

ENVIRONMENTAL  
PROTECTION

**enviros**<sup>®</sup>

November 2, 1995

NOV - 2 PM 1:50

**Mr. Lynn Walker**  
*Shell Oil Products Company*  
P.O. Box 4023  
Concord, California 94524

STW 295

**RE: Soil Disposal Summary**  
Former Shell Service Station  
1230 14th Street  
Oakland, California  
WIC 204-5508-3103

Dear Mr. Walker:

Enviros, Inc. has prepared this letter report to document soil stockpile sampling and disposal activities at the above referenced site.

The soil stockpiles were generated as a result of underground gasoline and waste oil tank removal activities performed by Tank Project Engineering in 1993.

### **Soil Stockpile Sampling Methodology**

A site survey was performed and stockpile measurements were taken on August 8, 1995 in order to evaluate quantities of soil existing onsite. Plate 1 identifies stockpile locations and volumes based on these measurements.

Soil stockpile SS-1 consisted of soil generated from excavation of the waste oil tank. Soil stockpiles SS-2 through SS-7 consisted of soil generated from excavation of the gasoline tanks. In addition to soil stockpiles, two areas of concrete and asphalt debris were also stockpiled onsite.

One composite soil sample was collected from the waste oil tank excavation stockpile (SS-1). Additionally, one composite soil sample was collected per 100 cubic yards of gasoline tank excavation soil for analysis and characterization purposes. Sampling activities were performed on August 8, 1995.

The soil stockpile samples were collected by removing the top 18 to 24 inches of soil and pushing clean stainless steel sample tubes into the soil until completely filled. The tubes were removed, both ends were covered with teflon tape and sealed with plastic end caps. The samples were labeled, placed into a cooler with ice, entered on a Chain-of-Custody form, and transported to Sequoia Analytical, a California-certified environmental laboratory located in Redwood City, California. The stockpile samples consisted of four subsamples that were composited in the laboratory and analyzed as one sample.

### **Soil Chemical Analysis**

Soil samples from the gasoline tank excavation soil were analyzed for Total Petroleum Hydrocarbons calculated as Gasoline (TPH-G) by EPA Method 8015, benzene, toluene, ethylbenzene, and xylenes (BTEX) by EPA Method 8020, Total Threshold Limit Concentration (TTLC) lead by EPA Method 6010, and Organic Lead by LUFT Manual

methods. Sample SS-7(A-D) was also analyzed for Soluble Threshold Limit Concentration (STLC) lead by Title 22 methods.

Soil samples from the waste oil tank excavation soil were analyzed for Total Recoverable Petroleum Hydrocarbons (TRPH) by EPA Method 418.1, BTEX, Toxic Characteristic Leaching Potential (TCLP) Volatiles by EPA Method 8240, TCLP Metals by EPA Method 6010/7470, TTLC CAM 17 Metals by Title 22, STLC lead, Organic Lead, pH, Polychlorinated Biphenyls (PCBs) by EPA Method 8080, Static Acute Hazardous Waste Bioassay, TCLP Semi-Volatiles by EPA Method 8270, EP TOX Extraction lead, and sulfide and cyanide reactivity.

Sample identifications for each soil stockpile are shown on Plate 1. Chemical analytical results for soil stockpile analysis are summarized in Table 1 and contained in Appendix A.

### **Soil Stockpile Disposition**

Based on chemical analytical data, the gasoline tank excavation soil was accepted for disposal at BFI Landfill located in Livermore, California under acceptance number CA 40509219554419. A total of 510.29 tons of gasoline tank excavation soil were transported to BFI on September 29, 1995.

Based on chemical analytical data, the waste oil tank excavation soil was accepted for disposal at Laidlaw Environmental located in Buttonwillow, California. A total of 48.11 tons of waste oil tank excavation soil were transported to Laidlaw on September 29, 1995.

Two piles of asphalt and concrete debris totaling 36 cubic yards in volume were transported to Florin-Perkins Landfill located in Sacramento, California on September 29, 1995.

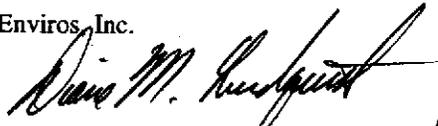
All soil transportation was performed by Manley and Sons Trucking of Sacramento, California.

Table 2 summarizes soil stockpile quantities and disposition.

If you have any questions regarding the contents of this document, please call.

Sincerely,

Enviros, Inc.

  
Diane M. Lundquist, P.E.  
Senior Engineer  
C46725



### Attachments:

Plate 1 - Stockpile Sampling Location Map

Appendix A - Soil Stockpile Chemical Analytical Data

cc: Ms. Jennifer Eberle, Alameda County Health Care Services Agency

**TABLE 1  
SOIL STOCKPILE ANALYTICAL DATA**

**FORMER SHELL SERVICE STATION  
1230 14TH STREET  
OAKLAND, CALIFORNIA  
WIC 204-5508-3103**

| <b>SAMPLE NO.</b>            | <b>ESTIMATED STOCKPILE VOLUME (YD<sup>3</sup>)</b> | <b>SAMPLE DATE</b> | <b>TPH-G (PPM)</b> | <b>BENZENE (PPM)</b> | <b>TOLUENE (PPM)</b> | <b>ETHYL BENZENE (PPM)</b> | <b>XYLENES (PPM)</b> | <b>TTLC LEAD (PPM)</b> | <b>ORGANIC LEAD (PPM)</b> | <b>STLC LEAD (PPM)</b> |
|------------------------------|--|--------------------|--------------------|----------------------|----------------------|----------------------------|----------------------|------------------------|---------------------------|------------------------|
| <i>waste oil</i> SS-1 (A-F)* | 25   | 8-Aug-95           | --                 | <0.0050              | <0.0050              | <0.0050                    | <0.0050              | --                     | 30                        | 36                     |
| SS-2 (A-D)                   | 85   | 8-Aug-95           | <1.0               | <0.0050              | 0.0070               | <0.0050                    | 0.022                | 37                     | <5.0                      | --                     |
| SS-3 (A-D)                   | 100  | 8-Aug-95           | <1.0               | <0.0050              | <0.0050              | <0.0050                    | 0.012                | 43                     | <5.0                      | --                     |
| SS-4 (A-D)                   | 75   | 8-Aug-95           | <1.0               | <0.0050              | <0.0050              | <0.0050                    | 0.0060               | 35                     | <5.0                      | --                     |
| SS-5 (A-D)                   | 100  | 8-Aug-95           | 19                 | <0.0050              | <0.0050              | <0.0050                    | <0.0050              | 38                     | <5.0                      | --                     |
| SS-6 (A-D)                   | 90   | 8-Aug-95           | <1.0               | <0.0050              | <0.0050              | <0.0050                    | <0.0050              | 36                     | <5.0                      | --                     |
| SS-7 (A-D)                   | 55   | 8-Aug-95           | <1.0               | <0.0050              | <0.0050              | <0.0050                    | <0.0050              | 100                    | <5.0                      | 2.6                    |

**Abbreviations:**

TPH-G = Total Petroleum Hydrocarbons calculated as Gasoline

TTLC = Total Threshold Limit Concentration

STLC = Soluble Threshold Limit Concentration

PPM = Parts Per Million

<x = Not Detected at detection limit of x

**Note:**

\* See chemical analytical results for additional analyses.

**TABLE 2  
SOIL DISPOSAL SUMMARY**

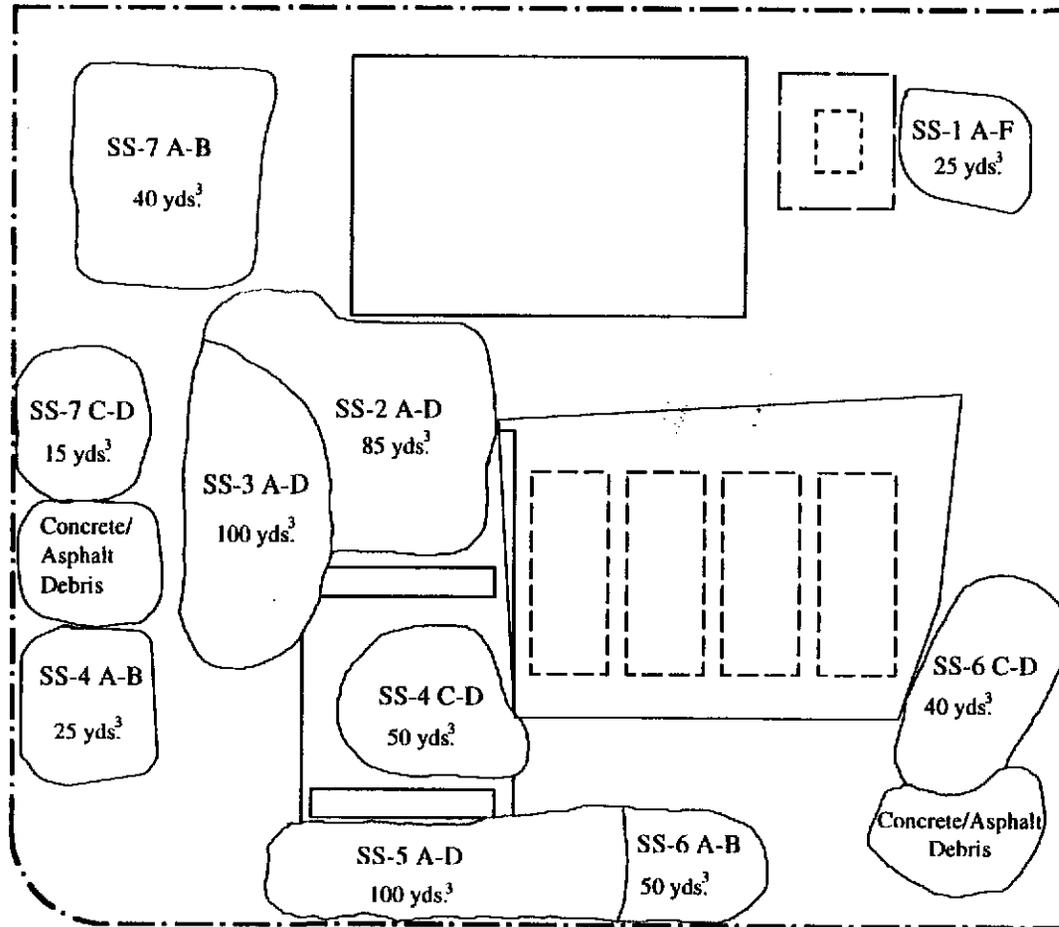
**FORMER SHELL SERVICE STATION  
1230 14TH STREET  
OAKLAND, CALIFORNIA  
WIC 204-5508-3103**

| <b>STOCKPILE<br/>ID</b> | <b>REPRESENTATIVE<br/>SAMPLE NO.</b> | <b>ESTIMATED<br/>STOCKPILE<br/>VOLUME (YD<sup>3</sup>)</b> | <b>PROCESS<br/>GENERATING SOIL</b> | <b>DISPOSAL<br/>DATE</b> | <b>DISPOSAL<br/>FACILITY</b> |
|-------------------------|--------------------------------------|--|------------------------------------|--------------------------|------------------------------|
| SS-1                    | SS-1 (A-F)*                          | 25   | W.O. Tank Excavation               | 29-Sep-95                | Laidlaw                      |
| SS-2                    | SS-2 (A-D)                           | 85   | Gasoline Tank Excavation           | 29-Sep-95                | BFI Livermore                |
| SS-3                    | SS-3 (A-D)                           | 100  | Gasoline Tank Excavation           | 29-Sep-95                | BFI Livermore                |
| SS-4                    | SS-4 (A-D)                           | 75   | Gasoline Tank Excavation           | 29-Sep-95                | BFI Livermore                |
| SS-5                    | SS-5 (A-D)                           | 100  | Gasoline Tank Excavation           | 29-Sep-95                | BFI Livermore                |
| SS-6                    | SS-6 (A-D)                           | 90   | Gasoline Tank Excavation           | 29-Sep-95                | BFI Livermore                |
| SS-7                    | SS-7 (A-D)                           | 55   | Gasoline Tank Excavation           | 29-Sep-95                | BFI Livermore                |

Abbreviations:

W.O. = Waste Oil

UNION STREET



14TH STREET

**EXPLANATION**

SS-1 A-D  
25 yds.<sup>3</sup>

Stockpile sample identification/  
Stockpile volume



Scale in Feet

PLATE

**1**

**STOCKPILE SAMPLING LOCATION MAP**

Former Shell Service Station  
1230 14th Street  
Oakland, California

**enviros®**

95321

Drawn By: JPW

Date: 8-29-95

Approved By: *[Signature]*

Date: *11-2-95*

## **Appendix A**

### **Soil Stockpile Chemical Analytical Data**



# 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

**RECEIVED**  
AUG 30 1995

Enviros  
270 Perkins Ave.  
Sonoma, CA 95476  
Attention: Diane Lundquist

Project: Shell 1230 14th St., Oakland

Enclosed are the results from samples received at Sequoia Analytical on August 10, 1995.  
The requested analyses are listed below:

| <u>SAMPLE #</u> | <u>SAMPLE DESCRIPTION</u> | <u>DATE COLLECTED</u> | <u>TEST METHOD</u>         |
|-----------------|---------------------------|-----------------------|----------------------------|
| 9508658 -01     | SOLID, SS-1(a-f)          | 08/08/95              | Bioassay                   |
| 9508658 -01     | SOLID, SS-1(a-f)          | 08/08/95              | BTEX Distinction           |
| 9508658 -01     | SOLID, SS-1(a-f)          | 08/08/95              | Lead: STLC Extraction      |
| 9508658 -01     | SOLID, SS-1(a-f)          | 08/08/95              | ITTLCS Title 22: Metals, T |
| 9508658 -01     | SOLID, SS-1(a-f)          | 08/08/95              | Organic Lead               |
| 9508658 -01     | SOLID, SS-1(a-f)          | 08/08/95              | PCB_S Polychlorinated Biph |
| 9508658 -01     | SOLID, SS-1(a-f)          | 08/08/95              | pH                         |
| 9508658 -01     | SOLID, SS-1(a-f)          | 08/08/95              | S_REAC Reactivity          |
| 9508658 -01     | SOLID, SS-1(a-f)          | 08/08/95              | TCLPMS Metals              |
| 9508658 -01     | SOLID, SS-1(a-f)          | 08/08/95              | TCLPSS SemiVolatile        |
| 9508658 -01     | SOLID, SS-1(a-f)          | 08/08/95              | TCLPVS Volatiles           |
| 9508658 -02     | SOLID, SS-2(a-d)          | 08/08/95              | Lead                       |
| 9508658 -02     | SOLID, SS-2(a-d)          | 08/08/95              | TPHGBS Purgeable TPH/BTEX  |
| 9508658 -03     | SOLID, SS-3(a-d)          | 08/08/95              | Lead                       |
| 9508658 -03     | SOLID, SS-3(a-d)          | 08/08/95              | TPHGBS Purgeable TPH/BTEX  |
| 9508658 -04     | SOLID, SS-4(a-d)          | 08/08/95              | Lead                       |
| 9508658 -04     | SOLID, SS-4(a-d)          | 08/08/95              | TPHGBS Purgeable TPH/BTEX  |
| 9508658 -05     | SOLID, SS-5(a-d)          | 08/08/95              | Lead                       |
| 9508658 -05     | SOLID, SS-5(a-d)          | 08/08/95              | TPHGBS Purgeable TPH/BTEX  |
| 9508658 -06     | SOLID, SS-6(a-d)          | 08/08/95              | Lead                       |
| 9508658 -06     | SOLID, SS-6(a-d)          | 08/08/95              | TPHGBS Purgeable TPH/BTEX  |

Project No. 95321

RPT PF DF

1 2 3 4 5 6





# 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

| <u>SAMPLE #</u> | <u>SAMPLE DESCRIPTION</u> | <u>DATE COLLECTED</u> | <u>TEST METHOD</u>        |
|-----------------|---------------------------|-----------------------|---------------------------|
| 9508658 -07     | SOLID, SS-7(a-d)          | 08/08/95              | Lead                      |
| 9508658 -07     | SOLID, SS-7(a-d)          | 08/08/95              | TPHGBS Purgeable TPH/BTEX |
| 9508658 -08     | SOLID, SS-1A              | 08/08/95              | TRPH (EPA 418.1)          |
| 9508658 -09     | SOLID, SS-1B              | 08/08/95              | TRPH (EPA 418.1)          |
| 9508658 -10     | SOLID, SS-1C              | 08/08/95              | TRPH (EPA 418.1)          |
| 9508658 -11     | SOLID, SS-1D              | 08/08/95              | TRPH (EPA 418.1)          |
| 9508658 -12     | SOLID, SS-1E              | 08/08/95              | TRPH (EPA 418.1)          |
| 9508658 -13     | SOLID, SS-1F              | 08/08/95              | TRPH (EPA 418.1)          |

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





Enviros  
270 Perkins Ave.  
Sonoma, CA 95476

Client Proj. ID: Shell 1230 14th St., Oakland

Sampled: 08/08/95  
Received: 08/10/95  
Analyzed: see below

Lab Proj. ID: 9508658

Attention: Diane Lundquist

Reported: 08/25/95

**LABORATORY ANALYSIS**

| Analyte  | Units    | Date Analyzed | Detection Limit | Sample Results |
|--|----------|---------------|-----------------|----------------|
| Lab No: 9508658-01<br>Sample Desc : <b>SOLID,SS-1(a-f)</b> |          |               |                 |                |
| Lead: STLC Extraction                                      | mg/L     | 08/21/95      | 0.10            | 36             |
| Organic Lead   | mg/Kg    | 08/24/95      | 30              | 30             |
| pH   | pH Units | 08/11/95      | N/A             | 7.9            |
| Lab No: 9508658-02<br>Sample Desc : <b>SOLID,SS-2(a-d)</b> |          |               |                 |                |
| Lead   | mg/Kg    | 08/18/95      | 5.0             | 37             |
| Lab No: 9508658-03<br>Sample Desc : <b>SOLID,SS-3(a-d)</b> |          |               |                 |                |
| Lead   | mg/Kg    | 08/18/95      | 5.0             | 43             |
| Lab No: 9508658-04<br>Sample Desc : <b>SOLID,SS-4(a-d)</b> |          |               |                 |                |
| Lead   | mg/Kg    | 08/18/95      | 5.0             | 35             |
| Lab No: 9508658-05<br>Sample Desc : <b>SOLID,SS-5(a-d)</b> |          |               |                 |                |
| Lead   | mg/Kg    | 08/18/95      | 5.0             | 38             |
| Lab No: 9508658-06<br>Sample Desc : <b>SOLID,SS-6(a-d)</b> |          |               |                 |                |
| Lead   | mg/Kg    | 08/18/95      | 5.0             | 36             |

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

**SEQUOIA ANALYTICAL - ELAP #1210**

Mike Gregory  
Project Manager





Enviros  
270 Perkins Ave.  
Sonoma, CA 95476

Client Proj. ID: Shell 1230 14th St., Oakland

Lab Proj. ID: 9508658

Sampled: 08/08/95  
Received: 08/10/95  
Analyzed: see below

Attention: Diane Lundquist

Reported: 08/25/95

**LABORATORY ANALYSIS**

| Analyte | Units | Date Analyzed | Detection Limit | Sample Results |
|---------|-------|---------------|-----------------|----------------|
|---------|-------|---------------|-----------------|----------------|

Lab No: 9508658-01  
Sample Desc : SOLID,SS-1(a-f)

|                       |          |          |      |     |
|-----------------------|----------|----------|------|-----|
| Lead: STLC Extraction | mg/L     | 08/21/95 | 0.10 | 36  |
| Organic Lead          | mg/Kg    | 08/24/95 | 30   | 30  |
| pH                    | pH Units | 08/11/95 | N/A  | 7.9 |

Lab No: 9508658-02  
Sample Desc : SOLID,SS-2(a-d)

|      |       |          |     |    |
|------|-------|----------|-----|----|
| Lead | mg/Kg | 08/18/95 | 5.0 | 37 |
|------|-------|----------|-----|----|

Lab No: 9508658-03  
Sample Desc : SOLID,SS-3(a-d)

|      |       |          |     |    |
|------|-------|----------|-----|----|
| Lead | mg/Kg | 08/18/95 | 5.0 | 43 |
|------|-------|----------|-----|----|

Lab No: 9508658-04  
Sample Desc : SOLID,SS-4(a-d)

|      |       |          |     |    |
|------|-------|----------|-----|----|
| Lead | mg/Kg | 08/18/95 | 5.0 | 35 |
|------|-------|----------|-----|----|

Lab No: 9508658-05  
Sample Desc : SOLID,SS-5(a-d)

|      |       |          |     |    |
|------|-------|----------|-----|----|
| Lead | mg/Kg | 08/18/95 | 5.0 | 38 |
|------|-------|----------|-----|----|

Lab No: 9508658-06  
Sample Desc : SOLID,SS-6(a-d)

|      |       |          |     |    |
|------|-------|----------|-----|----|
| Lead | mg/Kg | 08/18/95 | 5.0 | 36 |
|------|-------|----------|-----|----|

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

**SEQUOIA ANALYTICAL** - ELAP #1210

Mike Gregory  
Project Manager





|   |  |  |
|---|--|--|
| Enviros<br>270 Perkins Ave.<br>Sonoma, CA 95476 | Client Proj. ID: Shell 1230 14th St., Oakland<br>Lab Proj. ID: 9508658 | Sampled: 08/08/95<br>Received: 08/10/95<br>Analyzed: see below<br>Reported: 08/25/95 |
| Attention: Diane Lundquist                      |  |  |

**LABORATORY ANALYSIS**

| Analyte  | Units | Date Analyzed | Detection Limit | Sample Results |
|--|-------|---------------|-----------------|----------------|
| Lab No: 9508658-07<br>Sample Desc: SOLID,SS-7(a-d) |       |               |                 |                |
| Lead   | mg/Kg | 08/25/95      | 5.0             | 100            |
| Lab No: 9508658-08<br>Sample Desc: SOLID,SS-1A     |       |               |                 |                |
| TRPH (EPA 418.1)                                   | mg/Kg | 08/25/95      | 75              | 850            |
| Lab No: 9508658-09<br>Sample Desc: SOLID,SS-1B     |       |               |                 |                |
| TRPH (EPA 418.1)                                   | mg/Kg | 08/25/95      | 15              | 280            |
| Lab No: 9508658-10<br>Sample Desc: SOLID,SS-1C     |       |               |                 |                |
| TRPH (EPA 418.1)                                   | mg/Kg | 08/25/95      | 15              | 330            |
| Lab No: 9508658-11<br>Sample Desc: SOLID,SS-1D     |       |               |                 |                |
| TRPH (EPA 418.1)                                   | mg/Kg | 08/25/95      | 15              | 59             |
| Lab No: 9508658-12<br>Sample Desc: SOLID,SS-1E     |       |               |                 |                |
| TRPH (EPA 418.1)                                   | mg/Kg | 08/25/95      | 15              | 310            |
| Lab No: 9508658-13<br>Sample Desc: SOLID,SS-1F     |       |               |                 |                |
| TRPH (EPA 418.1)                                   | mg/Kg | 08/25/95      | 75              | 1600           |

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

**SEQUOIA ANALYTICAL - ELAP #1210**

Mike Gregory  
Project Manager





Enviros  
270 Perkins Ave.  
Sonoma, CA 95476

Attention: Diane Lundquist

Client Proj. ID: Shell 1230 14th St., Oakland  
Sample Descript: SS-1(a-f)  
Matrix: SOLID  
Analysis Method: EPA 8020  
Lab Number: 9508658-01

Sampled: 08/08/95  
Received: 08/10/95  
Extracted: 08/14/95  
Analyzed: 08/14/95  
Reported: 08/25/95

QC Batch Number: GC081495BTEXEXA  
Instrument ID: GCHP18

**BTEX Distinction**

| Analyte           | Detection Limit<br>mg/Kg    | Sample Results<br>mg/Kg |
|-------------------|-----------------------------|-------------------------|
| Benzene           | 0.0050                      | N.D.                    |
| Toluene           | 0.0050                      | N.D.                    |
| Ethyl benzene     | 0.0050                      | N.D.                    |
| Xylenes (Total)   | 0.0050                      | N.D.                    |
| <b>Surrogates</b> | <b>Control Limits %</b>     | <b>% Recovery</b>       |
| Trifluorotoluene  | 70                      130 | 91                      |

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

**SEQUOIA ANALYTICAL - ELAP #1210**

Mike Gregory  
Project Manager





|   |   |  |
|---|---|--|
| Enviros<br>270 Perkins Ave.<br>Sonoma, CA 95476 | Client Proj. ID: Shell 1230 14th St., Oakland<br>Sample Descript: SS-1(a-f)<br>Matrix: SOLID<br>Analysis Method: Title 22<br>Lab Number: 9508658-01 | Sampled: 08/08/95<br>Received: 08/10/95<br>Analyzed:<br>Reported: 08/25/95 |
|---|---|--|

**Inorganic Persistent and Bioaccumulative Toxic Substances : TTLC**

| Analyte            | Max. Limit<br>mg/Kg | Detection Limit<br>mg/Kg | Sample Results<br>mg/Kg |
|--------------------|---------------------|--------------------------|-------------------------|
| Antimony, Sb       | 500                 | 5.0                      | 6.8                     |
| Arsenic, As        | 500                 | 5.0                      | N.D.                    |
| Barium, Ba         | 10000               | 5.0                      | 97                      |
| Beryllium, Be      | 75                  | 0.50                     | N.D.                    |
| Cadmium, Cd        | 100                 | 0.50                     | N.D.                    |
| Chromium, Cr       | 2500                | 0.50                     | 36                      |
| Chromium, Cr (VI)  | 500                 | 0.050                    | -                       |
| Cobalt, Co         | 8000                | 2.5                      | 5.4                     |
| Copper, Cu         | 2500                | 0.50                     | 18                      |
| Lead, Pb           | 1000                | 5.0                      | 400                     |
| Mercury, Hg        | 20                  | 0.020                    | 0.095                   |
| Molybdenum, Mo     | 3500                | 2.5                      | N.D.                    |
| Nickel, Ni         | 2000                | 2.5                      | 26                      |
| 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                      | 25                      |
| Zinc, Zn           | 5000                | 0.50                     | 180                     |
| Asbestos, fibers/g | 10000               |                          | -                       |
| Fluoride salts     | 18000               | 1.0                      | -                       |

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

**SEQUOIA ANALYTICAL** - ELAP #1210

Mike Gregory  
Project Manager





Enviros  
270 Perkins Ave.  
Sonoma, CA 95476

Client Proj. ID: Shell 1230 14th St., Oakland  
Sample Descript: SS-1(a-f)  
Matrix: SOLID  
Analysis Method: EPA 8080  
Lab Number: 9508658-01

Sampled: 08/08/95  
Received: 08/10/95  
Extracted: 08/14/95  
Analyzed: 08/17/95  
Reported: 08/25/95

Attention: Diane Lundquist

QC Batch Number: GC0814950PCBEXA  
Instrument ID: GCHP12

**Polychlorinated Biphenyls (EPA 8080)**

| Analyte             | Detection Limit<br>ug/Kg | Sample Results<br>ug/Kg |
|---------------------|--------------------------|-------------------------|
| PCB-1016            | 20                       | N.D.                    |
| PCB-1221            | 80                       | N.D.                    |
| PCB-1232            | 20                       | N.D.                    |
| PCB-1242            | 20                       | N.D.                    |
| PCB-1248            | 20                       | N.D.                    |
| PCB-1254            | 20                       | N.D.                    |
| PCB-1260            | 20                       | 26                      |
| <b>Surrogates</b>   | <b>Control Limits %</b>  | <b>% Recovery</b>       |
| Dibutylchloroendate | 30 150                   | 38                      |

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

**SEQUOIA ANALYTICAL - ELAP #1210**

Mike Gregory  
Project Manager





|   |   |   |
|---|---|---|
| Enviros<br>270 Perkins Ave.<br>Sonoma, CA 95476 | Client Proj. ID: Shell 1230 14th St., Oakland<br>Sample Descript: SS-1(a-f)<br>Matrix: SOLID<br>Analysis Method: Comb<br>Lab Number: 9508658-01 | Sampled: 08/08/95<br>Received: 08/10/95<br><br>Analyzed: 08/14/95<br>Reported: 08/25/95 |
|---|---|---|

QC Batch Number: IN081495335200A

**Reactivity**

| Analyte             | Detection Limit<br>mg/Kg | Sample Results<br>mg/Kg |
|---------------------|--------------------------|-------------------------|
| Reactivity:         |                          |                         |
| Sulfide             | 13                       | N.D.                    |
| Cyanide             | 0.50                     | N.D.                    |
| Reaction with Water |                          | N.D.                    |

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

**SEQUOIA ANALYTICAL** - ELAP #1210

Mike Gregory  
Project Manager





|   |   |  |
|---|---|--|
| Enviros<br>270 Perkins Ave.<br>Sonoma, CA 95476 | Client Proj. ID: Shell 1230 14th St., Oakland<br>Sample Descript: SS-1(a-f)<br>Matrix: SOLID<br>Analysis Method: EPA6010/7470<br>Lab Number: 9508658-01 | Sampled: 08/08/95<br>Received: 08/10/95<br><br>Analyzed:<br>Reported: 08/25/95 |
| Attention: Diane Lundquist                      |   |  |

**TCLP Metals**

| Analyte      | Max. Limit<br>mg/L | Detection Limit<br>mg/L | Sample Results<br>mg/L |
|--------------|--------------------|-------------------------|------------------------|
| Arsenic, As  | 5.0                | 0.10                    | N.D.                   |
| Barium, Ba   | 100                | 0.10                    | 0.93                   |
| Cadmium, Cd  | 1.0                | 0.010                   | N.D.                   |
| Chromium, Cr | 5.0                | 0.010                   | 0.076                  |
| Lead, Pb     | 5.0                | 0.10                    | 3.1                    |
| Mercury, Hg  | 0.2                | 0.00020                 | N.D.                   |
| Selenium, Se | 1.0                | 0.10                    | N.D.                   |
| Silver, Ag   | 5.0                | 0.010                   | N.D.                   |

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

**SEQUOIA ANALYTICAL - ELAP #1210**

Mike Gregory  
Project Manager





|   |   |  |
|---|---|--|
| Enviros<br>270 Perkins Ave.<br>Sonoma, CA 95476 | Client Proj. ID: Shell 1230 14th St., Oakland<br>Sample Descript: SS-1(a-f)<br>Matrix: SOLID<br>Analysis Method: EPA 8270<br>Lab Number: 9508658-01 | Sampled: 08/08/95<br>Received: 08/10/95<br>Extracted: 08/16/95<br>Analyzed: 08/16/95<br>Reported: 08/25/95 |
| Attention: Diane Lundquist                      |   |  |

QC Batch Number: MS0809958270EXA  
Instrument ID: H5

**TCLP Semivolatiles (EPA 8270)**

| Analyte                  | Max. Limit<br>mg/L | Detection Limit<br>mg/L | Sample Results<br>mg/L |
|--------------------------|--------------------|-------------------------|------------------------|
| Total Cresol             | 200                | 0.0080                  | N.D.                   |
| 1,4-Dichlorobenzene      | 7.5                | 0.0080                  | N.D.                   |
| 2,4-Dinitrotoluene       | 0.13               | 0.0080                  | N.D.                   |
| Hexachlorobenzene        | 0.13               | 0.0080                  | N.D.                   |
| Hexachloro-1,3-butadiene | 0.5                | 0.0080                  | N.D.                   |
| Hexachloroethane         | 3.0                | 0.0080                  | N.D.                   |
| Nitrobenzene             | 2.0                | 0.0080                  | N.D.                   |
| Pentachlorophenol        | 100                | 0.040                   | N.D.                   |
| Pyridine                 | 5.0                | 0.040                   | N.D.                   |
| 2,4,5-Trichlorophenol    | 400                | 0.040                   | N.D.                   |
| 2,4,6-Trichlorophenol    | 2.0                | 0.0080                  | N.D.                   |
| <b>Surrogates</b>        |                    | <b>Control Limits %</b> | <b>% Recovery</b>      |
| 2-Fluorophenol           |                    | 21                      | 110                    |
| Phenol-d6                |                    | 10                      | 110                    |
| Nitrobenzene-d5          |                    | 35                      | 114                    |
| 2-Fluorobiphenyl         |                    | 43                      | 116                    |
| 2,4,6-Tribromophenol     |                    | 10                      | 123                    |

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

**SEQUOIA ANALYTICAL - ELAP #1210**

Mike Gregory  
Project Manager





Enviros  
270 Perkins Ave.  
Sonoma, CA 95476

Attention: Diane Lundquist

Client Proj. ID: Shell 1230 14th St., Oakland  
Sample Descript: SS-1(a-f)  
Matrix: SOLID  
Analysis Method: EPA 8240  
Lab Number: 9508658-01

Sampled: 08/08/95  
Received: 08/10/95  
Extracted: 08/14/95  
Analyzed: 08/15/95  
Reported: 08/25/95

QC Batch Number: MS0814958240F3A  
Instrument ID: F3

**TCLP Volatiles (EPA 8240)**

| Analyte               | Max. Limit<br>mg/L | Detection Limit<br>mg/L | Sample Results<br>mg/L |
|-----------------------|--------------------|-------------------------|------------------------|
| Benzene               | 0.5                | 0.020                   | N.D.                   |
| Carbon tetrachloride  | 0.5                | 0.020                   | N.D.                   |
| Chlorobenzene         | 100                | 0.020                   | N.D.                   |
| Chloroform            | 6.0                | 0.020                   | N.D.                   |
| 1,2-Dichloroethane    | 0.5                | 0.020                   | N.D.                   |
| 1,1-Dichloroethylene  | 0.7                | 0.020                   | N.D.                   |
| Methyl ethyl ketone   | 200                | 0.10                    | N.D.                   |
| Tetrachloroethylene   | 0.7                | 0.020                   | N.D.                   |
| Trichloroethylene     | 0.5                | 0.020                   | N.D.                   |
| Vinyl chloride        | 0.2                | 0.020                   | N.D.                   |
| <b>Surrogates</b>     |                    | <b>Control Limits %</b> | <b>% Recovery</b>      |
| 1,2-Dichloroethane-d4 |                    | 76                      | 97                     |
| Toluene-d8            |                    | 88                      | 101                    |
| 4-Bromofluorobenzene  |                    | 86                      | 100                    |

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

**SEQUOIA ANALYTICAL - ELAP #1210**

Mike Gregory  
Project Manager





|   |   |  |
|---|---|--|
| Enviros<br>270 Perkins Ave.<br>Sonoma, CA 95476 | Client Proj. ID: Shell 1230 14th St., Oakland<br>Sample Descript: SS-2(a-d)<br>Matrix: SOLID<br>Analysis Method: 8015Mod/8020<br>Lab Number: 9508658-02 | Sampled: 08/08/95<br>Received: 08/10/95<br>Extracted: 08/14/95<br>Analyzed: 08/14/95<br>Reported: 08/25/95 |
| Attention: Diane Lundquist                      |   |  |

QC Batch Number: GC081495BTEXEXA  
Instrument ID: GCHP18

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

| Analyte                | Detection Limit<br>mg/Kg | Sample Results<br>mg/Kg |
|------------------------|--------------------------|-------------------------|
| TPPH as Gas            | 1.0                      | N.D.                    |
| Benzene                | 0.0050                   | N.D.                    |
| <b>Toluene</b>         | <b>0.0050</b>            | <b>0.0070</b>           |
| Ethyl Benzene          | 0.0050                   | N.D.                    |
| <b>Xylenes (Total)</b> | <b>0.0050</b>            | <b>0.022</b>            |
| Chromatogram Pattern:  |                          |                         |

| 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**

Mike Gregory  
Project Manager





|   |   |  |
|---|---|--|
| Enviros<br>270 Perkins Ave.<br>Sonoma, CA 95476 | Client Proj. ID: Shell 1230 14th St., Oakland<br>Sample Descript: SS-3(a-d)<br>Matrix: SOLID<br>Analysis Method: 8015Mod/8020<br>Lab Number: 9508658-03 | Sampled: 08/08/95<br>Received: 08/10/95<br>Extracted: 08/14/95<br>Analyzed: 08/14/95<br>Reported: 08/25/95 |
|---|---|--|

QC Batch Number: GC081495BTEXEXA  
Instrument ID: GCHP18

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

| Analyte               | Detection Limit<br>mg/Kg | Sample Results<br>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                   | 0.012                   |
| Chromatogram Pattern: |                          |                         |
| <b>Surrogates</b>     | <b>Control Limits %</b>  | <b>% Recovery</b>       |
| Trifluorotoluene      | 70 130                   | 91                      |

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

**SEQUOIA ANALYTICAL - ELAP #1210**

Mike Gregory  
Project Manager





|   |   |  |
|---|---|--|
| Enviros<br>270 Perkins Ave.<br>Sonoma, CA 95476 | Client Proj. ID: Shell 1230 14th St., Oakland<br>Sample Descript: SS-4(a-d)<br>Matrix: SOLID<br>Analysis Method: 8015Mod/8020<br>Lab Number: 9508658-04 | Sampled: 08/08/95<br>Received: 08/10/95<br>Extracted: 08/14/95<br>Analyzed: 08/14/95<br>Reported: 08/25/95 |
| Attention: Diane Lundquist                      |   |  |

QC Batch Number: GC081495BTEXEXA  
Instrument ID: GCHP18

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

| Analyte                | Detection Limit<br>mg/Kg | Sample Results<br>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.                    |
| <b>Xylenes (Total)</b> | <b>0.0050</b>            | <b>0.0060</b>           |
| Chromatogram Pattern:  |                          |                         |
| <b>Surrogates</b>      | <b>Control Limits %</b>  | <b>% Recovery</b>       |
| Trifluorotoluene       | 70 130                   | 92                      |

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

**SEQUOIA ANALYTICAL - ELAP #1210**

Mike Gregory  
Project Manager





|   |   |  |
|---|---|--|
| Enviros<br>270 Perkins Ave.<br>Sonoma, CA 95476 | Client Proj. ID: Shell 1230 14th St., Oakland<br>Sample Descript: SS-5(a-d)<br>Matrix: SOLID<br>Analysis Method: 8015Mod/8020<br>Lab Number: 9508658-05 | Sampled: 08/08/95<br>Received: 08/10/95<br>Extracted: 08/14/95<br>Analyzed: 08/14/95<br>Reported: 08/25/95 |
| Attention: Diane Lundquist                      |   |  |

QC Batch Number: GC081495BTEXEXA  
Instrument ID: GCHP18

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

| Analyte                      | Detection Limit<br>mg/Kg | Sample Results<br>mg/Kg |
|------------------------------|--------------------------|-------------------------|
| <b>TPPH as Gas</b>           | <b>2.5</b>               | <b>19</b>               |
| Benzene                      | 0.012                    | N.D.                    |
| Toluene                      | 0.012                    | N.D.                    |
| Ethyl Benzene                | 0.012                    | N.D.                    |
| Xylenes (Total)              | 0.012                    | N.D.                    |
| <b>Chromatogram Pattern:</b> |                          | <b>C9-12</b>            |
| <b>Surrogates</b>            | <b>Control Limits %</b>  | <b>% Recovery</b>       |
| Trifluorotoluene             | 70 130                   | 91                      |

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

**SEQUOIA ANALYTICAL - ELAP #1210**

Mike Gregory  
Project Manager





|   |   |  |
|---|---|--|
| Enviros<br>270 Perkins Ave.<br>Sonoma, CA 95476 | Client Proj. ID: Shell 1230 14th St., Oakland<br>Sample Descript: SS-6(a-d)<br>Matrix: SOLID<br>Analysis Method: 8015Mod/8020<br>Lab Number: 9508658-06 | Sampled: 08/08/95<br>Received: 08/10/95<br>Extracted: 08/14/95<br>Analyzed: 08/14/95<br>Reported: 08/25/95 |
| Attention: Diane Lundquist                      |   |  |

QC Batch Number: GC081495BTEXEXA  
Instrument ID: GCHP18

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

| Analyte               | Detection Limit<br>mg/Kg | Sample Results<br>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                   | 89                      |

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

**SEQUOIA ANALYTICAL - ELAP #1210**

Mike Gregory  
Project Manager





|   |   |  |
|---|---|--|
| Enviros<br>270 Perkins Ave.<br>Sonoma, CA 95476 | Client Proj. ID: Shell 1230 14th St., Oakland<br>Sample Descript: SS-7(a-d)<br>Matrix: SOLID<br>Analysis Method: 8015Mod/8020<br>Lab Number: 9508658-07 | Sampled: 08/08/95<br>Received: 08/10/95<br>Extracted: 08/14/95<br>Analyzed: 08/14/95<br>Reported: 08/25/95 |
| Attention: Diane Lundquist                      |   |  |

QC Batch Number: GC081495BTEXEXA  
Instrument ID: GCHP18

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

| Analyte               | Detection Limit<br>mg/Kg | Sample Results<br>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                   | 92                      |

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

**SEQUOIA ANALYTICAL - ELAP #1210**

Mike Gregory  
Project Manager





|   |   |   |
|---|---|---|
| Enviros<br>270 Perkins Ave.<br>Sonoma, CA 95476<br>Attention: Diane Lundquist | Client Project ID: Shell, 1230 14th St., Oakland<br>Sample Descript: Liquid, SS-1 (a-f)<br>Analysis Method: See below<br>Lab Number: 9508-658 -01 | Sampled: 8/8/95<br>Received: 8/10/95<br>Reported: 8/24/95 |
|---|---|---|

**STATIC ACUTE HAZARDOUS WASTE BIOASSAY - DEFINITIVE**

Species: Pimephales promelas  
Common Name: Fathead Minnow

Organisms/Tank: 10  
Organisms/Conc.: 20  
Tank Depth: 13 cm  
Tank Volume: 10 L  
Supplier: Sticklebacks Unlimited  
Acclimation Temp.: 19 °C

Mean length: 37 mm      Min. length: 34 mm  
Max. length: 34 mm  
Mean weight: 0.28 g      Min. weight: 0.25 g  
Max. weight: 0.30 g

Control Water: Synthetic Softwater  
Hardness 40-48

|                    | Alkalinity, mg/L |       | Hardness, mg/L |       |
|--------------------|------------------|-------|----------------|-------|
|                    | Initial          | Final | Initial        | Final |
| Control            | 30               | 32    | 42             | 46    |
| 1000 ppm           | 34               | 40    | 44             | 52    |
| Duplicate 1000 ppm | 34               | 38    | 42             | 52    |

| DATE | Initial | 24 Hr   | 48 Hr   | 72 Hr   | 96 Hr   |
|------|---------|---------|---------|---------|---------|
|      | 8/13/95 | 8/14/95 | 8/15/95 | 8/16/95 | 8/17/95 |

|          | DO   | C    | pH    | DO   | C    | pH    | # M  | DO   | C    | pH    | # M  | DO   | C    | pH    | # M  | DO   | C    | pH    | # M  | Total Dead |
|----------|------|------|-------|------|------|-------|------|------|------|-------|------|------|------|-------|------|------|------|-------|------|------------|
|          | mg/L | Temp | Units | mg/L | Temp | Units | Dead |            |
| Control  | 9.3  | 19   | 7.4   | 8.0  | 19   | 7.3   | 0    | 7.5  | 19   | 7.2   | 0    | 6.2  | 19   | 7.1   | 0    | 5.8  | 19   | 7.0   | 0    | 0          |
| 1000 ppm | 8.9  | 19   | 7.3   | 8.1  | 19   | 7.2   | 0    | 7.2  | 19   | 7.1   | 0    | 6.1  | 19   | 7.0   | 1    | 5.8  | 19   | 7.0   | 1    | 2          |
| 560 ppm  | 9.0  | 19   | 7.3   | 8.2  | 19   | 7.3   | 0    | 7.0  | 19   | 7.1   | 0    | 6.1  | 19   | 7.1   | 1    | 5.7  | 19   | 7.0   | 1    | 2          |
| 320 ppm  | 9.0  | 19   | 7.4   | 8.1  | 19   | 7.3   | 0    | 7.2  | 19   | 7.1   | 0    | 6.1  | 19   | 7.1   | 0    | 5.6  | 19   | 7.0   | 0    | 0          |
| 180 ppm  | 9.1  | 19   | 7.4   | 8.0  | 19   | 7.4   | 0    | 7.3  | 19   | 7.2   | 0    | 6.2  | 19   | 7.1   | 0    | 5.8  | 19   | 7.0   | 0    | 0          |
| 100 ppm  | 9.3  | 19   | 7.4   | 8.1  | 19   | 7.2   | 0    | 7.4  | 19   | 7.2   | 0    | 6.3  | 19   | 7.1   | 1    | 5.8  | 19   | 7.1   | 0    | 1          |

| Duplicate | DO   | C    | pH    | DO   | C    | pH    | # M  | DO   | C    | pH    | # M  | DO   | C    | pH    | # M  | DO   | C    | pH    | # M  | Total Dead |
|-----------|------|------|-------|------|------|-------|------|------|------|-------|------|------|------|-------|------|------|------|-------|------|------------|
|           | mg/L | Temp | Units | mg/L | Temp | Units | Dead |            |
| 1000 ppm  | 9.0  | 19   | 7.3   | 8.0  | 19   | 7.2   | 0    | 7.3  | 19   | 7.3   | 1    | 6.4  | 19   | 7.2   | 0    | 5.6  | 19   | 7.2   | 0    | 1          |
| 560 ppm   | 9.2  | 19   | 7.2   | 7.6  | 19   | 7.2   | 0    | 7.5  | 19   | 7.2   | 0    | 6.1  | 19   | 7.1   | 1    | 5.7  | 19   | 7.0   | 0    | 1          |
| 320 ppm   | 9.3  | 19   | 7.4   | 7.8  | 19   | 7.4   | 0    | 7.4  | 19   | 7.3   | 0    | 6.3  | 19   | 7.1   | 0    | 5.7  | 19   | 7.0   | 0    | 0          |
| 180 ppm   | 9.2  | 19   | 7.4   | 7.9  | 19   | 7.3   | 1    | 7.4  | 19   | 7.2   | 0    | 6.3  | 19   | 7.1   | 0    | 5.8  | 19   | 7.1   | 1    | 2          |
| 100 ppm   | 9.3  | 19   | 7.3   | 8.0  | 19   | 7.3   | 0    | 7.5  | 19   | 7.4   | 0    | 6.2  | 19   | 7.2   | 1    | 5.9  | 19   | 7.2   | 0    | 1          |

LC-50: > 1,000

LC-50 Calculation Method: Binomial

Remarks: \_\_\_\_\_

Analyst: M.Otte/  
K. Bentler  
**SEQUOIA ANALYTICAL**

Method Reference: Static Acute Bioassay Procedures for Hazardous Waste Samples,  
November 1988, California Department of Fish and Game WPCL

Mike Gregory  
Project Manager





**Enviros**  
270 Perkins Ave.  
Sonoma, CA 95476  
Attention: Diane Lundquist

**Client Project ID:** Shell 1230 14th St., Oakland  
**Matrix:** Solid

**Work Order #:** 9508658

**Reported:** Aug 28, 1995

**QUALITY CONTROL DATA REPORT**

TTL

**Analyte:** Mercury

**QC Batch#:** ME0816957471M4A  
**Analy. Method:** EPA 7471  
**Prep. Method:** EPA 7471

**Analyst:** T. Hua  
**MS/MSD #:** 950865801  
**Sample Conc.:** 0.095  
**Prepared Date:** 8/16/95  
**Analyzed Date:** 8/16/95  
**Instrument I.D.#:** MPE4  
**Conc. Spiked:** 0.20 mg/Kg

**Result:** 0.27  
**MS % Recovery:** 88

**Dup. Result:** 0.25  
**MSD % Recov.:** 78

**RPD:** 7.7  
**RPD Limit:** 0-30

**LCS #:** BLK081695

**Prepared Date:** 8/16/95  
**Analyzed Date:** 8/16/95  
**Instrument I.D.#:** MPE4  
**Conc. Spiked:** 0.20 mg/Kg

**LCS Result:** 0.16  
**LCS % Recov.:** 80

**MS/MSD  
LCS  
Control Limits** 75-125

**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

9508658.EEE <1>





Enviros  
270 Perkins Ave.  
Sonoma, CA 95476  
Attention: Diane Lundquist

Client Project ID: Shell 1230 14th St., Oakland  
Matrix: Liquid

Work Order #: 9508658

Reported: Aug 28, 1995

**QUALITY CONTROL DATA REPORT**

TCLP

Analyte: Mercury

QC Batch#: ME0816957470M4B  
Analy. Method: EPA 7470  
Prep. Method: EPA 7470

Analyst: T. Hua  
MS/MSD #: 950859001  
Sample Conc.: N.D.  
Prepared Date: 8/16/95  
Analyzed Date: 8/16/95  
Instrument I.D.#: MPE4  
Conc. Spiked: 0.0040 mg/L

Result: 0.0041  
MS % Recovery: 103

Dup. Result: 0.0041  
MSD % Recov.: 103

RPD: 0.0  
RPD Limit: 0-30

LCS #: BLK081695

Prepared Date: 8/16/95  
Analyzed Date: 8/16/95  
Instrument I.D.#: MPE4  
Conc. Spiked: 0.0040 mg/L

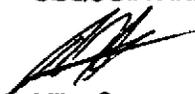
LCS Result: 0.0040  
LCS % Recov.: 100

MS/MSD  
LCS 75-125  
Control Limits

**Please Note:**

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

**SEQUOIA ANALYTICAL**

  
Mike Gregory  
Project Manager

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

9508658.EEE <2>





|  |   |                               |
|--|---|-------------------------------|
| <b>Enviros</b><br>270 Perkins Ave.<br>Sonoma, CA 95476<br>Attention: Diane Lundquist | <b>Client Project ID:</b> Shell 1230 14th St., Oakland<br><b>Matrix:</b> Liquid<br><b>Work Order #:</b> 9508658 | <b>Reported:</b> Aug 28, 1995 |
|--|---|-------------------------------|

**QUALITY CONTROL DATA REPORT**

|                       | TCLP            | TCLP            | TCLP            | TCLP            |
|-----------------------|-----------------|-----------------|-----------------|-----------------|
| <b>Analyte:</b>       | Beryllium       | Cadmium         | Chromium        | Nickel          |
| <b>QC Batch#:</b>     | ME0816956010MDC | ME0816956010MDC | ME0816956010MDC | ME0816956010MDC |
| <b>Analy. Method:</b> | EPA 6010        | EPA 6010        | EPA 6010        | EPA 6010        |
| <b>Prep. Method:</b>  | EPA 3010        | EPA 3010        | EPA 3010        | EPA 3010        |

|                          |           |           |           |           |
|--------------------------|-----------|-----------|-----------|-----------|
| <b>Analyst:</b>          | SO/CM     | SO/CM     | SO/CM     | SO/CM     |
| <b>MS/MSD #:</b>         | 950849301 | 950849301 | 950849301 | 950849301 |
| <b>Sample Conc.:</b>     | N.D.      | N.D.      | N.D.      | N.D.      |
| <b>Prepared Date:</b>    | 8/16/95   | 8/16/95   | 8/16/95   | 8/16/95   |
| <b>Analyzed Date:</b>    | 8/16/95   | 8/16/95   | 8/16/95   | 8/16/95   |
| <b>Instrument I.D.#:</b> | MTJA2     | MTJA2     | MTJA2     | MTJA2     |
| <b>Conc. Spiked:</b>     | 1.0 mg/L  | 1.0 mg/L  | 1.0 mg/L  | 1.0 mg/L  |
| <b>Result:</b>           | 1.1       | 1.0       | 1.0       | 1.1       |
| <b>MS % Recovery:</b>    | 110       | 100       | 100       | 110       |
| <b>Dup. Result:</b>      | 1.1       | 1.0       | 1.0       | 1.1       |
| <b>MSD % Recov.:</b>     | 110       | 100       | 100       | 110       |
| <b>RPD:</b>              | 0.0       | 0.0       | 0.0       | 0.0       |
| <b>RPD Limit:</b>        | 0-30      | 0-30      | 0-30      | 0-30      |

|                          |           |           |           |           |
|--------------------------|-----------|-----------|-----------|-----------|
| <b>LCS #:</b>            | BLK081695 | BLK081695 | BLK081695 | BLK081695 |
| <b>Prepared Date:</b>    | 8/16/95   | 8/16/95   | 8/16/95   | 8/16/95   |
| <b>Analyzed Date:</b>    | 8/16/95   | 8/16/95   | 8/16/95   | 8/16/95   |
| <b>Instrument I.D.#:</b> | MTJA2     | MTJA2     | MTJA2     | MTJA2     |
| <b>Conc. Spiked:</b>     | 1.0 mg/L  | 1.0 mg/L  | 1.0 mg/L  | 1.0 mg/L  |
| <b>LCS Result:</b>       | 1.1       | 1.0       | 1.0       | 1.0       |
| <b>LCS % Recov.:</b>     | 110       | 100       | 100       | 100       |

|                       |        |        |        |        |
|-----------------------|--------|--------|--------|--------|
| <b>MS/MSD</b>         |        |        |        |        |
| <b>LCS</b>            | 75-125 | 75-125 | 75-125 | 75-125 |
| <b>Control Limits</b> |        |        |        |        |

**Please Note:**

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**SEQUOIA ANALYTICAL**

Mike Gregory  
Project Manager

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

9508658.EEE <3>





Enviros  
270 Perkins Ave.  
Sonoma, CA 95476  
Attention: Diane Lundquist

Client Project ID: Shell 1230 14th St., Oakland  
Matrix: Liquid

Work Order #: 9508658

Reported: Aug 28, 1995

**QUALITY CONTROL DATA REPORT**

|                       | STLC            | STLC            | STLC            | STLC            |
|-----------------------|-----------------|-----------------|-----------------|-----------------|
| <b>Analyte:</b>       | Beryllium       | Cadmium         | Chromium        | Nickel          |
| <b>QC Batch#:</b>     | ME0820956010MDA | ME0820956010MDA | ME0820956010MDA | ME0820956010MDA |
| <b>Analy. Method:</b> | EPA 6010        | EPA 6010        | EPA 6010        | EPA 6010        |
| <b>Prep. Method:</b>  | EPA 3010        | EPA 3010        | EPA 3010        | EPA 3010        |

|                          |              |              |              |              |
|--------------------------|--------------|--------------|--------------|--------------|
| <b>Analyst:</b>          | S. O'Donnell | S. O'Donnell | S. O'Donnell | S. O'Donnell |
| <b>MS/MSD #:</b>         | 950870503    | 950870503    | 950870503    | 950870503    |
| <b>Sample Conc.:</b>     | N.D.         | N.D.         | N.D.         | N.D.         |
| <b>Prepared Date:</b>    | 8/20/95      | 8/20/95      | 8/20/95      | 8/20/95      |
| <b>Analyzed Date:</b>    | 8/21/95      | 8/21/95      | 8/21/95      | 8/21/95      |
| <b>Instrument I.D.#:</b> | MTJA2        | MTJA2        | MTJA2        | MTJA2        |
| <b>Conc. Spiked:</b>     | 1.0 mg/L     | 1.0 mg/L     | 1.0 mg/L     | 1.0 mg/L     |
| <b>Result:</b>           | 1.0          | 0.97         | 0.96         | 0.97         |
| <b>MS % Recovery:</b>    | 100          | 97           | 96           | 97           |
| <b>Dup. Result:</b>      | 1.1          | 1.0          | 1.0          | 1.1          |
| <b>MSD % Recov.:</b>     | 110          | 100          | 100          | 110          |
| <b>RPD:</b>              | 9.5          | 3.0          | 4.1          | 13           |
| <b>RPD Limit:</b>        | 0-30         | 0-30         | 0-30         | 0-30         |

|                          |           |           |           |           |
|--------------------------|-----------|-----------|-----------|-----------|
| <b>LCS #:</b>            | BLK082095 | BLK082095 | BLK082095 | BLK082095 |
| <b>Prepared Date:</b>    | 8/20/95   | 8/20/95   | 8/20/95   | 8/20/95   |
| <b>Analyzed Date:</b>    | 8/20/95   | 8/20/95   | 8/20/95   | 8/20/95   |
| <b>Instrument I.D.#:</b> | MTJA2     | MTJA2     | MTJA2     | MTJA2     |
| <b>Conc. Spiked:</b>     | 1.0 mg/L  | 1.0 mg/L  | 1.0 mg/L  | 1.0 mg/L  |
| <b>LCS Result:</b>       | 1.1       | 1.1       | 1.1       | 1.1       |
| <b>LCS % Recov.:</b>     | 110       | 110       | 110       | 110       |

|  |        |        |        |        |
|--|--------|--------|--------|--------|
| <b>MS/MSD<br/>LCS<br/>Control Limits</b> | 75-125 | 75-125 | 75-125 | 75-125 |
|--|--------|--------|--------|--------|

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**SEQUOIA ANALYTICAL**

  
Mike Gregory  
Project Manager

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

9508658.EEE <4>





Enviros  
270 Perkins Ave.  
Sonoma, CA 95476  
Attention: Diane Lundquist

Client Project ID: Shell 1230 14th St., Oakland  
Matrix: Solid

Work Order #: 9508658-01-07

Reported: Aug 28, 1995

**QUALITY CONTROL DATA REPORT**

|                       | TTLIC          | TTLIC          | TTLIC          | TTLIC          |
|-----------------------|----------------|----------------|----------------|----------------|
| <b>Analyte:</b>       | Beryllium      | Cadmium        | Chromium       | Nickel         |
| <b>QC Batch#:</b>     | ME0815956010MD | ME0815956010MD | ME0815956010MD | ME0815956010MD |
| <b>Analy. Method:</b> | EPA 6010       | EPA 6010       | EPA 6010       | EPA 6010       |
| <b>Prep. Method:</b>  | EPA 3050       | EPA 3050       | EPA 3050       | EPA 3050       |

|                          |              |              |              |              |
|--------------------------|--------------|--------------|--------------|--------------|
| <b>Analyst:</b>          | S. O'Donnell | S. O'Donnell | S. O'Donnell | S. O'Donnell |
| <b>MS/MSD #:</b>         | 950881501    | 950881501    | 950881501    | 950881501    |
| <b>Sample Conc.:</b>     | 0.53         | N.D.         | 52           | 39           |
| <b>Prepared Date:</b>    | 8/15/95      | 8/15/95      | 8/15/95      | 8/15/95      |
| <b>Analyzed Date:</b>    | 8/15/95      | 8/15/95      | 8/15/95      | 8/15/95      |
| <b>Instrument I.D.#:</b> | MTJA2        | MTJA2        | MTJA2        | MTJA2        |
| <b>Conc. Spiked:</b>     | 100 mg/Kg    | 100 mg/Kg    | 100 mg/Kg    | 100 mg/Kg    |
| <b>Result:</b>           | 110          | 100          | 150          | 140          |
| <b>MS % Recovery:</b>    | 109          | 100          | 98           | 101          |
| <b>Dup. Result:</b>      | 110          | 100          | 140          | 140          |
| <b>MSD % Recov.:</b>     | 109          | 100          | 88           | 101          |
| <b>RPD:</b>              | 0.0          | 0.0          | 6.9          | 0.0          |
| <b>RPD Limit:</b>        | 0-30         | 0-30         | 0-30         | 0-30         |

|                          |           |           |           |           |
|--------------------------|-----------|-----------|-----------|-----------|
| <b>LCS #:</b>            | BLK081595 | BLK081595 | BLK081595 | BLK081595 |
| <b>Prepared Date:</b>    | 8/15/95   | 8/15/95   | 8/15/95   | 8/15/95   |
| <b>Analyzed Date:</b>    | 8/15/95   | 8/15/95   | 8/15/95   | 8/15/95   |
| <b>Instrument I.D.#:</b> | MTJA2     | MTJA2     | MTJA2     | MTJA2     |
| <b>Conc. Spiked:</b>     | 100 mg/Kg | 100 mg/Kg | 100 mg/Kg | 100 mg/Kg |
| <b>LCS Result:</b>       | 110       | 110       | 110       | 110       |
| <b>LCS % Recov.:</b>     | 110       | 110       | 110       | 110       |

|                       |        |        |        |        |
|-----------------------|--------|--------|--------|--------|
| <b>MS/MSD</b>         |        |        |        |        |
| <b>LCS</b>            | 75-125 | 75-125 | 75-125 | 75-125 |
| <b>Control Limits</b> |        |        |        |        |

**SEQUOIA ANALYTICAL**

Mike Gregory  
Project Manager

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9508658.EEE <5>





Enviros  
270 Perkins Ave.  
Sonoma, CA 95476  
Attention: Diane Lundquist

Client Project ID: Shell 1230 14th St., Oakland  
Matrix: Solid  
Work Order #: 9508658-01

Reported: Aug 28, 1995

**QUALITY CONTROL DATA REPORT**

|                       |                 |                |
|-----------------------|-----------------|----------------|
| <b>Analyte:</b>       | PCB 1260        | Organic Lead   |
| <b>QC Batch#:</b>     | GC0814950PCBEXA | ME0824957000MD |
| <b>Analy. Method:</b> | EPA 8080        | LUFT           |
| <b>Prep. Method:</b>  | EPA 3550        | LUFT           |

|                          |           |            |
|--------------------------|-----------|------------|
| <b>Analyst:</b>          | A. Savva  | R. Butler  |
| <b>MS/MSD #:</b>         | 950857209 | 9508D2801  |
| <b>Sample Conc.:</b>     | N.D.      | N.D.       |
| <b>Prepared Date:</b>    | 8/14/95   | 8/24/95    |
| <b>Analyzed Date:</b>    | 8/18/95   | 8/24/95    |
| <b>Instrument I.D.#:</b> | GCHP10    | MV2        |
| <b>Conc. Spiked:</b>     | 83 µg/Kg  | 0.50 mg/Kg |
| <b>Result:</b>           | 77        | 0.49       |
| <b>MS % Recovery:</b>    | 93        | 98         |
| <b>Dup. Result:</b>      | 84        | 0.47       |
| <b>MSD % Recov.:</b>     | 101       | 94         |
| <b>RPD:</b>              | 9.0       | 4.2        |
| <b>RPD Limit:</b>        | 0-50      | 0-30       |

|                          |            |
|--------------------------|------------|
| <b>LCS #:</b>            | BLK082495  |
| <b>Prepared Date:</b>    | 8/24/95    |
| <b>Analyzed Date:</b>    | 8/24/95    |
| <b>Instrument I.D.#:</b> | MV2        |
| <b>Conc. Spiked:</b>     | 0.50 mg/Kg |
| <b>LCS Result:</b>       | 0.50       |
| <b>LCS % Recov.:</b>     | 100        |

|                       |        |        |
|-----------------------|--------|--------|
| <b>MS/MSD</b>         |        |        |
| <b>LCS</b>            | 30-150 | 75-125 |
| <b>Control Limits</b> |        |        |

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**SEQUOIA ANALYTICAL**

Mike Gregory  
Project Manager

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

9508658.EEE <6>





Enviros  
270 Perkins Ave.  
Sonoma, CA 95476  
Attention: Diane Lundquist

Client Project ID: Shell 1230 14th St., Oakland  
Matrix: Solid

Work Order #: 9508658-01

Reported: Aug 28, 1995

**QUALITY CONTROL DATA REPORT**

|                       |                          |                         |                        |
|-----------------------|--------------------------|-------------------------|------------------------|
| <b>Analyte:</b>       | 1,4-Dichloro-<br>benzene | 2,4-Dinitro-<br>toluene | Pentachloro-<br>phenol |
| <b>QC Batch#:</b>     | MS0809958270EXA          | MS0809958270EXA         | MS0809958270EXA        |
| <b>Analy. Method:</b> | EPA 1311                 | EPA 1311                | EPA 1311               |
| <b>Prep. Method:</b>  | EPA 1311                 | EPA 1311                | EPA 1311               |

|                          |           |           |           |
|--------------------------|-----------|-----------|-----------|
| <b>Analyst:</b>          | E. Manuel | E. Manuel | E. Manuel |
| <b>MS/MSD #:</b>         | 950710305 | 950710305 | 950710305 |
| <b>Sample Conc.:</b>     | N.D.      | N.D.      | N.D.      |
| <b>Prepared Date:</b>    | 8/9/95    | 8/9/95    | 8/9/95    |
| <b>Analyzed Date:</b>    | 8/12/95   | 8/12/95   | 8/12/95   |
| <b>Instrument I.D.#:</b> | H5        | H5        | H5        |
| <b>Conc. Spiked:</b>     | 400 µg/L  | 400 µg/L  | 400 µg/L  |

|                       |     |     |     |
|-----------------------|-----|-----|-----|
| <b>Result:</b>        | 100 | 36  | 190 |
| <b>MS % Recovery:</b> | 25  | 9.0 | 48  |

|                      |     |     |     |
|----------------------|-----|-----|-----|
| <b>Dup. Result:</b>  | 130 | 34  | 170 |
| <b>MSD % Recov.:</b> | 33  | 9.0 | 43  |

|                   |      |      |      |
|-------------------|------|------|------|
| <b>RPD:</b>       | 26   | 5.7  | 11   |
| <b>RPD Limit:</b> | 0-50 | 0-50 | 0-50 |

|                          |           |           |           |
|--------------------------|-----------|-----------|-----------|
| <b>LCS #:</b>            | BLK080995 | BLK080995 | BLK080995 |
| <b>Prepared Date:</b>    | 8/9/95    | 8/9/95    | 8/9/95    |
| <b>Analyzed Date:</b>    | 8/12/95   | 8/12/95   | 8/12/95   |
| <b>Instrument I.D.#:</b> | F4        | F4        | F4        |
| <b>Conc. Spiked:</b>     | 400 µg/L  | 400 µg/L  | 400 µg/L  |
| <b>LCS Result:</b>       | 130       | 190       | 260       |
| <b>LCS % Recov.:</b>     | 33        | 48        | 65        |

|  |        |        |        |
|--|--------|--------|--------|
| <b>MS/MSD<br/>LCS<br/>Control Limits</b> | 20-124 | 39-139 | 14-176 |
|--|--------|--------|--------|

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**SEQUOIA ANALYTICAL**

Mike Gregory  
Project Manager

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

9508658.EEE <7>





**Enviros**  
270 Perkins Ave.  
Sonoma, CA 95476  
Attention: Diane Lundquist

**Client Project ID:** Shell 1230 14th St., Oakland  
**Matrix:** Liquid

**Work Order #:** 9508658-01

**Reported:** Aug 28, 1995

**QUALITY CONTROL DATA REPORT**

| Analyte:                 | 1,1-Dichloroethene | Trichloroethene | Benzene         | Toluene         | Chloro-benzene  |
|--------------------------|--------------------|-----------------|-----------------|-----------------|-----------------|
| <b>QC Batch#:</b>        | MS0814958240F3A    | MS0814958240F3A | MS0814958240F3A | MS0814958240F3A | MS0814958240F3A |
| <b>Analy. Method:</b>    | EPA 8240           | EPA 8240        | EPA 8240        | EPA 8240        | EPA 8240        |
| <b>Prep. Method:</b>     | N.A.               | N.A.            | N.A.            | N.A.            | N.A.            |
| <b>Analyst:</b>          | M. Williams        | M. Williams     | M. Williams     | M. Williams     | M. Williams     |
| <b>MS/MSD #:</b>         | 950839205          | 950839205       | 950839205       | 950839205       | 950839205       |
| <b>Sample Conc.:</b>     | N.D.               | N.D.            | N.D.            | N.D.            | N.D.            |
| <b>Prepared Date:</b>    | N.A.               | N.A.            | N.A.            | N.A.            | N.A.            |
| <b>Analyzed Date:</b>    | 8/14/95            | 8/14/95         | 8/14/95         | 8/14/95         | 8/14/95         |
| <b>Instrument I.D.#:</b> | F3                 | F3              | F3              | F3              | F3              |
| <b>Conc. Spiked:</b>     | 50 µg/L            | 50 µg/L         | 50 µg/L         | 50 µg/L         | 50 µg/L         |
| <b>Result:</b>           | 50                 | 50              | 51              | 51              | 51              |
| <b>MS % Recovery:</b>    | 100                | 100             | 102             | 102             | 102             |
| <b>Dup. Result:</b>      | 49                 | 49              | 50              | 51              | 49              |
| <b>MSD % Recov.:</b>     | 98                 | 98              | 100             | 102             | 98              |
| <b>RPD:</b>              | 2.0                | 2.0             | 2.0             | 0.0             | 2.0             |
| <b>RPD Limit:</b>        | 0-50               | 0-50            | 0-50            | 0-50            | 0-50            |

| LCS #:                   | BLK081495 | BLK081495 | BLK081495 | BLK081495 | BLK081495 |
|--------------------------|-----------|-----------|-----------|-----------|-----------|
| <b>Prepared Date:</b>    | N.A.      | N.A.      | N.A.      | N.A.      | N.A.      |
| <b>Analyzed Date:</b>    | 8/14/95   | 8/14/95   | 8/14/95   | 8/14/95   | 8/14/95   |
| <b>Instrument I.D.#:</b> | F3        | F3        | F3        | F3        | F3        |
| <b>Conc. Spiked:</b>     | 50 µg/L   |
| <b>LCS Result:</b>       | 50        | 47        | 48        | 47        | 47        |
| <b>LCS % Recov.:</b>     | 100       | 94        | 96        | 94        | 94        |

| MS/MSD<br>LCS<br>Control Limits | DL-234 | 71-157 | 37-151 | 47-150 | 37-160 |
|---------------------------------|--------|--------|--------|--------|--------|
|---------------------------------|--------|--------|--------|--------|--------|

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**SEQUOIA ANALYTICAL**

*[Signature]*  
**Mike Gregory**  
Project Manager





**Enviros**  
270 Perkins Ave.  
Sonoma, CA 95476  
Attention: Diane Lundquist

**Client Project ID:** Shell 1230 14th St., Oakland  
**Matrix:** Solid

**Work Order #:** 9508658-01

**Reported:** Aug 28, 1995

**QUALITY CONTROL DATA REPORT**

|                       |                  |                  |
|-----------------------|------------------|------------------|
| <b>Analyte:</b>       | Reactive Cyanide | Reactive Sulfide |
| <b>QC Batch#:</b>     | IN081495084600A  | IN081495084600A  |
| <b>Analy. Method:</b> | SW-846           | SW-846           |
| <b>Prep. Method:</b>  | N.A.             | N.A.             |

**Analyst:** A. Pina                      K. Newberry  
**MS/MSD #:**  
**Sample Conc.:**  
**Prepared Date:**  
**Analyzed Date:**  
**Instrument I.D.#:**  
**Conc. Spiked:**

**Result:**  
**MS % Recovery:**

**Dup. Result:**  
**MSD % Recov.:**

**RPD:**  
**RPD Limit:**

|                          |           |           |
|--------------------------|-----------|-----------|
| <b>LCS #:</b>            | LCS081495 | LCS081495 |
| <b>Prepared Date:</b>    | 8/14/95   | 8/14/95   |
| <b>Analyzed Date:</b>    | 8/14/95   | 8/14/95   |
| <b>Instrument I.D.#:</b> | MANUAL    | MANUAL    |
| <b>Conc. Spiked:</b>     | 0.20 mg/L | 10 mg/L   |
| <b>LCS Result:</b>       | 0.079     | 9.2       |
| <b>LCS % Recov.:</b>     | 40        | 92        |

|  |        |        |
|--|--------|--------|
| <b>MS/MSD<br/>LCS<br/>Control Limits</b> | 6.5-40 | 80-120 |
|--|--------|--------|

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**SEQUOIA ANALYTICAL**

Mike Gregory  
Project Manager

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

9508658.EEE <9>





Enviros  
270 Perkins Ave.  
Sonoma, CA 95476  
Attention: Diane Lundquist

Client Project ID: Shell 1230 14th St., Oakland  
Matrix: Solid

Work Order #: 9508658-01

Reported: Aug 28, 1995

### QUALITY CONTROL DATA REPORT

**Analyte:** pH

**QC Batch:** IN081195904500A  
**Analy. Method:** EPA 9045  
**Prep Method:** N.A.

**Analyst:** S. Lee

**Duplicate  
Sample #:** 950856003

**Prepared Date:** 8/11/95  
**Analyzed Date:** 8/11/95  
**Instrument I.D.#:** MANUAL

**Sample  
Concentration:** 8.2

**Dup. Sample  
Concentration:** 8.2

**RPD:** 0.0  
**RPD Limit:** 0-30

SEQUOIA ANALYTICAL

  
Mike Gregory  
Project Manager

\*\* RPD=Relative % Difference

9508658.EEE <10>





Enviros  
270 Perkins Ave.  
Sonoma, CA 95476  
Attention: Diane Lundquist

Client Project ID: Shell 1230 14th St., Oakland  
Matrix: Solid

Work Order #: 9508658-01-07

Reported: Aug 28, 1995

**QUALITY CONTROL DATA REPORT**

| Analyte:          | Benzene         | Toluene         | Ethyl Benzene   | Xylenes         |
|-------------------|-----------------|-----------------|-----------------|-----------------|
| QC Batch#:        | GC081495BTEXEXA | GC081495BTEXEXA | GC081495BTEXEXA | GC081495BTEXEXA |
| 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 #:         | 950840003       | 950840003       | 950840003       | 950840003       |
| Sample Conc.:     | N.D.            | N.D.            | N.D.            | N.D.            |
| Prepared Date:    | 8/14/95         | 8/14/95         | 8/14/95         | 8/14/95         |
| Analyzed Date:    | 8/14/95         | 8/14/95         | 8/14/95         | 8/14/95         |
| 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            | 0.16            | 0.16            | 0.47            |
| MS % Recovery:    | 75              | 80              | 80              | 78              |
| Dup. Result:      | 0.15            | 0.15            | 0.15            | 0.46            |
| MSD % Recov.:     | 75              | 75              | 75              | 77              |
| RPD:              | 0.0             | 6.5             | 6.5             | 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 |
|---------------------------|--------|--------|--------|--------|
|---------------------------|--------|--------|--------|--------|

**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

9508658.EEE <11>





**Enviros**  
270 Perkins Ave.  
Sonoma, CA 95476  
Attention: Diane Lundquist

**Client Project ID:** Shell 1230 14th St., Oakland  
**Matrix:** Solid

**Work Order #:** 9508658-08-13

**Reported:** Aug 28, 1995

**QUALITY CONTROL DATA REPORT**

**Analyte:** Total Recoverable  
Petroleum Hydrocarbons

**QC Batch#:** IN0825954181FTA  
**Analy. Method:** EPA 418.1  
**Prep. Method:** N.A.

**Analyst:** D. Williams  
**MS/MSD #:** 9508C65808  
**Sample Conc.:** 850  
**Prepared Date:** 8/15/95  
**Analyzed Date:** 8/15/95  
**Instrument I.D.#:** FTIR1  
**Conc. Spiked:** 2100 mg/Kg

**Result:** 1000  
**MS % Recovery:** 7.1

**Dup. Result:** 780  
**MSD % Recov.:** 0.0

**RPD:** -  
**RPD Limit:** 0-40

**LCS #:** LCS082595

**Prepared Date:** 8/25/95  
**Analyzed Date:** 8/25/95  
**Instrument I.D.#:** FTIR1  
**Conc. Spiked:** 210 mg/Kg

**LCS Result:** 230  
**LCS % Recov.:** 110

**MS/MSD**  
**LCS** 60-140  
**Control Limits** 80-120

**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*  
**Mike Gregory**  
Project Manager

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

9508658.EEE <12>





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

**CHAIN OF CUSTODY RECORD**

Serial No: 9508658

Date: 8/10  
Page 1 of 2

Site Address: 1230 14<sup>th</sup> Street Oakland

WIC#: 204-5508-3103

Shell Engineer: Lynn Walker Phone No.: 510 675-6169  
Fax #: 675-6172

Consultant Name & Address: Enviros, Inc.  
PO Box 259 Sonoma CA 95476

Consultant Contact: Diane Lundquist Phone No.: 707 935-9852  
Fax #: 935-6649

Comments:

Sampled by: J. Werfall

Printed Name: J. Werfall

| Sample ID  | Date    | Sludge | Soil | Water | Air | No. of conls. | TPH (EPA 8015 Mod. Gas) | TPH (EPA 8015 Mod. Diesel) | BTEX (EPA 8020/802) | Volatile Organics (EPA 8240) | Test for Disposal | Combination TPH 8015 & BTEX 8020 | TTL Lead | Asbestos | Container Size | Preparation Used | Composite Y/N | LAB: <u>Sequoia</u>                 |       |  |
|------------|---------|--------|------|-------|-----|---------------|-------------------------|----------------------------|---------------------|------------------------------|-------------------|----------------------------------|----------|----------|----------------|------------------|---------------|-------------------------------------|-------|--|
|            |         |        |      |       |     |               |                         |                            |                     |                              |                   |                                  |          |          |                |                  |               | CHECK ONE (1) BOX ONLY              | CI/DI | TURN AROUND TIME                                     |
| SS-1 (A/F) | 8/10/95 |        | X    |       |     | 6             |                         |                            |                     |                              | X                 |                                  |          |          |                |                  |               | <input type="checkbox"/>            | 4461  | 24 hours <input type="checkbox"/>                    |
| SS-2 (A/D) |         |        | X    |       |     | 4             |                         |                            |                     |                              |                   | X                                | X        |          |                |                  | Y             | <input type="checkbox"/>            | 4441  | 48 hours <input type="checkbox"/>                    |
| SS-3 (A/D) |         |        | X    |       |     | 4             |                         |                            |                     |                              |                   | X                                | X        |          |                |                  |               | <input checked="" type="checkbox"/> | 4442  | 16 days <input checked="" type="checkbox"/> (Normal) |
| SS-4 (A/D) |         |        | X    |       |     | 4             |                         |                            |                     |                              |                   | X                                | X        |          |                |                  |               | <input type="checkbox"/>            | 4443  | Other <input type="checkbox"/>                       |
| SS-5 (A/D) |         |        | X    |       |     | 4             |                         |                            |                     |                              |                   | X                                | X        |          |                |                  |               | <input type="checkbox"/>            | 4452  |  |
| SS-6 (A/D) |         |        | X    |       |     | 4             |                         |                            |                     |                              |                   | X                                | X        |          |                |                  |               | <input type="checkbox"/>            | 4453  |  |
| SS-7 (A/D) |         |        | X    |       |     | 4             |                         |                            |                     |                              |                   | X                                | X        |          |                |                  |               | <input type="checkbox"/>            |       |  |

LAB: Sequoia

| CHECK ONE (1) BOX ONLY                                     | CI/DI | TURN AROUND TIME                                     |
|--|-------|--|
| G.W. Monitoring <input type="checkbox"/>                   | 4461  | 24 hours <input type="checkbox"/>                    |
| Site Investigation <input type="checkbox"/>                | 4441  | 48 hours <input type="checkbox"/>                    |
| Soil Classify/Disposal <input checked="" type="checkbox"/> | 4442  | 16 days <input checked="" type="checkbox"/> (Normal) |
| Water Classify/Disposal <input type="checkbox"/>           | 4443  | Other <input type="checkbox"/>                       |
| Soil/Air Rem. or Sys. O & M <input type="checkbox"/>       | 4452  |  |
| Water Rem. or Sys. O & M <input type="checkbox"/>          | 4453  |  |
| Other <input type="checkbox"/>                             |       |  |

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

UST AGENCY: Alameda City

| MATERIAL DESCRIPTION   | SAMPLE CONDITION/ COMMENTS |
|--|----------------------------|
| See Attached - Run sample for Shell protocol for waste oil soil disposal |                            |
|  |                            |
|  |                            |
|  |                            |
|  |                            |
|  |                            |
|  |                            |
|  |                            |

|   |                                      |                      |                     |  |                                    |                      |                    |
|---|--------------------------------------|----------------------|---------------------|--|------------------------------------|----------------------|--------------------|
| Released By (signature): <u>[Signature]</u> | Printed Name: <u>J. Werfall</u>      | Date: <u>8-10-95</u> | Time: <u>07:15</u>  | Received (signature): <u>[Signature]</u> | Printed Name: <u>Refugeator #1</u> | Date: <u>8-10</u>    | Time: <u>07:15</u> |
| Released By (signature): <u>[Signature]</u> | Printed Name: <u>Diane Lundquist</u> | Date: <u>8/10/95</u> | Time: <u>10:30</u>  | Received (signature): <u>[Signature]</u> | Printed Name: <u>Fletcher</u>      | Date: <u>8/10/95</u> | Time: <u>10:30</u> |
| Released By (signature): <u>[Signature]</u> | Printed Name: <u>[Signature]</u>     | Date: <u>8/10/95</u> | Time: <u>[Time]</u> | Received (signature): <u>[Signature]</u> | Printed Name: <u>R. Iverson</u>    | Date: <u>8/10/95</u> | Time: <u>11:18</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 94061  
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

**RECEIVED**  
SEP 11 1995

Enviros  
270 Perkins Ave.  
Sonoma, CA 95476  
Attention: Diane Lindquist

Project: Shell 1230 14th St., Oakland

Enclosed are the results from samples received at Sequoia Analytical on August 10, 1995.  
The requested analyses are listed below:

| <u>SAMPLE #</u> | <u>SAMPLE DESCRIPTION</u> | <u>DATE COLLECTED</u> | <u>TEST METHOD</u>    |
|-----------------|---------------------------|-----------------------|-----------------------|
| 9508L08 -01     | SOLID, SS-2(A-D)Comp      | 08/08/95              | Organic Lead          |
| 9508L08 -02     | SOLID, SS-3(A-D)Comp      | 08/08/95              | Organic Lead          |
| 9508L08 -03     | SOLID, SS-4(A-D)Comp      | 08/08/95              | Organic Lead          |
| 9508L08 -04     | SOLID, SS-5(A-D)Comp      | 08/08/95              | Organic Lead          |
| 9508L08 -05     | SOLID, SS-6(A-D)Comp      | 08/08/95              | Organic Lead          |
| 9508L08 -06     | SOLID, SS-7(A-D)Comp      | 08/08/95              | Lead: STLC Extraction |
| 9508L08 -06     | SOLID, SS-7(A-D)Comp      | 08/08/95              | Organic Lead          |

|             |       |    |   |   |   |
|-------------|-------|----|---|---|---|
| Project No. | 95321 |    |   |   |   |
| RPT         | PF    | EF |   |   |   |
| 1           | 2     | 3  | 4 | 5 | 6 |

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





Enviros  
270 Perkins Ave.  
Sonoma, CA 95476

Client Proj. ID: Shell 1230 14th St., Oakland

Sampled: 08/08/95

Lab Proj. ID: 9508L08

Received: 08/10/95  
Analyzed: see below

Attention: Diane Lindquist

Reported: 09/06/95

**LABORATORY ANALYSIS**

| Analyte   | Units | Date Analyzed | Detection Limit | Sample Results |
|---|-------|---------------|-----------------|----------------|
| Lab No: 9508L08-01<br>Sample Desc: <b>SOLID,SS-2(A-D)Comp</b> |       |               |                 |                |
| Organic Lead  | mg/Kg | 08/31/95      | 5.0             | N.D.           |
| Lab No: 9508L08-02<br>Sample Desc: <b>SOLID,SS-3(A-D)Comp</b> |       |               |                 |                |
| Organic Lead  | mg/Kg | 08/31/95      | 5.0             | N.D.           |
| Lab No: 9508L08-03<br>Sample Desc: <b>SOLID,SS-4(A-D)Comp</b> |       |               |                 |                |
| Organic Lead  | mg/Kg | 08/31/95      | 5.0             | N.D.           |
| Lab No: 9508L08-04<br>Sample Desc: <b>SOLID,SS-5(A-D)Comp</b> |       |               |                 |                |
| Organic Lead  | mg/Kg | 08/31/95      | 5.0             | N.D.           |
| Lab No: 9508L08-05<br>Sample Desc: <b>SOLID,SS-6(A-D)Comp</b> |       |               |                 |                |
| Organic Lead  | mg/Kg | 08/31/95      | 5.0             | N.D.           |
| Lab No: 9508L08-06<br>Sample Desc: <b>SOLID,SS-7(A-D)Comp</b> |       |               |                 |                |
| Lead: STLC Extraction   | mg/L  | 09/05/95      | 0.10            | 2.6            |
| Organic Lead  | mg/Kg | 08/31/95      | 5.0             | N.D.           |

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

**SEQUOIA ANALYTICAL** - ELAP #1210

Mike Gregory  
Project Manager





Enviros  
270 Perkins Ave.  
Sonoma, CA 95476  
Attention: Diane Lundquist

Client Project ID: Shell 1230 14th St., Oakland  
Matrix: Solid

Work Order #: 9508L08 -01 - 06

Reported: Sep 6, 1995

**QUALITY CONTROL DATA REPORT**

**Analyte:** Organic Lead

**QC Batch#:** ME0830957000MDA  
**Analy. Method:** LUFT  
**Prep. Method:** LUFT

**Analyst:** R. Butler  
**MS/MSD #:** 9508L81-01  
**Sample Conc.:** 0.30  
**Prepared Date:** 8/30/95  
**Analyzed Date:** 8/31/95  
**Instrument I.D.#:** MV2  
**Conc. Spiked:** 0.50 mg/L

**Result:** 0.76  
**MS % Recovery:** 92

**Dup. Result:** 0.80  
**MSD % Recov.:** 100

**RPD:** 5.1  
**RPD Limit:** 0-30

**LCS #:** BLK083095

**Prepared Date:** 8/30/95  
**Analyzed Date:** 8/31/95  
**Instrument I.D.#:** MV2  
**Conc. Spiked:** 0.50 mg/L

**LCS Result:** 0.61  
**LCS % Recov.:** 122

**MS/MSD** 75-125  
**LCS** 75-125  
**Control Limits**

**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

9508L08.EEE < 1 >





Enviros  
270 Perkins Ave.  
Sonoma, CA 95476  
Attention: Diane Lundquist

Client Project ID: Shell 1230 14th St., Oakland  
Matrix: Solid  
Work Order #: 9508L08 - 06

Reported: Sep 6, 1995

**QUALITY CONTROL DATA REPORT**

| Analyte:       | Beryllium       | Cadmium         | Chromium        | Nickel          |
|----------------|-----------------|-----------------|-----------------|-----------------|
| QC Batch#:     | ME0905956010MDB | ME0905956010MDB | ME0905956010MDB | ME0905956010MDB |
| Analy. Method: | EPA 6010        | EPA 6010        | EPA 6010        | EPA 6010        |
| Prep. Method:  | EPA 3010        | EPA 3010        | EPA 3010        | EPA 3010        |

|                   |              |              |              |              |
|-------------------|--------------|--------------|--------------|--------------|
| Analyst:          | S. O'Donnell | S. O'Donnell | S. O'Donnell | S. O'Donnell |
| MS/MSD #:         | 9508N03-06   | 9508N03-06   | 9508N03-06   | 9508N03-06   |
| Sample Conc.:     | N.D.         | N.D.         | N.D.         | N.D.         |
| Prepared Date:    | 9/5/95       | 9/5/95       | 9/5/95       | 9/5/95       |
| Analyzed Date:    | 9/5/95       | 9/5/95       | 9/5/95       | 9/5/95       |
| Instrument I.D.#: | MTJA2        | MTJA2        | MTJA2        | MTJA2        |
| Conc. Spiked:     | 1.0 mg/L     | 1.0 mg/L     | 1.0 mg/L     | 1.0 mg/L     |
| Result:           | 1.0          | 1.0          | 0.99         | 0.97         |
| MS % Recovery:    | 100          | 100          | 99           | 97           |
| Dup. Result:      | 1.0          | 1.0          | 0.99         | 0.97         |
| MSD % Recov.:     | 100          | 100          | 99           | 97           |
| RPD:              | 0.0          | 0.0          | 0.0          | 0.0          |
| RPD Limit:        | 0-30         | 0-30         | 0-30         | 0-30         |

| LCS #:            | BLK090595 | BLK090595 | BLK090595 | BLK090595 |
|-------------------|-----------|-----------|-----------|-----------|
| Prepared Date:    | 9/5/95    | 9/5/95    | 9/5/95    | 9/5/95    |
| Analyzed Date:    | 9/5/95    | 9/5/95    | 9/5/95    | 9/5/95    |
| Instrument I.D.#: | MTJA2     | MTJA2     | MTJA2     | MTJA2     |
| Conc. Spiked:     | 1.0 mg/L  | 1.0 mg/L  | 1.0 mg/L  | 1.0 mg/L  |
| LCS Result:       | 1.1       | 1.1       | 1.0       | 1.0       |
| LCS % Recov.:     | 110       | 110       | 100       | 100       |

|                |        |        |        |        |
|----------------|--------|--------|--------|--------|
| MS/MSD         | 75-125 | 75-125 | 75-125 | 75-125 |
| LCS            | 75-125 | 75-125 | 75-125 | 75-125 |
| Control Limits |        |        |        |        |

**Please Note:**

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

**SEQUOIA ANALYTICAL**

Mike Gregory  
Project Manager

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

9508L08.EEE <2>





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

**CHAIN OF CUSTODY RECORD**

Serial No: 9528658

Date: 1/10  
Page 1 of 1

Site Address: 1230 14th Street Oakland

WIC#: 204-5508-3103

Shell Engineer: Lynn Walker  
Phone No.: 510 675-6169  
Fax #: 675-6172

Consultant Name & Address: Enviros, Inc.  
PO Box 259 Sonoma CA 95976

Consultant Contact: Diane Lundquist  
Phone No.: 707 935-9852  
Fax #: 935-6649

Comments:

Sampled by: J. Wesfal

Printed Name: J. Wesfal

**Analysis Required**

| Sample ID  | Date    | Sludge | Soil | Water | Air | No. of confs. | 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 | TTLC Lead | Asbestos | Container Size | Preparation Used | Composite Y/N |   |
|------------|---------|--------|------|-------|-----|---------------|-------------------------|----------------------------|---------------------|------------------------------|-------------------|----------------------------------|-----------|----------|----------------|------------------|---------------|---|
| SS-1 (A/F) | 8/10/95 |        | X    |       |     | 6             |                         |                            |                     |                              | X                 |                                  |           |          |                |                  |               |   |
| SS-2 (A/D) |         |        | X    |       |     | 4             |                         |                            |                     |                              |                   | X                                | X         |          |                |                  |               | Y |
| SS-3 (A/D) |         |        | X    |       |     | 4             |                         |                            |                     |                              |                   | X                                | X         |          |                |                  |               |   |
| SS-4 (A/D) |         |        | X    |       |     | 4             |                         |                            |                     |                              |                   | X                                | X         |          |                |                  |               |   |
| SS-5 (A/D) |         |        | X    |       |     | 4             |                         |                            |                     |                              |                   | X                                | X         |          |                |                  |               |   |
| SS-6 (A/D) |         |        | X    |       |     | 4             |                         |                            |                     |                              |                   | X                                | X         |          |                |                  |               |   |
| SS-7 (A/D) |         |        | X    |       |     | 4             |                         |                            |                     |                              |                   | X                                | X         |          |                |                  |               |   |

LAB: Sequoia

| CHECK ONE (1) BOX ONLY                                     | CF/DI | TURN AROUND TIME                                     |
|--|-------|--|
| G.W. Monitoring <input type="checkbox"/>                   | 4441  | 24 hours <input type="checkbox"/>                    |
| Site Investigation <input type="checkbox"/>                | 4441  | 48 hours <input type="checkbox"/>                    |
| Soil Classify/Disposal <input checked="" type="checkbox"/> | 4442  | 15 days <input checked="" type="checkbox"/> (Normal) |
| Water Classify/Disposal <input type="checkbox"/>           | 4443  | Other <input type="checkbox"/>                       |
| Soil/Air Rem. or Sys. O & M <input type="checkbox"/>       | 4462  |  |
| Water Rem. or Sys. O & M <input type="checkbox"/>          | 4463  |  |
| Other <input type="checkbox"/>                             |       |  |

NOTE: Notify Lab as soon as possible at 24/48 hrs. 1AT.

UST AGENCY: Alameda City

| MATERIAL DESCRIPTION   | SAMPLE CONDITION/ COMMENTS |
|--|----------------------------|
| See Attached - Run sample for Shell protocol for waste oil soil disposal |                            |
|  |                            |
|  |                            |
|  |                            |
|  |                            |
|  |                            |
|  |                            |
|  |                            |

|                               |                                      |                      |  |                                  |                      |
|-------------------------------|--------------------------------------|----------------------|--|----------------------------------|----------------------|
| Signature: <u>[Signature]</u> | Printed Name: <u>J. Wesfal</u>       | Date: <u>8-10-95</u> | Received (signature): <u>[Signature]</u> | Printed Name: <u>[Signature]</u> | Date: <u>8-10</u>    |
| Signature: <u>[Signature]</u> | Printed Name: <u>Diane Lundquist</u> | Date: <u>07:15</u>   | Received (signature): <u>[Signature]</u> | Printed Name: <u>Fletcher</u>    | Date: <u>07:15</u>   |
| Signature: <u>[Signature]</u> | Printed Name: <u>[Signature]</u>     | Date: <u>10:30</u>   | Received (signature): <u>[Signature]</u> | Printed Name: <u>[Signature]</u> | Date: <u>10:30</u>   |
| Signature: <u>[Signature]</u> | Printed Name: <u>[Signature]</u>     | Date: <u>8/10/95</u> | Received (signature): <u>[Signature]</u> | Printed Name: <u>R. Iverson</u>  | Date: <u>8/10/95</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

Enviros  
270 Perkins Ave.  
Sonoma, CA 95476  
Attention: Diane Lundquist

**RECEIVED**  
SEP 14 1995

Project: Shell 1230 14th St., Oakland

Enclosed are the results from samples received at Sequoia Analytical on August 8, 1995.  
The requested analyses are listed below:

| <u>SAMPLE #</u> | <u>SAMPLE DESCRIPTION</u> | <u>DATE COLLECTED</u> | <u>TEST METHOD</u>   |
|-----------------|---------------------------|-----------------------|----------------------|
| 9509240 -01     | SOLID, SS-1(a-f)          | 08/08/95              | Lead: TOX Extraction |

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





|   |  |  |
|---|--|--|
| Enviros<br>270 Perkins Ave.<br>Sonoma, CA 95476 | Client Proj. ID: Shell 1230 14th St., Oakland<br>Lab Proj. ID: 9509240 | Sampled: 08/08/95<br>Received: 08/08/95<br>Analyzed: see below<br>Reported: 09/12/95 |
| Attention: Diane Lundquist                      |  |  |

**LABORATORY ANALYSIS**

| Analyte  | Units | Date Analyzed | Detection Limit | Sample Results |
|--|-------|---------------|-----------------|----------------|
| Lab No: 9509240-01<br>Sample Desc : <b>SOLID,SS-1(a-f)</b> |       |               |                 |                |
| Lead: TOX Extraction                                       | mg/L  | 09/12/95      | 0.10            | 0.59           |

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

**SEQUOIA ANALYTICAL - ELAP #1210**

Mike Gregory  
Project Manager





**Enviros**  
270 Perkins Ave.  
Sonoma, CA 95476  
Attention: Diane Lundquist

**Client Project ID:** Shell 1230 14th St., Oakland  
**Matrix:** Liquid

**Work Order #:** 9509240 -01

**Reported:** Sep 13, 1995

**QUALITY CONTROL DATA REPORT**

| <b>Analyte:</b>       | Beryllium       | Cadmium         | Chromium        | Nickel          |
|-----------------------|-----------------|-----------------|-----------------|-----------------|
| <b>QC Batch#:</b>     | ME0911956010MDB | ME0911956010MDB | ME0911956010MDB | ME0911956010MDB |
| <b>Analy. Method:</b> | EPA 6010        | EPA 6010        | EPA 6010        | EPA 6010        |
| <b>Prep. Method:</b>  | EPA 3010        | EPA 3010        | EPA 3010        | EPA 3010        |

| <b>Analyst:</b>          | C. Medefesser | C. Medefesser | C. Medefesser | C. Medefesser |
|--------------------------|---------------|---------------|---------------|---------------|
| <b>MS/MSD #:</b>         | 950917101     | 950917101     | 950917101     | 950917101     |
| <b>Sample Conc.:</b>     | N.D.          | N.D.          | N.D.          | N.D.          |
| <b>Prepared Date:</b>    | 9/11/95       | 9/11/95       | 9/11/95       | 9/11/95       |
| <b>Analyzed Date:</b>    | 9/12/95       | 9/12/95       | 9/12/95       | 9/12/95       |
| <b>Instrument I.D.#:</b> | MTJA2         | MTJA2         | MTJA2         | MTJA2         |
| <b>Conc. Spiked:</b>     | 1.0 mg/L      | 1.0 mg/L      | 1.0 mg/L      | 1.0 mg/L      |
| <b>Result:</b>           | 1.0           | 1.0           | 0.97          | 0.96          |
| <b>MS % Recovery:</b>    | 100           | 100           | 97            | 96            |
| <b>Dup. Result:</b>      | 1.0           | 1.0           | 0.99          | 0.99          |
| <b>MSD % Recov.:</b>     | 100           | 100           | 99            | 99            |
| <b>RPD:</b>              | 0.0           | 0.0           | 2.0           | 3.1           |
| <b>RPD Limit:</b>        | 0-30          | 0-30          | 0-30          | 0-30          |

| <b>LCS #:</b>            | BLK091195 | BLK091195 | BLK091195 | BLK091195 |
|--------------------------|-----------|-----------|-----------|-----------|
| <b>Prepared Date:</b>    | 9/11/95   | 9/11/95   | 9/11/95   | 9/11/95   |
| <b>Analyzed Date:</b>    | 9/12/95   | 9/12/95   | 9/12/95   | 9/12/95   |
| <b>Instrument I.D.#:</b> | MTJA2     | MTJA2     | MTJA2     | MTJA2     |
| <b>Conc. Spiked:</b>     | 1.0 mg/L  | 1.0 mg/L  | 1.0 mg/L  | 1.0 mg/L  |
| <b>LCS Result:</b>       | 1.0       | 1.0       | 0.99      | 0.98      |
| <b>LCS % Recov.:</b>     | 100       | 100       | 99        | 98        |

| <b>MS/MSD<br/>LCS<br/>Control Limits</b> | 75-125 | 75-125 | 75-125 | 75-125 |
|--|--------|--------|--------|--------|
|--|--------|--------|--------|--------|

**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

9509240.EEE <1>





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

**CHAIN OF CUSTODY RECORD**

Serial No: 9528658

Date: 5/10

Page 1 of 1

Site Address: 1230 14th Street Oakland

WIC#: 204-5508-3103

Shell Engineer:  
Lynn Walker

Phone No.: 510 675-6169  
 Fax #: 675-6122

Consultant Name & Address: Enviros, Inc.  
PO Box 259 Sonoma CA 95476

Consultant Contact:  
Diane Lundquist

Phone No.: 707 935-4852  
 Fax #: 935-6699

Comments:

Sampled by: J. Werfal

Printed Name: J. Werfal

| Sample ID  | Date    | Sludge | Soil | Water | Air | No. of conts. |
|------------|---------|--------|------|-------|-----|---------------|
| SS-1 (A/F) | 8/10/95 |        | X    |       |     | 6             |
| SS-2 (A/D) |         |        | X    |       |     | 4             |
| SS-3 (A/D) |         |        | X    |       |     | 4             |
| SS-4 (A/D) |         |        | X    |       |     | 4             |
| SS-5 (A/D) |         |        | X    |       |     | 4             |
| SS-6 (A/D) |         |        | X    |       |     | 4             |
| SS-7 (A/D) |         |        | X    |       |     | 4             |

| 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 | 77LC Lead | Asbestos | Container Size | Preparation Used | Composite Y/N |
|-------------------------|----------------------------|---------------------|------------------------------|-------------------|----------------------------------|-----------|----------|----------------|------------------|---------------|
|                         |                            |                     |                              | X                 |                                  |           |          |                |                  |               |
|                         |                            |                     |                              |                   | X                                | X         |          |                |                  | Y             |
|                         |                            |                     |                              |                   | X                                | X         |          |                |                  |               |
|                         |                            |                     |                              |                   | X                                | X         |          |                |                  |               |
|                         |                            |                     |                              |                   | X                                | X         |          |                |                  |               |
|                         |                            |                     |                              |                   | X                                | X         |          |                |                  |               |

LAB: Sequoia

| CHECK ONE (1) BOX ONLY                                     | C1/D1 | TURN AROUND TIME                                     |
|--|-------|--|
| G.W. Monitoring <input type="checkbox"/>                   | 4441  | 24 hours <input type="checkbox"/>                    |
| SRe Investigation <input type="checkbox"/>                 | 4443  | 48 hours <input type="checkbox"/>                    |
| Soil Classify/Disposal <input checked="" type="checkbox"/> | 4442  | 16 days <input checked="" type="checkbox"/> (Normal) |
| Water Classify/Disposal <input type="checkbox"/>           | 4443  | Other <input type="checkbox"/>                       |
| Soil/Air Rem. or Sys. O & M <input type="checkbox"/>       | 4462  |  |
| 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. FAT.

UST AGENCY: Alameda City

| MATERIAL DESCRIPTION   | SAMPLE CONDITION/ COMMENTS |
|--|----------------------------|
| See Attached - Rin sample for Shell protocol for waste oil soil disposal |                            |
|  |                            |
|  |                            |
|  |                            |
|  |                            |
|  |                            |
|  |                            |
|  |                            |

Received by (signature): [Signature]  
 Date: 8-10-95  
 Time: 07:15

Printed Name: J. Werfal  
 Date: 8-10-95  
 Time: 10:00

Received (signature): [Signature]  
 Date: 8-10-95  
 Time: 10:00

Printed Name: Fletcher  
 Date: 8/10/95  
 Time: 11:15

Printed Name: R. Iverson  
 Date: 8/10/95  
 Time: 11:15

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