



TRANSMITTAL

DATE: August 17, 1995 PROJECT #: 81-1103-9
To: Brian Oliva PHONE: 510-567-6737
COMPANY: Alameda County Health Care Agency 1131 Harbor Bay Parkway 2nd Floor Alameda, California 94502 FAX: 510-337-9335
FROM: Faith Daverin, 510-450-6161
SUBJECT: Shell Service Station - 610 Market Street in Oakland

VIA: FAX: AS: FOR:
Fax # of pages: Per our phone call Your information
1st Class Mail (including this cover) You requested Return to you
Overnight Delivery Hard Copy to follow Is required Your action
UPS (Surface) We believe you may Your review & comments
Courier be interested

Please call (510) 450-6000 if there are any problems with transmission.

COMMENTS:

Brian, Please find the attached analytic reports and site map for soil sample collected at the above referenced Shell station. The soil samples identified as D-1 through D-8 and L-1 through L-4 were collected on August 3 during the dispenser upgrade. Soil samples identified as SS1 through SS6 were collected on August 7 during overexcavation activities.

In addition to these results, Shell is analyzing samples SS1 through SS6 for Petroleum Oil and Grease, 8240, 8270 and various metals (Cd, Cr, Pb, Ni and Zn) per our telephone discussion. These analyses are being conducted on a normal 15-day turn around, with preliminary results due to Weiss on Friday, August 25. When I receive the hard copies for these results, I will forward copies to you. If you have any questions or comments, please give me a call.

FAX CONFIDENTIALITY NOTICE

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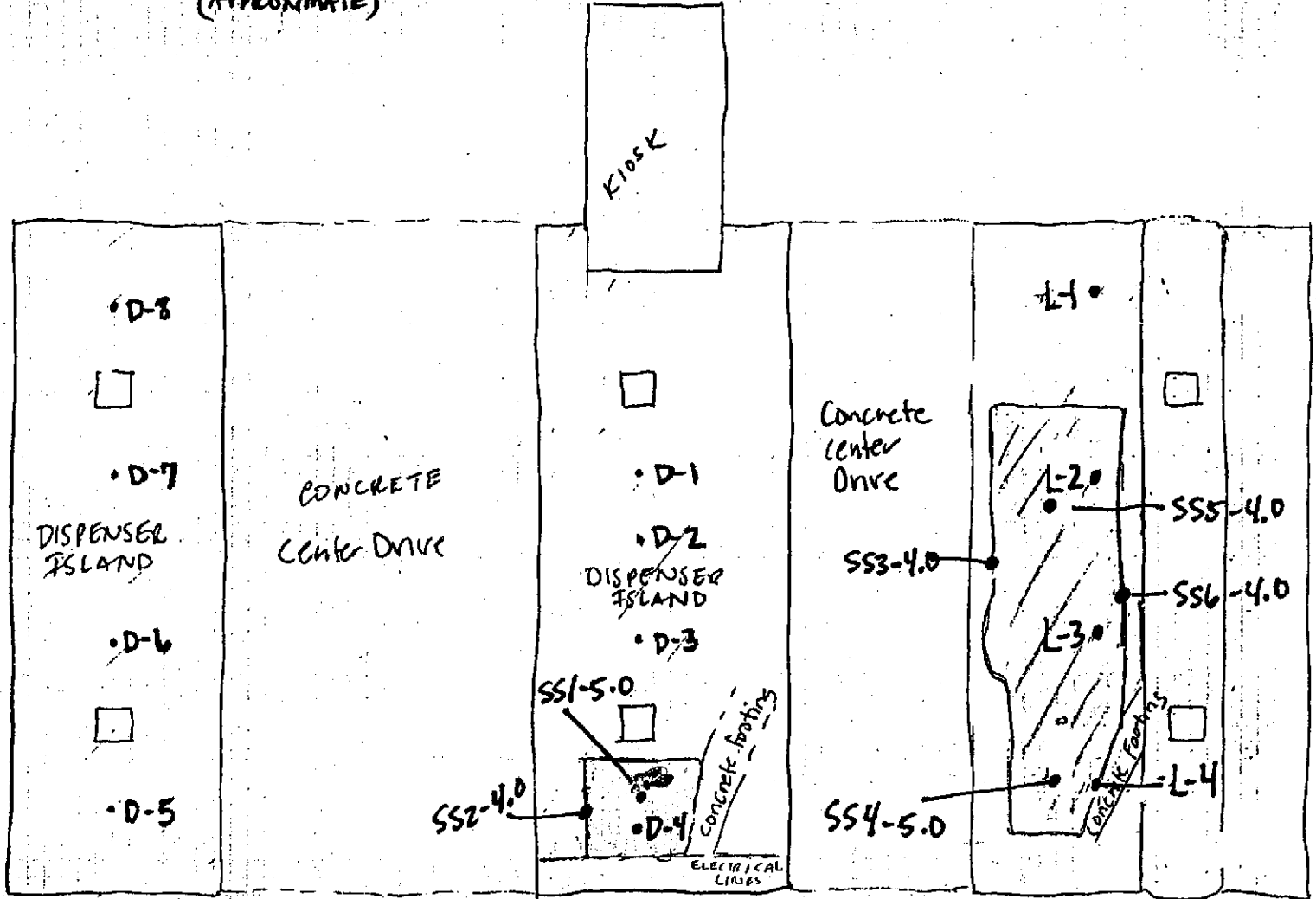
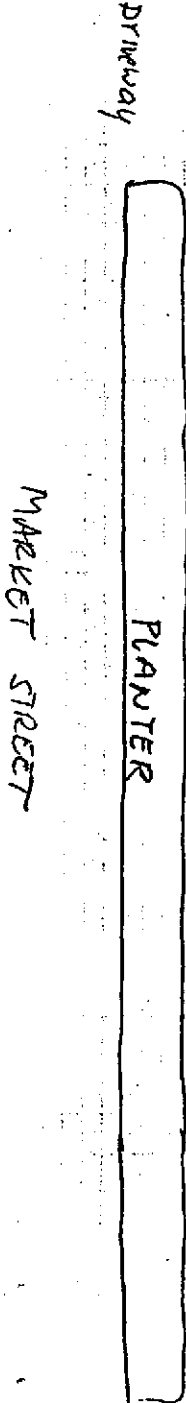
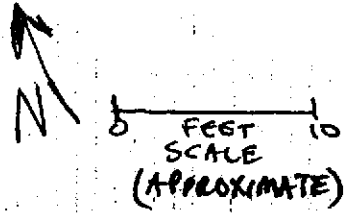
EMERGENCY CONTACT: 510-547-5043

Shell Service Station  
610 Market Street, Oakland

WA # 81-1403-9

8/7/95

WIC # 204-5508-5702



- Canopy pillars
- ▨ Excavated Areas
- Soil sample

Figure 2. Soil Sample Locations



# Sequoia Analytical

680 Chesapeake Drive  
404 N. Wiget Lane  
819 Striker Avenue, Suite 8

Redwood City, CA 94063  
Walnut Creek, CA 94598  
Sacramento, CA 95834

(415) 364-9600  
(510) 988-9600  
(916) 921-9600

FAX (415) 364-9233  
FAX (510) 988-9673  
FAX (916) 921-0100

Weiss Associates  
5500 Shellmound  
Emeryville, CA 94608  
Attention: Faith Daverin

Project: Shell 610 Market St, Oakland

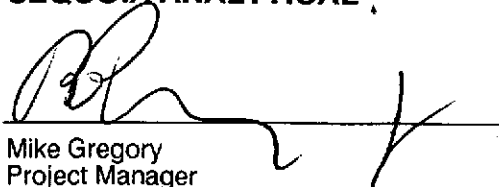
Enclosed are the results from samples received at Sequoia Analytical on August 7, 1995.  
The requested analyses are listed below:

<u>SAMPLE #</u>	<u>SAMPLE DESCRIPTION</u>	<u>DATE COLLECTED</u>	<u>TEST METHOD</u>
9508446 -01	SOLID, D-1	08/03/95	TPHGBS Purgeable TPH/BTEX
9508446 -02	SOLID, D-2	08/03/95	TPHGBS Purgeable TPH/BTEX
9508446 -03	SOLID, D-3	08/03/95	TPHGBS Purgeable TPH/BTEX
9508446 -04	SOLID, D-4	08/03/95	TPHGBS Purgeable TPH/BTEX
9508446 -05	SOLID, D-5	08/03/95	TPHGBS Purgeable TPH/BTEX
9508446 -06	SOLID, D-6	08/03/95	TPHGBS Purgeable TPH/BTEX
9508446 -07	SOLID, D-7	08/03/95	TPHGBS Purgeable TPH/BTEX
9508446 -08	SOLID, D-8	08/03/95	TPHGBS Purgeable TPH/BTEX
9508446 -09	SOLID, L-1	08/03/95	TPHGBS Purgeable TPH/BTEX
9508446 -10	SOLID, L-2	08/03/95	TPHGBS Purgeable TPH/BTEX
9508446 -11	SOLID, L-3	08/03/95	TPHGBS Purgeable TPH/BTEX
9508446 -12	SOLID, L-4	08/03/95	TPHGBS Purgeable TPH/BTEX

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**



Mike Gregory  
Project Manager



Weiss Associates 5500 Shellmound Emeryville, CA 94608 Attention: Faith Daverin	Client Proj. ID: Shell 610 Market St, Oakland Sample Descript: D-1 Matrix: SOLID Analysis Method: 8015Mod/8020 Lab Number: 9508446-01	Sampled: 08/03/95 Received: 08/07/95 Extracted: 08/09/95 Analyzed: 08/09/95 Reported: 08/14/95
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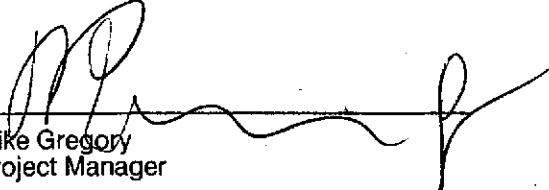
QC Batch Number: GC080995BTEXEXB  
Instrument ID: GCHP18

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

Analyte	Detection Limit mg/Kg	Sample Results mg/Kg
TPPH as Gas	1000	2700 ✓
Benzene	5.0	N.D. ✓
Toluene	5.0	130
Ethyl Benzene	5.0	46
Xylenes (Total)	5.0	320
Chromatogram Pattern:		Gas
Surrogates	Control Limits %	% Recovery
Trifluorotoluene	70 130	107

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

SEQUOIA ANALYTICAL - ELAP #1210

  
Mike Gregory  
Project Manager



Weiss Associates 5500 Shellmound Emeryville, CA 94608	Client Proj. ID: Shell Sample Descript: D-2 Matrix: SOLID Analysis Method: 8015Mod/8020 Lab Number: 9508446-02	610 Market St, Oakland Sampled: 08/03/95 Received: 08/07/95 Extracted: 08/09/95 Analyzed: 08/09/95 Reported: 08/14/95
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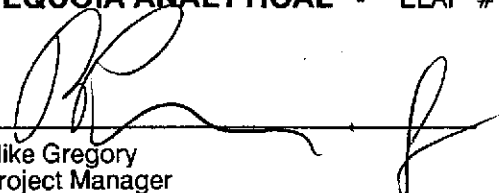
QC Batch Number: GC080995BTEXEXB  
Instrument ID: GCHP18

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

Analyte	Detection Limit mg/Kg	Sample Results mg/Kg
TPPH as Gas	10	66
Benzene	0.050	N.D.
Toluene	0.050	0.11
Ethyl Benzene	0.050	0.36
Xylenes (Total)	0.050	1.9
Chromatogram Pattern: Unidentified HC		>C10
Weathered Gas		C8-C10
<b>Surrogates</b>	<b>Control Limits %</b>	<b>% Recovery</b>
Trifluorotoluene	70 130	97

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

**SEQUOIA ANALYTICAL - ELAP #1210**

  
Mike Gregory  
Project Manager



# Sequoia Analytical

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(916) 921-9600

FAX (415) 364-9233  
FAX (510) 988-9673  
FAX (916) 921-0100

Weiss Associates	Client Proj. ID: Shell 610 Market St, Oakland	Sampled: 08/03/95
5500 Shellmound	Sample Descript: D-3	Received: 08/07/95
Emeryville, CA 94608	Matrix: SOLID	Extracted: 08/09/95
Attention: Faith Daverin	Analysis Method: 8015Mod/8020	Analyzed: 08/10/95
	Lab Number: 9508446-03	Reported: 08/14/95

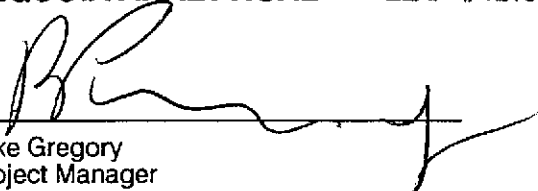
QC Batch Number: GC080995BTEXEXB  
Instrument ID: GCHP22

## Total Purgeable Petroleum Hydrocarbons (TPPH) with BTEX

Analyte	Detection Limit mg/Kg	Sample Results mg/Kg
TPPH as Gas	10	76
Benzene	0.050	0.70
Toluene	0.050	4.7
Ethyl Benzene	0.050	0.79
Xylenes (Total)	0.050	8.7
Chromatogram Pattern:		Gas
<b>Surrogates</b>	<b>Control Limits %</b>	<b>% Recovery</b>
Trifluorotoluene	70	130
		125

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

**SEQUOIA ANALYTICAL - ELAP #1210**



Mike Gregory  
Project Manager



Weiss Associates 5500 Shellmound Emeryville, CA 94608 Attention: Faith Daverin	Client Proj. ID: Shell 610 Market St, Oakland Sample Descript: D-4 Matrix: SOLID Analysis Method: 8015Mod/8020 Lab Number: 9508446-04	Sampled: 08/03/95 Received: 08/07/95 Extracted: 08/09/95 Analyzed: 08/10/95 Reported: 08/14/95
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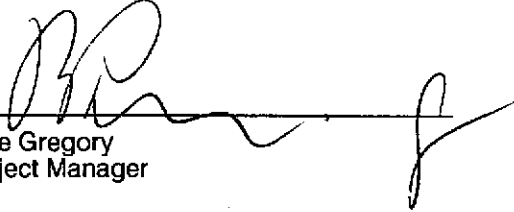
QC Batch Number: GC080995BTEXEXB  
Instrument ID: GCHP18

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

Analyte	Detection Limit mg/Kg	Sample Results mg/Kg
TPPH as Gas	2.0	7.7
Benzene	0.010	N.D.
Toluene	0.010	0.017
Ethyl Benzene	0.010	0.043
Xylenes (Total)	0.010	0.082
Chromatogram Pattern: Weathered Gas		C7-C12
<b>Surrogates</b>	<b>Control Limits %</b>	<b>% Recovery</b>
Trifluorotoluene	70 130	96

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

**SEQUOIA ANALYTICAL - ELAP #1210**

  
Mike Gregory  
Project Manager



Weiss Associates	Client Proj. ID: Shell 610 Market St, Oakland	Sampled: 08/03/95
5500 Shellmound	Sample Descript: D-5	Received: 08/07/95
Emeryville, CA 94608	Matrix: SOLID	Extracted: 08/09/95
Attention: Faith Daverin	Analysis Method: 8015Mod/8020	Analyzed: 08/10/95
	Lab Number: 9508446-05	Reported: 08/14/95

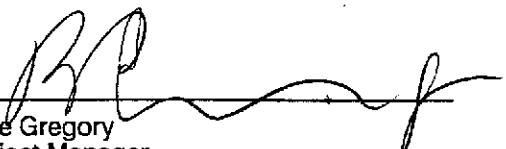
QC Batch Number: GC080995BTEXEXB  
Instrument ID: GCHP18

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

Analyte	Detection Limit mg/Kg	Sample Results mg/Kg
TPPH as Gas	5.0	33
Benzene	0.025	N.D.
Toluene	0.025	0.16
Ethyl Benzene	0.025	0.10
Xylenes (Total)	0.025	3.0
Chromatogram Pattern: Weathered Gas		C7-C12
<b>Surrogates</b>	<b>Control Limits %</b>	<b>% Recovery</b>
Trifluorotoluene	70 130	122

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

**SEQUOIA ANALYTICAL - ELAP #1210**

  
Mike Gregory  
Project Manager





Weiss Associates 5500 Shellmound Emeryville, CA 94608 Attention: Faith Daverin	Client Proj. ID: Shell 610 Market St, Oakland Sample Descript: D-6 Matrix: SOLID Analysis Method: 8015Mod/8020 Lab Number: 9508446-06	Sampled: 08/03/95 Received: 08/07/95 Extracted: 08/09/95 Analyzed: 08/10/95 Reported: 08/14/95
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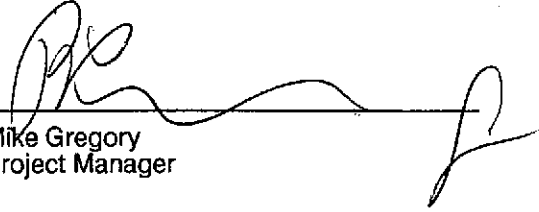
QC Batch Number: GC080995BTEXEXB  
Instrument ID: GCHP18

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

Analyte	Detection Limit mg/Kg	Sample Results mg/Kg
TPPH as Gas	1000	1400
Benzene	5.0	N.D.
Toluene	5.0	N.D.
Ethyl Benzene	5.0	N.D.
Xylenes (Total)	5.0	42
Chromatogram Pattern: Weathered Gas		C8-C12
<b>Surrogates</b>	<b>Control Limits %</b>	<b>% Recovery</b>
Trifluorotoluene	70                      130	90

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

SEQUOIA ANALYTICAL - ELAP #1210



Mike Gregory  
Project Manager



Weiss Associates	Client Proj. ID: Shell 610 Market St, Oakland	Sampled: 08/03/95
5500 Shellmound	Sample Descript: D-7	Received: 08/07/95
Emeryville, CA 94608	Matrix: SOLID	Extracted: 08/09/95
Attention: Faith Daverin	Analysis Method: 8015Mod/8020	Analyzed: 08/10/95
	Lab Number: 9508446-07	Reported: 08/14/95

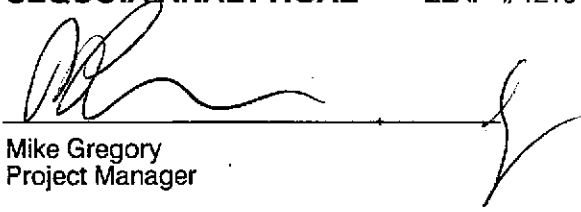
QC Batch Number: GC080995BTEXEXB  
Instrument ID: GCHP18

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

Analyte	Detection Limit mg/Kg	Sample Results mg/Kg
TPPH as Gas	400	1600
Benzene	2.0	N.D.
Toluene	2.0	N.D.
Ethyl Benzene	2.0	3.4
Xylenes (Total)	2.0	25
Chromatogram Pattern:		
Unidentified HC		>C10
Weathered Gas		C8-C10
<b>Surrogates</b>	<b>Control Limits %</b>	<b>% Recovery</b>
Trifluorotoluene	70 130	94

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

**SEQUOIA ANALYTICAL - ELAP #1210**

  
Mike Gregory  
Project Manager



Weiss Associates 5500 Shellmound Emeryville, CA 94608 Attention: Faith Daverin	Client Proj. ID: Shell 610 Market St, Oakland Sample Descript: D-8 Matrix: SOLID Analysis Method: 8015Mod/8020 Lab Number: 9508446-08	Sampled: 08/03/95 Received: 08/07/95 Extracted: 08/09/95 Analyzed: 08/10/95 Reported: 08/14/95
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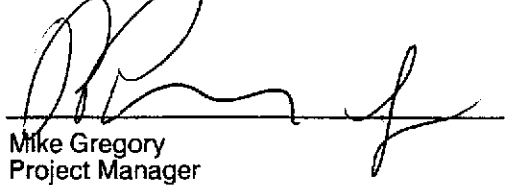
QC Batch Number: GC080995BTEXEXB  
Instrument ID: GCHP22

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

Analyte	Detection Limit mg/Kg	Sample Results mg/Kg
TPPH as Gas	1.0	N.D.
Benzene	0.0050	N.D.
Toluene	0.0050	0.0072
Ethyl Benzene	0.0050	N.D.
Xylenes (Total)	0.0050	0.025
Chromatogram Pattern:		
<b>Surrogates</b>	<b>Control Limits %</b>	<b>% Recovery</b>
Trifluorotoluene	70 130	93

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

**SEQUOIA ANALYTICAL - ELAP #1210**

  
Mike Gregory  
Project Manager



Weiss Associates 5500 Shellmound Emeryville, CA 94608 Attention: Faith Daverin	Client Proj. ID: Shell 610 Market St, Oakland Sample Descript: L-1 Matrix: SOLID Analysis Method: 8015Mod/8020 Lab Number: 9508446-09	Sampled: 08/03/95 Received: 08/07/95 Extracted: 08/09/95 Analyzed: 08/09/95 Reported: 08/14/95
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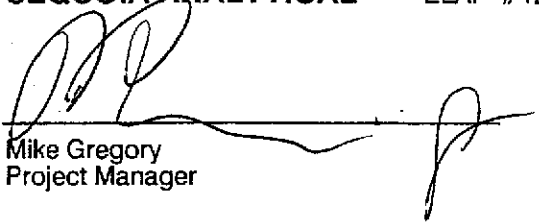
QC Batch Number: GC080995BTEXEXB  
Instrument ID: GCHP18

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

Analyte	Detection Limit mg/Kg	Sample Results mg/Kg
TPPH as Gas	1.0	N.D.
Benzene	0.0050	N.D.
Toluene	0.0050	N.D.
Ethyl Benzene	0.0050	N.D.
Xylenes (Total)	0.0050	N.D.
Chromatogram Pattern:		
<b>Surrogates</b>	<b>Control Limits %</b>	<b>% Recovery</b>
Trifluorotoluene	70 130	106

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

**SEQUOIA ANALYTICAL - ELAP #1210**

  
Mike Gregory  
Project Manager



Weiss Associates	Client Proj. ID: Shell 610 Market St, Oakland	Sampled: 08/03/95
5500 Shellmound	Sample Descript: L-2	Received: 08/07/95
Emeryville, CA 94608	Matrix: SOLID	Extracted: 08/09/95
Attention: Faith Daverin	Analysis Method: 8015Mod/8020	Analyzed: 08/10/95
	Lab Number: 9508446-10	Reported: 08/14/95

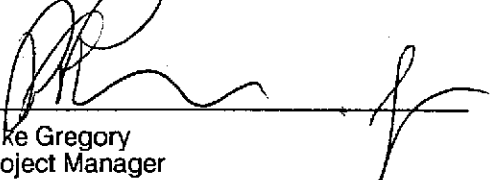
QC Batch Number: GC080995BTEXEXB  
Instrument ID: GCHP22

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

Analyte	Detection Limit mg/Kg	Sample Results mg/Kg
TPPH as Gas	1.0	2.2
Benzene	0.0050	N.D.
Toluene	0.0050	0.036
Ethyl Benzene	0.0050	0.0068
Xylenes (Total)	0.0050	0.064
Chromatogram Pattern:		Gas
<b>Surrogates</b>	<b>Control Limits %</b>	<b>% Recovery</b>
Trifluorotoluene	70 130	99

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

**SEQUOIA ANALYTICAL - ELAP #1210**

  
Mike Gregory  
Project Manager



Weiss Associates	Client Proj. ID: Shell 610 Market St, Oakland	Sampled: 08/03/95
5500 Shellmound	Sample Descript: L-3	Received: 08/07/95
Emeryville, CA 94608	Matrix: SOLID	Extracted: 08/09/95
Attention: Faith Daverin	Analysis Method: 8015Mod/8020	Analyzed: 08/09/95
	Lab Number: 9508446-11	Reported: 08/14/95

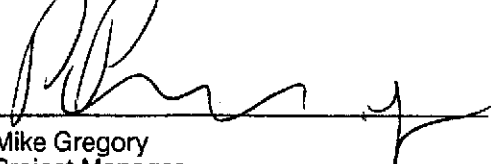
QC Batch Number: GC080995BTEXEXA  
Instrument ID: GCHP18

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

Analyte	Detection Limit mg/Kg	Sample Results mg/Kg
TPPH as Gas	1.0	N.D.
Benzene	0.0050	N.D.
Toluene	0.0050	N.D.
Ethyl Benzene	0.0050	N.D.
Xylenes (Total)	0.0050	N.D.
Chromatogram Pattern:		
<b>Surrogates</b>	<b>Control Limits %</b>	<b>% Recovery</b>
Trifluorotoluene	70 130	100

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

SEQUOIA ANALYTICAL - ELAP #1210

  
Mike Gregory  
Project Manager



Weiss Associates	Client Proj. ID: Shell 610 Market St, Oakland	Sampled: 08/03/95
5500 Shellmound	Sample Descript: L-4	Received: 08/07/95
Emeryville, CA 94608	Matrix: SOLID	Extracted: 08/09/95
Attention: Faith Daverin	Analysis Method: 8015Mod/8020	Analyzed: 08/09/95
	Lab Number: 9508446-12	Reported: 08/14/95

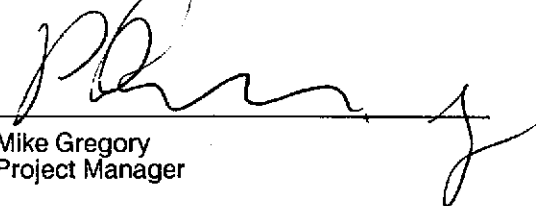
QC Batch Number: GC080995BTEXEXA  
Instrument ID: GCHP18

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

Analyte	Detection Limit mg/Kg	Sample Results mg/Kg
TPPH as Gas	1.0	N.D.
Benzene	0.0050	N.D.
Toluene	0.0050	N.D.
Ethyl Benzene	0.0050	N.D.
Xylenes (Total)	0.0050	N.D.
Chromatogram Pattern:		
<b>Surrogates</b>	<b>Control Limits %</b>	<b>% Recovery</b>
Trifluorotoluene	70 130	107

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

**SEQUOIA ANALYTICAL** - ELAP #1210

  
Mike Gregory  
Project Manager



Weiss & Associates  
5500 Shellmound  
Emeryville, CA 94608  
Attention: Faith Daverin

Client Project ID: Shell 610 Market St., Oakland  
Matrix: Solid

Work Order #: 9508446 01-10

Reported: Aug 15, 1995

**QUALITY CONTROL DATA REPORT**

Analyte:	Benzene	Toluene	Ethyl Benzene	Xylenes
QC Batch#:	GC080995BTEXEXB	GC080995BTEXEXB	GC080995BTEXEXB	GC080995BTEXEXB
Analy. Method:	EPA 8020	EPA 8020	EPA 8020	EPA 8020
Prep. Method:	EPA 5030	EPA 5030	EPA 5030	EPA 5030

Analyst:	R. Geckler	R. Geckler	R. Geckler	R. Geckler
MS/MSD #:	950804131	950804131	950804131	950804131
Sample Conc.:	N.D.	N.D.	N.D.	N.D.
Prepared Date:	8/9/95	8/9/95	8/9/95	8/9/95
Analyzed Date:	8/9/95	8/9/95	8/9/95	8/9/95
Instrument I.D.#:	GCHP6	GCHP6	GCHP6	GCHP6
Conc. Spiked:	0.20 mg/kg	0.20 mg/kg	0.20 mg/kg	0.60 mg/kg
Result:	0.14	0.14	0.15	0.44
MS % Recovery:	70	70	75	73
Dup. Result:	0.15	0.15	0.15	0.45
MSD % Recov.:	75	75	75	75
RPD:	6.9	6.9	0.0	2.2
RPD Limit:	0-50	0-50	0-50	0-50

LCS #:

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

LCS Result:  
LCS % Recov.:

MS/MSD LCS	Control Limits	55-145	47-149	47-155	56-140

SEQUOIA ANALYTICAL

Mike Gregory  
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

9508446.WAA <1>





# Sequoia Analytical

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FAX (916) 921-0100

Weiss & Associates  
5500 Shellmound  
Emeryville, CA 94608  
Attention: Faith Daverin

Client Project ID: Shell 610 Market St., Oakland  
Matrix: Solid

Work Order #: 9508446 11-12

Reported: Aug 15, 1995

## QUALITY CONTROL DATA REPORT

Analyte:	Benzene	Toluene	Ethyl Benzene	Xylenes
QC Batch#:	GC080995BTEXEXA	GC080995BTEXEXA	GC080995BTEXEXA	GC080995BTEXEXA
Analy. Method:	EPA 8020	EPA 8020	EPA 8020	EPA 8020
Prep. Method:	EPA 5030	EPA 5030	EPA 5030	EPA 5030

Analyst:	G. Garcia	G. Garcia	G. Garcia	G. Garcia
MS/MSD #:	950804125	950804125	950804125	950804125
Sample Conc.:	N.D.	N.D.	N.D.	N.D.
Prepared Date:	8/9/95	8/9/95	8/9/95	8/9/95
Analyzed Date:	8/9/95	8/9/95	8/9/95	8/9/95
Instrument I.D.#:	GCHP1	GCHP1	GCHP1	GCHP1
Conc. Spiked:	0.20 mg/kg	0.20 mg/kg	0.20 mg/kg	0.60 mg/kg
Result:	0.14	0.15	0.14	0.43
MS % Recovery:	70	75	70	72
Dup. Result:	0.17	0.18	0.18	0.53
MSD % Recov.:	85	90	90	88
RPD:	19	18	25	21
RPD Limit:	0-50	0-50	0-50	0-50

LCS #:

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

LCS Result:  
LCS % Recov.:

MS/MSD LCS	Control Limits	55-145	47-149	47-155	56-140

**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

Mike Gregory  
Project Manager

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

9508446.WAA <2>



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

**CHAIN OF CUSTODY RECORD**

Serial No: 95024462

Date: 8/1/95

Page 1 of 2

Site Address: 610 Market Street, Oakland, CA

**Analysis Required**

LAB: Sequoia

WIC#: 204-5508-5702

CHECK ONE (1) BOX ONLY	CI/DT	TURN AROUND TIME
G.W. Monitoring <input type="checkbox"/>	4461	24 hours <input type="checkbox"/>
Site Investigation <input checked="" type="checkbox"/>	4441	48 hours <input type="checkbox"/>
Soil Classify/Disposal <input type="checkbox"/>	4442	15 days <input type="checkbox"/> (Normal)
Water Classify/Disposal <input type="checkbox"/>	4443	Other <input checked="" type="checkbox"/> <u>5-Day</u>
Soil/Air Rem. or Sys. O & M <input type="checkbox"/>	4452	NOTE: Notify Lab as soon as Possible of 24/48 hrs. TAT.
Water Rem. or Sys. O & M <input type="checkbox"/>	4453	
Other <input type="checkbox"/>		

Shell Engineer: Jeff Bryam Phone No.:  
Fax #:

Consultant Name & Address: WEISS ASSOCIATES  
5500 SHELLMOUND ST EMERYVILLE CA 94608

Consultant Contact: Faith Dayerin Phone No.:  
WA JOB #81-1103-9 (510) 547-5420  
Fax #: 547-5043

Comments: Soil sampling - Dispensers

Sampled by: Herb Toor

Printed Name: Herb Toor

Sample ID	Date	Sludge	Soil	Water	Air	No. of conds.
D-1	8/1/95		X			1
D-2			X			1
D-3			X			1
D-4			X			1
D-5			X			1
D-6			X			1
D-7			X			1
D-8			X			1

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
					X				
					X				
					X				
					X				
					X				
					X				
					X				
					X				

UST AGENCY:

MATERIAL DESCRIPTION	SAMPLE CONDITION/ COMMENTS
	01
	02
	03
	04
	05
	06
	07
	08

Relinquished By (signature): Herb Toor Printed Name: Herb Toor  
Relinquished By (signature): [Signature] Printed Name: [Name]  
Relinquished By (signature): [Signature] Printed Name: [Name]

Date: 8/1/95 Time: 13:49 Received (signature): [Signature]  
Date: 8/1/95 Time: 5:40 Received (signature): [Signature]  
Date: 8/1/95 Time: 5:40 Received (signature): [Signature]

Printed Name: [Name] Date: 8/1/95  
Printed Name: [Name] Date: 8/1/95  
Printed Name: M. YONG Date: 8/7/95

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

\* Samples stored in a locked, secured area over weekend



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

**CHAIN OF CUSTODY RECORD**

Serial No: 9508449

Date: 8/1/95  
Page 2 of 2

Site Address: 610 Market Street, Oakland, CA

**Analysis Required**

LAB: Seqoia

WIC#: 204-5508-5702

Shell Engineer: Jeff Bryam Phone No.:  
Fax #:

Consultant Name & Address: WEISS ASSOCIATES  
5500 SHELLMOUND ST EMERYVILLE CA 94608

Consultant Contact: Faith Daverin Phone No.:  
WA JOB # 81-1103-9 (510) 547-5420  
Fax #: 547-5043

Comments: Soil Sampling - Dispensers

Sampled by: Herb Taw

Printed Name: Herb Taw

Sample ID	Date	Sludge	Soil	Water	Air	No. of conts.
L-1	8/1/95		X			1
L-2	↓		X			1
L-3	↓		X			1
L-4	↓		X			1

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
					X				
					X				
					X				
					X				

CHECK ONE (1) BOX ONLY	CT/DI	TURN AROUND TIME
G.W. Monitoring <input type="checkbox"/>	4461	24 hours <input type="checkbox"/>
Site Investigation <input checked="" type="checkbox"/>	4441	48 hours <input type="checkbox"/>
Soil Classify/Disposal <input type="checkbox"/>	4442	15 days <input type="checkbox"/> (Normal)
Water Classify/Disposal <input type="checkbox"/>	4443	Other <input checked="" type="checkbox"/> <u>5 Day</u>
Soil/Air Rem. or Sys. O & M <input type="checkbox"/>	4452	
Water Rem. or Sys. O & M <input type="checkbox"/>	4453	
Other <input type="checkbox"/>		

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

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

MATERIAL DESCRIPTION	SAMPLE CONDITION/ COMMENTS
	<u>9</u>
	<u>10</u>
	<u>11</u>
	<u>12</u>

Relinquished By (signature): <u>Herb Taw</u>	Printed Name: <u>Herb Taw</u>	Date: <u>8/1/95</u> Time: <u>1347</u>	Received (signature): <u>[Signature]</u>	Printed Name: <u>W. Jones</u>	Date: <u>8/1/95</u> Time: <u>1545</u>
Relinquished By (signature): <u>[Signature]</u>	Printed Name: <u>W. Jones</u>	Date: <u>8/1/95</u> Time: <u>1545</u>	Received (signature): <u>[Signature]</u>	Printed Name: _____	Date: _____ Time: _____
Relinquished By (signature): <u>[Signature]</u>	Printed Name: _____	Date: _____ Time: _____	Received (signature): <u>[Signature]</u>	Printed Name: <u>M. Yung</u>	Date: <u>8/1/95</u> Time: <u>1545</u>

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



# Sequoia Analytical

680 Chesapeake Drive  
404 N. Wiget Lane  
819 Striker Avenue, Suite 8

Redwood City, CA 94063  
Walnut Creek, CA 94598  
Sacramento, CA 95834

(415) 364-9600  
(510) 988-9600  
(916) 921-9600

FAX (415) 364-9233  
FAX (510) 988-9673  
FAX (916) 921-0100

Weiss & Associates  
5500 Shellmound  
Emeryville, CA 94608  
Attention: Faith Daverin

Project: Shell, 610 Market St., Oakland

Enclosed are the results from samples received at Sequoia Analytical on August 7, 1995. The requested analyses are listed below:

SAMPLE #	SAMPLE DESCRIPTION	DATE OF COLLECTION	TEST METHOD
950844801	SOLID, SS1-5.0	8/7/95	TPHGB Purgeable TPH/BTEX
950844802	SOLID, SS2-4.0	8/7/95	TPHGB Purgeable TPH/BTEX
950844803	SOLID, SS3-4.0	8/7/95	TPHGB Purgeable TPH/BTEX
950844804	SOLID, SS4-5.0	8/7/95	TPHGB Purgeable TPH/BTEX
950844805	SOLID, SS5-5.0	8/7/95	TPHGB Purgeable TPH/BTEX
950844806	SOLID, SS6-4.0	8/7/95	TPHGB Purgeable TPH/BTEX

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

  
Mike Gregory  
Project Manager



Weiss Associates 5500 Shellmound Emeryville, CA 94608 Attention: Faith Daverin	Client Proj. ID: Shell 204-5508-5702/Oakland Sample Descript: SS1-5.0 Matrix: SOLID Analysis Method: 8015Mod/8020 Lab Number: 9508448-01	Sampled: 08/07/95 Received: 08/07/95 Extracted: 08/09/95 Analyzed: 08/10/95 Reported: 08/11/95
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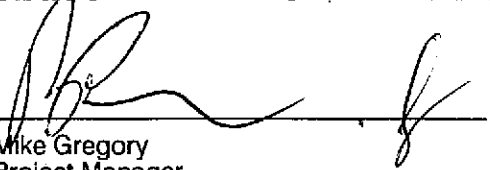
QC Batch Number: GC080995BTEXEXC  
Instrument ID: GCHP18

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

Analyte	Detection Limit mg/Kg	Sample Results mg/Kg
TPPH as Gas	1.0	N.D.
Benzene	0.0050	N.D.
Toluene	0.0050	N.D.
Ethyl Benzene	0.0050	N.D.
Xylenes (Total)	0.0050	N.D.
Chromatogram Pattern:		
<b>Surrogates</b>	<b>Control Limits %</b>	<b>% Recovery</b>
Trifluorotoluene	70 130	85

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

**SEQUOIA ANALYTICAL - ELAP #1210**

  
Mike Gregory  
Project Manager



Weiss Associates 5500 Shellmound Emeryville, CA 94608 Attention: Faith Daverin	Client Proj. ID: Shell 204-5508-5702/Oakland Sample Descript: SS2-4.0 Matrix: SOLID Analysis Method: 8015Mod/8020 Lab Number: 9508448-02	Sampled: 08/07/95 Received: 08/07/95 Extracted: 08/09/95 Analyzed: 08/10/95 Reported: 08/11/95
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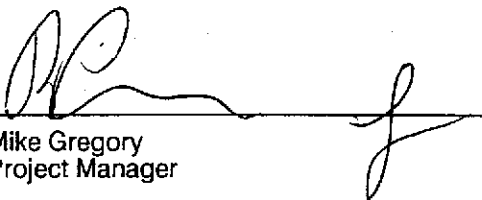
QC Batch Number: GC080995BTEXEXC  
Instrument ID: GCHP18

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

Analyte	Detection Limit mg/Kg	Sample Results mg/Kg
TPPH as Gas	1.0	N.D.
Benzene	0.0050	N.D.
Toluene	0.0050	N.D.
Ethyl Benzene	0.0050	N.D.
Xylenes (Total)	0.0050	N.D.
Chromatogram Pattern:		
<b>Surrogates</b>	<b>Control Limits %</b>	<b>% Recovery</b>
Trifluorotoluene	70                      130	95

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

SEQUOIA ANALYTICAL - ELAP #1210

  
Mike Gregory  
Project Manager



Weiss Associates 5500 Shellmound Emeryville, CA 94608 Attention: Faith Daverin	Client Proj. ID: Shell 204-5508-5702/Oakland Sample Descript: SS3-4.0 Matrix: SOLID Analysis Method: 8015Mod/8020 Lab Number: 9508448-03	Sampled: 08/07/95 Received: 08/07/95 Extracted: 08/09/95 Analyzed: 08/10/95 Reported: 08/11/95
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QC Batch Number: GC080995BTEXEXC  
Instrument ID: GCHP18

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

Analyte	Detection Limit mg/Kg	Sample Results mg/Kg
TPPH as Gas	1.0	N.D.
Benzene	0.0050	N.D.
Toluene	0.0050	N.D.
Ethyl Benzene	0.0050	N.D.
Xylenes (Total)	0.0050	N.D.
Chromatogram Pattern:		
<b>Surrogates</b>	<b>Control Limits %</b>	<b>% Recovery</b>
Trifluorotoluene	70 130	109

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

**SEQUOIA ANALYTICAL - ELAP #1210**



\_\_\_\_\_  
Mike Gregory  
Project Manager



Weiss Associates 5500 Shellmound Emeryville, CA 94608 Attention: Faith Daverin	Client Proj. ID: Shell 204-5508-5702/Oakland Sample Descript: SS4-5.0 Matrix: SOLID Analysis Method: 8015Mod/8020 Lab Number: 9508448-04	Sampled: 08/07/95 Received: 08/07/95 Extracted: 08/09/95 Analyzed: 08/10/95 Reported: 08/11/95
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QC Batch Number: GC080995BTEXEXC  
Instrument ID: GCHP22

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

Analyte	Detection Limit mg/Kg	Sample Results mg/Kg
TPPH as Gas	1.0	2.0
Benzene	0.0050	N.D.
Toluene	0.0050	0.0057
Ethyl Benzene	0.0050	0.0076
Xylenes (Total)	0.0050	0.019
Chromatogram Pattern:		Gas
<b>Surrogates</b>	<b>Control Limits %</b>	<b>% Recovery</b>
Trifluorotoluene	70	130

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

**SEQUOIA ANALYTICAL - ELAP #1210**

  
Mike Gregory  
Project Manager





Weiss Associates 5500 Shellmound Emeryville, CA 94608 Attention: Faith Daverin	Client Proj. ID: Shell 204-5508-5702/Oakland Sample Descript: SS5-5.0 Matrix: SOLID Analysis Method: 8015Mod/8020 Lab Number: 9508448-05	Sampled: 08/07/95 Received: 08/07/95 Extracted: 08/09/95 Analyzed: 08/10/95 Reported: 08/11/95
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QC Batch Number: GC080995BTEXEXC  
Instrument ID: GCHP22

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

Analyte	Detection Limit mg/Kg	Sample Results mg/Kg
TPPH as Gas	1.0	10
Benzene	0.0050	N.D.
Toluene	0.0050	N.D.
Ethyl Benzene	0.0050	0.034
Xylenes (Total)	0.0050	0.086
Chromatogram Pattern:		Gas
<b>Surrogates</b>	<b>Control Limits %</b>	<b>% Recovery</b>
Trifluorotoluene	70 130	131 Q

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

**SEQUOIA ANALYTICAL - ELAP #1210**

  
Mike Gregory  
Project Manager



Weiss Associates 5500 Shellmound Emeryville, CA 94608 Attention: Faith Daverin	Client Proj. ID: Shell 204-5508-5702/Oakland Sample Descript: SS6-4.0 Matrix: SOLID Analysis Method: 8015Mod/8020 Lab Number: 9508448-06	Sampled: 08/07/95 Received: 08/07/95 Extracted: 08/09/95 Analyzed: 08/10/95 Reported: 08/11/95
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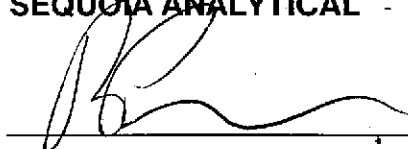
QC Batch Number: GC080995BTEXEXC  
Instrument ID: GCHP22

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

Analyte	Detection Limit mg/Kg	Sample Results mg/Kg
TPPH as Gas	2.5	28
Benzene	0.012	N.D.
Toluene	0.012	N.D.
Ethyl Benzene	0.012	0.029
Xylenes (Total)	0.012	0.084
Chromatogram Pattern: Gas & Unidentified HC		Gas >C12
<b>Surrogates</b>	<b>Control Limits %</b>	<b>% Recovery</b>
Trifluorotoluene	70 130	123

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

**SEQUOIA ANALYTICAL - ELAP #1210**

  
Mike Gregory  
Project Manager



Sequoia  
Analytical

680 Chesapeake Drive  
404 N. Wiget Lane  
819 Striker Avenue, Suite 8

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Sacramento, CA 95834

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FAX (415) 364-9233  
FAX (510) 988-9673  
FAX (916) 921-0100

Weiss Associates

5500 Shellmound

Emeryville, CA 94608

Attention: Faith Daverin

Client Proj. ID: Shell 204-5508-5702/Oakland

Lab Proj. ID: 9508448

Received: 08/07/95

Reported: 08/11/95

## LABORATORY NARRATIVE

Q = High surrogate recovery due to coelution.

SEQUOIA ANALYTICAL

Mike Gregory  
Project Manager



Weiss & Associates  
5500 Shellmound  
Emeryville, CA 94608  
Attention: Faith Daverin

Client Project ID: Shell, 610 Market St., Oakland  
Matrix: Solid

Work Order #: 9508448 01-06

Reported: Aug 14, 1995

**QUALITY CONTROL DATA REPORT**

Analyte:	Benzene	Toluene	Ethyl Benzene	Xylenes
QC Batch#:	GC080995BTEXEXC	GC080995BTEXEXC	GC080995BTEXEXC	GC080995BTEXEXC
Analy. Method:	EPA 8020	EPA 8020	EPA 8020	EPA 8020
Frep. Method:	EPA 5030	EPA 5030	EPA 5030	EPA 5030
Analyst:	R. Geckler	R. Geckler	R. Geckler	R. Geckler
MS/MSD #:	950804106	950804106	950804106	950804106
Sample Conc.:	N.D.	N.D.	N.D.	N.D.
Prepared Date:	8/9/95	8/9/95	8/9/95	8/9/95
Analyzed Date:	8/9/95	8/9/95	8/9/95	8/9/95
Instrument I.D.#:	GCHP6	GCHP6	GCHP6	GCHP6
Conc. Spiked:	0.20 mg/Kg	0.20 mg/Kg	0.20 mg/Kg	0.60 mg/Kg
Result:	0.15	0.15	0.15	0.46
MS % Recovery:	75	75	75	77
Dup. Result:	0.15	0.15	0.15	0.44
MSD % Recov.:	75	75	75	73
RPD:	0.0	0.0	0.0	4.4
RPD Limit:	0-50	0-50	0-50	0-50

LCS #:

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

LCS Result:  
LCS % Recov.:

MS/MSD LCS Control Limits	55-145	47-149	47-155	56-140
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**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

  
Mike Gregory  
Project Manager

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

9508448.WAA <1>

