CAMBRIA

December 2, 1998

Mr. Scott Seery
Alameda County Health Care Services Agency
Environmental Health Services
1131 Harbor Bay Parkway, Suite 250
Alameda, California 94502

Re: **Well Installation Report**
Former Shell-branded Service Station
15275 Washington Avenue
San Leandro, California
WIC# 204-6852-1108
Cambria Project # 240-0933

Dear Mr. Seery:

On behalf of Equilon Enterprises, LLC (Equilon), Cambria Environmental Technology, Inc. (Cambria) is submitting this report summarizing the installation of one monitoring well conducted on July 31, 1998 at the site referenced above. The monitoring well was constructed in accordance with the Alameda County Health Care Services Agency (ACHCSA) January 12, 1998 letter to Shell Oil Products Company. Presented below are the well installation procedures, analytical results, and a summary of proposed future activities.

WELL INSTALLATION PROCEDURES

The location of monitoring well S-19 was based upon the location of former soil boring SG-5 as requested in the ACHCSA January 12, 1998 (Figure 1). The procedures for the well installation are summarized below. Analytical results for soil samples are included as Attachment A. The boring log and well construction diagram is included in Attachment B. Cambria's standard field procedures for monitoring wells are included in Attachment C. The Alameda County Public Works Agency (ACPWA) well permit is included in Attachment D.

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

Cambria Environmental Technology, Inc.

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

Field Activities

Personnel Present: Cambria Geologist, John Riggi, conducted the field activities under the supervision of registered Civil Engineer Diane Lundquist.

Drilling Date: July 31, 1998.

Permit: ACPWA Permit #98WR289 (Attachment D).

Drilling Company: Gregg Drilling of Martinez, California (C-57 License #485165).

Drilling Method: Hollow-stem auger.

Number of Borings: One (S-19, Figure 1).

Boring Depth: 21.1 feet (ft) (Attachment B).

Monitoring Well: One ground water monitoring well was constructed (Attachment B).

Ground Water Depth: Ground water was encountered in the boring at approximately 6.3 ft below grade.

Sediment Lithology: The site is underlain primarily by clayey silts of low estimated permeability (Attachment B).

Chemical Analyses: Four soil samples were collected at five foot intervals from soil boring S-19 and analyzed for the following constituents:

- total petroleum hydrocarbons as gasoline (TPHg) by modified EPA Method 8015;
- methyl tert-butyl ether (MTBE), benzene, toluene, ethylbenzene, and xylenes (BTEX) by EPA Method 8020;

Waste Handling: The soil generated from the drilling of monitoring well S-19 was stockpiled on-site. A four-point composite sample was collected from the boring samples. The composite sample was analyzed per

Shell's Waste Management Procedures as outlined in Attachment E, analytical results are included in Attachment A. The soil was transported to Forward landfill in Manteca, California.

ANALYTICAL RESULTS

A maximum 12 milligrams per kilogram (mg/kg) TPHg was detected in the soil sample collected at 5 ft depth. The concentration of TPHg decreased to 11 mg/kg at 10 ft depth and was below TPHg detection limits in the 15 ft depth and 20 ft depth samples. Benzene and MTBE were not detected in any of the soil samples collected.

FUTURE ACTIVITIES

Monitoring Well Sampling: Monitoring well S-19 will be developed and sampled quarterly for TPHg, BTEX and MTBE. Results of ground water monitoring sampling events will be submitted quarterly in a ground water monitoring report.

Remediation System Operation and Reporting: Cambria will continue to operate the soil vapor extraction system. Cambria will include a remediation system performance summary concurrently with quarterly ground water monitoring reports. The system performance summary parameters reported include, hydrocarbon concentrations in extracted vapor, system flow rates, hydrocarbon removal rates, and hydrocarbon emission rates.

System Shutdown: When the hydrocarbon concentrations decrease to low, asymptotic concentrations and system cycling does not result in cost-effective hydrocarbon removal, we will evaluate continued operation the remediation system.

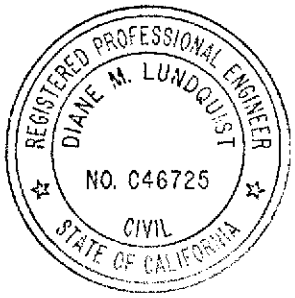
CAMBRIA

CLOSING

We appreciate your continued assistance with this project. Please call Darryk Ataide at (510) 420-3339 if you have any questions or comments.

Sincerely,
Cambria Environmental Technology, Inc.

Darryk Ataide
Project Environmental Scientist

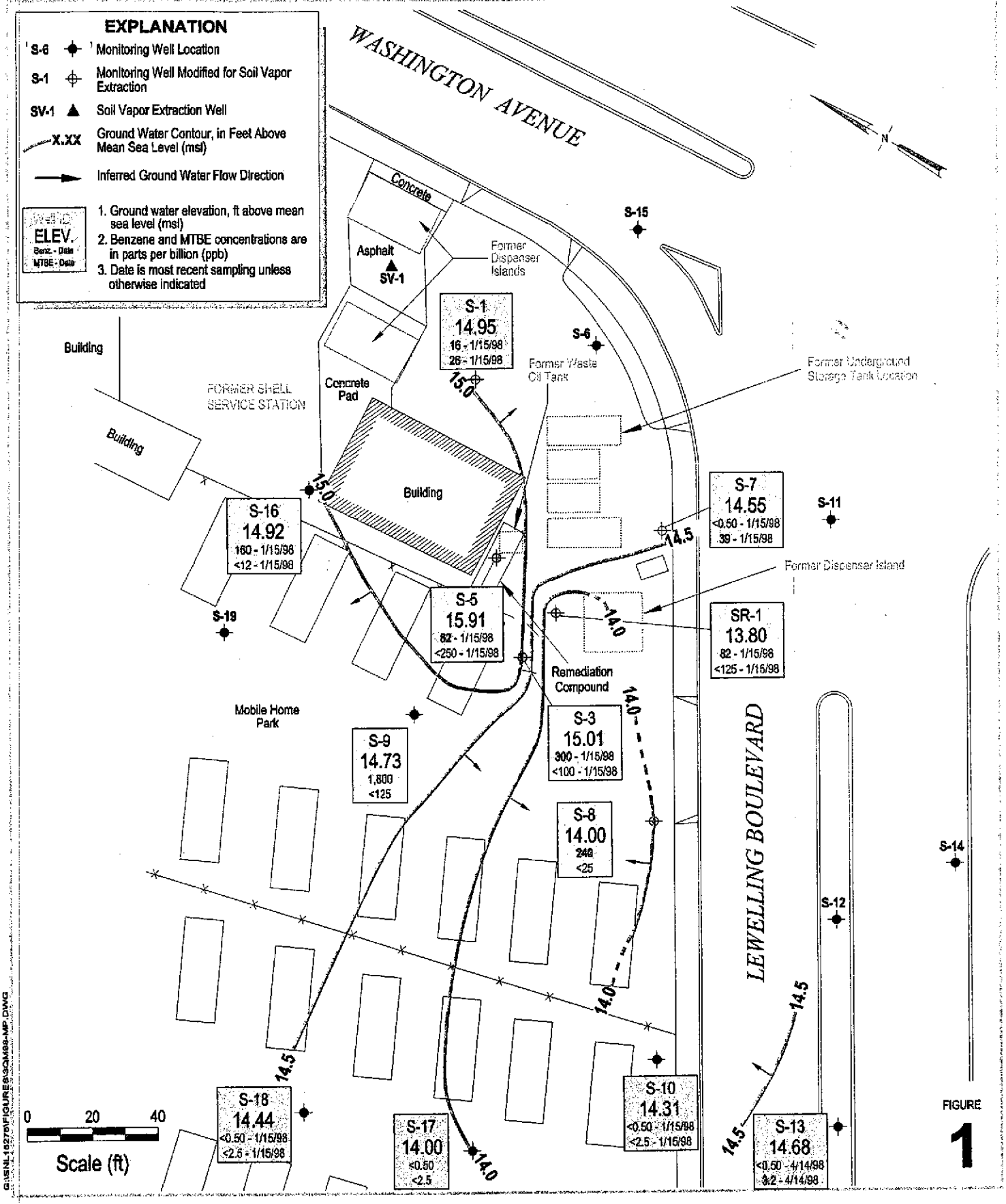


Diane M. Lundquist, P.E.
Principal Engineer

G:\Snl15275\WellinstallRpt2.wpd

Attachments:
A - Analytical Reports for Soil Samples
B - Soil Boring Log and Well Construction Diagram
C - Standard Field Procedures for Remediation Wells
D -Well Drilling Permit
E - Shell's Waste Management Procedures
F - Soil Disposal Confirmation Letter

cc:
Ms. Karen Petryna, Equilon Enterprises LLC, P.O. Box 6249, Carson, CA 94079
Mr. John Verber, Larson and Burnham, 1901 Harrison St., 11th Floor, Oakland, CA 94604
Mr. Jonathan W. Redding, Fitzgerald, Abbott and Beardsley, 1221 Broadway, 21st Floor, Oakland, CA 94612
Mr. Richard P. Waxman, Wendel, Rosen, Black and Dean, 1111 Broadway, 24th Floor, Oakland, CA 94607
Mr. Mike Bakaldin, San Leandro Fire Department, 835 E. 14th St., San Leandro, CA 94577



G:\SNL-1627\FIGURES\3QM98-MP.DWG

FIGURE
1

Shell-branded Service Station
15275 Washington Avenue
San Leandro, California
WIC #204-6852-1008

CAMBRIA

Ground Water Elevation Contour Map

July 14, 1998

Attachment A

Analytical Report For Soil Samples

Sequoia Analytical

680 Chesapeake Drive, Redwood City, CA 94063, (650) 364-9600, FAX (650) 364-9233
404 N. Wiget Lane, Walnut Creek, CA 94598, (925) 988-9600, FAX (925) 988-9673
819 Striker Avenue, Suite 8, Sacramento, CA 95834, (916) 921-9600, FAX (916) 921-0100
1455 McDowell Blvd. North, Ste. D, Petaluma, CA 94954, (707) 792-1865, FAX (707) 792-0342

Cambria
1144 65th St. Suite C
Oakland, CA 94608
Attention: John Riggi

Project: Shell 15275 Washington

Enclosed are the results from samples received at Sequoia Analytical on July 31, 1998. The requested analyses are listed below:

SAMPLE #	SAMPLE DESCRIPTION	DATE COLLECTED	TEST METHOD
9808051 -01	SOLID, S-19(5')	07/31/98	Purgeable TPH/BTEX/MTBE
9808051 -02	SOLID, S-19(10')	07/31/98	Purgeable TPH/BTEX/MTBE
9808051 -03	SOLID, S-19(15')	07/31/98	Purgeable TPH/BTEX/MTBE
9808051 -04	SOLID, S-19(20')	07/31/98	Purgeable TPH/BTEX/MTBE

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

Very truly yours,

SEQUOIA ANALYTICAL

Peggy Penner
Project Manager

Sequoia Analytical

680 Chesapeake Drive, Redwood City, CA 94063, (650) 364-9600, FAX (650) 364-9233
404 N. Wiget Lane, Walnut Creek, CA 94598, (925) 988-9600, FAX (925) 988-9673
819 Striker Avenue, Suite 8, Sacramento, CA 95834, (916) 921-9600, FAX (916) 921-0100
1455 McDowell Blvd. North, Ste. D, Petaluma, CA 94954, (707) 792-1865, FAX (707) 792-0342

Cambria	Client Proj. ID: Shell 15275 Washington	Sampled: 07/31/98
1144 65th St. Suite C	Sample Descript: S-19(5')	Received: 07/31/98
Oakland, CA 94608	Matrix: SOLID	Extracted: 08/06/98
	Analysis Method: 8015Mod/8020	Analyzed: 08/12/98
Attention: John Riggi	Lab Number: 9808051-01	Reported: 08/19/98

QC Batch Number: GC080698BTEXEXB
Instrument ID: GCHP07

Total Purgeable Petroleum Hydrocarbons (TPPH) with BTEX and MTBE

Analyte	Detection Limit mg/Kg	Sample Results mg/Kg
TPPH as Gas	**1.0**	**12**
Methyl t-Butyl Ether	0.025	N.D.
Benzene	0.0050	N.D.
Toluene	0.0050	N.D.
Ethyl Benzene	0.0050	N.D.
Xylenes (Total)	0.0050	N.D.
Chromatogram Pattern:		**>C8**

Surrogates	Control Limits %		% Recovery
Trifluorotoluene	70	130	70
4-Bromofluorobenzene	60	140	74

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, (650) 364-9600, FAX (650) 364-9233
404 N. Wiget Lane, Walnut Creek, CA 94598, (925) 988-9600, FAX (925) 988-9673
819 Striker Avenue, Suite 8, Sacramento, CA 95834, (916) 921-9600, FAX (916) 921-0100
1455 McDowell Blvd. North, Ste. D, Petaluma, CA 94954, (707) 792-1865, FAX (707) 792-0342

Cambria	Client Proj. ID: Shell 15275 Washington	Sampled: 07/31/98
1144 65th St. Suite C	Sample Descript: S-19(10')	Received: 07/31/98
Oakland, CA 94608	Matrix: SOLID	Extracted: 08/07/98
	Analysis Method: 8015Mod/8020	Analyzed: 08/10/98
Attention: John Riggi	Lab Number: 9808051-02	Reported: 08/19/98

QC Batch Number: GC080798BTEXEXB
Instrument ID: GCHP07

Total Purgeable Petroleum Hydrocarbons (TPPH) with BTEX and MTBE

Analyte	Detection Limit mg/Kg	Sample Results mg/Kg
TPPH as Gas	**1.0**	**11**
Methyl t-Butyl Ether	0.025	N.D.
Benzene	0.0050	N.D.
Toluene	0.0050	N.D.
Ethyl Benzene	**0.0050**	**0.0099**
Xylenes (Total)	**0.0050**	**0.012**
Chromatogram Pattern:		**C6-C12**

Surrogates	Control Limits %		% Recovery
Trifluorotoluene	70	130	80
4-Bromofluorobenzene	60	140	119

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, (650) 364-9600, FAX (650) 364-9233
404 N. Wiget Lane, Walnut Creek, CA 94598, (925) 988-9600, FAX (925) 988-9673
819 Striker Avenue, Suite 8, Sacramento, CA 95834, (916) 921-9600, FAX (916) 921-0100
1455 McDowell Blvd. North, Ste. D, Petaluma, CA 94954, (707) 792-1865, FAX (707) 792-0342

Cambria	Client Proj. ID: Shell 15275 Washington	Sampled: 07/31/98
1144 65th St. Suite C	Sample Descript: S-19(15')	Received: 07/31/98
Oakland, CA 94608	Matrix: SOLID	Extracted: 08/07/98
	Analysis Method: 8015Mod/8020	Analyzed: 08/12/98
Attention: John Riggi	Lab Number: 9808051-03	Reported: 08/19/98

QC Batch Number: GC080798BTEXEXB
Instrument ID: GCHP01

Total Purgeable Petroleum Hydrocarbons (TPPH) with BTEX and MTBE

Analyte	Detection Limit mg/Kg	Sample Results mg/Kg
TPPH as Gas	1.0	N.D.
Methyl t-Butyl Ether	0.025	N.D.
Benzene	0.0050	N.D.
Toluene	0.0050	N.D.
Ethyl Benzene	0.0050	N.D.
Xylenes (Total)	0.0050	N.D.
Chromatogram Pattern:		

Surrogates	Control Limits %		% Recovery
Trifluorotoluene	70	130	75
4-Bromofluorobenzene	60	140	88

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, (650) 364-9600, FAX (650) 364-9233
404 N. Wiget Lane, Walnut Creek, CA 94598, (925) 988-9600, FAX (925) 988-9673
819 Striker Avenue, Suite 8, Sacramento, CA 95834, (916) 921-9600, FAX (916) 921-0100
1455 McDowell Blvd. North, Ste. D, Petaluma, CA 94954, (707) 792-1865, FAX (707) 792-0342

Cambria	Client Proj. ID: Shell 15275 Washington	Sampled: 07/31/98
1144 65th St. Suite C	Sample Descript: S-19(20')	Received: 07/31/98
Oakland, CA 94608	Matrix: SOLID	Extracted: 08/06/98
	Analysis Method: 8015Mod/8020	Analyzed: 08/06/98
Attention: John Riggi	Lab Number: 9808051-04	Reported: 08/19/98

QC Batch Number: GC080698BTEXEXB
Instrument ID: GCHP07

Total Purgeable Petroleum Hydrocarbons (TPPH) with BTEX and MTBE

Analyte	Detection Limit mg/Kg	Sample Results mg/Kg
TPPH as Gas	1.0	N.D.
Methyl t-Butyl Ether	0.025	N.D.
Benzene	0.0050	N.D.
Toluene	0.0050	N.D.
Ethyl Benzene	0.0050	N.D.
Xylenes (Total)	0.0050	N.D.
Chromatogram Pattern:		

Surrogates	Control Limits %		% Recovery
Trifluorotoluene	70	130	75
4-Bromofluorobenzene	60	140	135

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, (650) 364-9600, FAX (650) 364-9233
404 N. Wiget Lane, Walnut Creek, CA 94598, (925) 988-9600, FAX (925) 988-9673
819 Striker Avenue, Suite 8, Sacramento, CA 95834, (916) 921-9600, FAX (916) 921-0100
1455 McDowell Blvd. North, Ste. D, Petaluma, CA 94954, (707) 792-1865, FAX (707) 792-0342

Cambria
1144 65th St. Ste. C
Oakland, CA 94608
Attention: John Riggi

Client Project ID: Shell 15275 Washington

QC Sample Group: 9808051-01, -04

Reported: Aug 19, 1998

QUALITY CONTROL DATA REPORT

Matrix: Solid
Method: EPA 8015
Analyst: G. PESHINA

ANALYTE Gasoline

QC Batch #: GC080698BTEXEXB

Sample No.: GS9807G40-1
Date Prepared: 8/6/98
Date Analyzed: 8/7/98
Instrument I.D.#: GCHP1

ample Conc., mg/Kg: N.D.
Conc. Spiked, mg/Kg: 5.0

Matrix Spike, mg/Kg: 4.5
% Recovery: 90

Matrix
ike Duplicate, mg/Kg: 4.5
% Recovery: 90

elative % Difference: 0.0

RPD Control Limits: 0-25

LCS Batch#: GSBLK080698B

Date Prepared: 8/6/98
Date Analyzed: 8/7/98
Instrument I.D.#: GCHP1

Conc. Spiked, mg/Kg: 5.0

Recovery, mg/Kg: 5.1
LCS % Recovery: 102

Percent Recovery Control Limits:

MS/MSD	60-140
LCS	70-130

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

SEQUOIA ANALYTICAL

Peggy Penner
Project Manager

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

Sequoia Analytical

680 Chesapeake Drive, Redwood City, CA 94063, (650) 364-9600, FAX (650) 364-9233
404 N. Wiget Lane, Walnut Creek, CA 94598, (925) 988-9600, FAX (925) 988-9673
819 Striker Avenue, Suite 8, Sacramento, CA 95834, (916) 921-9600, FAX (916) 921-0100
1455 McDowell Blvd. North, Ste. D, Petaluma, CA 94954, (707) 792-1865, FAX (707) 792-0342

Cambria
1144 65th St. Ste. C
Oakland, CA 94608
Attention: John Riggi

Client Project ID: Shell 15275 Washington

QC Sample Group: 9808051-02-03

Reported: Aug 19, 1998

QUALITY CONTROL DATA REPORT

Matrix:	Solid
Method:	EPA 8015
Analyst:	G. Peshina
ANALYTE	Gasoline

QC Batch #: GC080798BTEXEXB

Sample No.:	GS9808262-21
Date Prepared:	8/7/98
Date Analyzed:	8/8/98
Instrument I.D.#:	GCHP18
ample Conc., mg/Kg:	N.D.
Conc. Spiked, mg/Kg:	5.0
Matrix Spike, mg/Kg:	5.5
% Recovery:	110
Matrix ike Duplicate, mg/Kg:	5.4
% Recovery:	108
elative % Difference:	1.8
RPD Control Limits:	0-25

LCS Batch#: GSBLK080798B

Date Prepared:	8/7/98
Date Analyzed:	8/7/98
Instrument I.D.#:	GCHP18
Conc. Spiked, mg/Kg:	5.0
Recovery, mg/Kg:	4.5
LCS % Recovery:	90

Percent Recovery Control Limits:

MS/MSD	60-140
LCS	70-130

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

SEQUOIA ANALYTICAL

Reggy Penner
Project Manager

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

Sequoia Analytical

680 Chesapeake Drive, Redwood City, CA 94063, (650) 364-9600, FAX (650) 364-9233
404 N. Wiget Lane, Walnut Creek, CA 94598, (925) 988-9600, FAX (925) 988-9673
819 Striker Avenue, Suite 8, Sacramento, CA 95834, (916) 921-9600, FAX (916) 921-0100
1455 McDowell Blvd. North, Ste. D, Petaluma, CA 94954, (707) 792-1865, FAX (707) 792-0342

Cambria 1144 65th St. Suite C Oakland, CA 94608 Attention: John Riggi	Client Proj. ID: Shell 15275 Washington Lab Proj. ID: 9808051	Received: 07/31/98 Reported: 08/19/98

LABORATORY NARRATIVE

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

SEQUOIA ANALYTICAL

Peggy Renner
Project Manager

SHELL OIL COMPANY
RETAIL ENVIRONMENTAL ENGINEERING - WEST

CHAIN OF CUSTODY RECORD

Serial No: _____

Date: 7/31/98
Page 1 of 1

Site Address: 15275 Washington Ave. San Leandro CA
WIC#: 204-6852-1108
Shell Engineer: A E Perez
Phone No.:
Fax #:
Consultant Name & Address: CAMBRIA ENVIRONMENTAL 1144 65th St. Suite C, Oakland, CA 94608
Consultant Contact: John Riggi
Phone No.: 510 420-0700
Fax #: 420-9170
Comments:
Sampled by: JR
Printed Name:

LAB: SEQ

CHECK ONE (1) BOX ONLY	GT/DT	TURN AROUND TIME
G.W. Monitoring	4461	24 hours
Site Investigation	4441	48 hours
Soil Classify/Disposal	4442	10 days (Normal)
Water Classify/Disposal	4443	Other
Soil/Air Remt. or Sys. O & M	4452	NOTE: Notify Lab as soon as Possible of 24/48 hr. TAT.
Water Remt. or Sys. O & M	4453	
Other		

UST AGENCY: Alameda Co.

Sample ID	Date	Time Sludge	Soil	Water	Air	No. of cont.	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	Asbestos	Container Size	Preparation Used	Composite Y/N	MATERIAL DESCRIPTION	SAMPLE CONDITION/ COMMENTS
S-19 (5')	7/31/98	815	X			1										N		HOLD
S-19 (10')	"	825	X			1										N		HOLD
S-19 (15')	"	955	X			1										N		HOLD
S-19 (20')	"	945	X			1										N		HOLD
COMP -1	7/31	1100	X			4					X					Y		

Relinquished By (signature): _____
Printed Name: John Riggi
Date: 7/31/98 Time: 2:30
Received (signature): _____
Printed Name: JOHN FRICK
Date: 7/31/98 Time: 2215

Relinquished By (signature): _____
Printed Name: JOHN FRICK
Date: _____ Time: _____
Received (signature): _____
Printed Name: _____
Date: _____ Time: _____

Relinquished By (signature): _____
Printed Name: _____
Date: _____ Time: _____
Received (signature): _____
Printed Name: Ana Deleon
Date: 7/31/98 Time: 1811

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

Sequoia Analytical

680 Chesapeake Drive, Redwood City, CA 94063, (650) 364-9600, FAX (650) 364-9233
404 N. Wiget Lane, Walnut Creek, CA 94598, (925) 988-9600, FAX (925) 988-9673
819 Striker Avenue, Suite 8, Sacramento, CA 95834, (916) 921-9600, FAX (916) 921-0100
1455 McDowell Blvd. North, Ste. D, Petaluma, CA 94954, (707) 792-1865, FAX (707) 792-0342

Cambria
1144 65th St. Suite C
Oakland, CA 94608
Attention: John Riggi

Project: Shell, 15275 Washington SL

Enclosed are the results from samples received at Sequoia Analytical on July 31, 1998. The requested analyses are listed below:

SAMPLE #	SAMPLE DESCRIPTION	DATE COLLECTED	TEST METHOD
9807J55 -01	SOLID, Comp-1A	07/31/98	TPHG_S Purgeable TPH
9807J55 -02	SOLID, Comp-1B	07/31/98	TPHG_S Purgeable TPH
9807J55 -03	SOLID, Comp-1C	07/31/98	TPHG_S Purgeable TPH
9807J55 -04	SOLID, Comp-1D	07/31/98	TPHG_S Purgeable TPH
9807J55 -05	SOLID, Comp-(1A-1D)	07/31/98	BTEX_S Distinction
9807J55 -05	SOLID, Comp-(1A-1D)	07/31/98	ISTLCS Title 22: Metals, S
9807J55 -05	SOLID, Comp-(1A-1D)	07/31/98	ITTLCS Title 22: Metals, T
9807J55 -05	SOLID, Comp-(1A-1D)	07/31/98	Organic Lead

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

Very truly yours,

SEQUOIA ANALYTICAL

Peggy Penner
Project Manager

Sequoia Analytical

680 Chesapeake Drive, Redwood City, CA 94063, (650) 364-9600, FAX (650) 364-9233
404 N. Wiget Lane, Walnut Creek, CA 94598, (925) 988-9600, FAX (925) 988-9673
819 Striker Avenue, Suite 8, Sacramento, CA 95834, (916) 921-9600, FAX (916) 921-0100
1455 McDowell Blvd. North, Ste. D, Petaluma, CA 94954, (707) 792-1865, FAX (707) 792-0342

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

Attention: John Riggi

Client Proj. ID: Shell, 15275 Washington SL

Lab Proj. ID: 9807J55

Sampled: 07/31/98
Received: 07/31/98
Analyzed: see below

Reported: 08/16/98

LABORATORY ANALYSIS

Analyte	Units	Date Analyzed	Detection Limit	Sample Results
Lab No: 9807J55-05				
Sample Desc : **SOLID,Comp-(1A-1D)**				
Organic Lead	mg/Kg	08/05/98	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

680 Chesapeake Drive, Redwood City, CA 94063, (650) 364-9600, FAX (650) 364-9233
404 N. Wiget Lane, Walnut Creek, CA 94598, (925) 988-9600, FAX (925) 988-9673
819 Striker Avenue, Suite 8, Sacramento, CA 95834, (916) 921-9600, FAX (916) 921-0100
1455 McDowell Blvd. North, Ste. D, Petaluma, CA 94954, (707) 792-1865, FAX (707) 792-0342

Cambria	Client Proj. ID: Shell, 15275 Washington SL	Sampled: 07/31/98
1144 65th St. Suite C	Sample Descript: Comp-1A	Received: 07/31/98
Oakland, CA 94608	Matrix: SOLID	Extracted: 08/11/98
	Analysis Method: EPA 8015 Mod	Analyzed: 08/11/98
Attention: John Riggi	Lab Number: 9807J55-01	Reported: 08/16/98

QC Batch Number: GC081198BTEXEXA
Instrument ID: GCHP01

Total Purgeable Petroleum Hydrocarbons (TPPH)

Analyte	Detection Limit mg/Kg	Sample Results mg/Kg
TPPH as Gas	1.0	8.8
Chromatogram Pattern:		C6-C12

Surrogates	Control Limits %		% Recovery
Trifluorotoluene	70	130	76
4-Bromofluorobenzene	60	140	103

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, (650) 364-9600, FAX (650) 364-9233
404 N. Wiget Lane, Walnut Creek, CA 94598, (925) 988-9600, FAX (925) 988-9673
819 Striker Avenue, Suite 8, Sacramento, CA 95834, (916) 921-9600, FAX (916) 921-0100
1455 McDowell Blvd. North, Ste. D, Petaluma, CA 94954, (707) 792-1865, FAX (707) 792-0342

Cambria	Client Proj. ID: Shell, 15275 Washington SL	Sampled: 07/31/98
1144 65th St. Suite C	Sample Descript: Comp-1B	Received: 07/31/98
Oakland, CA 94608	Matrix: SOLID	Extracted: 08/11/98
	Analysis Method: EPA 8015 Mod	Analyzed: 08/11/98
Attention: John Riggi	Lab Number: 9807J55-02	Reported: 08/16/98

QC Batch Number: GC081198BTEXEXA
Instrument ID: GCHP07

Total Purgeable Petroleum Hydrocarbons (TPPH)

Analyte	Detection Limit mg/Kg	Sample Results mg/Kg
TPPH as Gas	1.0	N.D.
Chromatogram Pattern:		

Surrogates	Control Limits %		% Recovery
Trifluorotoluene	70	130	71
4-Bromofluorobenzene	60	140	87

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, (650) 364-9600, FAX (650) 364-9233
404 N. Wiget Lane, Walnut Creek, CA 94598, (925) 988-9600, FAX (925) 988-9673
819 Striker Avenue, Suite 8, Sacramento, CA 95834, (916) 921-9600, FAX (916) 921-0100
1455 McDowell Blvd. North, Ste. D, Petaluma, CA 94954, (707) 792-1865, FAX (707) 792-0342

Cambria	Client Proj. ID: Shell, 15275 Washington SL	Sampled: 07/31/98
1144 65th St. Suite C	Sample Descript: Comp-1C	Received: 07/31/98
Oakland, CA 94608	Matrix: SOLID	Extracted: 08/11/98
	Analysis Method: EPA 8015 Mod	Analyzed: 08/11/98
Attention: John Riggi	Lab Number: 9807J55-03	Reported: 08/16/98

QC Batch Number: GC081198BTEXEXA
Instrument ID: GCHP07

Total Purgeable Petroleum Hydrocarbons (TPPH)

Analyte	Detection Limit mg/Kg	Sample Results mg/Kg
TPPH as Gas	1.0	N.D.
Chromatogram Pattern:		

Surrogates	Control Limits %		% Recovery
Trifluorotoluene	70	130	71
4-Bromofluorobenzene	60	140	88

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

SEQUOIA ANALYTICAL - ELAP #1210

Peggy Perner
Project Manager

Sequoia Analytical

680 Chesapeake Drive, Redwood City, CA 94063, (650) 364-9600, FAX (650) 364-9233
404 N. Wiget Lane, Walnut Creek, CA 94598, (925) 988-9600, FAX (925) 988-9673
819 Striker Avenue, Suite 8, Sacramento, CA 95834, (916) 921-9600, FAX (916) 921-0100
1455 McDowell Blvd. North, Ste. D, Petaluma, CA 94954, (707) 792-1865, FAX (707) 792-0342

Cambria	Client Proj. ID: Shell, 15275 Washington SL	Sampled: 07/31/98
1144 65th St. Suite C	Sample Descript: Comp-1D	Received: 07/31/98
Oakland, CA 94608	Matrix: SOLID	Extracted: 08/11/98
	Analysis Method: EPA 8015 Mod	Analyzed: 08/11/98
Attention: John Riggi	Lab Number: 9807J55-04	Reported: 08/16/98

QC Batch Number: GC081198BTEXEXA
Instrument ID: GCHP07

Total Purgeable Petroleum Hydrocarbons (TPPH)

Analyte	Detection Limit mg/Kg	Sample Results mg/Kg
TPPH as Gas	1.0	N.D.
Chromatogram Pattern:		

Surrogates	Control Limits %		% Recovery
Trifluorotoluene	70	130	72
4-Bromofluorobenzene	60	140	79

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, (650) 364-9600, FAX (650) 364-9233
404 N. Wiget Lane, Walnut Creek, CA 94598, (925) 988-9600, FAX (925) 988-9673
819 Striker Avenue, Suite 8, Sacramento, CA 95834, (916) 921-9600, FAX (916) 921-0100
1455 McDowell Blvd. North, Ste. D, Petaluma, CA 94954, (707) 792-1865, FAX (707) 792-0342

Cambria	Client Proj. ID: Shell, 15275 Washington SL	Sampled: 07/31/98
1144 65th St. Suite C	Sample Descript: Comp-(1A-1D)	Received: 07/31/98
Oakland, CA 94608	Matrix: SOLID	Extracted: 08/11/98
	Analysis Method: EPA 8020	Analyzed: 08/11/98
Attention: John Riggi	Lab Number: 9807J55-05	Reported: 08/16/98

QC Batch Number: GC081198BTEXEXA
Instrument ID: GCHP01

BTEX Distinction

Analyte	Detection Limit mg/Kg	Sample Results mg/Kg
Benzene	0.0050	N.D.
Toluene	0.0050	N.D.
Ethyl benzene	0.0050	N.D.
Xylenes (Total)	0.0050	N.D.

Surrogates	Control Limits %		% Recovery
Trifluorotoluene	70	130	78
4-Bromofluorobenzene	60	140	104

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, (650) 364-9600, FAX (650) 364-9233
404 N. Wiget Lane, Walnut Creek, CA 94598, (925) 988-9600, FAX (925) 988-9673
819 Striker Avenue, Suite 8, Sacramento, CA 95834, (916) 921-9600, FAX (916) 921-0100
1455 McDowell Blvd. North, Ste. D, Petaluma, CA 94954, (707) 792-1865, FAX (707) 792-0342

Cambria	Client Proj. ID: Shell, 15275 Washington SL	Sampled: 07/31/98
1144 65th St. Suite C	Sample Descript: Comp-(1A-1D)	Received: 07/31/98
Oakland, CA 94608	Matrix: SOLID	Extracted: 08/06/98
	Analysis Method: Title 22	Analyzed: 08/07/98
Attention: John Riggi	Lab Number: 9807J55-05	Reported: 08/16/98

QC Batch Number: ME0806986010MDD
Instrument ID: MTJA-5

Inorganic Persistent and Bioaccumulative Toxic Substances : STLC

Analyte	Max. Limit mg/L	Detection Limit mg/L	Sample Results mg/L
Antimony, Sb	15	0.10	N.D.
Arsenic, As	**5.0**	**0.025**	**0.18**
Barium, Ba	**100**	**0.10**	**4.4**
Beryllium, Be	0.75	0.010	N.D.
Cadmium, Cd	1.0	0.010	N.D.
Chromium, Cr	**560**	**0.010**	**0.12**
Cobalt, Co	**80**	**0.050**	**0.31**
Copper, Cu	**25**	**0.010**	**0.14**
Lead, Pb	5.0	0.10	N.D.
Mercury, Hg	0.20	0.00050	N.D.
Molybdenum, Mo	350	0.050	N.D.
Nickel, Ni	**20**	**0.050**	**0.64**
Selenium, Se	1.0	0.025	N.D.
Silver, Ag	5.0	0.010	N.D.
Thallium, Tl	7.0	0.10	N.D.
Vanadium, V	**24**	**0.050**	**0.53**
Zinc, Zn	**250**	**0.010**	**0.39**

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, (650) 364-9600, FAX (650) 364-9233
404 N. Wiget Lane, Walnut Creek, CA 94598, (925) 988-9600, FAX (925) 988-9673
819 Striker Avenue, Suite 8, Sacramento, CA 95834, (916) 921-9600, FAX (916) 921-0100
1455 McDowell Blvd. North, Ste. D, Petaluma, CA 94954, (707) 792-1865, FAX (707) 792-0342

Cambria	Client Proj. ID: Shell, 15275 Washington SL	Sampled: 07/31/98
1144 65th St. Suite C	Sample Descript: Comp-(1A-1D)	Received: 07/31/98
Oakland, CA 94608	Matrix: SOLID	Extracted: 08/05/98
	Analysis Method: Title 22	Analyzed: 08/05/98
Attention: John Riggi	Lab Number: 9807J55-05	Reported: 08/16/98

QC Batch Number: ME0805986010MDE
Instrument ID: MTJA-5

Inorganic Persistent and Bioaccumulative Toxic Substances : TTLC

Analyte	Max. Limit mg/kg	Detection Limit mg/kg	Sample Results mg/kg
Antimony, Sb	500	5.0	N.D.
Arsenic, As	500	0.10	N.D.
Barium, Ba	**10000**	**5.0**	**120**
Beryllium, Be	75	0.50	N.D.
Cadmium, Cd	100	0.50	N.D.
Chromium, Cr	**2500**	**0.50**	**42**
Cobalt, Co	**8000**	**2.5**	**8.2**
Copper, Cu	**2500**	**0.50**	**20**
Lead, Pb	**1000**	**5.0**	**6.8**
Mercury, Hg	**20**	**0.020**	**0.069**
Molybdenum, Mo	3500	2.5	N.D.
Nickel, Ni	**2000**	**2.5**	**42**
Selenium, Se	100	5.0	N.D.
Silver, Ag	500	0.50	N.D.
Thallium, Tl	700	5.0	N.D.
Vanadium, V	**2400**	**2.5**	**39**
Zinc, Zn	**5000**	**0.50**	**45**

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, (650) 364-9600, FAX (650) 364-9233
404 N. Wiget Lane, Walnut Creek, CA 94598, (925) 988-9600, FAX (925) 988-9673
819 Striker Avenue, Suite 8, Sacramento, CA 95834, (916) 921-9600, FAX (916) 921-0100
1455 McDowell Blvd. North, Ste. D, Petaluma, CA 94954, (707) 792-1865, FAX (707) 792-0342

Cambria
1144 65th St., Suite C
Oakland, CA 94608
Attention: John Riggi

Client Project ID: Shell, 15275 Washington SL

QC Sample Group: 9807J55-01-05

Reported: Aug 16, 1998

QUALITY CONTROL DATA REPORT

Matrix: Solid
Method: EPA 8020
Analyst: R. GECKLER

ANALYTE	Benzene	Toluene	Ethylbenzene	Xylenes
QC Batch #:	GC081198BTEXEXA			
Sample No.:	GS9807J55-1			
Date Prepared:	8/11/98	8/11/98	8/11/98	8/11/98
Date Analyzed:	8/11/98	8/11/98	8/11/98	8/11/98
Instrument I.D.#:	GCHP1	GCHP1	GCHP1	GCHP1
Sample Conc., mg/Kg:	N.D.	N.D.	0.0 mg/Kg	0.0 mg/Kg
Conc. Spiked, mg/Kg:	0.20	0.20	0.20	0.60
Matrix Spike, mg/Kg:	0.21	0.46	0.26	0.85
% Recovery:	105	230	126	139
Matrix Spike Duplicate, mg/Kg:	0.18	0.18	0.18	0.53
% Recovery:	90	90	86	85
Relative % Difference:	15	88	38	48
RPD Control Limits:	0-25	0-25	0-25	0-25

LCS Batch#:	GSBLK081198A			
Date Prepared:	8/11/98	8/11/98	8/11/98	8/11/98
Date Analyzed:	8/11/98	8/11/98	8/11/98	8/11/98
Instrument I.D.#:	GCHP1	GCHP1	GCHP1	GCHP1
Conc. Spiked, mg/Kg:	0.20	0.20	0.20	0.60
Recovery, mg/Kg:	0.18	0.18	0.17	0.50
LCS % Recovery:	90	90	85	83

Percent Recovery Control Limits:

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

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

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

SEQUOIA ANALYTICAL

Kayvan Kimyai
Project Manager

Sequoia Analytical

680 Chesapeake Drive, Redwood City, CA 94063, (650) 364-9600, FAX (650) 364-9233
404 N. Wiget Lane, Walnut Creek, CA 94598, (925) 988-9600, FAX (925) 988-9673
819 Striker Avenue, Suite 8, Sacramento, CA 95834, (916) 921-9600, FAX (916) 921-0100
1455 McDowell Blvd. North, Ste. D, Petaluma, CA 94954, (707) 792-1865, FAX (707) 792-0342

Cambria Environmental	Client Project ID:	Shell, 15275 Washington - SL	
1144 65th St., Ste. C	Matrix:	Liquid	
Oakland, CA 94608			
Attention: John Riggi	Work Order #:	9807J55 -05	Reported: Aug 17, 1998

QUALITY CONTROL DATA REPORT

Analyte:	Organic Lead
QC Batch#:	ME080598700MDA
Analy. Method:	LUFT
Prep. Method:	LUFT
Analyst:	C. Hanks
MS/MSD #:	980802403
Sample Conc.:	N.D.
Prepared Date:	8/5/98
Analyzed Date:	8/5/98
Instrument I.D.#:	MV2
Conc. Spiked:	4.3 mg/L
Result:	4.8
MS % Recovery:	112
Dup. Result:	4.8
MSD % Recov.:	112
RPD:	0.0
RPD Limit:	0-20

LCS #:	LCS080598
Prepared Date:	8/5/98
Analyzed Date:	8/5/98
Instrument I.D.#:	MV2
Conc. Spiked:	4.3 mg/L
LCS Result:	5.0
LCS % Recov.:	116

MS/MSD	75-125
LCS	80-120
Control Limits	

SEQUOIA ANALYTICAL

Peggy Penner
Project Manager

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

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

Sequoia Analytical

680 Chesapeake Drive, Redwood City, CA 94063, (650) 364-9600, FAX (650) 364-9233
404 N. Wiget Lane, Walnut Creek, CA 94598, (925) 988-9600, FAX (925) 988-9673
819 Striker Avenue, Suite 8, Sacramento, CA 95834, (916) 921-9600, FAX (916) 921-0100
1455 McDowell Blvd. North, Ste. D, Petaluma, CA 94954, (707) 792-1865, FAX (707) 792-0342

Cambria Environmental
1144 65th St., Ste. C
Oakland, CA 94608
Attention: John Riggi

Client Project ID: Shell, 15275 Washington - SL
Matrix: Solid
Work Order #: 9807J55-05

Reported: Aug 17, 1998

QUALITY CONTROL DATA REPORT

Analyte:	Beryllium	Cadmium	Chromium	Nickel
QC Batch#:	ME0805986010MDE	ME0805986010MDE	ME0805986010MDE	ME0805986010MDE
Analy. Method:	EPA 6010	EPA 6010	EPA 6010	EPA 6010
Prep. Method:	EPA 3050	EPA 3050	EPA 3050	EPA 3050
Analyst:	C. Caoile	C. Caoile	C. Caoile	C. Caoile
MS/MSD #:	9807J1301	9807J1301	9807J1301	9807J1301
Sample Conc.:	N.D.	N.D.	31	32
Prepared Date:	8/5/98	8/5/98	8/5/98	8/5/98
Analyzed Date:	8/5/98	8/5/98	8/5/98	8/5/98
Instrument I.D.#:	MTJA5	MTJA5	MTJA5	MTJA5
Conc. Spiked:	50 mg/Kg	50 mg/Kg	50 mg/Kg	50 mg/Kg
Result:	43	43	73	76
MS % Recovery:	86	86	84	88
Dup. Result:	43	43	72	73
MSD % Recov.:	86	86	82	82
RPD:	0.0	0.0	1.4	4.0
RPD Limit:	0-20	0-20	0-20	0-20
LCS #:	BLK080598	BLK080598	BLK080598	BLK080598
Prepared Date:	8/5/98	8/5/98	8/5/98	8/5/98
Analyzed Date:	8/5/98	8/5/98	8/5/98	8/5/98
Instrument I.D.#:	MTJA5	MTJA5	MTJA5	MTJA5
Conc. Spiked:	50 mg/Kg	50 mg/Kg	50 mg/Kg	50 mg/Kg
LCS Result:	48	46	47	47
LCS % Recov.:	96	92	94	94
MS/MSD	80-120	80-120	80-120	80-120
LCS	80-120	80-120	80-120	80-120
Control Limits				

SEQUOIA ANALYTICAL

Peggy Penner
Project Manager

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

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

Sequoia Analytical

680 Chesapeake Drive, Redwood City, CA 94063, (650) 364-9600, FAX (650) 364-9233
404 N. Wiget Lane, Walnut Creek, CA 94598, (925) 988-9600, FAX (925) 988-9673
819 Striker Avenue, Suite 8, Sacramento, CA 95834, (916) 921-9600, FAX (916) 921-0100
1455 McDowell Blvd. North, Ste. D, Petaluma, CA 94954, (707) 792-1865, FAX (707) 792-0342

Cambria Environmental	Client Project ID:	Shell, 15275 Washington - SL	
1144 65th St., Ste. C	Matrix:	Liquid	
Oakland, CA 94608			
Attention: John Riggi	Work Order #:	9807J55-05	Reported: Aug 17, 1998

QUALITY CONTROL DATA REPORT

Analyte:	STLC Beryllium	STLC Cadmium	STLC Chromium	STLC Nickel
QC Batch#:	ME0807986010MDD	ME0807986010MDD	ME0807986010MDD	ME0807986010MDD
Analy. Method:	EPA 6010	EPA 6010	EPA 6010	EPA 6010
Prep. Method:	EPA 3010	EPA 3010	EPA 3010	EPA 3010
Analyst:	C. Caoile	C. Caoile	C. Caoile	C. Caoile
MS/MSD #:	980816901	980816901	980816901	980816901
Sample Conc.:	N.D.	N.D.	N.D.	N.D.
Prepared Date:	8/6/98	8/6/98	8/6/98	8/6/98
Analyzed Date:	8/6/98	8/6/98	8/6/98	8/6/98
Instrument I.D.#:	MTJA5	MTJA5	MTJA5	MTJA5
Conc. Spiked:	1.0 mg/L	1.0 mg/L	1.0 mg/L	1.0 mg/L
Result:	0.94	0.97	0.93	0.92
MS % Recovery:	94	97	93	92
Dup. Result:	0.94	0.97	0.93	0.91
MSD % Recov.:	94	97	93	91
RPD:	0.0	0.0	0.0	1.1
RPD Limit:	0-20	0-20	0-20	0-20
LCS #:	BLK080698	BLK080698	BLK080698	BLK080698
Prepared Date:	8/6/98	8/6/98	8/6/98	8/6/98
Analyzed Date:	8/6/98	8/6/98	8/6/98	8/6/98
Instrument I.D.#:	MTJA5	MTJA5	MTJA5	MTJA5
Conc. Spiked:	1.0 mg/L	1.0 mg/L	1.0 mg/L	1.0 mg/L
LCS Result:	0.94	0.96	0.93	0.92
LCS % Recov.:	94	96	93	92
MS/MSD Control Limits	80-120	80-120	80-120	80-120
LCS Control Limits	80-120	80-120	80-120	80-120

SEQUOIA ANALYTICAL

Peggy Penner
Project Manager

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

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

Sequoia Analytical

680 Chesapeake Drive, Redwood City, CA 94063, (650) 364-9600, FAX (650) 364-9233
404 N. Wiget Lane, Walnut Creek, CA 94598, (925) 988-9600, FAX (925) 988-9673
819 Striker Avenue, Suite 8, Sacramento, CA 95834, (916) 921-9600, FAX (916) 921-0100
1455 McDowell Blvd. North, Ste. D, Petaluma, CA 94954, (707) 792-1865, FAX (707) 792-0342

Cambria
1144 65th St. Suite C
Oakland, CA 94608
Attention: John Riggi

Client Proj. ID: Shell, 15275 Washington SL
Lab Proj. ID: 9807J55

Received: 07/31/98
Reported: 08/16/98

LABORATORY NARRATIVE

In order to properly interpret this report, it must be reproduced in its entirety. This report contains a total of 14 pages including the laboratory narrative, sample results, quality control, and related documents as required (cover page, COC, raw data, etc.).

SEQUOIA ANALYTICAL

Peggy Penner
Project Manager

SHELL OIL COMPANY
RETAIL ENVIRONMENTAL ENGINEERING - WEST

CHAIN OF CUSTODY RECORD
Serial No: _____

Date: 7/31/98
Page 1 of 1

Site Address: 15275 Washington - San Leandro CA

WIC#: 204-6852-1108

Shell Engineer: AE Perez | Phone No.: | Fax #:

Consultant Name & Address: CAMBRIA ENVIRONMENTAL 1144 65th St. Suite C, Oakland, CA 94608

Consultant Contact: John Rigg | Phone No.: 510 420-0700 | Fax #: 420-9170

Comments:

Sampled by: JR

Printed Name:

Analysis Required 9807J55

LAB: SEQ. 9807J55

CHECK ONE (1) BOX ONLY	C1/D1
G.W. Monitoring	4441
Site Investigation	X 4441
Soil Classify/Disposal	X 4442
Water Classify/Disposal	4443
Soil/Air Remt. or Sys. O & M	4452
Water Remt. or Sys. O & M	4453
Other	

TURN AROUND TIME: 24 hour [ ] 48 hours [ ] 16 days [X] (Normal) Other [ ]

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

UST AGENCY: Alameda Ct.

Sample ID	Date	Time Sludge	Soil	Water	Air	No. of conts.	TPH (EPA 8015 Mod. Gas)	TPH (EPA 8015 Mod. Diesel)	BTEX (EPA 8020/602D)	Volatile Organics (EPA 8240)	Test for Disposal	Combination TPH 8015 & BTEX 8020	Asbestos	Container Size	Preparation Used	Composite Y/N	MATERIAL DESCRIPTION	SAMPLE CONDITION/ COMMENTS
S-19 (5')	7/31/98	815	X			1										N		HOLD
S-19 (10')	"	825	X			1										N		HOLD
S-19 (15')	"	955	X			1										N		HOLD
S-19 (20')	"	945	X			1										N		HOLD
COMP -1	7/31	1100	X			4					X					Y		

Relinquished By (signature): [signature] | Printed Name: John Rigg | Date: 7/31/98 | Time: 2:10 | Received (signature): [signature]

Relinquished By (signature): [signature] | Printed Name: JOHN FRICK | Date: 7/31/98 | Time: | Received (signature): [signature]

Relinquished By (signature): | Printed Name: | Date: | Time: | Received (signature): [signature] | Printed Name: Ana Deman | Date: 7/31/98 | Time: 1811

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

Attachment B

Soil Boring Log And Well Construction Diagram

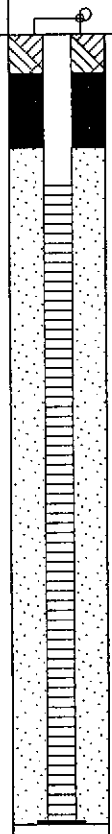
Cambria Environmental Technology, Inc.
1144 - 65th St.
Oakland, CA 94608
Telephone: (510) 420-0700
Fax: (510) 420-9170

BORING/WELL LOG

CLIENT NAME	Equilon Enterprises LLC	**BORING/WELL NAME**	S-19
JOB/SITE NAME	15275SNL	**DRILLING STARTED**	31-Jul-98
LOCATION	15275 Washington Avenue, San Leandro	**DRILLING COMPLETED**	31-Jul-98
PROJECT NUMBER	240-0933	**WELL DEVELOPMENT DATE (YIELD)**	NA
DRILLER	Gregg Drilling	**GROUND SURFACE ELEVATION**	NA
DRILLING METHOD	Hollow-stem auger	**TOP OF CASING ELEVATION**	NA
BORING DIAMETER	8"	**SCREENED INTERVAL**	4 to 21 ft bgs
LOGGED BY	J. Riggi	**DEPTH TO WATER (First Encountered)**	6.30 ft (31-Jul-98)
REVIEWED BY	D. Lunquist, PE	**DEPTH TO WATER (Static)**	
REMARKS	94 ft north of well S-9.		

PID (ppm)	BLOW COUNTS	RECOVERY	SAMPLE ID	EXTENT	DEPTH (ft bgs)	U.S.C.S.	GRAPHIC LOG	LITHOLOGIC DESCRIPTION	CONTACT DEPTH (ft bgs)
								ASPHALT	0.5
								FILL: brown; loose; moist; 15% clay, 25% silt, 30% sand, 30% gravel; low plasticity; high estimated permeability.	2.5
998						MH		**Clayey SILT:** (MH); grey to black; medium stiff; moist; 40% clay, 50% silt, 10% sand; medium plasticity; low estimated permeability.	5.0
					5			**Silty CLAY:** (CL); grey to black; stiff; moist; 55% clay, 45% silt; medium to high plasticity; low estimated permeability. 7/31/98 ▽	
730						CL			
					10			brown; very stiff; 55% clay, 35% silt, 10% sand; high plasticity; very low estimated permeability.	10.0
639						CL			
					15			**Silty, Gravelly CLAY:** (CL); brown; very stiff; wet; 45% clay, 30% silt, 10% sand, 15% gravel; high plasticity; very low estimated permeability.	15.0
231						CL			
					20				20.0
						CL		**Silty, Sandy CLAY:** (CL); brown; stiff; moist; 40% clay, 30% silt, 30% sand; high plasticity; very low estimated permeability.	21.1

WELL DIAGRAM



WELL LOG (PID) G:\SNL15275\GINT\WELLS-19.GPJ DEFAULT.GDT 12/2/98

STANDARD FIELD PROCEDURES FOR MONITORING WELL INSTALLATION

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 BORINGS

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).

Soil Boring and Sampling

Soil borings are typically drilled using hollow-stem augers or direct-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 volatile vapor analyzer measures volatile hydrocarbon vapor concentrations in the tube headspace, extracting the vapor through a slit in the cap. Volatile vapor analyzer 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.

F:\TEMPLATE\SOPS\WELLS-GW.WPD

Attachment D

Well Drilling Permit

ALAMEDA COUNTY PUBLIC WORKS AGENCY

WATER RESOURCES SECTION
951 TURNER COURT, SUITE 300, HAYWARD, CA 94545-2651
PHONE (510) 670-5575 ANDREAS GODFREY FAX (510) 670-5262
(510) 670-5248 ALVIN KAN

DRILLING PERMIT APPLICATION

FOR APPLICANT TO COMPLETE

LOCATION OF PROJECT former-Shell-branded Station
15275 Washington Avenue
San Leandro CA

California Coordinates Source ______ ft. Accuracy ± ___ ft.
CCN ______ ft. CCE ______ ft.
APN ______

CLIENT
Name Equilon Enterprises LLC
Address P.O. Box 9010 Phone 510-335-5427
City Martinez CA Zip 94553

APPLICANT
Name Cambria Envr. Tech. Inc.
John Riggi Fax 510-420-9170
Address 1144 65th St Phone 510-420-3340
City Oakland CA Zip 94608

TYPE OF PROJECT

Well Construction
- Cathodic Protection ☐
- Water Supply ☐
- Monitoring ☑

Geotechnical Investigation
- General ☐
- Contamination ☐
- Well Destruction ☐

PROPOSED WATER SUPPLY WELL USE
- New Domestic ☐
- Municipal ☐
- Industrial ☐
- Replacement Domestic ☐
- Irrigation ☐
- Other ______ ☐

DRILLING METHOD:
- Mud Rotary ☐
- Cable ☐
- Air Rotary ☐
- Other ☐
- Auger X

DRILLER'S LICENSE NO. 485165 ex 2000

WELL PROJECTS
Drill Hole Diameter 8" in.
Casing Diameter 2" in.
Surface Seal Depth 1.5 ft.
Maximum Depth 20 ft.
Number 1

GEOTECHNICAL PROJECTS
Number of Borings ______
Hole Diameter ______ in.
Maximum Depth ______ ft.

ESTIMATED STARTING DATE 7/31/98
ESTIMATED COMPLETION DATE 7/31/98

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

APPLICANT'S SIGNATURE [signature] DATE 7/13/98

FOR OFFICE USE

PERMIT NUMBER 98WR289
WELL NUMBER ______
APN ______

PERMIT CONDITIONS

Circled Permit Requirements Apply

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

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

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

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

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

F. WELL DESTRUCTION
See attached.

G. SPECIAL CONDITIONS

APPROVED [signature] DATE 7-14-98

Attachment E

Shell's Waste Management Procedures

ISSUED DATE: 05/23/97
CANCELS ISSUE: 03/05/97
ISSUED BY: RLG

MATERIAL: UNDERGROUND STORAGE TANK (UST) SOIL CONTAMINATED WITH GASOLINE/DIESEL

USE FOR ARIZONA , CALIFORNIA AND NEVADA WASTE ONLY!!!

MINIMUM REQUIRED TESTING

TPH = TOTAL PETROLEUM HYDROCARBONS, DHS GC-FID MOD 8015
GASOLINE OR DIESEL AS REQUIRED.
BTXE = EPA 8020
CAM METALS = TTLC ALL:
STLC ON ALL TTLC METALS 10 X STLC MAXIMUM:
TTLC LEAD => 13 MG/KG REQUIRES ORGANIC ANALYSIS
TCLP METALS FOR STLC METALS AT OR ABOVE
STLC REGULATORY LEVEL.

AQUATIC BIOASSAY (FISH TOX) IS ONLY TO BE RUN ON SAMPLES WITH GREATER THAN 5000 PPM TPH. COMPOSITE A MAXIMUM OF 4 SAMPLES.

AQUATIC BIOASSAY (FISH TOX) = PART 800 OF "STANDARD METHODS FOR THE EXAMINATION OF WATER AND WASTEWATER (15TH EDITION)"

LABORATORY INSTRUCTIONS (MINIMUM GUIDELINES ONLY)

- 8015/8020 TO BE BILLED AS "COMBO" WITHOUT EXCEPTION
- TPH REQUIRED FOR ALL SAMPLES.
- ALL OTHER TESTS REQUIRED TO BE RUN ON COMPOSITE(S). MAXIMUM 4 SAMPLES PER COMPOSITE.
- STLC REQUIRED FOR METALS WITH TTLC VALUE 10 X STLC MAXIMUM.
- ORGANIC ANALYSIS REQUIRED FOR TTLC LEAD OF 13 MG/KG OR GREATER WOULD REQUIRE ORGANIC ANALYSIS).
- LABORATORY IS TO SUPPLY QA/QC INFORMATION WITH ALL ANALYTICAL REPORTS.
- MAIL OR FAX ALL ANALYSIS TO PERSON REQUESTING ANALYSIS.

Attachment F

Soil Disposal Confirmation Letter

DISPOSAL CONFIRMATION

Consultant:	CAMBRIA ENVIRONMENTAL
Contact:	AUBREY K. COOL
Phone/Fax:	(510) 420-0700 FAX (510) 420-9170
Client:	EQUILON ENTERPRISE - KAREN PETRYNA
Station #/Wic #:	204-6852-1008
Site Address:	15275 WASHINGTON
City/State:	SAN LEANDRO, CA
Estimated YD/Ton:	1 - 3 YARDS
Actual YD/Ton:	1 YARD
Disposal Facility:	FORWARD LANDFILL
Disposal Date:	AUGUST 28, 1998
Contact:	BRAD BONNER
Phone #:	(800) 204-4242
Hauler:	MANLEY & SONS TRUCKING, INC.
Contact:	TIM A. MANLEY
Phone #:	(916) 381-6864
Fax #:	(916) 381-1573

Date & Time Faxed

9/8/98

7693