CAMBRIA
Environmental Technology, Inc.

July 23, 1996

R. Jeff Granberry
Shell Oil Company
P. O. Box 4023
Concord, CA 94524

Re: **Subsurface Investigation Report**
Former Shell Service Station
WIC# 204-5508-3103
1230 14th Street,
Oakland, California

Dear Mr. Granberry:

As requested by the Alameda County Department of Environmental Health (ACDEH), this report presents the results of a subsurface investigation completed between **March 6 and March 8, 1996** by Cambria Environmental Technology, Inc. (Cambria) at the site referenced above. The objective of this investigation was to determine the vertical and horizontal extents of hydrocarbons in soil and ground water. A site summary, our scope of work, investigation results, and our conclusions are presented below.

SITE SUMMARY

The site is a former gasoline service station in a residential/commercial zone. The station formerly contained four gasoline underground storage tanks (USTs), one waste oil tank, and two 3-pump dispensing islands. Shell does not currently own the property.

In August 1993, the current property owner removed three 7,500-gallon gasoline tanks, one 8,000-gallon gasoline tank, and one 550-gallon waste oil tank. Maximum concentrations of 18,000 parts per million (ppm) total petroleum hydrocarbons as gasoline (TPHg) and 11 ppm benzene were detected in the soil samples collected from the gasoline UST excavation. The soil sample collected from the waste oil tank pit at about 8 feet (ft) depth contained 1,200 ppm total extractable petroleum hydrocarbons as diesel (TEPH) and 7,700 ppm oil and grease.

In November 1995, Shell retained Cambria to collect confirmation samples from the gasoline tank excavation. A maximum of 5,600 ppm TPHg and 72 ppm benzene were detected in the soil samples collected from the excavation. 3,100 ppm TPHg and 30 ppm benzene were detected in soil samples collected during piping removal beneath the southern pump island at 3 ft depth. Since only 46 ppm TPHg and no

benzene were detected in an adjacent sample, the horizontal extent of hydrocarbons originating from the southern pump island appears limited.

INVESTIGATION SCOPE OF WORK

Our investigation objective was to define the vertical and horizontal extent of hydrocarbons in soil and ground water. To meet this objective, we drilled 11 soil borings and installed four monitoring wells, two combined vapor extraction/monitoring wells, and two combined vapor extraction/air sparging wells (Figure 1). We also collected grab water samples from borings that were not completed as wells.

We used a Gastech hydrocarbon detector and field observations to screen soil samples for the presence of hydrocarbons. We continued drilling until no field observations of hydrocarbons were detected to define the vertical extent of hydrocarbons. We collected soil samples at five ft intervals and at the ground water table in each soil boring until no hydrocarbons were observed by field indications.

The specific tasks completed for this investigation included:

1. Preparing a site safety plan and coordinating field activities;

2. Obtaining boring permits and notifying Underground Service Alert of our drilling activities to locate underground utilities outside the site boundaries before drilling;

3. Drilling eleven borings to define the horizontal and vertical extent of hydrocarbons near the former tanks and pump islands;

4. Collecting soil samples at five ft intervals, the ground water table, and at lithologic changes and analyzing selected samples for TPHg, benzene, toluene, ethylbenzene, and xylenes (BTEX) and methyl-tert-butyl-ether (MTBE). The samples collected from borings adjacent to the former waste oil tank were also analyzed for petroleum oil and grease (POG);

5. Grouting three borings, completing four borings as monitoring wells, completing two borings as vapor/air sparge wells, and completing two borings as vapor/monitoring wells as described in the well installation section below; and

6. Preparing this investigation report.

INVESTIGATION RESULTS

The results of Cambria's March 1996 subsurface investigation are summarized below. An Alameda County Zone 7 well installation permit is presented as Attachment A. Boring logs and well construction diagrams are presented as Attachment B. Analytic results for soil and ground water are presented in Tables 1 and 2, and the laboratory analytic reports are presented as Attachment C. Our standard field procedures are presented as Attachment D. A soil disposal confirmation form is presented as Attachment E. Well survey data is presented as Attachment F.

Soil Borings

Personnel Present: Project Geologist David Elias conducted all field work under the supervision of Registered Geologist N. Scott MacLeod.

Permits: Excavation Permit No. 96159 was issued by the Zone 7 Water Agency (Attachment A).

Drilling Company: Gregg Drilling of Pacheco, California.

Drilling Dates: March 6 through March 8, 1996.

Drilling Methods: 8" Hollow-Stem Auger.

Number of Borings: Eleven (Figure 1).

Ground Water Depth: Ground water is about 8 to 9 ft deep and flows northwestward.

Boring Depths: 16.5 to 22.5 ft below ground surface (Attachment B).

Sediment Lithology: The site is underlain by moderate estimated permeability silty sand and high permeability sand to the total depth explored of 22.5 ft.

Laboratory Analyses: Selected soil samples were analyzed for:

- TPHg by EPA method 5030/8015-M;
- BTEX by EPA method 8020; and
- POG by Standard method 5520 B&F.

Ground water samples were analyzed for:

- TPHg by EPA method 5030/8015-M;
- BTEX and MTBE by EPA method 8020; and
- POG by Standard method 5520 B&F.

Soil Disposal: Soil cuttings from drilling were stockpiled on site and profiled for disposal at Redwood landfill, Novato, CA. The soil was hauled to the landfill by Manley and Sons Trucking, of Sacramento, California on April 10, 1996. A soil disposal confirmation form is included as Attachment E. missing

Well Construction

As indicated above, we installed four ground water monitoring wells, two combined vapor extraction/monitoring wells, and two combined vapor extraction/air sparging wells (Figure 1). Soil vapor extraction (SVE)/air sparge wells VW/AS-1 and VW/AS-3 were installed adjacent to and down gradient of the former tank excavation for future soil vapor extraction and ground water air sparging remediation if needed. VW/MW-4 was installed adjacent to the former southern pump island, where high concentrations of hydrocarbons were detected during the November 1995 tank pit confirmation sampling.

Well Materials: Monitoring wells MW-1 through MW-4 and combined vapor extraction/monitoring wells VW/MW-2 and VW/MW-4 were constructed using two inch diameter, schedule 40 PVC pipe with a screen size of 0.020" and #3 sand. Combined vapor/air sparge wells VW/AS-1 and VW/AS-3 were of coaxial construction with a one-inch diameter schedule 40 PVC pipe inside a two-inch schedule 40 PVC pipe with 0.020" slot size and #3 sand (Attachment B).

top screen 6-15'
btm screen 18-20'

Screened Interval: The one-inch diameter air sparge points were screened from about 18 to 20 ft depth, with the coaxial two-inch diameter SVE well screened about 8 to 15 ft

depth. Monitoring wells are screened from about 7 to 22 ft depth. Vapor extraction/monitoring wells are screened from about 6 to 22 ft depth.

Well Development: Monitoring wells MW-1, MW-2, MW-3, and MW-4 and VW/MW-2 and VW/MW-4 were developed on March 21, 1996 by Blaine Tech Services of San Jose, California.

Well Sampling: The wells were sampled on March 25, 1996 by Blaine Tech Services.

Laboratory Analyses: The ground water samples were analyzed for:

- TPHg by EPA method 5030/8015-M; and
- BTEX and MTBE by EPA method 8020.

HYDROCARBON DISTRIBUTION IN SOIL

The highest TPHg concentration detected in soil was 5,600 ppm in an excavation boundary sample collected in November 1995 (Table 1 and Figure 2). Hydrocarbon concentrations decrease rapidly away from the excavation boundaries and the extent of hydrocarbons in soil is adequately defined as indicated on Figure 2.

HYDROCARBON DISTRIBUTION IN GROUND WATER

The highest hydrocarbon concentrations detected in ground water samples were 83,000 parts per billion (ppb) TPHg in VW/MW-4 and 7,400 ppb benzene in MW-1 (Figure 3). As indicated on Figure 3, the extent of hydrocarbons in ground water is limited and appears adequately defined.

CONCLUSIONS AND RECOMMENDATIONS

The vertical and horizontal extents of hydrocarbons in soil and ground water appear to be adequately defined. Therefore, we recommend monitoring the site for several quarters to assess hydrocarbon concentration and ground water elevation trends. Once the trends are established, we recommend assessing the steps necessary to bring this site to closure.

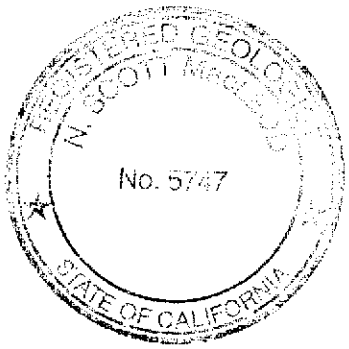
CLOSING

We appreciate this opportunity to provide environmental consulting services to Shell Oil Company. Please call if you have any questions or comments.

Sincerely,
Cambria Environmental Technology, Inc.

FOR

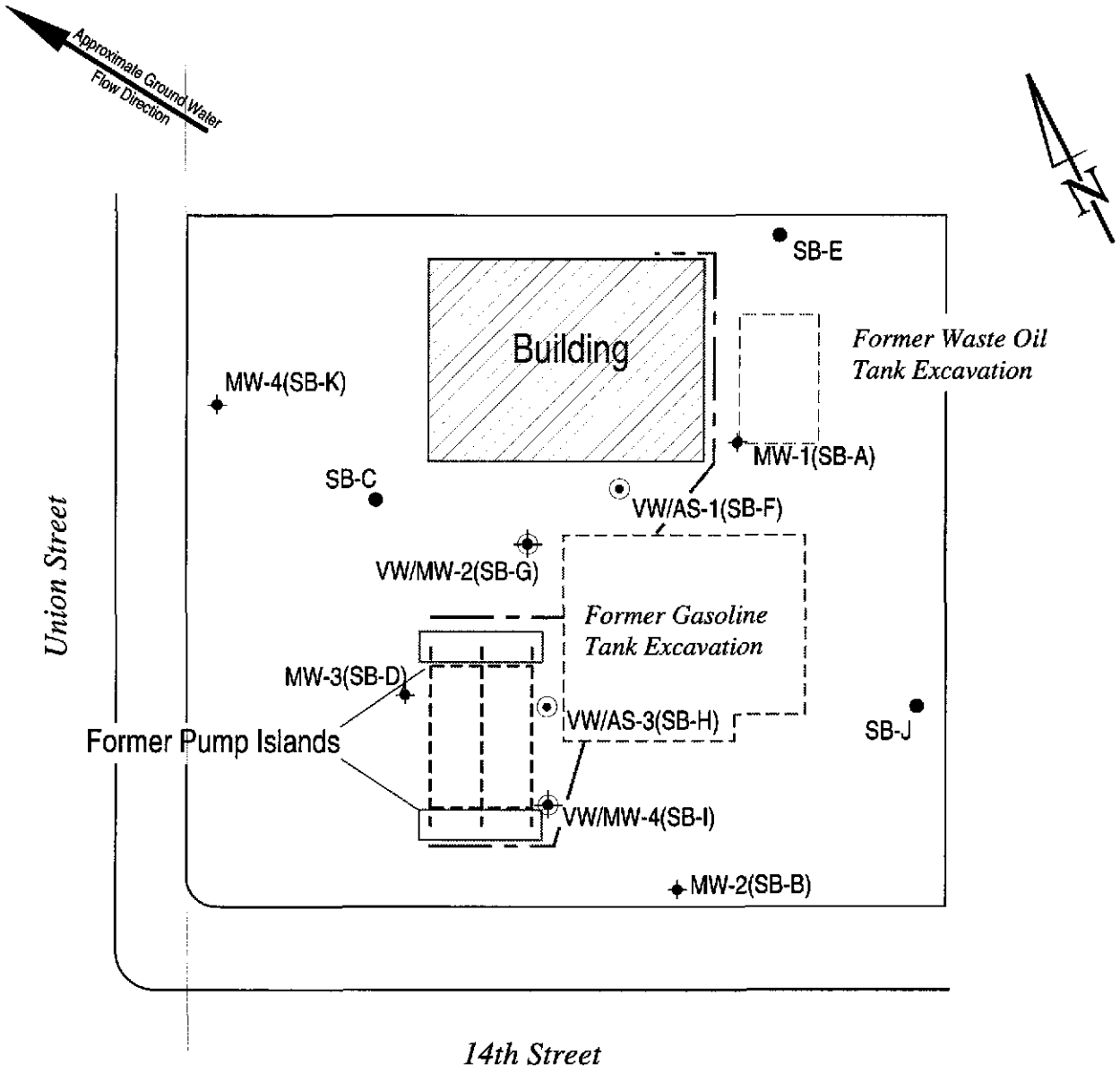
David Elias
Project Geologist



N. Scott MacLeod, R.G.
Principal Geologist

Attachments:
A - Well Installation Permits
B - Boring Logs/Well Construction Detail
C - Analytic Results for Soil and Ground Water
D - Standard Field Procedures
E - Soil Disposal Confirmation Form
F - Well Survey Data

D:\PROJECT\SHELL\OAKL3103\REPORT2.WPD



LEGEND

- Former Vent Piping
- Former Product Piping
- Ground Water Monitoring Well
- Combination Air Sparge/Soil Vapor Extraction Wells
- Soil Boring
- Combination Soil Vapor Extraction Well/Monitoring Well

0 20
Scale (ft)

Base Map by Tank Protect Engineering

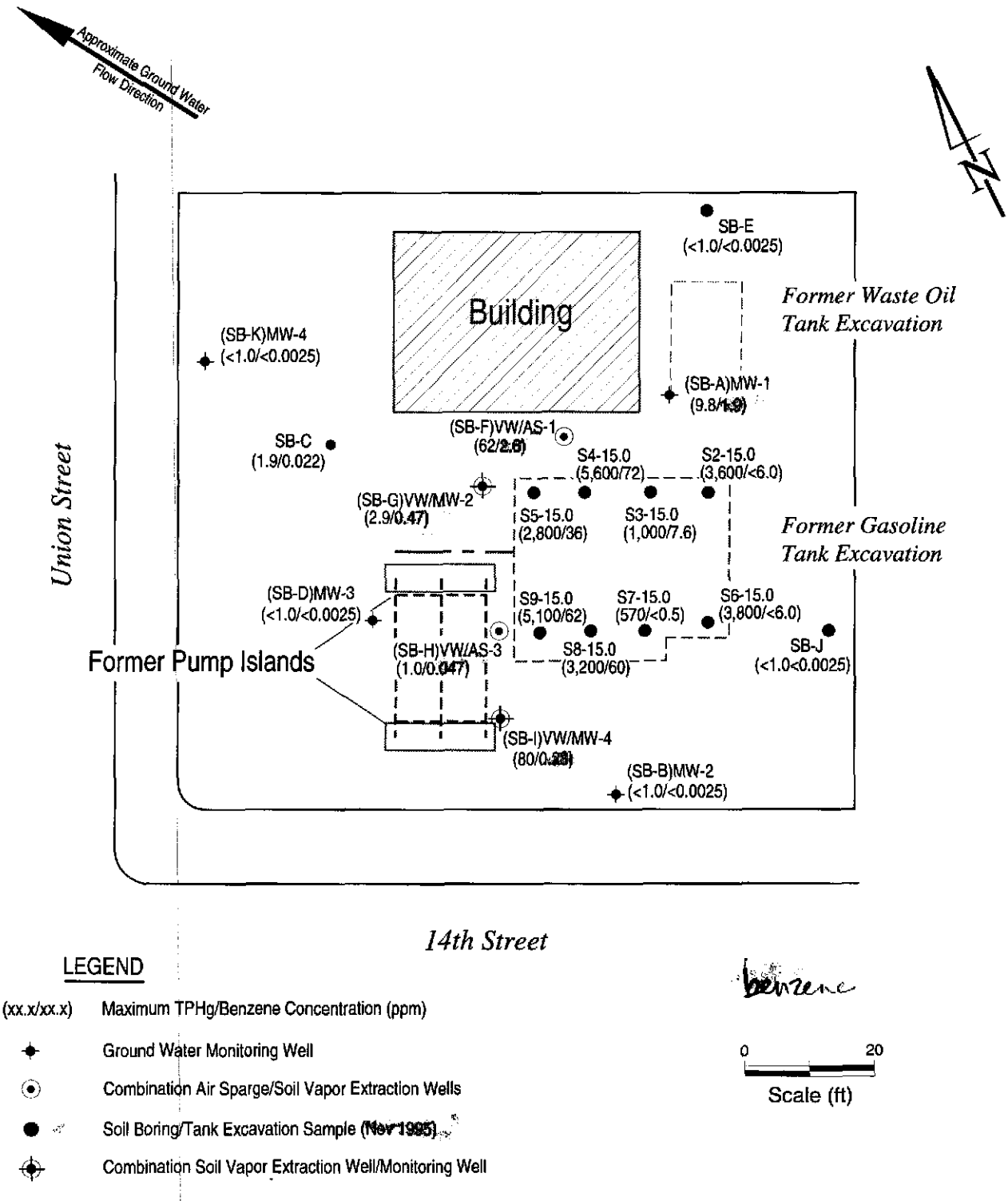
CAMBRIA
Environmental Technology, Inc.

Former Shell Service Station
WIC # 204-5508-3103
1230 14th Street
Oakland, California

D:/PROJECT/SHELL/OAKL3103/WELLLOC.DWG

Soil Boring
and Well Locations

FIGURE
1



Base Map by Tank Protect Engineering

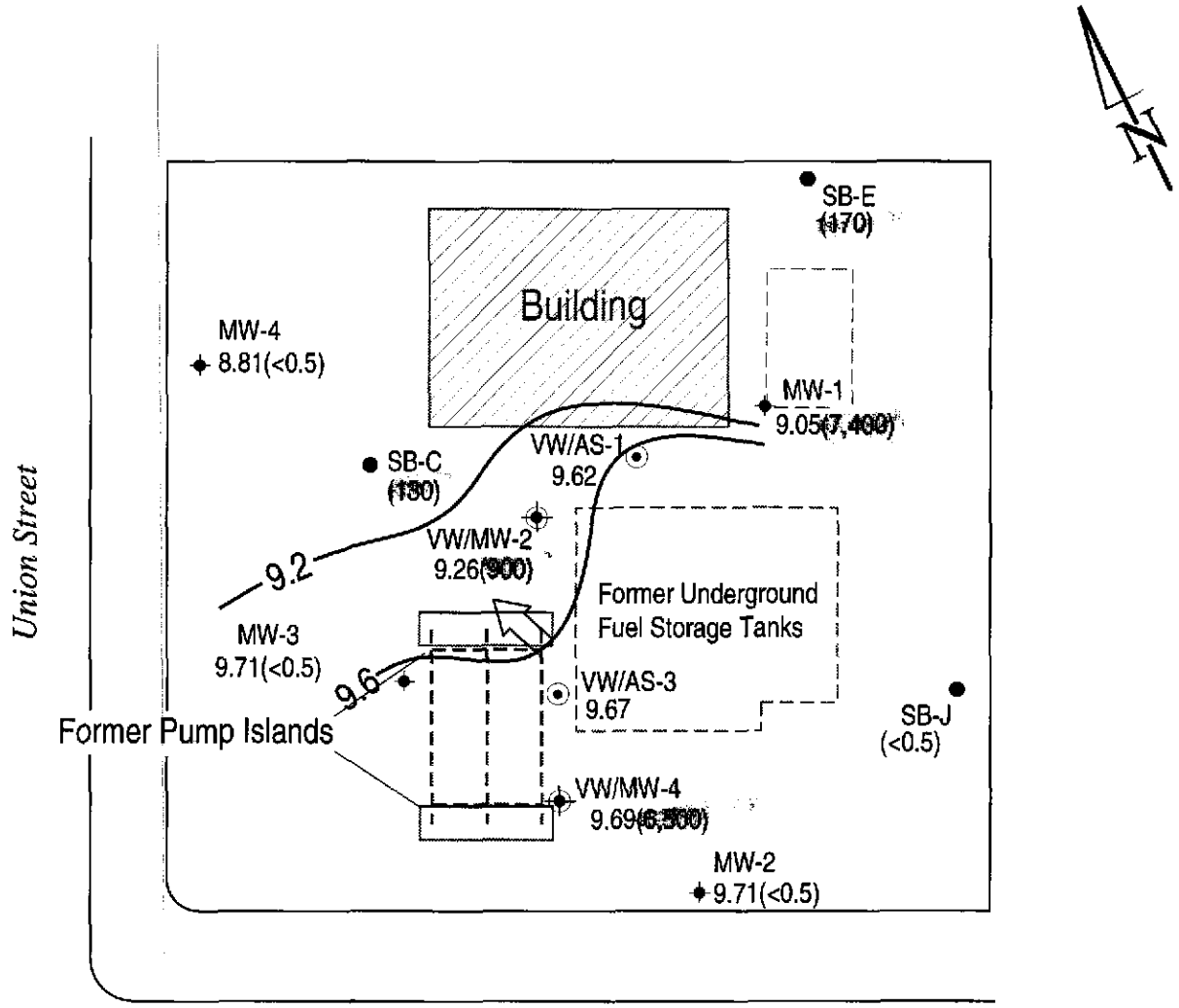
CAMBRIA
Environmental Technology, Inc.

Former Shell Service Station
WIC # 204-5508-3103
1230 14th Street
Oakland, California

D:/PROJECT/SHELL/OAKL3103/TPPHBENZ.DWG

Maximum TPHg and Benzene Concentrations in soil

FIGURE
2



LEGEND

xx.xx	Ground Water Elevation in ft. referenced to mean sea level
(xx.xx)	Benzene Concentration in parts per billion.
	Ground Water Contour
	Ground Water Flow Direction
	Ground Water Monitoring Well
	Combination Air Sparge/Soil Vapor Extraction Wells
	Soil Boring
	Combination Soil Vapor Extraction Well/Monitoring Well

0 20

Scale (ft)

NOTE: Grab ground water samples from soil borings SB-C, SB-E, and SB-J were collected on March 7 and 8, 1996.

Base Map by Tank Protect Engineering

CAMBRIA
Environmental Technology, Inc.

Former Shell Service Station
WIC # 204-5508-3103
1230 14th Street
Oakland, California

D:/PROJECT/SHELL/OAKL3103/OK3103QM.DWG

Ground Water Elevation/
Benzene Concentrations
in Ground Water

March 25, 1996

FIGURE
3

Table 1. Soil Analytic Data - Shell Oil Company, WIC #204-5508-3103, 1230 14th Street, Oakland, California

non-polar

Soil Boring	Date	TPHg	Benzene	Toluene	Ethylbenzene	Xylenes	Petroleum Oil and Grease
		<----------ppm---------->					
Soil Samples							
SB-A/(MW-1)-10.5	03/06/96	<1.0	<0.0025	<0.0025	<0.0025	<0.0025	160
SB-A/(MW-1)-16.0	03/06/96	9.8	1.9	0.4	0.22	1.1	57
SB-A/(MW-1)-20.5	03/06/96	5.9	0.89	0.049	0.19	0.25	80
SB-B/(MW-2)-10.5	03/06/96	<1.0	<0.0025	<0.0025	<0.0025	<0.0025	--
SB-B/(MW-2)-16.0	03/06/96	<1.0	<0.0025	<0.0025	<0.0025	<0.0025	--
SB-C-11.75	03/06/96	<1.0	<0.0025	<0.0025	<0.0025	<0.0025	--
SB-C-15.5	03/06/96	1.9	0.022	0.12	0.086	0.32	--
SB-D/(MW-3)-10.5	03/06/96	<1.0	<0.0025	<0.0025	<0.0025	<0.0025	--
SB-D/(MW-3)-15.5	03/06/96	<1.0	<0.0025	<0.0025	<0.0025	<0.0025	--
SB-E-10.5	03/06/96	<1.0	<0.0025	<0.0025	<0.0025	<0.0025	<50
SB-E-16.0	03/06/96	<1.0	<0.0025	<0.0025	<0.0025	<0.0025	200
SB-F(VW/AS)-1-5.5	03/07/96	<1.0	<0.0025	<0.0025	<0.0025	<0.0025	--
SB-F(VW/AS-1)-10.5	03/07/96	62	0.97	4.2	1.4	8.0	--
SB-F(VW/AS-1)-15.5	03/07/96	7.4	1.7	0.44	0.2	0.6	--
SB-F(VW/AS-1)-20.5	03/07/96	20	2.6	1.7	0.5	2.0	--

max

Table 1. Soil Analytic Data - Shell Oil Company, WIC #204-5508-3103, 1230 14th Street, Oakland, California

Soil Boring	Date	TPHg	Benzene	Toluene	Ethylbenzene	Xylenes	Petroleum Oil and Grease
		<----------ppm---------->					
SB-G(VW/MW-2)-8.5	03/07/96	<1.0	<0.0025	<0.0025	<0.0025	<0.0025	--
SB-G(VW/MW-2)-10.5	03/07/96	<1.0	0.0032	<0.0025	<0.0025	<0.0025	--
SB-G(VW/MW-2)-20.5	03/07/96	2.9	0.47	0.34	0.15	0.57	--
SB-H(VW/AS-3)-8.5	03/07/96	<1.0	<0.0025	<0.0025	<0.0025	<0.0025	--
SB-H(VW/AS-3)-10.5	03/07/96	<1.0	0.018	<0.0025	<0.0025	0.014	--
SB-H(VW/AS-3)-21.0	03/07/96	1.0	0.047	0.016	0.0037	0.017	--
SB-I(VW/MW-4)-5.5	03/08/96	<1.0	<0.0025	<0.0025	<0.0025	<0.0025	--
SB-I(VW/MW-4)-8.5	03/08/96	80	0.14	0.33	1.3	5.2	--
SB-I(VW/MW-4)-15.5	03/08/96	3.4	0.23	0.093	0.1	0.42	--
SB-J-10.5	03/08/96	<1.0	<0.0025	<0.0025	<0.0025	<0.0025	--
SB-K(MW-4)-10.5	03/08/96	<1.0	<0.0025	<0.0025	<0.0025	<0.0025	--

Notes:

TPHg = Total purgeable petroleum hydrocarbons as gasoline by EPA method Modified 8015.

Benzene, toluene, ethylbenzene, xylenes (BTEX) by EPA method 8020.

Petroleum oil and grease (POG) by Standard Method 5520.

-- = Not sampled

ppm=parts per million

<x=not detected above x ppm

Table 2. Ground Water Elevation and Analytic Data - Shell Service Station WIC # 204-5508-3103 - 1230 14th Street, Oakland, California

Well ID (Casing Elev.)	Date	GW Depth (ft)	GW Elev. (ft)	GW Flow Direction	TPHg	MTBE	Benzene	Toluene	Ethylbenzene	Xylenes	POG	Notes
					(Concentrations in parts per billion)							
Well Samples												
MW-1 *(TOC=18.58)*	03/25/96	9.53	9.05	N	37,000	<500	7,400	1,500	720	3,300	<5,000	
MW-2 *(TOC=17.90)*	03/25/96	8.19	9.71	N	<50	<2.5	<0.50	<0.50	<0.50	<0.50	---	
MW-3 *(TOC= 18.18)*	03/25/96	8.47	9.71	N	<50	<2.5	<0.50	<0.50	<0.50	<0.50	---	
MW-4 *(TOC= 18.01)*	03/25/96	9.20	8.81	N	<50	<2.5	<0.50	<0.50	<0.50	<0.50	---	
VW/MW-2 *(TOC= 18.30)*	03/25/96	9.04	9.26	N	13,000	<250	900	920	180	1,500	---	
VW/MW-4	03/25/96	8.45	9.69	N	83,000	<250	6,500	7,000	2,000	11,000	---	
(TOC= 18.14)	03/25/96	8.45	9.69	N	84,000	<250	6,400	7,000	2,100	12,000	---	a
VW/AS-1 *(TOC= 18.60)*	03/25/96	8.98	9.62	N	---	---	---	---	---	---	---	
VW/AS-3 *(TOC= 18.17)*	03/25/96	8.50	9.67	N	---	---	---	---	---	---	---	

Table 2. Ground Water Elevation and Analytic Data - Shell Service Station WIC # 204-5508-3103 - 1230 14th Street, Oakland, California

Well ID (Casing Elev.)	Date	GW Depth (ft)	GW Elev. (ft)	GW Flow Direction	TPHg	MTBE	Benzene	Toluene	Ethylbenzene	Xylenes	POG	Notes
						N/A	(Concentrations in parts per billion)					
Boring Samples												
SB-C	03/07/96	---	---	---	22,000	130	790	820	4,300	---	---	
SB-E	03/07/96	---	---	---	960	170	0.9	0.8	3.1	---	ND	
SB-J	03/07/96	---	---	---	<50	<0.5	<0.5	<0.5	<0.5	---	---	

Abbreviations:

GW = Ground water
TPHg = Total petroleum hydrocarbons as gasoline by EPA Method 8015
TOC = Top of casing elevation
ft = Feet
MTBE = Methyl tert-Butyl Ether by modified EPA method 8020
POG = Petroleum Oil and Grease by standard method SM 5520 B&F

Notes:

a = Duplicate sample

CAMBRIA

Attachment A

Well Installation Permits

ZONE 7 WATER AGENCY

5997 PARKSIDE DRIVE PLEASANTON, CALIFORNIA 94588 VOICE (510) 484-2600
FAX (510) 462-3914

DRILLING PERMIT APPLICATION

FOR APPLICANT TO COMPLETE

LOCATION OF PROJECT 1230 14th ST.
OAKLAND, CA

CLIENT
Name SHELL OIL COMPANY, JEFF GRANBERRY
Address P.O. Box 4023 Voice 675-6168
City CONCORD Zip 94524

APPLICANT
Name CAMBRIA ENV. TECH. INC.
DAVID ELIAS Fax 420-9170
Address 1144 65th ST. Voice 420-9176
City OAKLAND, CA Zip 94608

TYPE OF PROJECT
Well Construction
Cathodic Protection ___
Water Supply ___
Monitoring X
Geotechnical Investigation
General ___
Contamination X
Well Destruction ___

PROPOSED WATER SUPPLY WELL USE
Domestic ___ Industrial ___ Other ___
Municipal ___ Irrigation ___

DRILLING METHOD:
Mud Rotary ___ Air Rotary ___ Auger X
Cable ___ Other ___

DRILLER'S LICENSE NO. C57 485 165

WELL PROJECTS
Drill Hole Diameter 8 in. Maximum
Casing Diameter 2 in. Depth 25 ft.
Surface Seal Depth 10 ft. Number 8

GEOTECHNICAL PROJECTS
Number of Borings 3
Hole Diameter 8 in. Maximum
Depth 20 ft.

ESTIMATED STARTING DATE 3/6/96
ESTIMATED COMPLETION DATE 3/8/96

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

APPLICANT'S SIGNATURE David Elias Date 3/4/96

FOR OFFICE USE

PERMIT NUMBER 96159
LOCATION NUMBER

PERMIT CONDITIONS

Circled Permit Requirements Apply

(A.) GENERAL
1. A permit application should be submitted so as to arrive at the Zone 7 office five days prior to proposed starting date.
2. Submit to Zone 7 within 60 days after completion of permitted work the original Department of Water Resources Water Well Drillers Report 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 WELLS, INCLUDING PIEZOMETERS
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. Minimum seal depth for monitoring wells is the maximum depth practicable or 20 feet.

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

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

E. WELL DESTRUCTION. See attached.

Approved Wyman Hong Date 5 Mar 96
Wyman Hong

91992

CAMBRIA

Attachment B

Boring Logs/Well Construction Detail

DRILLING LOG

Client: Shell-WIC#204-5508-3103

Project No: 24-233 Phase Task02

Well ID MW-1 Boring ID SB-A

Location 14th Street, Oakland

Surface Elev. N/A ft,

Depth (feet)	Blow Count	Sample Interval	Lithologic Description
0	Ground Surface		
			Silty GRAVEL(GM); brown/grey; damp; 2% clay, 20% silt, 20% very fine to medium grained sand, 58% pebble gravel; no plasticity; moderate estimated permeability.
			Silty SAND(SM); dark brown; damp; 30% silt, 70% very fine to medium grained sand; no plasticity; moderate estimated permeability.
5	3 7 9		Light brown; loose; 45% silt, 55% very fine to medium grained sand.
10	10 12 21		Medium dense; **moist.**
15	4 5 5		Brown/mottled grey; loose; **wet;** 1% clay, 20% silt, 79% fine to medium grained sand.
20	37 50		**Sand**(SP); grey; wet; 5% silt, 95% fine to medium grained sand; no plasticity; high estimated permeability.
25			
30			

TPHg (ppm)	Graphic Log	Well Construction Graphics	Depth (feet)	Well Construction Details
			0	T.O.C. Elev.
ND			5	
10			10	
			15	
6			20	Bottom of Well
			25	
			30	

Driller Gregg Drilling

Logged By DCE

Drilling Started 3/6/96

Drilling Completed 3/6/96

Construction Completed 3/6/96

Development Completed 3/21/96

Water Bearing Zones N/A

Development Yield N/A

Well Casing 2" Dia. 0' to 7'

Casing Type Schedule 40 PVC

Well Screen 2" Dia. 7' to 22'

Screen Type Schedule 40 PVC

Slot Size 0.020"

Drilling Mud N/A

Grout Type Portland I/II

Bentonite Seal 5' to 6'

Sand Pack Monterey Sand

Sand Pack Type #3 Sand

Static Water Level 9.53 ft Depth

Date 3/26/96

Notes: Well located at corner of former waste oil tank.

DRILLING LOG

Client: Shell-WIC#204-5508-3103

Project No: 24-233 Phase Task02

Well ID MW-2 Boring ID SB-B

Location 14th Street, Oakland

Surface Elev. N/A ft.

Depth (feet)	Blow Count	Sample	Interval	Lithologic Description
0	Ground Surface			
				Asphalt
				Silty SAND(SM); brown; damp; 35% silt, 65% fine to medium grained sand; no plasticity; moderate estimated permeability.
5	6 8 11			Mottled orange/grey; medium dense; damp; 1% clay, 34% silt, 65% fine to medium grained sand.
10	8 14 16			Moist.
15				Dense, **wet.**
				Sand(SP); brown; very dense; wet; 5% silt, 95% fine to medium grained sand; no plasticity; high estimated permeability.
20	28 50			
25				

TPHg (ppm)	Graphic Log	Well Construction Graphics	Depth (feet)	Well Construction Details
				T.O.C. Elev.
			0	
			5	
ND			10	
ND			15	
			20	
				Bottom of Well
			25	

Driller **Gregg Drilling**

Logged By **DCE**

Drilling Started **3/6/96**

Drilling Completed **3/6/96**

Construction Completed **3/6/96**

Development Completed **3/21/96**

Water Bearing Zones **N/A**

Development Yield **N/A**

Well Casing **2"** Dia. **0'** to **7.5'**

Casing Type **Schedule 40 PVC**

Well Screen **2"** Dia. **7.5'** to **22.5'**

Screen Type **Schedule 40 PVC**

Slot Size **0.020"**

Drilling Mud **N/A**

Grout Type **Portland I/II**

Bentonite Seal **5' to 6'**

Sand Pack **Monterey Sand**

Sand Pack Type **#3 Sand**

Static Water Level **8.19** ft Depth

Date **3/26/96**

Notes: **Well located on southern edge of property.**

Cambria Environmental Technology, Inc.

BORING LOG

Client: **Shell-WIC#204-5508-3103**

Project No: **24-233** Phase Task **02**

Boring ID **SB-C**

Location **14th Street, Oakland**

Surface Elev. **N/A ft,**

Depth Feet	Blow Count	Sample Interval	Lithologic Description
0	Ground Surface		
			Asphalt
			Silty SAND(SM); dark brown; damp; 25% silt, 75% fine to medium grained sand; no plasticity; moderate estimated permeability. Occasional gravel to 1/4".
			No gravel.
5	2 3 4		Light brown; loose.
10	10 17 16		Medium dense.
			Sandy SILT(ML); brown; loose; damp; 5% clay, 50% silt, 45% very fine to medium grained sand; low plasticity; low permeability.
15	4 4 5		
			Sand(SP); brown; dense; wet; 10% silt, 90% fine to medium grained sand; no plasticity; high estimated permeability.
20	15 27 28		
25			

TPHg (ppm)	Graphic Log	Boring Completion Graphics	Depth Feet	Additional Comments
			0	
ND			5	
			10	
2.00			15	
			20	Bottom of Boring
			25	

Driller **Gregg Drilling**

Logged By **DCE**

Water-Bearing Zones **N/A**

Drilling Started **3/6/96**

Drilling Completed **3/6/96**

Grout Type **Portland I/II**

Notes: **Boring located near the west corner of the station building.**

Cambria Environmental Technology, Inc.

DRILLING LOG

Client: Shell-WIC#204-5508-3103

Project No: 24-233 Phase Task02

Well ID MW-3 Boring ID SB-D

Location 14th Street, Oakland

Surface Elev. N/A ft,

Depth (feet)	Blow Count	Sample	Interval	Lithologic Description
0	Ground Surface			
				Asphalt
				Silty SAND(SM); dark brown; damp; 35% silt, 65% very fine to medium grained sand; no plasticity; moderate estimated permeability.
5				
	8 9 12			Brown/mottled orange and grey; medium dense; 3% clay, 35% silt, 62% very fine to medium grained sand; low plasticity; moderate to low permeability.
10				
				Brown; moist.
15				
	5 7 9			Moist to wet; 1% clay, 35% silt, 64% very fine to medium grained sand; no plasticity; moderate permeability.
20				
	8 10 23			
25				

TPHg (ppm)	Graphic Log	Well Construction Graphics	Depth (feet)	Well Construction Details
				T.O.C. Elev.
			0	
			5	
ND			10	
ND			15	
			20	
				Bottom of Well
			25	

Driller Gregg Drilling

Logged By DCE

Drilling Started 3/6/96

Drilling Completed 3/6/96

Construction Completed 3/6/96

Development Completed 3/21/96

Water Bearing Zones N/A

Development Yield N/A

Well Casing 2" Dia. 0' to 7'

Casing Type Schedule 40 PVC

Well Screen 2" Dia. 7' to 21.5'

Screen Type Schedule 40 PVC

Slot Size 0.020"

Drilling Mud N/A

Grout Type Portland I/II

Bentonite Seal 5' to 6'

Sand Pack Monterey Sand

Sand Pack Type #3 Sand

Static Water Level 8.47 ft Depth

Date 3/26/96

Notes: Boring located west of the former pump islands.

BORING LOG

Client: **Shell-WIC#204-5508-3103**

Project No: **24-233** Phase Task **02**

Boring ID **SB-E**

Location **14th Street, Oakland**

Surface Elev. **N/A ft,**

Page **1** of **1**

Depth Feet	Blow Count	Sample	Interval	Lithologic Description	TPHg (ppm)	Graphic Log	Boring Completion Graphics	Depth Feet	Additional Comments
0	Ground Surface							0	
5				**Silty SAND**(SM); dark brown; damp; 4% clay; 40% silt; 56% fine to medium grained sand; low plasticity; low to moderate estimated permeability.				5	
	4 8 9			Red brown/mottled grey; medium dense; damp; 3% clay, 37% silt, 60% fine to medium grained sand; no to low plasticity; moderate estimated permeability.					
10								10	
	11 14 21			Brown; 35% silt, 65% fine to medium grained sand; no plasticity.	ND				
15								15	
	4 4 6			Loose; 1% clay, 34% silt, 65% fine to medium grained sand; moderate to low estimated permeability.	ND				
20								20	
	11 19 22			Medium dense; wet; 35% silt, 65% fine to medium grained sand; moderate estimated permeability.					
									Bottom of Boring
25								25	

Driller **Gregg Drilling**

Logged By **DCE**

Water-Bearing Zones **N/A**

Drilling Started **3/6/96**

Drilling Completed **3/6/96**

Grout Type **Portland I/II**

Notes: **Boring located on the northeastern corner of the property.**

BOR 83103 4/5/96

Cambria Environmental Technology, Inc.

DRILLING LOG

Client: **Shell-WIC#204-5508-3103**

Project No: **24-233** Phase Task02

Well ID **VW/AS-1** Boring ID **SB-F**

Location **14th Street, Oakland**

Surface Elev. **N/A ft,** Page **1** of **1**

Depth (feet)	Blow Count	Sample	Interval	Lithologic Description	TPHg (ppm)	Graphic Log	Well Construction Graphics	Depth (feet)	Well Construction Details
0	Ground Surface							0	T.O.C. Elev.
				Asphalt					
				Silty SAND(SM); dark brown; damp; 30% silt, 70% very fine to medium grained sand; no plasticity; moderate estimated permeability.					
5								5	
	6 20 30			Red brown/mottled grey; medium dense; 1% clay, 44% silt, 55% very fine to coarse grained sand.	ND				
	8 20 24								
10								10	
	20 35 40			Red brown; very dense; damp.	62.0				
15								15	
	8 10 12			Grey/mottled red-brown; medium dense; moist; 3% clay, 42% silt, 55% very fine to coarse grained sand; low plasticity; moderate to low plasticity.	7.0				
20								20	Bottom of Well
	25 50			Grey; very dense; wet; 45% silt, 55% very fine to coarse grained sand; no plasticity.	20.0				
25								25	

Driller **Gregg Drilling**

Logged By **DCE**

Drilling Started **3/7/96**

Drilling Completed **3/7/96**

Construction Completed **3/7/96**

Development Completed **3/21/96**

Water Bearing Zones **N/A**

Development Yield **N/A**

Well Casing **1",2"** Dia. **0',0'** to **6',17.5'**

Casing Type **Schedule 40 PVC**

Well Screen **1",2"** Dia. **6',17.5** to **15,19.5**

Screen Type **Schedule 40 PVC**

Slot Size **0.020"**

Drilling Mud **N/A**

Grout Type **Portland I/II**

Bentonite Seal **4' to 5'/15' to 17'**

Sand Pack **Monterey Sand**

Sand Pack Type **#3 Sand**

Static Water Level **8.98** ft Depth

Date **3/20/96**

Notes: **Boring located between station building and former USTs.**

WELL 83103 5/21/96

Cambria Environmental Technology, Inc.

DRILLING LOG

Client: Shell-WIC#204-5508-3103

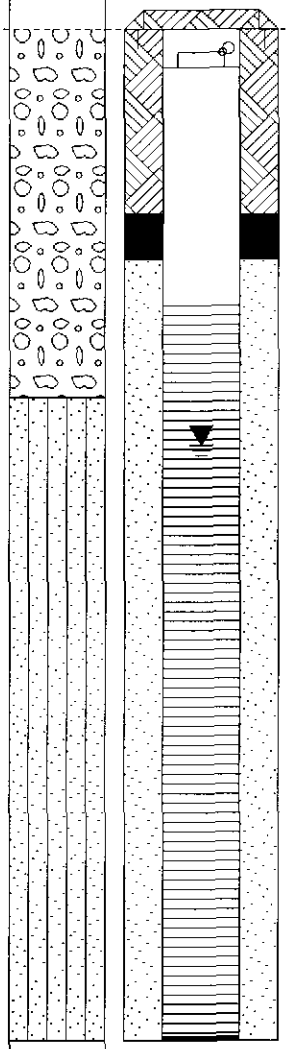
Project No: 24-233 Phase Task02

Well ID VW/MW-2 Boring ID SB-G

Location 14th Street, Oakland

Surface Elev. N/A ft, Page 1 of 1

Depth (feet)	Blow Count	Sample	Interval	Lithologic Description	TPHg (ppm)
0	Ground Surface				
				Silty Sandy GRAVEL(GW); brown; damp; 2% clay, 20% silt, 30% fine to medium grained sand; 48% pebble gravel; no plasticity; moderate to high estimated permeability.	
5	4 5 6			Loose; sampler blocked by rock in fill.	
	4 8 13			**Silty SAND**(SM); brown; medium dense; damp to moist; 25% silt, 75% fine to medium grained sand; moderate estimated permeability.	ND
10	20 25 29			Grey.	ND
15	8 10 12			Wet.	
20	15 50 50			Brown; very dense; wet; 15% silt, 85% very fine to medium grained sand; moderate to high estimated permeability.	3.0
25					



Depth (feet)	Well Construction Details
0	T.O.C. Elev.
5	
10	
15	
20	
25	Bottom of Well

Driller Gregg Drilling

Logged By DCE

Drilling Started 3/7/96

Drilling Completed 3/7/96

Construction Completed 3/7/96

Development Completed 3/21/96

Water Bearing Zones N/A

Development Yield N/A

Well Casing 2" Dia. 0' to 6'

Casing Type Schedule 40 PVC

Well Screen 2" Dia. 6' to 22'

Screen Type Schedule 40 PVC

Slot Size 0.020"

Drilling Mud N/A

Grout Type Portland I/II

Bentonite Seal 4' to 5'

Sand Pack Monterey Sand

Sand Pack Type #3 Sand

Static Water Level 9.04 ft Depth

Date 3/26/96

Notes: Well located at the center of the property.

WELL 83103 5/21/96

Cambria Environmental Technology, Inc.

DRILLING LOG

Client: Shell-WIC#204-5508-3103

Project No: 24-233 Phase Task02

Well ID VW/AS-3 Boring ID SB-H

Location 14th Street, Oakland

Surface Elev. N/A ft, Page 1 of 1

Depth (feet)	Blow Count	Sample	Interval	Lithologic Description
0	Ground Surface			
				Silty Sandy GRAVEL(GW); brown; damp; 2% clay, 20% silt, 30% fine to medium grained sand; 48% pebble gravel; no plasticity; moderate to high estimated permeability.
5	14 18 12	X		Dense; no recovery.
	8 8 8	X		**Silty SAND**(SM); grey green; medium dense; damp to moist; 20% silt, 80% fine to medium grained sand; moderate estimated permeability.
10	4 8 12	X		25% silt, 75% fine to medium grained sand.
15	6 8 18	X		Wet; 1% clay, 25% silt, 74% fine to medium grained sand.
20	25 50	X		Very dense; 15% silt, 85% very fine to medium grained sand.
25				

TPHg (ppm)	Graphic Log	Well Construction Graphics	Depth (feet)	Well Construction Details
			0	T.O.C. Elev.
			5	
ND			10	
ND			15	
			20	Bottom of Well
1.0			25	

Driller Gregg Drilling

Logged By DCE

Drilling Started 3/7/96

Drilling Completed 3/7/96

Construction Completed 3/7/96

Development Completed 3/21/96

Water Bearing Zones N/A

Development Yield N/A

Well Casing 1",2" Dia. 0',0' to 6',18'

Casing Type Schedule 40 PVC

Well Screen 1",2" Dia. 6',18' to 15',20'

Screen Type Schedule 40 PVC

Slot Size 0.020"

Drilling Mud N/A

Grout Type Portland I/II

Bentonite Seal 4' to 5'/15' to 17'

Sand Pack Monterey Sand

Sand Pack Type #3 Sand

Static Water Level 8.50 ft Depth

Date 3/26/96

Notes: Well located between the two former pump islands.

WELL 83103 5/21/96

Cambria Environmental Technology, Inc.

DRILLING LOG

Client: **Shell-WIC#204-5508-3103**

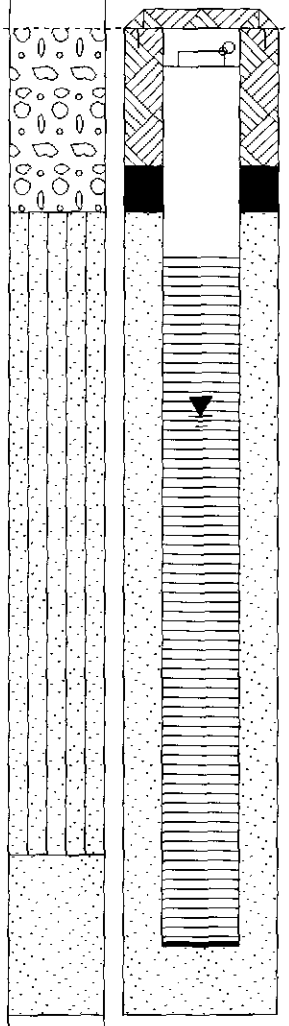
Project No: **24-233** Phase Task **02**

Well ID **VW/MW-4** Boring ID **SB-I**

Location **14th Street, Oakland**

Surface Elev. **N/A ft,** Page **1** of **1**

Depth (feet)	Blow Count	Sample	Interval	Lithologic Description	TPHg (ppm)
0	Ground Surface				
				Silty Sandy GRAVEL(GW); brown; damp; 2% clay, 20% silt, 30% fine to coarse grained sand; 48% pebble gravel; no plasticity; moderate to high estimated permeability.	
5	10 15 20	X		**Silty SAND**(SM); brown/mottled grey; medium dense; damp; 3% clay, 25% silt, 72% fine to medium grained sand; low plasticity; low to moderate permeability.	ND
	20 27 40	X		Grey; dense; 1% clay, 25% silt, 74% fine to medium grained sand; no plasticity; moderate permeability.	80.0
10	20 50	X		Very dense.	
15	8 10 15	X		Medium dense; 1% clay; 30% silt; 69% fine to medium grained sand.	3.0
				Sand(SP); brown; very dense; damp; 5% silt, 95% medium to coarse grained sand; no plasticity; high estimated permeability.	
20	30 50	X			
25					



Depth (feet)	Well Construction Details
0	T.O.C. Elev.
20	Bottom of Well

Driller	**Gregg Drilling**	Development Yield	**N/A**	Bentonite Seal	**3' to 4'**
Logged By	**DCE**	Well Casing	**2"** Dia. **0'** to **5'**	Sand Pack	**Monterey Sand**
Drilling Started	**3/8/96**	Casing Type	**Schedule 40 PVC**	Sand Pack Type	**#3 Sand**
Drilling Completed	**3/8/96**	Well Screen	**2"** Dia. **5'** to **20'**	Static Water Level	**8.45** ft Depth
Construction Completed	**3/8/96**	Screen Type	**Schedule 40 PVC**	Date	**3/26/96**
Development Completed	**3/21/96**	Slot Size	**0.020"**	Notes:	**Boring located at the corner of former southern pump island.**
Water Bearing Zones	**N/A**	Drilling Mud	**N/A**		
		Grout Type	**Portland I/II**		

WELL 83103 5/21/96

Cambria Environmental Technology, Inc.

BORING LOG

Client: **Shell-WIC#204-5508-3103**

Project No: **24-233** Phase Task **02**

Boring ID **SB-J**

Location **14th Street, Oakland**

Surface Elev. **N/A ft.**

Depth Feet	Blow Count	Sample	Interval	Lithologic Description	TPHg (ppm)	Graphic Log	Boring Completion Graphics	Depth Feet	Additional Comments
0	Ground Surface							0	
				Asphalt					
				Silty SAND(SM); dark brown; damp; 30% silt, 70% very fine to fine grained sand; no plasticity; moderate estimated permeability.					
5	10 10 13			**Clayey to Silty SAND**(SM); red brown/mottled grey; medium dense; damp; 12% clay, 20% silt, 68% very fine to fine grained sand; low plasticity; low estimated permeability.				5	
10	20 20 25			**Silty SAND**(SM); Red/brown/mottled tan; dense; damp; 1% clay, 20% silt, 79% fine to medium grained sand; no plasticity; moderate permeability.	ND			10	
15	10 20 70			Brown; wet; 20% silt, 80% fine to medium grained sand.				15	Bottom of Boring
20								20	

Driller **Gregg Drilling**	Drilling Started **3/8/96**	Notes: **Boring located on southeastern edge of the property.**
Logged By **DCE**	Drilling Completed **3/8/96**	
Water-Bearing Zones **N/A**	Grout Type **Portland I/II**	

BOR 83103 4/5/96

Cambria Environmental Technology, Inc.

DRILLING LOG

Client: Shell-WIC#204-5508-3103

Project No: 24-233 Phase Task02

Well ID MW-4 Boring ID SB-K

Location 14th Street, Oakland

Surface Elev. N/A ft,

Depth (feet)	Blow Count	Sample	Interval	Lithologic Description
0	Ground Surface			
				Asphalt
				Silty SAND(SM); light brown; damp; 25% silt, 75% fine to medium grained sand; no plasticity; moderate estimated permeability.
5	10 10 12			Medium dense.
10	15 20 24			Dense; wet.
15	6 7 10			Medium dense.
20	6 12 20			Brown; 1% clay, 25% silt, 74% fine to medium grained sand.
25				

TPHg (ppm)	Graphic Log	Well Construction Graphics	Depth (feet)	Well Construction Details
			0	T.O.C. Elev.
ND			5	
			10	
			15	
			20	
			25	Bottom of Well

Driller Gregg Drilling

Logged By DCE

Drilling Started 3/8/96

Drilling Completed 3/8/96

Construction Completed 3/8/96

Development Completed 3/21/96

Water Bearing Zones N/A

Development Yield N/A

Well Casing 2" Dia. 0' to 7'

Casing Type Schedule 40 PVC

Well Screen 2" Dia. 7' to 22'

Screen Type Schedule 40 PVC

Slot Size 0.020"

Drilling Mud N/A

Grout Type Portland I/II

Bentonite Seal 5' to 6'

Sand Pack Monterey Sand

Sand Pack Type #3 Sand

Static Water Level 9.20 ft Depth

Date 3/26/96

Notes: Boring located on northwest corner of property.

Cambria Environmental Technology, Inc.

CAMBRIA

Attachment C

Analytic Results for Soil and Ground Water

NET NATIONAL ENVIRONMENTAL TESTING, INC.

Santa Rosa Division
3636 North Laughlin Road
Suite 110
Santa Rosa, CA 95403-8226
Tel: (707) 526-7200
Fax: (707) 541-2333

David Elias
Cambria Env. Technology
1144 65th Street
Suite C
Oakland, CA 94608

Date: 03/20/1996
NET Client Acct. No: 1832
NET Job No: 96.00867
Received: 03/08/1996

Client Reference Information

Shell 1230 14th Street, Oakland, CA/204-4878-1300

Sample analysis in support of the project referenced above has been completed and results are presented on the following pages. Results apply only to the samples analyzed. Reproduction of this report is permitted only in its entirety. Please refer to the enclosed "Key to Abbreviations" for definition of terms. Should you have questions regarding procedures or results, please feel free to call me at (707) 541-2305.

Submitted by:

Ginger Brinlee
Project Coordinator

Enclosure(s)

Client Name: Cambria Env. Technology Date: 03/20/1996
Client Acct: 1832 ELAP Cert: 1386
NET Job No: 96.00867 Page: 2

Ref: Shell 1230 14th Street, Oakland, CA/204-4878-1300

SAMPLE DESCRIPTION: SB-A/MW-1-10.5
Date Taken: 03/06/1996
Time Taken:
NET Sample No: 261751

Parameter	Results	Flags	Reporting Limit	Units	Method	Date Extracted	Date Analyzed	Run Batch No.
Oil & Grease (Total)	160		50	mg/kg	5520E		03/14/1996	349
Oil & Grease (Non-Polar)	160		50	mg/kg	5520E/F		03/14/1996	348
5030/8015-M/8020 (Shell)								
DILUTION FACTOR*	1						03/11/1996	1945
Purgeable TPH	ND		1	mg/kg	5030/M8015		03/11/1996	1945
Carbon Range: C6 to C12	--						03/11/1996	1945
8020 (GC, Solid)	--						03/11/1996	1945
Benzene	ND		2.5	ug/kg	8020		03/11/1996	1945
Toluene	ND		2.5	ug/kg	8020		03/11/1996	1945
Ethylbenzene	ND		2.5	ug/kg	8020		03/11/1996	1945
Xylenes (Total)	ND		2.5	ug/kg	8020		03/11/1996	1945
SURROGATE RESULTS	--						03/11/1996	1945
Bromofluorobenzene (SURR)	95			% Rec.	8020		03/11/1996	1945

Client Name: Cambria Env. Technology Date: 03/20/1996
Client Acct: 1832 ELAP Cert: 1386
NET Job No: 96.00867 Page: 3

Ref: Shell 1230 14th Street, Oakland, CA/204-4878-1300

SAMPLE DESCRIPTION: SB-A/MW-1-16.0
Date Taken: 03/06/1996
Time Taken:
NET Sample No: 261752

Parameter	Results	Flags	Reporting Limit	Units	Method	Date Extracted	Date Analyzed	Run Batch No.
Oil & Grease (Total)	66		50	mg/kg	5520E		03/14/1996	349
Oil & Grease (Non-Polar)	57		50	mg/kg	5520E/F		03/14/1996	348
5030/8015-M/8020 (Shell)								
DILUTION FACTOR*	1						03/11/1996	1945
Purgeable TPH	9.8		1	mg/kg	5030/M8015		03/11/1996	1945
Carbon Range: C6 to C12	--						03/11/1996	1945
8020 (GC, Solid)	--						03/11/1996	1945
Benzene	1,900	FC	25	ug/kg	8020		03/12/1996	1944
Toluene	400	FC	25	ug/kg	8020		03/12/1996	1944
Ethylbenzene	220	FC	25	ug/kg	8020		03/12/1996	1944
Xylenes (Total)	1,100	FC	25	ug/kg	8020		03/12/1996	1944
SURROGATE RESULTS	--						03/11/1996	1945
Bromofluorobenzene (SURR)	87			% Rec.	8020		03/11/1996	1945

Client Name: Cambria Env. Technology Date: 03/20/1996
Client Acct: 1832 ELAP Cert: 1386
NET Job No: 96.00867 Page: 4

Ref: Shell 1230 14th Street, Oakland, CA/204-4878-1300

SAMPLE DESCRIPTION: SB-A/MW-1-20.5
Date Taken: 03/06/1996
Time Taken:
NET Sample No: 261753

Parameter	Results	Flags	Reporting Limit	Units	Method	Date Extracted	Date Analyzed	Run Batch No.
Oil & Grease (Total)	93		50	mg/kg	5520E		03/14/1996	349
Oil & Grease (Non-Polar)	80		50	mg/kg	5520E/F		03/14/1996	348
5030/8015-M/8020 (Shell)								
DILUTION FACTOR*	1						03/11/1996	1945
Purgeable TPH	5.9		1	mg/kg	5030/M8015		03/11/1996	1945
Carbon Range: C6 to C12	--						03/11/1996	1945
8020 (GC, Solid)	--						03/11/1996	1945
Benzene	890	FC	25	ug/kg	8020		03/12/1996	1944
Toluene	49		2.5	ug/kg	8020		03/11/1996	1945
Ethylbenzene	190	FC	25	ug/kg	8020		03/12/1996	1944
Xylenes (Total)	250		2.5	ug/kg	8020		03/11/1996	1945
SURROGATE RESULTS	--						03/11/1996	1945
Bromofluorobenzene (SURR)	94			% Rec.	8020		03/11/1996	1945

Client Name: Cambria Env. Technology
Client Acct: 1832
NET Job No: 96.00867

Date: 03/20/1996
ELAP Cert: 1386
Page: 5

Ref: Shell 1230 14th Street, Oakland, CA/204-4878-1300

SAMPLE DESCRIPTION: SB-B/MW-2-10.5
Date Taken: 03/06/1996
Time Taken:
NET Sample No: 261756

Parameter	Results	Flags	Reporting Limit	Units	Method	Date Extracted	Date Analyzed	Run Batch No.
5030/8015-M/8020 (Shell)								
DILUTION FACTOR*	1						03/12/1996	1944
Purgeable TPH	ND		1	mg/kg	5030/M8015		03/12/1996	1944
Carbon Range: C6 to C12	--						03/12/1996	1944
8020 (GC, Solid)	--						03/12/1996	1944
Benzene	ND		2.5	ug/kg	8020		03/12/1996	1944
Toluene	ND		2.5	ug/kg	8020		03/12/1996	1944
Ethylbenzene	ND		2.5	ug/kg	8020		03/12/1996	1944
Xylenes (Total)	ND		2.5	ug/kg	8020		03/12/1996	1944
SURROGATE RESULTS	--						03/12/1996	1944
Bromofluorobenzene (SURR)	85			% Rec.	8020		03/12/1996	1944

Client Name: Cambria Env. Technology Date: 03/20/1996
Client Acct: 1832 ELAP Cert: 1386
NET Job No: 96.00867 Page: 6

Ref: Shell 1230 14th Street, Oakland, CA/204-4878-1300

SAMPLE DESCRIPTION: SB-B/MW-2-16.0
Date Taken: 03/06/1996
Time Taken:
NET Sample No: 261757

Parameter	Results	Flags	Reporting Limit	Units	Method	Date Extracted	Date Analyzed	Run Batch No.
5030/8015-M/8020 (Shell)								
DILUTION FACTOR*	1						03/12/1996	1944
Purgeable TPH	ND		1	mg/kg	5030/M8015		03/12/1996	1944
Carbon Range: C6 to C12	--						03/12/1996	1944
8020 (GC, Solid)	--						03/12/1996	1944
Benzene	ND		2.5	ug/kg	8020		03/12/1996	1944
Toluene	ND		2.5	ug/kg	8020		03/12/1996	1944
Ethylbenzene	ND		2.5	ug/kg	8020		03/12/1996	1944
Xylenes (Total)	ND		2.5	ug/kg	8020		03/12/1996	1944
SURROGATE RESULTS	--						03/12/1996	1944
Bromofluorobenzene (SURR)	84			% Rec.	8020		03/12/1996	1944

Client Name: Cambria Env. Technology Date: 03/20/1996
Client Acct: 1832 ELAP Cert: 1386
NET Job No: 96.00867 Page: 7

Ref: Shell 1230 14th Street, Oakland, CA/204-4878-1300

SAMPLE DESCRIPTION: SB-C-11.75
Date Taken: 03/06/1996
Time Taken:
NET Sample No: 261760

Parameter	Results	Flags	Reporting Limit	Units	Method	Date Extracted	Date Analyzed	Run Batch No.
5030/8015-M/8020 (Shell)								
DILUTION FACTOR*	1						03/12/1996	1944
Purgeable TPH	ND		1	mg/kg	5030/M8015		03/12/1996	1944
Carbon Range: C6 to C12	--						03/12/1996	1944
8020 (GC, Solid)	--						03/12/1996	1944
Benzene	ND		2.5	ug/kg	8020		03/12/1996	1944
Toluene	ND		2.5	ug/kg	8020		03/12/1996	1944
Ethylbenzene	ND		2.5	ug/kg	8020		03/12/1996	1944
Xylenes (Total)	ND		2.5	ug/kg	8020		03/12/1996	1944
SURROGATE RESULTS	--						03/12/1996	1944
Bromofluorobenzene (SURR)	82			% Rec.	8020		03/12/1996	1944

Client Name: Cambria Env. Technology Date: 03/20/1996
Client Acct: 1832 ELAP Cert: 1386
NET Job No: 96.00867 Page: 8

Ref: Shell 1230 14th Street, Oakland, CA/204-4878-1300

SAMPLE DESCRIPTION: SB-C-15.5
Date Taken: 03/06/1996
Time Taken:
NET Sample No: 261761

Parameter	Results	Flags	Reporting Limit	Units	Method	Date Extracted	Date Analyzed	Run Batch No.
5030/8015-M/8020 (Shell)								
DILUTION FACTOR*	1						03/13/1996	1946
Purgeable TPH	1.9		1	mg/kg	5030/M8015		03/13/1996	1946
Carbon Range: C6 to C12	--						03/13/1996	1946
8020 (GC, Solid)	--						03/13/1996	1946
Benzene	22		2.5	ug/kg	8020		03/13/1996	1946
Toluene	120		2.5	ug/kg	8020		03/13/1996	1946
Ethylbenzene	86		2.5	ug/kg	8020		03/13/1996	1946
Xylenes (Total)	320		2.5	ug/kg	8020		03/13/1996	1946
SURROGATE RESULTS	--						03/13/1996	1946
Bromofluorobenzene (SURR)	91			% Rec.	8020		03/13/1996	1946

Client Name: Cambria Env. Technology Date: 03/20/1996
Client Acct: 1832 ELAP Cert: 1386
NET Job No: 96.00867 Page: 9

Ref: Shell 1230 14th Street, Oakland, CA/204-4878-1300

SAMPLE DESCRIPTION: SB-D-10.5
Date Taken: 03/06/1996
Time Taken:
NET Sample No: 261764

Parameter	Results	Flags	Reporting Limit	Units	Method	Date Extracted	Date Analyzed	Run Batch No.
5030/8015-M/8020 (Shell)								
DILUTION FACTOR*	1						03/12/1996	1944
Purgeable TPH	ND		1	mg/kg	5030/M8015		03/12/1996	1944
Carbon Range: C6 to C12	--						03/12/1996	1944
8020 (GC, Solid)	--						03/12/1996	1944
Benzene	ND		2.5	ug/kg	8020		03/12/1996	1944
Toluene	ND		2.5	ug/kg	8020		03/12/1996	1944
Ethylbenzene	ND		2.5	ug/kg	8020		03/12/1996	1944
Xylenes (Total)	ND		2.5	ug/kg	8020		03/12/1996	1944
SURROGATE RESULTS	--						03/12/1996	1944
Bromofluorobenzene (SURR)	84			% Rec.	8020		03/12/1996	1944

Client Name: Cambria Env. Technology Date: 03/20/1996
Client Acct: 1832 ELAP Cert: 1386
NET Job No: 96.00867 Page: 10

Ref: Shell 1230 14th Street, Oakland, CA/204-4878-1300

SAMPLE DESCRIPTION: SB-D-15.5
Date Taken: 03/06/1996
Time Taken:
NET Sample No: 261765

Parameter	Results	Flags	Reporting Limit	Units	Method	Date Extracted	Date Analyzed	Run Batch No.
5030/8015-M/8020 (Shell)								
DILUTION FACTOR*	1						03/12/1996	1944
Purgeable TPH	ND		1	mg/kg	5030/M8015		03/12/1996	1944
Carbon Range: C6 to C12	--						03/12/1996	1944
8020 (GC, Solid)	--						03/12/1996	1944
Benzene	ND		2.5	ug/kg	8020		03/12/1996	1944
Toluene	ND		2.5	ug/kg	8020		03/12/1996	1944
Ethylbenzene	ND		2.5	ug/kg	8020		03/12/1996	1944
Xylenes (Total)	ND		2.5	ug/kg	8020		03/12/1996	1944
SURROGATE RESULTS	--						03/12/1996	1944
Bromofluorobenzene (SURR)	84			% Rec.	8020		03/12/1996	1944

Client Name: Cambria Env. Technology Date: 03/20/1996
Client Acct: 1832 ELAP Cert: 1386
NET Job No: 96.00867 Page: 11

Ref: Shell 1230 14th Street, Oakland, CA/204-4878-1300

SAMPLE DESCRIPTION: SB-E-10.5
Date Taken: 03/06/1996
Time Taken:
NET Sample No: 261768

Parameter	Results	Flags	Reporting Limit	Units	Method	Date Extracted	Date Analyzed	Run Batch No.
Oil & Grease (Total)	69		50	mg/kg	5520E		03/14/1996	349
Oil & Grease (Non-Polar)	ND		50	mg/kg	5520E/F		03/14/1996	348
5030/8015-M/8020 (Shell)								
DILUTION FACTOR*	1						03/11/1996	1945
Purgeable TPH	ND		1	mg/kg	5030/M8015		03/11/1996	1945
Carbon Range: C6 to C12	--						03/11/1996	1945
8020 (GC, Solid)	--						03/11/1996	1945
Benzene	ND		2.5	ug/kg	8020		03/11/1996	1945
Toluene	ND		2.5	ug/kg	8020		03/11/1996	1945
Ethylbenzene	ND		2.5	ug/kg	8020		03/11/1996	1945
Xylenes (Total)	ND		2.5	ug/kg	8020		03/11/1996	1945
SURROGATE RESULTS	--						03/11/1996	1945
Bromofluorobenzene (SURR)	89			% Rec.	8020		03/11/1996	1945

Client Name: Cambria Env. Technology Date: 03/20/1996
Client Acct: 1832 ELAP Cert: 1386
NET Job No: 96.00867 Page: 12

Ref: Shell 1230 14th Street, Oakland, CA/204-4878-1300

SAMPLE DESCRIPTION: SB-E-16.0
Date Taken: 03/06/1996
Time Taken:
NET Sample No: 261769

Parameter	Results	Flags	Reporting Limit	Units	Method	Date Extracted	Date Analyzed	Run Batch No.
Oil & Grease (Total)	200		50	mg/kg	5520E		03/14/1996	349
Oil & Grease (Non-Polar)	200		50	mg/kg	5520E/F		03/14/1996	348
5030/8015-M/8020 (Shell)								
DILUTION FACTOR*	1						03/11/1996	1945
Purgeable TPH	ND		1	mg/kg	5030/M8015		03/11/1996	1945
Carbon Range: C6 to C12	--						03/11/1996	1945
8020 (GC, Solid)	--						03/11/1996	1945
Benzene	ND		2.5	ug/kg	8020		03/11/1996	1945
Toluene	ND		2.5	ug/kg	8020		03/11/1996	1945
Ethylbenzene	ND		2.5	ug/kg	8020		03/11/1996	1945
Xylenes (Total)	ND		2.5	ug/kg	8020		03/11/1996	1945
SURROGATE RESULTS	--						03/11/1996	1945
Bromofluorobenzene (SURR)	88			% Rec.	8020		03/11/1996	1945

Client Name: Cambria Env. Technology Date: 03/20/1996
Client Acct: 1832 ELAP Cert: 1386
NET Job No: 96.00867 Page: 13

Ref: Shell 1230 14th Street, Oakland, CA/204-4878-1300

CONTINUING CALIBRATION VERIFICATION STANDARD REPORT

Parameter	CCV Standard % Recovery	CCV Standard Amount Found	CCV Standard Amount Expected	Flags	Units	Date Analyzed	Analyst Initials	Run Batch Number
5030/8015-M/8020 (Shell)								
Purgeable TPH	102.4	2.56	2.50		mg/kg	03/12/1996	aal	1944
Benzene	88.0	22.0	25.0		ug/kg	03/12/1996	aal	1944
Toluene	90.8	22.7	25.0		ug/kg	03/12/1996	aal	1944
Ethylbenzene	88.8	22.2	25.0		ug/kg	03/12/1996	aal	1944
Xylenes (Total)	96.5	72.4	75.0		ug/kg	03/12/1996	aal	1944
Bromofluorobenzene (SURR)	89.0	89	100		% Rec.	03/12/1996	aal	1944
5030/8015-M/8020 (Shell)								
Purgeable TPH	100.8	2.52	2.50		mg/kg	03/11/1996	aal	1945
Benzene	93.6	23.4	25.0		ug/kg	03/11/1996	aal	1945
Toluene	89.6	22.4	25.0		ug/kg	03/11/1996	aal	1945
Ethylbenzene	91.6	22.9	25.0		ug/kg	03/11/1996	aal	1945
Xylenes (Total)	93.3	70.0	75.0		ug/kg	03/11/1996	aal	1945
Bromofluorobenzene (SURR)	92.0	92	100		% Rec.	03/11/1996	aal	1945
5030/8015-M/8020 (Shell)								
Purgeable TPH	102.0	2.55	2.50		mg/kg	03/13/1996	aal	1946
Benzene	88.8	22.2	25.0		ug/kg	03/13/1996	aal	1946
Toluene	86.4	21.6	25.0		ug/kg	03/13/1996	aal	1946
Ethylbenzene	88.0	22.0	25.0		ug/kg	03/13/1996	aal	1946
Xylenes (Total)	92.0	69.0	75.0		ug/kg	03/13/1996	aal	1946
Bromofluorobenzene (SURR)	91.0	91	100		% Rec.	03/13/1996	aal	1946

Client Name: Cambria Env. Technology Date: 03/20/1996
Client Acct: 1832 ELAP Cert: 1386
NET Job No: 96.00867 Page: 14

Ref: Shell 1230 14th Street, Oakland, CA/204-4878-1300

METHOD BLANK REPORT

Parameter	Method Blank Amount Found	Reporting Limit	Flags	Units	Date Analyzed	Analyst Initials	Run Batch Number
Oil & Grease (Total)	ND	50		mg/kg	03/14/1996	vah	349
Oil & Grease (Non-Polar)	ND	50		mg/kg	03/14/1996	vah	348
5030/8015-M/8020 (Shell)							
Purgeable TPH	ND	1		mg/kg	03/12/1996	aal	1944
Benzene	ND	2.5		ug/kg	03/12/1996	aal	1944
Toluene	ND	2.5		ug/kg	03/12/1996	aal	1944
Ethylbenzene	ND	2.5		ug/kg	03/12/1996	aal	1944
Xylenes (Total)	ND	2.5		ug/kg	03/12/1996	aal	1944
Bromofluorobenzene (SURR)	80			% Rec.	03/12/1996	aal	1944
5030/8015-M/8020 (Shell)							
Purgeable TPH	ND	1		mg/kg	03/11/1996	aal	1945
Benzene	ND	2.5		ug/kg	03/11/1996	aal	1945
Toluene	ND	2.5		ug/kg	03/11/1996	aal	1945
Ethylbenzene	ND	2.5		ug/kg	03/11/1996	aal	1945
Xylenes (Total)	ND	2.5		ug/kg	03/11/1996	aal	1945
Bromofluorobenzene (SURR)	89			% Rec.	03/11/1996	aal	1945
5030/8015-M/8020 (Shell)							
Purgeable TPH	ND	1		mg/kg	03/13/1996	aal	1946
Benzene	ND	2.5		ug/kg	03/13/1996	aal	1946
Toluene	ND	2.5		ug/kg	03/13/1996	aal	1946
Ethylbenzene	ND	2.5		ug/kg	03/13/1996	aal	1946
Xylenes (Total)	ND	2.5		ug/kg	03/13/1996	aal	1946
Bromofluorobenzene (SURR)	86			% Rec.	03/13/1996	aal	1946

Client Name: Cambria Env. Technology Date: 03/20/1996
Client Acct: 1832 ELAP Cert: 1386
NET Job No: 96.00867 Page: 15

Ref: Shell 1230 14th Street, Oakland, CA/204-4878-1300

MATRIX SPIKE / MATRIX SPIKE DUPLICATE

Parameter	Matrix Spike % Rec.	Matrix Spike Dup % Rec.	RPD	Spike Amount	Sample Conc.	Matrix Spike Conc.	Matrix Spike Dup. Conc.	Flags	Units	Date Analyzed	Run Batch	Sample Spiked
Oil & Grease (Total)	98.4	96.8	1.6	5,690	66	5,665	5,376		mg/kg	03/14/1996	349	261748
Oil & Grease (Non-Polar)	93.2	92.7	0.5	5,690	61	5,364	5,144		mg/kg	03/14/1996	348	261748
5030/8015-M/8020 (Shell)												261756
Purgeable TPH	102.4	102.4	0.0	2.5	ND	2.56	2.56		mg/kg	03/12/1996	1944	261756
Benzene	95.7	94.9	0.8	27.6	ND	26.4	26.2		ug/kg	03/12/1996	1944	261756
Toluene	93.7	92.9	0.9	126	ND	118	117		ug/kg	03/12/1996	1944	261756
Bromofluorobenzene (SURR)	96.0	96.0	0.0	100	85	96	96		% Rec.	03/12/1996	1944	261756
5030/8015-M/8020 (Shell)												261748
Purgeable TPH	100.4	100.8	0.4	2.5	ND	2.51	2.52		mg/kg	03/11/1996	1945	261748
Benzene	90.9	91.2	0.3	29.7	ND	27.0	27.1		ug/kg	03/11/1996	1945	261748
Toluene	100.8	101.6	0.8	126	ND	127	128		ug/kg	03/11/1996	1945	261748
Bromofluorobenzene (SURR)	100.0	100.0	0.0	100	92	100	100		% Rec.	03/11/1996	1945	261748
5030/8015-M/8020 (Shell)												261792
Purgeable TPH	96.4	99.2	2.9	250	ND	241	248		mg/kg	03/13/1996	1946	261792
Benzene	133.3	137.0	2.7	2,700	2,600	6,200	6,300		ug/kg	03/13/1996	1946	261792
Toluene	83.3	91.3	9.2	12,600	1,500	12,000	13,000		ug/kg	03/13/1996	1946	261792
Bromofluorobenzene (SURR)	94.0	96.0	2.1	100	88	94	96		% Rec.	03/13/1996	1946	261792

Client Name: Cambria Env. Technology Date: 03/20/1996
Client Acct: 1832 ELAP Cert: 1386
NET Job No: 96.00867 Page: 16

Ref: Shell 1230 14th Street, Oakland, CA/204-4878-1300

LABORATORY CONTROL SAMPLE REPORT

Parameter	LCS % Rec.	DUP LCS % Rec.	RPD	LCS Amount Found	DUP LCS Amount Found	LCS Amount Exp.	Flags	Units	Date Analyzed	Analyst Initials	Run Batch
Oil & Grease (Total)	98.7			6,560		6,644		mg/kg	03/14/1996	vah	349
Oil & Grease (Non-Polar)	91.5			6,076		6,644		mg/kg	03/14/1996	vah	348

0614

SHELL OIL COMPANY
RETAIL ENVIRONMENTAL ENGINEERING - WEST

CHAIN OF CUSTODY RECORD
Serial No:_____

Date: 3/6/96
Page 1 of 3

Site Address: 1230 14th STREET, OAKLAND

WIC#: 204-4878-1300

Shell Engineer: JEFF GRANBERRY
Phone No.: 675-6168
Fax #: 675-6172

Consultant Name & Address: CAMBRIA ENV. TECH. INC.
1144 65th ST. OAKLAND CA

Consultant Contact: SCOTT MACKEY / DAVID ELIAS
Phone No.: 420-9174
Fax #: 420-9170

Comments:

Sampled by: David Elias

Printed Name: DAVID ELIAS

LAB: NET

CHECK ONE (1) BOX ONLY	CT/DT	TURN AROUND TIME
G.W. Monitoring ☐	4461	24 hours ☐
Site Investigation ☒	4441	48 hours ☐
Soil Classify/Disposal ☐	4442	15 days ☒ (Normal)
Water Classify/Disposal ☐	4443	Other ☐ ____
Soil/Air Rem. or Sys. O & M ☐	4452	NOTE: Notify Lab as soon as Possible of 24/48 hrs. TAT.
Water Rem. or Sys. O & M ☐	4453	
Other ☐		

UST AGENCY: ACDEH

Sample ID	Date	Sludge	Soil	Water	Air	No. of conts.	TPH (EPA 8015 Mod. Gas)	TPH (EPA 8015 Mod. Diesel)	BTEX (EPA 8020/602)	Volatile Organics (EPA 8240)	Test for Disposal	Combination TPH 8015 & BTEX 8020	HOLD		Asbestos	Container Size	Preparation Used	Composite Y/N	MATERIAL DESCRIPTION	SAMPLE CONDITION/ COMMENTS
SB-A/MW-1-5.5	3/6/96		X			1							X							
" -10.5																				
" -16.0																				
" -20.5																				
" -26.5																			CUSTODY SEALED	
SB-B/MW-2-5.5																			SEAL INTACT?	
" -10.5																				
" -16.0																				

Date 3/7/96 Time 1602 Initials DS
Yes ✓ No ____ Initials ____

STORED SECURELY

Relinquished By (signature): David Elias	Printed Name: DAVID ELIAS	Date: 3/6/96 Time: 6:43	Received (signature):	Printed Name: P. Smart	Date: 3/7/96 Time: 1425
Relinquished By (signature): P. Smart	Printed Name: P. Smart	Date: 3-7-96 Time: 1600	Received (signature):	Printed Name: PAM GREENE	Date: 3/8/96 Time: 0800
Relinquished 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

VIA: NCS

Rev. 1/1/93 Shell Oil Chn. of Custody

0614

SHELL OIL COMPANY
RETAIL ENVIRONMENTAL ENGINEERING - WEST

CHAIN OF CUSTODY RECORD
Serial No: _____

Date: 3/6/96
Page 2 of 3

Site Address: 1230 14th STREET, OAKLAND

WIC#: 204-4878-1300

Shell Engineer: JEFF GRANBERRY
Phone No.: 675-6168
Fax #: 675-6172

Consultant Name & Address: CAMBRIA ENVIRONMENTAL INC. 1144 65th St. OAKLAND, CA

Consultant Contact: SCOTT MACKEY / DAVID ELIAS
Phone No.: 420-9176
Fax #: 420-9170

Comments:

Sampled by: David Elias

Printed Name: DAVID ELIAS

LAB: NET

UST AGENCY: ACDEH

CHECK ONE (1) BOX ONLY		CT/DT
G.W. Monitoring	☐	4461
Site Investigation	☒	4441
Soil Classify/Disposal	☐	4442
Water Classify/Disposal	☐	4443
Soil/Air Rem. or Sys. O & M	☐	4452
Water Rem. or Sys. O & M	☐	4453
Other	☐	

TURN AROUND TIME: 24 hours ☐ | 48 hours ☐ | 16 days ☒ (Normal) | Other ☐ ____

NOTE: Notify Lab as soon as Possible of 24/48 hrs. TAT.

Analysis Required

Sample ID	Date	Sludge	Soil	Water	Air	No. of conts.	TPH (EPA 8015 Mod. Gas)	TPH (EPA 8015 Mod. Diesel)	BTEX (EPA 8020/602)	Volatile Organics (EPA 8240)	Test for Disposal	Combination TPH 8015 & BTEX 8020	Hold	Asbestos	Container Size	Preparation Used	Composite Y/N	MATERIAL DESCRIPTION	SAMPLE CONDITION/ COMMENTS
SB-B/mw-2-21.0	3/6/96		X			1													
SB-C-6.0																			
" - 11.75																			
" - 15.5																			
" - 21.0																			
SB-D-5.5																			
" - 10.5																			
" - 15.5																			

CUSTODY SEALED
Date 3/7/96 Time 1600 Initials BS
SEAL INTACT?
Yes ✓ No ____ Initials

STORED SECURELY

Relinquished By (signature):	Printed Name:	Date:	Time:	Received (signature):	Printed Name:	Date:	Time:
David Elias	DAVID ELIAS	3/6/96	5:43		P. Smart	3/7/96	1433
P. Smart	P. Smart	3-7-96	1600		PAM GREENE	3/8/96	08:00
		Date:	Time:			Date:	Time:

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

Rev. 1/12/93 — Shell Oil Chn. of Custody

VIA: NCS

SHELL OIL COMPANY
RETAIL ENVIRONMENTAL ENGINEERING - WEST

CHAIN OF CUSTODY RECORD
Serial No: #0014

Date: 3/6/96
Page 3 of 3

Site Address: 1230 14th STREET, OAKLAND

WIC#: 204-4878-1300

Shell Engineer: JEFF GRANBERRY
Phone No.: 675-6168
Fax #: 675-6177

Consultant Name & Address: CAMBRIA ENVIRONTECH INC. 1144 65th St. OAKLAND, CA

Consultant Contact: SCOTT MACKEY / DAVID ELIAS
Phone No.: 420-9170
Fax #: 420-9170

Comments:

Sampled by: David Elias

Printed Name: DAVID ELIAS

LAB: NET

CHECK ONE (1) BOX ONLY	CT/DT	TURN AROUND TIME
G.W. Monitoring	☐ 4461	24 hours ☐
Site Investigation	☒ 4441	48 hours ☐
Soil Classify/Disposal	☐ 4442	15 days ☒ (Normal)
Water Classify/Disposal	☐ 4443	Other ☐ ____
Soil/Air Rem. or Sys. O & M	☐ 4452	NOTE: Notify Lab as soon as Possible of 24/48 hrs. TAT.
Water Rem. or Sys. O & M	☐ 4453	
Other	☐	

UST AGENCY: ACDEH

Analysis Required

Sample ID	Date	Sludge	Soil	Water	Air	No. of conts.	TPH (EPA 8015 Mod. Gas)	TPH (EPA 8015 Mod. Diesel)	BTEX (EPA 8020/602)	Volatile Organics (EPA 8240)	Test for Disposal	Combination TPH 8015 & BTEX 8020	HOLD	Asbestos	Container Size	Preparation Used	Composite Y/N	MATERIAL DESCRIPTION	SAMPLE CONDITION/ COMMENTS
SB-D-20.5	3/6/96		X			1							X						
SB-E-6.0	"		"			"							"						
" -10.5	"		"			"							"						
" -16.0	"		"			"							"						
" -21.0	"		"			"							"						

CUSTODY SEALED
Date 3/7/96 Time 1600 Initials
SEAL INTACT?
Yes ✓ No ____ Initials

STORED SECURELY

Relinquished By (signature)	Printed Name	Date	Time	Received (signature)	Printed Name	Date	Time
David Elias	DAVID ELIAS	3/6/96	6:43		P. SMART	3/7/96	1423
P. Smart	P. SMART	3-7-96	1600		PAM GREENE	3/8/96	0800
		Date:				Date:	
		Time:				Time:	

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

Rev. 7/12/93 — Shell Oil Chn. of Custody

VIA: NCS

SHELL OIL COMPANY
RETAIL ENVIRONMENTAL ENGINEERING - WEST

CHAIN OF CUSTODY RECORD
Serial No: _____

Date: 3/6/96
Page 1 of 3

Site Address: 1230 14th STREET, OAKLAND

WIC#: 204-4878-1300

Shell Engineer: JEFF GRANBERRY
Phone No.: 675-6168
Fax #: 675-6172

Consultant Name & Address: CAMBRIA ENV. TECH. INC.
1144 65th ST. OAKLAND CA

Consultant Contact: SCOTT MACLEAY / DAVID ELIAS
Phone No.: 420-9171
Fax #: 420-9170

Comments:

Sampled by: David Elias

Printed Name: DAVID ELIAS

LAB: NET

CHECK ONE (1) BOX ONLY		CT/DT	TURN AROUND TIME
G.W. Monitoring	☐	4461	24 hours ☐
Site Investigation	☒	4441	48 hours ☐
Soil Classify/Disposal	☐	4442	15 days ☒ Normal
Water Classify/Disposal	☐	4443	Other ☐ ____
Soil/Air Rem. or Sys. O & M	☐	4452	NOTE: Notify lab as soon as Possible of 24/48 hr. TAT.
Water Rem. or Sys. O & M	☐	4453	
Other	☐		

UST AGENCY: ACDEH

Sample ID	Date	Sludge	Soil	Water	Air	No. of conts.	TPH (EPA 8015 Mod. Gas)	TPH (EPA 8015 Mod. Diesel)	BTEX (EPA 8020/602)	Volatile Organics (EPA 8240)	Test for Disposal	Combination TPH 8015 & BTEX 8020	HOLD	Petroleum Oil & Grease 5520 E&F	Asbestos	Container Size	Preparation Used	Composite Y/N	MATERIAL DESCRIPTION	SAMPLE CONDITION/ COMMENTS
SB-A/MW-1-5.5	3/6/96		X			1							X							
" -10.5												X		X						
" -16.0												X		X						
" -20.5												X		X						
" -26.5													X							
SB-B/MW-2-5.5													X							
" -10.5												X								
" -16.0												X								

Relinquished By (signature): David Elias	Printed Name: DAVID ELIAS	Date: 3/6/96 Time: 6:43	Received (signature): P. Smart	Printed Name: P. Smart	Date: 3/7/96 Time: 1425
Relinquished By (signature):	Printed Name:	Date: Time:	Received (signature):	Printed Name:	Date: Time:
Relinquished 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

03/07/1996 19:07 5104209170 CAMBRIA PAGE 03

SHELL OIL COMPANY
RETAIL ENVIRONMENTAL ENGINEERING - WEST

CHAIN OF CUSTODY RECORD
Serial No:

Date: 3/6/96
Page 2 of 3

Site Address: 1230 14th STREET, OAKLAND

WIC#: 204-4878-1300

Shell Engineer: JEFF GRANBERRY
Phone No.: 675-6168
Fax #: 675-6172

Consultant Name & Address: CAMBRIA ENV. TECH, INC. 1144 65th ST. OAKLAND, CA

Consultant Contact: SCOTT MacLeod / DAVID ELIAS
Phone No.: 420-1174
Fax #: 420-9170

Comments:

Sampled by: David Elias

Printed Name: DAVID ELIAS

LAB: NET

CHECK ONE (1) BOX ONLY		CT/DT
G.W. Monitoring	☐	4461
Site Investigation	☒	4441
Soil Classify/Disposal	☐	4442
Water Classify/Disposal	☐	4443
Soil/Air Rem. or Sys. O & M	☐	4452
Water Rem. or Sys. O & M	☐	4453
Other	☐	

TURN AROUND TIME: 24 hours ☐ 48 hours ☐ 15 days ☒ (Normal) Other ☐

NOTE: Notify Lab as soon as Possible of 24/48 hrs. TAT.

UST AGENCY: ACDEH

Analysis Required

Sample ID	Date	Sludge	Soil	Water	Air	No. of conts.	TPH (EPA 8015 Mod. Gas)	TPH (EPA 8015 Mod. Diesel)	BTEX (EPA 8020/602)	Volatile Organics (EPA 8240)	Test for Disposal	Combination TPH 8015 & BTEX 8020	HOLD	PETROLEUM OIL & GREASE 5520 BF	Asbestos	Container Size	Preparation Used	Composite Y/N	MATERIAL DESCRIPTION	SAMPLE CONDITION/ COMMENTS
SB-B/MW-2-21.0	3/6/96		X			1							X							
SB-C-6.0	↓		↓			↓							X							
" -11.75	↓		↓			↓						X								
" -15.5	↓		↓			↓						X								
" -21.0	↓		↓			↓							X							
SB-D-5.5	↓		↓			↓							X							
" -10.5	↓		↓			↓						X								
" -15.5	↓		↓			↓						X								

Relinquished By (signature):	Printed Name:	Date/Time:	Received (signature):	Printed Name:	Date/Time:
David Elias	David Elias	Date: 3/6/96 Time: 6:47	P. Smart	P. Smart	Date: 3/7/96 Time: 1435
		Date: Time:			Date: Time:
		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

Serial No: ______

Date: 3/6/96
Page 3 of 3

Site Address: 1230 14th STREET, OAKLAND

WIC#: 204-4878-1300

Shell Engineer: JEFF GRANBERRY
Phone No.: 675-6168
Fax #: 675-6172

Consultant Name & Address: CAMBRIA ENV. TECH. INC. 1144 65th ST. OAKLAND, CA

Consultant Contact: Scott MacLeod / DAVID ELIAS
Phone No.: 420-9170
Fax #: 420-9170

Comments:

Sampled by: David Elias

Printed Name: DAVID ELIAS

LAB: NET

CHECK ONE (1) BOX ONLY		CT/DT
G.W. Monitoring	☐	4461
Site Investigation	☒	4441
Soil Classify/Disposal	☐	4442
Water Classify/Disposal	☐	4443
Soil/Air Rem. or Sys. O & M	☐	4452
Water Rem. or Sys. O & M	☐	4453
Other	☐	

TURN AROUND TIME

- 24 hours ☐
- 48 hours ☐
- 16 days ☒ (Normal)
- Other ☐ ______

NOTE: Notify Lab as soon as Possible of 24/48 hrs. TAT.

UST AGENCY: ACDEH

Analysis Required

Sample ID	Date	Sludge	Soil	Water	Air	No. of conts.	TPH (EPA 8015 Mod. Gas)	TPH (EPA 8015 Mod. Diesel)	BTEX (EPA 8020/602)	Volatile Organics (EPA 8240)	Test for Disposal	Combination TPH 8015 & BTEX 8020	HOLD	PETROLEUM OIL & GREASE 5520	Asbestos	Container Size	Preparation Used	Composite Y/N	MATERIAL DESCRIPTION	SAMPLE CONDITION/ COMMENTS
SB-D-20.5	3/6/96		X			1							X							
SB-E-6.0	↓		↓			↓							X							
" -10.5	↓		↓			↓						X		X						
" -16.0	↓		↓			↓						X		X						
" -21.0	↓		↓			↓							X							

STORED SECURELY

Relinquished By (signature):	Printed Name:	Date: / Time:	Received (signature):	Printed Name:	Date: / Time:
David Elias	DAVID ELIAS	Date: 3/6/96 Time: 6:43	[signature]	R. SMART	Date: 3/7/96 Time: 1425
		Date: Time:			Date: Time:
		Date: Time:			Date: Time:

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

NET *Santa Rosa Division* LOGIN CHECKLIST

CLIENT: Cambria JOB #: _____ LOG #: 0614
Project ID: 1230 40th St. Oakland
Samples Received On: 3/8/96 Checked in on: 3/8/96

1) Custody Seals: ☐ N/A ☑ Present ☐ Absent ☐ Broken

2) Chain of Custody ☑ Present ☐ Absent #(s): _____
Forms: ☑ Complete ☐ Incomplete _____

3) Type of packing material used: ice

4) Temperature(s) 1 °C Thermometer #(s) _____

5) Sample Container(s) ☑ Intact ☐ Broken _____

6) Container Label(s) ☐ Match COC ☑ Do Not Match Sample # SB-E-16.0 on COC / Container Says #SB-E-15.0. JM

7) Sample Volume ☑ Sufficient ☐ Insufficient _____

8) Preservative(s) N/A ☐ Correct ☐ Incorrect ☐ pH verified ☐ Res.Cl chk (CN & PHLs)

9) Headspace (VOAs) N/A ☐ None ☐ Present (list ID's / number vials affected)

Sample ID	# of Vials	Sample ID	# of Vials

10) Form Completed By: [signature] Date: 3/8/96

Attach shipper's packing slip to this form before routing

Problem Resolution:

1) ☐ Project Coordinator Verbally Informed on _____

2) ☐ Client Informed on _____ By _____

Project Coordinator: _____ Date _____ Resolved: ☐ Y ☐ N

Comments: _____

qamisc\lognfrm

KEY TO RESULT FLAGS

*	: RPD between sample duplicates exceeds 30%.
*M	: RPD between sample duplicates or MS/MSD exceeds 20%.
+	: Correlation coefficient for the Method of Standard Additions is less than 0.995.
<	: Sample result is less than reported value.
B-I	: Value is between Method Detection Limit and Reporting Limit.
B-0	: Analyte found in blank and sample.
C	: The result confirmed by secondary column or GC/MS analysis.
CNA	: Cr+6 not analyzed; Total Chromium concentration below Cr+6 regulatory level.
COMP	: Sample composited by equal volume prior to analysis.
D-	: The result has an atypical pattern for Diesel analysis.
D1	: The result for Diesel is an unknown hydrocarbon which consists of a single peak.
DH	: The result appears to be a heavier hydrocarbon than Diesel.
DL	: The result appears to be a lighter hydrocarbon than Diesel.
DR	: Elevated Reporting Limit due to Matrix.
DS	: Surrogate diluted out of range.
DX	: The result for Diesel is an unknown hydrocarbon which consists of several peaks.
FA	: Compound quantitated at a 2X dilution factor.
FB	: Compound quantitated at a 5X dilution factor.
FC	: Compound quantitated at a 10X dilution factor.
FD	: Compound quantitated at a 20X dilution factor.
FE	: Compound quantitated at a 50X dilution factor.
FF	: Compound quantitated at a 100X dilution factor.
FG	: Compound quantitated at a 200X dilution factor.
FH	: Compound quantitated at a 500X dilution factor.
FI	: Compound quantitated at a 1000X dilution factor.
FJ	: Compound quantitated at a greater than 1000x dilution factor.
FK	: Compound quantitated at a 25X dilution factor.
FL	: Compound quantitated at a 250X dilution factor.
G-	: The result has an atypical pattern for Gasoline.
G1	: The result for Gasoline is an unknown hydrocarbon which consists of a single peak.
GH	: The result appears to be a heavier hydrocarbon than Gasoline.
GL	: The result appears to be a lighter hydrocarbon than Gasoline.
GX	: The result for Gasoline is an unknown hydrocarbon which consists of several peaks.
HX	: Peaks detected within the quantitation range do not match standard used.
J	: Value is estimated.
MI	: Matrix Interference Suspected.
MSA	: Value determined by Method of Standard Additions.
MSA*	: Value obtained by Method of Standard Additions; Correlation coefficient is <0.995.
NI1	: Sample spikes outside of QC limits; matrix interference suspected.
NI2	: Sample concentration is greater than 4X the spiked value; the spiked value is considered insignificant.
NI3	: Matrix Spike values exceed established QC limits, post digestion spike is in control.
P7	: pH of sample > 2; sample analyzed past 7 days.
RSC	: Refer to subcontract laboratory report for QC data.
S2	: Matrix interference confirmed by repeat analysis.
SCN	: Thiocyanate not analyzed separately; total value is below the Reporting Limit for Free Cyanide.
UMDL	: Undetected at the Method Detection Limit.

0614

SHELL OIL COMPANY
RETAIL ENVIRONMENTAL ENGINEERING - WEST

CHAIN OF CUSTODY RECORD
Serial No:_____

Date: 3/6/96
Page 1 of 3

Site Address: 1230 14th STREET, OAKLAND

WIC#: 204-4878-1300

Shell Engineer: JEFF GRANBERRY — Phone No.: 675-6168 Fax #: 675-6177

Consultant Name & Address: CAMBRIA ENVIRONMENTAL, INC. 1144 65th ST. OAKLAND CA

Consultant Contact: SCOTT MACKEY / DAVID ELIAS — Phone No.: 420-9176 Fax #: 420-9170

Comments:

Sampled by: David Elias

Printed Name: DAVID ELIAS

LAB: NET

CHECK ONE (1) BOX ONLY	CT/DT	TURN AROUND TIME	
G.W. Monitoring	☐ 4461	24 hours	☐
Site Investigation	☒ 4441	48 hours	☐
Soil Classify/Disposal	☐ 4442	15 days	☒ (Normal)
Water Classify/Disposal	☐ 4443	Other	☐ ____
Soil/Air Rem. or Sys. O & M	☐ 4452	NOTE: Notify Lab as soon as Possible of 24/48 hrs. TAT.	
Water Rem. or Sys. O & M	☐ 4453		
Other	☐		

UST AGENCY: ACDEH

Sample ID	Date	Sludge	Soil	Water	Air	No. of conts.	TPH (EPA 8015 Mod. Gas)	TPH (EPA 8015 Mod. Diesel)	BTEX (EPA 8020/602)	Volatile Organics (EPA 8240)	Test for Disposal	Combination TPH 8015 & BTEX 8020	HOLD	Asbestos	Container Size	Preparation Used	Composite Y/N	MATERIAL DESCRIPTION	SAMPLE CONDITION/ COMMENTS
SB-A/mw-1-5.5	3/6/96		X			1							X						
" -10.5																			
" -16.0																			
" -20.5																			
" -26.5																			
SB-B/mw-2-5.5																			
" -10.5																			
" -16.0																			

CUSTODY SEALED
Date 3/7/96 Time 1602 Initials BS
SEAL INTACT? Yes ✓ No ____ Initials [illegible]

(SIGNED SEALED)

Relinquished By (signature)	Printed Name	Date	Time	Received (signature)	Printed Name	Date	Time
David Elias	DAVID ELIAS	3/6/96	6:43	[signature]	P. SMART	3/7/96	1425
[signature]	P. SMART	3-7-96	1602	[signature]	PAM GREENE	3/8/96	08:00
		Date:				Date:	
		Time:				Time:	

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

VIA: NCS

Rev. 1/13/93

Shell Oil Chain of Custody

0014

SHELL OIL COMPANY
RETAIL ENVIRONMENTAL ENGINEERING - WEST

CHAIN OF CUSTODY RECORD

Serial No: ____________

Date: 3/6/96

Page 2 of 3

Site Address: 1230 14th STREET, OAKLAND

WIC#: 204-4878-1300

Shell Engineer: JEFF GRANBERRY

Phone No.: 675-6168 **Fax #:** 675-6172

Consultant Name & Address: CAMBRIA ENV. TECH, INC. 1144 65th ST. OAKLAND, CA

Consultant Contact: SCOTT MACLEOD / DAVID ELIAS

Phone No.: 420-?17? **Fax #:** 420-9170

Comments:

Sampled by: David Elias

Printed Name: DAVID ELIAS

LAB: NET

CHECK ONE (1) BOX ONLY	CT/DT	
G.W. Monitoring	☐	4461
Site Investigation	☒	4441
Soil Classify/Disposal	☐	4442
Water Classify/Disposal	☐	4443
Soil/Air Rem. or Sys. O & M	☐	4452
Water Rem. or Sys. O & M	☐	4453
Other	☐	

TURN AROUND TIME	
24 hours	☐
48 hours	☐
16 days	☒ (Normal)
Other	☐ ______

NOTE: Notify Lab as soon as Possible of 24/48 hrs. TAT.

UST AGENCY: ACDEH

Analysis Required

Sample ID	Date	Sludge	Soil	Water	Air	No. of conts.	TPH (EPA 8015 Mod. Gas)	TPH (EPA 8015 Mod. Diesel)	BTEX (EPA 8020/602)	Volatile Organics (EPA 8240)	Test for Disposal	Combination TPH 8015 & BTEX 8020	HOLD	Asbestos	Container Size	Preparation Used	Composite Y/N	MATERIAL DESCRIPTION	SAMPLE CONDITION/ COMMENTS
SB-B/MW-2-21.0	3/6/96		X			1							↓						
SB-C-6.0	↓		↓			↓							↓						
" -11.75	↓		↓			↓							↓						
" -15.5	↓		↓			↓							↓						
" -21.0	↓		↓			↓							↓						
SB-D-5.5	↓		↓			↓							↓						
" -10.5	↓		↓			↓							↓						
" -15.5	↓		↓			↓							↓						

CUSTODY SEALED
Date 3/7/96 Time 1600 Initials PS
SEAL INTACT?
Yes ✓ No____ Initials [signature]

Relinquished By (signature):	Printed Name:	Date/Time	Received (signature):	Printed Name:	Date/Time
David Elias	DAVID ELIAS	Date: 3/6/96 Time: 6:43	P. Smart	P. Smart	Date: 3/7/96 Time: 1435
P. Smart	P. Smart	Date: 3-7-96 Time: 1600	[signature]	PAM GREENE	Date: 3/8/96 Time: 08:00
		Date: Time:			Date: Time:

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

Rev. 1/12/93

Shell Oil Chn. of Custody

VIA: NCS

SHELL OIL COMPANY
RETAIL ENVIRONMENTAL ENGINEERING - WEST

CHAIN OF CUSTODY RECORD
Serial No: #Q014

Date: 3/6/96
Page 3 of 3

Site Address: 1230 14th STREET, OAKLAND

WIC#: 204-4878-1300

Shell Engineer: JEFF GRANBERRY
Phone No.: 675-6168
Fax #: 675-6177

Consultant Name & Address: CAMBRIA ENVIRONMENTAL INC. 1144 65th St. OAKLAND CA

Consultant Contact: SCOTT MACKEY / DAVID ELIAS
Phone No.: 420-9176
Fax #: 420-9170

Comments:

Sampled by: David Elias

Printed Name: DAVID ELIAS

LAB: NET

CHECK ONE (1) BOX ONLY	CT/DT
G.W. Monitoring	☐ 4461
Site Investigation	☒ 4441
Soil Classify/Disposal	☐ 4442
Water Classify/Disposal	☐ 4443
Soil/Air Rem. or Sys. O & M	☐ 4452
Water Rem. or Sys. O & M	☐ 4453
Other	☐

TURN AROUND TIME: 24 hours ☐ | 48 hours ☐ | 15 days ☒ (Normal) | Other ☐ ____

NOTE: Notify Lab as soon as Possible of 24/48 hrs. TAT.

UST AGENCY: ACDEH

Sample ID	Date	Sludge	Soil	Water	Air	No. of conts.	TPH (EPA 8015 Mod. Gas)	TPH (EPA 8015 Mod. Diesel)	BTEX (EPA 8020/602)	Volatile Organics (EPA 8240)	Test for Disposal	Combination TPH 8015 & BTEX 8020	HOLD	Asbestos	Container Size	Preparation Used	Composite Y/N	MATERIAL DESCRIPTION	SAMPLE CONDITION/ COMMENTS
SB-D-20.5	3/6/96		X			1							X						
SB-E-6.0	"		"			"							"						
" -10.5	"		"			"							"						
" -16.0	"		"			"							"						
" -21.0	"		"			"							"						

CUSTODY SEALED
Date 3/7/96 Time 1600 Initials BS
SEAL INTACT?
Yes ✓ No ____ Initials

STORED SECURELY

Relinquished By (signature)	Printed Name	Date	Time	Received (signature)	Printed Name	Date	Time
David Elias	DAVID ELIAS	3/6/96	6:43				
		3-7-96	1600		P. SMART	3/7/96	1425
					PAM GREENE	3/8/96	0810

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

Rev. 1/15/93 — Shell Oil Chain of Custody

VIA: NCS

NATIONAL ENVIRONMENTAL TESTING, INC.

Santa Rosa Division
3636 North Laughlin Road
Suite 110
Santa Rosa, CA 95403-8226
Tel: (707) 526-7200
Fax: (707) 541-2333

Scott Macleod
Cambria Env. Technology
1144 65th Street
Suite C
Oakland, CA 94608

Date: 03/27/1996
NET Client Acct. No: 1832
NET Job No: 96.00878
Received: 03/08/1996

Client Reference Information

Shell 1230 14th Street, Oakland, CA/204-4878-1300

Sample analysis in support of the project referenced above has been completed and results are presented on the following pages. Results apply only to the samples analyzed. Reproduction of this report is permitted only in its entirety. Please refer to the enclosed "Key to Abbreviations" for definition of terms. Should you have questions regarding procedures or results, please feel free to call me at (707) 541-2305.

Submitted by:

Ginger Brinlee
Project Coordinator

Enclosure(s)

Client Name: Cambria Env. Technology Date: 03/27/1996
Client Acct: 1832 ELAP Cert: 1386
NET Job No: 96.00878 Page: 2

Ref: Shell 1230 14th Street, Oakland, CA/204-4878-1300

SAMPLE DESCRIPTION: SB-F/VW/AS-1-5.5
Date Taken: 03/07/1996
Time Taken:
NET Sample No: 261788

Parameter	Results	Flags	Reporting Limit	Units	Method	Date Extracted	Date Analyzed	Run Batch No.
5030/8015-M/8020 (Shell)								
DILUTION FACTOR*	1						03/11/1996	1945
Purgeable TPH	ND		1	mg/kg	5030/M8015		03/11/1996	1945
Carbon Range: C6 to C12	--						03/11/1996	1945
8020 (GC, Solid)	--						03/11/1996	1945
Benzene	ND		2.5	ug/kg	8020		03/11/1996	1945
Toluene	ND		2.5	ug/kg	8020		03/11/1996	1945
Ethylbenzene	ND		2.5	ug/kg	8020		03/11/1996	1945
Xylenes (Total)	ND		2.5	ug/kg	8020		03/11/1996	1945
SURROGATE RESULTS	--						03/11/1996	1945
Bromofluorobenzene (SURR)	76			% Rec.	8020		03/11/1996	1945

Client Name: Cambria Env. Technology
Client Acct: 1832
NET Job No: 96.00878

Date: 03/27/1996
ELAP Cert: 1386
Page: 3

Ref: Shell 1230 14th Street, Oakland, CA/204-4878-1300

SAMPLE DESCRIPTION: SB-F/VW/AS-1-10.5
Date Taken: 03/07/1996
Time Taken:
NET Sample No: 261790

Parameter	Results	Flags	Reporting Limit	Units	Method	Date Extracted	Date Analyzed	Run Batch No.
5030/8015-M/8020 (Shell)								
DILUTION FACTOR*	10						03/11/1996	1945
Purgeable TPH	62		10	mg/kg	5030/M8015		03/13/1996	1946
Carbon Range: C6 to C12	--						03/11/1996	1945
8020 (GC, Solid)	--						03/11/1996	1945
Benzene	970	FF	250	ug/kg	8020		03/12/1996	1945
Toluene	4,200	FF	250	ug/kg	8020		03/12/1996	1944
Ethylbenzene	1,400	FF	250	ug/kg	8020		03/12/1996	1944
Xylenes (Total)	8,000	FF	250	ug/kg	8020		03/12/1996	1944
SURROGATE RESULTS	--						03/11/1996	1945
Bromofluorobenzene (SURR)	144	MI		% Rec.	8020		03/11/1996	1945

Client Name: Cambria Env. Technology Date: 03/27/1996
Client Acct: 1832 ELAP Cert: 1386
NET Job No: 96.00878 Page: 4

Ref: Shell 1230 14th Street, Oakland, CA/204-4878-1300

SAMPLE DESCRIPTION: SB-F/VW/AS-1-15.5
Date Taken: 03/07/1996
Time Taken:
NET Sample No: 261791

Parameter	Results	Flags	Reporting Limit	Units	Method	Date Extracted	Date Analyzed	Run Batch No.
5030/8015-M/8020 (Shell)								
DILUTION FACTOR*	1						03/12/1996	1944
Purgeable TPH	7.4		1	mg/kg	5030/M8015		03/13/1996	1946
Carbon Range: C6 to C12	--						03/12/1996	1944
8020 (GC, Solid)	--						03/12/1996	1944
Benzene	1,700	FC	25	ug/kg	8020		03/12/1996	1944
Toluene	440	FC	25	ug/kg	8020		03/12/1996	1944
Ethylbenzene	200	FC	25	ug/kg	8020		03/12/1996	1944
Xylenes (Total)	600	FC	25	ug/kg	8020		03/12/1996	1944
SURROGATE RESULTS	--						03/12/1996	1944
Bromofluorobenzene (SURR)	85			% Rec.	8020		03/13/1996	1946

Client Name: Cambria Env. Technology Date: 03/27/1996
Client Acct: 1832 ELAP Cert: 1386
NET Job No: 96.00878 Page: 5

Ref: Shell 1230 14th Street, Oakland, CA/204-4878-1300

SAMPLE DESCRIPTION: SB-F/VW/AS-1-20.5
Date Taken: 03/07/1996
Time Taken:
NET Sample No: 261792

Parameter	Results	Flags	Reporting Limit	Units	Method	Date Extracted	Date Analyzed	Run Batch No.
5030/8015-M/8020 (Shell)								
DILUTION FACTOR*	10						03/12/1996	1944
Purgeable TPH	20		10	mg/kg	5030/M8015		03/12/1996	1944
Carbon Range: C6 to C12	--						03/12/1996	1944
8020 (GC, Solid)	--						03/12/1996	1944
Benzene	2,600	FF	250	ug/kg	8020		03/13/1996	1946
Toluene	1,700		250	ug/kg	8020		03/12/1996	1944
Ethylbenzene	500		250	ug/kg	8020		03/12/1996	1944
Xylenes (Total)	2,000		250	ug/kg	8020		03/12/1996	1944
SURROGATE RESULTS	--						03/12/1996	1944
Bromofluorobenzene (SURR)	93			% Rec.	8020		03/12/1996	1944

Client Name: Cambria Env. Technology Date: 03/27/1996
Client Acct: 1832 ELAP Cert: 1386
NET Job No: 96.00878 Page: 6

Ref: Shell 1230 14th Street, Oakland, CA/204-4878-1300

SAMPLE DESCRIPTION: SB-G/VW/MW-2-8.5
Date Taken: 03/07/1996
Time Taken:
NET Sample No: 261793

Parameter	Results	Flags	Reporting Limit	Units	Method	Date Extracted	Date Analyzed	Run Batch No.
5030/8015-M/8020 (Shell)								
DILUTION FACTOR*	1						03/12/1996	1944
Purgeable TPH	ND		1	mg/kg	5030/M8015		03/12/1996	1944
Carbon Range: C6 to C12	--						03/12/1996	1944
8020 (GC, Solid)	--						03/12/1996	1944
Benzene	ND		2.5	ug/kg	8020		03/12/1996	1944
Toluene	ND		2.5	ug/kg	8020		03/12/1996	1944
Ethylbenzene	ND		2.5	ug/kg	8020		03/12/1996	1944
Xylenes (Total)	ND		2.5	ug/kg	8020		03/12/1996	1944
SURROGATE RESULTS	--						03/12/1996	1944
Bromofluorobenzene (SURR)	75			% Rec.	8020		03/12/1996	1944

Client Name: Cambria Env. Technology Date: 03/27/1996
Client Acct: 1832 ELAP Cert: 1386
NET Job No: 96.00878 Page: 7

Ref: Shell 1230 14th Street, Oakland, CA/204-4878-1300

SAMPLE DESCRIPTION: SB-G/VW/MW-2-10.5
Date Taken: 03/07/1996
Time Taken:
NET Sample No: 261794

Parameter	Results	Flags	Reporting Limit	Units	Method	Date Extracted	Date Analyzed	Run Batch No.
5030/8015-M/8020 (Shell)								
DILUTION FACTOR*	1						03/12/1996	1944
Purgeable TPH	ND		1	mg/kg	5030/M8015		03/12/1996	1944
Carbon Range: C6 to C12	--						03/12/1996	1944
8020 (GC, Solid)	--						03/12/1996	1944
Benzene	3.2		2.5	ug/kg	8020		03/12/1996	1944
Toluene	ND		2.5	ug/kg	8020		03/12/1996	1944
Ethylbenzene	ND		2.5	ug/kg	8020		03/12/1996	1944
Xylenes (Total)	ND		2.5	ug/kg	8020		03/12/1996	1944
SURROGATE RESULTS	--						03/12/1996	1944
Bromofluorobenzene (SURR)	88			% Rec.	8020		03/12/1996	1944

Client Name: Cambria Env. Technology Date: 03/27/1996
Client Acct: 1832 ELAP Cert: 1386
NET Job No: 96.00878 Page: 8

Ref: Shell 1230 14th Street, Oakland, CA/204-4878-1300

SAMPLE DESCRIPTION: SB-G/VW/MW-2-20.5
Date Taken: 03/07/1996
Time Taken:
NET Sample No: 261796

Parameter	Results	Flags	Reporting Limit	Units	Method	Date Extracted	Date Analyzed	Run Batch No.
5030/8015-M/8020 (Shell)								
DILUTION FACTOR*	1						03/12/1996	1944
Purgeable TPH	2.9		1	mg/kg	5030/M8015		03/14/1996	1947
Carbon Range: C6 to C12	--						03/12/1996	1944
8020 (GC, Solid)	--						03/12/1996	1944
Benzene	470	FC	25	ug/kg	8020		03/12/1996	1944
Toluene	340	FC	25	ug/kg	8020		03/12/1996	1944
Ethylbenzene	150	FC	25	ug/kg	8020		03/12/1996	1944
Xylenes (Total)	570	FC	25	ug/kg	8020		03/12/1996	1944
SURROGATE RESULTS	--						03/12/1996	1944
Bromofluorobenzene ($URR)	104			% Rec.	8020		03/14/1996	1947

Client Name: Cambria Env. Technology Date: 03/27/1996
Client Acct: 1832 ELAP Cert: 1386
NET Job No: 96.00878 Page: 9

Ref: Shell 1230 14th Street, Oakland, CA/204-4878-1300

SAMPLE DESCRIPTION: SB-H/VW/AS-3-8.5
Date Taken: 03/07/1996
Time Taken:
NET Sample No: 261797

Parameter	Results	Flags	Reporting Limit	Units	Method	Date Extracted	Date Analyzed	Run Batch No.
5030/8015-M/8020 (Shell)								
DILUTION FACTOR*	1						03/12/1996	1944
Purgeable TPH	ND		1	mg/kg	5030/M8015		03/12/1996	1944
Carbon Range: C6 to C12	--						03/12/1996	1944
8020 (GC, Solid)	--						03/12/1996	1944
Benzene	ND		2.5	ug/kg	8020		03/12/1996	1944
Toluene	ND		2.5	ug/kg	8020		03/12/1996	1944
Ethylbenzene	ND		2.5	ug/kg	8020		03/12/1996	1944
Xylenes (Total)	ND		2.5	ug/kg	8020		03/12/1996	1944
SURROGATE RESULTS	--						03/12/1996	1944
Bromofluorobenzene (SURR)	82			% Rec.	8020		03/12/1996	1944

Client Name: Cambria Env. Technology Date: 03/27/1996
Client Acct: 1832 ELAP Cert: 1386
NET Job No: 96.00878 Page: 10

Ref: Shell 1230 14th Street, Oakland, CA/204-4878-1300

SAMPLE DESCRIPTION: SB-H/VW/AS-3-10.5
Date Taken: 03/07/1996
Time Taken:
NET Sample No: 261798

Parameter	Results	Flags	Reporting Limit	Units	Method	Date Extracted	Date Analyzed	Run Batch No.
5030/8015-M/8020 (Shell)								
DILUTION FACTOR*	1						03/12/1996	1944
Purgeable TPH	ND		1	mg/kg	5030/M8015		03/12/1996	1944
Carbon Range: C6 to C12	--						03/12/1996	1944
8020 (GC, Solid)	--						03/12/1996	1944
Benzene	18		2.5	ug/kg	8020		03/12/1996	1944
Toluene	ND		2.5	ug/kg	8020		03/12/1996	1944
Ethylbenzene	ND		2.5	ug/kg	8020		03/12/1996	1944
Xylenes (Total)	14		2.5	ug/kg	8020		03/12/1996	1944
SURROGATE RESULTS	--						03/12/1996	1944
Bromofluorobenzene (SURR)	96			% Rec.	8020		03/12/1996	1944

Client Name: Cambria Env. Technology
Client Acct: 1832
NET Job No: 96.00878

Date: 03/27/1996
ELAP Cert: 1386
Page: 11

Ref: Shell 1230 14th Street, Oakland, CA/204-4878-1300

SAMPLE DESCRIPTION: SB-H/VW/AS-3-21.0
Date Taken: 03/07/1996
Time Taken:
NET Sample No: 261800

Parameter	Results	Flags	Reporting Limit	Units	Method	Date Extracted	Date Analyzed	Run Batch No.
5030/8015-M/8020 (Shell)								
DILUTION FACTOR*	1						03/14/1996	1947
Purgeable TPH	1.0		1	mg/kg	5030/M8015		03/14/1996	1947
Carbon Range: C6 to C12	--						03/14/1996	1947
8020 (GC, Solid)	--						03/14/1996	1947
Benzene	47		2.5	ug/kg	8020		03/14/1996	1947
Toluene	16		2.5	ug/kg	8020		03/14/1996	1947
Ethylbenzene	3.7		2.5	ug/kg	8020		03/14/1996	1947
Xylenes (Total)	17		2.5	ug/kg	8020		03/14/1996	1947
SURROGATE RESULTS	--						03/14/1996	1947
Bromofluorobenzene (SURR)	93			% Rec.	8020		03/14/1996	1947

Client Name: Cambria Env. Technology Date: 03/27/1996
Client Acct: 1832 ELAP Cert: 1386
NET Job No: 96.00878 Page: 12

Ref: Shell 1230 14th Street, Oakland, CA/204-4878-1300

SAMPLE DESCRIPTION: SB-E
Date Taken: 03/07/1996
Time Taken:
NET Sample No: 261801

Parameter	Results	Flags	Reporting Limit	Units	Method	Date Extracted	Date Analyzed	Run Batch No.
Oil & Grease (Total)	ND		5	mg/L	5520B		03/26/1996	392
Oil & Grease (Non-Polar)	ND		5	mg/L	5520B/F		03/26/1996	374
5030/8015-M/8020 (Shell)								
DILUTION FACTOR*	1						03/12/1996	3583
Purgeable TPH	0.96		0.05	mg/L	5030/M8015		03/12/1996	3583
Carbon Range: C6 to C12	--						03/12/1996	3583
8020 (GC, Liquid)	--						03/12/1996	3583
Benzene	170	FC	5	ug/L	8020		03/12/1996	3586
Toluene	0.9		0.5	ug/L	8020		03/12/1996	3583
Ethylbenzene	0.8		0.5	ug/L	8020		03/12/1996	3583
Xylenes (Total)	3.1		0.5	ug/L	8020		03/12/1996	3583
SURROGATE RESULTS	--						03/12/1996	3583
Bromofluorobenzene (SURR)	130	MI		% Rec.	8020		03/12/1996	3583

Client Name: Cambria Env. Technology Date: 03/27/1996
Client Acct: 1832 ELAP Cert: 1386
NET Job No: 96.00878 Page: 13

Ref: Shell 1230 14th Street, Oakland, CA/204-4878-1300

SAMPLE DESCRIPTION: SB-C
Date Taken: 03/07/1996
Time Taken:
NET Sample No: 261802

Parameter	Results	Flags	Reporting Limit	Units	Method	Date Extracted	Date Analyzed	Run Batch No.
5030/8015-M/8020 (Shell)								
DILUTION FACTOR*	100						03/12/1996	3583
Purgeable TPH	22		5	mg/L	5030/M8015		03/12/1996	3583
Carbon Range: C6 to C12	--						03/12/1996	3583
8020 (GC, Liquid)	--						03/12/1996	3583
Benzene	130		50	ug/L	8020		03/12/1996	3583
Toluene	790		50	ug/L	8020		03/12/1996	3583
Ethylbenzene	820		50	ug/L	8020		03/12/1996	3583
Xylenes (Total)	4,300		50	ug/L	8020		03/12/1996	3583
SURROGATE RESULTS	--						03/12/1996	3583
Bromofluorobenzene (SURR)	99			% Rec.	8020		03/12/1996	3583

Client Name: Cambria Env. Technology Date: 03/27/1996
Client Acct: 1832 ELAP Cert: 1386
NET Job No: 96.00878 Page: 14

Ref: Shell 1230 14th Street, Oakland, CA/204-4878-1300

CONTINUING CALIBRATION VERIFICATION STANDARD REPORT

Parameter	CCV Standard % Recovery	CCV Standard Amount Found	CCV Standard Amount Expected	Flags	Units	Date Analyzed	Analyst Initials	Run Batch Number
Oil & Grease (Total)	97.8	161.2	164.8		mg/L	03/26/1996	shr	392
5030/8015-M/8020 (Shell)								
Purgeable TPH	98.0	0.49	0.50		mg/L	03/11/1996	aal	3583
Benzene	95.8	4.79	5.00		ug/L	03/11/1996	aal	3583
Toluene	91.4	4.57	5.00		ug/L	03/11/1996	aal	3583
Ethylbenzene	95.8	4.79	5.00		ug/L	03/11/1996	aal	3583
Xylenes (Total)	97.2	14.58	15.0		ug/L	03/11/1996	aal	3583
Bromofluorobenzene (SURR)	94.7	94.7	100		% Rec.	03/11/1996	aal	3583
5030/8015-M/8020 (Shell)								
Purgeable TPH	98.0	0.49	0.50		mg/L	03/12/1996	dld	3586
Benzene	97.4	4.87	5.00		ug/L	03/12/1996	dld	3586
Toluene	91.0	4.55	5.00		ug/L	03/12/1996	dld	3586
Ethylbenzene	96.4	4.82	5.00		ug/L	03/12/1996	dld	3586
Xylenes (Total)	98.0	14.70	15.0		ug/L	03/12/1996	dld	3586
Bromofluorobenzene (SURR)	94.0	94	100		% Rec.	03/12/1996	dld	3586
5030/8015-M/8020 (Shell)								
Purgeable TPH	102.4	2.56	2.50		mg/kg	03/12/1996	aal	1944
Benzene	88.0	22.0	25.0		ug/kg	03/12/1996	aal	1944
Toluene	90.8	22.7	25.0		ug/kg	03/12/1996	aal	1944
Ethylbenzene	88.8	22.2	25.0		ug/kg	03/12/1996	aal	1944
Xylenes (Total)	96.5	72.4	75.0		ug/kg	03/12/1996	aal	1944
Bromofluorobenzene (SURR)	89.0	89	100		% Rec.	03/12/1996	aal	1944
5030/8015-M/8020 (Shell)								
Purgeable TPH	100.8	2.52	2.50		mg/kg	03/11/1996	aal	1945
Benzene	93.6	23.4	25.0		ug/kg	03/11/1996	aal	1945
Toluene	89.6	22.4	25.0		ug/kg	03/11/1996	aal	1945
Ethylbenzene	91.6	22.9	25.0		ug/kg	03/11/1996	aal	1945
Xylenes (Total)	93.3	70.0	75.0		ug/kg	03/11/1996	aal	1945
Bromofluorobenzene (SURR)	92.0	92	100		% Rec.	03/11/1996	aal	1945
5030/8015-M/8020 (Shell)								
Purgeable TPH	102.0	2.55	2.50		mg/kg	03/13/1996	aal	1946
Benzene	88.8	22.2	25.0		ug/kg	03/13/1996	aal	1946
Toluene	86.4	21.6	25.0		ug/kg	03/13/1996	aal	1946
Ethylbenzene	88.0	22.0	25.0		ug/kg	03/13/1996	aal	1946
Xylenes (Total)	92.0	69.0	75.0		ug/kg	03/13/1996	aal	1946
Bromofluorobenzene (SURR)	91.0	91	100		% Rec.	03/13/1996	aal	1946
5030/8015-M/8020 (Shell)								
Purgeable TPH	92.0	2.30	2.50		mg/kg	03/14/1996	cjy	1947
Benzene	85.8	21.45	25.0		ug/kg	03/14/1996	cjy	1947
Toluene	86.4	21.60	25.0		ug/kg	03/14/1996	cjy	1947
Ethylbenzene	88.0	22.00	25.0		ug/kg	03/14/1996	cjy	1947
Xylenes (Total)	94.2	70.65	75.0		ug/kg	03/14/1996	cjy	1947
Bromofluorobenzene (SURR)	94.0	94	100		% Rec.	03/14/1996	cjy	1947

Client Name: Cambria Env. Technology
Client Acct: 1832
NET Job No: 96.00878

Date: 03/27/1996
ELAP Cert: 1386
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Ref: Shell 1230 14th Street, Oakland, CA/204-4878-1300

METHOD BLANK REPORT

Parameter	Method Blank Amount Found	Reporting Limit	Flags	Units	Date Analyzed	Analyst Initials	Run Batch Number
Oil & Grease (Total)	ND	5		mg/L	03/26/1996	shr	392
Oil & Grease (Non-Polar)	ND	5		mg/L	03/26/1996	shr	374
5030/8015-M/8020 (Shell)							
Purgeable TPH	ND	0.05		mg/L	03/11/1996	aal	3583
Benzene	ND	0.5		ug/L	03/11/1996	aal	3583
Toluene	ND	0.5		ug/L	03/11/1996	aal	3583
Ethylbenzene	ND	0.5		ug/L	03/11/1996	aal	3583
Xylenes (Total)	ND	0.5		ug/L	03/11/1996	aal	3583
Bromofluorobenzene (SURR)	97			% Rec.	03/11/1996	aal	3583
5030/8015-M/8020 (Shell)							
Purgeable TPH	ND	0.05		mg/L	03/12/1996	dld	3586
Benzene	ND	0.5		ug/L	03/12/1996	dld	3586
Toluene	ND	0.5		ug/L	03/12/1996	dld	3586
Ethylbenzene	ND	0.5		ug/L	03/12/1996	dld	3586
Xylenes (Total)	ND	0.5		ug/L	03/12/1996	dld	3586
Bromofluorobenzene (SURR)	98			% Rec.	03/12/1996	dld	3586
5030/8015-M/8020 (Shell)							
Purgeable TPH	ND	1		mg/kg	03/12/1996	aal	1944
Benzene	ND	2.5		ug/kg	03/12/1996	aal	1944
Toluene	ND	2.5		ug/kg	03/12/1996	aal	1944
Ethylbenzene	ND	2.5		ug/kg	03/12/1996	aal	1944
Xylenes (Total)	ND	2.5		ug/kg	03/12/1996	aal	1944
Bromofluorobenzene (SURR)	80			% Rec.	03/12/1996	aal	1944
5030/8015-M/8020 (Shell)							
Purgeable TPH	ND	1		mg/kg	03/11/1996	aal	1945
Benzene	ND	2.5		ug/kg	03/11/1996	aal	1945
Toluene	ND	2.5		ug/kg	03/11/1996	aal	1945
Ethylbenzene	ND	2.5		ug/kg	03/11/1996	aal	1945
Xylenes (Total)	ND	2.5		ug/kg	03/11/1996	aal	1945
Bromofluorobenzene (SURR)	89			% Rec.	03/11/1996	aal	1945
5030/8015-M/8020 (Shell)							
Purgeable TPH	ND	1		mg/kg	03/13/1996	aal	1946
Benzene	ND	2.5		ug/kg	03/13/1996	aal	1946
Toluene	ND	2.5		ug/kg	03/13/1996	aal	1946
Ethylbenzene	ND	2.5		ug/kg	03/13/1996	aal	1946
Xylenes (Total)	ND	2.5		ug/kg	03/13/1996	aal	1946
Bromofluorobenzene (SURR)	86			% Rec.	03/13/1996	aal	1946
5030/8015-M/8020 (Shell)							
Purgeable TPH	ND	1		mg/kg	03/14/1996	cjy	1947
Benzene	ND	2.5		ug/kg	03/14/1996	cjy	1947
Toluene	ND	2.5		ug/kg	03/14/1996	cjy	1947
Ethylbenzene	ND	2.5		ug/kg	03/14/1996	cjy	1947
Xylenes (Total)	ND	2.5		ug/kg	03/14/1996	cjy	1947
Bromofluorobenzene (SURR)	92			% Rec.	03/14/1996	cjy	1947

Client Name: Cambria Env. Technology Date: 03/27/1996
Client Acct: 1832 ELAP Cert: 1386
NET Job No: 96.00878 Page: 16

Ref: Shell 1230 14th Street, Oakland, CA/204-4878-1300

MATRIX SPIKE / MATRIX SPIKE DUPLICATE

Parameter	Matrix Spike % Rec.	Matrix Spike Dup % Rec.	RPD	Spike Amount	Sample Conc.	Matrix Spike Conc.	Matrix Spike Dup. Conc.	Flags	Units	Date Analyzed	Run Batch	Sample Spiked
Oil & Grease (Total)	95.8	96.0	0.2	139.3	ND	133.4	109.9		mg/L	03/26/1996	392	261801
Oil & Grease (Non-Polar)	83.0	91.6	9.9	139.3	ND	115.6	104.9		mg/L	03/26/1996	374	261801
5030/8015-M/8020 (Shell)												261734
Purgeable TPH	100.0	100.0	0.0	0.5	0.08	0.58	0.58		mg/L	03/11/1996	3583	261734
Benzene	111.6	109.6	1.8	6.74	ND	7.52	7.39		ug/L	03/11/1996	3583	261734
Toluene	102.3	102.1	0.2	25.47	ND	26.06	26.00		ug/L	03/11/1996	3583	261734
Bromofluorobenzene (SURR)	104.0	108.0	3.8	100	81	104	108		% Rec.	03/11/1996	3583	261734
5030/8015-M/8020 (Shell)												261744
Purgeable TPH	102.0	102.0	0.0	0.50	ND	0.51	0.51		mg/L	03/12/1996	3586	261744
Benzene	103.0	103.4	0.4	6.72	ND	6.92	6.95		ug/L	03/12/1996	3586	261744
Toluene	102.1	103.3	1.2	25.33	ND	25.86	26.16		ug/L	03/12/1996	3586	261744
Bromofluorobenzene (SURR)	100.0	106.0	5.8	100	83	100	106		% Rec.	03/12/1996	3586	261744
5030/8015-M/8020 (Shell)												261756
Purgeable TPH	102.4	102.4	0.0	2.5	ND	2.56	2.56		mg/kg	03/12/1996	1944	261756
Benzene	95.7	94.9	0.8	27.6	ND	26.4	26.2		ug/kg	03/12/1996	1944	261756
Toluene	93.7	92.9	0.9	126	ND	118	117		ug/kg	03/12/1996	1944	261756
Bromofluorobenzene (SURR)	96.0	96.0	0.0	100	85	96	96		% Rec.	03/12/1996	1944	261756
5030/8015-M/8020 (Shell)												261748
Purgeable TPH	100.4	100.8	0.4	2.5	ND	2.51	2.52		mg/kg	03/11/1996	1945	261748
Benzene	90.9	91.2	0.3	29.7	ND	27.0	27.1		ug/kg	03/11/1996	1945	261748
Toluene	100.8	101.6	0.8	126	ND	127	128		ug/kg	03/11/1996	1945	261748
Bromofluorobenzene (SURR)	100.0	100.0	0.0	100	92	100	100		% Rec.	03/11/1996	1945	261748
5030/8015-M/8020 (Shell)												261792
Purgeable TPH	96.4	99.2	2.9	250	ND	241	248		mg/kg	03/13/1996	1946	261792
Benzene	133.3	137.0	2.7	2,700	2,600	6,200	6,300		ug/kg	03/13/1996	1946	261792
Toluene	83.3	91.3	9.2	12,600	1,500	12,000	13,000		ug/kg	03/13/1996	1946	261792
Bromofluorobenzene (SURR)	94.0	96.0	2.1	100	88	94	96		% Rec.	03/13/1996	1946	261792
5030/8015-M/8020 (Shell)												261959
Purgeable TPH	112.0	108.0	3.6	2.5	ND	2.8	2.7		mg/kg	03/14/1996	1947	261959
Benzene	78.2	71.3	9.2	37.60	ND	29.40	26.80		ug/kg	03/14/1996	1947	261959
Toluene	93.3	99.1	6.0	127.3	ND	118.8	126.1		ug/kg	03/14/1996	1947	261959
Bromofluorobenzene (SURR)	101.0	99.0	1.9	100	92	101	99		% Rec.	03/14/1996	1947	261959

Client Name: Cambria Env. Technology Date: 03/27/1996
Client Acct: 1832 ELAP Cert: 1386
NET Job No: 96.00878 Page: 17

Ref: Shell 1230 14th Street, Oakland, CA/204-4878-1300

LABORATORY CONTROL SAMPLE REPORT

Parameter	LCS % Rec.	DUP LCS % Rec.	RPD	LCS Amount Found	DUP LCS Amount Found	LCS Amount Exp.	Flags	Units	Date Analyzed	Analyst Initials	Run Batch
Oil & Grease (Total)	97.6			144.3		147.9		mg/L	03/26/1996	shr	392
Oil & Grease (Non-Polar)	96.3			142.5		147.9		mg/L	03/26/1996	shr	374

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SHELL OIL COMPANY
RETAIL ENVIRONMENTAL ENGINEERING - WEST

CHAIN OF CUSTODY RECORD
Serial No: _____

Date: 3/7/96
Page 1 of 2

Site Address: 1230 14th STREET, OAKLAND

WIC#: 204-4878-1300

Shell Engineer: JEFF GRANBERRY — Phone No.: 675-6168 Fax #: 675-6172

Consultant Name & Address: CAMBRIA ENV. TECH. INC. 1144 65th ST. OAKLAND, CA

Consultant Contact: SCOTT MACKEY / DAVID ELIAS — Phone No.: 420-9170 Fax #: 420-9170

Comments:

Sampled by: David Elias

Printed Name: DAVID ELIAS

LAB: NET

CHECK ONE (1) BOX ONLY	CT/DT
G.W. Monitoring	☐ 4461
Site Investigation	☒ 4441
Soil Classify/Disposal	☐ 4442
Water Classify/Disposal	☐ 4443
Soil/Air Rem. or Sys. O & M	☐ 4452
Water Rem. or Sys. O & M	☐ 4453
Other	☐

TURN AROUND TIME: 24 hours ☐ ; 48 hours ☐ ; 16 days ☒ (Normal) ; Other ☐ ____

NOTE: Notify Lab as soon as Possible of 24/48 hrs. TAT.

UST AGENCY: ACDEH

Sample ID	Date	Sludge	Soil	Water	Air	No. of conts.	TPH (EPA 8015 Mod. Gas)	TPH (EPA 8015 Mod. Diesel)	BTEX (EPA 8020/602)	Volatile Organics (EPA 8240)	Test for Disposal	Combination TPH 8015 & BTEX 8020	HOLD		Asbestos	Container Size	Preparation Used	Composite Y/N	MATERIAL DESCRIPTION	SAMPLE CONDITION/ COMMENTS
SBF/VW/AS-1-5.5	3/7/96		X			1						X								
" -8.5													X							
" -10.5												X								
" -15.5												X								
" -20.5													X							O+G added by D. Elias
SB-4/VW/MW-2-8.5												X								
" -10.5												X								
" -15.5	↓		↓			↓							X							

→ STORED SELLURENT

	Printed Name	Date/Time		Printed Name	Date/Time
Relinquished By (signature):	DAVID ELIAS	3/7/96 18:16	Received (signature):	R. SMART	3/8/96 10:45
Relinquished By (signature):	R. SMART	3-8-96 16:33	Received (signature):	M DOWLING	3/8/96 1633
Relinquished By (signature):	M. DOWLING	3/8/96 1800	Received (signature):	PAM GREENE	3/8/96 18:20

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

Rev. 1/12/93

Shell Oil Chn. of Custody

0028

SHELL OIL COMPANY
RETAIL ENVIRONMENTAL ENGINEERING - WEST

CHAIN OF CUSTODY RECORD
Serial No:______

Date: 3/7/96
Page 2 of 2

Site Address: 1230 14th STREET, OAKLAND

WIC#: 204-4878-1300

Shell Engineer: JEFF GRANBERRY
Phone No.: 675-6168
Fax #: 675-6172

Consultant Name & Address: CAMBRIA ENV. TECH. INC. 1144 65th ST. OAKLAND CA

Consultant Contact: SCOTT MACLEOD / DAVID ELIAS
Phone No.: 420-9174
Fax #: 420-9170

Comments:

Sampled by: David Elias

Printed Name: DAVID ELIAS

LAB: NET

CHECK ONE (1) BOX ONLY		CT/DT	TURN AROUND TIME
G.W. Monitoring	☐	4461	24 hours ☐
Site Investigation	☒	4441	48 hours ☐
Soil Classify/Disposal	☐	4442	16 days ☒ (Normal)
Water Classify/Disposal	☐	4443	Other ☐ ____
Soil/Air Rem. or Sys. O & M	☐	4452	NOTE: Notify Lab as soon as Possible of 24/48 hrs. TAT.
Water Rem. or Sys. O & M	☐	4453	
Other	☐		

UST AGENCY: ACDEH

Analysis Required

Sample ID	Date	Sludge	Soil	Water	Air	No. of conts.	TPH (EPA 8015 Mod. Gas)	TPH (EPA 8015 Mod. Diesel)	BTEX (EPA 8020/602)	Volatile Organics (EPA 8240)	Test for Disposal	Combination TPH 8015 & BTEX 8020	HOLD	PETROLEUM OIL & GREASE 5520BF	Asbestos	Container Size	Preparation Used	Composite Y/N	MATERIAL DESCRIPTION	SAMPLE CONDITION/ COMMENTS
SB-G/~~VW/AS-2~~ VW/MW-2-20.5	3/7/96		X			1						X								
SB-H/VW/AS-3-8.5	↓		↓			↓						X								
" -10.5												X								
" -15.5													X							
" -21.0												X								
SB-E	3/7/96			X		6						X	X							
SB-C	"			X		4						X								

Stored at [illegible]

Relinquished By (signature):	Printed Name:	Date/Time	Received (signature):	Printed Name:	Date/Time
David Elias	DAVID ELIAS	Date: 3/7/96 Time: 18:16	P. Smart	P. Smart	Date: 3/8/96 Time: 10:08
P. Smart	P. Smart	Date: 3-8-96 Time: 16:35	M. Dowling	M. Dowling	Date: 3/8/96 Time: 1635
M. Dowling	M. Dowling	Date: 3/8/96 Time: 1820	Pam Greene	PAM GREENE	Date: 3/8/96 Time: 1820

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

Rev. 1/12/93

Shell Oil Chn. of Custody

NET *Santa Rosa Division* LOGIN CHECKLIST

CLIENT: Cambria JOB #: _____ LOG #: 0628
Project ID: 1230 14th St, Oakland
Samples Received On : 3/8/96 Checked in on : 3/8/96

1) Custody Seals: ☑ N/A ☑ Present ☐ Absent ☐ Broken

2) Chain of Custody Forms: ☑ Present ☐ Absent #(s): _____
☑ Complete ☑ Incomplete SB-E Water Hes Discrepancy on COC

3) Type of packing material used: Ice

4) Temperature(s) 3 °C Thermometer #(s) _____

5) Sample Container(s) ☑ Intact ☐ Broken _____

6) Container Label(s) ☑ Match COC ☐ Do Not Match _____

7) Sample Volume ☑ Sufficient ☐ Insufficient _____

8) Preservative(s) ☑ Correct ☐ Incorrect ☐ pH verified ☐ Res.Cl chk (CN & PHLs)

9) Headspace (VOAs) ☑ None ☐ Present (list ID's / number vials affected)

Sample ID	# of Vials	Sample ID	# of Vials

10) Form Completed By: _____ Date: 3/8/96

Attach shipper's packing slip to this form before routing

Problem Resolution:

1) ☐ Project Coordinator Verbally Informed on _____

2) ☐ Client Informed on _____ By _____

Project Coordinator: _____ Date _____ Resolved: ☐ Y ☐ N

Comments: _____

qamisc\lognfrm

0628

SHELL OIL COMPANY
RETAIL ENVIRONMENTAL ENGINEERING - WEST

CHAIN OF CUSTODY RECORD
Serial No:_____

Date: 3/7/96
Page 1 of 2

Site Address: 1230 14th STREET, OAKLAND

WIC#: 204-4878-1300

Shell Engineer: JEFF GRANBERRY
Phone No.: 675-6168
Fax #: 675-6172

Consultant Name & Address: CAMBRIA ENVIRONMENTAL TECH. INC.
1144 65th ST. OAKLAND CA

Consultant Contact: SCOTT MACKEY / DAVID ELIAS
Phone No.: 420-1174
Fax #: 420-9170

Comments:

Sampled by: David Elias

Printed Name: DAVID ELIAS

LAB: NET

CHECK ONE (1) BOX ONLY	CT/DT
G.W. Monitoring	☐ 4461
Site Investigation	☒ 4441
Soil Classify/Disposal	☐ 4442
Water Classify/Disposal	☐ 4443
Soil/Air Rem. or Sys. O & M	☐ 4452
Water Rem. or Sys. O & M	☐ 4453
Other	☐

TURN AROUND TIME: 24 hours ☐ | 48 hours ☐ | 16 days ☒ (Normal) | Other ☐ ____

NOTE: Notify Lab as soon as Possible of 24/48 hrs. TAT.

UST AGENCY: ACDEH

Sample ID	Date	Sludge	Soil	Water	Air	No. of conts.	TPH (EPA 8015 Mod. Gas)	TPH (EPA 8015 Mod. Diesel)	BTEX (EPA 8020/602)	Volatile Organics (EPA 8240)	Test for Disposal	Combination TPH 8015 & BTEX 8020	HOLD		Asbestos	Container Size	Preparation Used	Composite Y/N	MATERIAL DESCRIPTION	SAMPLE CONDITION/ COMMENTS
SBF/VW/AS-1-5.5	3/7/96		X			1						X								
" -8.5													X							
" -10.5												X								
" -15.5												X								
" -20.5													X							
SB-6/VW/MW-2-8.5												X								
" -10.5												X								
" -15.5	↓		↓			↓							X							

	Printed Name	Date/Time		Printed Name	Date/Time
Relinquished By (signature):	DAVID ELIAS	3/7/96 18:16	Received (signature):	P. SMART	3/8/96 1648
Relinquished By (signature):	P. SMART	3-8-96 1633	Received (signature):	M DOWLING	3/8/96 1635
Relinquished By (signature):	M. DOWLING	3/8/96 1800	Received (signature):	PAM GREENE	3/8/96 18:20

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

Rev. 7/15/93

Shell Oil Chain of Custody

0028

SHELL OIL COMPANY
RETAIL ENVIRONMENTAL ENGINEERING - WEST

CHAIN OF CUSTODY RECORD
Serial No: _____

Date: 3/7/96
Page 2 of 2

Site Address: 1230 14th STREET, OAKLAND

WIC#: 204-4878-1300

Shell Engineer: JEFF GRANBERRY
Phone No.: 675-6168
Fax #: 675-6172

Consultant Name & Address: CAMBRIA ENVIRONTECH, INC. 1144 65th ST. OAKLAND CA

Consultant Contact: SCOTT MACKEY / DAVID ELIAS
Phone No.: 420-9174
Fax #: 420-9170

Comments:

Sampled by: David Elias

Printed Name: DAVID ELIAS

LAB: NET

CHECK ONE (1) BOX ONLY	CT/DT	TURN AROUND TIME
G.W. Monitoring	4461	24 hours
Site Investigation	X 4441	48 hours
Soil Classify/Disposal	4442	15 days X (Normal)
Water Classify/Disposal	4443	Other
Soil/Air Rem. or Sys. O & M	4452	NOTE: Notify Lab as soon as Possible of 24/48 hrs. TAT.
Water Rem. or Sys. O & M	4453	
Other		

UST AGENCY: ACDEH

Sample ID	Date	Sludge	Soil	Water	Air	No. of conts.	TPH (EPA 8015 Mod. Gas)	TPH (EPA 8015 Mod. Diesel)	BTEX (EPA 8020/602)	Volatile Organics (EPA 8240)	Test for Disposal	Combination TPH 8015 & BTEX 8020	H2O2	Petroleum Oil/Grease 5520E/F	Asbestos	Container Size	Preparation Used	Composite Y/N	MATERIAL DESCRIPTION	SAMPLE CONDITION/ COMMENTS
SB-G/VW/MW-2-20.5	3/7/96		X			1						X								
SB-H/VW/AS-3-8.5	"		"			"						X								
" -10.5												X								
" -15.5													X							
" -21.0												X								
SB-E	3/7/96			X		6						X	X							
SB-C	"			X		4						X								

Relinquished By (signature)	Printed Name	Date/Time	Received (signature)	Printed Name	Date/Time
David Elias	DAVID ELIAS	3/7/96 18:16	C. Smart	C. Smart	3/8/96 10:08
C. Smart	C. Smart	3/8/96 16:33	M Dowlin	M Dowlin	3/8/96 16:35
M Dowlin	M. Dowlin	3/8/96 1820	Pam Greene	PAM GREENE	3/8/96 1820

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

Rev. 1/12/93

Shell Oil Chain of Custody

SHELL OIL COMPANY
RETAIL ENVIRONMENTAL ENGINEERING - WEST

CHAIN OF CUSTODY RECORD
Serial No: _____

Date: 3/7/96
Page 1 of 2

Site Address: 1230 14th STREET, OAKLAND

WIC#: 204-4878-1300

Shell Engineer: JEFF GRANBERRY
Phone No.: 675-6168
Fax #: 675-6172

Consultant Name & Address: CAMBRIA ENV. TECH. INC. 1144 65th ST. OAKLAND CA

Consultant Contact: SCOTT MACKEY / DAVID ELIAS
Phone No.: 420-9171
Fax #: 420-9170

Comments:

Sampled by: David Elias

Printed Name: DAVID ELIAS

LAB: NET

CHECK ONE (1) BOX ONLY	CT/DT	TURN AROUND TIME
G.W. Monitoring	☐ 4461	24 hours ☐
Site Investigation	☒ 4461	48 hours ☐
Soil Classify/Disposal	☐ 4462	96 hours ☒ (Normal)
Water Classify/Disposal	☐ 4463	Other: ☐ ____
Soil/Air Rem. or Sys. O & M	☐ 4452	NOTE: Notify Lab as soon as Possible of 24/48 hrs. TAT.
Water Rem. or Sys. O & M	☐ 4453	
Other	☐	

UST AGENCY: ALCEH

Sample ID	Date	Sludge	Soil	Water	Air	No. of conts.	TPH (EPA 8015 Mod. Gas)	TPH (EPA 8015 Mod. Diesel)	BTEX (EPA 8020/602)	Volatile Organics (EPA 8240)	Test for Disposal	Combination TPH 8015 & BTEX 8020	418.1		Asbestos	Container Size	Preparation Used	Composite Y/N	MATERIAL DESCRIPTION	SAMPLE CONDITION/ COMMENTS
SBF/VW/A2-1-5	3/7/96		X			1						X								
" -8.5													X							
" -10.5												X								
" -15.5												X								
" -20.5													X							
B-4/VW/MW-2-9.5												X								
" -10.5												X								
" -15.5												X	X							

Relinquished By (signature):	Printed Name:	Date: / Time:	Received (signature):	Printed Name:	Date: / Time:
Relinquished By (signature):	Printed Name:	Date: / Time:	Received (signature):	Printed Name:	Date: / Time:
Relinquished 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

Page One of Two

SHELL OIL COMPANY
RETAIL ENVIRONMENTAL ENGINEERING - WEST

CHAIN OF CUSTODY RECORD
Serial No: ____________

Date: 3/7/96
Page 2 of 2

Site Address: 1230 14th STREET, OAKLAND

WIC#: 204-4878-1300

Shell Engineer: JEFF GRANBERRY
Phone No.: 675-6168
Fax #: 675-6172

Consultant Name & Address: CAMBRIA ENV. TECH, INC. 1144 65th ST. OAKLAND CA

Consultant Contact: Scott Mackey / DAVID ELIAS
Phone No.: 420-9176
Fax #: 420-9170

Comments:

Sampled by: David Elias

Printed Name: DAVID ELIAS

LAB: NET

CHECK ONE (1) BOX ONLY		CT/DT	TURN AROUND TIME	
G.W. Monitoring	☐	4441	24 hours	☐
Site Investigation	☒	4441	48 hours	☐
Soil Classify/Disposal	☐	4442	15 days	☒ (Normal)
Water Classify/Disposal	☐	4443	Other	☐ ______
Soil/Air Rem. or Sys. O & M	☐	4452		
Water Rem. or Sys. O & M	☐	4453		
Other	☐			

NOTE: Notify Lab as soon as Possible of 24/48 hrs. TAT.

UST AGENCY: ACDEH

Analysis Required

Sample ID	Date	Sludge	Soil	Water	Air	No. of conts.	TPH (EPA 8015 Mod. Gas)	TPH (EPA 8015 Mod. Diesel)	BTEX (EPA 8020/602)	Volatile Organics (EPA 8240)	Test for Disposal	Combination TPH 8015 & BTEX 8020	HOLD	PETROLEUM OIL & GREASE 5520 E F	Asbestos	Container Size	Preparation Used	Composite Y/N	MATERIAL DESCRIPTION	SAMPLE CONDITION/ COMMENTS
SB-4/VW/MW-2-20.5	3/7/96		X			1						X								
SB-4/VW/AS-3-8.5	↓		↓			↓						X								
" -10.5	↓		↓			↓						X								
" -15.5	↓		↓			↓							X							
" -21.0	↓		↓			↓						X								
SB-E	3/7/96			X		6						X	X							
SB-C	"			X		4						X								

Relinquished 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

NET *Santa Rosa Division* LOGIN CHECKLIST

CLIENT: Cambria JOB #: _____ LOG #: 0628
Project ID: 1230 14th St Oakland
Samples Received On : 3/8/96 Checked in on : 3/8/96

1) Custody Seals: ☑ N/A ☑ Present (KM 3/8/96) ☐ Absent ☐ Broken

2) Chain of Custody Forms: ☑ Present ☐ Absent #(s): _____
☑ Complete (KM 3/8/96) ☑ Incomplete SB-E Water Has Discrepancy on COC (KM)

3) Type of packing material used: Ice

4) Temperature(s) 3 °C Thermometer #(s) _____

5) Sample Container(s) ☑ Intact ☐ Broken _____

6) Container Label(s) ☑ Match COC ☐ Do Not Match _____

7) Sample Volume ☑ Sufficient ☐ Insufficient _____

8) Preservative(s) ☑ Correct ☐ Incorrect ☐ pH verified ☐ Res.Cl chk (CN & PHLs)

9) Headspace (VOAs) ☑ None ☐ Present (list ID's / number vials affected)

Sample ID	# of Vials	Sample ID	# of Vials

10) Form Completed By: [signature] Date: 3/8/96

Attach shipper's packing slip to this form before routing

Problem Resolution:

1) ☐ Project Coordinator Verbally Informed on _____

2) ☐ Client Informed on _____ By _____

Project Coordinator: _____ Date _____ Resolved: ☐ Y ☐ N

Comments: _____

qamisc\logfrm

KEY TO RESULT FLAGS

*	: RPD between sample duplicates exceeds 30%.
*M	: RPD between sample duplicates or MS/MSD exceeds 20%.
+	: Correlation coefficient for the Method of Standard Additions is less than 0.995.
<	: Sample result is less than reported value.
B-I	: Value is between Method Detection Limit and Reporting Limit.
B-0	: Analyte found in blank and sample.
C	: The result confirmed by secondary column or GC/MS analysis.
CNA	: Cr+6 not analyzed; Total Chromium concentration below Cr+6 regulatory level.
COMP	: Sample composited by equal volume prior to analysis.
D-	: The result has an atypical pattern for Diesel analysis.
D1	: The result for Diesel is an unknown hydrocarbon which consists of a single peak.
DH	: The result appears to be a heavier hydrocarbon than Diesel.
DL	: The result appears to be a lighter hydrocarbon than Diesel.
DR	: Elevated Reporting Limit due to Matrix.
DS	: Surrogate diluted out of range.
DX	: The result for Diesel is an unknown hydrocarbon which consists of several peaks.
FA	: Compound quantitated at a 2X dilution factor.
FB	: Compound quantitated at a 5X dilution factor.
FC	: Compound quantitated at a 10X dilution factor.
FD	: Compound quantitated at a 20X dilution factor.
FE	: Compound quantitated at a 50X dilution factor.
FF	: Compound quantitated at a 100X dilution factor.
FG	: Compound quantitated at a 200X dilution factor.
FH	: Compound quantitated at a 500X dilution factor.
FI	: Compound quantitated at a 1000X dilution factor.
FJ	: Compound quantitated at a greater than 1000x dilution factor.
FK	: Compound quantitated at a 25X dilution factor.
FL	: Compound quantitated at a 250X dilution factor.
G-	: The result has an atypical pattern for Gasoline.
G1	: The result for Gasoline is an unknown hydrocarbon which consists of a single peak.
GH	: The result appears to be a heavier hydrocarbon than Gasoline.
GL	: The result appears to be a lighter hydrocarbon than Gasoline.
GX	: The result for Gasoline is an unknown hydrocarbon which consists of several peaks.
HX	: Peaks detected within the quantitation range do not match standard used.
J	: Value is estimated.
MI	: Matrix Interference Suspected.
MSA	: Value determined by Method of Standard Additions.
MSA*	: Value obtained by Method of Standard Additions; Correlation coefficient is <0.995.
NI1	: Sample spikes outside of QC limits; matrix interference suspected.
NI2	: Sample concentration is greater than 4X the spiked value; the spiked value is considered insignificant.
NI3	: Matrix Spike values exceed established QC limits, post digestion spike is in control.
P7	: pH of sample > 2; sample analyzed past 7 days.
RSC	: Refer to subcontract laboratory report for QC data.
S2	: Matrix interference confirmed by repeat analysis.
SCN	: Thiocyanate not analyzed separately; total value is below the Reporting Limit for Free Cyanide.
UMDL	: Undetected at the Method Detection Limit.

KEY TO ABBREVIATIONS

ICVS	: Initial Calibration Verification Standard (External Standard).
mean	: Average; sum of measurements divided by number of measurements.
mg/Kg	: Concentration in units of milligrams of analyte per kilogram of sample.
mg/L	: Concentration in units of milligrams of analyte per liter of sample.
mL/L/hr	: Milliliters per liter per hour.
MPN/100 mL	: Most probable number of bacteria per one hundred milliliters of sample.
N/A	: Not applicable.
NA	: Not analyzed.
ND	: Not detected.
NTU	: Nephelometric turbidity units.
RPD	: Relative percent difference.
SNA	: Standard not available.
ug/Kg	: Concentration in units of micrograms of analyte per kilogram of sample.
ug/L	: Concentration in units of micrograms of analyte per liter of sample.
umhos/cm	: Micromhos per centimeter.

NATIONAL ENVIRONMENTAL TESTING, INC.

Santa Rosa Division
3636 North Laughlin Road
Suite 110
Santa Rosa, CA 95403-8226
Tel: (707) 526-7200
Fax: (707) 541-2333

Scott Macleod
Cambria Env. Technology
1144 65th Street
Suite C
Oakland, CA 94608

Date: 03/21/1996
NET Client Acct. No: 1832
NET Job No: 96.00931
Received: 03/12/1996

Client Reference Information

Shell 1230 14th Street, Oakland, CA/204-4878-1300

Sample analysis in support of the project referenced above has been completed and results are presented on the following pages. Results apply only to the samples analyzed. Reproduction of this report is permitted only in its entirety. Please refer to the enclosed "Key to Abbreviations" for definition of terms. Should you have questions regarding procedures or results, please feel free to call me at (707) 541-2305.

Submitted by:

Ginger Brinlee
Project Coordinator

Enclosure(s)

Client Name: Cambria Env. Technology Date: 03/21/1996
Client Acct: 1832 ELAP Cert: 1386
NET Job No: 96.00931 Page: 2

Ref: Shell 1230 14th Street, Oakland, CA/204-4878-1300

SAMPLE DESCRIPTION: SB-I-5.5
Date Taken: 03/08/1996
Time Taken:
NET Sample No: 261959

Parameter	Results	Flags	Reporting Limit	Units	Method	Date Extracted	Date Analyzed	Run Batch No.
5030/8015-M/8020 (Shell)								
DILUTION FACTOR*	1						03/14/1996	1947
Purgeable TPH	ND		1	mg/kg	5030/M8015		03/14/1996	1947
Carbon Range: C6 to C12	--						03/14/1996	1947
8020 (GC, Solid)	--						03/14/1996	1947
Benzene	ND		2.5	ug/kg	8020		03/14/1996	1947
Toluene	ND		2.5	ug/kg	8020		03/14/1996	1947
Ethylbenzene	ND		2.5	ug/kg	8020		03/14/1996	1947
Xylenes (Total)	ND		2.5	ug/kg	8020		03/14/1996	1947
SURROGATE RESULTS	--						03/14/1996	1947
Bromofluorobenzene (SURR)	92			% Rec.	8020		03/14/1996	1947

Client Name: Cambria Env. Technology Date: 03/21/1996
Client Acct: 1832 ELAP Cert: 1386
NET Job No: 96.00931 Page: 3

Ref: Shell 1230 14th Street, Oakland, CA/204-4878-1300

SAMPLE DESCRIPTION: SB-I-8.5
Date Taken: 03/08/1996
Time Taken:
NET Sample No: 261960

Parameter	Results	Flags	Reporting Limit	Units	Method	Date Extracted	Date Analyzed	Run Batch No.
5030/8015-M/8020 (Shell)								
DILUTION FACTOR*	10						03/15/1996	1948
Purgeable TPH	80		10	mg/kg	5030/M8015		03/15/1996	1948
Carbon Range: C6 to C12	--						03/15/1996	1948
8020 (GC, Solid)	--						03/15/1996	1948
Benzene	140		25	ug/kg	8020		03/15/1996	1948
Toluene	330		25	ug/kg	8020		03/15/1996	1948
Ethylbenzene	1,300		25	ug/kg	8020		03/15/1996	1948
Xylenes (Total)	5,200		25	ug/kg	8020		03/15/1996	1948
SURROGATE RESULTS	--						03/15/1996	1948
Bromofluorobenzene (SURR)	157	MI		% Rec.	8020		03/15/1996	1948

Client Name: Cambria Env. Technology Date: 03/21/1996
Client Acct: 1832 ELAP Cert: 1386
NET Job No: 96.00931 Page: 4

Ref: Shell 1230 14th Street, Oakland, CA/204-4878-1300

SAMPLE DESCRIPTION: SB-I-15.5
Date Taken: 03/08/1996
Time Taken:
NET Sample No: 261961

Parameter	Results	Flags	Reporting Limit	Units	Method	Date Extracted	Date Analyzed	Run Batch No.
5030/8015-M/8020 (Shell)								
DILUTION FACTOR*	1						03/14/1996	1947
Purgeable TPH	3.4		1	mg/kg	5030/M8015		03/14/1996	1947
Carbon Range: C6 to C12	--						03/14/1996	1947
8020 (GC, Solid)	--						03/14/1996	1947
Benzene	230	FC	25	ug/kg	8020		03/15/1996	1948
Toluene	93	FC	25	ug/kg	8020		03/15/1996	1948
Ethylbenzene	100		2.5	ug/kg	8020		03/14/1996	1947
Xylenes (Total)	420		2.5	ug/kg	8020		03/14/1996	1947
SURROGATE RESULTS	--						03/14/1996	1947
Bromofluorobenzene (SURR)	87			% Rec.	8020		03/14/1996	1947

Client Name: Cambria Env. Technology Date: 03/21/1996
Client Acct: 1832 ELAP Cert: 1386
NET Job No: 96.00931 Page: 5

Ref: Shell 1230 14th Street, Oakland, CA/204-4878-1300

SAMPLE DESCRIPTION: SB-J-10.5
Date Taken: 03/08/1996
Time Taken:
NET Sample No: 261962

Parameter	Results	Flags	Reporting Limit	Units	Method	Date Extracted	Date Analyzed	Run Batch No.
5030/8015-M/8020 (Shell)								
DILUTION FACTOR*	1						03/14/1996	1947
Purgeable TPH	ND		1	mg/kg	5030/M8015		03/14/1996	1947
Carbon Range: C6 to C12	--						03/14/1996	1947
8020 (GC, Solid)	--						03/14/1996	1947
Benzene	ND		2.5	ug/kg	8020		03/14/1996	1947
Toluene	ND		2.5	ug/kg	8020		03/14/1996	1947
Ethylbenzene	ND		2.5	ug/kg	8020		03/14/1996	1947
Xylenes (Total)	ND		2.5	ug/kg	8020		03/14/1996	1947
SURROGATE RESULTS	--						03/14/1996	1947
Bromofluorobenzene (SURR)	77			% Rec.	8020		03/14/1996	1947

Client Name: Cambria Env. Technology Date: 03/21/1996
Client Acct: 1832 ELAP Cert: 1386
NET Job No: 96.00931 Page: 6

Ref: Shell 1230 14th Street, Oakland, CA/204-4878-1300

SAMPLE DESCRIPTION: SB-K-10.5
Date Taken: 03/08/1996
Time Taken:
NET Sample No: 261963

Parameter	Results	Flags	Reporting Limit	Units	Method	Date Extracted	Date Analyzed	Run Batch No.
5030/8015-M/8020 (Shell)								
DILUTION FACTOR*	1						03/14/1996	1947
Purgeable TPH	ND		1	mg/kg	5030/M8015		03/14/1996	1947
Carbon Range: C6 to C12	--						03/14/1996	1947
8020 (GC, Solid)	--						03/14/1996	1947
Benzene	ND		2.5	ug/kg	8020		03/14/1996	1947
Toluene	ND		2.5	ug/kg	8020		03/14/1996	1947
Ethylbenzene	ND		2.5	ug/kg	8020		03/14/1996	1947
Xylenes (Total)	ND		2.5	ug/kg	8020		03/14/1996	1947
SURROGATE RESULTS	--						03/14/1996	1947
Bromofluorobenzene (SURR)	81			% Rec.	8020		03/14/1996	1947

Client Name: Cambria Env. Technology Date: 03/21/1996
Client Acct: 1832 ELAP Cert: 1386
NET Job No: 96.00931 Page: 7

Ref: Shell 1230 14th Street, Oakland, CA/204-4878-1300

SAMPLE DESCRIPTION: SB-J
Date Taken: 03/08/1996
Time Taken:
NET Sample No: 261971

Parameter	Results	Flags	Reporting Limit	Units	Method	Date Extracted	Date Analyzed	Run Batch No.
5030/8015-M/8020 (Shell)								
DILUTION FACTOR*	1						03/14/1996	3593
Purgeable TPH	ND		0.05	mg/L	5030/M8015		03/14/1996	3593
Carbon Range: C6 to C12	--						03/14/1996	3593
8020 (GC, Liquid)	--						03/14/1996	3593
Benzene	ND		0.5	ug/L	8020		03/14/1996	3593
Toluene	ND		0.5	ug/L	8020		03/14/1996	3593
Ethylbenzene	ND		0.5	ug/L	8020		03/14/1996	3593
Xylenes (Total)	ND		0.5	ug/L	8020		03/14/1996	3593
SURROGATE RESULTS	--						03/14/1996	3593
Bromofluorobenzene (SURR)	92			% Rec.	8020		03/14/1996	3593

Client Name: Cambria Env. Technology Date: 03/21/1996
Client Acct: 1832 ELAP Cert: 1386
NET Job No: 96.00931 Page: 8

Ref: Shell 1230 14th Street, Oakland, CA/204-4878-1300

CONTINUING CALIBRATION VERIFICATION STANDARD REPORT

Parameter	CCV Standard % Recovery	CCV Standard Amount Found	CCV Standard Amount Expected	Flags	Units	Date Analyzed	Analyst Initials	Run Batch Number
5030/8015-M/8020 (Shell)								
Purgeable TPH	102.0	0.51	0.50		mg/L	03/14/1996	aal	3593
Benzene	90.4	4.52	5.00		ug/L	03/14/1996	aal	3593
Toluene	85.4	4.27	5.00		ug/L	03/14/1996	aal	3593
Ethylbenzene	88.4	4.42	5.00		ug/L	03/14/1996	aal	3593
Xylenes (Total)	90.4	13.56	15.0		ug/L	03/14/1996	aal	3593
Bromofluorobenzene (SURR)	90.0	90	100		% Rec.	03/14/1996	aal	3593
5030/8015-M/8020 (Shell)								
Purgeable TPH	92.0	2.30	2.50		mg/kg	03/14/1996	cjy	1947
Benzene	85.8	21.45	25.0		ug/kg	03/14/1996	cjy	1947
Toluene	86.4	21.60	25.0		ug/kg	03/14/1996	cjy	1947
Ethylbenzene	88.0	22.00	25.0		ug/kg	03/14/1996	cjy	1947
Xylenes (Total)	94.2	70.65	75.0		ug/kg	03/14/1996	cjy	1947
Bromofluorobenzene (SURR)	94.0	94	100		% Rec.	03/14/1996	cjy	1947
5030/8015-M/8020 (Shell)								
Purgeable TPH	86.4	2.16	2.50		mg/kg	03/15/1996	lss	1948
Benzene	90.4	22.6	25.0		ug/kg	03/15/1996	lss	1948
Toluene	86.0	21.5	25.0		ug/kg	03/15/1996	lss	1948
Ethylbenzene	89.2	22.3	25.0		ug/kg	03/15/1996	lss	1948
Xylenes (Total)	94.1	70.6	75.0		ug/kg	03/15/1996	lss	1948
Bromofluorobenzene (SURR)	111.0	111	100		% Rec.	03/15/1996	lss	1948

Client Name: Cambria Env. Technology Date: 03/21/1996
Client Acct: 1832 ELAP Cert: 1386
NET Job No: 96.00931 Page: 9

Ref: Shell 1230 14th Street, Oakland, CA/204-4878-1300

METHOD BLANK REPORT

Parameter	Method Blank Amount Found	Reporting Limit	Flags	Units	Date Analyzed	Analyst Initials	Run Batch Number
5030/8015-M/8020 (Shell)							
Purgeable TPH	ND	0.05		mg/L	03/14/1996	aal	3593
Benzene	ND	0.5		ug/L	03/14/1996	aal	3593
Toluene	ND	0.5		ug/L	03/14/1996	aal	3593
Ethylbenzene	ND	0.5		ug/L	03/14/1996	aal	3593
Xylenes (Total)	ND	0.5		ug/L	03/14/1996	aal	3593
Bromofluorobenzene (SURR)	95			% Rec.	03/14/1996	aal	3593
5030/8015-M/8020 (Shell)							
Purgeable TPH	ND	1		mg/kg	03/14/1996	cjy	1947
Benzene	ND	2.5		ug/kg	03/14/1996	cjy	1947
Toluene	ND	2.5		ug/kg	03/14/1996	cjy	1947
Ethylbenzene	ND	2.5		ug/kg	03/14/1996	cjy	1947
Xylenes (Total)	ND	2.5		ug/kg	03/14/1996	cjy	1947
Bromofluorobenzene (SURR)	92			% Rec.	03/14/1996	cjy	1947
5030/8015-M/8020 (Shell)							
Purgeable TPH	ND	1		mg/kg	03/15/1996	lss	1948
Benzene	ND	2.5		ug/kg	03/15/1996	lss	1948
Toluene	ND	2.5		ug/kg	03/15/1996	lss	1948
Ethylbenzene	ND	2.5		ug/kg	03/15/1996	lss	1948
Xylenes (Total)	ND	2.5		ug/kg	03/15/1996	lss	1948
Bromofluorobenzene (SURR)	90			% Rec.	03/15/1996	lss	1948

Client Name: Cambria Env. Technology Date: 03/21/1996
Client Acct: 1832 ELAP Cert: 1386
NET Job No: 96.00931 Page: 10

Ref: Shell 1230 14th Street, Oakland, CA/204-4878-1300

MATRIX SPIKE / MATRIX SPIKE DUPLICATE

Parameter	Matrix Spike % Rec.	Matrix Spike Dup % Rec.	RPD	Spike Amount	Sample Conc.	Matrix Spike Conc.	Matrix Spike Dup. Conc.	Flags	Units	Date Analyzed	Run Batch	Sample Spiked
5030/8015-M/8020 (Shell)												261971
Purgeable TPH	102.0	100.0	2.0	0.50	ND	0.51	0.50		mg/L	03/14/1996	3593	261971
Benzene	100.9	101.8	0.9	6.83	ND	6.89	6.95		ug/L	03/14/1996	3593	261971
Toluene	101.0	100.8	0.2	25.69	ND	25.95	25.90		ug/L	03/14/1996	3593	261971
Bromofluorobenzene (SURR)	106.0	108.0	1.9	100	92	106	108		% Rec.	03/14/1996	3593	261971
5030/8015-M/8020 (Shell)												261959
Purgeable TPH	112.0	108.0	3.6	2.5	ND	2.8	2.7		mg/kg	03/14/1996	1947	261959
Benzene	78.2	71.3	9.2	37.60	ND	29.40	26.80		ug/kg	03/14/1996	1947	261959
Toluene	93.3	99.1	6.0	127.3	ND	118.8	126.1		ug/kg	03/14/1996	1947	261959
Bromofluorobenzene (SURR)	101.0	99.0	1.9	100	92	101	99		% Rec.	03/14/1996	1947	261959
5030/8015-M/8020 (Shell)												262038
Purgeable TPH	88.4	88.0	0.5	2.50	ND	2.21	2.20		mg/kg	03/15/1996	1948	262038
Benzene	91.6	91.4	0.2	39.4	ND	36.1	36.0		ug/kg	03/15/1996	1948	262038
Toluene	NDSC			122	3.7	141	139		ug/kg	03/15/1996	1948	262038
Bromofluorobenzene (SURR)	95.0	96.0	1.0	100	86	95	96		% Rec.	03/15/1996	1948	262038

SHELL OIL COMPANY
RETAIL ENVIRONMENTAL ENGINEERING - WEST

CHAIN OF CUSTODY RECORD
Serial No: _____

Date: 3/8/96
Page 1 of 2

0061

Site Address: 1230 14th STREET, OAKLAND

WIC#: 204-4878-1300

Shell Engineer: JEFF GRANBERRY — Phone No.: 675-6168 Fax #: 675-6172

Consultant Name & Address: CAMBRIA ENV. TECH. INC. 1144 65th ST. OAKLAND CA

Consultant Contact: SCOTT MACLEOD / DAVID ELIAS — Phone No.: 420-9176 Fax #: 420-9170

Comments:

Sampled by: David Elias

Printed Name: DAVID ELIAS

STORED SECURELY

Analysis Required

LAB: NET

CHECK ONE (1) BOX ONLY	CT/DT
G.W. Monitoring	☐ 4461
Site Investigation	☒ 4441
Soil Classify/Disposal	☐ 4442
Water Classify/Disposal	☐ 4443
Soil/Air Rem. or Sys. O & M	☐ 4452
Water Rem. or Sys. O & M	☐ 4453
Other	☐

TURN AROUND TIME: 24 hours ☐ — 48 hours ☐ — 15 days ☒ (Normal) — Other ☐ ____

NOTE: Notify Lab as soon as Possible of 24/48 hrs. TAT.

UST AGENCY: ACDEH

Sample ID	Date	Sludge	Soil	Water	Air	No. of conts.	TPH (EPA 8015 Mod. Gas)	TPH (EPA 8015 Mod. Diesel)	BTEX (EPA 8020/602)	Volatile Organics (EPA 8240)	Test for Disposal	Combination TPH 8015 & BTEX 8020	H2O		Asbestos	Container Size	Preparation Used	Composite Y/N	MATERIAL DESCRIPTION	SAMPLE CONDITION/ COMMENTS
SB-I-5.5	3/8/96		X			1						X								
" -8.5	"		"			"						X								
" -11.0	"		"			"							X							
" -15.5	"		"			"						X								
" -21.0	"		"			"							X							
SB-J-5.5	"		"			"							X							
" -10.5	"		"			"						X								
" -15.5	"		"			"							X							

CUSTODY SEALED
Date 3/11/96 Time 1602 Initials [illegible]
SEAL INTACT?
Yes ✓ No Initials [illegible]

	Printed Name:	Date/Time	Received (signature):	Printed Name:	Date/Time
Relinquished By (signature): [illegible]	DAVID ELIAS	3/8/96 15:51	[illegible]	[illegible]	3/11/96 11:22
Relinquished By (signature): [illegible]	[illegible]	3-11-96 1602	[illegible]	PAM GREEN	3/12/96 11:10
Relinquished 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

VIA: NGS

Rev. 7/12/93 — Shell Oil Chain of Custody

#0661

SHELL OIL COMPANY
RETAIL ENVIRONMENTAL ENGINEERING - WEST

CHAIN OF CUSTODY RECORD
Serial No: _____

Date: 3/8/96
Page 2 of 2

Site Address: 1230 14th STREET, OAKLAND

WIC#: 204-4878-1300

Shell Engineer: JEFF GRANBERRY
Phone No.: 675-6168
Fax #: 675-6172

Consultant Name & Address: CAMBRIA ENVIRONMENTAL INC. 1144 65th St. OAKLAND, CA

Consultant Contact: SCOTT MACLENNAN / DAVID ELIAS
Phone No.: 420-9176
Fax #: 420-9170

Comments:

Sampled by: David Elias

Printed Name: DAVID ELIAS

LAB: NET

UST AGENCY: ACDEH

Sample ID	Date	Sludge	Soil	Water	Air	No. of conts.	TPH (EPA 8015 Mod. Gas)	TPH (EPA 8015 Mod. Diesel)	BTEX (EPA 8020/602)	Volatile Organics (EPA 8240)	Test for Disposal	Combination TPH 8015 & BTEX 8020	HOLD		Asbestos	Container Size	Preparation Used	Composite Y/N	MATERIAL DESCRIPTION	SAMPLE CONDITION/ COMMENTS
SB-K-6.0	3/8/96		X			1							X							
" -10.5												X								
" -15.5													X							
" -20.5			↓			↓							X							
SB-J				X		4						X								
Y10																				

CUSTODY SEALED
Date 3/4/96 Time 1602 Initials CS
SEAL INTACT?
Yes ✓ No ____ Initials

STORED SOUTHEAST

Relinquished By (signature)	Printed Name	Date	Time	Received (signature)	Printed Name	Date	Time
David Elias	DAVID ELIAS	3/8/96	15:56	P. Smart	P. Smart	3/4/96	1727
P. Smart	P. Smart	3/4/96	1602	Pam Greene	PAM GREENE		

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

Rev. 1/13/93

Shell Oil Chn of Custody

NET *Santa Rosa Division* LOGIN CHECKLIST

CLIENT: Cambria JOB #: _____ LOG #: 0601
Project ID: 1230 14th St. Oakland
Samples Received On: 3/12/96 Checked in on: 3/12/96

1) Custody Seals: ☐ N/A ☑ Present ☐ Absent ☐ Broken

2) Chain of Custody ☑ Present ☐ Absent #(s): _____
Forms: ☑ Complete ☐ Incomplete _____

3) Type of packing material used: Ice

4) Temperature(s) 1 ° C Thermometer #(s) _____

5) Sample Container(s) ☑ Intact ☐ Broken _____

6) Container Label(s) ☑ Match COC ☐ Do Not Match _____

7) Sample Volume ☑ Sufficient ☐ Insufficient _____

8) Preservative(s) ☑ Correct ☐ Incorrect ☐ pH verified ☐ Res.Cl chk (CN & PHLs)

9) Headspace (VOAs) ☑ None ☐ Present (list ID's / number vials affected)

Sample ID	# of Vials	Sample ID	# of Vials

10) Form Completed By: _____ Date: 3/12/96

Attach shipper's packing slip to this form before routing

Problem Resolution:

1) ☐ Project Coordinator Verbally Informed on _____

2) ☐ Client Informed on _____ By _____

Project Coordinator: _____ Date _____ Resolved: ☐ Y ☐ N

Comments: _____

qamisc\logntrm

Sequoia Analytical

680 Chesapeake Drive, Redwood City, CA 94063, (415) 364-9600, FAX (415) 364-9233
404 N. Wiget Lane, Walnut Creek, CA 94598, (510) 988-9600, FAX (510) 988-9673
819 Striker Avenue, Suite 8, Sacramento, CA 95834, (916) 921-9600, FAX (916) 921-0100

Blaine Technical Services
985 Timothy Drive
San Jose, CA 95133

Attention: Jim Keller

Client Proj. ID: Shell/Oakland/960325-A1

Lab Proj. ID: 9603I17

Sampled: 03/25/96
Received: 03/26/96
Analyzed: see below

Reported: 04/04/96

LABORATORY ANALYSIS

Analyte	Units	Date Analyzed	Detection Limit	Sample Results
Lab No: 9603I17-01 Sample Desc : LIQUID,MW-1				
TRPH (SM 5520 B&F Mod)	mg/L	04/02/96	5.0	N.D.

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

SEQUOIA ANALYTICAL - ELAP #1210

Peggy Penner
Project Manager

Sequoia Analytical

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Blaine Technical Services
985 Timothy Drive
San Jose, CA 95133

Attention: Jim Keller

Client Proj. ID: Shell/Oakland/960325-A1
Sample Descript: MW-1
Matrix: LIQUID
Analysis Method: 8015Mod/8020
Lab Number: 9603117-01

Sampled: 03/25/96
Received: 03/26/96

Analyzed: 03/29/96
Reported: 04/04/96

QC Batch Number: GC032996BTEX02A
Instrument ID: GCHP02

Total Purgeable Petroleum Hydrocarbons (TPPH) with BTEX and MTBE

Analyte	Detection Limit ug/L	Sample Results ug/L
TPPH as Gas	10000	**37000**
Methyl t-Butyl Ether	500	N.D.
Benzene	100	**7400**
Toluene	100	**1500**
Ethyl Benzene	100	**720**
Xylenes (Total)	100	**3300**
Chromatogram Pattern:		**C6-C12**

Surrogates	Control Limits %		% Recovery
Trifluorotoluene	70	130	95

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

SEQUOIA ANALYTICAL - ELAP #1210

Peggy Penner
Project Manager

Sequoia Analytical

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Blaine Technical Services
985 Timothy Drive
San Jose, CA 95133

Attention: Jim Keller

Client Proj. ID: Shell/Oakland/960325-A1
Sample Descript: MW-2
Matrix: LIQUID
Analysis Method: 8015Mod/8020
Lab Number: 9603117-02

Sampled: 03/25/96
Received: 03/26/96

Analyzed: 03/29/96
Reported: 04/04/96

QC Batch Number: GC032996BTEX02A
Instrument ID: GCHP02

Total Purgeable Petroleum Hydrocarbons (TPPH) with BTEX and MTBE

Analyte	Detection Limit ug/L	Sample Results ug/L
TPPH as Gas	50	N.D.
Methyl t-Butyl Ether	2.5	N.D.
Benzene	0.50	N.D.
Toluene	0.50	N.D.
Ethyl Benzene	0.50	N.D.
Xylenes (Total)	0.50	N.D.
Chromatogram Pattern:		

Surrogates	Control Limits %		% Recovery
Trifluorotoluene	70	130	98

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

SEQUOIA ANALYTICAL - ELAP #1210

Peggy Penner
Project Manager

Sequoia Analytical

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819 Striker Avenue, Suite 8, Sacramento, CA 95834, (916) 921-9600, FAX (916) 921-0100

Blaine Technical Services
985 Timothy Drive
San Jose, CA 95133

Attention: Jim Keller

Client Proj. ID: Shell/Oakland/960325-A1
Sample Descript: MW-3
Matrix: LIQUID
Analysis Method: 8015Mod/8020
Lab Number: 9603117-03

Sampled: 03/25/96
Received: 03/26/96

Analyzed: 03/29/96
Reported: 04/04/96

QC Batch Number: GC032996BTEX02A
Instrument ID: GCHP02

Total Purgeable Petroleum Hydrocarbons (TPPH) with BTEX and MTBE

Analyte	Detection Limit ug/L	Sample Results ug/L
TPPH as Gas	50	N.D.
Methyl t-Butyl Ether	2.5	N.D.
Benzene	0.50	N.D.
Toluene	0.50	N.D.
Ethyl Benzene	0.50	N.D.
Xylenes (Total)	0.50	N.D.
Chromatogram Pattern:		

Surrogates	Control Limits %		% Recovery
Trifluorotoluene	70	130	96

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

SEQUOIA ANALYTICAL - ELAP #1210

Peggy Penner
Project Manager

Sequoia Analytical

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Blaine Technical Services
985 Timothy Drive
San Jose, CA 95133

Attention: Jim Keller

Client Proj. ID: Shell/Oakland/960325-A1
Sample Descript: MW-4
Matrix: LIQUID
Analysis Method: 8015Mod/8020
Lab Number: 9603117-04

Sampled: 03/25/96
Received: 03/26/96

Analyzed: 03/29/96
Reported: 04/04/96

QC Batch Number: GC032996BTEX02A
Instrument ID: GCHP02

Total Purgeable Petroleum Hydrocarbons (TPPH) with BTEX and MTBE

Analyte	Detection Limit ug/L	Sample Results ug/L
TPPH as Gas	50	N.D.
Methyl t-Butyl Ether	2.5	N.D.
Benzene	0.50	N.D.
Toluene	0.50	N.D.
Ethyl Benzene	0.50	N.D.
Xylenes (Total)	0.50	N.D.
Chromatogram Pattern:		

Surrogates	Control Limits %		% Recovery
Trifluorotoluene	70	130	94

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

SEQUOIA ANALYTICAL - ELAP #1210

Peggy Penner
Project Manager

Sequoia Analytical

680 Chesapeake Drive, Redwood City, CA 94063, (415) 364-9600, FAX (415) 364-9233
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819 Striker Avenue, Suite 8, Sacramento, CA 95834, (916) 921-9600, FAX (916) 921-0100

Blaine Technical Services
985 Timothy Drive
San Jose, CA 95133

Attention: Jim Keller

Client Proj. ID: Shell/Oakland/960325-A1
Sample Descript: VW/MW-2
Matrix: LIQUID
Analysis Method: 8015Mod/8020
Lab Number: 9603117-05

Sampled: 03/25/96
Received: 03/26/96

Analyzed: 03/29/96
Reported: 04/04/96

QC Batch Number: GC032996BTEX02A
Instrument ID: GCHP02

Total Purgeable Petroleum Hydrocarbons (TPPH) with BTEX and MTBE

Analyte	Detection Limit ug/L	Sample Results ug/L
TPPH as Gas	5000	13000
Methyl t-Butyl Ether	250	N.D.
Benzene	50	900
Toluene	50	920
Ethyl Benzene	50	180
Xylenes (Total)	50	1500
Chromatogram Pattern:		C6-C12

Surrogates	Control Limits %		% Recovery
Trifluorotoluene	70	130	89

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

SEQUOIA ANALYTICAL - ELAP #1210

Peggy Penner
Project Manager

Sequoia Analytical

680 Chesapeake Drive, Redwood City, CA 94063, (415) 364-9600, FAX (415) 364-9233
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819 Striker Avenue, Suite 8, Sacramento, CA 95834, (916) 921-9600, FAX (916) 921-0100

Blaine Technical Services
985 Timothy Drive
San Jose, CA 95133

Attention: Jim Keller

Client Proj. ID: Shell/Oakland/960325-A1
Sample Descript: VW/MW-4
Matrix: LIQUID
Analysis Method: 8015Mod/8020
Lab Number: 9603117-06

Sampled: 03/25/96
Received: 03/26/96

Analyzed: 03/29/96
Reported: 04/04/96

QC Batch Number: GC032996BTEX02A
Instrument ID: GCHP02

Total Purgeable Petroleum Hydrocarbons (TPPH) with BTEX and MTBE

Analyte	Detection Limit ug/L	Sample Results ug/L
TPPH as Gas	5000	83000
Methyl t-Butyl Ether	250	N.D.
Benzene	50	6500
Toluene	50	7000
Ethyl Benzene	50	2000
Xylenes (Total)	50	11000
Chromatogram Pattern:		C6-C12

Surrogates	Control Limits %		% Recovery
Trifluorotoluene	70	130	99

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

SEQUOIA ANALYTICAL - ELAP #1210

Peggy Penner
Project Manager

SHELL OIL COMPANY
RETAIL ENVIRONMENTAL ENGINEERING - WEST

CHAIN OF CUSTODY RECORD
Serial No: 960325-A1

Date: 3-25-96
Page 1 of 1

Site Address: 1230 14th St., Oakland, CA

WIC#: 204-5508-3103

Shell Engineer: R. Jeff Granberry — Phone No.: (510) 675-6166 Fax #:

Consultant Name & Address: Blaine Tech Services, Inc. 985 Timothy Dr., San Jose, CA 95133

Consultant Contact: Fran Thie — Phone No.: (408) 995-5535 Fax #:

Comments:

Sampled by: RANDY VALENTINE

Printed Name:

LAB: SEQ

UST AGENCY:

Sample ID	Date	TIME Sludge	Soil	Water	Air	No. of conts.	TPH (EPA 8015 Mod. Gas)	TPH (EPA 8015 Mod. Diesel)	BTEX (EPA 8020/602)	Volatile Organics (EPA 8240)	Test for Disposal	Combination TPH 8015 & BTEX 8020 + MTBE	POG	Asbestos	Container Size	Preparation Used	Composite Y/N	MATERIAL DESCRIPTION	SAMPLE CONDITION/ COMMENTS
MW-1	3/25	1137		X		5						X	X						1
MW-2		1027		X		3						X							2
MW-3		1005		X		3						X							3
MW-4		940		X		3						X							4
DUP/MW-2		1110		X		3						X							5
MW/MW4		1050		X		3						X							6
EB		1010		X		3						X							7
DUP				X		3						X							8

Analysis Required

CHECK ONE (1) BOX ONLY — CODE

- G.W. Monitoring XX — 4461
- Site Investigation — 4461
- Soil Classify/Disposal — 4462
- Water Classify/Disposal — 4463
- Soil/Air Rem. or Sys. O & M — 4452
- Water Rem. or Sys. O & M — 4453
- Other

TURN AROUND TIME

- 24 hours
- 48 hours
- 96 days XX (Normal)
- Other

NOTE: Notify Lab as soon as Possible of 24/48 hrs. TAT.

Relinquished By (signature):	Printed Name: RANDY VALENTINE	Date: 3-26 Time: 105	Received (signature):	Printed Name: Fletcher	Date: 3/26/96 Time: 10:15
Relinquished By (signature):	Printed Name:	Date: 3/26/96 Time:	Received (signature):	Printed Name:	Date: Time:
Relinquished By (signature):	Printed Name:	Date: Time:	Received (signature):	Printed Name: S. Henretty	Date: 3/26 Time: 1241

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

White Copy to Consultant

P.10

APR 04 '96 01:24PM SEQUOIA ANALYTICAL

1241

CAMBRIA

Attachment D

Standard Field Procedures

STANDARD FIELD PROCEDURE FOR MONITORING WELLS

This document presents standard field methods for drilling and sampling soil borings and installing, developing and sampling ground water monitoring wells. These procedures are designed to comply with Federal, State and local regulatory guidelines. Specific field procedures are summarized below.

SOIL BORING AND SAMPLING

Objectives

Soil samples are collected to characterize subsurface lithology, assess whether the soils exhibit obvious hydrocarbon or other compound vapor or staining, and to collect samples for analysis at a State-certified laboratory. All borings are logged using the Unified Soil Classification System by a trained geologist working under the supervision of a California Registered Geologist (RG) or a Certified Engineering Geologist (CEG).

Soil Boring and Sampling

Soil borings are typically drilled using hollow-stem augers or push technologies such as the Geoprobe. Soil samples are collected at least every five ft to characterize the subsurface sediments and for possible chemical analysis. Additional soil samples are collected near the water table and at lithologic changes. Samples are collected using lined split-barrel or equivalent samplers driven into undisturbed sediments at the bottom of the borehole.

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

Sample Analysis

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

Field Screening

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

Water Sampling

Water samples, if they are collected from the boring, are either collected using a driven Hydropunch type sampler or are collected from the open borehole using bailers. The ground water samples are decanted into the appropriate containers supplied by the analytic laboratory. Samples are labeled, placed in protective foam sleeves, stored on crushed ice at or below 4°C, and transported under chain-of-custody to the laboratory. Laboratory-supplied trip blanks accompany the samples and are analyzed to check for cross-contamination. An equipment blank may be analyzed if non-dedicated sampling equipment is used.

Grouting

If the borings are not completed as wells, the borings are filled to the ground surface with cement grout poured or pumped through a tremie pipe.

MONITORING WELL INSTALLATION, DEVELOPMENT AND SAMPLING

Well Construction and Surveying

Ground water monitoring wells are installed to monitor ground water quality and determine the ground water elevation, flow direction and gradient. Well depths and screen lengths are based on ground water depth, occurrence of hydrocarbons or other compounds in the borehole, stratigraphy and State and local regulatory guidelines. Well screens typically extend 10 to 15 ft below and 5 ft above the static water level at the time of drilling. However, the well screen will generally not extend into or through a clay layer that is at least three ft thick.

Well casing and screen are flush-threaded, Schedule 40 PVC. Screen slot size varies according to the sediments screened, but slots are generally 0.010 or 0.020 inches wide. A rinsed and graded sand occupies the annular space between the boring and the well screen to about one to two ft above the well screen. A two ft thick hydrated bentonite seal separates the sand from the overlying sanitary surface seal composed of Portland type I,II cement.

Well-heads are secured by locking well-caps inside traffic-rated vaults finished flush with the ground surface. A stovepipe may be installed between the well-head and the vault cap for additional security.

The well top-of-casing elevation is surveyed with respect to mean sea level and the well is surveyed for horizontal location with respect to an onsite or nearby offsite landmark.

Well Development

Wells are generally developed using a combination of ground water surging and extraction. Surging agitates the ground water and dislodges fine sediments from the sand pack. After about ten minutes of surging, ground water is extracted from the well using bailing, pumping and/or reverse air-lifting through an eductor pipe to remove the sediments from the well. Surging and extraction continue until at least ten

well-casing volumes of ground water are extracted and the sediment volume in the ground water is negligible. This process usually occurs prior to installing the sanitary surface seal to ensure sand pack stabilization. If development occurs after surface seal installation, then development occurs 24 to 72 hours after seal installation to ensure that the Portland cement has set up correctly.

All equipment is steam-cleaned prior to use and air used for air-lifting is filtered to prevent oil entrained in the compressed air from entering the well. Wells that are developed using air-lift evacuation are not sampled until at least 24 hours after they are developed.

Ground Water Sampling

Depending on local regulatory guidelines, three to four well-casing volumes of ground water are purged prior to sampling. Purging continues until ground water pH, conductivity, and temperature have stabilized. Ground water samples are collected using bailers or pumps and are decanted into the appropriate containers supplied by the analytic laboratory. Samples are labeled, placed in protective foam sleeves, stored on crushed ice at or below 4°C, and transported under chain-of-custody to the laboratory. Laboratory-supplied trip blanks accompany the samples and are analyzed to check for cross-contamination. An equipment blank may be analyzed if non-dedicated sampling equipment is used.

STANDARD FIELD PROCEDURE FOR REMEDIATION WELLS

This document presents standard field methods for drilling and sampling soil borings and installing remediation wells. These procedures are designed to comply with Federal, State and local regulatory guidelines. Specific field procedures are summarized below.

SOIL BORING AND SAMPLING

Objectives

Soil samples are collected to characterize subsurface lithology, assess whether the soils exhibit obvious hydrocarbon or other compound vapor or staining, and to collect samples for analysis at a State-certified laboratory. All borings are logged using the Unified Soil Classification System by a trained geologist working under the supervision of a California Registered Geologist (RG) or a Certified Engineering Geologist (CEG).

Soil Boring and Sampling

Soil borings are typically drilled using hollow-stem augers or push technologies such as the Geoprobe. Soil samples are collected at least every five ft to characterize the subsurface sediments and for possible chemical analysis. Additional soil samples are collected near the water table and at lithologic changes. Samples are collected using lined split-barrel or equivalent samplers driven into undisturbed sediments at the bottom of the borehole.

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

Sample Analysis

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

Field Screening

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

Grouting

If the borings are not completed as wells, the borings are filled to the ground surface with cement grout poured or pumped through a tremie pipe.

REMEDIATION WELL INSTALLATION

Well Construction

Remediation wells are installed for soil vapor extraction (SVE), ground water extraction (GWE), oxygenation, air sparging (AS) and for vapor monitoring (VM). Well depths and screen lengths will vary depending upon several factors including the intended use of the well, ground water depth, occurrence of hydrocarbons or other compounds in the borehole, stratigraphy and State and local regulatory guidelines.

Well casing and screen are typically one to four inch diameter flush-threaded Schedule 40 PVC. Screen slot size varies according to the sediments screened, but slots are generally 0.010 or 0.020 inches wide. A rinsed and graded sand occupies the annular space between the boring and the well screen to about one to two ft above the well screen. A two ft thick hydrated bentonite seal separates the sand from the overlying sanitary surface seal composed of Portland type I,II cement. Well-heads are typically connected remediation piping set in traffic-rated vaults finished flush with the ground surface. Typical well screen intervals for each type of well are as follows:

SVE Wells: SVE wells are screened in the vadose zone targeting horizons with the highest hydrocarbon concentrations. SVE wells are also occasionally screened as concurrent soil vapor and ground water extraction wells with screen interval above and below the water table.

GWE Wells: Ground water extraction wells are typically screened ten to fifteen ft below the first water-bearing zone encountered. The well screen may or may not be screened above the water table depending upon whether the water bearing zone is unconfined or confined.

Oxygenation Wells: Oxygenation wells are installed above or below the water table to supply oxygen and enhance naturally occurring hydrocarbon biodegradation. Oxygenation wells installed in the vadose zone typically have well screens that are two to ten feet long and target horizons with the highest hydrocarbon concentrations. Oxygenation wells installed below the water table typically have a two foot screen interval set ten to fifteen ft below the water table.

AS Wells: Air sparging wells are installed below the water table and typically have a two foot screen interval set ten to fifteen ft below the water table.

VM Wells: Vapor monitoring wells are installed in the vadose zone to check for hydrocarbon vapor migration during air injection. The wells are typically constructed with short screens to target horizons through which hydrocarbon vapor migration could occur. These wells

can also be constructed in borings drilled using push technologies such as the Geoprobe by using non-collapsible Teflon tubing set in small sand packed regions overlain by grout.

Well Development

Ground water extraction wells are generally developed using a combination of ground water surging and extraction. Surging agitates the ground water and dislodges fine sediments from the sand pack. After about ten minutes of surging, ground water is extracted from the well using bailing, pumping and/or reverse air-lifting through an eductor pipe to remove the sediments from the well. Surging and extraction continue until at least ten well-casing volumes of ground water are extracted and the sediment volume in the ground water is negligible. This process usually occurs prior to installing the sanitary surface seal to ensure sand pack stabilization. If development occurs after surface seal installation, then development occurs 24 to 72 hours after seal installation to ensure that the Portland cement has set up correctly.

All equipment is steam-cleaned prior to use and air used for air-lifting is filtered to prevent oil entrained in the compressed air from entering the well. Wells that are developed using air-lift evacuation are not sampled until at least 24 hours after they are developed.

BATES AND BAILEY
LAND SURVEYORS
15 SHATTUCK SQUARE • BERKELEY, CA 94704
TELEPHONE (510) 843-2007

P.O. BOX 592
BERKELEY, CA 94701-0592

March 29, 1996

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

Attn: Philip Gittens

Dear Mr. Gittens,

We need a copy of the signed contract to us from Cambria. In the meantime we send you the following information:

WELL ELEVATION DATA AT 1230 14th STREET, OAKLAND

ELEVATIONS ARE BASED ON M. S. L. DATUM.

CITY OF OAKLAND BENCH MARK NO. 3808 USED WITH ELEVATION OF 15.29 CITY OF OAKLAND DATUM OR 18.29 M. S. L. DATUM

WELL	TOP OF CASING	COVER
MW-1	18.58	19.14
MW-2	17.90	18.28
MW-3	18.18	18.56
MW-4	18.01	18.37
VW/AS-1	18.60	18.95
VW/AS-3	18.17	18.44
VW/MW-2	18.30	18.74
VW/MW-4	18.14	18.39

Yours truly,

Robert W. Wilson

RWW/dd