**
**B-1-W-070104**                      **Grab**                      **Water**  
**Facility# 91583**    **MTI# 61H-1960**                      **CETR**  
**5509 Martin Luther King**    **T0600100348**    **B-1**  
 Collected: 01/04/2007 11:25                      by **B**

Account Number: 11997

 Submitted: 01/06/2007 10:10  
 Reported: 01/17/2007 at 12:37  
 Discard: 02/17/2007

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 Roseville CA 95678

B1---

CAT No.	Analysis Name	CAS Number	As Received	As Received	Units	Dilution Factor
			Result	Method Detection Limit		
01728	TPH-GRO - Waters	n.a.	2,600.	500.	ug/l	10
	The reported concentration of TPH-GRO does not include MTBE or other gasoline constituents eluting prior to the C6 (n-hexane) TPH-GRO range start time.					
06058	BTEX+5 Oxygenates+EDC+EDB					
02010	Methyl Tertiary Butyl Ether	1634-04-4	2.	0.5	ug/l	1
02011	di-Isopropyl ether	108-20-3	N.D.	0.5	ug/l	1
02013	Ethyl t-butyl ether	637-92-3	N.D.	0.5	ug/l	1
02014	t-Amyl methyl ether	994-05-8	N.D.	0.5	ug/l	1
02015	t-Butyl alcohol	75-65-0	N.D.	2.	ug/l	1
05401	Benzene	71-43-2	N.D.	0.5	ug/l	1
05402	1,2-Dichloroethane	107-06-2	N.D.	0.5	ug/l	1
05407	Toluene	108-88-3	N.D.	0.5	ug/l	1
05412	1,2-Dibromoethane	106-93-4	N.D.	0.5	ug/l	1
05415	Ethylbenzene	100-41-4	0.9	0.5	ug/l	1
06310	Xylene (Total)	1330-20-7	N.D.	0.5	ug/l	1

State of California Lab Certification No. 2116

Trip blank vials were not received by the laboratory for this sample group.

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

### Laboratory Chronicle

CAT No.	Analysis Name	Method	Trial#	Analysis	Analyst	Dilution Factor
				Date and Time		
01728	TPH-GRO - Waters	TPH GRO SW-846 8015B mod	1	01/09/2007 01:19	Martha L Seidel	10
06058	BTEX+5 Oxygenates+EDC+EDB	SW-846 8260B	1	01/11/2007 00:09	Kelly E Brickley	1
01146	GC WA Water Prep	SW-846 5030B	1	01/09/2007 01:19	Martha L Seidel	10
01163	GC/MS WA Water Prep	SW-846 5030B	1	01/11/2007 00:09	Kelly E Brickley	1

**Lancaster Laboratories Sample No. WW 4953864**

 B-2-W-070104                      Grab              Water  
 Facility# 91583    MTI# 61H-1960                      CETR  
 5509 Martin Luther King    T0600100348    B-2  
 Collected: 01/04/2007 10:00              by B

Account Number: 11997

 Submitted: 01/06/2007 10:10  
 Reported: 01/17/2007 at 12:37  
 Discard: 02/17/2007

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 Suite 110  
 2000 Opportunity Drive  
 Roseville CA 95678

B2---

CAT No.	Analysis Name	CAS Number	As Received Result	As Received		Units	Dilution Factor
				Method	Detection Limit		
01728	TPH-GRO - Waters The reported concentration of TPH-GRO does not include MTBE or other gasoline constituents eluting prior to the C6 (n-hexane) TPH-GRO range start time.	n.a.	4,500.		500.	ug/l	10
06058	BTEX+5 Oxygenates+EDC+EDB						
02010	Methyl Tertiary Butyl Ether	1634-04-4	5.		0.5	ug/l	1
02011	di-Isopropyl ether	108-20-3	N.D.		0.5	ug/l	1
02013	Ethyl t-butyl ether	637-92-3	N.D.		0.5	ug/l	1
02014	t-Amyl methyl ether	994-05-8	N.D.		0.5	ug/l	1
02015	t-Butyl alcohol	75-65-0	N.D.		2.	ug/l	1
05401	Benzene	71-43-2	N.D.		0.5	ug/l	1
05402	1,2-Dichloroethane	107-06-2	N.D.		0.5	ug/l	1
05407	Toluene	108-88-3	N.D.		0.5	ug/l	1
05412	1,2-Dibromoethane	106-93-4	N.D.		0.5	ug/l	1
05415	Ethylbenzene	100-41-4	N.D.		0.5	ug/l	1
06310	Xylene (Total)	1330-20-7	N.D.		0.5	ug/l	1

State of California Lab Certification No. 2116

Trip blank vials were not received by the laboratory for this sample group.

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

## Laboratory Chronicle

CAT No.	Analysis Name	Method	Trial#	Analysis		Analyst	Dilution Factor
				Date	Time		
01728	TPH-GRO - Waters	TPH GRO SW-846 8015B mod	1	01/09/2007	02:21	Martha L Seidel	10
06058	BTEX+5 Oxygenates+EDC+EDB	SW-846 8260B	1	01/12/2007	09:03	Dawn M Harle	1
01146	GC WA Water Prep	SW-846 5030B	1	01/09/2007	02:21	Martha L Seidel	10
01163	GC/MS WA Water Prep	SW-846 5030B	1	01/12/2007	09:03	Dawn M Harle	1

## Quality Control Summary

 Client Name: Chevron c/o Cambria  
 Reported: 01/17/07 at 12:37 PM

Group Number: 1020559

Matrix QC may not be reported if site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD was performed, unless otherwise specified in the method.

### Laboratory Compliance Quality Control

<u>Analysis Name</u>	<u>Blank Result</u>	<u>Blank MDL</u>	<u>Report Units</u>	<u>LCS %REC</u>	<u>LCSD %REC</u>	<u>LCS/LCSD Limits</u>	<u>RPD</u>	<u>RPD Max</u>
Batch number: 07008A33A TPH-GRO - Soils	N.D.	1.0	mg/kg	89		67-119		
Batch number: 07008A54A TPH-GRO - Waters	N.D.	50.	ug/l	121	127	70-130	4	30
Batch number: A070081AA Methyl Tertiary Butyl Ether	N.D.	0.5	ug/kg	101		72-117		
di-Isopropyl ether	N.D.	1.	ug/kg	91		72-120		
Ethyl t-butyl ether	N.D.	1.	ug/kg	94		72-115		
t-Amyl methyl ether	N.D.	1.	ug/kg	98		73-116		
t-Butyl alcohol	N.D.	20.	ug/kg	109		52-153		
Benzene	N.D.	0.5	ug/kg	97		77-119		
1,2-Dichloroethane	N.D.	1.	ug/kg	103		76-126		
Toluene	N.D.	1.	ug/kg	83		81-116		
1,2-Dibromoethane	N.D.	1.	ug/kg	98		77-114		
Ethylbenzene	N.D.	1.	ug/kg	90		82-115		
Xylene (Total)	N.D.	1.	ug/kg	90		82-117		
Batch number: A070091AA Methyl Tertiary Butyl Ether	N.D.	0.5	ug/kg	98		72-117		
di-Isopropyl ether	N.D.	1.	ug/kg	92		72-120		
Ethyl t-butyl ether	N.D.	1.	ug/kg	92		72-115		
t-Amyl methyl ether	N.D.	1.	ug/kg	96		73-116		
t-Butyl alcohol	N.D.	20.	ug/kg	124		52-153		
Benzene	N.D.	0.5	ug/kg	100		77-119		
1,2-Dichloroethane	N.D.	1.	ug/kg	106		76-126		
Toluene	N.D.	1.	ug/kg	85		81-116		
1,2-Dibromoethane	N.D.	1.	ug/kg	95		77-114		
Ethylbenzene	N.D.	1.	ug/kg	94		82-115		
Xylene (Total)	N.D.	1.	ug/kg	95		82-117		
Batch number: D070102AA Methyl Tertiary Butyl Ether	N.D.	0.5	ug/l	97		73-119		
di-Isopropyl ether	N.D.	0.5	ug/l	99		70-123		
Ethyl t-butyl ether	N.D.	0.5	ug/l	97		74-120		
t-Amyl methyl ether	N.D.	0.5	ug/l	93		79-113		
t-Butyl alcohol	N.D.	2.	ug/l	94		69-127		
Benzene	N.D.	0.5	ug/l	99		85-117		
1,2-Dichloroethane	N.D.	0.5	ug/l	102		77-132		
Toluene	N.D.	0.5	ug/l	96		85-115		
1,2-Dibromoethane	N.D.	0.5	ug/l	98		81-114		
Ethylbenzene	N.D.	0.5	ug/l	98		82-119		
Xylene (Total)	N.D.	0.5	ug/l	99		83-113		
Batch number: Z070122AA Methyl Tertiary Butyl Ether	N.D.	0.5	ug/l	95		73-119		

\*- Outside of specification

- (1) The result for one or both determinations was less than five times the LOQ.
- (2) The background result was more than four times the spike added.

## Quality Control Summary

 Client Name: Chevron c/o Cambria  
 Reported: 01/17/07 at 12:37 PM

Group Number: 1020559

### Laboratory Compliance Quality Control

<u>Analysis Name</u>	<u>Blank Result</u>	<u>Blank MDL</u>	<u>Report Units</u>	<u>LCS %REC</u>	<u>LCS %REC</u>	<u>LCS/LCS Limits</u>	<u>RPD</u>	<u>RPD Max</u>
di-Isopropyl ether	N.D.	0.5	ug/l	105		70-123		
Ethyl t-butyl ether	N.D.	0.5	ug/l	99		74-120		
t-Amyl methyl ether	N.D.	0.5	ug/l	94		79-113		
t-Butyl alcohol	N.D.	2.	ug/l	100		69-127		
Benzene	N.D.	0.5	ug/l	100		85-117		
1,2-Dichloroethane	N.D.	0.5	ug/l	108		77-132		
Toluene	N.D.	0.5	ug/l	102		85-115		
1,2-Dibromoethane	N.D.	0.5	ug/l	104		81-114		
Ethylbenzene	N.D.	0.5	ug/l	104		82-119		
Xylene (Total)	N.D.	0.5	ug/l	105		83-113		

### Sample Matrix Quality Control

 Unspiked (UNSPK) = the sample used in conjunction with the matrix spike  
 Background (BKG) = the sample used in conjunction with the duplicate

<u>Analysis Name</u>	<u>MS %REC</u>	<u>MSD %REC</u>	<u>MS/MSD Limits</u>	<u>RPD</u>	<u>RPD MAX</u>	<u>BKG Conc</u>	<u>DUP Conc</u>	<u>DUP RPD</u>	<u>Dup RPD Max</u>
Batch number: 07008A33A TPH-GRO - Soils	Sample number(s): 4953847-4953860 UNSPK: 4953853								
	83	85	39-118	2	30				
Batch number: 07008A54A TPH-GRO - Waters	Sample number(s): 4953861-4953864 UNSPK: P953733								
	112		63-154						
Batch number: A070081AA Methyl Tertiary Butyl Ether	Sample number(s): 4953847-4953850 UNSPK: P953757								
di-Isopropyl ether	89	89	47-130	1	30				
Ethyl t-butyl ether	83	84	58-122	1	30				
t-Amyl methyl ether	85	85	57-122	0	30				
t-Butyl alcohol	87	88	58-119	1	30				
Benzene	108	114	51-134	5	30				
1,2-Dichloroethane	87	87	59-120	0	30				
Toluene	92	93	62-130	1	30				
1,2-Dibromoethane	75	78	52-121	5	30				
Ethylbenzene	86	87	62-116	2	30				
Xylene (Total)	82	81	54-116	0	30				
	82	82	44-127	0	30				
Batch number: A070091AA Methyl Tertiary Butyl Ether	Sample number(s): 4953851-4953860 UNSPK: 4953853								
di-Isopropyl ether	81	84	47-130	2	30				
Ethyl t-butyl ether	74	76	58-122	1	30				
t-Amyl methyl ether	75	77	57-122	1	30				
t-Butyl alcohol	78	80	58-119	2	30				
Benzene	95	96	51-134	0	30				
1,2-Dichloroethane	79	80	59-120	1	30				
Toluene	87	89	62-130	0	30				
1,2-Dibromoethane	68	68	52-121	2	30				
Ethylbenzene	78	82	62-116	4	30				
Xylene (Total)	73	74	54-116	1	30				
	74	75	44-127	1	30				
Batch number: D070102AA Methyl Tertiary Butyl Ether	Sample number(s): 4953861-4953863 UNSPK: P953708								
di-Isopropyl ether	99	100	69-127	0	30				
	103	104	75-130	1	30				

\*- Outside of specification

- (1) The result for one or both determinations was less than five times the LOQ.
- (2) The background result was more than four times the spike added.

## Quality Control Summary

 Client Name: Chevron c/o Cambria  
 Reported: 01/17/07 at 12:37 PM

Group Number: 1020559

### Sample Matrix Quality Control

 Unspiked (UNSPK) = the sample used in conjunction with the matrix spike  
 Background (BKG) = the sample used in conjunction with the duplicate

Analysis Name	MS %REC	MSD %REC	MS/MSD Limits	RPD RPD	RPD MAX	BKG Conc	DUP Conc	DUP RPD	Dup RPD Max
Ethyl t-butyl ether	101	101	78-119	1	30				
t-Amyl methyl ether	97	96	72-125	1	30				
t-Butyl alcohol	90	97	64-130	8	30				
Benzene	105	103	83-128	2	30				
1,2-Dichloroethane	107	106	70-143	1	30				
Toluene	100	102	83-127	2	30				
1,2-Dibromoethane	96	99	78-120	3	30				
Ethylbenzene	102	104	82-129	2	30				
Xylene (Total)	102	104	82-130	1	30				

Batch number: Z070122AA	Sample number(s): 4953864	UNSPK: P954661			
Methyl Tertiary Butyl Ether	91	97	69-127	5	30
di-Isopropyl ether	106	109	75-130	3	30
Ethyl t-butyl ether	101	104	78-119	3	30
t-Amyl methyl ether	93	98	72-125	4	30
t-Butyl alcohol	(2)	(2)	64-130	50*	30
Benzene	103	107	83-128	4	30
1,2-Dichloroethane	107	111	70-143	3	30
Toluene	102	107	83-127	4	30
1,2-Dibromoethane	100	103	78-120	3	30
Ethylbenzene	99	108	82-129	9	30
Xylene (Total)	99	107	82-130	8	30

### Surrogate Quality Control

Surrogate recoveries which are outside of the QC window are confirmed unless attributed to dilution or otherwise noted on the Analysis Report.

 Analysis Name: TPH-GRO - Soils  
 Batch number: 07008A33A  
 Trifluorotoluene-F

4953847	77
4953848	78
4953849	77
4953850	70
4953851	83
4953852	79
4953853	81
4953854	73
4953855	79
4953856	77
4953857	82
4953858	80
4953859	88
4953860	83
Blank	89
LCS	90
MS	90
MSD	89

\*- Outside of specification

- (1) The result for one or both determinations was less than five times the LOQ.
- (2) The background result was more than four times the spike added.

## Quality Control Summary

 Client Name: Chevron c/o Cambria  
 Reported: 01/17/07 at 12:37 PM

Group Number: 1020559

### Surrogate Quality Control

Limits: 61-122

 Analysis Name: TPH-GRO - Waters  
 Batch number: 07008A54A  
 Trifluorotoluene-F

4953861	94
4953862	100
4953863	99
4953864	94
Blank	95
LCS	104
LCSD	104
MS	102

Limits: 63-135

 Analysis Name: BTEX+5 Oxygenates+EDC+EDB  
 Batch number: A070081AA

	Dibromofluoromethane	1,2-Dichloroethane-d4	Toluene-d8	4-Bromofluorobenzene
4953847	93	88	89	80
4953848	94	90	87	83
4953849	95	91	87	83
4953850	95	88	87	83
Blank	92	88	87	84
LCS	95	94	88	87
MS	93	89	89	86
MSD	93	88	89	87

Limits: 71-114

70-109

70-123

70-111

 Analysis Name: BTEX+5 Oxygenates+EDC+EDB  
 Batch number: A070091AA

	Dibromofluoromethane	1,2-Dichloroethane-d4	Toluene-d8	4-Bromofluorobenzene
4953851	95	94	86	85
4953852	93	89	87	82
4953853	96	93	86	84
4953854	96	92	87	83
4953855	95	90	87	83
4953856	96	91	91	78
4953857	95	90	86	83
4953858	95	90	87	84
4953859	95	90	86	83
4953860	96	90	86	83
Blank	93	89	87	84
LCS	93	89	88	88
MS	96	95	88	89
MSD	96	93	88	88

Limits: 71-114

70-109

70-123

70-111

 Analysis Name: BTEX+5 Oxygenates+EDC+EDB  
 Batch number: D070102AA

	Dibromofluoromethane	1,2-Dichloroethane-d4	Toluene-d8	4-Bromofluorobenzene
--	----------------------	-----------------------	------------	----------------------

\*- Outside of specification

- (1) The result for one or both determinations was less than five times the LOQ.
- (2) The background result was more than four times the spike added.



## Quality Control Summary

 Client Name: Chevron c/o Cambria  
 Reported: 01/17/07 at 12:37 PM

Group Number: 1020559

### Surrogate Quality Control

4953861	101	97	101	107
4953862	101	98	101	107
4953863	101	98	101	108
Blank	99	95	101	108
LCS	100	98	99	107
MS	102	100	100	107
MSD	101	101	101	110

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Limits:	80-116	77-113	80-113	78-113
---------	--------	--------	--------	--------

 Analysis Name: BTEX+5 Oxygenates+EDC+EDB  
 Batch number: Z070122AA

	Dibromofluoromethane	1,2-Dichloroethane-d4	Toluene-d8	4-Bromofluorobenzene
4953864	106	96	103	106
Blank	104	96	104	99
LCS	103	97	105	102
MS	105	97	105	102
MSD	105	97	104	99

---

Limits:	80-116	77-113	80-113	78-113
---------	--------	--------	--------	--------

\*- Outside of specification

- (1) The result for one or both determinations was less than five times the LOQ.
- (2) The background result was more than four times the spike added.

# Chevron California Region Analysis Request/Chain of Custody



For Lancaster Laboratories use only  
 Acct. #: 11997 Sample #: 4953847-64

244467

SCR#: \_\_\_\_\_

MTL 1014-1960

Facility #: Chevron 9-1583  
 Site Address: 5509 Martin Luther King Jr Way Oakland  
 Chevron PM: Dana Thurman Lead Consultant: Cambria  
 Consultant/Office: Roseville  
 Consultant Prj. Mgr.: David Herzog  
 Consultant Phone #: 916 677 3407 Fax #: 916 677 3687  
 Sampler: John Bostick  
 Service Order #: \_\_\_\_\_  Non SAR:

### Analyses Requested

### Preservation Codes

g4p 1020559

Preservative Codes  
 H = HCl    T = Thiosulfate  
 N = HNO<sub>3</sub>    B = NaOH  
 S = H<sub>2</sub>SO<sub>4</sub>    O = Other

J value reporting needed  
 Must meet lowest detection limits possible for 8260 compounds

### 8201 MTBE Confirmation

Confirm highest hit by 8260  
 Confirm all hits by 8260  
 Run \_\_\_ oxy's on highest hit  
 Run \_\_\_ oxy's on all hits

Field Point Name	Matrix	Repeat Sample	Top Depth	Year	Month	Day	Time Collected	New Field Pt.	Grab	Composite	Total Number of Containers	BTEX + MTBE: 8260 <input checked="checked" type="checkbox"/> 8021 <input type="checkbox"/>	TPH 8015 MOD GRO	TPH 8015 MOD DRO <input type="checkbox"/> Silica Gel Cleanup	8260 full scan	Oxygenates	Lead 7420 <input type="checkbox"/> 7421 <input type="checkbox"/>	Comments / Remarks	
B-403	S	N	3	07	07	03	1144	Y	X			X	X			X			
B-406	S	N	6	07	01	03	1152	Y	X			X	X			X			
B-408	S	N	9	07	01	03	1208	Y	X			X	X			X			
B-303	S	N	3	07	01	03	1328	Y	X			X	X			X			
B-306	S	N	6	07	01	03	1339	Y	X			X	X			X			
B-309	S	N	9	07	01	03	1349	Y	X			X	X			X			
B-203	S	N	3	07	01	04	0926	Y	X			X	X			X			
B-206	S	N	6	07	01	04	0936	Y	X			X	X			X			
B-209	S	N	9	07	01	04	0950	Y	X			X	X			X			
B-103	S	N	3	07	01	04	1057	Y	X			X	X			X			
B-106	S	N	6	07	01	04	1101	Y	X			X	X			X			
B-109	S	N	9	07	01	04	1113	Y	X			X	X			X			

Turnaround Time Requested (TAT) (please circle) <input checked="checked" type="radio"/> STD. TAT 24 hour      72 hour      48 hour 4 day              5 day	Relinquished by: <u>Sal Bostick</u>	Date: <u>1/5/07</u>	Time: <u>1400</u>	Received by:	Date	Time
	Relinquished by:	Date	Time	Received by:	Date	Time
	Relinquished by:	Date	Time	Received by:	Date	Time
	Relinquished by Commercial Carrier: UPS <input checked="checked" type="checkbox"/> FedEx      Other _____	Received by:	Date: <u>1/5/07</u>	Time: <u>1000</u>	Custody Seals Intact? Yes <u>CWB</u>	
Data Package Options (please circle if required) QC Summary      Type I - Full Type VI (Raw Data) <input type="checkbox"/> Coelt Deliverable not needed WIP (RWQCB) Disk	Temperature Upon Receipt: <u>3-2</u> °C					

# Chevron California Region Analysis Request/Chain of Custody

244468



For Lancaster Laboratories use only  
 Acct. #: 11997 Sample #: 4953847-64

SCR#: \_\_\_\_\_

MTI 161H-1960

### Analyses Requested

9141020559

Facility #: Chevron 9-1583  
 Site Address: 5509 Martin Luther King Jr Blvd. Oakland  
 Chevron PM: Dana Thurman Lead Consultant: Cambris  
 Consultant/Office: Roseville  
 Consultant Prj. Mgr.: David Herzog  
 Consultant Phone #: 9166773407 Fax #: 9166773687  
 Sampler: John Bostick  
 Service Order #: \_\_\_\_\_  Non SAR: \_\_\_\_\_

### Preservation Codes

### Preservative Codes

H = HCl      T = Thiosulfate  
 N = HNO<sub>3</sub>    B = NaOH  
 S = H<sub>2</sub>SO<sub>4</sub>   O = Other

J value reporting needed  
 Must meet lowest detection limits possible for 8260 compounds

#### 8021 MTBE Confirmation

Confirm highest hit by 8260  
 Confirm all hits by 8260  
 Run \_\_\_ oxy's on highest hit  
 Run \_\_\_ oxy's on all hits

Field Point Name	Matrix	Repeat Sample	Top Depth	Year Month Day	Time Collected	New Field Pt.	Grab	Composite	Total Number of Containers	BTX + MTBE 8260 <input checked="" type="checkbox"/> 8021 <input type="checkbox"/>	TPH 8015 MOD GRO	TPH 8015 MOD DRO <input type="checkbox"/> Silica Gel Cleanup	8260 full scan	Oxygenates	Lead 7420 <input type="checkbox"/> 7421 <input type="checkbox"/>
B-5e3	S	N	3	070104	1226	4	X			X	X			X	
B-5e5	S	N	4.5	070104	1251	4	X			X	X			X	
B-4	W	N		070103	1230	4	X		4	X	X			X	
B-3	W	N		070103	1400	4	X		4	X	X			X	
<del>B-2</del>	<del>W</del>	<del>N</del>		<del>070104</del>	<del>1000</del>	<del>4</del>	<del>X</del>		<del>4</del>	<del>X</del>	<del>X</del>			<del>X</del>	
B-1	W	N		070104	1125	4	X		4	X	X			X	
<del>B-5</del>	<del>W</del>	<del>N</del>		<del>070104</del>		<del>4</del>	<del>X</del>								
B-2	W	N		070104	1000	2	X		2	X	X			X	

### Comments / Remarks

**Turnaround Time Requested (TAT) (please circle)**

STD. TAT      72 hour      48 hour  
 24 hour      4 day      5 day

**Data Package Options (please circle if required)**

QC Summary      Type I - Full  
 Type VI (Raw Data)       Coelt Deliverable not needed  
 WIP (RWQCB)  
 Disk

Relinquished by: <u>JL Bel</u>	Date: <u>1/5/07</u>	Time: <u>1400</u>	Received by: _____	Date: _____	Time: _____
Relinquished by: _____	Date: _____	Time: _____	Received by: _____	Date: _____	Time: _____
Relinquished by: _____	Date: _____	Time: _____	Received by: _____	Date: _____	Time: _____
Relinquished by Commercial Carrier: _____	Received by: <u>[Signature]</u>		Date: <u>1/5/07</u>	Time: <u>1400</u>	
UPS <input type="checkbox"/> <u>FedEx</u> Other _____	Temperature Upon Receipt: <u>3.7</u> °C		Custody Seals Intact? <u>Yes</u> <input checked="" type="checkbox"/> <u>No</u> <input type="checkbox"/>		

## Lancaster Laboratories Explanation of Symbols and Abbreviations

The following defines common symbols and abbreviations used in reporting technical data:

<b>N.D.</b>	none detected	<b>BMQL</b>	Below Minimum Quantitation Level
<b>TNTC</b>	Too Numerous To Count	<b>MPN</b>	Most Probable Number
<b>IU</b>	International Units	<b>CP Units</b>	cobalt-chloroplatinate units
<b>umhos/cm</b>	micromhos/cm	<b>NTU</b>	nephelometric turbidity units
<b>C</b>	degrees Celsius	<b>F</b>	degrees Fahrenheit
<b>Cal</b>	(diet) calories	<b>lb.</b>	pound(s)
<b>meq</b>	milliequivalents	<b>kg</b>	kilogram(s)
<b>g</b>	gram(s)	<b>mg</b>	milligram(s)
<b>ug</b>	microgram(s)	<b>l</b>	liter(s)
<b>ml</b>	milliliter(s)	<b>ul</b>	microliter(s)
<b>m3</b>	cubic meter(s)	<b>fib &gt;5 um/ml</b>	fibers greater than 5 microns in length per ml
<b>&lt;</b>	less than – The number following the sign is the <u>limit of quantitation</u> , the smallest amount of analyte which can be reliably determined using this specific test.		
<b>&gt;</b>	greater than		
<b>ppm</b>	parts per million – One ppm is equivalent to one milligram per kilogram (mg/kg), or one gram per million grams. For aqueous liquids, ppm is usually taken to be equivalent to milligrams per liter (mg/l), because one liter of water has a weight very close to a kilogram. For gases or vapors, one ppm is equivalent to one microliter of gas per liter of gas.		
<b>ppb</b>	parts per billion		
<b>Dry weight basis</b>	Results printed under this heading have been adjusted for moisture content. This increases the analyte weight concentration to approximate the value present in a similar sample without moisture.		

U.S. EPA data qualifiers:

### Organic Qualifiers

<b>A</b>	TIC is a possible aldol-condensation product
<b>B</b>	Analyte was also detected in the blank
<b>C</b>	Pesticide result confirmed by GC/MS
<b>D</b>	Compound quantitated on a diluted sample
<b>E</b>	Concentration exceeds the calibration range of the instrument
<b>J</b>	Estimated value
<b>N</b>	Presumptive evidence of a compound (TICs only)
<b>P</b>	Concentration difference between primary and confirmation columns >25%
<b>U</b>	Compound was not detected
<b>X,Y,Z</b>	Defined in case narrative

### Inorganic Qualifiers

<b>B</b>	Value is <CRDL, but ≥IDL
<b>E</b>	Estimated due to interference
<b>M</b>	Duplicate injection precision not met
<b>N</b>	Spike amount not within control limits
<b>S</b>	Method of standard additions (MSA) used for calculation
<b>U</b>	Compound was not detected
<b>W</b>	Post digestion spike out of control limits
<b>*</b>	Duplicate analysis not within control limits
<b>+</b>	Correlation coefficient for MSA <0.995

Analytical test results for methods listed on the laboratories' accreditation scope meet all requirements of NELAC unless otherwise noted under the individual analysis.

Tests results relate only to the sample tested. Clients should be aware that a critical step in a chemical or microbiological analysis is the collection of the sample. Unless the sample analyzed is truly representative of the bulk of material involved, the test results will be meaningless. If you have questions regarding the proper techniques of collecting samples, please contact us. We cannot be held responsible for sample integrity, however, unless sampling has been performed by a member of our staff. This report shall not be reproduced except in full, without the written approval of the laboratory.

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## **ATTACHMENT D**

### **Standard Field Procedures for Hand Augered Borings**

# CAMBRIA

## STANDARD FIELD PROCEDURES FOR HAND-AUGER SOIL BORINGS

This document describes Cambria Environmental Technology's standard field methods for drilling and sampling soil borings using a hand-auger. These procedures are designed to comply with Federal, State and local regulatory guidelines. Specific field procedures are summarized below.

### Objectives

Soil samples are collected to characterize subsurface lithology, assess whether the soils exhibit obvious hydrocarbon or other compound vapor odor or staining, estimate ground water depth and quality and to submit samples for chemical analysis.

### Soil Classification/Logging

All soil samples are classified according to the Unified Soil Classification System by a trained geologist or engineer working under the supervision of a California Professional Geologist (PG) or a Certified Engineering Geologist (CEG). The following soil properties are noted for each soil sample:

- Principal and secondary grain size category (i.e. sand, silt, clay or gravel)
- Approximate percentage of each grain size category,
- Color,
- Approximate water or product saturation percentage,
- Observed odor and/or discoloration,
- Other significant observations (i.e. cementation, presence of marker horizons, mineralogy), and
- Estimated permeability.

### Soil Boring and Sampling

Hand-auger borings are typically drilled using a hand-held bucket auger to remove soil to the desired sampling depth. Samples are collected using lined split-barrel or equivalent samplers driven into undisturbed sediments beyond the bottom of the augered hole. The vertical location of each soil sample is determined using a tape measure. All sample depths use the ground surface immediately adjacent to the boring as a datum. The horizontal location of each boring is measured in the field from an onsite permanent reference using a measuring wheel or tape measure.

Augering and sampling equipment is steam-cleaned prior to drilling and between borings to prevent cross-contamination. Sampling equipment is washed between samples with trisodium phosphate or an equivalent EPA-approved detergent.

### Sample Storage, Handling and Transport

Sampling tubes chosen for analysis are trimmed of excess soil and capped with Teflon tape and plastic end caps. Soil samples are labeled and stored at or below 4°C on either crushed or dry ice, depending upon local regulations. Samples are transported under chain-of-custody to a State-certified analytic laboratory.

# CAMBRIA

## **Field Screening**

One of the remaining tubes is partially emptied leaving about one-third of the soil in the tube. The tube is capped with plastic end caps and set aside to allow hydrocarbons to volatilize from the soil. After ten to fifteen minutes, a portable photoionization detector (PID) measures volatile hydrocarbon vapor concentrations in the tube headspace, extracting the vapor through a slit in the cap. PID measurements are used along with the field observations, odors, stratigraphy and ground water depth to select soil samples for analysis.

## **Water Sampling**

Water samples, if they are collected from the boring, are collected from the open borehole using bailers. The ground water samples are decanted into the appropriate containers supplied by the analytic laboratory. Samples are labeled, placed in protective foam sleeves, stored on crushed ice at or below 4°C, and transported under chain-of-custody to the laboratory.

## **Duplicates and Blanks**

Blind duplicate water samples are collected usually collected only for monitoring well sampling programs, at a rate of one blind sample for every 10 wells sampled. Laboratory-supplied trip blanks accompany samples collected for all sampling programs to check for cross-contamination caused by sample handling and transport. These trip blanks are analyzed if the internal laboratory QA/QC blanks contain the suspected field contaminants. An equipment blank may also be analyzed if non-dedicated sampling equipment is used.

## **Grouting**

The borings are filled to the ground surface with cement grout poured or pumped through a tremie pipe.

## **Waste Handling and Disposal**

Soil cuttings from drilling activities are usually stockpiled onsite on top of and covered by plastic sheeting. At least four individual soil samples are collected from the stockpiles for later compositing at the analytic laboratory. The composite sample is analyzed for the same constituents analyzed in the borehole samples. Soil cuttings are transported by licensed waste haulers and disposed in secure, licensed facilities based on the composite analytic results.

Ground water removed during sampling and/or rinsate generated during decontamination procedures are stored onsite in sealed 55-gallon drums. Each drum is labeled with the drum number, date of generation, suspected contents, generator identification and consultant contact. Disposal of the water is based on the analytic results for the well samples. The water is either pumped out using a vacuum truck for transport to a licensed waste treatment/disposal facility or the individual drums are picked up and transported to the waste facility where the drum contents are removed and appropriately disposed.