

C A M B R I A

ENVIRONMENTAL  
PROTECTION

99 AUG -9 PM 4: 41

August 5, 1999

Mr. Barney Chan  
Alameda County Health Care Services Agency  
1131 Harbor Bay Parkway #250  
Alameda, California 94502

Re: **Site Investigation Report**  
Former Shell Service Station  
2001 Fruitvale Avenue  
Oakland, California  
SAP Code 117941  
Incident #97109122



Dear Mr. Chan:

Cambria Environmental Technology, Inc. (Cambria) prepared this report on behalf of Equiva Services LLC (Equiva) to document site investigation activities at the above referenced site. The purpose of the investigation was to define the extent of hydrocarbons in soil and groundwater on the property. The scope of work followed during this investigation was presented in Cambria's October 27, 1998 *Investigation Work Plan* and was approved with additional requirements by Alameda County Health Care Services Agency (ACHCSA) November 6, 1998 correspondence. The work was performed in accordance with ACHCSA and San Francisco Bay Regional Water Quality Control Board (RWQCB) guidelines.

## SITE BACKGROUND

**Site Description:** The site is currently a vacant lot located on the northern corner of Foothill Boulevard and Fruitvale Avenue in Oakland, California (Plate 1). It is a former Shell Service station and all underground storage tanks (USTs) are believed to have been removed (Plate 2).

**Previous Investigation:** On January 3, 1996, AllCal Property Services, Inc. (AllCal) of Hayward, California drilled five soil borings onsite and collected soil and groundwater samples. Soil samples collected at 21 feet below grade (fbg) beneath the former UST complex contained 830 parts per million (ppm) total petroleum hydrocarbons as gasoline (TPHg) and 410 ppm total petroleum hydrocarbons as diesel (TPHd), and groundwater samples contained 3,400 parts per billion (ppb) TPHg, 40,000 ppb TPHd, and 9.6 ppb benzene. The laboratory described the TPHg and TPHd chromatographs as not matching the gasoline and diesel standards and suggested they may be a result of strongly aged gasoline and/or Stoddard solvent. Groundwater was encountered at depths ranging from 21.5 to 23 fbg during the investigation. These activities are summarized in AllCal's January 18, 1996 report entitled *Soil and Groundwater Investigation*.

Oakland, CA  
Sonoma, CA  
Portland, OR  
Seattle, WA

**Cambria  
Environmental  
Technology, Inc.**

1144 65th Street  
Suite B  
Oakland, CA 94608  
Tel (510) 420-0700  
Fax (510) 420-9170

# C A M B R I A

As a result of this investigation, AllCal filed an Unauthorized Release Report on February 1, 1996.

## INVESTIGATION RESULTS

**Personnel Present:** Senior staff scientist Troy Buggle directed the field sampling, working under the supervision of California Professional Engineer Diane Lundquist.

**Permit:** Cambria obtained drilling permit #49WR123 from the Alameda County Public Works Agency (Appendix A).

**Drilling Company:** Gregg Drilling of Martinez, California (C57 License #485165)

**Drilling Date:** March 31, 1999.

**Drilling Method:** GeoProbe<sup>®</sup>.

**Sampling Methods:** Soil lithology was logged using the Unified Soil Classification System. Encountered lithology is described on the exploratory boring logs presented in Appendix B. Soil samples were collected at 5-foot intervals from the borings for lithologic description, potential chemical analysis, and headspace analysis. Soil samples were screened for the presence of organic vapors using a photo-ionization detector (PID). PID readings are recorded on the boring logs.

**Number of Borings:** Three borings (SBA through SBC). Boring specifications are described on Table 1 and locations are shown on Plate 2.

**Boring Depths:** 25.0 fbg.

**Groundwater Depths:** Groundwater was encountered at depths ranging from 16.47 to 17.20 fbg during drilling activities. Groundwater stabilized at depths ranging from 16.42 to 17.17 fbg.

# C A M B R I A

***Sediment Lithology:***

Lithology encountered while drilling the borings consisted primarily of clayey sand (SC) and clay (CL) to depths of approximately 21.5 to 25 fbg, underlain by sand (SP) to the total explored depth of 25 fbg (Appendix B).

***Soil Chemical Analyses:***

Selected soil samples from Borings SBA through SBC were analyzed for total purgeable petroleum hydrocarbons as gasoline (TPPH) and total extractable petroleum hydrocarbons as gasoline (TEPH) by EPA Method 8015 and benzene, toluene, ethylbenzene, xylenes (BTEX) and methyl tertiary-butyl ether (MTBE) by EPA Method 8020. Selected soil samples from Boring SBA were also analyzed for total recoverable petroleum hydrocarbons (TRPH) by EPA Method 418.1, cadmium, chromium, lead, nickel, and zinc by EPA Method 6010A, halogenated volatile organics (HVOCs) by EPA Method 8010, and semivolatile organics (SVOCs) by EPA Method 8270.

*described*



***Soil Physical Analyses:***

Selected soil samples were analyzed for fraction of organic carbon, percent moisture content, dry bulk density, and porosity.

## **Temporary Well Construction**

***Well Materials:***

Slotted Schedule 40 PVC casing was installed into Borings SBA through SBC temporarily.

***Well Elevation Survey:***

Cambria surveyed well elevations relative to site datum on March 31, 1999.

***Groundwater Elevations:***

Groundwater elevations ranged from 78.48 to 78.61 feet relative to site datum. Groundwater flows southeast at the site at an approximate hydraulic gradient of 0.001 (Plate 3).

# C A M B R I A

**Groundwater Analyses:** After groundwater stabilized, Cambria collected samples. All groundwater samples were analyzed for TPPH, TEPH, BTEX, and MTBE by EPA Methods 8020 and 8260. Groundwater samples from Boring SBA were also analyzed for TRPH, cadmium, chromium, lead, nickel, and zinc, HVOCs, and SVOCs.

**Backfill Method:** The well casings were removed and Borings SBA through SBC were backfilled with neat cement grout to grade.



## CONSTITUENTS OF CONCERN IN SOIL

Boring SBA contained TPPH concentrations ranging from 13 to 61 ppm, TEPH ranging from 510 to 1,500 ppm, TRPH ranging from 6,840 to 11,100 ppm, benzene ranging from not detected (ND) to 0.057 ppm, and MTBE ranging from ND to 0.26 ppm. Boring SBB contained TEPH concentrations ranging from 1.1 to 2.4 ppm and MTBE concentrations ranging from ND to 0.042 ppm. No TPPH or benzene was detected in Boring SBB. Boring SBC contained TEPH concentrations ranging from 2.0 to 4.0 ppm. No TPPH, benzene, or MTBE was detected in Boring SBC.

Chromium was detected in Boring SBA ranging from 17 to 49 ppm, lead ranging from 14 to 410 ppm, nickel ranging from 34 to 82 ppm, and zinc ranging from 29 to 87 ppm.

Boring SBA contained tetrachloroethene (PCE) at 0.046 ppm and phenol at 3.6 ppm in the soil sample collected at 10.0 fbg.

The soil chemical analytical data are summarized in Table 2 and presented on Plate 2. Laboratory analytical reports are presented in Appendix C.

## CONSTITUENTS OF CONCERN IN GROUNDWATER

The water samples collected from Borings SBA through SBC contained TPPH concentrations ranging from 1,100 to 5,100 ppb, TEPH ranging from 890 to 28,000 ppb, and benzene ranging from 1.3 to 13 ppb. Analyses by EPA Method 8260 confirmed the absence of MTBE in groundwater. Boring SBA also contained 23,000 ppb TRPH. *TOC*

# C A M B R I A

Groundwater from Boring SBA contained chromium at 35 ppb, lead at 710 ppb, nickel at 250 ppb, and zinc at 170 ppb.

Groundwater from Boring SBA also contained cis-1,2-dichloroethene at 4.1 ppb, PCE at 15 ppb, trichloroethene at 4.7 ppb, bis(2-ethylhexyl)phthalate at 35 ppb, butyl benzyl phthalate at 13 ppb, 2-methylnaphthalene at 46 ppb, naphthalene at 68 ppb, and pyrene at 14 ppb.

Groundwater chemical analytical data are summarized in Table 3 and presented on Plate 3. Laboratory analytical data are presented in Appendix C.

*need for more TDS.*



## CONCLUSIONS

Soil and groundwater collected in the former waste oil tank area and near the property boundaries have been impacted by petroleum hydrocarbons.

Boring SBA, located in the former waste oil tank area, contained the highest concentrations of petroleum hydrocarbons in soil with maximum concentrations of 61 ppm TPPH, 1,500 ppm TEPH, and 11,100 ppm TRPH. Benzene was only detected at 0.57 ppm in soil from Boring SBA at a depth below groundwater. MTBE was detected at low concentrations by EPA Method 8020 in soil from Borings SBA and SBB at depths near the capillary fringe and below groundwater. However, as the more reliable EPA Method 8260 did not detect MTBE in groundwater samples, it is likely that these soil results are false positives. *(maybe/maybe not) should confirm by soil test by 8260*

Boring SBB contained the maximum TPPH concentration of 5,100 ppb. Boring SBA contained the maximum TEPH and benzene concentrations of 28,000 and 13 ppb, respectively. MTBE was not detected in groundwater by EPA Method 8260. The concentrations of lead, PCE, and bis(2-ethylhexyl)phthalate detected in groundwater from Boring SBA exceed the California primary maximum contaminant levels for drinking water; however, groundwater from this site is not likely a drinking water source. *(confirm this)*

Further review of the data will be performed to evaluate whether a risk-based corrective action (RBCA) analysis is appropriate at this time.

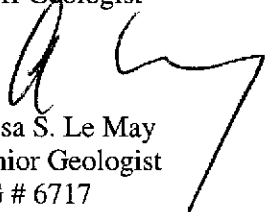
Barney Chan  
August 5, 1999

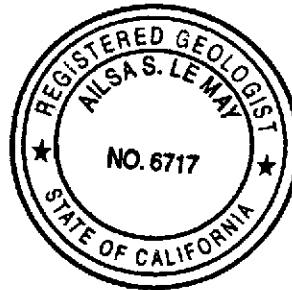
# C A M B R I A

If you have any questions regarding the contents of this document, please call Joe Neely at (707) 935-4854.

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

*for*   
Aubrey K. Cool  
Staff Geologist

  
Ailsa S. Le May  
Senior Geologist  
RG # 6717



Attachments:

Table 1. Boring Data  
Table 2. Soil Analytical Data  
Table 3. Groundwater Analytical Data

Plate 1. Site Vicinity Map  
Plate 2. Soil Boring Locations/Soil Chemical Analytical Map  
Plate 3. Groundwater Contour/Chemical Analytical Map

Appendix A. Drilling Permit  
Appendix B. Exploratory Boring Logs  
Appendix C. Certified Analytical Reports

cc: ✓ Ms. Karen Petryna, Equiva Services LLC, P.O. Box 6249 Carson, CA 90749-6249  
Mr. Tom Maher, Shell Oil Products Company, P.O. Box 2099, Houston, TX 77252  
Mr. David Harris, Trump, Alioto, Trump & Prescott LLP, 2280 Union Street, San Francisco, CA 94123  
Mr. Jose Dorado, 3808 International Blvd., Suite A, Oakland, CA 94601

**TABLE 1**

**BORING DATA  
Former Shell Service Station  
2001 Fruitvale Avenue  
Oakland, California  
SAP Code 117941  
Incident #97109122**

Name	Type	Date Installed	Surface Elev (ft)*	Total Depth (ft)	Soil Sample (ft)		First Encountered GW		Screen Diam. (In)	Screen Depth (ft)		Comments
					Incr. or	Depth(s)	Depth (ft)	Elev (ft)		Top	Bottom	
<b>SBA</b>	Boring (GeoProbe)	31-Mar-99	95.43	25.0	5	-	16.82	78.61	-	-	-	
<b>SBB</b>	Boring (GeoProbe)	31-Mar-99	95.65	25.0	5	-	17.17	78.48	-	-	-	
<b>SBC</b>	Boring (GeoProbe)	31-Mar-99	94.95	25.0	5	-	16.42	78.53	-	-	-	

Notes:

\*Elevation relative to site datum

TABLE 2

SOIL ANALYTICAL DATA  
Former Shell Service Station  
2001 Fruitvale Avenue  
Oakland, California  
SAP Code 117941  
Incident #97109122

Sample Depth (ft)	Date Sampled	TPPH (mg/kg)	TEPH (mg/kg)	TRPH (mg/kg)	B (mg/kg)	T (mg/kg)	E (mg/kg)	X (mg/kg)	MTBE (mg/kg)	Primary Soil Type (Unified Soil Class)	Comments
<b>SBA</b>											
10.0	31-Mar-99	61	1500	11100	<0.050	<0.050	<0.050	0.21	<0.25	CL	Chromium-49 ppm, Lead-370 ppm, Nickel-82 ppm, Zinc-87 ppm. HVOCs ND except Tetrachloroethene-0.046 ppm. SVOCs ND except Phenol-3.6 ppm.
15.5	31-Mar-99	13	1100	10100	<0.0050	<0.0050	0.019	0.19	<0.025	CL	Chromium-37 ppm, Lead-410 ppm, Nickel-55 ppm, Zinc-70 ppm. HVOCs and SVOCs ND.
22.5	31-Mar-99	34	510	6840	0.057	0.41	0.16	0.45	0.26	SP	Chromium-17 ppm, Lead-14 ppm, Nickel-34 ppm, Zinc-29 ppm. HVOCs and SVOCs ND.
<b>SBB</b>											
6.0	31-Mar-99	<1.0	2.4	NA	<0.0050	<0.0050	<0.0050	<0.0050	<0.025	SC	
16.0	31-Mar-99	<1.0	1.2	NA	<0.0050	<0.0050	<0.0050	<0.0050	0.042	SC	
20.5	31-Mar-99	<1.0	1.1	NA	<0.0050	<0.0050	<0.0050	<0.0050	0.026	CL	
<b>SBC</b>											
5.5	31-Mar-99	<1.0	4.0	NA	<0.0050	<0.0050	<0.0050	<0.0050	<0.025	CL	
15.5	31-Mar-99	<1.0	2.1	NA	<0.0050	<0.0050	<0.0050	<0.0050	<0.025	CL	
20.5	31-Mar-99	<1.0	2.0	NA	<0.0050	<0.0050	<0.0050	<0.0050	<0.025	CL	



**TABLE 2**

**SOIL ANALYTICAL DATA  
Former Shell Service Station  
2001 Fruitvale Avenue  
Oakland, California  
SAP Code 117941  
Incident #97109122**

Sample	Date	TPPH	TEPH	TRPH	B	T	E	X	MTBE	Primary Soil Type (Unified Soil Class)	Comments
Depth (ft)	Sampled	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)		

**Abbreviations and Notes:**

NA = Not analyzed.

<x = Not detected at method detection limit of x.

TPPH = Total purgeable petroleum hydrocarbons carbon range C6 to C12 by EPA Method 8015 (Modified).

TEPH = Total extractable petroleum hydrocarbons by EPA Method 8015 (Modified).

TRPH = Total recoverable petroleum hydrocarbons by EPA Method 418.1.

BTEX = Benzene, toluene, ethylbenzene, and xylenes by EPA Method 8020.

MTBE = Methyl tertiary butyl ether by EPA Method 8020.

Cadmium, chromium, lead, nickel, and zinc by EPA Method 6010A.

HVOCs = Halogenated volatile organics by EPA Method 8010.

SVOCs = Semivolatile organics by EPA Method 8270.

*Should filter /  
Silica seal cleanup*

*gas TOG diesel*

**TABLE 3**

**GROUNDWATER ANALYTICAL DATA**  
**Former Shell Service Station**  
**2001 Fruitvale Avenue**  
**Oakland, California**  
**SAP Code 117941**  
**Incident #97109122**

Sample	Date Sampled	TPPH (ug/L)	TRPH (ug/L)	TEPH (ug/L)	B (ug/L)	T (ug/L)	E (ug/L)	X (ug/L)	MTBE by 8020 (ug/L)	MTBE by 8260A (ug/L)	Comments
<b>SBA-W</b>	31-Mar-99	1100	23000	28000	13	<2.5	5.1	52	<12	<2.00	Chromium-35 ppb, Lead-710 ppb, Nickel-250 ppb, Zinc-170 ppb, HVOCS ND except cis-1,2-Dichloroethene-4.1 ppb, Tetrachloroethene-15 ppb, Trichloroethene-4.7 ppb, SVOCs ND except Bis(2-ethylhexyl)phthalate-35 ppb, Butyl benzyl phthalate-13 ppb, 2-Methylnaphthalene-46 ppb, Naphthalene-68 ppb, Pyrene-14 ppb.
<b>SBB-W</b>	31-Mar-99	5100	NA	3300	8.8	15	25	24	<25	<2.00	
<b>SBC-W</b>	31-Mar-99	2500	NA	890	1.3	25	5.8	19	8.5	<2.00	

**Abbreviations:**

NA = Not analyzed.

<x = Not detected at method detection limit of x.

TPPH = Total purgeable petroleum hydrocarbons carbon range C6 to C12 by EPA Method 8015 (Modified).

TPPH = Total extractable petroleum hydrocarbons by EPA Method 8015 (Modified).

TPPH = Total recoverable petroleum hydrocarbons by EPA Method 418.1.

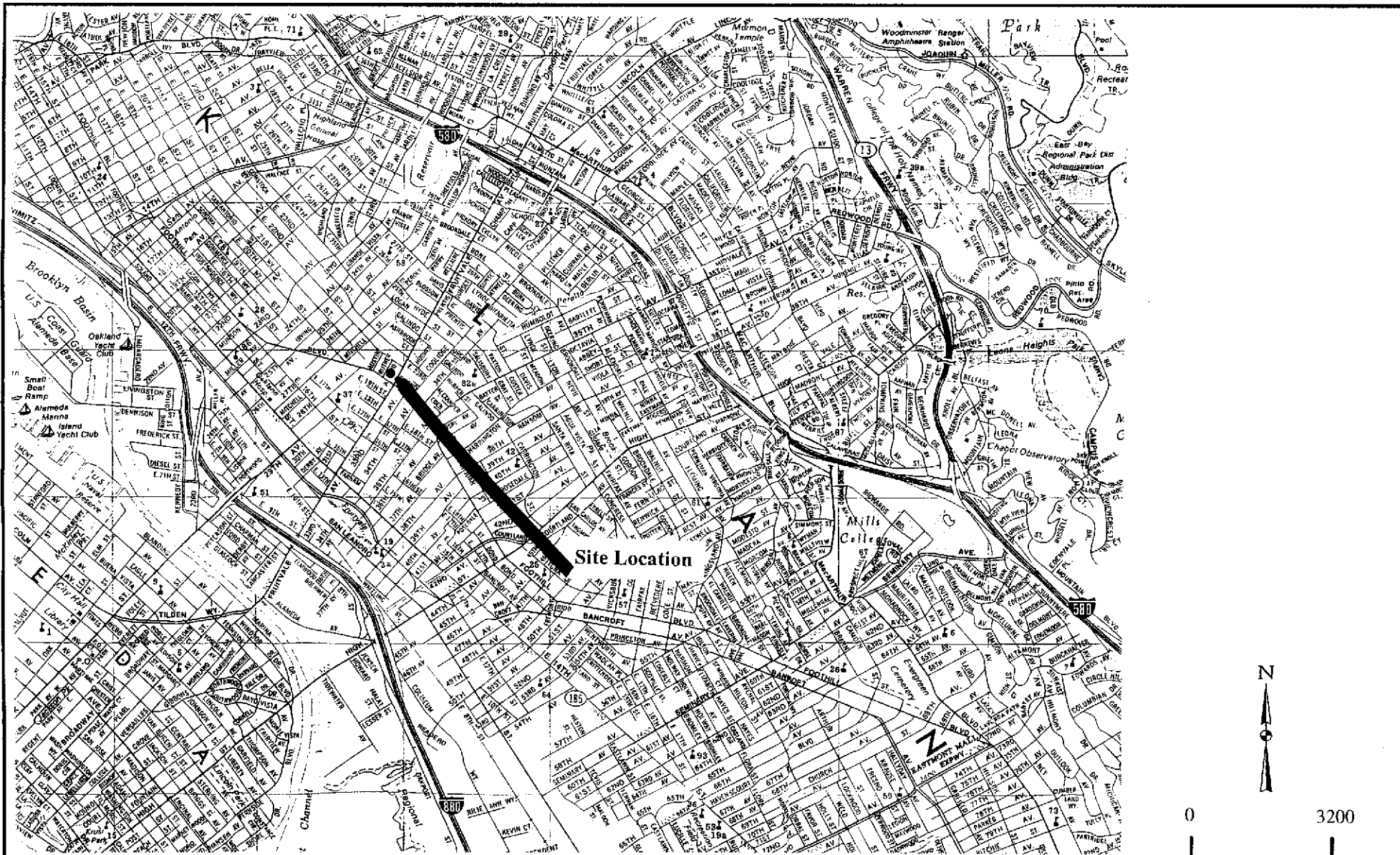
BTEX = Benzene, toluene, ethylbenzene, and xylenes by EPA Method 8020.

MTBE = Methyl tertiary butyl ether.

Cadmium, chromium, lead, nickel, and zinc by EPA Method 200.7.

HVOCS = Halogenated volatile organics by EPA Method 8010.

SVOCS = Semivolatile organics by EPA Method 8270.



Note: Vicinity Map taken from Rand McNally & Company Map

PLATE

**1**

**SITE VICINITY MAP**

Former Shell Service Station  
 2001 Fruitvale Avenue  
 Oakland, California

**CAMBRIA**  
 241-1296

Drawn By: MEH

Date: 14-June-99

Approved By: \_\_\_\_\_

Date: \_\_\_\_\_



### EXPLANATION

⊙ SBA Soil Boring  
 ⊙ d B  
 61/1500/<0.050/<0.25/10.0' TPPH/TEPH/Benzene/MTBE/Depth in feet  
 Concentrations in soil in ppm  
 ND = Not Detected  
 < x = Below elevated detection limit x

Note: Samples collected on 31-Mar-99

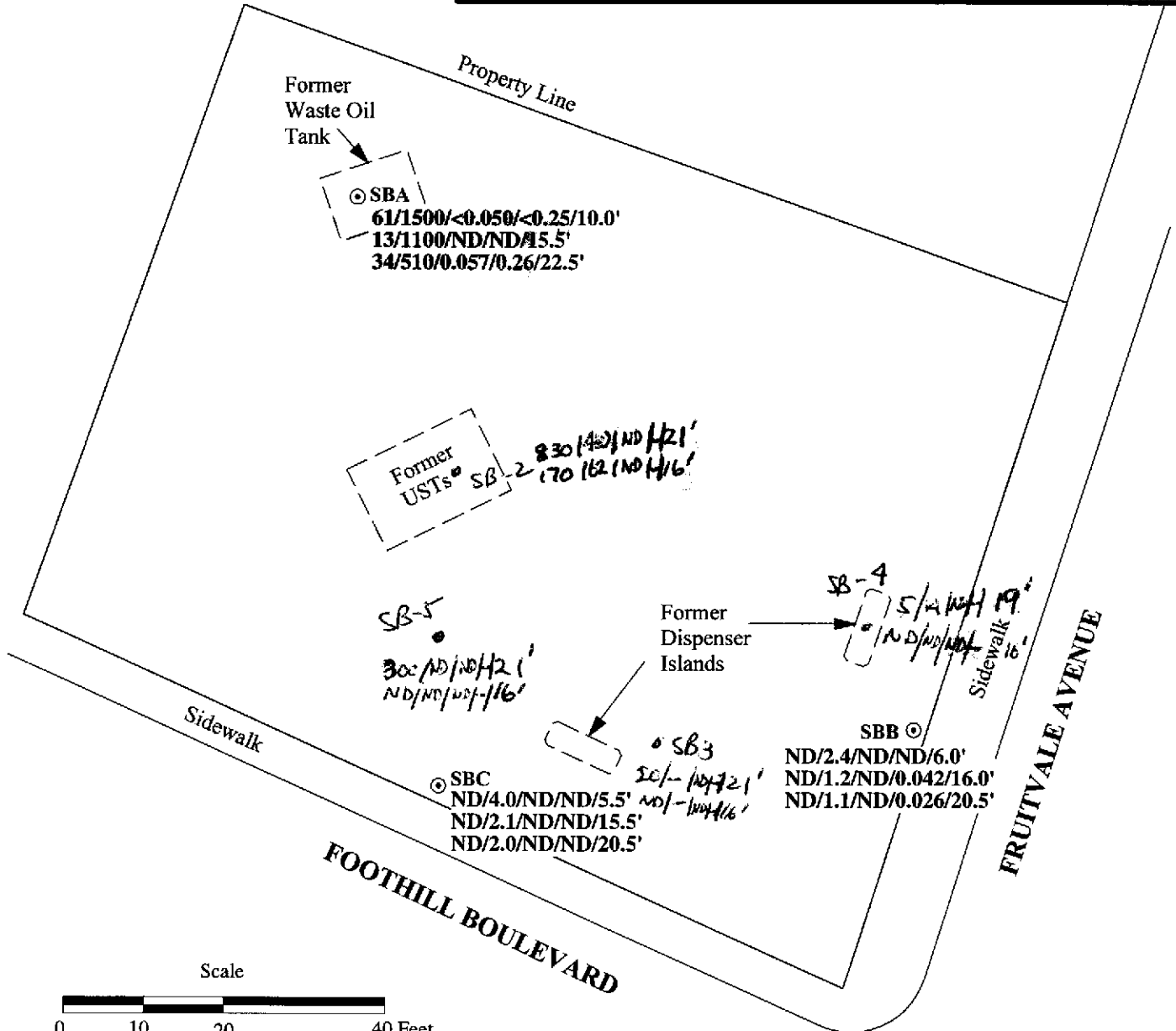


PLATE **2** SOIL BORING LOCATIONS/SOIL CHEMICAL ANALYTICAL MAP  
 Former Shell Service Station  
 2001 Fruitvale Avenue  
 Oakland, California

**CAMBRIA**  
 241-1296

Drawn By: AKC

Date: 03-Jun-99

Approved By: \_\_\_\_\_

Date: \_\_\_\_\_

**EXPLANATION**

- ⊙ SBA Soil Boring
- 78.61 Groundwater elevation relative to site datum.
- g d b TPPH/TEPH/Benzene/MTBE Concentrations in groundwater in ppb
- ND = Not Detected
- Groundwater elevation contour. Arrows indicate approximate ground water flow direction.

Note: Water depths and samples collected on 31-Mar-99  
 Approximate hydraulic gradient = 0.001

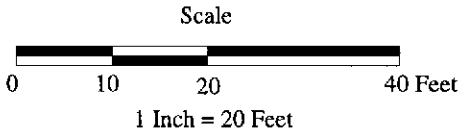
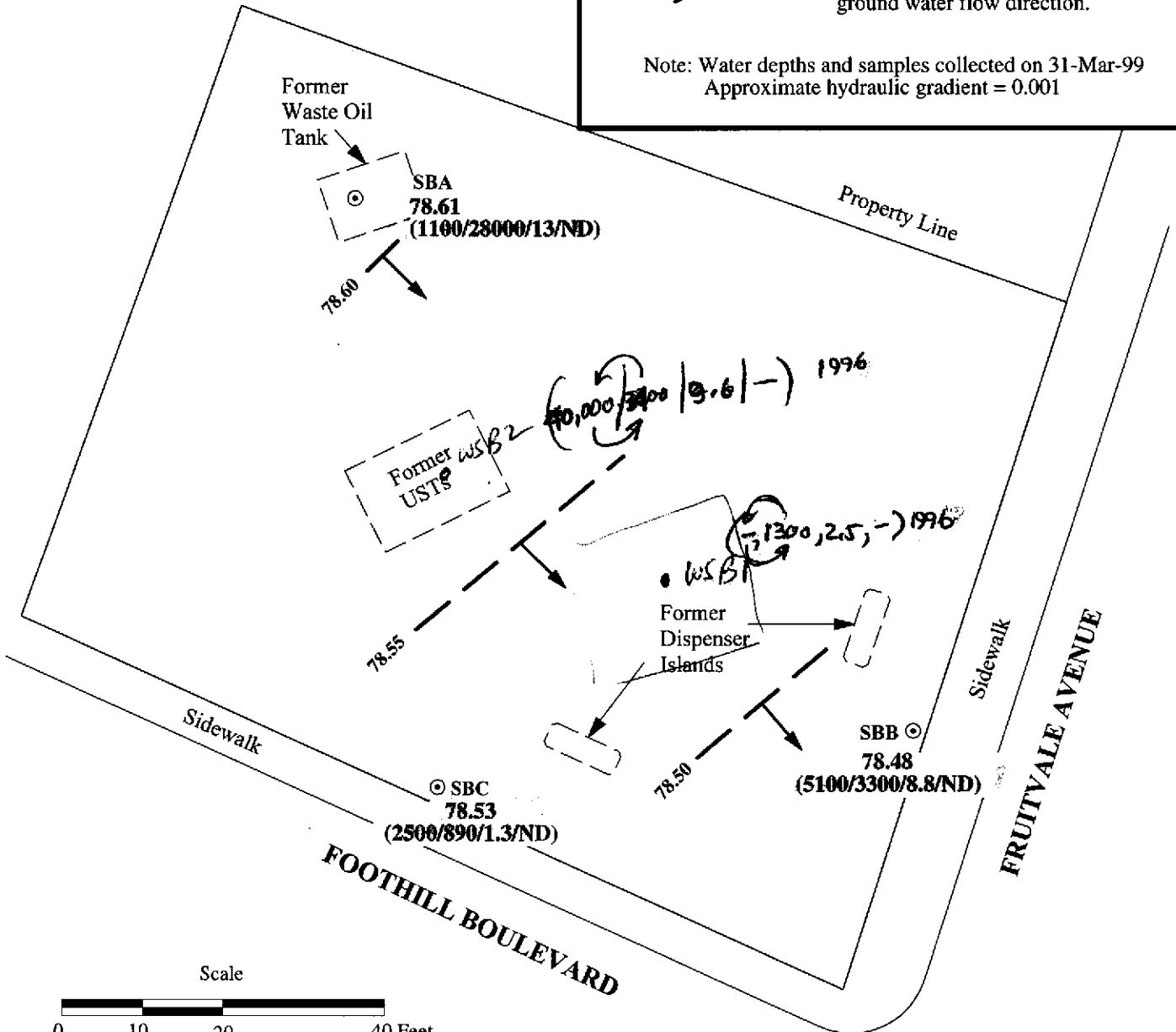
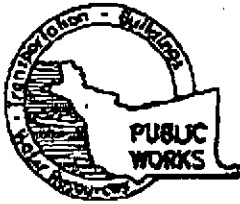


PLATE **3** GROUNDWATER CONTOUR/CHEMICAL ANALYTICAL MAP  
 Former Shell Service Station  
 2001 Fruitvale Avenue  
 Oakland, California

**CAMBRIA**  
 241-1296

Drawn By: AKC Date: 03-Jun-99 Approved By: \_\_\_\_\_ Date: \_\_\_\_\_

**Appendix A**  
**Drilling Permit**



# ALAMEDA COUNTY PUBLIC WORKS AGENCY

## WATER RESOURCES SECTION

351 TURNER COURT, SUITE 300, RAYWARD, CA 94545-2451

PHONE (510) 478-5575 ANDREAS COFFREY FAX (510) 678-3242

(510) 470-8248 ALVIN KAN

COPY

### DRILLING PERMIT APPLICATION

FOR APPLICANT TO COMPLETE

FOR OFFICE USE

LOCATION OF PROJECT 2001 FRUITVALE AVE  
OAKLAND

PERMIT NUMBER 49WR123  
WELL NUMBER \_\_\_\_\_  
APN \_\_\_\_\_

#### PERMIT CONDITIONS

Circled Permit Requirements Apply

California Coordinates Source R.C.C.E. Accuracy 2 R.  
CCP \_\_\_\_\_  
APN \_\_\_\_\_

CLIENT  
Name EDUILON ENTERPRISES LLC  
Address P.O. Box 6243 Phone (542) 405-3806  
City CARSON, CA Zip 90749-6243

APPLICANT  
Name CAMBRIA ENVIRONMENTAL  
TECHNOLOGY, INC. Fax (707) 935-6649  
Address P.O. Box 259 Phone (707) 335-4850  
City SONOMA, CA Zip 95476

#### TYPE OF PROJECT

Well Construction  
Cathodic Protection  Geotechnical Investigation  
Water Supply  General   
Monitoring  Contamination   
Well Destruction

#### PROPOSED WATER SUPPLY WELL USE

New Domestic  Replacement Domestic   
Municipal  Irrigation   
Industrial  Other \_\_\_\_\_

#### DRILLING METHOD:

Mud Rotary  Air Rotary  Auger   
Cable  Other  Euro Probe

DRILLER'S LICENSE NO. CS7 485165

#### WELL PROJECTS

Drill Hole Diameter \_\_\_\_\_ in. Maximum  
Casing Diameter \_\_\_\_\_ in. Depth \_\_\_\_\_ ft.  
Surface Seal Depth \_\_\_\_\_ ft. Number \_\_\_\_\_

#### GEOTECHNICAL PROJECTS

Number of Borings 2 Maximum  
Note Diameter 2 in. Depth 35 ft.

ESTIMATED STARTING DATE 3-30-99  
ESTIMATED COMPLETION DATE 3-31-99

#### A. GENERAL

1. A permit application should be submitted so as to arrive at the ACPWA office five days prior to proposed starting date.
2. Submit to ACPWA within 60 days after completion of permitted work the original Department of Water Resources Water Well Drillers Report or equivalent for well projects, or drilling logs and location sketch for geotechnical projects.
3. Permit is void if project not begun within 90 days of approval date.

#### B. WATER SUPPLY WELLS

1. Minimum surface seal thickness is two inches of cement grout placed by tremie.
2. Minimum seal depth is 50 feet for municipal and industrial wells or 20 feet for domestic and irrigation wells unless a lesser depth is specially approved.

#### C. GROUNDWATER MONITORING WELLS INCLUDING PIEZOMETERS

1. Minimum surface seal thickness is two inches of cement grout placed by tremie.
2. Minimum seal depth for monitoring wells is the maximum depth practicable or 20 feet.

#### D. GEOTECHNICAL

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

#### E. CATHODIC

Fill hole above anode zone with concrete placed by tremie.

#### F. WELL DESTRUCTION

See attached.

#### G. SPECIAL CONDITIONS

APPROVED Andreas Coffrey DATE 3/26/99

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

APPLICANT'S SIGNATURE Arvey K. Cool DATE 2-24-99

\*\* TOTAL PAGE.02 \*\*

## **Appendix B**

### **Exploratory Boring Logs**



# Field Exploratory Boring Log SBA

PID (ppm)	Blows/6"	Sample Number	Well Construction	Depth (ft)	Soil Group (USCS)	Materials Description
	Sampled using pneumatic hammer; blow counts not available.			0		Clayey Sand (SC) Brown; loose; damp; 15% clay, 5% silt, 65% sand, 15% gravel.
83.5		SBA 5.5 SBA 6.0		5		Clay (CL) Grayish brown; stiff; dry; 55% clay, 20% silt, 25% sand; low plasticity.
		SBA 10.0 SBA 10.5		10		@ 10': as above, dry.
96.8				15		@ 15': as above, dry; 40% clay, 5% silt, 30% sand, 25% gravel.
305		SBA 15.5 SBA 16.0		20		@ 20': as above, very stiff; dry; 40% clay, 15% silt, 30% sand, 15% gravel.
387		SBA 20.5 SBA 21.0		25		Sand (SP) Gray; loose; wet; 5% clay, 80% sand, 15% gravel.
1999+		SBA 22.5 SBA 23.0		30		
		SBA 24.5 SBA 25.0		35		
				40		
				45		
Total Depth of Boring = 25.0 feet						

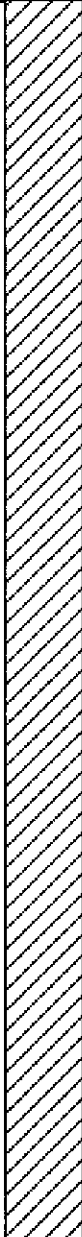

<b>BORING</b> <b>SBA</b>	Former Shell Service Station 2001 Fruitvale Oakland, California	Borehole Diameter: 2 inches Logged by: T. Buggle Driller: Gregg Date Started: 31-Mar-99 Date Completed: 31-Mar-99	<b>CAMBRIA</b>  241-1296
-----------------------------	---	---	--------------------------------

# Field Exploratory Boring Log SBB

PID (ppm)	Blows/6"	Sample Number	Well Construction	Depth (ft)	Soil Group (USCS)	Materials Description
	Sampled using pneumatic hammer; blow counts not available.			5	SC	Clayey Sand (SC) Brown; loose; dry; 15% clay, 80% sand, 5% gravel.
18		SBB 5.5 SBB 6.0		10	CL	@ 5': as above, medium dense; dry; 25% clay, 60% sand, 15% gravel.  Clay (CL) Brown; stiff; dry; 55% clay, 5% silt, 20% sand, 20% gravel; low plasticity.
12.3		SBB 10.5 SBB 11.0		15	SC	Clayey Sand (SC) Brown; medium dense; dry; 35% clay, 10% silt, 55% sand.
17.4		SBB 15.5 SBB 16.0		20	SC	@ 19': as above, grayish brown; damp; 40% clay, 35% sand, 25% gravel.
21.2		SBB 20.5 SBB 21.0		25	SC	@ 22': as above, gray; loose; wet; 25% clay, 75% sand.  @ 24': as above, medium dense; wet; 20% clay, 60% sand, 20% gravel.
1675	SBB 23.5 SBB 24.5 SBB 25.0			25		Total Depth of Boring = 25.0 feet
				30		

<b>BORING</b>  <b>SBB</b>	Former Shell Service Station 2001 Fruitvale Oakland, California	Borehole Diameter: 2 inches Logged by: T. Buggle Driller: Gregg Date Started: 31-Mar-99 Date Completed: 31-Mar-99	<b>CAMBRIA</b>  241-1296
---------------------------------	---	---	--------------------------------

# Field Exploratory Boring Log SBC

PID (ppm)	Blows/6"	Sample Number	Well Construction	Depth (ft)	Soil Group (USCS)	Materials Description
	Sampled using pneumatic hammer; blow counts not available.			5		Clay (CL) Brown; soft; damp; 50% clay, 5% silt, 40% sand, 5% gravel; low plasticity.
39		SBC 5.5 SBC 6.0		@ 5': as above, stiff; dry; 65% clay, 30% silt, 5% sand.		
43		SBC 10.5 SBC 11.0		@ 10': as above, dark brown; dry; 60% clay, 20% silt, 15% sand, 5% gravel.		
33		SBC 15.5 SBC 16.0		@ 15': as above, brown; soft; dry; 60% clay, 5% silt, 35% sand.		
16		SBC 20.5 SBC 21.0		@ 20': as above, grayish brown; medium stiff; damp; 50% clay, 35% sand, 15% gravel.		
160		SBC 22.5  SBC 24.5 SBC 25.0		@ 25': as above, light gray; loose; wet; 10% clay, 90% sand.		
				25		Sand (SP) Light gray; loose; wet; 10% clay, 90% sand.
				30		Total Depth of Boring = 25.0 feet

<b>BORING</b> <b>SBC</b>	Former Shell Service Station 2001 Fruitvale Oakland, California	Borehole Diameter: 2 inches Logged by: T. Buggle Driller: Gregg Date Started: 31-Mar-99 Date Completed: 31-Mar-99	<b>CAMBRIA</b>  241-1296
-----------------------------	---	---	--------------------------------

**Appendix C**  
**Certified Analytical Reports**



# Sequoia Analytical

680 Chesapeake Drive  
404 N. Wiget Lane  
819 Striker Avenue, Suite 8  
1455 McDowell Blvd. North, Ste. D  
1551 Industrial Road

Redwood City, CA 94063  
Walnut Creek, CA 94598  
Sacramento, CA 95834  
Petaluma, CA 94954  
San Carlos, CA 94070-4111

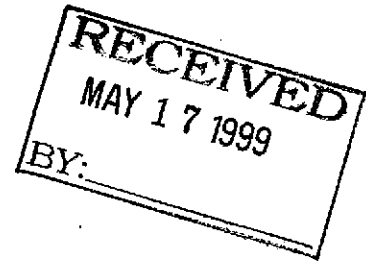
(650) 364-9600  
(925) 988-9600  
(916) 921-9600  
(707) 792-1865  
(650) 232-9600

FAX (650) 364-9233  
FAX (925) 988-9673  
FAX (916) 921-0100  
FAX (707) 792-0342  
FAX (650) 232-9612

Cambria  
1144 65th St. Suite C  
Oakland, CA 94608  
Attention: Aubrey Cool

Project: Shell 2001 Fruitvale Ave, Oakl

Enclosed are the results from samples received at Sequoia Analytical on April 1, 1999.  
The requested analyses are listed below:



<u>SAMPLE #</u>	<u>SAMPLE DESCRIPTION</u>	<u>DATE COLLECTED</u>	<u>TEST METHOD</u>
9904172 -01	SOIL, SBA 6.0'	03/31/99	Fraction Organic Carbon
9904172 -01	SOIL, SBA 6.0'	03/31/99	Moisture, Percent
9904172 -02	SOIL, SBA 10.0'	03/31/99	C8010S Halogenated Volatil
9904172 -02	SOIL, SBA 10.0'	03/31/99	8270 SemiVolatile Organi
9904172 -02	SOIL, SBA 10.0'	03/31/99	Cadmium by ICP
9904172 -02	SOIL, SBA 10.0'	03/31/99	Chromium by ICP
9904172 -02	SOIL, SBA 10.0'	03/31/99	Nickel by ICP
9904172 -02	SOIL, SBA 10.0'	03/31/99	Lead by ICP
9904172 -02	SOIL, SBA 10.0'	03/31/99	Zinc by ICP
9904172 -02	SOIL, SBA 10.0'	03/31/99	Purgeable TPH/BTEX/MTBE
9904172 -02	SOIL, SBA 10.0'	03/31/99	TPHD_S Extractable TPH
9904172 -03	SOIL, SBA 15.5'	03/31/99	C8010S Halogenated Volatil
9904172 -03	SOIL, SBA 15.5'	03/31/99	8270 SemiVolatile Organi
9904172 -03	SOIL, SBA 15.5'	03/31/99	Cadmium by ICP
9904172 -03	SOIL, SBA 15.5'	03/31/99	Chromium by ICP
9904172 -03	SOIL, SBA 15.5'	03/31/99	Nickel by ICP
9904172 -03	SOIL, SBA 15.5'	03/31/99	Lead by ICP
9904172 -03	SOIL, SBA 15.5'	03/31/99	Zinc by ICP
9904172 -03	SOIL, SBA 15.5'	03/31/99	Purgeable TPH/BTEX/MTBE
9904172 -03	SOIL, SBA 15.5'	03/31/99	TPHD_S Extractable TPH
9904172 -04	SOIL, SBA 22.5'	03/31/99	C8010S Halogenated Volatil

**SEQUOIA ANALYTICAL**





# Sequoia Analytical

680 Chesapeake Drive  
404 N. Wiget Lane  
819 Striker Avenue, Suite 8  
1455 McDowell Blvd. North, Ste. D  
1551 Industrial Road

Redwood City, CA 94063  
Walnut Creek, CA 94598  
Sacramento, CA 95834  
Petaluma, CA 94954  
San Carlos, CA 94070-4111

(650) 364-9600  
(925) 988-9600  
(916) 921-9600  
(707) 792-1865  
(650) 232-9600

FAX (650) 364-9233  
FAX (925) 988-9673  
FAX (916) 921-0100  
FAX (707) 792-0342  
FAX (650) 232-9612

<u>SAMPLE #</u>	<u>SAMPLE DESCRIPTION</u>	<u>DATE COLLECTED</u>	<u>TEST METHOD</u>
9904172 -04	SOIL, SBA 22.5'	03/31/99	8270 SemiVolatile Organi
9904172 -04	SOIL, SBA 22.5'	03/31/99	Cadmium by ICP
9904172 -04	SOIL, SBA 22.5'	03/31/99	Chromium by ICP
9904172 -04	SOIL, SBA 22.5'	03/31/99	Nickel by ICP
9904172 -04	SOIL, SBA 22.5'	03/31/99	Lead by ICP
9904172 -04	SOIL, SBA 22.5'	03/31/99	Zinc by ICP
9904172 -04	SOIL, SBA 22.5'	03/31/99	Purgeable TPH/BTEX/MTBE
9904172 -04	SOIL, SBA 22.5'	03/31/99	TPHD_S Extractable TPH
9904172 -05	SOIL, SBB-5.5'	03/31/99	Fraction Organic Carbon
9904172 -05	SOIL, SBB-5.5'	03/31/99	Moisture, Percent
9904172 -06	SOIL, SBB-6.0'	03/31/99	Purgeable TPH/BTEX/MTBE
9904172 -06	SOIL, SBB-6.0'	03/31/99	TPHD_S Extractable TPH
9904172 -07	SOIL, SBB-16.0'	03/31/99	Purgeable TPH/BTEX/MTBE
9904172 -07	SOIL, SBB-16.0'	03/31/99	TPHD_S Extractable TPH
9904172 -08	SOIL, SBB-20.5'	03/31/99	Purgeable TPH/BTEX/MTBE
9904172 -08	SOIL, SBB-20.5'	03/31/99	TPHD_S Extractable TPH
9904172 -09	SOIL, SBC-5.5'	03/31/99	Purgeable TPH/BTEX/MTBE
9904172 -09	SOIL, SBC-5.5'	03/31/99	TPHD_S Extractable TPH
9904172 -10	SOIL, SBC-6.0'	03/31/99	Fraction Organic Carbon
9904172 -10	SOIL, SBC-6.0'	03/31/99	Moisture, Percent
9904172 -11	SOIL, SBC-15.5'	03/31/99	Purgeable TPH/BTEX/MTBE
9904172 -11	SOIL, SBC-15.5'	03/31/99	TPHD_S Extractable TPH
9904172 -12	SOIL, SBC-20.5'	03/31/99	Purgeable TPH/BTEX/MTBE
9904172 -12	SOIL, SBC-20.5'	03/31/99	TPHD_S Extractable TPH
9904172 -13	SOIL, SBC-22.5'	03/31/99	Fraction Organic Carbon

**SEQUOIA ANALYTICAL**





# Sequoia Analytical

680 Chesapeake Drive  
404 N. Wiget Lane  
819 Striker Avenue, Suite 8  
1455 McDowell Blvd. North, Ste. D  
1551 Industrial Road

Redwood City, CA 94063  
Walnut Creek, CA 94598  
Sacramento, CA 95834  
Petaluma, CA 94954  
San Carlos, CA 94070-4111

(650) 364-9600  
(925) 988-9600  
(916) 921-9600  
(707) 792-1865  
(650) 232-9600

FAX (650) 364-9233 +  
FAX (925) 988-9673  
FAX (916) 921-0100  
FAX (707) 792-0342  
FAX (650) 232-9612

<u>SAMPLE #</u>	<u>SAMPLE DESCRIPTION</u>	<u>DATE COLLECTED</u>	<u>TEST METHOD</u>
9904172 -13	SOIL, SBC-22.5'	03/31/99	Moisture, Percent
9904172 -14	LIQUID, SBA-W	03/31/99	Halogen. Volatiles, Water
9904172 -14	LIQUID, SBA-W	03/31/99	8270 SemiVolatile Organi
9904172 -14	LIQUID, SBA-W	03/31/99	TPHD_W Extractable TPH
9904172 -14	LIQUID, SBA-W	03/31/99	Cadmium by ICP
9904172 -14	LIQUID, SBA-W	03/31/99	Chromium by ICP
9904172 -14	LIQUID, SBA-W	03/31/99	Nickel by ICP
9904172 -14	LIQUID, SBA-W	03/31/99	Lead by ICP
9904172 -14	LIQUID, SBA-W	03/31/99	Zinc by ICP
9904172 -14	LIQUID, SBA-W	03/31/99	Purgeable TPH/BTEX/MTBE
9904172 -15	LIQUID, SBB-W	03/31/99	TPHD_W Extractable TPH
9904172 -15	LIQUID, SBB-W	03/31/99	Purgeable TPH/BTEX/MTBE
9904172 -16	LIQUID, SBC-W	03/31/99	TPHD_W Extractable TPH
9904172 -16	LIQUID, SBC-W	03/31/99	Purgeable TPH/BTEX/MTBE

Please contact me if you have any questions. In the meantime, thank you for the opportunity to work with you on this project.

Very truly yours,

**SEQUOIA ANALYTICAL**

Project Manager





**Sequoia  
Analytical**

680 Chesapeake Drive  
404 N. Wiget Lane  
819 Striker Avenue, Suite 8  
1455 McDowell Blvd. North, Ste. D  
1551 Industrial Road

Redwood City, CA 94063  
Walnut Creek, CA 94598  
Sacramento, CA 95834  
Petaluma, CA 94954  
San Carlos, CA 94070-4111

(650) 364-9600  
(925) 988-9600  
(916) 921-9600  
(707) 792-1865  
(650) 232-9600

FAX (650) 364-9233  
FAX (925) 988-9673  
FAX (916) 921-0100  
FAX (707) 792-0342  
FAX (650) 232-9612


Cambria 1144 65th St. Suite C Oakland, CA 94608  Attention: Aubrey Cool	Client Proj. ID: Shell 2001 Fruitvale Ave, Oakl	Sampled: 03/31/99
	Lab Proj. ID: 9904172-01	Received: 04/01/99
	Sample Descript: SOIL, SBA 6.0'	Analyzed: see below
		Reported: 04/24/99

**LABORATORY ANALYSIS**

Analyte	Units	Detection Limit	Method	Analyst	Date Analyzed	Sample Results
Fraction Organic Carbon		0.020	WalkleyBlack	KC	04/13/99	0.39
Moisture, Percent	%	1.0	EPA 160.3	KC	04/13/99	14

Analytes reported as N.D. were not present above the stated limit of detection.

**SEQUOIA ANALYTICAL** - ELAP #1210

  
Project Manager

Please Note:  
This sample was preserved in accordance with EPA approved preservation methods.







# Sequoia Analytical

680 Chesapeake Drive  
404 N. Wiget Lane  
819 Striker Avenue, Suite 8  
1455 McDowell Blvd. North, Ste. D  
1551 Industrial Road

Redwood City, CA 94063  
Walnut Creek, CA 94598  
Sacramento, CA 95834  
Petaluma, CA 94954  
San Carlos, CA 94070-4111

(650) 364-9600  
(925) 988-9600  
(916) 921-9600  
(707) 792-1865  
(650) 232-9600

FAX (650) 364-9233  
FAX (925) 988-9673  
FAX (916) 921-0100  
FAX (707) 792-0342  
FAX (650) 232-9612

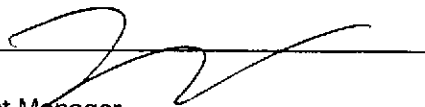
Cambria 1144 65th St. Suite C Oakland, CA 94608	Client Proj. ID: Shell 2001 Fruitvale Ave, Oakl	Sampled: 03/31/99 Received: 04/01/99 Analyzed: see below
Attention: Aubrey Cool	Lab Proj. ID: 9904172-02 Sample Descript: SOIL, SBA 10.0'	Reported: 04/24/99

## LABORATORY ANALYSIS

Analyte	Units	Detection Limit	Method	Analyst	Date Analyzed	Sample Results
Cadmium by ICP	mg/Kg	0.50	EPA 6010A	MV	04/14/99	N.D.
Chromium by ICP	mg/Kg	0.50	EPA 6010A	MV	04/14/99	49
Lead by ICP	mg/Kg	5.0	EPA 6010A	MV	04/14/99	370
Nickel by ICP	mg/Kg	2.5	EPA 6010A	MV	04/14/99	82
Zinc by ICP	mg/Kg	0.50	EPA 6010A	MV	04/14/99	87

Analytes reported as N.D. were not present above the stated limit of detection.

**SEQUOIA ANALYTICAL** - ELAP #1210



Project Manager

Please Note:  
This sample was preserved in accordance with EPA approved preservation methods.





# Sequoia Analytical

680 Chesapeake Drive  
404 N. Wiget Lane  
819 Striker Avenue, Suite B  
1455 McDowell Blvd. North, Ste. D  
1551 Industrial Road

Redwood City, CA 94063  
Walnut Creek, CA 94598  
Sacramento, CA 95834  
Petaluma, CA 94954  
San Carlos, CA 94070-4111

(650) 364-9600  
(925) 988-9600  
(916) 921-9600  
(707) 792-1865  
(650) 232-9600

FAX (650) 364-9233  
FAX (925) 988-9673  
FAX (916) 921-0100  
FAX (707) 792-0342  
FAX (650) 232-9612

Cambria  
1144 65th St. Suite C  
Oakland, CA 94608

Client Proj. ID: Shell 2001 Fruitvale Ave, Oakl

Sampled: 03/31/99

Received: 04/01/99

Analyzed: see below

Attention: Aubrey Cool

Lab Proj. ID: 9904172-03

Sample Descript: SOIL, SBA 15.5'

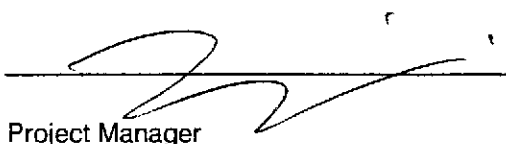
Reported: 04/24/99

## LABORATORY ANALYSIS

Analyte	Units	Detection Limit	Method	Analyst	Date Analyzed	Sample Results
Cadmium by ICP	mg/Kg	0.50	EPA 6010A	MV	04/09/99	N.D.
Chromium by ICP	mg/Kg	0.50	EPA 6010A	MV	04/09/99	37
Lead by ICP	mg/Kg	5.0	EPA 6010A	MV	04/09/99	410
Nickel by ICP	mg/Kg	2.5	EPA 6010A	MV	04/09/99	55
Zinc by ICP	mg/Kg	0.50	EPA 6010A	MV	04/09/99	70

Analytes reported as N.D. were not present above the stated limit of detection.

**SEQUOIA ANALYTICAL** - ELAP #1210

  
Project Manager

Please Note:

This sample was preserved in accordance with EPA approved preservation methods.





# Sequoia Analytical

680 Chesapeake Drive  
404 N. Wiget Lane  
819 Striker Avenue, Suite 8  
1455 McDowell Blvd. North, Ste. D  
1551 Industrial Road

Redwood City, CA 94063  
Walnut Creek, CA 94598  
Sacramento, CA 95834  
Petaluma, CA 94954  
San Carlos, CA 94070-4111

(650) 364-9600  
(925) 988-9600  
(916) 921-9600  
(707) 792-1865  
(650) 232-9600

FAX (650) 364-9233  
FAX (925) 988-9673  
FAX (916) 921-0100  
FAX (707) 792-0342  
FAX (650) 232-9612

Cambria  
1144 65th St. Suite C  
Oakland, CA 94608

Client Proj. ID: Shell 2001 Fruitvale Ave, Oakl

Sampled: 03/31/99

Lab Proj. ID: 9904172-04

Received: 04/01/99

Sample Descript: SOIL, SBA 22.5'

Analyzed: see below

Attention: Aubrey Cool


Reported: 04/24/99

## LABORATORY ANALYSIS

Analyte	Units	Detection Limit	Method	Analyst	Date Analyzed	Sample Results
Cadmium by ICP	mg/Kg	0.50	EPA 6010A	MV	04/09/99	N.D.
Chromium by ICP	mg/Kg	0.50	EPA 6010A	MV	04/09/99	17
Lead by ICP	mg/Kg	5.0	EPA 6010A	MV	04/09/99	14
Nickel by ICP	mg/Kg	2.5	EPA 6010A	MV	04/09/99	34
Zinc by ICP	mg/Kg	0.50	EPA 6010A	MV	04/09/99	29

Analytes reported as N.D. were not present above the stated limit of detection.

**SEQUOIA ANALYTICAL** - ELAP #1210

  
Project Manager

Please Note:  
This sample was preserved in accordance with EPA approved preservation methods.





# Sequoia Analytical

680 Chesapeake Drive  
404 N. Wiget Lane  
819 Striker Avenue, Suite 8  
1455 McDowell Blvd. North, Ste. D  
1551 Industrial Road

Redwood City, CA 94063  
Walnut Creek, CA 94598  
Sacramento, CA 95834  
Petaluma, CA 94954  
San Carlos, CA 94070-4111

(650) 364-9600  
(925) 988-9600  
(916) 921-9600  
(707) 792-1865  
(650) 232-9600

FAX (650) 364-9233  
FAX (925) 988-9673  
FAX (916) 921-0100  
FAX (707) 792-0342  
FAX (650) 232-9612

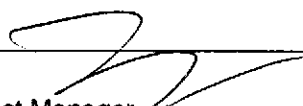
Cambria 1144 65th St. Suite C Oakland, CA 94608	Client Proj. ID: Shell 2001 Fruitvale Ave, Oakl	Sampled: 03/31/99 Received: 04/01/99 Analyzed: see below
Attention: Aubrey Cool	Lab Proj. ID: 9904172-05 Sample Descript: SOIL, SBB-5.5'	Reported: 04/24/99

## LABORATORY ANALYSIS

Analyte	Units	Detection Limit	Method	Analyst	Date Analyzed	Sample Results
Fraction Organic Carbon		0.020	WalkleyBlack	KC	04/13/99	0.37
Moisture, Percent	%	1.0	EPA 160.3	KC	04/13/99	14

Analytes reported as N.D. were not present above the stated limit of detection.

**SEQUOIA ANALYTICAL** - ELAP #1210

  
Project Manager

Please Note:  
This sample was preserved in accordance with EPA approved preservation methods.





**Sequoia  
Analytical**

680 Chesapeake Drive  
404 N. Wiget Lane  
819 Striker Avenue, Suite 8  
1455 McDowell Blvd. North, Ste. D  
1551 Industrial Road

Redwood City, CA 94063  
Walnut Creek, CA 94598  
Sacramento, CA 95834  
Petaluma, CA 94954  
San Carlos, CA 94070-4111

(650) 364-9600  
(925) 988-9600  
(916) 921-9600  
(707) 792-1865  
(650) 232-9600

FAX (650) 364-9233 \*  
FAX (925) 988-9673  
FAX (916) 921-0100  
FAX (707) 792-0342  
FAX (650) 232-9612

Cambria  
1144 65th St. Suite C  
Oakland, CA 94608

Client Proj. ID: Shell 2001 Fruitvale Ave, Oakl

Sampled: 03/31/99  
Received: 04/01/99  
Analyzed: see below

Attention: Aubrey Cool

Lab Proj. ID: 9904172-10  
Sample Descript: SOIL, SBC-6.0'

Reported: 04/24/99


**LABORATORY ANALYSIS**

Analyte	Units	Detection Limit	Method	Analyst	Date Analyzed	Sample Results
Fraction Organic Carbon		0.020	WalkleyBlack	KC	04/13/99	0.32
Moisture, Percent	%	1.0	EPA 160.3	KC	04/13/99	15

Analytes reported as N.D. were not present above the stated limit of detection.

**SEQUOIA ANALYTICAL** - ELAP #1210

Please Note:  
This sample was preserved in accordance with EPA approved preservation methods.

  
Project Manager





# Sequoia Analytical

680 Chesapeake Drive  
404 N. Wiget Lane  
819 Striker Avenue, Suite 8  
1455 McDowell Blvd. North, Ste. D  
1551 Industrial Road

Redwood City, CA 94063  
Walnut Creek, CA 94598  
Sacramento, CA 95834  
Petaluma, CA 94954  
San Carlos, CA 94070-4111

(650) 364-9600  
(925) 988-9600  
(916) 921-9600  
(707) 792-1865  
(650) 232-9600

FAX (650) 364-9233  
FAX (925) 988-9673  
FAX (916) 921-0100  
FAX (707) 792-0342  
FAX (650) 232-9612

Cambria 1144 65th St. Suite C Oakland, CA 94608	Client Proj. ID: Shell 2001 Fruitvale Ave, Oakl	Sampled: 03/31/99 Received: 04/01/99 Analyzed: see below
Attention: Aubrey Cool	Lab Proj. ID: 9904172-13 Sample Descript: SOIL,SBC-22.5'	Reported: 04/24/99

## LABORATORY ANALYSIS


Analyte	Units	Detection Limit	Method	Analyst	Date Analyzed	Sample Results
Fraction Organic Carbon		0.020	WalkleyBlack	KC	04/13/99	0.084
Moisture, Percent	%	1.0	EPA 160.3	KC	04/13/99	11

Analytes reported as N.D. were not present above the stated limit of detection.

**SEQUOIA ANALYTICAL** - ELAP #1210

Please Note:

This sample was preserved in accordance with EPA approved preservation methods.

  
Project Manager





# Sequoia Analytical

680 Chesapeake Drive  
404 N. Wiget Lane  
819 Striker Avenue, Suite B  
1455 McDowell Blvd. North, Ste. D  
1551 Industrial Road

Redwood City, CA 94063  
Walnut Creek, CA 94598  
Sacramento, CA 95834  
Petaluma, CA 94954  
San Carlos, CA 94070-4111

(650) 364-9600  
(925) 988-9600  
(916) 921-9600  
(707) 792-1865  
(650) 232-9600

FAX (650) 364-9233  
FAX (925) 988-9673  
FAX (916) 921-0100  
FAX (707) 792-0342  
FAX (650) 232-9612

Cambria 1144 65th St. Suite C Oakland, CA 94608	Client Proj. ID: Shell 2001 Fruitvale Ave, Oakl	Sampled: 03/31/99 Received: 04/01/99 Analyzed: see below
Attention: Aubrey Cool	Lab Proj. ID: 9904172-14 Sample Description: LIQUID SPA-W	Reported: 04/24/99

## LABORATORY ANALYSIS

Analyte	Units	Detection Limit	Method	Analyst	Date Analyzed	Sample Results
Cadmium by ICP	mg/L	0.010	EPA 200.7	MV	04/09/99	
Chromium by ICP	mg/L	0.010	EPA 200.7	MV	04/09/99	
Lead by ICP	mg/L	0.10	EPA 200.7	MV	04/09/99	
Nickel by ICP	mg/L	0.050	EPA 200.7	MV	04/09/99	
Zinc by ICP	mg/L	0.010	EPA 200.7	MV	04/09/99	

Analytes reported as N.D. were not present above the stated limit of detection.

**SEQUOIA ANALYTICAL** - ELAP #1210

Project Manager

Please Note:  
This sample was preserved in accordance with EPA approved preservation methods.





# Sequoia Analytical

680 Chesapeake Drive  
404 N. Wiget Lane  
819 Striker Avenue, Suite 8  
1455 McDowell Blvd. North, Ste. D  
1551 Industrial Road

Redwood City, CA 94063  
Walnut Creek, CA 94598  
Sacramento, CA 95834  
Petaluma, CA 94954  
San Carlos, CA 94070-4111

(650) 364-9600  
(925) 988-9600  
(916) 921-9600  
(707) 792-1865  
(650) 232-9600

FAX (650) 364-9233  
FAX (925) 988-9673  
FAX (916) 921-0100  
FAX (707) 792-0342  
FAX (650) 232-9612

Cambria 1144 65th St. Suite C Oakland, CA 94608	Client Proj. ID: Shell 2001 Fruitvale Ave, Oakl Sample Descript: SBA 10.0' Matrix: SOIL Analysis Method: EPA 8010 Lab Number: 9904172-02	Sampled: 03/31/99 Received: 04/01/99 Analyzed: 04/13/99 Reported: 04/24/99
Attention: Aubrey Cool		

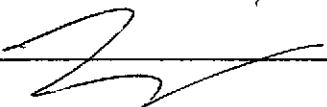
QC Batch Number: SP0413998010EXA  
Instrument ID: HP-7

## Halogenated Volatile Organics (EPA 8010)

Analyte	Detection Limit ug/Kg	Sample Results ug/Kg
Bromodichloromethane	25	N.D.
Bromoform	25	N.D.
Bromomethane	50	N.D.
Carbon Tetrachloride	25	N.D.
Chlorobenzene	25	N.D.
Chloroethane	50	N.D.
Chloroform	25	N.D.
Chloromethane	50	N.D.
Dibromochloromethane	25	N.D.
1,2-Dichlorobenzene	25	N.D.
1,3-Dichlorobenzene	25	N.D.
1,4-Dichlorobenzene	25	N.D.
1,1-Dichloroethane	25	N.D.
1,2-Dichloroethane	25	N.D.
1,1-Dichloroethene	25	N.D.
cis-1,2-Dichloroethene	25	N.D.
trans-1,2-Dichloroethene	25	N.D.
1,2-Dichloropropane	25	N.D.
cis-1,3-Dichloropropene	25	N.D.
trans-1,3-Dichloropropene	25	N.D.
Methylene chloride	500	N.D.
1,1,2,2-Tetrachloroethane	25	N.D.
<b>Tetrachloroethene</b>	<b>25</b>	<b>46</b>
1,1,1-Trichloroethane	25	N.D.
1,1,2-Trichloroethane	25	N.D.
Trichloroethene	25	N.D.
Trichlorofluoromethane	25	N.D.
Vinyl chloride	50	N.D.
<b>Surrogates</b>	<b>Control Limits %</b>	<b>% Recovery</b>
Dibromodifluoromethane	50 150	81
4-Bromofluorobenzene	50 150	75

Analytes reported as N.D. were not present above the stated limit of detection.

SEQUOIA ANALYTICAL - ELAP #1271

  
Project Manager







# Sequoia Analytical

680 Chesapeake Drive  
404 N. Wiget Lane  
819 Striker Avenue, Suite 8  
1455 McDowell Blvd. North, Ste. D  
1551 Industrial Road

Redwood City, CA 94063  
Walnut Creek, CA 94598  
Sacramento, CA 95834  
Petaluma, CA 94954  
San Carlos, CA 94070-4111

(650) 364-9600  
(925) 988-9600  
(916) 921-9600  
(707) 792-1865  
(650) 232-9600

FAX (650) 364-9233  
FAX (925) 988-9673  
FAX (916) 921-0100  
FAX (707) 792-0342  
FAX (650) 232-9612

Cambria 1144 65th St. Suite C Oakland, CA 94608 Attention: Aubrey Cool	Client Proj. ID: Shell 2001 Fruitvale Ave, Oakl Sample Descript: SBA 10.0' Matrix: SOIL Analysis Method: EPA 8270 Lab Number: 9904172-02	Sampled: 03/31/99 Received: 04/01/99 Extracted: 04/12/99 Analyzed: 04/19/99 Reported: 04/24/99
---	--	--

QC Batch Number: MS0412998270EXA  
Instrument ID: H7

## Semivolatile Organics (EPA 8270)

Analyte	Detection Limit ug/Kg	Sample Results ug/Kg
Acenaphthene	2500	N.D.
Acenaphthylene	2500	N.D.
Anthracene	2500	N.D.
Benzoic Acid	5000	N.D.
Benzo(a)anthracene	2500	N.D.
Benzo(b)fluoranthene	2500	N.D.
Benzo(k)fluoranthene	2500	N.D.
Benzo(g,h,i)perylene	2500	N.D.
Benzo(a)pyrene	2500	N.D.
Benzyl alcohol	2500	N.D.
Bis(2-chloroethoxy)methane	2500	N.D.
Bis(2-chloroethyl)ether	2500	N.D.
Bis(2-chloroisopropyl)ether	2500	N.D.
Bis(2-ethylhexyl)phthalate	5000	N.D.
4-Bromophenyl phenyl ether	2500	N.D.
Butyl benzyl phthalate	2500	N.D.
4-Chloroaniline	5000	N.D.
2-Chloronaphthalene	2500	N.D.
4-Chloro-3-methylphenol	2500	N.D.
2-Chlorophenol	2500	N.D.
4-Chlorophenyl phenyl ether	2500	N.D.
Chrysene	2500	N.D.
Dibenzo(a,h)anthracene	2500	N.D.
Dibenzofuran	2500	N.D.
Di-n-butyl phthalate	5000	N.D.
1,2-Dichlorobenzene	2500	N.D.
1,3-Dichlorobenzene	2500	N.D.
1,4-Dichlorobenzene	2500	N.D.
3,3'-Dichlorobenzidine	5000	N.D.
2,4-Dichlorophenol	2500	N.D.
Diethyl phthalate	2500	N.D.
2,4-Dimethylphenol	2500	N.D.
Dimethyl phthalate	2500	N.D.
4,6-Dinitro-2-methylphenol	5000	N.D.
2,4-Dinitrophenol	5000	N.D.
2,4-Dinitrotoluene	2500	N.D.
2,6-Dinitrotoluene	2500	N.D.
Di-n-octyl phthalate	2500	N.D.
Fluoranthene	2500	N.D.





# Sequoia Analytical

680 Chesapeake Drive  
404 N. Wiget Lane  
819 Striker Avenue, Suite 8  
1455 McDowell Blvd. North, Ste. D  
1551 Industrial Road

Redwood City, CA 94063  
Walnut Creek, CA 94598  
Sacramento, CA 95834  
Petaluma, CA 94954  
San Carlos, CA 94070-4111

(650) 364-9600  
(925) 988-9600  
(916) 921-9600  
(707) 792-1865  
(650) 232-9600

FAX (650) 364-9233  
FAX (925) 988-9673  
FAX (916) 921-0100  
FAX (707) 792-0342  
FAX (650) 232-9612

Cambria 1144 65th St. Suite C Oakland, CA 94608	Client Proj. ID: Shell 2001 Fruitvale Ave, Oakl Sample Descript: SBA 10.0' Matrix: SOIL Analysis Method: EPA 8270 Lab Number: 9904172-02	Sampled: 03/31/99 Received: 04/01/99 Extracted: 04/12/99 Analyzed: 04/19/99 Reported: 04/24/99
---	--	--

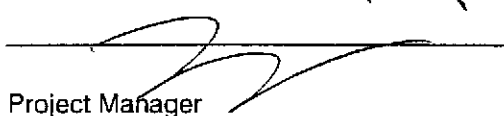
QC Batch Number: MS0412998270EXA  
Instrument ID: H7

Analyte	Detection Limit ug/Kg	Sample Results ug/Kg
Fluorene	2500	N.D.
Hexachlorobenzene	2500	N.D.
Hexachlorobutadiene	2500	N.D.
Hexachlorocyclopentadiene	5000	N.D.
Hexachloroethane	2500	N.D.
Indeno(1,2,3-cd)pyrene	2500	N.D.
Isophorone	2500	N.D.
2-Methylnaphthalene	2500	N.D.
2-Methylphenol	2500	N.D.
4-Methylphenol	2500	N.D.
Naphthalene	2500	N.D.
2-Nitroaniline	5000	N.D.
3-Nitroaniline	5000	N.D.
4-Nitroaniline	5000	N.D.
Nitrobenzene	2500	N.D.
2-Nitrophenol	2500	N.D.
4-Nitrophenol	5000	N.D.
N-Nitrosodiphenylamine	2500	N.D.
N-Nitroso-di-n-propylamine	2500	N.D.
Pentachlorophenol	5000	N.D.
Phenanthrene	2500	N.D.
<b>Phenol</b>	<b>2500</b>	<b>3600</b>
Pyrene	2500	N.D.
1,2,4-Trichlorobenzene	2500	N.D.
2,4,5-Trichlorophenol	5000	N.D.
2,4,6-Trichlorophenol	2500	N.D.

Surrogates	Control Limits %		% Recovery
2-Fluorophenol	25	121	54
Phenol-d5	24	113	70
Nitrobenzene-d5	23	120	95
2-Fluorobiphenyl	30	115	97
2,4,6-Tribromophenol	19	122	68
p-Terphenyl-d14	18	137	94

Analytes reported as N.D. were not present above the stated limit of detection.

**SEQUOIA ANALYTICAL** - ELAP #1210

  
Project Manager





# Sequoia Analytical

680 Chesapeake Drive  
 404 N. Wiget Lane  
 819 Striker Avenue, Suite 8  
 1455 McDowell Blvd. North, Ste. D  
 1551 Industrial Road

Redwood City, CA 94063  
 Walnut Creek, CA 94598  
 Sacramento, CA 95834  
 Petaluma, CA 94954  
 San Carlos, CA 94070-4111

(650) 364-9600  
 (925) 988-9600  
 (916) 921-9600  
 (707) 792-1865  
 (650) 232-9600

FAX (650) 364-9233  
 FAX (925) 988-9673  
 FAX (916) 921-0100  
 FAX (707) 792-0342  
 FAX (650) 232-9612

Cambria 1144 65th St. Suite C Oakland, CA 94608	Client Proj. ID: Shell 2001 Fruitvale Ave, Oakl Sample Descript: SBA 10.0' Matrix: SOIL Analysis Method: 8015Mod/8020 Lab Number: 9904172-02	Sampled: 03/31/99 Received: 04/01/99 Extracted: 04/09/99 Analyzed: 04/09/99 Reported: 04/24/99
---	--	--

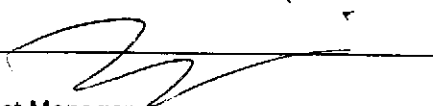
QC Batch Number: GC040999BTEXEXA  
 Instrument ID: GCHP22

## Total Purgeable Petroleum Hydrocarbons (TPPH) with BTEX and MTBE

Analyte	Detection Limit mg/Kg	Sample Results mg/Kg
TPPH as Gas	10	61
Methyl t-Butyl Ether	0.25	N.D.
Benzene	0.050	N.D.
Toluene	0.050	N.D.
Ethyl Benzene	0.050	N.D.
Xylenes (Total)	0.050	0.21
Chromatogram Pattern:		C6-C12
<b>Surrogates</b>	<b>Control Limits %</b>	<b>% Recovery</b>
Trifluorotoluene	70	130
4-Bromofluorobenzene	60	140

Analytes reported as N.D. were not present above the stated limit of detection.

SEQUOIA ANALYTICAL - ELAP #1210

  
 Project Manager





# Sequoia Analytical

680 Chesapeake Drive  
404 N. Wiget Lane  
819 Striker Avenue, Suite 8  
1455 McDowell Blvd. North, Ste. D  
1551 Industrial Road

Redwood City, CA 94063  
Walnut Creek, CA 94598  
Sacramento, CA 95834  
Petaluma, CA 94954  
San Carlos, CA 94070-4111

(650) 364-9600  
(925) 988-9600  
(916) 921-9600  
(707) 792-1865  
(650) 232-9600

FAX (650) 364-9233  
FAX (925) 988-9673  
FAX (916) 921-0100  
FAX (707) 792-0342  
FAX (650) 232-9612

Cambria 1144 65th St. Suite C Oakland, CA 94608	Client Proj. ID: Shell 2001 Fruitvale Ave, Oakl Sample Descript: SBA 10.0' Matrix: SOIL Analysis Method: EPA 8015 Mod Lab Number: 9904172-02	Sampled: 03/31/99 Received: 04/01/99 Extracted: 04/15/99 Analyzed: 04/16/99 Reported: 04/24/99
---	--	--


QC Batch Number: GC0415990HBPEXC  
Instrument ID: GCHP5A

## Total Extractable Petroleum Hydrocarbons (TEPH)

Analyte	Detection Limit mg/Kg	Sample Results mg/Kg
TEPH as Diesel Chromatogram Pattern:	200	1500 C9-C24
<b>Surrogates</b>	<b>Control Limits %</b>	<b>% Recovery</b>
n-Pentacosane (C25)	50                      150	Q

Analytes reported as N.D. were not present above the stated limit of detection.

**SEQUOIA ANALYTICAL** - ELAP #1210

  
Project Manager





# Sequoia Analytical

680 Chesapeake Drive  
 404 N. Wiger Lane  
 819 Striker Avenue, Suite 8  
 1455 McDowell Blvd. North, Ste. D  
 1551 Industrial Road

Redwood City, CA 94063  
 Walnut Creek, CA 94598  
 Sacramento, CA 95834  
 Petaluma, CA 94954  
 San Carlos, CA 94070-4111

(650) 364-9600  
 (925) 988-9600  
 (916) 921-9600  
 (707) 792-1865  
 (650) 232-9600

FAX (650) 364-9233  
 FAX (925) 988-9673  
 FAX (916) 921-0100  
 FAX (707) 792-0342  
 FAX (650) 232-9612

Cambria 1144 65th St. Suite C Oakland, CA 94608	Client Proj. ID: Shell 2001 Fruitvale Ave, Oakl Sample Descript: SBA 15.5' Matrix: SOIL Analysis Method: EPA 8010 Lab Number: 9904172-03	Sampled: 03/31/99 Received: 04/01/99  Analyzed: 04/13/99 Reported: 04/24/99
---	--	---

QC Batch Number: SP0413998010EXA  
 Instrument ID: HP-7

## Halogenated Volatile Organics (EPA 8010)

Analyte	Detection Limit ug/Kg	Sample Results ug/Kg
Bromodichloromethane	25	N.D.
Bromoform	25	N.D.
Bromomethane	50	N.D.
Carbon Tetrachloride	25	N.D.
Chlorobenzene	25	N.D.
Chloroethane	50	N.D.
Chloroform	25	N.D.
Chloromethane	50	N.D.
Dibromochloromethane	25	N.D.
1,2-Dichlorobenzene	25	N.D.
1,3-Dichlorobenzene	25	N.D.
1,4-Dichlorobenzene	25	N.D.
1,1-Dichloroethane	25	N.D.
1,2-Dichloroethane	25	N.D.
1,1-Dichloroethene	25	N.D.
cis-1,2-Dichloroethene	25	N.D.
trans-1,2-Dichloroethene	25	N.D.
1,2-Dichloropropane	25	N.D.
cis-1,3-Dichloropropene	25	N.D.
trans-1,3-Dichloropropene	25	N.D.
Methylene chloride	500	N.D.
1,1,2,2-Tetrachloroethane	25	N.D.
Tetrachloroethene	25	N.D.
1,1,1-Trichloroethane	25	N.D.
1,1,2-Trichloroethane	25	N.D.
Trichloroethene	25	N.D.
Trichlorofluoromethane	25	N.D.
Vinyl chloride	50	N.D.
<b>Surrogates</b>	<b>Control Limits %</b>	<b>% Recovery</b>
Dibromodifluoromethane	50 150	81
4-Bromofluorobenzene	50 150	74

Analytes reported as N.D. were not present above the stated limit of detection.

SEQUOIA ANALYTICAL - ELAP #1271

Project Manager





Cambria 1144 65th St. Suite C Oakland, CA 94608	Client Proj. ID: Shell 2001 Fruitvale Ave, Oakl Sample Descript: SBA 15.5' Matrix: SOIL Analysis Method: EPA 8270 Lab Number: 9904172-03	Sampled: 03/31/99 Received: 04/01/99 Extracted: 04/12/99 Analyzed: 04/19/99 Reported: 04/24/99
Attention: Aubrey Cool		

QC Batch Number: MS0412998270EXA  
Instrument ID: H7

**Semivolatile Organics (EPA 8270)**

Analyte	Detection Limit ug/Kg	Sample Results ug/Kg
Acenaphthene	2500	N.D.
Acenaphthylene	2500	N.D.
Anthracene	2500	N.D.
Benzoic Acid	5000	N.D.
Benzo(a)anthracene	2500	N.D.
Benzo(b)fluoranthene	2500	N.D.
Benzo(k)fluoranthene	2500	N.D.
Benzo(g,h,i)perylene	2500	N.D.
Benzo(a)pyrene	2500	N.D.
Benzyl alcohol	2500	N.D.
Bis(2-chloroethoxy)methane	2500	N.D.
Bis(2-chloroethyl)ether	2500	N.D.
Bis(2-chloroisopropyl)ether	2500	N.D.
Bis(2-ethylhexyl)phthalate	5000	N.D.
4-Bromophenyl phenyl ether	2500	N.D.
Butyl benzyl phthalate	2500	N.D.
4-Chloroaniline	5000	N.D.
2-Chloronaphthalene	2500	N.D.
4-Chloro-3-methylphenol	2500	N.D.
2-Chlorophenol	2500	N.D.
4-Chlorophenyl phenyl ether	2500	N.D.
Chrysene	2500	N.D.
Dibenzo(a,h)anthracene	2500	N.D.
Dibenzofuran	2500	N.D.
Di-n-butyl phthalate	5000	N.D.
1,2-Dichlorobenzene	2500	N.D.
1,3-Dichlorobenzene	2500	N.D.
1,4-Dichlorobenzene	2500	N.D.
3,3'-Dichlorobenzidine	5000	N.D.
2,4-Dichlorophenol	2500	N.D.
Diethyl phthalate	2500	N.D.
2,4-Dimethylphenol	2500	N.D.
Dimethyl phthalate	2500	N.D.
4,6-Dinitro-2-methylphenol	5000	N.D.
2,4-Dinitrophenol	5000	N.D.
2,4-Dinitrotoluene	2500	N.D.
2,6-Dinitrotoluene	2500	N.D.
Di-n-octyl phthalate	2500	N.D.
Fluoranthene	2500	N.D.





# Sequoia Analytical

680 Chesapeake Drive  
404 N. Wiger Lane  
819 Striker Avenue, Suite 8  
1455 McDowell Blvd. North, Ste. D  
1551 Industrial Road

Redwood City, CA 94063  
Walnut Creek, CA 94598  
Sacramento, CA 95834  
Petaluma, CA 94954  
San Carlos, CA 94070-4111

(650) 364-9600  
(925) 988-9600  
(916) 921-9600  
(707) 792-1865  
(650) 232-9600

FAX (650) 364-9233  
FAX (925) 988-9673  
FAX (916) 921-0100  
FAX (707) 792-0342  
FAX (650) 232-9612

Cambria  
1144 65th St. Suite C  
Oakland, CA 94608

Client Proj. ID: Shell 2001 Fruitvale Ave, Oakl  
Sample Descript: SBA 15.5'  
Matrix: SOIL  
Analysis Method: EPA 8270  
Lab Number: 9904172-03

Sampled: 03/31/99  
Received: 04/01/99  
Extracted: 04/12/99  
Analyzed: 04/19/99  
Reported: 04/24/99

QC Batch Number: MS0412998270EXA  
Instrument ID: H7

Analyte	Detection Limit ug/Kg	Sample Results ug/Kg
Fluorene	2500	N.D.
Hexachlorobenzene	2500	N.D.
Hexachlorobutadiene	2500	N.D.
Hexachlorocyclopentadiene	5000	N.D.
Hexachloroethane	2500	N.D.
Indeno(1,2,3-cd)pyrene	2500	N.D.
Isophorone	2500	N.D.
2-Methylnaphthalene	2500	N.D.
2-Methylphenol	2500	N.D.
4-Methylphenol	2500	N.D.
Naphthalene	2500	N.D.
2-Nitroaniline	5000	N.D.
3-Nitroaniline	5000	N.D.
4-Nitroaniline	5000	N.D.
Nitrobenzene	2500	N.D.
2-Nitrophenol	2500	N.D.
4-Nitrophenol	5000	N.D.
N-Nitrosodiphenylamine	2500	N.D.
N-Nitroso-di-n-propylamine	2500	N.D.
Pentachlorophenol	5000	N.D.
Phenanthrene	2500	N.D.
Phenol	2500	N.D.
Pyrene	2500	N.D.
1,2,4-Trichlorobenzene	2500	N.D.
2,4,5-Trichlorophenol	5000	N.D.
2,4,6-Trichlorophenol	2500	N.D.

Surrogates	Control Limits %		% Recovery
2-Fluorophenol	25	121	68
Phenol-d5	24	113	73
Nitrobenzene-d5	23	120	91
2-Fluorobiphenyl	30	115	89
2,4,6-Tribromophenol	19	122	87
p-Terphenyl-d14	18	137	96

Analytes reported as N.D. were not present above the stated limit of detection.

**SEQUOIA ANALYTICAL** - ELAP #1210

Project Manager

Page:

16





Cambria Client Proj. ID: Shell 2001 Fruitvale Ave, Oakl Sampled: 03/31/99
1144 65th St. Suite C Sample Descript: SBA 15.5' Received: 04/01/99
Oakland, CA 94608 Matrix: SOIL Extracted: 04/09/99
Attention: Aubrey Cool Analysis Method: 8015Mod/8020 Analyzed: 04/09/99
Lab Number: 9904172-03 Reported: 04/24/99

QC Batch Number: GC040999BTEXEXA
Instrument ID: GCHP22

Total Purgeable Petroleum Hydrocarbons (TPPH) with BTEX and MTBE

Table with columns: Analyte, Detection Limit mg/Kg, Sample Results mg/Kg. Rows include TPHH as Gas (13), Methyl t-Butyl Ether (N.D.), Benzene (N.D.), Toluene (N.D.), Ethyl Benzene (0.019), Xylenes (Total) (0.19), Chromatogram Pattern (C6-C12), and Surrogates (Control Limits % and % Recovery).

Analytes reported as N.D. were not present above the stated limit of detection.

SEQUOIA ANALYTICAL - ELAP #1210

Project Manager (with signature)







# Sequoia Analytical

680 Chesapeake Drive  
404 N. Wiger Lane  
819 Striker Avenue, Suite B  
1455 McDowell Blvd. North, Ste. D  
1551 Industrial Road

Redwood City, CA 94063  
Walnut Creek, CA 94598  
Sacramento, CA 95834  
Petaluma, CA 94954  
San Carlos, CA 94070-4111

(650) 364-9600  
(925) 988-9600  
(916) 921-9600  
(707) 792-1865  
(650) 232-9600

FAX (650) 364-9233  
FAX (925) 988-9673  
FAX (916) 921-0100  
FAX (707) 792-0342  
FAX (650) 232-9612

Cambria 1144 65th St. Suite C Oakland, CA 94608	Client Proj. ID: Shell 2001 Fruitvale Ave, Oakl Sample Descript: SBA 15.5' Matrix: SOIL Analysis Method: EPA 8015 Mod Lab Number: 9904172-03	Sampled: 03/31/99 Received: 04/01/99 Extracted: 04/15/99 Analyzed: 04/17/99 Reported: 04/24/99
---	--	--


QC Batch Number: GC0415990HBPEXC  
Instrument ID: GCHP5A

## Total Extractable Petroleum Hydrocarbons (TEPH)

Analyte	Detection Limit mg/Kg	Sample Results mg/Kg
TEPH as Diesel Chromatogram Pattern:	100	1100 C9-C24
Surrogates n-Pentacosane (C25)	Control Limits % 50                      150	% Recovery Q

Analytes reported as N.D. were not present above the stated limit of detection.

**SEQUOIA ANALYTICAL** - ELAP #1210

  
Project Manager





Cambria
1144 65th St. Suite C
Oakland, CA 94608

Client Proj. ID: Shell 2001 Fruitvale Ave, Oakl
Sample Descript: SBA 22.5'
Matrix: SOIL
Analysis Method: EPA 8010
Lab Number: 9904172-04

Sampled: 03/31/99
Received: 04/01/99
Analyzed: 04/13/99
Reported: 04/24/99

QC Batch Number: SP0413998010EXA
Instrument ID: HP-7

Halogenated Volatile Organics (EPA 8010)

Table with 3 columns: Analyte, Detection Limit ug/Kg, Sample Results ug/Kg. Lists various organic compounds and their detection limits, with sample results mostly marked as N.D. Includes a Surrogates section at the bottom with Control Limits and % Recovery.

Analytes reported as N.D. were not present above the stated limit of detection.

SEQUOIA ANALYTICAL - ELAP #1271

Handwritten signature
Project Manager





# Sequoia Analytical

680 Chesapeake Drive  
404 N. Wiget Lane  
819 Striker Avenue, Suite 8  
1455 McDowell Blvd. North, Ste. D  
1551 Industrial Road

Redwood City, CA 94063  
Walnut Creek, CA 94598  
Sacramento, CA 95834  
Petaluma, CA 94954  
San Carlos, CA 94070-4111

(650) 364-9600  
(925) 988-9600  
(916) 921-9600  
(707) 792-1865  
(650) 232-9600

FAX (650) 364-9233  
FAX (925) 988-9673  
FAX (916) 921-0100  
FAX (707) 792-0342  
FAX (650) 232-9612

Cambria 1144 65th St. Suite C Oakland, CA 94608 Attention: Aubrey Cool	Client Proj. ID: Shell 2001 Fruitvale Ave, Oakl Sample Descript: SBA 22.5' Matrix: SOIL Analysis Method: EPA 8270 Lab Number: 9904172-04	Sampled: 03/31/99 Received: 04/01/99 Extracted: 04/12/99 Analyzed: 04/19/99 Reported: 04/24/99
---	--	--

QC Batch Number: MS0412998270EXA  
Instrument ID: H7

## Semivolatile Organics (EPA 8270)

Analyte	Detection Limit ug/Kg	Sample Results ug/Kg
Acenaphthene	500	N.D.
Acenaphthylene	500	N.D.
Anthracene	500	N.D.
Benzoic Acid	1000	N.D.
Benzo(a)anthracene	500	N.D.
Benzo(b)fluoranthene	500	N.D.
Benzo(k)fluoranthene	500	N.D.
Benzo(g,h,i)perylene	500	N.D.
Benzo(a)pyrene	500	N.D.
Benzyl alcohol	500	N.D.
Bis(2-chloroethoxy)methane	500	N.D.
Bis(2-chloroethyl)ether	500	N.D.
Bis(2-chloroisopropyl)ether	500	N.D.
Bis(2-ethylhexyl)phthalate	1000	N.D.
4-Bromophenyl phenyl ether	500	N.D.
Butyl benzyl phthalate	500	N.D.
4-Chloroaniline	1000	N.D.
2-Chloronaphthalene	500	N.D.
4-Chloro-3-methylphenol	500	N.D.
2-Chlorophenol	500	N.D.
4-Chlorophenyl phenyl ether	500	N.D.
Chrysene	500	N.D.
Dibenzo(a,h)anthracene	500	N.D.
Dibenzofuran	500	N.D.
Di-n-butyl phthalate	1000	N.D.
1,2-Dichlorobenzene	500	N.D.
1,3-Dichlorobenzene	500	N.D.
1,4-Dichlorobenzene	500	N.D.
3,3'-Dichlorobenzidine	1000	N.D.
2,4-Dichlorophenol	500	N.D.
Diethyl phthalate	500	N.D.
2,4-Dimethylphenol	500	N.D.
Dimethyl phthalate	500	N.D.
4,6-Dinitro-2-methylphenol	1000	N.D.
2,4-Dinitrophenol	1000	N.D.
2,4-Dinitrotoluene	500	N.D.
2,6-Dinitrotoluene	500	N.D.
Di-n-octyl phthalate	500	N.D.
Fluoranthene	500	N.D.





# Sequoia Analytical

680 Chesapeake Drive  
404 N. Wiget Lane  
819 Striker Avenue, Suite B  
1455 McDowell Blvd. North, Ste. D  
1551 Industrial Road

Redwood City, CA 94063  
Walnut Creek, CA 94598  
Sacramento, CA 95834  
Petaluma, CA 94954  
San Carlos, CA 94070-4111

(650) 364-9600  
(925) 988-9600  
(916) 921-9600  
(707) 792-1865  
(650) 232-9600

FAX (650) 364-9233  
FAX (925) 988-9673  
FAX (916) 921-0100  
FAX (707) 792-0342  
FAX (650) 232-9612

Cambria  
1144 65th St. Suite C  
Oakland, CA 94608

Attention: Aubrey Cool

Client Proj. ID: Shell 2001 Fruitvale Ave, Oakl  
Sample Descript: SBA 22.5'  
Matrix: SOIL  
Analysis Method: EPA 8270  
Lab Number: 9904172-04

Sampled: 03/31/99  
Received: 04/01/99  
Extracted: 04/12/99  
Analyzed: 04/19/99  
Reported: 04/24/99

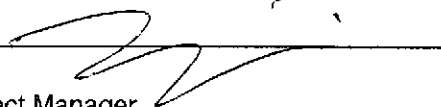
QC Batch Number: MS0412998270EXA  
Instrument ID: H7

Analyte	Detection Limit ug/Kg	Sample Results ug/Kg
Fluorene	500	N.D.
Hexachlorobenzene	500	N.D.
Hexachlorobutadiene	500	N.D.
Hexachlorocyclopentadiene	1000	N.D.
Hexachloroethane	500	N.D.
Indeno(1,2,3-cd)pyrene	500	N.D.
Isophorone	500	N.D.
2-Methylnaphthalene	500	N.D.
2-Methylphenol	500	N.D.
4-Methylphenol	500	N.D.
Naphthalene	500	N.D.
2-Nitroaniline	1000	N.D.
3-Nitroaniline	1000	N.D.
4-Nitroaniline	1000	N.D.
Nitrobenzene	500	N.D.
2-Nitrophenol	500	N.D.
4-Nitrophenol	1000	N.D.
N-Nitrosodiphenylamine	500	N.D.
N-Nitroso-di-n-propylamine	500	N.D.
Pentachlorophenol	1000	N.D.
Phenanthrene	500	N.D.
Phenol	500	N.D.
Pyrene	500	N.D.
1,2,4-Trichlorobenzene	500	N.D.
2,4,5-Trichlorophenol	1000	N.D.
2,4,6-Trichlorophenol	500	N.D.

Surrogates	Control Limits %		% Recovery
2-Fluorophenol	25	121	73
Phenol-d5	24	113	80
Nitrobenzene-d5	23	120	93
2-Fluorobiphenyl	30	115	92
2,4,6-Tribromophenol	19	122	85
p-Terphenyl-d14	18	137	108

Analytes reported as N.D. were not present above the stated limit of detection.

**SEQUOIA ANALYTICAL** - ELAP #1210

  
Project Manager





# Sequoia Analytical

680 Chesapeake Drive  
 404 N. Wiget Lane  
 819 Striker Avenue, Suite 8  
 1455 McDowell Blvd. North, Ste. D  
 1551 Industrial Road

Redwood City, CA 94063  
 Walnut Creek, CA 94598  
 Sacramento, CA 95834  
 Petaluma, CA 94954  
 San Carlos, CA 94070-4111

(650) 364-9600  
 (925) 988-9600  
 (916) 921-9600  
 (707) 792-1865  
 (650) 232-9600

FAX (650) 364-9233  
 FAX (925) 988-9673  
 FAX (916) 921-0100  
 FAX (707) 792-0342  
 FAX (650) 232-9612

Cambria 1144 65th St. Suite C Oakland, CA 94608	Client Proj. ID: Shell 2001 Fruitvale Ave, Oakl Sample Descript: SBA 22.5' Matrix: SOIL Analysis Method: 8015Mod/8020 Lab Number: 9904172-04	Sampled: 03/31/99 Received: 04/01/99 Extracted: 04/09/99 Analyzed: 04/09/99 Reported: 04/24/99
---	--	--


QC Batch Number: GC040999BTEXEXA  
 Instrument ID: GCHP31

## Total Purgeable Petroleum Hydrocarbons (TPPH) with BTEX and MTBE

Analyte	Detection Limit mg/Kg	Sample Results mg/Kg
TPPH as Gas	10	34
Methyl t-Butyl Ether	0.25	0.26
Benzene	0.050	0.057
Toluene	0.050	0.41
Ethyl Benzene	0.050	0.16
Xylenes (Total)	0.050	0.45
Chromatogram Pattern:		C6-C12
<b>Surrogates</b>	<b>Control Limits %</b>	<b>% Recovery</b>
Trifluorotoluene	70	130
4-Bromofluorobenzene	60	140

Analytes reported as N.D. were not present above the stated limit of detection.

**SEQUOIA ANALYTICAL** - ELAP #1210

  
 Project Manager





**Sequoia  
Analytical**

680 Chesapeake Drive  
404 N. Wiget Lane  
819 Striker Avenue, Suite 8  
1455 McDowell Blvd. North, Ste. D  
1551 Industrial Road

Redwood City, CA 94063  
Walnut Creek, CA 94598  
Sacramento, CA 95834  
Petaluma, CA 94954  
San Carlos, CA 94070-4111

(650) 364-9600  
(925) 988-9600  
(916) 921-9600  
(707) 792-1865  
(650) 232-9600

FAX (650) 364-9233  
FAX (925) 988-9673  
FAX (916) 921-0100  
FAX (707) 792-0342  
FAX (650) 232-9612

Cambria 1144 65th St. Suite C Oakland, CA 94608	Client Proj. ID: Shell 2001 Fruitvale Ave, Oakl Sample Descript: SBA 22.5' Matrix: SOIL Analysis Method: EPA 8015 Mod Lab Number: 9904172-04	Sampled: 03/31/99 Received: 04/01/99 Extracted: 04/15/99 Analyzed: 04/20/99 Reported: 04/24/99
---	--	--

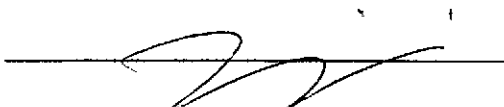
QC Batch Number: GC0415990HBPEXC  
Instrument ID: GCHP4B

**Total Extractable Petroleum Hydrocarbons (TEPH)**

Analyte	Detection Limit mg/Kg	Sample Results mg/Kg
TEPH as Diesel Chromatogram Pattern:	100	510 C9-C24
<b>Surrogates</b>	<b>Control Limits %</b>	<b>% Recovery</b>
n-Pentacosane (C25)	50 150	Q

Analytes reported as N.D. were not present above the stated limit of detection.

**SEQUOIA ANALYTICAL - ELAP #1210**

  
Project Manager





# Sequoia Analytical

680 Chesapeake Drive  
404 N. Wiget Lane  
819 Striker Avenue, Suite 8  
1455 McDowell Blvd. North, Ste. D  
1551 Industrial Road

Redwood City, CA 94063  
Walnut Creek, CA 94598  
Sacramento, CA 95834  
Petaluma, CA 94954  
San Carlos, CA 94070-4111

(650) 364-9600  
(925) 988-9600  
(916) 921-9600  
(707) 792-1865  
(650) 232-9600

FAX (650) 364-9233  
FAX (925) 988-9673  
FAX (916) 921-0100  
FAX (707) 792-0342  
FAX (650) 232-9612

Cambria 1144 65th St. Suite C Oakland, CA 94608	Client Proj. ID: Shell 2001 Fruitvale Ave, Oakl Sample Descript: SBB-6.0' Matrix: SOIL Analysis Method: 8015Mod/8020 Lab Number: 9904172-06	Sampled: 03/31/99 Received: 04/01/99 Extracted: 04/09/99 Analyzed: 04/09/99 Reported: 04/24/99
---	---	--


QC Batch Number: GC040999BTEXEXA  
Instrument ID: GCHP22

## Total Purgeable Petroleum Hydrocarbons (TPPH) with BTEX and MTBE

Analyte	Detection Limit mg/Kg	Sample Results mg/Kg
TPPH as Gas	1.0	N.D.
Methyl t-Butyl Ether	0.025	N.D.
Benzene	0.0050	N.D.
Toluene	0.0050	N.D.
Ethyl Benzene	0.0050	N.D.
Xylenes (Total)	0.0050	N.D.
Chromatogram Pattern:		
<b>Surrogates</b>	<b>Control Limits %</b>	<b>% Recovery</b>
Trifluorotoluene	70 130	80
4-Bromofluorobenzene	60 140	71

Analytes reported as N.D. were not present above the stated limit of detection.

**SEQUOIA ANALYTICAL** - ELAP #1210

  
Project Manager





# Sequoia Analytical

680 Chesapeake Drive  
404 N. Wiget Lane  
819 Striker Avenue, Suite 8  
1455 McDowell Blvd. North, Ste. D  
1551 Industrial Road

Redwood City, CA 94063  
Walnut Creek, CA 94598  
Sacramento, CA 95834  
Petaluma, CA 94954  
San Carlos, CA 94070-4111

(650) 364-9600  
(925) 988-9600  
(916) 921-9600  
(707) 792-1865  
(650) 232-9600

FAX (650) 364-9233  
FAX (925) 988-9673  
FAX (916) 921-0100  
FAX (707) 792-0342  
FAX (650) 232-9612

Cambria 1144 65th St. Suite C Oakland, CA 94608 Attention: Aubrey Cool	Client Proj. ID: Shell 2001 Fruitvale Ave, Oakl Sample Descript: SBB-6.0' Matrix: SOIL Analysis Method: EPA 8015 Mod Lab Number: 9904172-06	Sampled: 03/31/99 Received: 04/01/99 Extracted: 04/15/99 Analyzed: 04/16/99 Reported: 04/24/99
---	---	--


QC Batch Number: GC0415990HBPEXC  
Instrument ID: GCHP5A

## Total Extractable Petroleum Hydrocarbons (TEPH)

Analyte	Detection Limit mg/Kg	Sample Results mg/Kg
TEPH as Diesel Chromatogram Pattern:	1.0	2.4 C9-C24
<b>Surrogates</b>	<b>Control Limits %</b>	<b>% Recovery</b>
n-Pentacosane (C25)	50                      150	100

Analytes reported as N.D. were not present above the stated limit of detection.

**SEQUOIA ANALYTICAL** - ELAP #1210

  
Project Manager







Cambria 1144 65th St. Suite C Oakland, CA 94608	Client Proj. ID: Shell 2001 Fruitvale Ave, Oak Sample Descript: SBB-16.0' Matrix: SOIL Analysis Method: 8015Mod/8020 Lab Number: 9904172-07	Sampled: 03/31/99 Received: 04/01/99 Extracted: 04/09/99 Analyzed: 04/12/99 Reported: 04/24/99
---	---	--

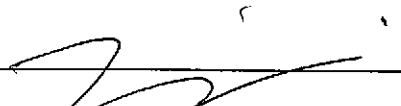
QC Batch Number: GC040999BTEXEXA  
 Instrument ID: GCHP18

### Total Purgeable Petroleum Hydrocarbons (TPPH) with BTEX and MTBE

Analyte	Detection Limit mg/Kg	Sample Results mg/Kg
TPPH as Gas	1.0	N.D.
Methyl t-Butyl Ether	0.025	0.042
Benzene	0.0050	N.D.
Toluene	0.0050	N.D.
Ethyl Benzene	0.0050	N.D.
Xylenes (Total)	0.0050	N.D.
Chromatogram Pattern:		
<b>Surrogates</b>	<b>Control Limits %</b>	<b>% Recovery</b>
Trifluorotoluene	70	130
4-Bromofluorobenzene	60	140

Analytes reported as N.D. were not present above the stated limit of detection.

**SEQUOIA ANALYTICAL** - ELAP #1210

  
 Project Manager





Cambria 1144 65th St. Suite C Oakland, CA 94608 Attention: Aubrey Cool	Client Proj. ID: Shell 2001 Fruitvale Ave, Oakl Sample Descript: SBB-16.0' Matrix: SOIL Analysis Method: EPA 8015 Mod Lab Number: 9904172-07	Sampled: 03/31/99 Received: 04/01/99 Extracted: 04/15/99 Analyzed: 04/16/99 Reported: 04/24/99
---	--	--

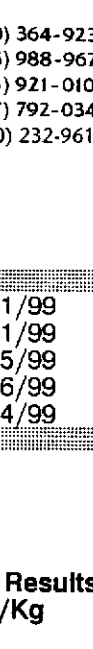
QC Batch Number: GC0415990HBPEXC  
Instrument ID: GCHP5A

**Total Extractable Petroleum Hydrocarbons (TEPH)**

Analyte	Detection Limit mg/Kg	Sample Results mg/Kg
TEPH as Diesel Chromatogram Pattern:	1.0	1.2 C9-C24
<b>Surrogates</b>	<b>Control Limits %</b>	<b>% Recovery</b>
n-Pentacosane (C25)	50                      150	103

Analytes reported as N.D. were not present above the stated limit of detection.

**SEQUOIA ANALYTICAL** - ELAP #1210

  
Project Manager





Cambria 1144 65th St. Suite C Oakland, CA 94608	Client Proj. ID: Shell 2001 Fruitvale Ave, Oakl Sample Descript: SBB-20.5' Matrix: SOIL Analysis Method: 8015Mod/8020 Lab Number: 9904172-08	Sampled: 03/31/99 Received: 04/01/99 Extracted: 04/09/99 Analyzed: 04/09/99 Reported: 04/24/99
---	--	--

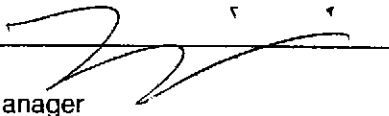
QC Batch Number: GC040999BTEXEXA  
Instrument ID: GCHP31

**Total Purgeable Petroleum Hydrocarbons (TPPH) with BTEX and MTBE**

Analyte	Detection Limit mg/Kg	Sample Results mg/Kg
TPPH as Gas	1.0	N.D.
<b>Methyl t-Butyl Ether</b>	<b>0.025</b>	<b>0.026</b>
Benzene	0.0050	N.D.
Toluene	0.0050	N.D.
Ethyl Benzene	0.0050	N.D.
Xylenes (Total)	0.0050	N.D.
Chromatogram Pattern:		
<b>Surrogates</b>	<b>Control Limits %</b>	<b>% Recovery</b>
Trifluorotoluene	70 130	104
4-Bromofluorobenzene	60 140	96

Analytes reported as N.D. were not present above the stated limit of detection.

**SEQUOIA ANALYTICAL** - ELAP #1210

  
Project Manager





Cambria 1144 65th St. Suite C Oakland, CA 94608 Attention: Aubrey Cool	Client Proj. ID: Shell 2001 Fruitvale Ave, Oak Sample Descript: SBB-20.5' Matrix: SOIL Analysis Method: EPA 8015 Mod Lab Number: 9904172-08	Sampled: 03/31/99 Received: 04/01/99 Extracted: 04/15/99 Analyzed: 04/16/99 Reported: 04/24/99
---	---	--


QC Batch Number: GC0415990HBPEXC  
Instrument ID: GCHP5A

**Total Extractable Petroleum Hydrocarbons (TEPH)**

Analyte	Detection Limit mg/Kg	Sample Results mg/Kg
TEPH as Diesel Chromatogram Pattern:	1.0	1.1 C9-C24
<b>Surrogates</b>	<b>Control Limits %</b>	<b>% Recovery</b>
n-Pentacosane (C25)	50                      150	95

Analytes reported as N.D. were not present above the stated limit of detection.

**SEQUOIA ANALYTICAL** - ELAP #1210

  
Project Manager





Cambria 1144 65th St. Suite C Oakland, CA 94608	Client Proj. ID: Shell 2001 Fruitvale Ave, Oakl Sample Descript: SBC-5.5' Matrix: SOIL Analysis Method: 8015Mod/8020 Lab Number: 9904172-09	Sampled: 03/31/99 Received: 04/01/99 Extracted: 04/09/99 Analyzed: 04/09/99 Reported: 04/24/99
---	---	--


QC Batch Number: GC040999BTEXEXA  
 Instrument ID: GCHP22

### Total Purgeable Petroleum Hydrocarbons (TPPH) with BTEX and MTBE

Analyte	Detection Limit mg/Kg	Sample Results mg/Kg
TPPH as Gas	1.0	N.D.
Methyl t-Butyl Ether	0.025	N.D.
Benzene	0.0050	N.D.
Toluene	0.0050	N.D.
Ethyl Benzene	0.0050	N.D.
Xylenes (Total)	0.0050	N.D.
Chromatogram Pattern:		
<b>Surrogates</b>	<b>Control Limits %</b>	<b>% Recovery</b>
Trifluorotoluene	70 130	81
4-Bromofluorobenzene	60 140	87

Analytes reported as N.D. were not present above the stated limit of detection.

SEQUOIA ANALYTICAL - ELAP #1210

  
 Project Manager





Cambria  
1144 65th St. Suite C  
Oakland, CA 94608

Client Proj. ID: Shell 2001 Fruitvale Ave, Oakl  
Sample Descript: SBC-5.5  
Matrix: SOIL  
Analysis Method: EPA 8015 Mod  
Lab Number: 9904172-09

Sampled: 03/31/99  
Received: 04/01/99  
Extracted: 04/15/99  
Analyzed: 04/16/99  
Reported: 04/24/99

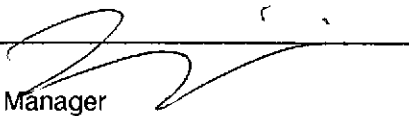
QC Batch Number: GC0415990HBPEXC  
Instrument ID: GCHP5A

**Total Extractable Petroleum Hydrocarbons (TEPH)**

Analyte	Detection Limit mg/Kg	Sample Results mg/Kg
TEPH as Diesel Chromatogram Pattern:	1.0	4.0 C9-C24
<b>Surrogates</b>	<b>Control Limits %</b>	<b>% Recovery</b>
n-Pentacosane (C25)	50 150	119

Analytes reported as N.D. were not present above the stated limit of detection.

**SEQUOIA ANALYTICAL** - ELAP #1210

  
Project Manager





Cambria 1144 65th St. Suite C Oakland, CA 94608	Client Proj. ID: Shell 2001 Fruitvale Ave, Oakl Sample Descript: SBC-15.5' Matrix: SOIL Analysis Method: 8015Mod/8020 Lab Number: 9904172-11	Sampled: 03/31/99 Received: 04/01/99 Extracted: 04/09/99 Analyzed: 04/09/99 Reported: 04/24/99
---	--	--

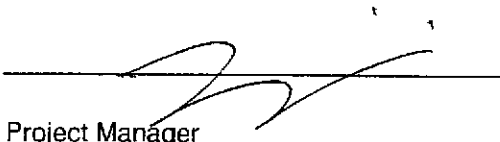
QC Batch Number: GC040999BTEXEXA  
 Instrument ID: GCHP31

### Total Purgeable Petroleum Hydrocarbons (TPPH) with BTEX and MTBE

Analyte	Detection Limit mg/Kg	Sample Results mg/Kg
TPPH as Gas	1.0	N.D.
Methyl t-Butyl Ether	0.025	N.D.
Benzene	0.0050	N.D.
Toluene	0.0050	N.D.
Ethyl Benzene	0.0050	N.D.
Xylenes (Total)	0.0050	N.D.
Chromatogram Pattern:		
<b>Surrogates</b>	<b>Control Limits %</b>	<b>% Recovery</b>
Trifluorotoluene	70 130	102
4-Bromofluorobenzene	60 140	98

Analytes reported as N.D. were not present above the stated limit of detection.

**SEQUOIA ANALYTICAL** - ELAP #1210

  
 Project Manager





Cambria 1144 65th St. Suite C Oakland, CA 94608	Client Proj. ID: Shell 2001 Fruitvale Ave, Oakl Sample Descript: SBC-15.5' Matrix: SOIL Analysis Method: EPA 8015 Mod Lab Number: 9904172-11	Sampled: 03/31/99 Received: 04/01/99 Extracted: 04/15/99 Analyzed: 04/16/99 Reported: 04/24/99
Attention: Aubrey Cool		

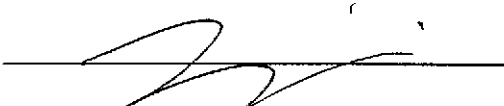
QC Batch Number: GC0415990HBPEXC  
Instrument ID: GCHP5A

**Total Extractable Petroleum Hydrocarbons (TEPH)**

Analyte	Detection Limit mg/Kg	Sample Results mg/Kg
TEPH as Diesel Chromatogram Pattern:	1.0	2.1 C9-C24
<b>Surrogates</b>	<b>Control Limits %</b>	<b>% Recovery</b>
n-Pentacosane (C25)	50                      150	124

Analytes reported as N.D. were not present above the stated limit of detection.

**SEQUOIA ANALYTICAL** - ELAP #1210

  
Project Manager







# Sequoia Analytical

680 Chesapeake Drive  
404 N. Wiget Lane  
819 Striker Avenue, Suite 8  
1455 McDowell Blvd, North, Ste. D  
1551 Industrial Road

Redwood City, CA 94063  
Walnut Creek, CA 94598  
Sacramento, CA 95834  
Petaluma, CA 94954  
San Carlos, CA 94070-4111

(650) 364-9600  
(925) 988-9600  
(916) 921-9600  
(707) 792-1865  
(650) 232-9600

FAX (650) 364-9233  
FAX (925) 988-9673  
FAX (916) 921-0100  
FAX (707) 792-0342  
FAX (650) 232-9612

Cambria 1144 65th St. Suite C Oakland, CA 94608	Client Proj. ID: Shell 2001 Fruitvale Ave, Oak Sample Descript: SBC-2.5' Matrix: SOIL Analysis Method: 8015Mod/8020 Lab Number: 9904172-12	Sampled: 03/31/99 Received: 04/01/99 Extracted: 04/09/99 Analyzed: 04/09/99 Reported: 04/24/99
---	--	--

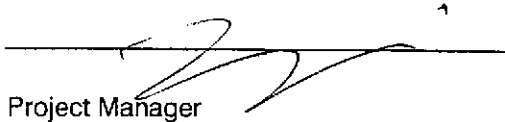
QC Batch Number: GC040999BTEXEXA  
Instrument ID: GCHP31

## Total Purgeable Petroleum Hydrocarbons (TPPH) with BTEX and MTBE

Analyte	Detection Limit mg/Kg	Sample Results mg/Kg
TPPH as Gas	1.0	N.D.
Methyl t-Butyl Ether	0.025	N.D.
Benzene	0.0050	N.D.
Toluene	0.0050	N.D.
Ethyl Benzene	0.0050	N.D.
Xylenes (Total)	0.0050	N.D.
Chromatogram Pattern:		
<b>Surrogates</b>	<b>Control Limits %</b>	<b>% Recovery</b>
Trifluorotoluene	70                      130	104
4-Bromofluorobenzene	60                      140	96

Analytes reported as N.D. were not present above the stated limit of detection.

**SEQUOIA ANALYTICAL** - ELAP #1210

  
Project Manager





# Sequoia Analytical

680 Chesapeake Drive  
404 N. Wiget Lane  
819 Striker Avenue, Suite 8  
1455 McDowell Blvd. North, Ste. D  
1551 Industrial Road

Redwood City, CA 94063  
Walnut Creek, CA 94598  
Sacramento, CA 95834  
Petaluma, CA 94954  
San Carlos, CA 94070-4111

(650) 364-9600  
(925) 988-9600  
(916) 921-9600  
(707) 792-1865  
(650) 232-9600

FAX (650) 364-9233  
FAX (925) 988-9673  
FAX (916) 921-0100  
FAX (707) 792-0342  
FAX (650) 232-9612

Cambria  
1144 65th St. Suite C  
Oakland, CA 94608

Client Proj. ID: Shell 2001 Fruitvale Ave, Oakl  
Sample Descript: SBC-2.5  
Matrix: SOIL  
Analysis Method: EPA 8015 Mod  
Lab Number: 9904172-12

Sampled: 03/31/99  
Received: 04/01/99  
Extracted: 04/15/99  
Analyzed: 04/16/99  
Reported: 04/24/99


QC Batch Number: GC0415990HBPEXC  
Instrument ID: GCHP5A

## Total Extractable Petroleum Hydrocarbons (TEPH)

Analyte	Detection Limit mg/Kg	Sample Results mg/Kg
TEPH as Diesel Chromatogram Pattern:	1.0	2.0 C9-C24
<b>Surrogates</b>	<b>Control Limits %</b>	<b>% Recovery</b>
n-Pentacosane (C25)	50                      150	101

Analytes reported as N.D. were not present above the stated limit of detection.

**SEQUOIA ANALYTICAL** - ELAP #1210

  
Project Manager





# Sequoia Analytical

680 Chesapeake Drive  
 404 N. Wiget Lane  
 819 Striker Avenue, Suite 8  
 1455 McDowell Blvd. North, Ste. D  
 1551 Industrial Road

Redwood City, CA 94063  
 Walnut Creek, CA 94598  
 Sacramento, CA 95834  
 Petaluma, CA 94954  
 San Carlos, CA 94070-4111

(650) 364-9600  
 (925) 988-9600  
 (916) 921-9600  
 (707) 792-1865  
 (650) 232-9600

FAX (650) 364-9233  
 FAX (925) 988-9673  
 FAX (916) 921-0100  
 FAX (707) 792-0342  
 FAX (650) 232-9612

Cambria 1144 65th St. Suite C Oakland, CA 94608	Client Proj. ID: Shell 2001 Fruitvale Ave, Oak Sample Descript: SBA-W Matrix: LIQUID Analysis Method: EPA 8010 Lab Number: 9904172-14	Sampled: 03/31/99 Received: 04/01/99 Analyzed: 04/12/99 Reported: 04/24/99
---	---	---


QC Batch Number: GC041299OVOA32A  
 Instrument ID: GCHP32

## Halogenated Volatile Organics (EPA 8010)

Analyte	Detection Limit ug/L	Sample Results ug/L
Bromodichloromethane	0.50	N.D.
Bromoform	0.50	N.D.
Bromomethane	1.0	N.D.
Carbon Tetrachloride	0.50	N.D.
Chlorobenzene	0.50	N.D.
Chloroethane	1.0	N.D.
Chloroform	0.50	N.D.
Chloromethane	1.0	N.D.
Dibromochloromethane	0.50	N.D.
1,2-Dichlorobenzene	0.50	N.D.
1,3-Dichlorobenzene	0.50	N.D.
1,4-Dichlorobenzene	0.50	N.D.
1,1-Dichloroethane	0.50	N.D.
1,2-Dichloroethane	0.50	N.D.
1,1-Dichloroethene	0.50	N.D.
<b>cis-1,2-Dichloroethene</b>	<b>0.50</b>	<b>4.1</b>
trans-1,2-Dichloroethene	0.50	N.D.
1,2-Dichloropropane	0.50	N.D.
cis-1,3-Dichloropropene	0.50	N.D.
trans-1,3-Dichloropropene	0.50	N.D.
Methylene chloride	5.0	N.D.
1,1,1,2-Tetrachloroethane	0.50	N.D.
<b>Tetrachloroethene</b>	<b>0.50</b>	<b>15</b>
1,1,1-Trichloroethane	0.50	N.D.
1,1,2-Trichloroethane	0.50	N.D.
<b>Trichloroethene</b>	<b>0.50</b>	<b>4.7</b>
Trichlorofluoromethane	0.50	N.D.
Vinyl chloride	1.0	N.D.
<b>Surrogates</b>	<b>Control Limits %</b>	<b>% Recovery</b>
4-Bromofluorobenzene	70 130	80

Analytes reported as N.D. were not present above the stated limit of detection.

**SEQUOIA ANALYTICAL** - ELAP #1210

  
 Project Manager





Cambria  
1144 65th St. Suite C  
Oakland, CA 94608

Client Proj. ID: Shell 2001 Fruitvale Ave, Oakl  
Sample Descript: SBA-W  
Matrix: LIQUID  
Analysis Method: EPA 8270  
Lab Number: 9904172-14

Sampled: 03/31/99  
Received: 04/01/99  
Extracted: 04/09/99  
Analyzed: 04/14/99  
Reported: 04/24/99

QC Batch Number: MS0409998270EXA  
Instrument ID: H7

**Semivolatile Organics (EPA 8270)**

Analyte	Detection Limit ug/L	Sample Results ug/L
Acenaphthene	5.0	N.D.
Acenaphthylene	5.0	N.D.
Anthracene	5.0	N.D.
Benzoic Acid	10	N.D.
Benzo(a)anthracene	5.0	N.D.
Benzo(b)fluoranthene	5.0	N.D.
Benzo(k)fluoranthene	5.0	N.D.
Benzo(g,h,i)perylene	5.0	N.D.
Benzo(a)pyrene	5.0	N.D.
Benzyl alcohol	5.0	N.D.
Bis(2-chloroethoxy)methane	5.0	N.D.
Bis(2-chloroethyl)ether	5.0	N.D.
Bis(2-chloroisopropyl)ether	5.0	N.D.
<b>Bis(2-ethylhexyl)phthalate</b>	<b>10</b>	<b>35</b>
4-Bromophenyl phenyl ether	5.0	N.D.
<b>Butyl benzyl phthalate</b>	<b>5.0</b>	<b>13</b>
4-Chloroaniline	10	N.D.
2-Chloronaphthalene	5.0	N.D.
4-Chloro-3-methylphenol	5.0	N.D.
2-Chlorophenol	5.0	N.D.
4-Chlorophenyl phenyl ether	5.0	N.D.
Chrysene	5.0	N.D.
Dibenzo(a,h)anthracene	5.0	N.D.
Dibenzofuran	5.0	N.D.
Di-n-butyl phthalate	10	N.D.
1,2-Dichlorobenzene	5.0	N.D.
1,3-Dichlorobenzene	5.0	N.D.
1,4-Dichlorobenzene	5.0	N.D.
3,3-Dichlorobenzidine	10	N.D.
2,4-Dichlorophenol	5.0	N.D.
Diethyl phthalate	5.0	N.D.
2,4-Dimethylphenol	5.0	N.D.
Dimethyl phthalate	5.0	N.D.
4,6-Dinitro-2-methylphenol	10	N.D.
2,4-Dinitrophenol	10	N.D.
2,4-Dinitrotoluene	5.0	N.D.
2,6-Dinitrotoluene	5.0	N.D.
Di-n-octyl phthalate	5.0	N.D.
Fluoranthene	5.0	N.D.





# Sequoia Analytical

680 Chesapeake Drive  
404 N. Wiget Lane  
819 Striker Avenue, Suite 8  
1455 McDowell Blvd. North, Ste. D  
1551 Industrial Road

Redwood City, CA 94063  
Walnut Creek, CA 94598  
Sacramento, CA 95834  
Petaluma, CA 94954  
San Carlos, CA 94070-4111

(650) 364-9600  
(925) 988-9600  
(916) 921-9600  
(707) 792-1865  
(650) 232-9600

FAX (650) 364-9233  
FAX (925) 988-9673  
FAX (916) 921-0100  
FAX (707) 792-0342  
FAX (650) 232-9612

Cambria 1144 65th St. Suite C Oakland, CA 94608  Attention: Aubrey Cool	Client Proj. ID: Shell 2001 Fruitvale Ave, Oakl Sample Descript: SBA-W Matrix: LIQUID Analysis Method: EPA 8270 Lab Number: 9904172-14	Sampled: 03/31/99 Received: 04/01/99 Extracted: 04/09/99 Analyzed: 04/14/99 Reported: 04/24/99
---	--	--

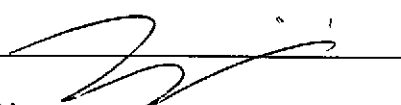
QC Batch Number: MS0409998270EXA  
Instrument ID: H7

Analyte	Detection Limit ug/L	Sample Results ug/L
Fluorene	5.0	N.D.
Hexachlorobenzene	5.0	N.D.
Hexachlorobutadiene	5.0	N.D.
Hexachlorocyclopentadiene	10	N.D.
Hexachloroethane	5.0	N.D.
Indeno(1,2,3-cd)pyrene	5.0	N.D.
Isophorone	5.0	N.D.
<b>2-Methylnaphthalene</b>	<b>5.0</b>	<b>46</b>
2-Methylphenol	5.0	N.D.
4-Methylphenol	5.0	N.D.
<b>Naphthalene</b>	<b>5.0</b>	<b>68</b>
2-Nitroaniline	10	N.D.
3-Nitroaniline	10	N.D.
4-Nitroaniline	10	N.D.
Nitrobenzene	5.0	N.D.
2-Nitrophenol	5.0	N.D.
4-Nitrophenol	10	N.D.
n-Nitrosodiphenylamine	5.0	N.D.
n-Nitroso-di-n-propylamine	5.0	N.D.
Pentachlorophenol	10	N.D.
Phenanthrene	5.0	N.D.
Phenol	5.0	N.D.
<b>Pyrene</b>	<b>5.0</b>	<b>14</b>
1,2,4-Trichlorobenzene	5.0	N.D.
2,4,5-Trichlorophenol	10	N.D.
2,4,6-Trichlorophenol	5.0	N.D.

Surrogates	Control Limits %		% Recovery
2-Fluorophenol	21	110	28
Phenol-d5	10	110	20
Nitrobenzene-d5	35	114	75
2-Fluorobiphenyl	43	116	78
2,4,6-Tribromophenol	10	123	86
p-Terphenyl-d14	33	141	59

Analytes reported as N.D. were not present above the stated limit of detection.

**SEQUOIA ANALYTICAL** - ELAP #1210

  
Project Manager





**Sequoia  
Analytical**

680 Chesapeake Drive  
404 N. Wiget Lane  
819 Striker Avenue, Suite 8  
1455 McDowell Blvd. North, Ste. D  
1551 Industrial Road

Redwood City, CA 94063  
Walnut Creek, CA 94598  
Sacramento, CA 95834  
Petaluma, CA 94954  
San Carlos, CA 94070-4111

(650) 364-9600  
(925) 988-9600  
(916) 921-9600  
(707) 792-1865  
(650) 232-9600

FAX (650) 364-9233  
FAX (925) 988-9673  
FAX (916) 921-0100  
FAX (707) 792-0342  
FAX (650) 232-9612

Cambria 1144 65th St. Suite C Oakland, CA 94608 Attention: Aubrey Cool	Client Proj. ID: Shell 2001 Fruitvale Ave, Oakl Sample Descript: SBA-W Matrix: LIQUID Analysis Method: EPA 8015 Mod Lab Number: 9904172-14	Sampled: 03/31/99 Received: 04/01/99 Extracted: 04/09/99 Analyzed: 04/12/99 Reported: 04/24/99
---	--	--

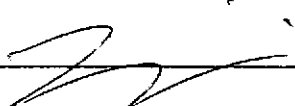
QC Batch Number: GC0409990HBPEXC  
Instrument ID: GCHP4B

**Total Extractable Petroleum Hydrocarbons (TEPH)**

Analyte	Detection Limit ug/L	Sample Results ug/L
TEPH as Diesel Chromatogram Pattern:	2000	28000 C9-C24
<b>Surrogates</b>	<b>Control Limits %</b>	<b>% Recovery</b>
n-Pentacosane (C25)	50                      150	3984 Q

Analytes reported as N.D. were not present above the stated limit of detection.

**SEQUOIA ANALYTICAL** - ELAP #1210

  
Project Manager





# Sequoia Analytical

680 Chesapeake Drive  
404 N. Wiget Lane  
819 Striker Avenue, Suite B  
1455 McDowell Blvd. North, Ste. D  
1551 Industrial Road

Redwood City, CA 94063  
Walnut Creek, CA 94598  
Sacramento, CA 95834  
Petaluma, CA 94954  
San Carlos, CA 94070-4111

(650) 364-9600  
(925) 988-9600  
(916) 921-9600  
(707) 792-1865  
(650) 232-9600

FAX (650) 364-9233  
FAX (925) 988-9673  
FAX (916) 921-0100  
FAX (707) 792-0342  
FAX (650) 232-9612

Cambria 1144 65th St. Suite C Oakland, CA 94608	Client Proj. ID: Shell 2001 Fruitvale Ave, Oak Sample Descript: SBA-W Matrix: LIQUID Analysis Method: 8015Mod/8020 Lab Number: 9904172-14	Sampled: 03/31/99 Received: 04/01/99  Analyzed: 04/09/99 Reported: 04/24/99
---	---	---

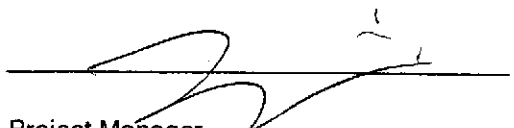
QC Batch Number: GC040999BTEX30A  
Instrument ID: GCHP30

## Total Purgeable Petroleum Hydrocarbons (TPPH) with BTEX and MTBE

Analyte	Detection Limit ug/L	Sample Results ug/L
TPPH as Gas	250	1100
Methyl t-Butyl Ether	12	N.D.
Benzene	2.5	13
Toluene	2.5	N.D.
Ethyl Benzene	2.5	5.1
Xylenes (Total)	2.5	52
Chromatogram Pattern:		C6-C12
<b>Surrogates</b>	<b>Control Limits %</b>	<b>% Recovery</b>
Trifluorotoluene	70 130	100

Analytes reported as N.D. were not present above the stated limit of detection.

**SEQUOIA ANALYTICAL** - ELAP #1210

  
Project Manager





# Sequoia Analytical

680 Chesapeake Drive  
404 N. Wiget Lane  
819 Striker Avenue, Suite 8  
1455 McDowell Blvd. North, Ste. D  
1551 Industrial Road

Redwood City, CA 94063  
Walnut Creek, CA 94598  
Sacramento, CA 95834  
Petaluma, CA 94954  
San Carlos, CA 94070-4111

(650) 364-9600  
(925) 988-9600  
(916) 921-9600  
(707) 792-1865  
(650) 232-9600

FAX (650) 364-9233  
FAX (925) 988-9673  
FAX (916) 921-0100  
FAX (707) 792-0342  
FAX (650) 232-9612

Cambria 1144 65th St. Suite C Oakland, CA 94608 Attention: Aubrey Cool	Client Proj. ID: Shell 2001 Fruitvale Ave, Oakl Sample Descript: SBB-W Matrix: LIQUID Analysis Method: EPA 8015 Mod Lab Number: 9904172-15	Sampled: 03/31/99 Received: 04/01/99 Extracted: 04/09/99 Analyzed: 04/12/99 Reported: 04/24/99
---	--	--

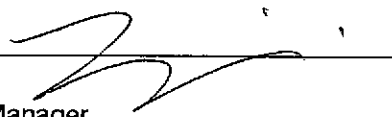
QC Batch Number: GC0409990HBPEXC  
Instrument ID: GCHP4B

## Total Extractable Petroleum Hydrocarbons (TEPH)

Analyte	Detection Limit ug/L	Sample Results ug/L
TEPH as Diesel Chromatogram Pattern:	100	3300 C9-C24
<b>Surrogates</b>	<b>Control Limits %</b>	<b>% Recovery</b>
n-Pentacosane (C25)	50                      150	93

Analytes reported as N.D. were not present above the stated limit of detection.

**SEQUOIA ANALYTICAL** - ELAP #1210

  
Project Manager







Cambria Client Proj. ID: Shell 2001 Fruitvale Ave, Oakl Sampled: 03/31/99
1144 65th St. Suite C Sample Descript: SBB-W Received: 04/01/99
Oakland, CA 94608 Matrix: LIQUID
Attention: Aubrey Cool Analysis Method: 8015Mod/8020 Analyzed: 04/09/99
Lab Number: 9904172-15 Reported: 04/24/99

QC Batch Number: GC040999BTEX30A
Instrument ID: GCHP30

Total Purgeable Petroleum Hydrocarbons (TPPH) with BTEX and MTBE

Table with columns: Analyte, Detection Limit ug/L, Sample Results ug/L, Control Limits %, % Recovery. Rows include TPHH as Gas, Methyl t-Butyl Ether, Benzene, Toluene, Ethyl Benzene, Xylenes (Total), Chromatogram Pattern, and Surrogates (Trifluorotoluene).

Analytes reported as N.D. were not present above the stated limit of detection.

SEQUOIA ANALYTICAL - ELAP #1210

Project Manager (with signature)





# Sequoia Analytical

680 Chesapeake Drive  
404 N. Wiget Lane  
819 Striker Avenue, Suite B  
1455 McDowell Blvd. North, Ste. D  
1551 Industrial Road

Redwood City, CA 94063  
Walnut Creek, CA 94598  
Sacramento, CA 95834  
Petaluma, CA 94954  
San Carlos, CA 94070-4111

(650) 364-9600  
(925) 988-9600  
(916) 921-9600  
(707) 792-1865  
(650) 232-9600

FAX (650) 364-9233  
FAX (925) 988-9673  
FAX (916) 921-0100  
FAX (707) 792-0342  
FAX (650) 232-9612

Cambria 1144 65th St. Suite C Oakland, CA 94608	Client Proj. ID: Shell 2001 Fruitvale Ave, Oakl Sample Descript: SBC-W Matrix: LIQUID Analysis Method: EPA 8015 Mod Lab Number: 9904172-16	Sampled: 03/31/99 Received: 04/01/99 Extracted: 04/09/99 Analyzed: 04/12/99 Reported: 04/24/99
---	--	--

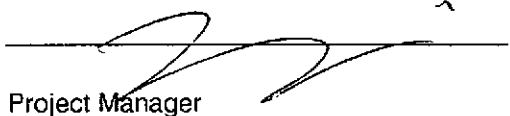
QC Batch Number: GC0409990HBPEXC  
Instrument ID: GCHP5A

## Total Extractable Petroleum Hydrocarbons (TEPH)

Analyte	Detection Limit ug/L	Sample Results ug/L
TEPH as Diesel Chromatogram Pattern:	50	890 C9-C24
<b>Surrogates</b> n-Pentacosane (C25)	<b>Control Limits %</b> 50                      150	<b>% Recovery</b> 84

Analytes reported as N.D. were not present above the stated limit of detection.

**SEQUOIA ANALYTICAL** - ELAP #1210

  
Project Manager





# Sequoia Analytical

680 Chesapeake Drive  
404 N. Wiget Lane  
819 Striker Avenue, Suite B  
1455 McDowell Blvd. North, Ste. D  
1551 Industrial Road

Redwood City, CA 94063  
Walnut Creek, CA 94598  
Sacramento, CA 95834  
Petaluma, CA 94954  
San Carlos, CA 94070-4111

(650) 364-9600  
(925) 988-9600  
(916) 921-9600  
(707) 792-1865  
(650) 232-9600

FAX (650) 364-9233  
FAX (925) 988-9673  
FAX (916) 921-0100  
FAX (707) 792-0342  
FAX (650) 232-9612

Cambria 1144 65th St. Suite C Oakland, CA 94608	Client Proj. ID: Shell 2001 Fruitvale Ave, Oakl Sample Descript: SBC-W Matrix: LIQUID Analysis Method: 8015Mod/8020 Lab Number: 9904172-16	Sampled: 03/31/99 Received: 04/01/99 Analyzed: 04/09/99 Reported: 04/24/99
---	--	---


QC Batch Number: GC040999BTEX30A  
Instrument ID: GCHP30

## Total Purgeable Petroleum Hydrocarbons (TPPH) with BTEX and MTBE

Analyte	Detection Limit ug/L	Sample Results ug/L
TPPH as Gas	125	2500
Methyl t-Butyl Ether	6.2	8.5
Benzene	1.2	1.3
Toluene	1.2	25
Ethyl Benzene	1.2	5.8
Xylenes (Total)	1.2	19
Chromatogram Pattern:		C6-C12
<b>Surrogates</b>	<b>Control Limits %</b>	<b>% Recovery</b>
Trifluorotoluene	70 130	356 Q

Analytes reported as N.D. were not present above the stated limit of detection.

**SEQUOIA ANALYTICAL** - ELAP #1210

  
Project Manager





# Sequoia Analytical

680 Chesapeake Drive  
404 N. Wiget Lane  
819 Striker Avenue, Suite 8  
1455 McDowell Blvd. North, Ste. D  
1551 Industrial Road

Redwood City, CA 94063  
Walnut Creek, CA 94598  
Sacramento, CA 95834  
Petaluma, CA 94954  
San Carlos, CA 94070-4111

(650) 364-9600  
(925) 988-9600  
(916) 921-9600  
(707) 792-1865  
(650) 232-9600

FAX (650) 364-9233  
FAX (925) 988-9673  
FAX (916) 921-0100  
FAX (707) 792-0342  
FAX (650) 232-9612

Cambria Environmental Tech.  
1144 65th St., Ste. C  
Oakland, CA 94608  
Attention: Aubrey Cool

Client Project ID: Shell 2001 Fruitvale Ave., Oakland  
Matrix: Solid

Work Order #: 9904172 -02-04

Reported: Apr 29, 1999

## QUALITY CONTROL DATA REPORT

Analyte:	Beryllium	Cadmium	Chromium	Nickel
QC Batch#:	ME0408996010MDE	ME0408996010MDE	ME0408996010MDE	ME0408996010MDE
Analy. Method:	EPA 6010	EPA 6010	EPA 6010	EPA 6010
Prep. Method:	EPA 3050	EPA 3050	EPA 3050	EPA 3050

Analyst:	M. Vu	M. Vu	M. Vu	M. Vu
MS/MSD #:	990417202	990417202	990417202	990417202
Sample Conc.:	N.D.	N.D.	49	82
Prepared Date:	4/8/99	4/8/99	4/8/99	4/8/99
Analyzed Date:	4/14/99	4/14/99	4/14/99	4/14/99
Instrument I.D.#:	MTJA5	MTJA5	MTJA5	MTJA5
Conc. Spiked:	2.5 mg/Kg	2.5 mg/Kg	2.5 mg/Kg	2.5 mg/Kg
Result:	2.2	2.1	48	87
MS % Recovery:	88	84	0.0	200
Dup. Result:	2.1	2.0	47	80
MSD % Recov.:	84	80	0.0	0.0
RPD:	4.7	4.9	2.1	8.4
RPD Limit:	0-20	0-20	0-20	0-20

LCS #:	LCS040899	LCS040899	LCS040899	LCS040899
Prepared Date:	4/8/99	4/8/99	4/8/99	4/8/99
Analyzed Date:	4/14/99	4/14/99	4/14/99	4/14/99
Instrument I.D.#:	MTJA5	MTJA5	MTJA5	MTJA5
Conc. Spiked:	50 mg/Kg	50 mg/Kg	50 mg/Kg	50 mg/Kg
LCS Result:	46	44	47	47
LCS % Recov.:	92	88	94	94

MS/MSD	80-120	80-120	80-120	80-120
LCS	80-120	80-120	80-120	80-120
Control Limits				

**Please Note:**

The LCS is a control sample of known, interferent-free matrix that is analyzed using the same reagents, preparation, and analytical methods employed for the samples. The matrix spike is an aliquot of sample fortified with known quantities of specific compounds and subjected to the entire analytical procedure. If the recovery of analytes from the matrix spike does not fall within specified control limits due to matrix interference, the LCS recovery is to be used to validate the batch.

SEQUOIA ANALYTICAL

*Kayvan Kimyai*  
Project Manager

\*\* MS = Matrix Spike, MSD = MS Duplicate, RPD = Relative % Difference

9904172.CCC < 1 >





# Sequoia Analytical

680 Chesapeake Drive  
404 N. Wiget Lane  
819 Striker Avenue, Suite 8  
1455 McDowell Blvd. North, Ste. D  
1551 Industrial Road

Redwood City, CA 94063  
Walnut Creek, CA 94598  
Sacramento, CA 95834  
Petaluma, CA 94954  
San Carlos, CA 94070-4111

(650) 364-9600  
(925) 988-9600  
(916) 921-9600  
(707) 792-1865  
(650) 232-9600

FAX (650) 364-9233  
FAX (925) 988-9673  
FAX (916) 921-0100  
FAX (707) 792-0342  
FAX (650) 232-9612

Cambria Environmental Tech.  
1144 65th St., Ste. C  
Oakland, CA 94608  
Attention: Aubrey Cool

Client Project ID: Shell 2001 Fruitvale Ave., Oakland  
Matrix: Liquid

Work Order #: 9904172-14

Reported: Apr 29, 1999

## QUALITY CONTROL DATA REPORT

Analyte:	Beryllium	Cadmium	Chromium	Nickel
QC Batch#:	ME0408992007MDA	ME0408992007MDA	ME0408992007MDA	ME0408992007MDA
Analy. Method:	EPA 200.7	EPA 200.7	EPA 200.7	EPA 200.7
Prep. Method:	EPA 200.7	EPA 200.7	EPA 200.7	EPA 200.7

Analyst:	M. Vu	M. Vu	M. Vu	M. Vu
MS/MSD #:	990396801	990396801	990396801	990396801
Sample Conc.:	N.D.	N.D.	N.D.	N.D.
Prepared Date:	4/8/99	4/8/99	4/8/99	4/8/99
Analyzed Date:	4/12/99	4/12/99	4/12/99	4/12/99
Instrument I.D.#:	MTJA5	MTJA5	MTJA5	MTJA5
Conc. Spiked:	1.0 mg/L	1.0 mg/L	1.0 mg/L	1.0 mg/L
Result:	1.0	1.1	1.0	1.0
MS % Recovery:	100	110	100	100
Dup. Result:	1.0	1.1	1.1	1.1
MSD % Recov.:	100	110	110	110
RPD:	0.0	0.0	9.5	9.5
RPD Limit:	0-20	0-20	0-20	0-20

LCS #:	LCS040899	LCS040899	LCS040899	LCS040899
Prepared Date:	4/8/99	4/8/99	4/8/99	4/8/99
Analyzed Date:	4/12/99	4/12/99	4/12/99	4/12/99
Instrument I.D.#:	MTJA5	MTJA5	MTJA5	MTJA5
Conc. Spiked:	1.0 mg/L	1.0 mg/L	1.0 mg/L	1.0 mg/L
LCS Result:	1.0	1.1	1.0	1.1
LCS % Recov.:	100	110	100	110

MS/MSD	80-120	80-120	80-120	80-120
LCS	80-120	80-120	80-120	80-120
Control Limits				

**Please Note:**

The LCS is a control sample of known, interferent-free matrix that is analyzed using the same reagents, preparation, and analytical methods employed for the samples. The matrix spike is an aliquot of sample fortified with known quantities of specific compounds and subjected to the entire analytical procedure. If the recovery of analytes from the matrix spike does not fall within specified control limits due to matrix interference, the LCS recovery is to be used to validate the batch.

SEQUOIA ANALYTICAL

*Kayvan Kimyai*  
Project Manager

\*\* MS = Matrix Spike, MSD = MS Duplicate, RPD = Relative % Difference

9904172.CCC <2>





# Sequoia Analytical

680 Chesapeake Drive  
404 N. Wiget Lane  
819 Striker Avenue, Suite 8  
1455 McDowell Blvd. North, Ste. D  
1551 Industrial Road

Redwood City, CA 94063  
Walnut Creek, CA 94598  
Sacramento, CA 95834  
Petaluma, CA 94954  
San Carlos, CA 94070-4111

(650) 364-9600  
(925) 988-9600  
(916) 921-9600  
(707) 792-1865  
(650) 232-9600

FAX (650) 364-9233  
FAX (925) 988-9673  
FAX (916) 921-0100  
FAX (707) 792-0342  
FAX (650) 232-9612

Cambria Environmental Tech.  
1144 65th St., Ste. C  
Oakland, CA 94608  
Attention: Aubrey Cool

Client Project ID: Shell 2001 Fruitvale Ave., Oakland  
Matrix: Solid

Work Order #: 9904172-01, 05, 10, 13

Reported: Apr 29, 1999

## QUALITY CONTROL DATA REPORT

Analyte:	% Moisture	% Solid	Fractional Organic Carbon
QC Batch:	IN041299160300A	IN041299160300A	IN041399WALK00A
Analy. Method:	EPA 160.3	EPA 160.3	WALKLEY-BLACK
Prep Method:	N.A.	N.A.	N.A.

Analyst: K. Cesar                      K. Cesar                      K. Cesar

Duplicate Sample #: 940417213                      940417213                      990417201

Prepared Date: 4/12/99                      4/12/99                      4/13/99  
Analyzed Date: 4/13/99                      4/13/99                      4/13/99  
Instrument I.D.#: MANUAL                      MANUAL                      MANUAL

Sample Concentration: 10                      90                      0.39

Dup. Sample Concentration: 10                      90                      0.39

RPD: 0.0                      0.0                      0.0  
RPD Limit: 0-20                      0-20                      0-20

SEQUOIA ANALYTICAL

*Diane Durre*  
for Kayvan Kimyai  
Project Manager

\*\* RPD = Relative % Difference

9904172.CCC <3>





# Sequoia Analytical

680 Chesapeake Drive  
404 N. Wiget Lane  
819 Striker Avenue, Suite 8  
1455 McDowell Blvd. North, Ste. D  
1551 Industrial Road

Redwood City, CA 94063  
Walnut Creek, CA 94598  
Sacramento, CA 95834  
Petaluma, CA 94954  
San Carlos, CA 94070-4111

(650) 364-9600  
(925) 988-9600  
(916) 921-9600  
(707) 792-1865  
(650) 232-9600

FAX (650) 364-9233  
FAX (925) 988-9673  
FAX (916) 921-0100  
FAX (707) 792-0342  
FAX (650) 232-9612

Cambria Environmental Tech.  
1144 65th St., Ste. C  
Oakland, CA 94608  
Attention: Aubrey Cool

Client Project ID: Shell 2001 Fruitvale Ave., Oakland  
Matrix: Solid

Work Order #: 9904172-02, 03, 04

Reported: Apr 29, 1999

## QUALITY CONTROL DATA REPORT

Analyte:	1,1-Dichloro-ethene	Trichloro-ethene	Chloro-Benzene
QC Batch#:	SP041399801007A	SP041399801007A	SP041399801007A
Analy. Method:	EPA 8010	EPA 8010	EPA 8010
Prep. Method:	EPA 5030	EPA 5030	EPA 5030

Analyst:	P. Kosovskaya	P. Kosovskaya	P. Kosovskaya
MS/MSD #:	9040872	9040872	9040872
Sample Conc.:	N.D.	N.D.	N.D.
Prepared Date:	4/13/99	4/13/99	4/13/99
Analyzed Date:	4/13/99	4/13/99	4/13/99
Instrument I.D.#:	HP7	HP7	HP7
Conc. Spiked:	1000 µg/Kg	1000 µg/Kg	1000 µg/Kg
Result:	1100	1000	1100
MS % Recovery:	110	100	110
Dup. Result:	1100	1100	1100
MSD % Recov.:	110	110	110
RPD:	0.0	9.5	0.0
RPD Limit:	0-25	0-25	0-25

LCS #:	LCS041399	LCS041399	LCS041399
Prepared Date:	4/13/99	4/13/99	4/13/99
Analyzed Date:	4/13/99	4/13/99	4/13/99
Instrument I.D.#:	HP7	HP7	HP7
Conc. Spiked:	1000 µg/Kg	1000 µg/Kg	1000 µg/Kg
LCS Result:	800	880	880
LCS % Recov.:	80	88	88

MS/MSD LCS Control Limits	65-135	70-130	70-130
---------------------------------	--------	--------	--------

**Please Note:**

The LCS is a control sample of known, interferent-free matrix that is analyzed using the same reagents, preparation, and analytical methods employed for the samples. The matrix spike is an aliquot of sample fortified with known quantities of specific compounds and subjected to the entire analytical procedure. If the recovery of analytes from the matrix spike does not fall within specified control limits due to matrix interference, the LCS recovery is to be used to validate the batch.

\*\* MS = Matrix Spike, MSD = MS Duplicate, RPD = Relative % Difference

SEQUOIA ANALYTICAL  
Elap #1271

*Kayvan Kimyai*  
Kayvan Kimyai  
Project Manager

9904172.CCC <4>





# Sequoia Analytical

680 Chesapeake Drive  
404 N. Wiget Lane  
819 Striker Avenue, Suite B  
1455 McDowell Blvd. North, Ste. D  
1551 Industrial Road

Redwood City, CA 94063 (650) 364-9600 FAX (650) 364-9233  
Walnut Creek, CA 94598 (925) 988-9600 FAX (925) 988-9673  
Sacramento, CA 95834 (916) 921-9600 FAX (916) 921-0100  
Petaluma, CA 94954 (707) 792-1865 FAX (707) 792-0342  
San Carlos, CA 94070-4111 (650) 232-9600 FAX (650) 232-9612

Cambria Environmental Tech.  
1144 65th St., Ste. C  
Oakland, CA 94608  
Attention: Aubrey Cool

Client Project ID: Shell 2001 Fruitvale Ave., Oakland  
Matrix: Liquid

Work Order #: 9904172-14

Reported: Apr 29, 1999

## QUALITY CONTROL DATA REPORT

Analyte:	Phenol	2-Chlorophenol	1,4-Dichloro- benzene	N-Nitroso-Di- N-propylamine
QC Batch#:	MS0409998270EXA	MS0409998270EXA	MS0409998270EXA	MS0409998270EXA
Analy. Method:	EPA 8270	EPA 8270	EPA 8270	EPA 8270
Prep. Method:	EPA 3520	EPA 3520	EPA 3520	EPA 3520

Analyst:	B. Sullivan	B. Sullivan	B. Sullivan	B. Sullivan
BS/BSD #:	BLK040599	BLK040599	BLK040599	BLK040599
Sample Conc.:	N.D.	N.D.	N.D.	N.D.
Prepared Date:	4/5/99	4/5/99	4/5/99	4/5/99
Analyzed Date:	4/13/99	4/13/99	4/13/99	4/13/99
Instrument I.D.#:	H7	H7	H7	H7
Conc. Spiked:	200 µg/L	200 µg/L	200 µg/L	200 µg/L
Result:	79	186	127	201
BS % Recovery:	40	93	64	101
Dup. Result:	75	172	114	191
BSD % Recov.:	38	86	57	96
RPD:	5.2	7.8	11	5.1
RPD Limit:	0-30	0-30	0-30	0-30

LCS #:	LCS040999	LCS040999	LCS040999	LCS040999
Prepared Date:	4/9/99	4/9/99	4/9/99	4/9/99
Analyzed Date:	4/14/99	4/14/99	4/14/99	4/14/99
Instrument I.D.#:	H7	H7	H7	H7
Conc. Spiked:	200 µg/L	200 µg/L	200 µg/L	200 µg/L
LCS Result:	55	128	122	179
LCS % Recov.:	28	64	61	90

MS/MSD LCS Control Limits	14-55	53-109	52-102	53-146
---------------------------------	-------	--------	--------	--------

**Please Note:**

The LCS is a control sample of known, interferent-free matrix that is analyzed using the same reagents, preparation, and analytical methods employed for the samples. The matrix spike is an aliquot of sample fortified with known quantities of specific compounds and subjected to the entire analytical procedure. If the recovery of analytes from the matrix spike does not fall within specified control limits due to matrix interference, the LCS recovery is to be used to validate the batch.

\*\* MS=Matrix Spike, MSD=MS Duplicate, RPD=Relative % Difference

SEQUOIA ANALYTICAL

*Kayvan Kimyai*  
for Kayvan Kimyai  
Project Manager







# Sequoia Analytical

680 Chesapeake Drive  
 404 N. Wiget Lane  
 819 Striker Avenue, Suite 8  
 1455 McDowell Blvd. North, Ste. D  
 1551 Industrial Road

Redwood City, CA 94063  
 Walnut Creek, CA 94598  
 Sacramento, CA 95834  
 Petaluma, CA 94954  
 San Carlos, CA 94070-4111

(650) 364-9600  
 (925) 988-9600  
 (916) 921-9600  
 (707) 792-1865  
 (650) 232-9600

FAX (650) 364-9233  
 FAX (925) 988-9673  
 FAX (916) 921-0100  
 FAX (707) 792-0342  
 FAX (650) 232-9612

Cambria Environmental Tech. Client Project ID: Shell 2001 Fruitvale Ave., Oakland  
 1144 65th St., Ste. C Matrix: Liquid  
 Oakland, CA 94608  
 Attention: Aubrey Cool Work Order #: 9904172-14 Reported: Apr 29, 1999

## QUALITY CONTROL DATA REPORT

Analyte:	1,2,4-Trichloro-benzene	4-Chloro-3-Methylphenol	Acenaphthene	4-Nitrophenol
QC Batch#:	MS0409998270EXA	MS0409998270EXA	MS0409998270EXA	MS0409998270EXA
Analy. Method:	EPA 8270	EPA 8270	EPA 8270	EPA 8270
Prep. Method:	EPA 3520	EPA 3520	EPA 3520	EPA 3520

Analyst:	B. Sullivan	B. Sullivan	B. Sullivan	B. Sullivan
BS/BSD #:	BLK040599	BLK040599	BLK040599	BLK040599
Sample Conc.:	N.D.	N.D.	N.D.	N.D.
Prepared Date:	4/5/99	4/5/99	4/5/99	4/5/99
Analyzed Date:	4/13/99	4/13/99	4/13/99	4/13/99
Instrument I.D.#:	H7	H7	H7	H7
Conc. Spiked:	200 µg/L	200 µg/L	200 µg/L	200 µg/L
Result:	146	195	194	74
BS % Recovery:	73	98	97	37
Dup. Result:	130	187	179	71
BSD % Recov.:	65	94	90	36
RPD:	12	4.2	8.0	4.1
RPD Limit:	0-30	0-30	0-30	0-30

LCS #:	LCS040999	LCS040999	LCS040999	LCS040999
Prepared Date:	4/9/99	4/9/99	4/9/99	4/9/99
Analyzed Date:	4/14/99	4/14/99	4/14/99	4/14/99
Instrument I.D.#:	H7	H7	H7	H7
Conc. Spiked:	200 µg/L	200 µg/L	200 µg/L	200 µg/L
LCS Result:	142	140	183	45
LCS % Recov.:	71	70	92	23

MS/MSD LCS Control Limits	50-128	55-121	59-112	9-56
---------------------------	--------	--------	--------	------

### Please Note:

The LCS is a control sample of known, interferent-free matrix that is analyzed using the same reagents, preparation, and analytical methods employed for the samples. The matrix spike is an aliquot of sample fortified with known quantities of specific compounds and subjected to the entire analytical procedure. If the recovery of analytes from the matrix spike does not fall within specified control limits due to matrix interference, the LCS recovery is to be used to validate the batch.

\*\* MS = Matrix Spike, MSD = MS Duplicate, RPD = Relative % Difference

SEQUOIA ANALYTICAL

Kayvan Kimyal  
 Project Manager





# Sequoia Analytical

680 Chesapeake Drive  
 404 N. Wiget Lane  
 819 Striker Avenue, Suite B  
 1455 McDowell Blvd. North, Ste. D  
 1551 Industrial Road

Redwood City, CA 94063  
 Walnut Creek, CA 94598  
 Sacramento, CA 95834  
 Petaluma, CA 94954  
 San Carlos, CA 94070-4111

(650) 364-9600  
 (925) 988-9600  
 (916) 921-9600  
 (707) 792-1865  
 (650) 232-9600

FAX (650) 364-9233  
 FAX (925) 988-9673  
 FAX (916) 921-0100  
 FAX (707) 792-0342  
 FAX (650) 232-9612

Cambria Environmental Tech.  
 1144 65th St., Ste. C  
 Oakland, CA 94608  
 Attention: Aubrey Cool

Client Project ID: Shell 2001 Fruitvale Ave., Oakland  
 Matrix: Liquid

Work Order #: 9904172-14

Reported: Apr 29, 1999

## QUALITY CONTROL DATA REPORT

Analyte:	2,4-Dinitro-toluene	Pentachloro-phenol	Pyrene
QC Batch#:	MS0409998270EXA	MS0409998270EXA	MS0409998270EXA
Analy. Method:	EPA 8270	EPA 8270	EPA 8270
Prep. Method:	EPA 3520	EPA 3520	EPA 3520

Analyst:	B. Sullivan	B. Sullivan	B. Sullivan
BS/BSD #:	BLK040599	BLK040599	BLK040599
Sample Conc.:	N.D.	N.D.	N.D.
Prepared Date:	4/5/99	4/5/99	4/5/99
Analyzed Date:	4/13/99	4/13/99	4/13/99
Instrument I.D.#:	H7	H7	H7
Conc. Spiked:	200 µg/L	200 µg/L	200 µg/L

Result:	182	141	223
BS % Recovery:	91	71	112

Dup. Result:	184	141	213
BSD % Recov.:	92	71	107

RPD:	1.1	0.0	4.6
RPD Limit:	0-30	0-30	0-30

LCS #:	LCS040999	LCS040999	LCS040999
Prepared Date:	4/9/99	4/9/99	4/9/99
Analyzed Date:	4/14/99	4/14/99	4/14/99
Instrument I.D.#:	H7	H7	H7
Conc. Spiked:	200 µg/L	200 µg/L	200 µg/L
LCS Result:	167	144	216
LCS % Recov.:	84	72	108

MS/MSD LCS	Control Limits	55-117	57-119	35-130
Control Limits	55-117	57-119	35-130	

### Please Note:

The LCS is a control sample of known, interferent-free matrix that is analyzed using the same reagents, preparation, and analytical methods employed for the samples. The matrix spike is an aliquot of sample fortified with known quantities of specific compounds and subjected to the entire analytical procedure. If the recovery of analytes from the matrix spike does not fall within specified control limits due to matrix interference, the LCS recovery is to be used to validate the batch.

\*\* MS = Matrix Spike, MSD = MS Duplicate, RPD = Relative % Difference

SEQUOIA ANALYTICAL

*Kayvan Kimyar*  
 Kayvan Kimyar  
 Project Manager





Cambria Environmental Tech.  
1144 65th St., Ste. C  
Oakland, CA 94608  
Attention: Aubrey Cool

Client Project ID: Shell 2001 Fruitvale Ave., Oakland  
Matrix: Solid

Work Order #: 9904172-02, 03, 04

Reported: Apr 29, 1999

**QUALITY CONTROL DATA REPORT**

Analyte:	Phenol	2-Chlorophenol	1,4-Dichloro-benzene	N-Nitroso-Di-N-propylamine
QC Batch#:	MS0412998270EXA	MS0412998270EXA	MS0412998270EXA	MS0412998270EXA
Analy. Method:	EPA 8270	EPA 8270	EPA 8270	EPA 8270
Prep. Method:	EPA 3550	EPA 3550	EPA 3550	EPA 3550
Analyst:	B. Sullivan	B. Sullivan	B. Sullivan	B. Sullivan
BS/BSD #:	BLK041299	BLK041299	BLK041299	BLK041299
Sample Conc.:	N.D.	N.D.	N.D.	N.D.
Prepared Date:	4/12/99	4/12/99	4/12/99	4/12/99
Analyzed Date:	4/19/99	4/19/99	4/19/99	4/19/99
Instrument I.D.#:	H7	H7	H7	H7
Conc. Spiked:	3300 µg/Kg	3300 µg/Kg	3300 µg/Kg	3300 µg/Kg
Result:	2875	2876	2839	3016
BS % Recovery:	87	87	86	91
Dup. Result:	2109	2120	2047	2272
BSD % Recov.:	64	64	62	69
RPD:	31	30	32	28
RPD Limit:	0-30	0-30	0-30	0-30

LCS #:

Prepared Date:  
Analyzed Date:  
Instrument I.D.#:  
Conc. Spiked:

LCS Result:  
LCS % Recov.:

MS/MSD LCS Control Limits	23-133	35-119	14-126	36-132
---------------------------------	--------	--------	--------	--------

**Please Note:**

The LCS is a control sample of known, interferent-free matrix that is analyzed using the same reagents, preparation, and analytical methods employed for the samples. The matrix spike is an aliquot of sample fortified with known quantities of specific compounds and subjected to the entire analytical procedure. If the recovery of analytes from the matrix spike does not fall within specified control limits due to matrix interference, the LCS recovery is to be used to validate the batch.

\*\* MS=Matrix Spike, MSD=MS Duplicate, RPD=Relative % Difference

**SEQUOIA ANALYTICAL**

*Kayvan Kimyai*  
Kayvan Kimyai  
Project Manager





# Sequoia Analytical

680 Chesapeake Drive  
404 N. Wiget Lane  
819 Striker Avenue, Suite 8  
1455 McDowell Blvd. North, Ste. D  
1551 Industrial Road

Redwood City, CA 94063 (650) 364-9600  
Walnut Creek, CA 94598 (925) 988-9600  
Sacramento, CA 95834 (916) 921-9600  
Petaluma, CA 94954 (707) 792-1865  
San Carlos, CA 94070-4111 (650) 232-9600

FAX (650) 364-9233  
FAX (925) 988-9673  
FAX (916) 921-0100  
FAX (707) 792-0342  
FAX (650) 232-9612

Cambria Environmental Tech.  
1144 65th St., Ste. C  
Oakland, CA 94608  
Attention: Aubrey Cool

Client Project ID: Shell 2001 Fruitvale Ave., Oakland  
Matrix: Solid

Work Order #: 9904172-02, 03, 04

Reported: Apr 29, 1999

## QUALITY CONTROL DATA REPORT

Analyte:	1,2,4-Trichloro-benzene	4-Chloro-3-Methylphenol	Acenaphthene	4-Nitrophenol
QC Batch#:	MS0412998270EXA	MS0412998270EXA	MS0412998270EXA	MS0412998270EXA
Analy. Method:	EPA 8270	EPA 8270	EPA 8270	EPA 8270
Prep. Method:	EPA 3550	EPA 3550	EPA 3550	EPA 3550

Analyst:	B. Sullivan	B. Sullivan	B. Sullivan	B. Sullivan
BS/BSD #:	BLK041299	BLK041299	BLK041299	BLK041299
Sample Conc.:	N.D.	N.D.	N.D.	N.D.
Prepared Date:	4/12/99	4/12/99	4/12/99	4/12/99
Analyzed Date:	4/19/99	4/19/99	4/19/99	4/19/99
Instrument I.D.#:	H7	H7	H7	H7
Conc. Spiked:	3300 µg/Kg	3300 µg/Kg	3300 µg/Kg	3300 µg/Kg
Result:	2800	2733	2989	2180
BS % Recovery:	85	83	91	66
Dup. Result:	2033	1992	2179	1843
BSD % Recov.:	62	60	66	56
RPD:	32	31	31	17
RPD Limit:	0-30	0-30	0-30	0-30

LCS #:

Prepared Date:  
Analyzed Date:  
Instrument I.D.#:  
Conc. Spiked:

LCS Result:  
LCS % Recov.:

MS/MSD LCS Control Limits	23-134	30-123	23-120	0-136
---------------------------------	--------	--------	--------	-------

**Please Note:**

The LCS is a control sample of known, interferent-free matrix that is analyzed using the same reagents, preparation, and analytical methods employed for the samples. The matrix spike is an aliquot of sample fortified with known quantities of specific compounds and subjected to the entire analytical procedure. If the recovery of analytes from the matrix spike does not fall within specified control limits due to matrix interference, the LCS recovery is to be used to validate the batch.

\*\* MS = Matrix Spike, MSD = MS Duplicate, RPD = Relative % Difference

SEQUOIA ANALYTICAL

*Kayvan Kimyai*  
Project Manager





Cambria Environmental Tech.  
1144 65th St., Ste. C  
Oakland, CA 94608  
Attention: Aubrey Cool

Client Project ID: Shell 2001 Fruitvale Ave., Oakland  
Matrix: Solid

Work Order #: 9904172-02, 03, 04

Reported: Apr 29, 1999

**QUALITY CONTROL DATA REPORT**

Analyte:	2,4-Dinitro- toluene	Pentachloro- phenol	Pyrene
QC Batch#:	MS0412998270EXA	MS0412998270EXA	MS0412998270EXA
Analy. Method:	EPA 8270	EPA 8270	EPA 8270
Prep. Method:	EPA 3550	EPA 3550	EPA 3550

Analyst:	B. Sullivan	B. Sullivan	B. Sullivan
BS/BSD #:	BLK041299	BLK041299	BLK041299
Sample Conc.:	N.D.	N.D.	N.D.
Prepared Date:	4/12/99	4/12/99	4/12/99
Analyzed Date:	4/19/99	4/19/99	4/19/99
Instrument I.D.#:	H7	H7	H7
Conc. Spiked:	3300 µg/Kg	3300 µg/Kg	3300 µg/Kg

Result:	2741	2553	3506
BS % Recovery:	83	77	106

Dup. Result:	2278	1405	3019
BSD % Recov.:	69	43	91

RPD:	18	58	15
RPD Limit:	0-30	0-30	0-30

LCS #:

Prepared Date:  
Analyzed Date:  
Instrument I.D.#:  
Conc. Spiked:

LCS Result:  
LCS % Recov.:

MS/MSD LCS Control Limits	19-131	0-149	0-138
---------------------------------	--------	-------	-------

**Please Note:**

The LCS is a control sample of known, interferent-free matrix that is analyzed using the same reagents, preparation, and analytical methods employed for the samples. The matrix spike is an aliquot of sample fortified with known quantities of specific compounds and subjected to the entire analytical procedure. If the recovery of analytes from the matrix spike does not fall within specified control limits due to matrix interference, the LCS recovery is to be used to validate the batch.

\*\* MS= Matrix Spike, MSD= MS Duplicate, RPD= Relative % Difference

**SEQUOIA ANALYTICAL**

Kayvan Kimyai  
Project Manager





# Sequoia Analytical

680 Chesapeake Drive  
404 N. Wiget Lane  
819 Striker Avenue, Suite 8  
1455 McDowell Blvd. North, Ste. D  
1551 Industrial Road

Redwood City, CA 94063  
Walnut Creek, CA 94598  
Sacramento, CA 95834  
Petaluma, CA 94954  
San Carlos, CA 94070-4111

(650) 364-9600  
(925) 988-9600  
(916) 921-9600  
(707) 792-1865  
(650) 232-9600

FAX (650) 364-9233  
FAX (925) 988-9673  
FAX (916) 921-0100  
FAX (707) 792-0342  
FAX (650) 232-9612

Cambria  
1144 65th St. Suite C  
Oakland, CA 94608  
Attention: Aubrey Cool

Client Project ID: Shell 2001 Fruitvale Ave, Oakl

QC Sample Group: 9904172-02-04,06-09,11-1      Reported: Apr 27, 1999

## QUALITY CONTROL DATA REPORT

**Matrix:** Solid  
**Method:** EPA 8015  
**Analyst:** R.GECKLER

**ANALYTE** Gasoline

**QC Batch #:** GC040999BTEXEXA

**Sample No.:** 9904172-2

**Date Prepared:** 4/9/99

**Date Analyzed:** 4/9/99

**Instrument I.D.#:** GCHP18

**Sample Conc., mg/Kg:** N.D.  
**Conc. Spiked, mg/Kg:** 5.0

**Matrix Spike, mg/Kg:** 3.0  
**% Recovery:** 60

**Matrix Spike Duplicate, mg/Kg:** 9.0  
**% Recovery:** 180

**Relative % Difference:** 100.0

**RPD Control Limits:** 0-25

**LCS Batch#:** GC040999BTEXEXA

**Date Prepared:** 4/9/99

**Date Analyzed:** 4/9/99

**Instrument I.D.#:** GCHP18

**Conc. Spiked, mg/Kg:** 5.0

**Recovery, mg/Kg:** 5.3  
**LCS % Recovery:** 106

### Percent Recovery Control Limits:

MS/MSD	60-140
LCS	70-130

Quality Assurance Statement: All standard operating procedures and quality control requirements have been met.

#### Please Note:

The LCS is a control sample of known, interferent free matrix that is analyzed using the same reagents, preparation, and analytical methods employed for the samples. The matrix spike is an aliquot of sample fortified with known quantities of specific compounds and subjected to the entire analytical procedure. If the recovery of analytes from the matrix spike does not fall within specified control limits due to matrix interference, the LCS recovery is to be used to validate the batch.

SEQUOIA ANALYTICAL

  
Kayvan Kimyai  
Project Manager





# Sequoia Analytical

680 Chesapeake Drive  
404 N. Wiger Lane  
819 Striker Avenue, Suite B  
1455 McDowell Blvd. North, Ste. D  
1551 Industrial Road

Redwood City, CA 94063  
Walnut Creek, CA 94598  
Sacramento, CA 95834  
Petaluma, CA 94954  
San Carlos, CA 94070-4111

(650) 364-9600  
(925) 988-9600  
(916) 921-9600  
(707) 792-1865  
(650) 232-9600

FAX (650) 364-9233  
FAX (925) 988-9673  
FAX (916) 921-0100  
FAX (707) 792-0342  
FAX (650) 232-9612

Cambria  
1144 65th St. Suite C  
Oakland, CA 94608  
Attention: Aubrey Cool

Client Project ID: Shell 2001 Fruitvale Ave, Oaki

QC Sample Group: 9904172-02-04,06-09,11-1      Reported: Apr 27, 1999

## QUALITY CONTROL DATA REPORT

**Matrix:** Solid  
**Method:** EPA 8015M  
**Analyst:** J.BONNVILLE

**ANALYTE** Diesel

QC Batch #: GC0415990HBPEXC

Sample No.: 9904172-2  
Date Prepared: 4/15/99  
Date Analyzed: 4/16/99  
Instrument I.D.#: GCHP5A

Sample Conc., mg/Kg: 1500 mg/Kg  
Conc. Spiked, mg/Kg: 17

Matrix Spike, mg/Kg: 1700  
% Recovery: 1180

Matrix  
Spike Duplicate, mg/Kg: 1800  
% Recovery: 1760

Relative % Difference: 39

RPD Control Limits: 0-50

LCS Batch#: BLK041599CS

Date Prepared: 4/15/99  
Date Analyzed: 4/16/99  
Instrument I.D.#: GCHP5A

Conc. Spiked, mg/Kg: 17

Recovery, mg/Kg: 17  
LCS % Recovery: 100.0

Percent Recovery Control Limits:

MS/MSD	50-150
LCS	60-140

Quality Assurance Statement: All standard operating procedures and quality control requirements have been met.

Please Note:

The LCS is a control sample of known, interferent free matrix that is analyzed using the same reagents, preparation, and analytical methods employed for the samples. The matrix spike is an aliquot of sample fortified with known quantities of specific compounds and subjected to the entire analytical procedure. If the recovery of analytes from the matrix spike does not fall within specified control limits due to matrix interference, the LCS recovery is to be used to validate the batch.

SEQUOIA ANALYTICAL

  
Kaywan Kimya  
Project Manager





# Sequoia Analytical

680 Chesapeake Drive  
404 N. Wiget Lane  
819 Striker Avenue, Suite 8  
1455 McDowell Blvd. North, Ste. D  
1551 Industrial Road

Redwood City, CA 94063  
Walnut Creek, CA 94598  
Sacramento, CA 95834  
Petaluma, CA 94954  
San Carlos, CA 94070-4111

(650) 364-9600  
(925) 988-9600  
(916) 921-9600  
(707) 792-1865  
(650) 232-9600

FAX (650) 364-9233  
FAX (925) 988-9673  
FAX (916) 921-0100  
FAX (707) 792-0342  
FAX (650) 232-9612

Cambria 1144 65th St. Suite C Oakland, CA 94608 Attention: Aubrey Cool	Client Project ID: Shell 2001 Fruitvale Ave, Oakl
QC Sample Group: 9904172-14	Reported: Apr 27, 1999

## QUALITY CONTROL DATA REPORT

<b>Matrix:</b> Liquid						
<b>Method:</b> EPA 8010/8020, 601/602						
<b>Analyst:</b> R KAWAS						
<b>ANALYTE</b>	1,1-DCE	TCE	chlorobenzene	Benzene	Toluene	chlorobenzene

QC Batch #: GC0412990VOA32A

<b>Sample No.:</b> 990412701						
<b>Date Prepared:</b> 4/8/99	4/8/99	4/8/99	4/8/99	4/8/99	4/8/99	4/8/99
<b>Date Analyzed:</b> 4/8/99	4/8/99	4/8/99	4/8/99	4/8/99	4/8/99	4/8/99
<b>Instrument I.D.#:</b>						
<b>Sample Conc., ug/L:</b>	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
<b>Conc. Spiked, ug/L:</b>	25	25	25	25	25	25
<b>Matrix Spike, ug/L:</b>	22	24	26	25	24	24
<b>% Recovery:</b>	88	96	104	100.0	96	96
<b>Matrix pike Duplicate, ug/L:</b>	25	25	28	26	26	27
<b>% Recovery:</b>	100.0	100.0	112	104	104	108
<b>relative % Difference:</b>	13	4.1	7.4	3.9	8.0	12
<b>RPD Control Limits:</b>	0-50	0-50	0-50	0-50	0-50	0-50

LCS Batch#: VWLCS041299A

<b>Date Prepared:</b> 4/12/99	4/12/99	4/12/99	4/12/99	4/12/99	4/12/99	4/12/99
<b>Date Analyzed:</b> 4/12/99	4/12/99	4/12/99	4/12/99	4/12/99	4/12/99	4/12/99
<b>Instrument I.D.#:</b>						
<b>Conc. Spiked, ug/L:</b>	25	25	25	25	25	25
<b>Recovery, ug/L:</b>	24	24	25	24	23	23
<b>LCS % Recovery:</b>	96	96	100.0	96	92	92

**Percent Recovery Control Limits:**

MS/MSD	60-140	60-140	60-140	60-140	60-140	60-140
LCS	65-135	70-130	70-130	70-130	70-130	70-130

Quality Assurance Statement: All standard operating procedures and quality control requirements have been met.

Please Note:  
The LCS is a control sample of known, interferent free matrix that is analyzed using the same reagents, preparation, and analytical methods employed for the samples. The matrix spike is an aliquot of sample fortified with known quantities of specific compounds and subjected to the entire analytical procedure. If the recovery of analytes from the matrix spike does not fall within specified control limits due to matrix interference, the LCS recovery is to be used to validate the batch.

SEQUOIA ANALYTICAL

Kayvan Kimyai  
Project Manager







# Sequoia Analytical

680 Chesapeake Drive  
404 N. Wiget Lane  
819 Striker Avenue, Suite 8  
1455 McDowell Blvd. North, Ste. D  
1551 Industrial Road

Redwood City, CA 94063  
Walnut Creek, CA 94598  
Sacramento, CA 95834  
Petaluma, CA 94954  
San Carlos, CA 94070-4111

(650) 364-9600  
(925) 988-9600  
(916) 921-9600  
(707) 792-1865  
(650) 232-9600

FAX (650) 364-9233  
FAX (925) 988-9673  
FAX (916) 921-0100  
FAX (707) 792-0342  
FAX (650) 232-9612

Cambria 1144 65th St. Suite C Oakland, CA 94608 Attention: Aubrey Cool	Client Project ID: Shell 2001 Fruitvale Ave, Oakl
QC Sample Group: 9904172-14	Reported: Apr 27, 1999

## QUALITY CONTROL DATA REPORT

<b>Matrix:</b>	Liquid					
<b>Method:</b>	EPA 8010/8020, 601/602					
<b>Analyst:</b>	R KAWAS					
<b>ANALYTE</b>	1,1-DCE	TCE	chlorobenzene	Benzene	Toluene	chlorobenzene

QC Batch #: GC0412990VOA32A

<b>Sample No.:</b>	990412701					
<b>Date Prepared:</b>	4/8/99	4/8/99	4/8/99	4/8/99	4/8/99	4/8/99
<b>Date Analyzed:</b>	4/8/99	4/8/99	4/8/99	4/8/99	4/8/99	4/8/99
<b>Instrument I.D.#:</b>						
<b>Sample Conc., ug/L:</b>	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
<b>Conc. Spiked, ug/L:</b>	25	25	25	25	25	25
<b>Matrix Spike, ug/L:</b>	22	24	26	25	24	24
<b>% Recovery:</b>	88	96	104	100.0	96	96
<b>Matrix Duplicate, ug/L:</b>	25	25	28	26	26	27
<b>% Recovery:</b>	100.0	100.0	112	104	104	108
<b>relative % Difference:</b>	13	4.1	7.4	3.9	8.0	12
<b>RPD Control Limits:</b>	0-50	0-50	0-50	0-50	0-50	0-50

LCS Batch#: VWLCS041299A

<b>Date Prepared:</b>	4/12/99	4/12/99	4/12/99	4/12/99	4/12/99	4/12/99
<b>Date Analyzed:</b>	4/12/99	4/12/99	4/12/99	4/12/99	4/12/99	4/12/99
<b>Instrument I.D.#:</b>						
<b>Conc. Spiked, ug/L:</b>	25	25	25	25	25	25
<b>Recovery, ug/L:</b>	24	24	25	24	23	23
<b>LCS % Recovery:</b>	96	96	100.0	96	92	92

Percent Recovery Control Limits:

MS/MSD	60-140	60-140	60-140	60-140	60-140	60-140
LCS	65-135	70-130	70-130	70-130	70-130	70-130

Quality Assurance Statement: All standard operating procedures and quality control requirements have been met.

Please Note:

The LCS is a control sample of known, interferent free matrix that is analyzed using the same reagents, preparation, and analytical methods employed for the samples. The matrix spike is an aliquot of sample fortified with known quantities of specific compounds and subjected to the entire analytical procedure. If the recovery of analytes from the matrix spike does not fall within specified control limits due to matrix interference, the LCS recovery is to be used to validate the batch.

SEQUOIA ANALYTICAL

Kayvan Kimyai  
Project Manager





# Sequoia Analytical

680 Chesapeake Drive  
404 N. Wiget Lane  
819 Striker Avenue, Suite 8  
1455 McDowell Blvd. North, Ste. D  
1551 Industrial Road

Redwood City, CA 94063  
Walnut Creek, CA 94598  
Sacramento, CA 95834  
Petaluma, CA 94954  
San Carlos, CA 94070-4111

(650) 364-9600  
(925) 988-9600  
(916) 921-9600  
(707) 792-1865  
(650) 232-9600

FAX (650) 364-9233  
FAX (925) 988-9673  
FAX (916) 921-0100  
FAX (707) 792-0342  
FAX (650) 232-9612

Cambria  
1144 65th St. Suite C  
Oakland, CA 94608  
Attention: Aubrey Cool

Client Project ID: Shell 2001 Fruitvale Ave, Oakl

QC Sample Group: 9904172-14-16

Reported: Apr 27, 1999

## QUALITY CONTROL DATA REPORT

Matrix: Liquid  
Method: EPA 8015A  
Analyst: J.BONNVILLE

ANALYTE Diesel

QC Batch #: GC0409990HBPEXC

Sample No.: 9904172-16

Date Prepared: 4/9/99

Date Analyzed: 4/12/99

Instrument I.D.#: GCHP5A

Sample Conc., ug/L: 890

Conc. Spiked, ug/L: 1000

Matrix Spike, ug/L: 1200

% Recovery: 31

### Matrix

pike Duplicate, ug/L: 1200

% Recovery: 31

relative % Difference: 0.0

RPD Control Limits: 0-50

LCS Batch#: BLK040999CS

Date Prepared: 4/9/99

Date Analyzed: 4/12/99

Instrument I.D.#: GCHP5A

Conc. Spiked, ug/L: 1000

Recovery, ug/L: 1200

LCS % Recovery: 120

### Percent Recovery Control Limits:

MS/MSD 50-150

LCS 60-140

Quality Assurance Statement: All standard operating procedures and quality control requirements have been met.

#### Please Note:

The LCS is a control sample of known, interferent free matrix that is analyzed using the same reagents, preparation, and analytical methods employed for the samples. The matrix spike is an aliquot of sample fortified with known quantities of specific compounds and subjected to the entire analytical procedure. If the recovery of analytes from the matrix spike does not fall within specified control limits due to matrix interference, the LCS recovery is to be used to validate the batch.

SEQUOIA ANALYTICAL

Kayvan Kimya  
Project Manager





# Sequoia Analytical

680 Chesapeake Drive  
404 N. Wiget Lane  
819 Striker Avenue, Suite 8  
1455 McDowell Blvd. North, Ste. D  
1551 Industrial Road

Redwood City, CA 94063  
Walnut Creek, CA 94598  
Sacramento, CA 95834  
Petaluma, CA 94954  
San Carlos, CA 94070-4111

(650) 364-9600  
(925) 988-9600  
(916) 921-9600  
(707) 792-1865  
(650) 232-9600

FAX (650) 364-9233  
FAX (925) 988-9673  
FAX (916) 921-0100  
FAX (707) 792-0342  
FAX (650) 232-9612

Cambria  
1144 65th St. Suite C  
Oakland, CA 94608  
Attention: Aubrey Cool

Client Project ID: Shell 2001 Fruitvale Ave, Oakl

QC Sample Group: 9904172-14-16

Reported: Apr 27, 1999

## QUALITY CONTROL DATA REPORT

Matrix: Liquid  
Method: EPA 8015  
Analyst: MM

ANALYTE Gasoline

QC Batch #: GC040999BTEX30A

Sample No.: 9904202-01  
Date Prepared: 4/9/99  
Date Analyzed: 4/9/99  
Instrument I.D.#: GCHP30

Sample Conc., ug/L: N.D.  
Conc. Spiked, ug/L: 250

Matrix Spike, ug/L: 230  
% Recovery: 92

Matrix Duplicate, ug/L: 210  
% Recovery: 84

Relative % Difference: 9.1

RPD Control Limits: 0-25

LCS Batch#: GC040999BTEX30A

Date Prepared: 4/9/99  
Date Analyzed: 4/9/99  
Instrument I.D.#: GCHP30

Conc. Spiked, ug/L: 250

LCS Recovery, ug/L: 200  
LCS % Recovery: 80

### Percent Recovery Control Limits:

MS/MSD	60-140
LCS	70-130

Quality Assurance Statement: All standard operating procedures and quality control requirements have been met.

#### Please Note:

The LCS is a control sample of known, interferent free matrix that is analyzed using the same reagents, preparation, and analytical methods employed for the samples. The matrix spike is an aliquot of sample fortified with known quantities of specific compounds and subjected to the entire analytical procedure. If the recovery of analytes from the matrix spike does not fall within specified control limits due to matrix interference, the LCS recovery is to be used to validate the batch.

SEQUOIA ANALYTICAL

Kayvan Kinyai  
Project Manager





April 21, 1999

Kayvan Kimyai  
Sequoia - RC (Subbed In)  
680 Chesapeake Dr.  
Redwood City, CA 94063

RE: Kayvon Kimyai/P904296

Dear Kayvan Kimyai

Enclosed are the results of analyses for sample(s) received by the laboratory on April 12, 1999. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

  
for Matt Sakai  
Project Manager

CA ELAP Certificate Number 2245





Sequoia - RC (Subbed In) 680 Chesapeake Dr. Redwood City, CA 94063	Project: Kayvon Kimyai Project Number: 9904172 Project Manager: Kayvan Kimyai	Sampled: 3/31/99 Received: 4/12/99 Reported: 4/21/99
--	---	--

**ANALYTICAL REPORT FOR P904296**

Sample Description	Laboratory Sample Number	Sample Matrix	Date Sampled
SBA. 10.0'	P904296-01	Soil	3/31/99
SBA. 15.5'	P904296-02	Soil	3/31/99
SBA. 22.5'	P904296-03	Soil	3/31/99
SBA. W	P904296-04	Water	3/31/99





Sequoia - RC (Subbed In) 680 Chesapeake Dr. Redwood City, CA 94063	Project: Kayvon Kimyai Project Number: 9904172 Project Manager: Kayvan Kimyai	Sampled: 3/31/99 Received: 4/12/99 Reported: 4/21/99
--	---	--

**Conventional Chemistry Parameters by APHA/EPA Methods  
Sequoia Analytical - Petaluma**

Analyte	Batch Number	Date Prepared	Date Analyzed	Specific Method	Reporting Limit	Result	Units	Notes*
<u>SBA. 10.0'</u> TRPH	9040274	4/12/99	4/15/99	<u>P904296-01</u> EPA 418.1	333	11100	<u>Soil</u> mg/kg	
<u>SBA. 15.5'</u> TRPH	9040274	4/12/99	4/15/99	<u>P904296-02</u> EPA 418.1	333	10100	<u>Soil</u> mg/kg	
<u>SBA. 22.5'</u> TRPH	9040274	4/12/99	4/15/99	<u>P904296-03</u> EPA 418.1	333	6840	<u>Soil</u> mg/kg	
<u>SBA. W</u> TRPH	9040319	4/14/99	4/21/99	<u>P904296-04</u> EPA 418.1	10.0	23.0	<u>Water</u> mg/l	





Sequoia - RC (Subbed In) 680 Chesapeake Dr. Redwood City, CA 94063	Project: Kayvon Kimyai Project Number: 9904172 Project Manager: Kayvan Kimyai	Sampled: 3/31/99 Received: 4/12/99 Reported: 4/21/99
--	---	--

**Conventional Chemistry Parameters by APHA/EPA Methods/Quality Control  
Sequoia Analytical - Petaluma**

Analyte	Date Analyzed	Spike Level	Sample Result	QC Result	Units	Reporting Limit Recov. Limits	Recov. %	RPD Limit	RPD %	Notes*
<b>Batch: 9040274</b>			<b>Date Prepared: 4/12/99</b>			<b>Extraction Method: 418.1 / 5520C&amp;F Mod.</b>				
<u>Blank</u>	<u>9040274-BLK1</u>									
TRPH	4/15/99			ND	mg/kg	33.3				
<u>LCS</u>	<u>9040274-BS1</u>									
TRPH	4/15/99	667		717	mg/kg	80.0-120	107			
<u>LCS Dup</u>	<u>9040274-BSD1</u>									
TRPH	4/15/99	667		695	mg/kg	80.0-120	104	20.0	2.84	
<u>Duplicate</u>	<u>9040274-DUP1</u>		<u>P904248-16</u>							
TRPH	4/15/99		51.5	ND	mg/kg			20.0		
<u>Matrix Spike</u>	<u>9040274-MS1</u>		<u>P904248-16</u>							
TRPH	4/15/99	667	51.5	695	mg/kg	75.0-125	96.5			
<b>Batch: 9040319</b>			<b>Date Prepared: 4/14/99</b>			<b>Extraction Method: 418.1 / 5520C&amp;F Mod.</b>				
<u>Blank</u>	<u>9040319-BLK1</u>									
TRPH	4/21/99			ND	mg/l	1.00				
<u>LCS</u>	<u>9040319-BS1</u>									
TRPH	4/21/99	20.0		19.1	mg/l	80.0-120	95.5			
<u>LCS Dup</u>	<u>9040319-BSD1</u>									
TRPH	4/21/99	20.0		20.5	mg/l	80.0-120	103	20.0	7.56	





Sequoia - RC (Subbed In) 680 Chesapeake Dr. Redwood City, CA 94063	Project: Kayvon Kimyai Project Number: 9904172 Project Manager: Kayvan Kimyai	Sampled: 3/31/99 Received: 4/12/99 Reported: 4/21/99
--	---	--

**Notes and Definitions**

#	Note
DET	Analyte DETECTED
ND	Analyte NOT DETECTED at or above the reporting limit
NR	Not Reported
dry	Sample results reported on a dry weight basis
Recov.	Recovery
RPD	Relative Percent Difference







## CORE LABORATORIES

---

K. Kimyai  
Sequoia Analytical  
680 Chesapeake Drive  
Redwood City, CA 94063

April 16, 1999

Subject : Transmittal of Geotechnical Analysis Data  
SA Work order # 9904172  
Core Lab File No. 57111-99074

Dear Ms Kimyai:

Soil samples were submitted to our Bakersfield laboratory for geotechnical analysis. Determinations of bulk density and total porosity were requested. Grain and pore volumes were determined by Boyles Law double-cell methods utilizing an extended range helium porosimeter. The bulk densities and total porosity measurements and calculations were performed as described in API RP-40, API Recommended Practice for Core-Analysis Procedure, 1960. Accompanying this letter please find the results of this study.

We appreciate this opportunity to be of service to you and to Sequoia Analytical. Should you have any questions, or if we may be of further help in the future, please do not hesitate to contact us.

Very truly yours,

*Jeffrey L. Smith NW*

Jeffrey L. Smith  
Laboratory Supervisor - Rock Properties

JLS:nw

1 original report, 1 cc report: Addressee



**Sequoia Analytical**  
(Redwood City)  
Cambria - 9904172

CL File No.: 57111-99074

Sample Fraction	Sample Desc.	Sample Date	Sample Density			Total Porosity %	Description
			Dry Bulk g/cc	Natural Bulk g/cc	Matrix g/cc		
01	SBA - 6.0'	31-Mar-99	1.85	2.14	2.60	28.8	Gray clayey silt
05	SBB - 5.5'	31-Mar-99	1.87	2.16	2.64	29.1	Gray clayey silt w/ gravel
10	SBC - 6.0'	31-Mar-99	1.76	2.08	2.61	32.7	Gray clayey silt
13	SBC - 22.5'	31-Mar-99	1.96	2.22	2.67	26.7	Gray v silty vf-vcgr sand w/ clay

*Grain and pore volumes were determined by Boyle's Law methods as per API RP-40.  
Sample densities and total porosity were calculated as per API RP-40.*



# Sequoia Analytical

680 Chesapeake Drive  
404 N. Wiget Lane  
819 Striker Avenue, Suite 8  
1455 McDowell Blvd. North, Ste. D  
1551 Industrial Road

Redwood City, CA 94063  
Walnut Creek, CA 94598  
Sacramento, CA 95834  
Petaluma, CA 94954  
San Carlos, CA 94070-4111

(650) 364-9600  
(925) 988-9600  
(916) 921-9600  
(707) 792-1865  
(650) 232-9600

FAX (650) 364-9233  
FAX (925) 988-9673  
FAX (916) 921-0100  
FAX (707) 792-0342  
FAX (650) 232-9612

April 15, 1999

Kayvan Kimyai  
Sequoia - Redwood City  
680 Chesapeake Drive  
Redwood City, CA 94063

RE: Kayvan Kimyai/L904102

Dear Kayvan Kimyai:

Enclosed are the results of analyses for sample(s) received by the laboratory on April 9, 1999. If you have any questions concerning this report, please feel free to contact me.

Sincerely,



Mike Gregory  
Project Manager D.M.





# Sequoia Analytical

680 Chesapeake Drive  
 404 N. Wiget Lane  
 819 Striker Avenue, Suite 8  
 1455 McDowell Blvd. North, Ste. D  
 1551 Industrial Road

Redwood City, CA 94063  
 Walnut Creek, CA 94598  
 Sacramento, CA 95834  
 Petaluma, CA 94954  
 San Carlos, CA 94070-4111

(650) 364-9600  
 (925) 988-9600  
 (916) 921-9600  
 (707) 792-1865  
 (650) 232-9600

FAX (650) 364-9233  
 FAX (925) 988-9673  
 FAX (916) 921-0100  
 FAX (707) 792-0342  
 FAX (650) 232-9612

Sequoia - Redwood City 680 Chesapeake Drive Redwood City, CA 94063	Project: Kayvan Kimyai Project Number: 9904172(Cambria) Project Manager: Kayvan Kimyai	Sampled: 3/31/99 Received: 4/9/99 Reported: 4/15/99
--	--	---

## ANALYTICAL REPORT FOR L904102

Sample Description	Laboratory Sample Number	Sample Matrix	Date Sampled
9904172-14/SBA-W	L904102-01	Water	3/31/99
9904172-15/SBB-W	L904102-02	Water	3/31/99
9904172-16/SBC-W	L904102-03	Water	3/31/99





# Sequoia Analytical

680 Chesapeake Drive  
 404 N. Wiget Lane  
 819 Striker Avenue, Suite 8  
 1455 McDowell Blvd. North, Ste. D  
 1551 Industrial Road

Redwood City, CA 94063  
 Walnut Creek, CA 94598  
 Sacramento, CA 95834  
 Petaluma, CA 94954  
 San Carlos, CA 94070-4111

(650) 364-9600  
 (925) 988-9600  
 (916) 921-9600  
 (707) 792-1865  
 (650) 232-9600

FAX (650) 364-9233  
 FAX (925) 988-9673  
 FAX (916) 921-0100  
 FAX (707) 792-0342  
 FAX (650) 232-9612

Sequoia - Redwood City 680 Chesapeake Drive Redwood City, CA 94063	Project: Kayvan Kimyai Project Number: 9904172(Cambria) Project Manager: Kayvan Kimyai	Sampled: 3/31/99 Received: 4/9/99 Reported: 4/15/99
--	--	---

**Sample Description:** 9904172-14/SBA-W  
**Laboratory Sample Number:** L904102-01

Analyte	Batch Number	Date Prepared	Date Analyzed	Specific Method/ Surrogate Limits	Reporting Limit	Result	Units	Notes*
---------	--------------	---------------	---------------	--------------------------------------	-----------------	--------	-------	--------

**Sequoia Analytical - San Carlos**

**MTBE by EPA Method 8260A**

Methyl tert-butyl ether	9040059	4/13/99	4/13/99		2.00	ND	ug/l	
Surrogate: 1,2-Dichloroethane-d4	"	"	"	76.0-114		105	%	





# Sequoia Analytical

680 Chesapeake Drive  
 404 N. Wiget Lane  
 819 Striker Avenue, Suite 8  
 1455 McDowell Blvd. North, Ste. D  
 1551 Industrial Road

Redwood City, CA 94063  
 Walnut Creek, CA 94598  
 Sacramento, CA 95834  
 Petaluma, CA 94954  
 San Carlos, CA 94070-4111

(650) 364-9600  
 (925) 988-9600  
 (916) 921-9600  
 (707) 792-1865  
 (650) 232-9600

FAX (650) 364-9233  
 FAX (925) 988-9673  
 FAX (916) 921-0100  
 FAX (707) 792-0342  
 FAX (650) 232-9612

Sequoia - Redwood City 680 Chesapeake Drive Redwood City, CA 94063	Project: Kayvan Kimyai Project Number: 9904172(Cambria) Project Manager: Kayvan Kimyai	Sampled: 3/31/99 Received: 4/9/99 Reported: 4/15/99
--	--	---

**Sample Description:** 9904172-15/SBB-W  
**Laboratory Sample Number:** L904102-02

Analyte	Batch Number	Date Prepared	Date Analyzed	Specific Method/ Surrogate Limits	Reporting Limit	Result	Units	Notes*
---------	--------------	---------------	---------------	--------------------------------------	-----------------	--------	-------	--------

**Sequoia Analytical - San Carlos**

**MTBE by EPA Method 8260A**

Methyl tert-butyl ether	9040059	4/13/99	4/13/99		2.00	ND	ug/l	
Surrogate: 1,2-Dichloroethane-d4	"	"	"	76.0-114		109	%	





# Sequoia Analytical

680 Chesapeake Drive  
404 N. Wiget Lane  
819 Striker Avenue, Suite 8  
1455 McDowell Blvd. North, Ste. D  
1551 Industrial Road

Redwood City, CA 94063  
Walnut Creek, CA 94598  
Sacramento, CA 95834  
Petaluma, CA 94954  
San Carlos, CA 94070-4111

(650) 364-9600  
(925) 988-9600  
(916) 921-9600  
(707) 792-1865  
(650) 232-9600

FAX (650) 364-9233  
FAX (925) 988-9673  
FAX (916) 921-0100  
FAX (707) 792-0342  
FAX (650) 232-9612

Sequoia - Redwood City 680 Chesapeake Drive Redwood City, CA 94063	Project: Kayvan Kimyai Project Number: 9904172(Cambria) Project Manager: Kayvan Kimyai	Sampled: 3/31/99 Received: 4/9/99 Reported: 4/15/99
--	--	---

**Sample Description:** 9904172-16/SBC-W  
**Laboratory Sample Number:** L904102-03

Analyte	Batch Number	Date Prepared	Date Analyzed	Specific Method/ Surrogate Limits	Reporting Limit	Result	Units	Notes*
---------	--------------	---------------	---------------	--------------------------------------	-----------------	--------	-------	--------

Sequoia Analytical - San Carlos

**MTBE by EPA Method 8260A**

Methyl tert-butyl ether	9040059	4/13/99	4/13/99		2.00	ND	ug/l	
Surrogate: 1,2-Dichloroethane-d4	"	"	"	76.0-114		105	%	





# Sequoia Analytical

680 Chesapeake Drive  
404 N. Wiget Lane  
819 Striker Avenue, Suite 8  
1455 McDowell Blvd. North, Ste. D  
1551 Industrial Road

Redwood City, CA 94063  
Walnut Creek, CA 94598  
Sacramento, CA 95834  
Petaluma, CA 94954  
San Carlos, CA 94070-4111

(650) 364-9600  
(925) 988-9600  
(916) 921-9600  
(707) 792-1865  
(650) 232-9600

FAX (650) 364-9233  
FAX (925) 988-9673  
FAX (916) 921-0100  
FAX (707) 792-0342  
FAX (650) 232-9612

Sequoia - Redwood City 680 Chesapeake Drive Redwood City, CA 94063	Project: Kayvan Kimyai Project Number: 9904172(Cambria) Project Manager: Kayvan Kimyai	Sampled: 3/31/99 Received: 4/9/99 Reported: 4/15/99
--	--	---

## MTBE by EPA Method 8260A/Quality Control Sequoia Analytical - San Carlos

Analyte	Date Analyzed	Spike Level	Sample Result	QC Result	Units	Reporting Limit Recov. Limits	Recov. %	RPD Limit	RPD %	Notes*
<b>Batch: 9040059</b>			<b>Date Prepared: 4/12/99</b>			<b>Extraction Method: EPA 5030B [P/T]</b>				
<b>Blank</b>			<b>9040059-BLK1</b>							
Methyl tert-butyl ether	4/12/99			ND	ug/l	2.00				
Surrogate: 1,2-Dichloroethane-d4	"	50.0		55.9	"	76.0-114	112			
<b>Blank</b>			<b>9040059-BLK2</b>							
Methyl tert-butyl ether	4/12/99			ND	ug/l	2.00				
Surrogate: 1,2-Dichloroethane-d4	"	50.0		53.7	"	76.0-114	107			
<b>Blank</b>			<b>9040059-BLK3</b>							
Methyl tert-butyl ether	4/13/99			ND	ug/l	2.00				
Surrogate: 1,2-Dichloroethane-d4	"	50.0		52.8	"	76.0-114	106			
<b>LCS</b>			<b>9040059-BS1</b>							
Methyl tert-butyl ether	4/12/99	50.0		51.4	ug/l	70.0-130	103			
Surrogate: 1,2-Dichloroethane-d4	"	50.0		55.7	"	76.0-114	111			
<b>LCS</b>			<b>9040059-BS2</b>							
Methyl tert-butyl ether	4/12/99	50.0		45.9	ug/l	70.0-130	91.8			
Surrogate: 1,2-Dichloroethane-d4	"	50.0		51.5	"	76.0-114	103			
<b>LCS</b>			<b>9040059-BS3</b>							
Methyl tert-butyl ether	4/13/99	50.0		46.1	ug/l	70.0-130	92.2			
Surrogate: 1,2-Dichloroethane-d4	"	50.0		51.9	"	76.0-114	104			
<b>Matrix Spike</b>			<b>9040059-MS1</b>		<b>L904094-01</b>					
Methyl tert-butyl ether	4/12/99	50.0	ND	52.1	ug/l	60.0-140	104			
Surrogate: 1,2-Dichloroethane-d4	"	50.0		53.4	"	76.0-114	107			
<b>Matrix Spike Dup</b>			<b>9040059-MSD1</b>		<b>L904094-01</b>					
Methyl tert-butyl ether	4/12/99	50.0	ND	51.0	ug/l	60.0-140	102	25.0	1.94	
Surrogate: 1,2-Dichloroethane-d4	"	50.0		52.9	"	76.0-114	106			







# Sequoia Analytical

680 Chesapeake Drive  
404 N. Wiget Lane  
819 Striker Avenue, Suite B  
1455 McDowell Blvd. North, Ste. D  
1551 Industrial Road

Redwood City, CA 94063  
Walnut Creek, CA 94598  
Sacramento, CA 95834  
Petaluma, CA 94954  
San Carlos, CA 94070-4111

(650) 364-9600  
(925) 988-9600  
(916) 921-9600  
(707) 792-1865  
(650) 232-9600

FAX (650) 364-9233  
FAX (925) 988-9673  
FAX (916) 921-0100  
FAX (707) 792-0342  
FAX (650) 232-9612

Sequoia - Redwood City 680 Chesapeake Drive Redwood City, CA 94063	Project: Kayvan Kimyai Project Number: 9904172(Cambria) Project Manager: Kayvan Kimyai	Sampled: 3/31/99 Received: 4/9/99 Reported: 4/15/99
--	--	---

### Notes and Definitions

#	Note
---	------

- DET Analyte DETECTED
- ND Analyte NOT DETECTED at or above the reporting limit
- NR Not Reported
- dry Sample results reported on a dry weight basis
- Recov. Recovery
- RPD Relative Percent Difference



SEQUOIA ANALYTICAL  
 680 CHESAPEAKE DRIVE  
 REDWOOD CITY, CA 94063  
 TEL415-364-9600 FAX415-364-9233

**SUB-CHAIN OF CUSTODY**

PROJECT SUBBED TO:

Petaluma

TAT REQUESTED:

<input type="checkbox"/>	24H	<input type="checkbox"/>	5D
<input type="checkbox"/>	48H	<input type="checkbox"/>	10D
<input type="checkbox"/>	72H		

DUE DATE: 4/13/99

REPORT TO:

K. Kimyai

ANALYSIS REQUESTED

WORKORDER #

9104172

PROJECT NAME:

Cambria

FRACTION NUMBER	SAMPLE DESCRIPTION	MATRIX	NUMBER OF CONT.	TYPE CONT.	SAMPLING TIME/DATE	10817												REMARKS
02	SBA-10.0'	S	1		3/31/99	X												1904296-01
03	SBA 15.5'	L	1															2
04	SBA-22.5'	D	D															3
14	SBA-W	L	1															4

COOLER CUSTODY SEALS INTACT  NOT INTACT  N/A  
 COOLER TEMPERATURE 5 °C

RELINQUISHED FROM SEQUOIA BY: DATE TIME

Noelle Lane 4/8/99

RECEIVED BY: DATE TIME

[Signature] 4/12 1500

RELINQUISHED BY: DATE TIME

RECEIVED BY: DATE TIME

RELINQUISHED BY: DATE TIME

RECEIVED BY: DATE TIME

SAMPLE CONDITION?  
TEMP?

SEQUOIA ANALYTICAL  
 680 CHESAPEAKE DRIVE  
 REDWOOD CITY, CA 94063  
 TEL415-364-9600 FAX415-364-9233

**SUB-CHAIN OF CUSTODY**

PROJECT SUBBED TO:

CORE LAB

TAT REQUESTED:

<input type="checkbox"/>	24H	<input type="checkbox"/>	5D
<input type="checkbox"/>	48H	<input type="checkbox"/>	10D
<input type="checkbox"/>	72H		

DUE DATE: 4/13/99

REPORT TO:

K. Kimyzi

WORKORDER #

9904172

PROJECT NAME:

Cambria

ANALYSIS REQUESTED

FRACTION NUMBER	SAMPLE DESCRIPTION	MATRIX	NUMBER OF CONT.	TYPE CONT.	SAMPLING TIME/DATE	DRY <del>DENSITY</del>	BULK DENSITY	POROSITY	ANALYSIS REQUESTED	REMARKS
01	SBA 6.0'	S	1		3/31/99	X	X	X		CL 99074
05	SBB - 5.5'									
10	SBC - 6.0'									
13	SBC - 22.5'	∇	∇		∇	∇	∇	∇		

RELINQUISHED FROM SEQUOIA BY: DATE TIME

Noelle Lane 4/8/99

RECEIVED BY:

J Smith

DATE TIME

4/13/99 11:00

SAMPLE CONDITION?

RELINQUISHED BY: DATE TIME

RECEIVED BY:

DATE TIME

TEMP?

RELINQUISHED BY: DATE TIME

RECEIVED BY:

DATE TIME

L904102  
 SEQUOIA ANALYTICAL  
 880 CHESAPEAKE DRIVE  
 REDWOOD CITY, CA 94063  
 TEL415-364-9600 FAX415-364-9233

SUB-CHAIN OF CUSTODY

PROJECT SUBBED TO:  
San Carlos

TAT REQUESTED:  24H  5D  
 48H  10D  
 72H  
 DUE DATE: 4/13/99

REPORT TO: K Kingai

WORKORDER #  
9904172

PROJECT NAME:  
Cambris

Confirm MPE by 8260

ANALYSIS REQUESTED

FRACTION NUMBER	SAMPLE DESCRIPTION	MATRIX	NUMBER OF CONT.	TYPE CONT.	SAMPLING TIME/DATE									REMARKS
14	SBA-W	L	1	VoA	3/31/99	X								
15	SBB-W	↓	↓	↓	↓	↓								Samples already in San Carlos
16	SBC-W	↓	↓	↓	↓	↓								

01  
02  
03

RELINQUISHED FROM SEQUOIA BY: [Signature] DATE 4/9/99 TIME

RECEIVED BY: [Signature] DATE 040999 TIME 1745

SAMPLE CONDITION?  
 GOOD  
 TEMP?  
 6°C

RELINQUISHED BY: DATE TIME

RECEIVED BY: DATE TIME

RELINQUISHED BY: DATE TIME

RECEIVED BY: DATE TIME



**SHELL OIL COMPANY**  
**RETAIL ENVIRONMENTAL ENGINEERING - WEST**

**CHAIN OF CUSTODY RECORD**

Date: 3/31/97  
 Page 1 of 6

Site Address: 201 Fruitvale Ave, Oakland

WIC#: 204 5508 2105

Shell Engineer: Phone No.:  
 Fax #:

Consultant Name & Address: **CAMBRIA ENVIRONMENTAL**  
 1111 65th St. Suite C, Oakland, CA 94608

Consultant Contact: Phone No.: 510  
 Aubrey Cool - 707-935-4859 420-0700  
 Fax #: 420-9170

Comments:

Sampled by: **TROY BUGGLE**

Printed Name: *Troy Buggle*

**Analysis Required**

Oil/Grease	TPH (EPA 8015 Mod. Diesel)	Test for Disposal	Combination TPH 8015 & STEC 8000 + MTBE	Cadmium Chromium Lead Nickel Zinc	Asbestos	Container Size	Preparation Used	Composite Y/N
EPA 418.1	EPA 8270			dry bulk density, moisture content, porosity fraction organic carbon				

LAB: Sequoia - Redwood City

CHECK ONE (S) BOX ONLY	C1/D1	TURN AROUND TIME
G.W. Monitoring <input type="checkbox"/>	4441	24 hours <input type="checkbox"/>
Site Investigation <input type="checkbox"/>	4442	48 hours <input type="checkbox"/>
Soil Classify/Disposal <input type="checkbox"/>	4443	16 days <input checked="" type="checkbox"/> (Normal)
Water Classify/Disposal <input type="checkbox"/>	4443	Other <input type="checkbox"/>
Soil/Air Rem. of Sys. O & M <input type="checkbox"/>	4452	
Water Rem. of Sys. O & M <input type="checkbox"/>	4453	
Other <input type="checkbox"/>		

NOTE: Notify Lab as soon as possible of 24/48 hr. TAT.

**USE AGENCY:**

Sample ID	Date	Sludge	Soil	Water	Air	No. of conts.	Oil/Grease	TPH (EPA 8015 Mod. Diesel)	Test for Disposal	Combination TPH 8015 & STEC 8000 + MTBE	Cadmium Chromium Lead Nickel Zinc	Asbestos	Container Size	Preparation Used	Composite Y/N	MATERIAL DESCRIPTION	SAMPLE CONDITION/ COMMENTS
SBA 5.5'	3/31		X			1											HOLD
SBA 6.0'	3/31		X			1										9908172	
SBA 10.0'	3/31		X			1	X	X	X	X	X						
SBA 10.5'	3/31		X			1											HOLD
SBA 15.5'	3/31		X			1	X	X	X	X	X						
SBA 16.0	3/31		X			1											HOLD
SBA 20.5'	3/31		X			1											HOLD
SBA 21.0'	3/31		X			1											HOLD

Requested By (signature): <i>Troy Buggle</i>	Printed Name: <b>TROY BUGGLE</b>	Date: 4-1-97	Received (signature): <i>[Signature]</i>	Printed Name: <b>ANDREAS</b>	Date: 2-1
Requested By (signature): <i>[Signature]</i>	Printed Name:	Time: 10:30	Received (signature): <i>[Signature]</i>	Printed Name:	Time: 2:30
Requested By (signature): <i>[Signature]</i>	Printed Name:	Date:	Received (signature): <i>[Signature]</i>	Printed Name: <b>S. Horn</b>	Date: 4/1
		Time:			Time: 15/13

THE LABORATORY MUST PROVIDE A COPY OF THIS CHAIN OF CUSTODY WITH INVOICE AND RESULTS

13



# SHELL OIL COMPANY

## RETAIL ENVIRONMENTAL ENGINEERING - WEST

### CHAIN OF CUSTODY RECORD

Serial No: \_\_\_\_\_

Date: 3/31/99  
Page 2 of 6

Silo Address: 201 Fruitvale Ave, Oakland  
 WIC#: 704 5508 2105  
 Shell Engineer: \_\_\_\_\_ Phone No.: \_\_\_\_\_  
 Fax #: \_\_\_\_\_  
 Consultant Name & Address: CAMBRIA ENVIRONMENTAL  
1114 65th St. Suite C, Oakland, CA 94608  
 Consultant Contact: \_\_\_\_\_ Phone No.: 510  
Aubrey Cool 707-935-4859 420-0700  
 Fax #: 420-9170

#### Analysis Required

<input checked="" type="checkbox"/>	Oil + Grease EPA 418.1
<input checked="" type="checkbox"/>	TPH (EPA 8015 Mod. Diesel)
<input checked="" type="checkbox"/>	EPA 8270
<input checked="" type="checkbox"/>	EPA 8010
<input checked="" type="checkbox"/>	Test for Disposal
<input checked="" type="checkbox"/>	Combination TPH 8015 & STEX 8020 + MTBE
<input checked="" type="checkbox"/>	Cadmium, Chromium, Lead, Nickel + Zinc dry bulk density, moisture content, porosity, fraction organic carbon
<input checked="" type="checkbox"/>	Asbestos
<input checked="" type="checkbox"/>	Container Size
<input checked="" type="checkbox"/>	Preparation Used
<input checked="" type="checkbox"/>	Composite Y/N

LAB: Sequoia - Redwood City

CHECK ONE (1) BOX ONLY	C1/H1	TURN AROUND TIME
G.W. Monitoring <input type="checkbox"/>	4441	24 hours <input type="checkbox"/>
Site Investigation <input type="checkbox"/>	4442	48 hours <input type="checkbox"/>
Soil Classify/Disposal <input type="checkbox"/>	4443	16 days <input checked="" type="checkbox"/> (Normal)
Water Classify/Disposal <input type="checkbox"/>	4444	Other <input type="checkbox"/>
Soil/Air Rem. or Sys. O & M <input type="checkbox"/>	4452	
Water Rem. or Sys. O & M <input type="checkbox"/>	4453	
Other <input type="checkbox"/>		

NOTE: Holdy jobs as soon as possible of 24/48 hrs. TAT.

Sampled by: Troy Bugge  
 Printed Name: Troy Bugge

Sample ID	Date	Sludge	Soil	Water	Air	No. of conls.
SBA - 22.5'	3/31		X			1
SBA - 23.0'	3/31		X			1
SBA - 24.5'	3/31		X			1
SBA - 25.0'	3/31		X			1
SBB - 5.5'	3/31		X			1
SBB - 6.0'	3/31		X			1
SBB - 10.5'	3/31		X			1
SBB - 11.0'	3/31		X			1

MATERIAL DESCRIPTION		SAMPLE CONDITION/ COMMENTS	
9902172		HOLD	
		HOLD	
		HOLD	
		HOLD	
		HOLD	

Requested By (signature): \_\_\_\_\_  
 Printed Name: Troy Bugge  
 Date: 4/7/99  
 Time: 10:30

Received (signature): \_\_\_\_\_  
 Received (signature): \_\_\_\_\_  
 Received (signature): \_\_\_\_\_

Printed Name: AK DRUSS  
 Date: 3/1  
 Time: 12:50

Printed Name: John  
 Date: 4/1  
 Time: 12:44



**SHELL OIL COMPANY**  
RETAIL ENVIRONMENTAL ENGINEERING - WEST

**CHAIN OF CUSTODY RECORD**

Seal No: \_\_\_\_\_

Date: 3/31/99

Page 3 of 6

Silo Address: 201 Fruitvale Ave, Oakland

WICH: 704 5508 2105

Shell Engineer: \_\_\_\_\_ Phone No.: \_\_\_\_\_  
Fax #: \_\_\_\_\_

Consultant Name & Address: **CAMBRIA ENVIRONMENTAL**  
1114 65th St. Suite C, Oakland, CA 94608

Consultant Contact: \_\_\_\_\_ Phone No.: 510 420-0700  
Aubrey Cool - 707-935-4859 Fax #: 420-9170

Comments:

Sampled by: TROY BUGGLE

Printed Name: Troy Buggle

**Analysis Required**

IPH (EPA 8015 Mod. GOS)	IPH (EPA 8015 Mod. Diesel)	STEX (EPA 8020/500)	Volatile Organics (EPA 8240)	Test for Disposal	Combination IPH 8015 & STEX 8020 + MTBE	Asbestos	Container Size	Preparation Used	Composite Y/N
	X				X				
		X			X				

LAB: Sequoia - Redwood City

CHECK ONE (IF BOX ONLY)	CI/DI	TURN AROUND TIME
G.W. Monitoring <input type="checkbox"/>	4401	24 hours <input type="checkbox"/>
Site Investigation <input type="checkbox"/>	4441	48 hours <input type="checkbox"/>
Soil Chemistry/Dispersion <input type="checkbox"/>	4442	16 days <input checked="" type="checkbox"/> (Normal)
Water Chemistry/Dispersion <input type="checkbox"/>	4443	Other <input type="checkbox"/>
Soil/Air Rem. or Sys. O & M <input type="checkbox"/>	4452	
Water Rem. or Sys. O & M <input type="checkbox"/>	4453	
Other <input type="checkbox"/>		

UST AGENCY: \_\_\_\_\_

Sample ID	Date	Sludge	Soil	Water	Air	No. of conds.	IPH (EPA 8015 Mod. GOS)	IPH (EPA 8015 Mod. Diesel)	STEX (EPA 8020/500)	Volatile Organics (EPA 8240)	Test for Disposal	Combination IPH 8015 & STEX 8020 + MTBE	Asbestos	Container Size	Preparation Used	Composite Y/N	MATERIAL DESCRIPTION	SAMPLE CONDITION/ COMMENTS
SBB - 15.5'	3/31		X			1												HOLD 1 3 14
SBB - 16.0'	3/31		X			1		X				X					9908172	
SBB - 19.5'	3/31		X			1												HOLD;
SBB - 20.5'	3/31		X			1		X				X						
SBB - 21.0'	3/31		X			1												HOLD
SBB - 23.5'	3/31		X			1												HOLD
SBB - 24.5'	3/31		X			1												HOLD
SBB - 25.0'	3/31		X			1												HOLD

Requested By (signature): _____ Printed Name: TROY BUGGLE	Date: 4/1/99 Time: 10:30	Received (signature): _____ Printed Name: J. NORRIS	Date: 4/1/99 Time: 12:30
Requested By (signature): _____ Printed Name: _____	Date: _____ Time: _____	Received (signature): _____ Printed Name: J. HORN	Date: 4/1/99 Time: 1:54
Requested By (signature): _____ Printed Name: _____	Date: _____ Time: _____	Received (signature): _____ Printed Name: _____	Date: _____ Time: _____

THE LABORATORY MUST PROVIDE A COPY OF THIS CHAIN OF CUSTODY WITH INVOICE AND RESULTS



**SHELL OIL COMPANY**  
RETAIL ENVIRONMENTAL ENGINEERING - WEST

**CHAIN OF CUSTODY RECORD**

Seal No: \_\_\_\_\_

Date: 3/31/99  
Page 4 of 6

Site Address: 201 Fruitvale Ave, Oakland

WIC#: 704 5508 2105

Shell Engineer:

Phone No.:

Fax #:

Consultant Name & Address: CAMBRIA ENVIRONMENTAL  
1111 65th St, Suite C, Oakland, CA 94608

Consultant Contact:

Phone No.: 510

Aubrey Col - 707-935-4859

420-0700

Fax #: 420-9170

Comments:

Sampled by: TROY BUGGLE

Printed Name: Troy Buggle

**Analysis Required**

TPH (EPA 8015 Mod. GSD)	TPH (EPA 8015 Mod. Diesel)	TEX (EPA 8020/602)	Volatile Organics (EPA 8240)	Test for Disposal	Combination TPH 8015 & STEK 8020 + MTBE	dry bulk density, moisture content, porosity, fraction organic carbon	Asbestos	Container Size	Preparation Used	Composite Y/N

LAB: Sequoia, Redwood City

CHECK ONE (1) BOX ONLY	C1/D1	TURN AROUND TIME
G.W. Monitoring <input type="checkbox"/>	4481	24 hours <input type="checkbox"/>
Site Investigation <input type="checkbox"/>	4481	48 hours <input type="checkbox"/>
Soil Classify/Disposal <input type="checkbox"/>	4442	16 days <input checked="" type="checkbox"/> (Normal)
Water Classify/Disposal <input type="checkbox"/>	4443	Other <input type="checkbox"/>
Soil/Air Rem. or Sys. O & M <input type="checkbox"/>	4452	
Water Rem. or Sys. O & M <input type="checkbox"/>	4453	
Other <input type="checkbox"/>		

NOTE: Notify Lab as soon as possible of 24/48 hrs. LAT.

**TEST AGENCY:**

MATERIAL DESCRIPTION	SAMPLE CONDITION/ COMMENTS
----------------------	----------------------------

9904172

HOLD;

HOLD

HOLD

HOLD

Requested By (signature):

Requested By (signature):

Requested By (signature):

Requested By (signature):

Requested By (signature):

Printed Name:

TROY BUGGLE

Printed Name:

Printed Name:

Printed Name:

Date: 4/1/99

Time: 10:36

Date:

Time:

Date:

Time:

Received (signature):

Received (signature):

Received (signature):

Received (signature):

Received (signature):

Received (signature):

Printed Name:

AUBREY COL

Printed Name:

Printed Name:

Printed Name:

Printed Name:

Date: 4/1

Time: 12:50

Date:

Time:

Date: 4/1

Time: 15:14

THE LABORATORY MUST PROVIDE A COPY OF THIS CHAIN OF CUSTODY WITH INVOICE AND RESULTS





**SHELL OIL COMPANY**  
RETAIL ENVIRONMENTAL ENGINEERING - WEST

**CHAIN OF CUSTODY RECORD**

Sealal No: \_\_\_\_\_

Date: 3/31/99  
Page 5 of 6

Silo Address: 2001 Fruitvale Ave, Oakland

WIC#: 704 5508 2105

Shell Engineer:

Phone No.:

Fax #:

Consultant Name & Address: **CAMBRIA ENVIRONMENTAL**  
1114 65th St. Suite C, Oakland, CA 94608

Consultant Contact:

Aubrey Cool - 707-935-4859

Phone No.:

510 420-0700

Fax #:

420-9170

Comments:

Sampled by: **TROY BUGGLE**

Printed Name: *Troy Buggle*

Sample ID	Date	Sludge	Soil	Water	Air	No. of conds.
SBC-22.5'	3/31		X			1
SBC-24.5'	3/31		X			1
SBC-25.0'	3/31		X			1

**Analysis Required**

TPH (EPA 8015 Mod. G-03)	TPH (EPA 8015 Mod. Diesel)	BTX (EPA 8020/8020)	Volatile Organics (EPA 2240)	Test for Disposal	Combustion TPH 8015 & BTX 8020	dry bulk density moisture content, density, fraction organic carbon	Asbestos	Container Size	Preparation Used	Composite Y/N
--------------------------	----------------------------	---------------------	------------------------------	-------------------	--------------------------------	---	----------	----------------	------------------	---------------

LAB: Sequoia, Redwood City

CHECK ONE (1) BOX ONLY	C1/01	TURF AROUND TIME
R.W. Monitoring	<input type="checkbox"/> 4401	24 hours <input type="checkbox"/>
Site Investigation	<input type="checkbox"/> 4441	48 hours <input type="checkbox"/>
Soil Classify/Disposal	<input type="checkbox"/> 4442	16 days <input checked="" type="checkbox"/> (Normal)
Water Classify/Disposal	<input type="checkbox"/> 4443	Other <input type="checkbox"/>
Soil/Air Rem. or Sys. O & M	<input type="checkbox"/> 4452	
Water Rem. or Sys. O & M	<input type="checkbox"/> 4453	
Other	<input type="checkbox"/>	

**TEST AGENCY:**

MATERIAL DESCRIPTION	SAMPLE CONDITION/ COMMENTS
9904172	
	HOLD
	HOLD

Requested By (Signature): *Troy Buggle*  
Requested By (Signature): *[Signature]*  
Requested By (Signature): *[Signature]*

Printed Name: **TROY BUGGLE**  
Printed Name:  
Printed Name:

Date: 4/1/99  
Time: 10:30  
Date:  
Time:  
Date:  
Time:

Received (Signature): *[Signature]*  
Received (Signature): *[Signature]*  
Received (Signature): *[Signature]*

Printed Name: **J. ANDREWS**  
Printed Name:  
Printed Name: **J. HORN**

Date: 4/1/99  
Time: 15:14  
Date:  
Time:  
Date:  
Time:

THE LABORATORY MUST PROVIDE A COPY OF THIS CHAIN OF CUSTODY WITH INVOICE AND RESULTS



**SHELL OIL COMPANY**  
RETAIL ENVIRONMENTAL ENGINEERING - WEST

**CHAIN OF CUSTODY RECORD**

Date: 3/31/99  
Page 6 of 6

Site Address: 2001 Fruitvale Ave, Oakland

WIC#: 704 5508 2105

Shell Engineer:

Phone No.:

Fax #:

Consultant Name & Address: CAMBRIA ENVIRONMENTAL  
1114 65th St. Suite C, Oakland, CA 94608

Consultant Contact:

Phone No.: 510

Hubvey Cool - 707-935-4859

120-0700  
Fax #: 420-9170

Comments:

Sampled by: TROY BUGGLE

Printed Name: Troy Buggle

**Analysis Required**

Oil + Grease EPA 418.1	TPH (EPA 8015 Mod. Diesel)	EPA 8270	EPA 8010	Test for Disposal	Combination TPH 8015 & STEC 8000 + MTBE	Cadmium, Chromium, Lead, Nickel + Zinc	Asbestos	Container Size	Preparation Used	Composite Y/N
---------------------------	----------------------------	----------	----------	-------------------	---	--	----------	----------------	------------------	---------------

LAB: Sequoia, Redwood City

CHECK ONE (1) BOX ONLY	CI/PI	TURN AROUND TIME
D.W. Monitoring <input type="checkbox"/>	4441	24 hours <input type="checkbox"/>
Site Investigation <input type="checkbox"/>	4441	48 hours <input type="checkbox"/>
Soil Classify/Disposal <input type="checkbox"/>	4442	15 days <input checked="" type="checkbox"/> (Normal)
Water Classify/Disposal <input type="checkbox"/>	4443	Other <input type="checkbox"/>
Soil/Air Rem. or Sys. O & M <input type="checkbox"/>	4452	
Water Rem. or Sys. O & M <input type="checkbox"/>	4453	
Other <input type="checkbox"/>		

NOTE: Holly Lab as soon as possible of 24/48 hrs. 1st.

**TEST AGENCY:**

MATERIAL DESCRIPTION	SAMPLE CONDITION/ COMMENTS
} Confirm ANY hits with	ANY MTBE
	EPA 8260
	990472

Sample ID	Date	Sludge	Soil	Water	Air	No. of conls.
14 SBA-W	3/31			X		6
15 SBB-W	3/31			X		6
16 SBC-W	3/31			X		6
	3/31					
	3/31					
	3/31					
	3/31					
	3/31					

Relinquished By (signature): <i>Troy Buggle</i>	Printed Name: TROY BUGGLE	Date: 4/1/99 Time: 10:30	Received (signature): <i>[Signature]</i>	Printed Name: E. Andrusos	Date: 4/1/99 Time: 12:46
Relinquished By (signature): <i>[Signature]</i>	Printed Name:	Date:	Received (signature):	Printed Name:	Date:
Relinquished By (signature):	Printed Name:	Date:	Received (signature): <i>[Signature]</i>	Printed Name: S. Horn	Date: 4/1/99 Time: 15:13

THE LABORATORY MUST PROVIDE A COPY OF THIS CHAIN OF CUSTODY WITH INVOICE AND RESULTS



**Sequoia  
Analytical**

680 Chesapeake Drive  
404 N. Wiger Lane  
819 Striker Avenue, Suite 8  
1455 McDowell Blvd. North, Ste. D  
1551 Industrial Road

Redwood City, CA 94063  
Walnut Creek, CA 94598  
Sacramento, CA 95834  
Petaluma, CA 94954  
San Carlos, CA 94070-4111

(650) 364-9600  
(925) 988-9600  
(916) 921-9600  
(707) 792-1865  
(650) 232-9600

FAX (650) 364-9233  
FAX (925) 988-9673  
FAX (916) 921-0100  
FAX (707) 792-0342  
FAX (650) 232-9612

Cambria  
1144 65th St. Suite C  
Oakland, CA 94608  
Attention: Aubrey Cool

Client Proj. ID: Shell 2001 Fruitvale Ave, Oakl  
Lab Proj. ID: 9904172

Received: 04/01/99  
Reported: 04/24/99

### LABORATORY NARRATIVE

In order to properly interpret this report, it must be reproduced in its entirety. This report contains a total of \_\_\_\_\_ pages including the laboratory narrative, sample results, quality control, and related documents as required (cover page, COC, raw data, etc.).

**TPGM2W Note:**

Samples 9904172-15,16 had high surrogate recovery, due to matrix effect.

**TPGM2S Note:**

All MTBE hits were confirmed on an opposite column.

**EPA Method 8260A Notes:**

The analysis for MTBE Confirmation was subcontracted to Sequoia Analytical-San Carlos.

**Geotechnical Analysis Note:**

Geotechnical Analysis was analyzed by Core Laboratories.

**418.1 Note:**

418.1 was analyzed at Sequoia Analytical -Petaluma.

**SEQUOIA ANALYTICAL**

  
Project Manager

