

**EXXON** COMPANY, U.S.A.

P.O. BOX 4032, CONCORD, CA 94524-4032  
MARKETING DEPARTMENT  
MARKET DEVELOPMENT TEAM

LESLIE THOMAS  
ASSOCIATE PROJECT ENGINEER

(510) 246-8708  
(510) 246-8798 FAX

ENVIRONMENTAL  
PROTECTION

NOV 13 PM 6:22

November 11, 1997

Ms. Eva Chu  
Alameda County Department of Environmental Health  
1131 Harbor Bay Parkway, 2nd Floor  
Alameda, California 94502

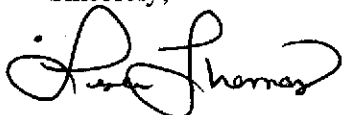
**RE: EXXON RAS #7-0235 / 2225 Telegraph Avenue, Oakland, California**

Dear Ms. Chu:

Attached is a copy of an Environmental Report detailing the results of soil sampling protocol completed during a used oil underground storage tank removal for the above referenced site.

If you have any questions, please contact me at 510-246-8708.

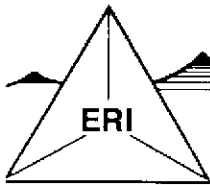
Sincerely,



Leslie Thomas  
Associate Project Engineer

Attachment: ERI Report entitled *Used-Oil Underground Storage Tank Removal at Exxon Service Station 7-0235, 2225 Telegraph Avenue, Oakland, California.* dated November 4, 1997

c: w/attachment  
Project file Exxon RAS #7-0235  
Marla Guensler, Exxon Senior Environmental Engineer



ENVIRONMENTAL  
RESOLUTIONS  
STATION 12 PM 11:32

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**ENVIRONMENTAL RESOLUTIONS, INC.**

November 4, 1997  
ERI 222932XS.R01

Ms. Leslie N. Thomas  
Exxon Company, U.S.A.  
P.O. Box 4032  
Concord, California 94524-4032

Subject: Used-Oil Underground Storage Tank Removal at Exxon Service Station 7-0235, 2225 Telegraph Avenue, Oakland, California.

Dear Ms. Thomas:

At the request of Exxon Company U.S.A. (Exxon), Environmental Resolutions, Inc. (ERI) performed an environmental investigation at Exxon Service Station 7-0235 in Oakland, California in conjunction with the removal of one used-oil underground storage tank (UST). Exxon requested ERI conduct the investigation to evaluate soil conditions beneath the UST.

### **BACKGROUND**

The site is on the southwestern corner of Telegraph Avenue and West Grand Avenue intersection in Oakland, California as shown on the Site Vicinity Map (Plate 1). The locations of the former used-oil UST, existing dispenser islands, and other selected site features are shown on the Generalized Site Plan (Plate 2). Properties in the vicinity of the site are generally occupied by commercial and residential developments.

### **FIELD WORK**

ERI performed field work at the site on September 22, 1997, in accordance with the attached Field Procedures (Attachment A) and ERI's site specific Site Safety Plan. Field work and soil sampling are discussed below.

### **Removal of Used-Oil UST**

On September 22, 1997, ERI's representative observed Henderson Construction, Inc. (HCI) of Stockton, California remove one 1,000-gallon double-walled fiberglass used-oil UST. No holes or cracks were noted in the UST. Erikson Inc. of Richmond, California transported the UST to their Richmond facility for disposal. Ms. Eva Chu of Alameda County Department of Environmental Health (ACDEH) and Mr. Hernan Gomez of the City of Oakland Fire Services Agency observed UST removal. Groundwater was observed at the base of the tank cavity at a depth of approximately 9 feet below ground surface. ERI's representative collected soil samples of native soil from the sidewalls above saturated soils at each end of the tank cavity at approximately 8 feet bgs. The soil sample locations are shown on Plate 2. Ms. Chu of ACDEH observed soil sampling. ERI did not collect a groundwater sample at the direction of Ms. Chu of ACDEH.

Material generated during UST removal consisted of pea gravel backfill. HCI placed the pea gravel in the UST cavity after UST removal with approval of Ms. Chu of ACDEH.

## LABORATORY ANALYSES AND RESULTS

The laboratory analyses, methods of testing, and analytical results are summarized in Table 1. Copies of the Chain of Custody Records and laboratory reports are attached (Attachment B).

Laboratory analyses of soil samples collected from the sidewalls of the used-oil UST cavity did not detect concentrations of total purgeable petroleum hydrocarbons as gasoline (TPPHg), benzene, toluene, ethylbenzene, total xylenes (BTEX), volatile organic compounds (VOCs), semivolatile organic compounds (SVOCs), or halogenated organic compounds (HVOC's) at or above stated laboratory method detection limits. Additionally, total extractable petroleum hydrocarbons as diesel (TEPHd), total recoverable petroleum hydrocarbons (TRPH), and total threshold limit concentration (TTLc) lead were not detected at or above stated laboratory detection limits in the soil sample collected from the eastern sidewall of the used-oil UST cavity.

Laboratory analyses of the soil sample collected from the western sidewall of the used-oil UST cavity detected TEPHd at 32 milligrams per kilogram (mg/Kg), TRPH at 120 mg/Kg, and TTLc lead at 7.2 mg/Kg.

## LIMITATIONS

This report was prepared in accordance with generally accepted standards of environmental geological practice in California at the time this investigation was performed. This investigation was conducted solely for the purpose of evaluating environmental conditions of the soil with respect to hydrocarbons. No soil engineering or geotechnical references are implied or should be inferred. Evaluation of the geologic conditions at the site for the purpose of this investigation is made from a limited number of observation points. Subsurface conditions may vary away from the data points available.

ERI recommends copies of this report be forwarded to:

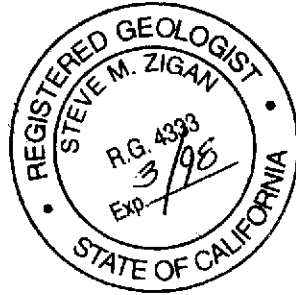
Mr. Eddy So  
California Water Regional Quality Control Board  
San Francisco Bay Region  
2101 Webster Street  
Oakland, California 94612

Ms. Eva Chu  
Alameda County Department of Environmental Health  
1131 Harbor Bay Parkway, 2nd Floor  
Alameda, California 94502

Mr. Hernan E. Gomez  
City of Oakland  
Fire Services Agency  
505 14th Street, 7th Floor  
Oakland, California 94612

Please call me at (415) 382-5994 with any questions regarding the information in this report.

Sincerely,  
Environmental Resolutions, Inc.



A handwritten signature in cursive script, appearing to read "Glenn L. Matteucci".

Glenn L. Matteucci  
Senior Staff Geologist

A handwritten signature in cursive script, appearing to read "Steve M. Zigan".

Steve M. Zigan  
R.G. 4333  
H.G. 133

Attachments: Table 1: Soil Sample Analysis Results  
Plate 1: Site Vicinity Map  
Plate 2: Generalized Site Plan

Attachment A: Field Procedures  
Attachment B: Laboratory Analyses and Chain of Custody Records

cc: Mr. Marc A. Briggs, ERI  
Ms. Deborah Pryor, TES

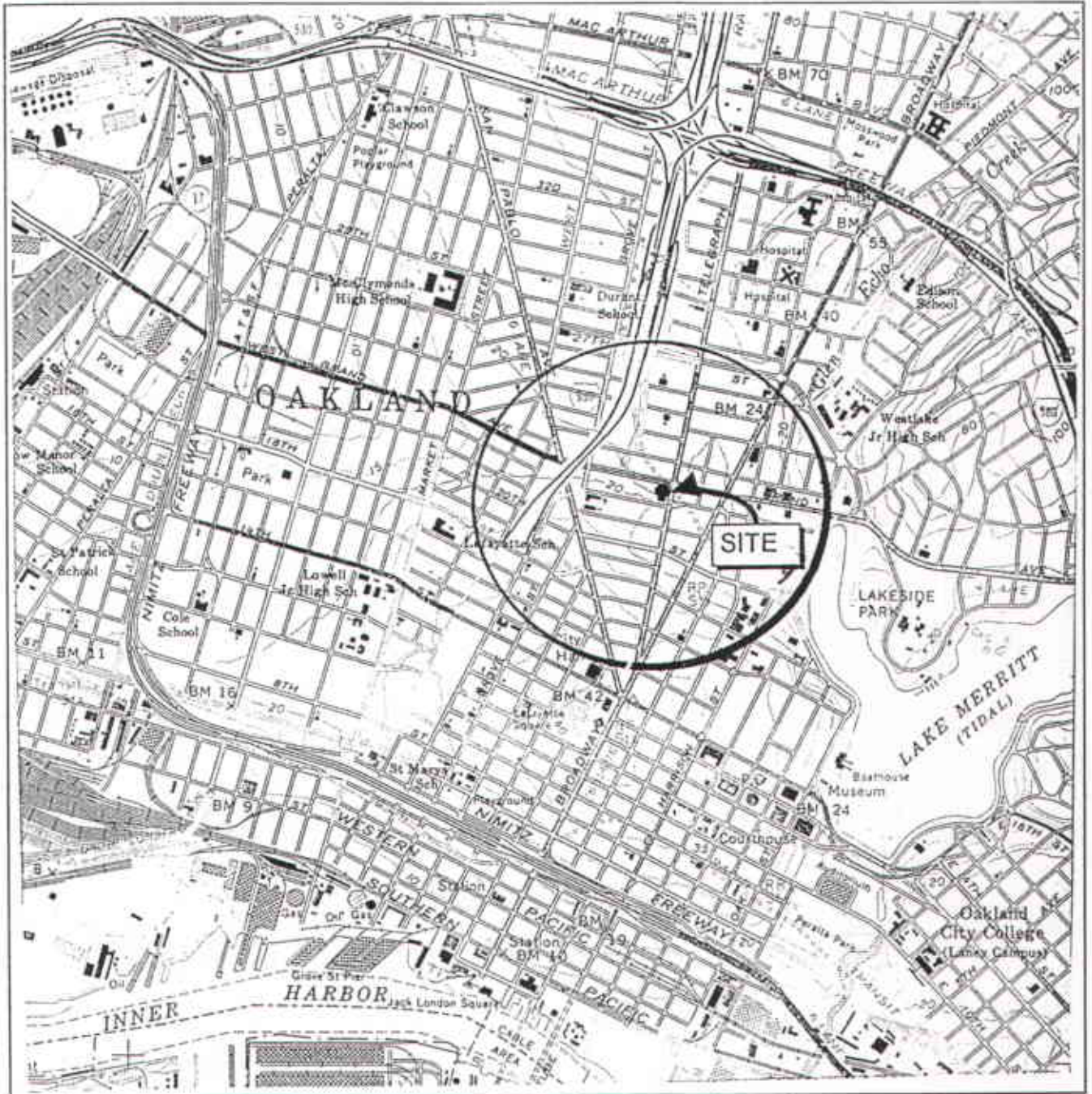
**TABLE 1**  
**SOIL SAMPLE ANALYSIS RESULTS**  
 Exxon Service Station 7-0235  
 2225 Telegraph Avenue  
 Oakland, California

Sample Number	Depth Feet	TPPHg	B	T	E	X	TEPHd	TTLc Lead	TRPH
<b>Soil - Used-Oil UST Cavity</b>									
S-8-TPE	8	<1.0	<0.0050	<0.0050	<0.0050	<0.0050	<1.0	<5.0	<100
Additional Analyses: VOC's = ND; SVOCs = ND; HVOC's = ND; Cadmium = <0.5 mg/Kg; Chromium = 40 mg/Kg; Nickel = 35 mg/Kg; Zinc = 22 ppm;									
S-8-TPW	8	<1.0	<0.0050	<0.0050	<0.0050	<0.0050	32	7.2	120
Additional Analysis: VOC's = ND; SVOC's = ND; HVOC's = ND; Cadmium = <0.5 mg/Kg; Chromium = 36 mg/Kg; Nickel = 52 mg/Kg; Zinc = 35 mg/Kg									

**Notes:**

Soil results in milligrams per kilogram (mg/Kg).

- < = Less than detection limit established by laboratory.
- ND = Not Detected above detection limit established by laboratory
- TPPHg = Total purgeable petroleum hydrocarbons as gasoline analyzed using EPA method 8015 (modified).
- TEPHd = Total extractable petroleum hydrocarbons as diesel analyzed using EPA method 8015 (modified).
- BTEX = Benzene, toluene, ethylbenzene, total xylene isomers analyzed using EPA method 8020.
- TRPH = Total recoverable petroleum hydrocarbons analyzed using Standard Method 5520 E & F.
- VOC's = Volatile organic compounds analyzed using EPA method 8240.
- SVOC's = Semi-volatile organic compounds analyzed using EPA method 8270.
- HVOC's = Halogenated volatile organic compounds analyzed using EPA method 8010.
- TTLc = Total Threshold Limit Concentration (metals) analyzed using EPA method 6010.



FN: 22290001



APPROXIMATE SCALE



Source: U.S.G.S. 7.5 minute topographic quadrangle map Oakland West, California (Photorevised 1980)



**PROJECT** ERI 2229

**SITE VICINITY MAP**

EXXON SERVICE STATION 7-0235  
2225 Telegraph Avenue  
Oakland, California

**PLATE**

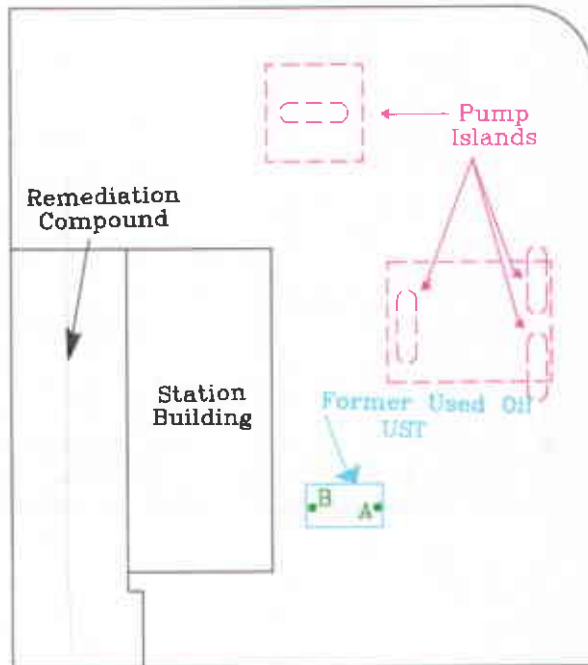
1

Sample Locations

A S-8-TPE

B S-8-TPW

W. GRAND AVENUE



TELEGRAPH AVENUE

FN 22290002

EXPLANATION

B ● Sample Location

B S-8-TPW — Tank Pit (west)  
┌ Sample Depth  
└ Soil Sample

APPROXIMATE SCALE



**GENERALIZED SITE PLAN**

EXXON SERVICE STATION 7-0235  
2225 Telegraph Avenue  
Oakland, California

PROJECT NO.

2229

PLATE

2

October 30, 1997

**ATTACHMENT A**  
**FIELD PROCEDURES**



## FIELD PROCEDURES

### Safety Plan

This plan describes the basic safety requirements for the subsurface environmental investigation related to monitoring the removal of underground storage tanks. The Site Safety Plan is applicable to personnel of ERI and to subcontractors of ERI. Personnel scheduled to work at the site were briefed on the contents of the Site Safety Plan before work began. A copy of the Site Safety Plan was kept at the work site and was available for reference by appropriate parties during work at the site. The geologist from ERI was the Site Safety Officer onsite.

### Sampling Under Former Tank

Soil samples were collected by driving a hand-operated percussion sampler fitted with a clean brass sleeve into the soil. The sleeve was removed from the sampler and sealed promptly with Teflon tape and plastic caps.

A photoionization detector (PID) was used to evaluate the presence of hydrocarbon vapors in soil samples. Field instruments such as the PID are useful for indicating relative levels of hydrocarbon vapors, but do not detect the concentration of hydrocarbons present with the same precision as laboratory analyses.

### Sample Labeling and Handling

The soil samples selected for possible laboratory analysis were removed from the sampler and quickly sealed in their brass sleeves with Teflon tape and plastic caps. The respective sample containers were labeled in the field with the job number, sample location and depth, date, and promptly placed in iced storage for transport to the laboratory. Chain of Custody Records were initiated in the field by the geologist and accompanied the samples to a laboratory certified by the State of California to perform the analyses requested.

**ATTACHMENT B**

**LABORATORY ANALYSES  
AND CHAIN OF CUSTODY RECORDS**



Environmental Resolutions 74 Digital Drive, Suite 6 Novato, CA 94949	Client Proj. ID: Exxon 7-0235, 222932XS Sample Descript: S-8-TPE Matrix: SOLID Analysis Method: EPA 8010 Lab Number: 9709F62-01	Sampled: 09/22/97 Received: 09/22/97 Extracted: 10/08/97 Analyzed: 10/09/97 Reported: 10/09/97
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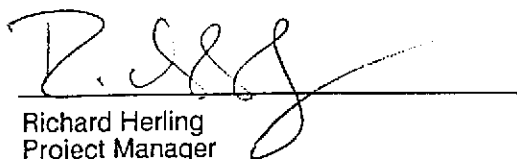
QC Batch Number: GC1007978010EXA  
Instrument ID: GCHP8

**Halogenated Volatile Organics (EPA 8010)**

Analyte	Detection Limit ug/Kg	Sample Results ug/Kg
Bromodichloromethane	25	N.D.
Bromoform	25	N.D.
Bromomethane	50	N.D.
Carbon Tetrachloride	25	N.D.
Chlorobenzene	25	N.D.
Chloroethane	50	N.D.
2-Chloroethylvinyl ether	50	N.D.
Chloroform	25	N.D.
Chloromethane	50	N.D.
Dibromochloromethane	25	N.D.
1,2-Dichlorobenzene	25	N.D.
1,3-Dichlorobenzene	25	N.D.
1,4-Dichlorobenzene	25	N.D.
1,1-Dichloroethane	25	N.D.
1,2-Dichloroethane	25	N.D.
1,1-Dichloroethene	25	N.D.
cis-1,2-Dichloroethene	25	N.D.
trans-1,2-Dichloroethene	25	N.D.
1,2-Dichloropropane	25	N.D.
cis-1,3-Dichloropropene	25	N.D.
trans-1,3-Dichloropropene	25	N.D.
Methylene chloride	250	N.D.
1,1,2,2-Tetrachloroethane	25	N.D.
Tetrachloroethene	25	N.D.
1,1,1-Trichloroethane	25	N.D.
1,1,2-Trichloroethane	25	N.D.
Trichloroethene	25	N.D.
Trichlorofluoromethane	25	N.D.
Vinyl chloride	50	N.D.
<b>Surrogates</b>	<b>Control Limits %</b>	<b>% Recovery</b>
1-Chloro-2-fluorobenzene	60	130
4-Bromofluorobenzene	60	140
		71
		30 Q

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

SEQUOIA ANALYTICAL - ELAP #1210

  
Richard Herling  
Project Manager

**RECEIVED**  
OCT 15 1997





Environmental Resolutions 74 Digital Drive, Suite 6 Novato, CA 94949 Attention: Marc Briggs	Client Proj. ID: Exxon 7-0235, 222932XS Sample Descript: S-8-TPW Matrix: SOLID Analysis Method: EPA 8010 Lab Number: 9709F62-02	Sampled: 09/22/97 Received: 09/22/97 Extracted: 09/30/97 Analyzed: 10/05/97 Reported: 10/09/97
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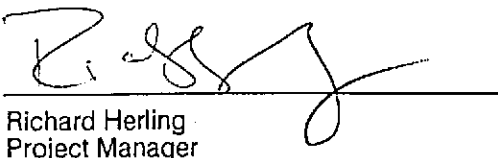
QC Batch Number: GC0929978010EXA  
Instrument ID: GCHP8

**Halogenated Volatile Organics (EPA 8010)**

Analyte	Detection Limit ug/Kg	Sample Results ug/Kg
Bromodichloromethane	25	N.D.
Bromoform	25	N.D.
Bromomethane	50	N.D.
Carbon Tetrachloride	25	N.D.
Chlorobenzene	25	N.D.
Chloroethane	50	N.D.
2-Chloroethylvinyl ether	50	N.D.
Chloroform	25	N.D.
Chloromethane	50	N.D.
Dibromochloromethane	25	N.D.
1,2-Dichlorobenzene	25	N.D.
1,3-Dichlorobenzene	25	N.D.
1,4-Dichlorobenzene	25	N.D.
1,1-Dichloroethane	25	N.D.
1,2-Dichloroethane	25	N.D.
1,1-Dichloroethene	25	N.D.
cis-1,2-Dichloroethene	25	N.D.
trans-1,2-Dichloroethene	25	N.D.
1,2-Dichloropropane	25	N.D.
cis-1,3-Dichloropropene	25	N.D.
trans-1,3-Dichloropropene	25	N.D.
Methylene chloride	250	N.D.
1,1,2,2-Tetrachloroethane	25	N.D.
Tetrachloroethene	25	N.D.
1,1,1-Trichloroethane	25	N.D.
1,1,2-Trichloroethane	25	N.D.
Trichloroethene	25	N.D.
Trichlorofluoromethane	25	N.D.
Vinyl chloride	50	N.D.
<b>Surrogates</b>	<b>Control Limits %</b>	<b>% Recovery</b>
1-Chloro-2-fluorobenzene	60 130	66
4-Bromofluorobenzene	60 140	49 Q

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

**SEQUOIA ANALYTICAL - ELAP #1210**

  
Richard Herling  
Project Manager





# 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

(650) 364-9600  
(510) 988-9600  
(916) 921-9600

FAX (650) 364-9233  
FAX (510) 988-9673  
FAX (916) 921-0100

Environmental Resolutions 74 Digital Drive, Ste. 6 Novato, CA 94949 Attention: Marc Briggs	Client Project ID: Exxon 7-0235, 222932XS Matrix: Solid Work Order #: 9709F62 -01	Reported: Oct 10, 1997
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## QUALITY CONTROL DATA REPORT

<b>Analyte:</b>	1,1-Dichloro-ethene	Trichloro-ethene	Chloro-Benzene
<b>QC Batch#:</b>	GC1007978010EXA	GC1007978010EXA	GC1007978010EXA
<b>Analy. Method:</b>	EPA 8010	EPA 8010	EPA 8010
<b>Prep. Method:</b>	EPA 5030	EPA 5030	EPA 5030

<b>Analyst:</b>	J. Minkel	J. Minkel	J. Minkel
<b>MS/MSD #:</b>	9709H08-23	9709H08-23	9709H08-23
<b>Sample Conc.:</b>	N.D.	N.D.	N.D.
<b>Prepared Date:</b>	10/7/97	10/7/97	10/7/97
<b>Analyzed Date:</b>	10/8/97	10/8/97	10/8/97
<b>Instrument I.D.#:</b>	GCHP08	GCHP08	GCHP08
<b>Conc. Spiked:</b>	25 µg/Kg	25 µg/Kg	25 µg/Kg

<b>Result:</b>	36	36	26
<b>MS % Recovery:</b>	144	144	104

<b>Dup. Result:</b>	36	41	38
<b>MSD % Recov.:</b>	144	164	152

<b>RPD:</b>	0	13	38
<b>RPD Limit:</b>	0-25	0-25	0-25

<b>LCS #:</b>	VBLK100897	VBLK100897	VBLK100897
<b>Prepared Date:</b>	10/8/97	10/8/97	10/8/97
<b>Analyzed Date:</b>	10/8/97	10/8/97	10/8/97
<b>Instrument I.D.#:</b>	GCHP08	GCHP08	GCHP08
<b>Conc. Spiked:</b>	50 µg/Kg	50 µg/Kg	50 µg/Kg
<b>LCS Result:</b>	38	40	35
<b>LCS % Recov.:</b>	76	80	70

<b>MS/MSD</b>	60-140	60-140	60-140
<b>LCS</b>	65-135	70-130	70-130
<b>Control Limits</b>			

**Please Note:**

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

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

SEQUOIA ANALYTICAL

Richard Herling  
Project Manager

9709F62.EEE <1>





Environmental Resolutions Client Project ID: Exxon 7-0235, 222932XS  
 74 Digital Drive, Ste. 6 Matrix: Solid  
 Novato, CA 94949  
 Attention: Marc Briggs Work Order #: 9709F62-02 Reported: Oct 10, 1997

**QUALITY CONTROL DATA REPORT**

<b>Analyte:</b>	1,1-Dichloro-ethene	Trichloro-ethene	Chloro-Benzene
<b>QC Batch#:</b>	GC0929978010EXA	GC0929978010EXA	GC0929978010EXA
<b>Analy. Method:</b>	EPA 8010	EPA 8010	EPA 8010
<b>Prep. Method:</b>	EPA 5030	EPA 5030	EPA 5030

<b>Analyst:</b>	E. Cunanan	E. Cunanan	E. Cunanan
<b>MS/MSD #:</b>	9709F17-01	9709F17-01	9709F17-01
<b>Sample Conc.:</b>	N.D.	N.D.	N.D.
<b>Prepared Date:</b>	9/29/97	9/29/97	9/29/97
<b>Analyzed Date:</b>	9/30/97	9/30/97	9/30/97
<b>Instrument I.D.#:</b>	GCHP08	GCHP08	GCHP08
<b>Conc. Spiked:</b>	50 µg/Kg	50 µg/Kg	50 µg/Kg

<b>Result:</b>	38	41	38
<b>MS % Recovery:</b>	76	82	76

<b>Dup. Result:</b>	38	41	38
<b>MSD % Recov.:</b>	76	82	76

<b>RPD:</b>	0	0	0
<b>RPD Limit:</b>	0-25	0-25	0-25

<b>LCS #:</b>	VSBLK093097	VSBLK093097	VSBLK093097
<b>Prepared Date:</b>	10/6/97	10/6/97	10/6/97
<b>Analyzed Date:</b>	10/6/97	10/6/97	10/6/97
<b>Instrument I.D.#:</b>	GCHP08	GCHP08	GCHP08
<b>Conc. Spiked:</b>	50 µg/Kg	50 µg/Kg	50 µg/Kg

<b>LCS Result:</b>	38	44	38
<b>LCS % Recov.:</b>	76	88	76

<b>MS/MSD</b>	60-140	60-140	60-140
<b>LCS</b>	65-135	70-130	70-130
<b>Control Limits</b>			

**Please Note:**

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

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

**SEQUOIA ANALYTICAL**

*Richard Herling*  
 Richard Herling  
 Project Manager





680 Chesapeake Dr.  
Redwood City, CA 94063  
(415) 364-8600 • FAX (415) 364-9233

P.O. Box 2180, Houston, TX 77002-7428

**CHAIN OF CUSTODY**

09/22/97 MON 16:38 FAX 1 415 382 1858 ERI NOVATO OFFICE SEQUOIA ANALYTICAL

Consultant's Name: ENVIRONMENTAL RESOLUTIONS, INC. Page 1 of 1

Address: 74 DIGITAL DRIVE SUITE 6, NOVATO CA 94949 Site Location: TELEGRAPH AVE, OAKLAND

Project #: \_\_\_\_\_ Consultant Project #: 222932XS Consultant Work Release #: 19712888

Project Contact: MARC A. BRIGGS Phone #: 415-382-5991 Laboratory Work Release #: \_\_\_\_\_

EXXON Contact: LESLIE THOMAS Phone #: 510-246-8708 EXXON RAS #: 70235

Sampled by (print): GLENN MATTEUCCI Sampler's Signature: Glenn Matteucci

Shipment Method: DROP Air Bill #: \_\_\_\_\_

TAT:  24 hr  48 hr  72 hr  96 hr  Standard (10 day) ANALYSIS REQUIRED

Sample Description	Collection Date	Collection Time	Matrix Sol/Water/Air	Prsv	# of Cont.	Sequoia's Sample #	TPH/Gas BTEX 8015/8020	TPH/Diesel EPA 8015	TRPH S.M. 6620	8270/8240	Cd, Cr Pb, Ni Zn	Temperature: _____ Inbound Seal: Yes No Outbound Seal: Yes No
S-8-TPE	9/22/97	1426	SOIL	ICE	0	9709055	X	X	X	X	X	Hold SVOC
S-8-TBW	9/22/97	1504	SOIL	ICE	0	9709055	X	X	X	X	X	Hold SVOC
												Run SVOC
												IF TRPH
												75000 ppm
							ASAP					
							1200					

RELINQUISHED BY / AFFILIATION	Date	Time	ACCEPTED BY / AFFILIATION	Date	Time	Additional Comments
<u>Glenn Matteucci</u>						
			<u>Sequoia A.</u>	<u>09-22-97</u>	<u>18:00</u>	

Pink - Client  
Yellow - Sequoia  
White - Sequoia



Environmental Resolutions  
74 Digital Drive, Suite 6  
Novato, CA 94949  
Attention: Marc Briggs

Client Proj. ID: Exxon 7-0235, 222932XS

Received: 09/22/97

Lab Proj. ID: 9709F62

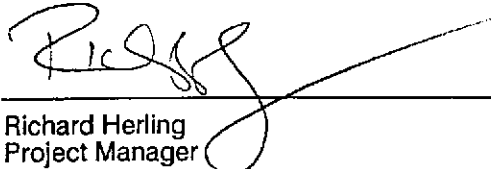
Reported: 10/09/97

### LABORATORY NARRATIVE

In order to properly interpret this report, it must be reproduced in its entirety. This report contains a total of 6 pages including the laboratory narrative, sample results, quality control, and related documents as required (cover page, COC, raw data, etc.).

Please Note: Sample S-8-TPE (9709F62-01) was analyzed within hold time. However, the LCS failed. The sample was re-extracted and re-analyzed past hold time, with the same results.

SEQUOIA ANALYTICAL

  
Richard Herling  
Project Manager







Environmental Resolutions 74 Digital Drive, Suite 6 Novato, CA 94949	Client Proj. ID: Exxon 7-0235, 222932XS Lab Proj. ID: 9709C55	Sampled: 09/22/97 Received: 09/22/97 Analyzed: see below Reported: 09/24/97
Attention: Marc A. Briggs		

**LABORATORY ANALYSIS**

Analyte	Units	Date Analyzed	Detection Limit	Sample Results
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Lab No: 9709C55-01  
Sample Desc : SOLID,S-8-TPE

Cadmium	mg/Kg	09/23/97	0.50	N.D.
Chromium	mg/Kg	09/23/97	0.50	40
Lead	mg/Kg	09/23/97	5.0	N.D.
Nickel	mg/Kg	09/23/97	2.5	35
TRPH (SM 5520 E&F)	mg/Kg	09/23/97	100	N.D.
Zinc	mg/Kg	09/23/97	0.50	22

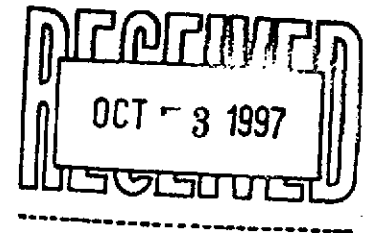
Lab No: 9709C55-02  
Sample Desc : SOLID,S-8-TPW

Cadmium	mg/Kg	09/23/97	0.50	N.D.
Chromium	mg/Kg	09/23/97	0.50	36
Lead	mg/Kg	09/23/97	5.0	7.2
Nickel	mg/Kg	09/23/97	2.5	52
TRPH (SM 5520 E&F)	mg/Kg	09/23/97	100	120
Zinc	mg/Kg	09/23/97	0.50	35

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

**SEQUOIA ANALYTICAL - ELAP #1210**

Richard Herling  
Project Manager





Environmental Resolutions  
74 Digital Drive , Suite 6  
Novato, CA 94949

Client Proj. ID: Exxon 7-0235, 222932XS  
Sample Descript: S-8-TPE  
Matrix: SOLID  
Analysis Method: EPA 8240  
Lab Number: 9709C55-01

Sampled: 09/22/97  
Received: 09/22/97  
Extracted: 09/22/97  
Analyzed: 09/22/97  
Reported: 09/24/97

QC Batch Number: MS0918978240EXA  
Instrument ID: F3

**Volatile Organics (EPA 8240)**

Analyte	Detection Limit ug/Kg	Sample Results ug/Kg
Acetone	500	N.D.
Benzene	100	N.D.
Bromodichloromethane	100	N.D.
Bromoform	100	N.D.
Bromomethane	100	N.D.
2-Butanone	500	N.D.
Carbon disulfide	100	N.D.
Carbon tetrachloride	100	N.D.
Chlorobenzene	100	N.D.
Chloroethane	100	N.D.
2-Chloroethyl vinyl ether	500	N.D.
Chloroform	100	N.D.
Chloromethane	100	N.D.
Dibromochloromethane	100	N.D.
1,1-Dichloroethane	100	N.D.
1,2-Dichloroethane	100	N.D.
1,1-Dichloroethene	100	N.D.
cis-1,2-Dichloroethene	100	N.D.
trans-1,2-Dichloroethene	100	N.D.
1,2-Dichloropropane	100	N.D.
cis-1,3-Dichloropropene	100	N.D.
trans-1,3-Dichloropropene	100	N.D.
Ethylbenzene	100	N.D.
2-Hexanone	500	N.D.
Methylene chloride	250	N.D.
4-Methyl-2-pentanone	500	N.D.
Styrene	100	N.D.
1,1,2,2-Tetrachloroethane	100	N.D.
Tetrachloroethene	100	N.D.
Toluene	100	N.D.
1,1,1-Trichloroethane	100	N.D.
1,1,2-Trichloroethane	100	N.D.
Trichloroethene	100	N.D.
Trichlorofluoromethane	100	N.D.
Vinyl acetate	250	N.D.
Vinyl chloride	100	N.D.
Total Xylenes	100	N.D.





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Environmental Resolutions 74 Digital Drive, Suite 6 Novato, CA 94949	Client Proj. ID: Exxon 7-0235, 222932XS Sample Descript: S-8-TPE Matrix: SOLID Analysis Method: EPA 8240 Lab Number: 9709C55-01	Sampled: 09/22/97 Received: 09/22/97 Extracted: 09/22/97 Analyzed: 09/22/97 Reported: 09/24/97
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QC Batch Number: MS0918978240EXA  
Instrument ID: F3

Analyte	Detection Limit ug/Kg	Sample Results ug/Kg
<b>Surrogates</b>	<b>Control Limits %</b>	<b>% Recovery</b>
1,2-Dichloroethane-d4	70	94
Toluene-d8	81	103
4-Bromofluorobenzene	74	100

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

**SEQUOIA ANALYTICAL - ELAP #1210**



Richard Herling  
Project Manager





Environmental Resolutions 74 Digital Drive, Suite 6 Novato, CA 94949	Client Proj. ID: Exxon 7-0235, 222932XS Sample Descript: S-8-TPE Matrix: SOLID Analysis Method: EPA 8270 Lab Number: 9709C55-01	Sampled: 09/22/97 Received: 09/22/97 Extracted: 09/22/97 Analyzed: 09/23/97 Reported: 09/24/97
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QC Batch Number: MS0922978270EXA  
Instrument ID: F4

**Semivolatile Organics (EPA 8270)**

Analyte	Detection Limit ug/Kg	Sample Results ug/Kg
Acenaphthene	250	N.D.
Acenaphthylene	250	N.D.
Anthracene	250	N.D.
Benzoic Acid	500	N.D.
Benzo(a)anthracene	250	N.D.
Benzo(b)fluoranthene	250	N.D.
Benzo(k)fluoranthene	250	N.D.
Benzo(g,h,i)perylene	250	N.D.
Benzo(a)pyrene	250	N.D.
Benzyl alcohol	250	N.D.
Bis(2-chloroethoxy)methane	250	N.D.
Bis(2-chloroethyl)ether	250	N.D.
Bis(2-chloroisopropyl)ether	250	N.D.
Bis(2-ethylhexyl)phthalate	500	N.D.
4-Bromophenyl phenyl ether	250	N.D.
Butyl benzyl phthalate	250	N.D.
4-Chloroaniline	500	N.D.
2-Chloronaphthalene	250	N.D.
4-Chloro-3-methylphenol	250	N.D.
2-Chlorophenol	250	N.D.
4-Chlorophenyl phenyl ether	250	N.D.
Chrysene	250	N.D.
Dibenzo(a,h)anthracene	250	N.D.
Dibenzofuran	250	N.D.
Di-n-butyl phthalate	500	N.D.
1,2-Dichlorobenzene	250	N.D.
1,3-Dichlorobenzene	250	N.D.
1,4-Dichlorobenzene	250	N.D.
3,3'-Dichlorobenzidine	500	N.D.
2,4-Dichlorophenol	250	N.D.
Diethyl phthalate	250	N.D.
2,4-Dimethylphenol	250	N.D.
Dimethyl phthalate	250	N.D.
4,6-Dinitro-2-methylphenol	500	N.D.
2,4-Dinitrophenol	500	N.D.
2,4-Dinitrotoluene	250	N.D.
2,6-Dinitrotoluene	250	N.D.
Di-n-octyl phthalate	250	N.D.
Fluoranthene	250	N.D.





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Environmental Resolutions  
74 Digital Drive, Suite 6  
Novato, CA 94949

Client Proj. ID: Exxon 7-0235, 222932XS  
Sample Descript: S-8-TPE  
Matrix: SOLID  
Analysis Method: EPA 8270  
Lab Number: 9709C55-01

Sampled: 09/22/97  
Received: 09/22/97  
Extracted: 09/22/97  
Analyzed: 09/23/97  
Reported: 09/24/97

QC Batch Number: MS0922978270EXA  
Instrument ID: F4

Analyte	Detection Limit ug/Kg	Sample Results ug/Kg	
Fluorene	250	N.D.	
Hexachlorobenzene	250	N.D.	
Hexachlorobutadiene	250	N.D.	
Hexachlorocyclopentadiene	500	N.D.	
Hexachloroethane	250	N.D.	
Indeno(1,2,3-cd)pyrene	250	N.D.	
Isophorone	250	N.D.	
2-Methylnaphthalene	250	N.D.	
2-Methylphenol	250	N.D.	
4-Methylphenol	250	N.D.	
Naphthalene	250	N.D.	
2-Nitroaniline	500	N.D.	
3-Nitroaniline	500	N.D.	
4-Nitroaniline	500	N.D.	
Nitrobenzene	250	N.D.	
2-Nitrophenol	250	N.D.	
4-Nitrophenol	500	N.D.	
N-Nitrosodiphenylamine	250	N.D.	
N-Nitroso-di-n-propylamine	250	N.D.	
Pentachlorophenol	500	N.D.	
Phenanthrene	250	N.D.	
Phenol	250	N.D.	
Pyrene	250	N.D.	
1,2,4-Trichlorobenzene	250	N.D.	
2,4,5-Trichlorophenol	500	N.D.	
2,4,6-Trichlorophenol	250	N.D.	
<b>Surrogates</b>	<b>Control Limits %</b>	<b>% Recovery</b>	
2-Fluorophenol	25	121	65
Phenol-d5	24	113	67
Nitrobenzene-d5	23	120	52
2-Fluorobiphenyl	30	115	51
2,4,6-Tribromophenol	19	122	67
p-Terphenyl-d14	18	137	40

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

SEQUOIA ANALYTICAL - ELAP #1210

Richard Herling  
Project Manager





Environmental Resolutions 74 Digital Drive, Suite 6 Novato, CA 94949	Client Proj. ID: Exxon 7-0235, 222932XS Sample Descript: S-8-TPE Matrix: SOLID Analysis Method: EPA 8015 Mod Lab Number: 9709C55-01	Sampled: 09/22/97 Received: 09/22/97 Extracted: 09/22/97 Analyzed: 09/23/97 Reported: 09/24/97
Attention: Marc A. Briggs		

QC Batch Number: GC0922970HBPEXC  
Instrument ID: GCHP58

**Total Extractable Petroleum Hydrocarbons (TEPH)**

Analyte	Detection Limit mg/Kg	Sample Results mg/Kg
TEPH as Diesel Chromatogram Pattern:	1.0	N.D.
<b>Surrogates</b>	<b>Control Limits %</b>	<b>% Recovery</b>
n-Pentacosane (C25)	50                      150	76

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

**SEQUOIA ANALYTICAL** - ELAP #1210

Richard Herling  
Project Manager





Environmental Resolutions 74 Digital Drive, Suite 6 Novato, CA 94949	Client Proj. ID: Exxon 7-0235, 222932XS Sample Descript: S-8-TPE Matrix: SOLID Analysis Method: 8015Mod/8020 Lab Number: 9709C55-01	Sampled: 09/22/97 Received: 09/22/97 Extracted: 09/23/97 Analyzed: 09/23/97 Reported: 09/24/97
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QC Batch Number: GC092397BTEXEXA  
Instrument ID: GCHP22

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

Analyte	Detection Limit mg/Kg	Sample Results mg/Kg
TPPH as Gas	1.0	N.D.
Benzene	0.0050	N.D.
Toluene	0.0050	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	108
4-Bromofluorobenzene	60 140	92

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

**SEQUOIA ANALYTICAL - ELAP #1210**

Richard Hertling  
Project Manager





Environmental Resolutions	Client Proj. ID: Exxon 7-0235, 222932XS	Sampled: 09/22/97
74 Digital Drive, Suite 6	Sample Descript: S-8-TPW	Received: 09/22/97
Novato, CA 94949	Matrix: SOLID	Extracted: 09/22/97
Attention: Marc A. Briggs	Analysis Method: EPA 8240	Analyzed: 09/22/97
	Lab Number: 9709C55-02	Reported: 09/24/97

QC Batch Number: MS0918978240EXA  
Instrument ID: F3

**Volatile Organics (EPA 8240)**

Analyte	Detection Limit ug/Kg	Sample Results ug/Kg
Acetone	500	N.D.
Benzene	100	N.D.
Bromodichloromethane	100	N.D.
Bromoform	100	N.D.
Bromomethane	100	N.D.
2-Butanone	500	N.D.
Carbon disulfide	100	N.D.
Carbon tetrachloride	100	N.D.
Chlorobenzene	100	N.D.
Chloroethane	100	N.D.
2-Chloroethyl vinyl ether	500	N.D.
Chloroform	100	N.D.
Chloromethane	100	N.D.
Dibromochloromethane	100	N.D.
1,1-Dichloroethane	100	N.D.
1,2-Dichloroethane	100	N.D.
1,1-Dichloroethene	100	N.D.
cis-1,2-Dichloroethene	100	N.D.
trans-1,2-Dichloroethene	100	N.D.
1,2-Dichloropropane	100	N.D.
cis-1,3-Dichloropropene	100	N.D.
trans-1,3-Dichloropropene	100	N.D.
Ethylbenzene	100	N.D.
2-Hexanone	500	N.D.
Methylene chloride	250	N.D.
4-Methyl-2-pentanone	500	N.D.
Styrene	100	N.D.
1,1,2,2-Tetrachloroethane	100	N.D.
Tetrachloroethene	100	N.D.
Toluene	100	N.D.
1,1,1-Trichloroethane	100	N.D.
1,1,2-Trichloroethane	100	N.D.
Trichloroethene	100	N.D.
Trichlorofluoromethane	100	N.D.
Vinyl acetate	250	N.D.
Vinyl chloride	100	N.D.
Total Xylenes	100	N.D.







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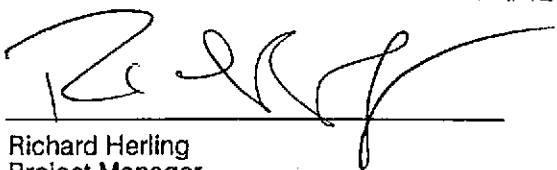
Environmental Resolutions 74 Digital Drive, Suite 6 Novato, CA 94949	Client Proj. ID: Exxon 7-0235, 222932XS Sample Descript: S-8-TPW Matrix: SOLID Analysis Method: EPA 8240 Lab Number: 9709C55-02	Sampled: 09/22/97 Received: 09/22/97 Extracted: 09/22/97 Analyzed: 09/22/97 Reported: 09/24/97
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QC Batch Number: MS0918978240EXA  
Instrument ID: F3

Analyte	Detection Limit ug/Kg	Sample Results ug/Kg
<b>Surrogates</b>	<b>Control Limits %</b>	<b>% Recovery</b>
1,2-Dichloroethane-d4	70	121
Toluene-d8	81	117
4-Bromofluorobenzene	74	121

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

**SEQUOIA ANALYTICAL - ELAP #1210**



Richard Herling  
Project Manager





Environmental Resolutions 74 Digital Drive, Suite 6 Novato, CA 94949	Client Proj. ID: Exxon 7-0235, 222932XS Sample Descript: S-8-TPW Matrix: SOLID Analysis Method: EPA 8270 Lab Number: 9709C55-02	Sampled: 09/22/97 Received: 09/22/97 Extracted: 09/22/97 Analyzed: 09/23/97 Reported: 09/24/97
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QC Batch Number: MS0922978270EXA  
Instrument ID: F4

**Semivolatile Organics (EPA 8270)**

Analyte	Detection Limit ug/Kg	Sample Results ug/Kg
Acenaphthene	250	N.D.
Acenaphthylene	250	N.D.
Anthracene	250	N.D.
Benzoic Acid	500	N.D.
Benzo(a)anthracene	250	N.D.
Benzo(b)fluoranthene	250	N.D.
Benzo(k)fluoranthene	250	N.D.
Benzo(g,h,i)perylene	250	N.D.
Benzo(a)pyrene	250	N.D.
Benzyl alcohol	250	N.D.
Bis(2-chloroethoxy)methane	250	N.D.
Bis(2-chloroethyl)ether	250	N.D.
Bis(2-chloroisopropyl)ether	250	N.D.
Bis(2-ethylhexyl)phthalate	500	N.D.
4-Bromophenyl phenyl ether	250	N.D.
Butyl benzyl phthalate	250	N.D.
4-Chloroaniline	500	N.D.
2-Chloronaphthalene	250	N.D.
4-Chloro-3-methylphenol	250	N.D.
2-Chlorophenol	250	N.D.
4-Chlorophenyl phenyl ether	250	N.D.
Chrysene	250	N.D.
Dibenzo(a,h)anthracene	250	N.D.
Dibenzofuran	250	N.D.
Di-n-butyl phthalate	500	N.D.
1,2-Dichlorobenzene	250	N.D.
1,3-Dichlorobenzene	250	N.D.
1,4-Dichlorobenzene	250	N.D.
3,3'-Dichlorobenzidine	500	N.D.
2,4-Dichlorophenol	250	N.D.
Diethyl phthalate	250	N.D.
2,4-Dimethylphenol	250	N.D.
Dimethyl phthalate	250	N.D.
4,6-Dinitro-2-methylphenol	500	N.D.
2,4-Dinitrophenol	500	N.D.
2,4-Dinitrotoluene	250	N.D.
2,6-Dinitrotoluene	250	N.D.
Di-n-octyl phthalate	250	N.D.
Fluoranthene	250	N.D.





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Environmental Resolutions 74 Digital Drive, Suite 6 Novato, CA 94949	Client Proj. ID: Exxon 7-0235, 222932XS Sample Descript: S-8-TPW Matrix: SOLID Analysis Method: EPA 8270 Lab Number: 9709C55-02	Sampled: 09/22/97 Received: 09/22/97 Extracted: 09/22/97 Analyzed: 09/23/97 Reported: 09/24/97
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QC Batch Number: MS0922978270EXA  
Instrument ID: F4

Analyte	Detection Limit ug/Kg	Sample Results ug/Kg
Fluorene	250	N.D.
Hexachlorobenzene	250	N.D.
Hexachlorobutadiene	250	N.D.
Hexachlorocyclopentadiene	500	N.D.
Hexachloroethane	250	N.D.
Indeno(1,2,3-cd)pyrene	250	N.D.
Isophorone	250	N.D.
2-Methylnaphthalene	250	N.D.
2-Methylphenol	250	N.D.
4-Methylphenol	250	N.D.
Naphthalene	250	N.D.
2-Nitroaniline	500	N.D.
3-Nitroaniline	500	N.D.
4-Nitroaniline	500	N.D.
Nitrobenzene	250	N.D.
2-Nitrophenol	250	N.D.
4-Nitrophenol	500	N.D.
N-Nitrosodiphenylamine	250	N.D.
N-Nitroso-di-n-propylamine	250	N.D.
Pentachlorophenol	500	N.D.
Phenanthrene	250	N.D.
Phenol	250	N.D.
Pyrene	250	N.D.
1,2,4-Trichlorobenzene	250	N.D.
2,4,5-Trichlorophenol	500	N.D.
2,4,6-Trichlorophenol	250	N.D.
<b>Surrogates</b>	<b>Control Limits %</b>	<b>% Recovery</b>
2-Fluorophenol	25	121
Phenol-d5	24	113
Nitrobenzene-d5	23	120
2-Fluorobiphenyl	30	115
2,4,6-Tribromophenol	19	122
p-Terphenyl-d14	18	137

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

SEQUOIA ANALYTICAL - ELAP #1210

Richard Herling  
Project Manager





Environmental Resolutions 74 Digital Drive, Suite 6 Novato, CA 94949	Client Proj. ID: Exxon 7-0235, 222932XS Sample Descript: S-8-TPW Matrix: SOLID Analysis Method: EPA 8015 Mod Lab Number: 9709C55-02	Sampled: 09/22/97 Received: 09/22/97 Extracted: 09/22/97 Analyzed: 09/23/97 Reported: 09/24/97
Attention: Marc A. Briggs		

QC Batch Number: GC0922970HBPEXC  
Instrument ID: GCHP5B

**Total Extractable Petroleum Hydrocarbons (TEPH)**

Analyte	Detection Limit mg/Kg	Sample Results mg/Kg
TEPH as Diesel Chromatogram Pattern: Unidentified HC	2.0	32 C9-C24
Surrogates n-Pentacosane (C25)	Control Limits % 50                      150	% Recovery 245 Q

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

SEQUOIA ANALYTICAL - ELAP #1210

Richard Herling  
Project Manager





Environmental Resolutions 74 Digital Drive, Suite 6 Novato, CA 94949	Client Proj. ID: Exxon 7-0235, 222932XS Sample Descript: S-8-TPW Matrix: SOLID Analysis Method: 8015Mod/8020 Lab Number: 9709C55-02	Sampled: 09/22/97 Received: 09/22/97 Extracted: 09/23/97 Analyzed: 09/23/97 Reported: 09/24/97
Attention: Marc A. Briggs		

QC Batch Number: GC092397BTEXEXA  
Instrument ID: GCHP22

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

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

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

**SEQUOIA ANALYTICAL - ELAP #1210**

Richard Herling  
Project Manager





Environmental Resolutions      Client Project ID: Exxon 7-0235, 222932XS  
74 Digital Drive, Ste. 6      Matrix: Solid  
Novato, CA 94949  
Attention: Marc Briggs      Work Order #: 9709C55 01, 02      Reported: Sep 27, 1997

**QUALITY CONTROL DATA REPORT**

**Analyte:** Total Recoverable  
Petroleum Hydrocarbons  
**QC Batch#:** IN092397552000A  
**Analy. Method:** SM 5520EF  
**Prep. Method:**

**Analyst:** P. Cheung  
**MS/MSD #:** 970965502  
**Sample Conc.:** 120  
**Prepared Date:** 9/23/97  
**Analyzed Date:** 9/23/97  
**Instrument I.D.#:** MANUAL  
**Conc. Spiked:** 200 mg/Kg

**Result:** 130  
**MS % Recovery:** 5.0

**Dup. Result:** 170  
**MSD % Recov.:** 25

**RPD:** 27  
**RPD Limit:** 0-30

**LCS #:** LCS092397  
**Prepared Date:** 9/23/97  
**Analyzed Date:** 9/23/97  
**Instrument I.D.#:** MANUAL  
**Conc. Spiked:** 150 mg/Kg  
**LCS Result:** 110  
**LCS % Recov.:** 73

<b>MS/MSD</b>	60-140
<b>LCS</b>	70-130
<b>Control Limits</b>	

**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**  
  
Richard Herling  
Project Manager

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

9709C55.EEE <1>





Environmental Resolutions  
74 Digital Drive, Ste. 6  
Novato, CA 94949  
Attention: Marc Briggs

Client Project ID: Exxon 7-0235, 222932XS  
Matrix: Solid

Work Order #: 9709C55 01, 02

Reported: Sep 27, 1997

**QUALITY CONTROL DATA REPORT**

Analyte:	1,1-Dichloroethene	Trichloroethene	Benzene	Toluene	Chloro-benzene
QC Batch#:	MS0918978240EXA	MS0918978240EXA	MS0918978240EXA	MS0918978240EXA	MS0918978240EXA
Analy. Method:	EPA 8240	EPA 8240	EPA 8240	EPA 8240	EPA 8240
Prep. Method:					

Analyst:	M. Williams	M. Williams	M. Williams	M. Williams	M. Williams
MS/MSD #:	970937C01	970937C01	970937C01	970937C01	970937C01
Sample Conc.:	N.D.	N.D.	N.D.	N.D.	N.D.
Prepared Date:	9/18/97	9/18/97	9/18/97	9/18/97	9/18/97
Analyzed Date:	9/18/97	9/18/97	9/18/97	9/18/97	9/18/97
Instrument I.D.#:	F2	F2	F2	F2	F2
Conc. Spiked:	2500 µg/Kg	2500 µg/Kg	2500 µg/Kg	2500 µg/Kg	2500 µg/Kg
Result:	1900	2300	2400	2200	2200
MS % Recovery:	76	92	96	88	88
Dup. Result:	2000	2300	2400	2200	2200
MSD % Recov.:	80	92	96	88	88
RPD:	5.1	0.0	0.0	0.0	0.0
RPD Limit:	0-25	0-25	0-25	0-25	0-25

LCS #:	VB092297	VB092297	VB092297	VB092297	VB092297
Prepared Date:	9/22/97	9/18/97	9/18/97	9/18/97	9/18/97
Analyzed Date:	9/22/97	9/18/97	9/18/97	9/18/97	9/18/97
Instrument I.D.#:	F3	F2	F2	F2	F2
Conc. Spiked:	2500 µg/Kg	2500 µg/Kg	2500 µg/Kg	2500 µg/Kg	2500 µg/Kg
LCS Result:	2600	2700	2700	2800	2700
LCS % Recov.:	104	108	108	112	108

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

SEQUOIA ANALYTICAL

*Richard Herling*  
Richard Herling  
Project Manager

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Environmental Resolutions Client Project ID: Exxon 7-0235, 222932XS  
 74 Digital Drive, Ste. 6 Matrix: Solid  
 Novato, CA 94949  
 Attention: Marc Briggs Work Order #: 9709C55 01, 02 Reported: Sep 27, 1997

**QUALITY CONTROL DATA REPORT**

Analyte:	Phenol	2-Chlorophenol	1,4-Dichloro-benzene	N-Nitroso-Di-N-propylamine
QC Batch#:	MS0922978270EXA	MS0922978270EXA	MS0922978270EXA	MS0922978270EXA
Analy. Method:	EPA 8270	EPA 8270	EPA 8270	EPA 8270
Prep. Method:	EPA 3550	EPA 3550	EPA 3550	EPA 3550

Analyst:	B. Pitamah	B. Pitamah	B. Pitamah	B. Pitamah
MS/MSD #:	9709C0108	9709C0108	9709C0108	9709C0108
Sample Conc.:	N.D.	N.D.	N.D.	N.D.
Prepared Date:	9/22/97	9/22/97	9/22/97	9/22/97
Analyzed Date:	9/23/97	9/23/97	9/23/97	9/23/97
Instrument I.D.#:	F4	F4	F4	F4
Conc. Spiked:	3300 µg/Kg	3300 µg/Kg	3300 µg/Kg	3300 µg/Kg
Result:	2180	2210	1810	2140
MS % Recovery:	66	67	55	65
Dup. Result:	2140	2110	1830	2110
MSD % Recov.:	65	64	55	64
RPD:	1.9	4.6	1.1	1.4
RPD Limit:	0-40	0-40	0-40	0-40

LCS #:	SB092297	SB092297	SB092297	SB092297
Prepared Date:	9/22/97	9/22/97	9/22/97	9/22/97
Analyzed Date:	9/23/97	9/23/97	9/23/97	9/23/97
Instrument I.D.#:	F4	F4	F4	F4
Conc. Spiked:	3300 µg/Kg	3300 µg/Kg	3300 µg/Kg	3300 µg/Kg
LCS Result:	1970	1990	1800	1960
LCS % Recov.:	60	60	55	59

MS/MSD LCS Control Limits	26-90	25-102	28-104	41-126
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SEQUOIA ANALYTICAL

*Richard Herling*  
 Richard Herling  
 Project Manager







Environmental Resolutions  
74 Digital Drive, Ste. 6  
Novato, CA 94949  
Attention: Marc Briggs

Client Project ID: Exxon 7-0235, 222932XS  
Matrix: Solid

Work Order #: 9709C55 01, 02

Reported: Sep 27, 1997

**QUALITY CONTROL DATA REPORT**

Analyte:	1,2,4-Trichloro-benzene	4-Chloro-3-Methylphenol	Acenaphthene	4-Nitrophenol
QC Batch#:	MS0922978270EXA	MS0922978270EXA	MS0922978270EXA	MS0922978270EXA
Analy. Method:	EPA 8270	EPA 8270	EPA 8270	EPA 8270
Prep. Method:	EPA 3550	EPA 3550	EPA 3550	EPA 3550

Analyst:	B. Pitamah	B. Pitamah	B. Pitamah	B. Pitamah
MS/MSD #:	9709C0108	9709C0108	9709C0108	9709C0108
Sample Conc.:	N.D.	N.D.	N.D.	N.D.
Prepared Date:	9/22/97	9/22/97	9/22/97	9/22/97
Analyzed Date:	9/23/97	9/23/97	9/23/97	9/23/97
Instrument I.D.#:	F4	F4	F4	F4
Conc. Spiked:	3300 µg/Kg	3300 µg/Kg	3300 µg/Kg	3300 µg/Kg
Result:	2070	2060	2020	1990
MS % Recovery:	63	62	61	60
Dup. Result:	2000	1930	1970	1790
MSD % Recov.:	61	58	60	54
RPD:	3.4	6.5	2.5	11
RPD Limit:	0-40	0-40	0-40	0-40

LCS #:	SB092297	SB092297	SB092297	SB092297
Prepared Date:	9/22/97	9/22/97	9/22/97	9/22/97
Analyzed Date:	9/23/97	9/23/97	9/23/97	9/23/97
Instrument I.D.#:	F4	F4	F4	F4
Conc. Spiked:	3300 µg/Kg	3300 µg/Kg	3300 µg/Kg	3300 µg/Kg
LCS Result:	1890	1760	1780	1320
LCS % Recov.:	57	53	54	40

MS/MSD LCS Control Limits	38-107	26-103	31-137	11-114
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SEQUOIA ANALYTICAL

*Richard Herling*  
Richard Herling  
Project Manager





Environmental Resolutions  
74 Digital Drive, Ste. 6  
Novato, CA 94949  
Attention: Marc Briggs

Client Project ID: Exxon 7-0235, 222932XS  
Matrix: Solid

Work Order #: 9709C55 01, 02

Reported: Sep 27, 1997

**QUALITY CONTROL DATA REPORT**

Analyte:	2,4-Dinitro-toluene	Pentachloro-phenol	Pyrene
QC Batch#:	MS0922978270EXA	MS0922978270EXA	MS0922978270EXA
Analy. Method:	EPA 8270	EPA 8270	EPA 8270
Prep. Method:	EPA 3550	EPA 3550	EPA 3550

Analyst:	B. Pitamah	B. Pitamah	B. Pitamah
MS/MSD #:	9709C0108	9709C0108	9709C0108
Sample Conc.:	N.D.	N.D.	N.D.
Prepared Date:	9/22/97	9/22/97	9/22/97
Analyzed Date:	9/23/97	9/23/97	9/23/97
Instrument I.D.#:	F4	F4	F4
Conc. Spiked:	3300 µg/Kg	3300 µg/Kg	3300 µg/Kg
Result:	2240	1780	1360
MS % Recovery:	68	54	41
Dup. Result:	2080	1910	1810
MSD % Recov.:	63	58	55
RPD:	7.4	7.0	28
RPD Limit:	0-40	0-40	0-40

LCS #:	SB092297	SB092297	SB092297
Prepared Date:	9/22/97	9/22/97	9/22/97
Analyzed Date:	9/23/97	9/23/97	9/23/97
Instrument I.D.#:	F4	F4	F4
Conc. Spiked:	3300 µg/Kg	3300 µg/Kg	3300 µg/Kg
LCS Result:	1880	1470	1510
LCS % Recov.:	57	45	46

MS/MSD LCS Control Limits	28-89	17-109	35-142
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SEQUOIA ANALYTICAL

Richard Herling  
Project Manager





Environmental Resolutions      Client Project ID: Exxon 7-0235, 222932XS  
74 Digital Drive, Ste. 6      Matrix: Solid  
Novato, CA 94949  
Attention: Marc Briggs      Work Order #: 9709C55 01, 02      Reported: Sep 27, 1997

**QUALITY CONTROL DATA REPORT**

Analyte:	Benzene	Toluene	Ethyl Benzene	Xylenes	Gas
QC Batch#:	GC092397BTEXEXA	GC092397BTEXEXA	GC092397BTEXEXA	GC092397BTEXEXA	GC092397BTEXEXA
Analy. Method:	EPA 8020	EPA 8020	EPA 8020	EPA 8020	EPA 8015M
Prep. Method:	EPA 5030	EPA 5030	EPA 5030	EPA 5030	EPA 5030

Analyst:	A. Porter	A. Porter	A. Porter	A. Porter	A. Porter
MS/MSD #:	9709A1501	9709A1501	9709A1501	9709A1501	9709A1501
Sample Conc.:	N.D.	N.D.	N.D.	N.D.	N.D.
Prepared Date:	9/23/97	9/23/97	9/23/97	9/23/97	9/23/97
Analyzed Date:	9/23/97	9/23/97	9/23/97	9/23/97	9/23/97
Instrument I.D.#:	GCHP7	GCHP7	GCHP7	GCHP7	GCHP7
Conc. Spiked:	0.20 mg/Kg	0.20 mg/Kg	0.20 mg/Kg	0.60 mg/Kg	1.2 mg/Kg
Result:	0.16	0.16	0.16	0.47	1.0
MS % Recovery:	80	80	80	78	83
Dup. Result:	0.16	0.15	0.16	0.46	1.0
MSD % Recov.:	80	75	80	77	83
RPD:	0.0	6.5	0.0	2.2	0.0
RPD Limit:	0-25	0-25	0-25	0-25	0-25

LCS #:	BLK092397	BLK092397	BLK092397	BLK092397	BLK092397
Prepared Date:	9/23/97	9/23/97	9/23/97	9/23/97	9/23/97
Analyzed Date:	9/23/97	9/23/97	9/23/97	9/23/97	9/23/97
Instrument I.D.#:	GCHP7	GCHP7	GCHP7	GCHP7	GCHP7
Conc. Spiked:	0.20 mg/Kg	0.20 mg/Kg	0.20 mg/Kg	0.60 mg/Kg	1.2 mg/Kg
LCS Result:	0.18	0.18	0.18	0.54	1.1
LCS % Recov.:	90	90	90	90	92

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

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**SEQUOIA ANALYTICAL**  
*Richard Herling*  
Richard Herling  
Project Manager

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9709C55.EEE <6>





Environmental Resolutions      Client Project ID: Exxon 7-0235, 222932XS  
74 Digital Drive, Ste. 6      Matrix: Solid  
Novato, CA 94949  
Attention: Marc Briggs      Work Order #: 9709C55 01, 02      Reported: Sep 27, 1997

**QUALITY CONTROL DATA REPORT**

Analyte:	Beryllium	Chromium	Cadmium	Thallium
QC Batch#:	ME0923976010MDE	ME0923976010MDE	ME0923976010MDE	ME0923976010MDE
Analy. Method:	EPA 6020	EPA 6020	EPA 6020	EPA 6020
Prep. Method:	EPA 3050	EPA 3050	EPA 3050	EPA 3050

Analyst:	R. Butler	R. Butler	R. Butler	R. Butler
MS/MSD #:	9709C5501	9709C5501	9709C5501	9709C5501
Sample Conc.:	N.D.	N.D.	40	35
Prepared Date:	9/23/97	9/23/97	9/23/97	9/23/97
Analyzed Date:	9/23/97	9/23/97	9/23/97	9/23/97
Instrument I.D.#:	MTJA2	MTJA2	MTJA2	MTJA2
Conc. Spiked:	50 mg/Kg	50 mg/Kg	50 mg/Kg	50 mg/Kg
Result:	41	40	75	76
MS % Recovery:	82	80	70	82
Dup. Result:	42	41	78	76
MSD % Recov.:	84	82	76	82
RPD:	2.4	2.5	3.9	0.0
RPD Limit:	0-20	0-20	0-20	0-20

LCS #:	BLK092397	BLK092397	BLK092397	BLK092397
Prepared Date:	9/23/97	9/23/97	9/23/97	9/23/97
Analyzed Date:	9/23/97	9/23/97	9/23/97	9/23/97
Instrument I.D.#:	MTJA2	MTJA2	MTJA2	MTJA2
Conc. Spiked:	50 mg/Kg	50 mg/Kg	50 mg/Kg	50 mg/Kg
LCS Result:	49	49	49	49
LCS % Recov.:	98	98	98	98

MS/MSD LCS Control Limits	80-120	80-120	80-120	80-120
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**SEQUOIA ANALYTICAL**  
*[Signature]*  
Richard Herling  
Project Manager

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Environmental Resolutions  
74 Digital Drive, Ste. 6  
Novato, CA 94949  
Attention: Marc Briggs

Client Project ID: Exxon 7-0235, 222932XS  
Matrix: Solid

Work Order #: 9709C55 01, 02

Reported: Sep 27, 1997

**QUALITY CONTROL DATA REPORT**

<b>Analyte:</b>	Diesel
<b>QC Batch#:</b>	GC0922970HBPEXC
<b>Analy. Method:</b>	EPA 8015M
<b>Prep. Method:</b>	EPA 3550

**Analyst:** G. Fish  
**MS/MSD #:** 9709C5501  
**Sample Conc.:** N.D.  
**Prepared Date:** 9/22/97  
**Analyzed Date:** 9/23/97  
**Instrument I.D.#:** GCHP5A  
**Conc. Spiked:** 25 mg/Kg

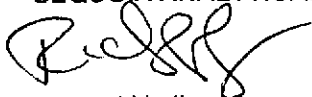
**Result:** 18  
**MS % Recovery:** 72

**Dup. Result:** 23  
**MSD % Recov.:** 92

**RPD:** 24  
**RPD Limit:** 0-50

<b>LCS #:</b>	BLK092297
<b>Prepared Date:</b>	9/22/97
<b>Analyzed Date:</b>	9/23/97
<b>Instrument I.D.#:</b>	GCHP5A
<b>Conc. Spiked:</b>	25 mg/Kg
<b>LCS Result:</b>	20
<b>LCS % Recov.:</b>	80

<b>MS/MSD</b>	50-150
<b>LCS</b>	60-140
<b>Control Limits</b>	

**SEQUOIA ANALYTICAL**  
  
Richard Herling  
Project Manager

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9709C55.EEE <8>





Sequoia Analytical  
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Redwood City, CA 94063  
(415) 364-9600 • FAX (415) 364-9233

# EXXON COMPANY, U.S.A.

P.O. Box 2180, Houston, TX 77002-7426

## CHAIN OF CUSTODY

Consultant's Name: ENVIRONMENTAL RESOLUTIONS, INC.

Page 1 of 1

Address: 74 DIGITAL DRIVE SUITE 6, NOVATO CA 94949

Site Location: TELEGRAPH AVE., OAKLAND

Project #:

Consultant Project #: 222932XS

Consultant Work Release #: 19712888

Project Contact: MARC A. CRIGGS

Phone #: 415-382-5791

Laboratory Work Release #:

EXXON Contact: LESLIE THOMAS

Phone #: 510-246-8708

EXXON RAS #: 70235

Sampled by (print): GLENN MATTEUCCI

Sampler's Signature: Glenn Matteucci

Shipment Method: DROP

Air Bill #:

TAT:  24 hr  48 hr  72 hr  96 hr  Standard (10 day)

### ANALYSIS REQUIRED

Sample Description	Collection Date	Collection Time	Matrix Soil/Water/Air	Prsv	# of Cont.	Sequoia's Sample #	TPH/Gas BTEX/ 8015/ 8020	TPH/ Diesel EPA 8015	TRPH S.M. 5520	8220/ 8240	Cd, Cr Pb, Ni Zn	Temperature: _____ Inbound Seal: Yes No Outbound Seal: Yes No
S-8-TPE	9/22/97	1426	SOIL	ICE		9709055 01	X	X	X	X	X	Hold SVOC
S-8-TBN	9/22/97	1504	SOIL	ICE		02	X	X	X	X	X	Hold SVOC
												Run SVOC
												IF TRPH
												75000 ppm

ASAP  
1200

RELINQUISHED BY / AFFILIATION	Date	Time	ACCEPTED BY / AFFILIATION	Date	Time	Additional Comments
<u>Glenn Matteucci</u>			<u>Frank Sequoia A.</u>	<u>09-22-97</u>	<u>18:00</u>	

Pink - Client

Yellow - Sequoia

White - Sequoia



Environmental Resolutions  
74 Digital Drive, Suite 6  
Novato, CA 94949  
Attention: Marc A. Briggs

Client Proj. ID: Exxon 7-0235, 222932XS

Received: 09/22/97

Lab Proj. ID: 9709C55

Reported: 09/24/97

### LABORATORY NARRATIVE

In order to properly interpret this report, it must be reproduced in its entirety. This report contains a total of 23 pages including the laboratory narrative, sample results, quality control, and related documents as required (cover page, COC, raw data, etc.).

SEQUOIA ANALYTICAL

Richard Herling  
Project Manager

