

September 26, 1994

Mobil Oil Corporation 2063 Main Street, #501 Oakley, California 94561

Alton Project No. 30-0065

ATTN:

MS. CHERINE FOUTCH

SITE:

FORMER MOBIL STATION 04-H61

1024 MAIN STREET

PLEASANTON, CALIFORNIA

RE:

WELL ABANDONMENT AND STATION DEMOLITION REPORT

Dear Ms. Foutch:

Alton Geoscience submits this Well Abandonment and Service Station Demolition Report conducted at Former Mobil Station 04-H6J, located at 1024 Main Street, Pleasanton. Field activities included abandonment of one monitoring well, and demolition of one building.

#### FIELD ACTIVITIES

#### Station Demolition

On August 1, 1994, the building at Former Mobil Station 04-H6J was demolished. The concrete foundation was broken apart and removed. The building materials were transported by the demolition contractor to a non-hazardous waste facility for disposal.

#### Well Abandonment

On August 1, 1994, former Monitoring Well MW-9 was abandoned. Monitoring well abandonment was completed by overdrilling the existing well to a depth of 56 feet below grade (fbg) with 10-inch-diameter hollow-stem augers (as approved by Wyman Hong, Alameda County Flood Control and Water Conservation District, July 28, 1994). Existing well materials were removed. Soil cuttings and all materials were stockpiled onsite, placed on and covered by Visqueen sheeting, pending removal by a certified waste disposal company. The hole was grouted to within two feet of surface using neat cement, and filled to surface with compacted soil.

### **Hoists**

On August 1, 1994, two hydraulic hoists were excavated. Both hoists had hydraulic connections at the surface which were observed to be intact. The hoists were dry and no evidence of hydraulic oil in the soil was observed. No soil samples were collected from the excavation cavities due to cavity depths of greater than five feet. The hoists were removed by Balch Petroleum and transported and disposed of in a non-hazardous waste disposal facility.

### Clarifier

On August 1, 1994, one concrete clarifier (4 foot length, 2 foot width, and 3 foot depth) was excavated and removed from the site. Prior to removal, approximately 45 gallons of liquid waste oil was pumped from the clarifier.

A liquid waste sample (Clarifier H<sub>2</sub>O) was collected and submitted to a state approved laboratory for analysis for total petroleum hydrocarbons as gasoline (TPH-G) using EPA method 8015, total petroleum hydrocarbons as diesel (TPH-D) using method 8270, and benzene, toluene, ethylbenzene, and total xylene (BTEX) using EPA method 8020. The liquid waste is temporarily stored onsite in a DOT approved 55 gallon drum pending removal by a state certified waste disposal company for offsite disposal.

Oil sludge was scraped from the bottom of the clarifier and put into a DOT approved 55 gallon drum. The sludge is temporarily stored onsite pending removal by a state certified waste disposal company for offsite disposal.

The waste oil clarifier was triple rinsed using a steam cleaner and Liquinox solution. The clarifier was intact and no evidence of hydrocarbon affected soil was observed. The clean clarifier was transported by the demolition contractor to a non-hazardous waste facility for disposal.

A soil sample (Clarifier Soil 4') was collected beneath the former clarifier at a depth of 4 fbg. The sample was submitted to a state approved laboratory for analysis for TPH-G, TPH-D, BTEX, and metals (cadmium, chromium, lead, nickel, and zinc).

### FINDINGS AND CONCLUSIONS

- The building at Former mobil Station 04-H6J was demolished.
- Former Monitoring Well MW-9 was abandoned and the borehole was grouted from the base of the hole with neat cement and soil.
- Two hydraulic hoists were removed and disposed of by a state certified waste disposal company.
- One clarifier was removed from the site. One soil sample was collected from beneath the clarifier at 4 fbg.

## Sample "Clarifier H2O"

- TPH-G concentration was 890 parts per million (ppm).
- TPH-D concentration was 2,500 ppm.
- Ethylbenzene, and xylene concentrations were detected at 9.4 ppm and 44 ppm respectively.
- Chlorobenzene, 1,4-Dichlorobenzene, and 1,2-Dichlorobenzene concentrations were detected (maximum concentrations at 32 ppm).
- Total oil and grease was detected at 20 ppm.

## Sample "Clarifier 4"

- · No TPH-G or BTEX concentrations were detected in the soil beneath the clarifier.
- TPH-D concentration was 1.6 ppm.
- Arsenic concentration was 5.6 ppm, lead 9.3 ppm, nickel 110 ppm, and zinc 70 ppm.
- Chromium and copper concentrations were found (maximum concentrations of 70 ppm).
- Mercury concentration was 0.053 ppm.

#### ATTACHMENTS

Figure 1: Site Plan

Figure 2: Well Destruction Detail

Appendix: General Field Procedures, Official Laboratory Reports, Chain of Custody

Records, and Drilling Permit

This report was prepared in compliance with the requirements of the Alameda County Flood Control and Water Conservation District.

If you have any questions regarding this report, please call us at (510) 606-9150.

Sincerely,

ALTON GEOSCIENCE

Ailsa S. Le May

Geologist

Allan G Campbell, R

Supervising Associate

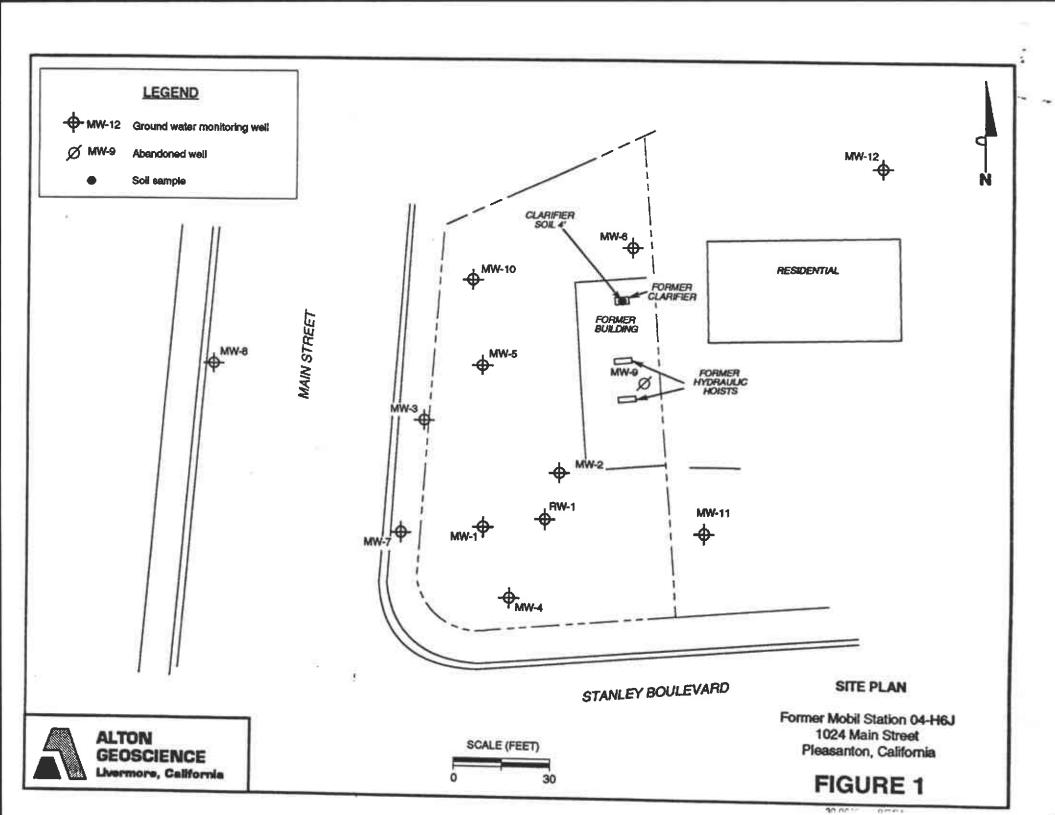
Attachments

30-0065/M:\...\04h6jr6.abn

Mr. Craig Mayfield, Alameda County Flood Control and Water Control District

Mr. Lester Feldman, California Regional Water Quality Control Board, San Francisco Bay Region

The ongoing project services summarized in this report have been conducted in accordance with current practice and the standard of care exercised by geologists and engineers performing similar tasks in this area. No warranty, express or implied, is made regarding the findings and professional opinions presented in this report. The findings are based solely upon an analysis of the observed conditions. If actual conditions differ from those described in this report, our office should be notified.



- SURFACE COMPACTED SOIL 0\_ft. to \_\_2\_ft. **NEAT CEMENT** 2\_ft. to <u>56</u>ft. WELL ID: MW-9 PROJECT: \_\_\_\_\_30-0065 BORING DIAMETER: \_\_\_10 in. BORING DEPTH: 56 ft.

# FIGURE 2



### APPENDIX

GENERAL FIELD PROCEDURES, OFFICIAL LABORATORY REPORTS, AND CHAIN OF CUSTODY RECORDS

### GENERAL FIELD PROCEDURES

General field procedures used during ground water sampling and soil sampling activities are described below.

# CLARIFIER LIQUID WASTE SAMPLING

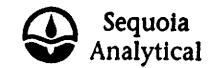
The clarifier liquid waste was pumped directly into a DOT-approved 55 gallon drum, to be temporarily stored prior to transport to an appropriate treatment or recycling facility.

A sample was collected by lowering a 1.5-inch-diameter, bottom-fill, disposable polyethylene bailer into the drum. The samples were carefully transferred from the check-valve-equipped bailer to 40-milliliter glass containers. The sample containers were filled to zero headspace and fitted with Teflon-sealed caps. The samples were preserved using HCl. Each sample was labeled with the project number, sample date, and sampler's initials. The sample remained chilled at approximately 4°C prior to analysis by a state-certified laboratory.

### CLARIFIER SOIL SAMPLE

Subsequent to removal of the clarifier, a soil sample was collected in accordance with standard regulatory protocol.

The sample was collected from directly beneath the former clarifier at a depth of four fbg, using a soil sampling tube. The tube was pushed into the soil. The sample was sealed with a Teflon-sealed cap. The sample remained chilled at approximately 4°C prior to analysis by a state-certified laboratory.



680 Chesapeake Drive 1900 Bates Avenue, Suite L 819 Striker Avenue, Suite 8

Redwood City, CA 94063 Concord, CA 94520 Sacramento, CA 95834 (415) 364-9600 (510) 686-9600 (916) 921-9600

FAX (415) \$66-92\$\$ FAX (510) 686-9689 FAX (916) 921-0100

Alton Geoscience 30-A Lindbergh Ave, Livermore, CA 94550 Attention: Kevin Keenan Client Project ID: Sample Matrix; Analysis Method:

First Sample #:

Mobil 04-H6J Water

EPA 5030/8015/8020 408-0184 Sampled: Received: Aug 1-2, 1994 Aug 2, 1994

Reported: Aug 11, 1994

# TOTAL PURGEABLE PETROLEUM HYDROCARBONS with BTEX DISTINCTION

Analyte	Reporting Limit μg/L	Sample I.D. 408-0184 Clar. H2O	
Purgeable Hydrocarbons	50	890	
Benzene	0.50	N.D.	
Toluene	0.50	N.D.	
Ethyl Benzene	0.50	9.4	الاعتادات
Total Xylenes	0.50	44	AUG 1 7 1994
Chromatogram Patte	em:	Unidentified Hydrocarbons >C8	سندر در د

**Quality Control Data** 

Report Limit Multiplication Factor:

10

Date Analyzed:

8/10/94

Instrument Identification:

HP-2

Surrogate Recovery, %:

95

(QC Limits = 70-130%)

Purgeable Hydrocarbons are quantitated against a fresh gasoline standard.

Analytes reported as N.D. were not detected above the stated reporting limit.

**SEQUOIA ANALYTICAL, #1271** 

Karen L. Enstrom Project Manager



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Redwood City, CA 94063

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FAX (415) 364-9233 FAX (510) 686-9689 FAX (916) 921-0100

Alton Geoscience 30-A Lindbergh Ave. Livermore, CA 94550 Attention: Kevin Keenan

Client Project ID: Sample Matrix: Analysis Method:

First Sample #:

Hydrocarbons 1997 <C14 & >C20

Mobil 04-H6J Water

EPA 3510/3520/8015 408-0184

Sampled: Received:

Aug 1-2, 1994 Aug 2, 1994

Reported:

Aug 11, 1994 

# TOTAL EXTRACTABLE PETROLEUM HYDROCARBONS

Analyte	Reporting Limit μg/L	Sample I.D. 408-0184 Clar. H2O	
Extractable · Hydrocarbons	50	2,500	
Chromatogram Patte	orn:	Diesel and Unidentified	

 $T_{\lambda}$ 

**Quality Control Data** 

Report Limit Multiplication Factor:

1.0

Date Extracted:

8/5/94

Date Analyzed:

8/9/94

Instrument Identification:

HP-3A

Extractable Hydrocarbons are quantitated against a fresh diesel standard. Analytes reported as N.D. were not detected above the stated reporting limit.

SEQUOIA ANALYTICAL, #1271

Karen L Enstrom **Project Manager** 



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Redwood City, CA 94063

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FAX (415) 164-9233 FAX (510) 686-9689 FAX (916) 921-0100

Alton Geoscience 30-A Lindbergh Ave. Livermore, CA 94550 Attention: Kevin Keenan

Client Project ID: Mobil 04-H6J Matrix Descript:

Water

Analysis Method: EPA 413.2 (I.R.) First Sample #: 408-0184

Sampled: Aug 1-2, 1994 Received:

Aug 2, 1994 Extracted: Aug 8, 1994 Analyzed: Aug 10, 1994

Reported: Aug 11, 1994

# **TOTAL RECOVERABLE OIL & GREASE**

Sample Number	Sample Description	Oil & Greas mg/L (ppm)	
408-0184	Clar. H2O	20	

**Detection Limits:** 

1.0

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

SEQUOIA ANALYTICAL, #1271

Gren L. Enstrom Project Manager



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FAX (415) \$64-9233 FAX (510) 686-9689 FAX (916) 921-01(s)

Alton Geoscience 30-A Lindbergh Ave. Livermore, CA 94550

Client Project 10: Sample Matrix:

Mobil 04-HeJ Sol

Aug 1, 1994 Aug 2, 1994

Attention: Kevin Keenan

Analysis Method: First Sample #:

EPA 5030/8015/8020 408-0185

Received: Reported: Aug 11, 1994

Sampled:

# TOTAL PURGEABLE PETROLEUM HYDROCARBONS with BTEX DISTINCTION

Analyte	Reporting Limit mg/kg	Sampie i.D. 408-0185 Clar. Soli 4'	
Purgeable Hydrocarbons	1.0	N.D.	
<b>B</b> enzene	0.0050	N.D.	
Toluene	0.0050	N.D.	
Ethyl Benzene	0.0050	N.D.	
Total Xylenes	0.0050	N.D.	
Chromatogram Patt	ern:	••	

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### **Quality Control Data**

Report Limit Multiplication Factor:

1.0

Date Analyzed:

8/10/94

Instrument Identification:

HP-2

Surrogate Recovery, %:

(QC Limits = 70-130%)

103

Purgeable Hydrocarbons are quantitated against a fresh gasoline standard. Analytes reported as N.D. were not detected above the stated reporting limit.

SEQUOIA ANALYTICAL, #1271

karen L. Enstrom **Project Manager** 



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Redwood City, CA 94063

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FAX (415) \$64-9213 FAX (510) 686-9689 FAX (916) 921-0100

Alton Geoscience 30-A Lindbergh Ave. Livermore, CA 94550 Attention: Kevin Keenan

Client Project ID: Sample Matrix:

Analysis Method:

First Sample #:

Mobil 04-H6J

Soll

EPA 3550/8015 408-0185

Sampled:

Aug 1, 1994 Aug 2, 1994

Received: Reported: Aug 11, 1994

# TOTAL EXTRACTABLE PETROLEUM HYDROCARBONS

Analyte	Reporting Limit mg/kg	Sample I.D. 408-0185 Clar. Soll 4'	
Extractable Hydrocarbons	1.0	1.6	
Chromatogram Patte	ern:	Diesel	

π,

Quality Control Data

Report Limit Multiplication Factor:

1.0

Date Extracted:

8/4/94

Date Analyzed:

8/9/94

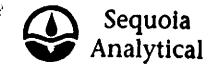
Instrument Identification:

HP-3A

Extractable Hydrocarbons are quantitated against a fresh diesel standard. Analytes reported as N.D. were not detected above the stated reporting limit.

SEQUOIA ANALYTICAL, #1271

Aren L. Enstrom Project Manager



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Alton Geoscience 30-A Lindbergh Ave. Livermore, CA 94550 Attention: Kevin Keenan

Client Project ID: Mobil 04-H6J Matrix Descript: Analysis Method:

First Sample #:

Soll

EPA 413.2 (I.R.) 408-0185

Sampled: Received: Extracted:

Aug 1, 1994 Aug 2, 1994

Analyzed: 

Aug 6, 1994 Aug 6, 1994 Aug 11, 1994

## **TOTAL RECOVERABLE OIL & GREASE**

Sample Number	Sample Description	Oll & Grease mg/kg (ppm)
408-0185	Clar. Soil 4'	N.D.

**Detection Limits:** 

1.0

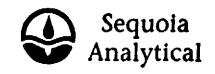
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Analytes reported as N.D. were not present above the stated limit of detection.

SEQUOIA ANALYTICAL, #1271

aren L. Enstrom Project Manager

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FAX (415) 364/9253 FAX (510) 686-9689 FAX (916) 921-0100

Alton Geoscience 30-A Undbergh Ave. Livermore, CA 94550 Attention: Kevin Keenan Client Project ID: Mobil 04-H6J

Matrix: Solid

QC Sample Group: 4080184-185

Reported: Aug 11, 1994 and the control of th

## **QUALITY CONTROL DATA REPORT**

ANALYTE	Benzene	Toluene	Ethyl Benzene	Xylenes	Diesel	Oil & Grease
Method: Analyst:	EPA 8020 A. Tuzon	EPA 8020 A. Tuzon	EPA 8020 A. Tuzon	EPA 8020 A. Tuzon	EPA 8015 Mod K.V.S.	EPA 413.2 S.Le
MS/MSD Batch#:	4071528	4071528	4071528	4071528	4071343	SB17-1
Date Prepared: Date Analyzed: Instrument I.D.#: Conc. Spiked:	8/10/94 8/10/94 HP-2 0.40 mg/kg	8/10/94 8/10/94 HP-2 0.40 mg/kg	8/10/94 8/10/94 HP-2 0.40 mg/kg	8/10/94 8/10/94 HP-2 1.2 mg/kg	8/4/94 8/5/94 HP-3B 10 mg/Kg	8/6/94 8/6/94 Miran IFF 125 mg/Kg
Matrix Spike % Recovery:	90	90	93	95	93	95
Matrix Spike Duplicate % Recovery:	93	90	95	100	99	96
Relative % Difference:	3.3	0.0	2.1	5.1	6.3	1.0

LCS Batch#:	2LCS081094	2LCS081094	2LCS081094	2LC\$081094	BLK080494	BLK080694	
Date Prepared: Date Analyzed: Instrument I.D.#:	8/10/94 8/10/94 HP-2	8/10/94 .8/10/94 HP-2	8/10/94 8/10/94 HP-2	8/10/94 8/10/94 HP-2	8/4/94 8/5/94 HP-3B	8/6/94 8/6/94 Miran IFF	
LCS % Recovery:	100	100	103	104	112	84	
% Recovery Control Limits:	55-145	47-149	47-155	56-140	38-122	70-130	
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Karen L. Enstrom 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. the recovery of analytes from the matrix spike does not fail within specified control limits due to matrix interference, the LCS recovery is to be used to validate the batch.



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FAX (415) 364-9233 FAX (510) 686-9689 FAX (916) 921-0100

Alton Geoscience 30-A Lindbergh Ave. Livermore, CA 94550 Attention: Kevin Keenan

Client Project ID: Mobil 04-H6J

Matrix: Solid

QC Sample Group: 4080184-85

Reported:

Aug 16, 1994

## **QUALITY CONTROL DATA REPORT**

ANALYTE	1,1-Dichloro-	Trichloro-	Chloro-	1,1-Dichloro-	Trichloro-	Chloro-	
	ethene	ethene	benzene	ethene	ethene	benzene	
Method: Analyst:	EPA 8010 K. Nill						
MS/MSD Batch#:	4080476	4080476	4080476	4080372	4080372	4080372	
Date Prepared: Date Analyzed: Instrument I.D.#: Conc. Spiked:	8/10/94 8/10/94 HP5890/6 10 µg/kg	8/10/94 8/10/94 HP5890/6 10 µg/kg	8/10/94 8/10/94 HP5890/6 10 µg/kg	8/11/94 8/11/94 HP5890/6 10 µg/kg	8/11/94 8/11/94 HP5890/6 10 µg/kg	8/11/94 8/11/94 HP5890/6 10 µg/kg	
Matrix Spike % Recovery: Matrix Spike	<b>46</b>	114	126	122	99	95	
Duplicate % Recovery:	56	103	124	122	94	111	
Relative % Difference:	20	10	1.6	0.0	5.2	15	
LCS Batch#:	LCS081094	LCS081094	LCS081094	LCS081194	LCS081194	LCS081194	
Date Prepared: Date Analyzed: Instrument I.D.#:	8/10/94 8/10/94 HP5890/6	8/10/94 8/10/94 HP5890/6	8/10/94 8/10/94 HP5890/6	8/11/94 8/11/94 HP5890/6	8/11/94 8/11/94 HP5890/6	8/11/94 8/11/94 HP5890/6	

79

38-150

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Recovery:

% Recovery Control Limits: 81

28-167

Kareri Enstrom Project Manager Please Note:

65

35-146

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.

72

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FAX (415) 364-9233 FAX (510) 686-9689 FAX (916) 921-0100

Alton Geoscience 30-A Lindbergh Ave. Livermore, CA 94550 Attention: Kevin Keenan

Client Project ID: Mobil 04-H6J Matrix:

Solid

QC Sample Group: 408-0185

Reported:

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Aug 16, 1994

## **QUALITY CONTROL DATA REPORT**

ANALYTE	Cadmium	Chromium	Lead	Nickel	Zinç	Mercury
Method: Analyst:	EPA 6010 J. Dinsay	EPA 7471 K. Anderson				
MS/MSD Batch#:	4080185	4080185	4080185	4080185	4080185	4080185
Date Prepared: Date Analyzed: Instrument I.D.#:	8/5/94 8/5/94 Liberty-100	8/5/94 8/5/94 Liberty-100	8/5/94 8/5/94 Liberty-100	8/5/94 8/5/94 Liberty-100	8/5/94 8/5/94 Liberty-100	8/8/94 8/8/94 SpectrAA-20/
Conc. Spiked:	50 mg/kg	VGA-76 .010 mg/kg				
Matrix Spike % Recovery:	90	84	81	88	98	93
Matrix Spike Duplicate % Recovery:	96	80	83	76	88	98
Relative % Difference:	6.5	4,9	2.4	15	11	
						5.2

LCS Batch#:	BLK080594	BLK080594	BLK080594	BLK080594	BLK080594	BLK080894	
Date Prepared: Date Analyzed: Instrument I.D.#:	8/5/94 8/5/94 Liberty-100	8/5/94 8/5/94 Liberty-100	8/5/94 8/5/94 Liberty-100	8/5/94 8/5/94 Liberty-100	8/5/94 8/5/94 Liberty-100	8/8/94 8/8/94 SpectrAA-20/	
LCS % Recovery:	90	90	88	98	91	VGA-76	
% Recovery Control Limits:	75-125	75-125	75-125	75-125	75-125	75-125	

SEQUOIA ANALYTICAL, #1271

L. Enstrom

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. 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.



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Redwood City, CA 94063

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Alton Geoscience 30-A Lindbergh Ave. Livermore, CA 94550 Attention: Kevin Keenan

Client Project ID: Mobil 04-H6J Sample Descript: Water, Clar. H2O Analysis Method: EPA 5030/8010 Lab Number: #4080184

Sampled: Aug 1-2, 1994 Received: Aug 2, 1994 Analyzed: Aug 11, 1994 Reported: Aug 16, 1994

# **HALOGENATED VOLATILE ORGANICS (EPA 8010)**

Analyte	Detection Lim µg/L	it	Sample Results  µg/L
Bromodichioromethane	0.50	4>040000101447042440>41440444444	N.D.
Bromoform	0.50	,40,40,47,17,47,44,40,44,4,44,444,44	N.D. N.D.
Bromomethane	1.0	************************	N.D. N.D.
Carbon tetrachloride	0.50	*************************	N.D.
Chlorobenzene	0.50	***************************************	
Choroethane	1.0		N.D.
2-Chloroethylvinyl ether	1.0	*******************************	N.D. N.D.
Chloroform	0.50	*****************************	
Chloromethane	1.0	***************************************	N.D.
Dibromochloromethane	0.50		N.D.
1,3-Dichlorobenzene.	0.50	*************************	N.D.
1,4-Dichlorobenzene	0.50		N.D.
1,2-Dichlorobenzene	0.50		MACON SORT GOOD FORM A MORE STORY AND A SOCIO
1,1-Dichloroethane	0.50		
1,2-Dichloroethane	0.50	******************************	N.D.
1,1-Dichloroethene	0.50		N.D.
cls-1,2-Dichloroethene	0.50		N.D.
trans-1,2-Dichloroethene	0.50	4646,400,27,4224864644000710042546644444	N.D.
1,2-Dichloropropane	0.50	14++=++++++++++++++++++++++++++++++++++	N.D.
cis-1,3-Dichloropropene	0.50	4************************	N.D.
trans-1,3-Dichloropropene	0.50	**********	N.D.
Methylene chloride	5.0	***********************	N.D.
1,1,2,2-Tetrachloroethane	0.50	******************************	N.D.
Tetrachloroethene	0.50	******************************	N.D.
1,1,1-Trichloroethane	0.50	************	N.D.
1,1,2-Trichloroethane	0.50	******************************	N.D.
Trichloroethene	0.50	********************************	N.D.
Trichlorofluoromethane		*************************	N.D.
Vinyl chloride	0.50		N.D.
Antique de la constitución de la	1.0	**********************	N.D.

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

**SEQUOIA ANALYTICAL, #1271** 

Project Managèr



680 Chesapeake Drive 1900 Bates Avenue, Suite L. Concred, CA 94520 #19 Striker Avenue, Suite # Sacramento, CA 95834

Redwood City, CA 94063

(415) 364-9600 (510) 686-9600 (916) 921-9600

FAX (415) 364-9233 FAX (\$10) 686-9689 FAX (916) 921-0100

Alton Geoscience 30-A Lindbergh Ave. Livermore, CA 94550 Attention: Kevin Keenan

Client Project ID: Mobil 04-H6J Sample Descript: Soll, Clar. Soll 4\* Analysis Method: EPA 5030/8010 Lab Number: 408-0185

Sampled: Aug 1, 1994 Received: Aug 2, 1994 Analyzed: Aug 10, 1994 Reported: Aug 16, 1994

# HALOGENATED VOLATILE ORGANICS (EPA 8010)

Analyte	Detection Lin	nit	Sample Results
Bromodichloromethane	5.0		
Bromoform	5.0	<pre>derrandorecoderrandorecoderrandoderrando</pre>	N.D.
Bromomethane	5.0	******************************	N.D.
Carbon tetrachloride	10	******************************	N.D.
Chlorobenzene.	5.0	******	N.D.
Chloroethane	5.0	***************************************	N.D.
2-Chloroethylvinyl ether	10	********************	N.D.
Chloroform.	10	************************	N.D.
Chloromethane	5.0	*****************************	N.D.
Dibromochloromethane	10	*******************************	N.D.
1.2-Dichlorobenzene	5.0	*************	N.D.
1,2-Dichlorobenzene	5.0	*****************************	N.D.
1,3-Dichlorobenzene	5.0	P1456464*************************	N.D.
1,4-Dichloroethane	5.0	****************************	N.D.
1,1-Dichloroethane	5.0	*************	N.D.
1,2-Dichloroethane	5.0	***************************************	N.D.
1,1-Dichloroethene	5.0	***************************************	N.D.
cis-1,2-Dichloroethene	5.0	*******************************	N.D.
trans-1,2-Dichloroethene	5.0	*******************************	N.D.
1,2-Dichloropropane	5.0		N.D.
cis-1,3-Dichloropropene	5.0	******************************	N.D.
trans-1,3-Dichloropropene.	5.0	************************	N.D.
Methylene chloride	50	***************************************	N.D.
1,1,2,2-Tetrachloroethane	5.0	******************************	N.D.
Tetrachloroethene	5.0	***************************************	N.D.
1,1,1-Trichloroethane	5.0	***************************	N.D.
1,1,2-Trichloroethane	5.0	************************************	
Trichioroethene	5.0	***********	N.D.
i richioronuoromethane	5.0	**************************	N.D.
Vinyl chloride	10	***************************************	N.D.
····	• •	******************************	N.D.

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

SEQUOIA ANALYTICAL, #1271

Project Manag



680 Chesapeake Drive 1900 Bates Avenue, Suite L. Concord, CA 94520

Redwood City, CA 94063 #19 Striker Avenue, Suite # Sacramento, CA 95814

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FAX (415) 364-9233 FAX (510) 686-9689 FAX (916) 921-0100

Alton Geoscience 30-A Lindbergh Ave. Livermore, CA 94550 Attention: Kevin Keenan

Client Project (D: Mobil 04-H6J Sample Descript: Soil, Clar. Soil 4'

Sampled: Received:

Aug 1, 1994 Aug 2, 1994

Lab Number:

408-0185

Analyzed: Aug 5-8, 1994 Reported: Aug 16, 1994

# E.P.A. PRIORITY POLLUTANTS: METALS

Analyte	Detection Limit mg/kg (ppm)		Sample Results mg/kg (ppm)
Antimony	5.0		N.D.
Ar Senic.	5.0	***************************************	N.D.
	0.50	******************	Annual Company of the
Jaamium	0.50	*************************	N.D.
hromium,		****************************	N.D.
opper	0.50	tangannanananananananananananananananana	(0)
	0,50	*****************	35
。""你们就是我们的,我们就是我们的,我们就是我们的,我们就是我们的,我们就没有一个,我们就没有一个,我们就没有一个,我们就没有一个,我们就没有一个,我们就没有 "我们的我们就是我们的,我们就是我们的我们就是我们的我们就是我们的我们的我们的我们的我们的我们的我们的我们的我们的我们的我们的我们的我们的我	1.0		
TO WELL TO A COLOR OF	0.010	*****************	0.053
arman and an analysis and a same a	1.0	00000000000000000000000000000000000000	
· · · · · · · · · · · · · · · · · · ·	5.0	***************************************	
Silver	0.50	*******************************	N.D.
hallium		p1 44 44 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7	N.D.
4ff C	5.0	*************************	N.D.
Inc	1.0		(1)

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

**SEQUOIA ANALYTICAL** 

Project Manager



680 Chesapeake Drive 1900 Bates Avenue, Suite L 819 Striker Avenue, Suite 8

Redwood City, CA 94063 Concord, CA 94520 Sacramento, CA 95834 (415) \$64-9600 (510) 686-9600 (916) 921-9600

FAX (415) 364-9233 FAX (510) 686-9689 FAX (916) 921-0100

Alton Geoscience 30-A Lindbergh Ave. Livermore, CA 94550 Attention: Kevin Keenan

Client Project ID: Mobil 04-H6J

Matrix: Liquid

QC Sample Group: 4080184-185

Reported: Aug 11, 1994

### **QUALITY CONTROL DATA REPORT**

ANALYTE	Benzene	Toluane	Ethyl Benzene	Xylenes	Diesel	Oil & Grease
Method: Analyst:	EPA 8020 A. Tuzon	EPA 8020 A. Tuzon	EPA 8020 A. Tuzon	EPA 8020 A. Tuzon	EPA 8015 Mod K.V.S.	EPA 413.2 S.Le
MS/MSD Batch#:	4071490	4071490	4071490	4071490	BLK080594	BLk080894
Date Prepared: Date Analyzed: Instrument I.D.#: Conc. Spiked:	8/10/94 8/10/94 HP-2 20 µg/L	8/10/94 8/10/94 HP-2 20 µg/L	8/10/94 8/10/94 HP-2 20 µg/L	8/10/94 8/10/94 HP-2 60 µg/L	8/5/94 8/8/94 HP-38 300 µg/L	8/8/94 8/10/94 Miran IFF 5.0 µg/L
Matrix Spike % Recovery:	100	100	105	105	60	88
Matrix Spike Duplicate % Recovery:	100	100	105	105	73	90
Relative % Difference:	0.0	0.0	0.0	0.0	20	2.0

LCS Batch#:	1LCS081094	1LC\$081094	1LCS081094	1LCS081094	BLK080594	LCS080894	
Date Prepared: Date Analyzed: Instrument I.D.#:	8/10/94 8/10/94 HP-2	8/10/94 8/10/94 HP-2	8/10/94 8/10/94 HP-2	8/10/94 8/10/94 HP-2	8/5/94 8/8/94 HP-3B	8/8/94 8/10/94 Miran IFF	
LCS % Recovery:	100	100	103	104	73	88	
% Recovery Control Limits:	71-133	72-128	72-130	71-120	28-122	70-130	

SEQUOIA ANALYTICAL, #1271

Karen L. Enstrom 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.



0	680 Chesapeake Drive • Redwood City, CA 94063 • (415) 364-9600 FAX (415) 364-9233
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Q	1900 Bates Ave., Suite LM • Concord, CA 94520 • (510) 686-9600 FAX (510) 686-9690

Mobil Oil Consulting	g Firm	<u>-</u>	1/100	Gi	2020	ZAL C.	·			_			Stati	<u>4 no</u>	No./Site	e Add	iress	<u></u>	<u>٥</u> .	— 1	H6]				
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City: Livermort			<u> </u>	s	State:			Zip:					Mobi	il Oil	l Engin	neer:		Leci			Fout	Feh.			
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Sатріе I.O.	Matrix	te Sampled	<b>9</b>	Preservation	Number of Containers	Type of Containers	1 1	BTEX -TPH EPA M602/8015/8020 (GAS)	TPH EPA Modified 8015 Gas Diesel X	Oil & Grease - EPA	TPH - EPA 418.1	EPA 601/8010	EPA 624/8240	EPA 625/8270	2 Metal	Potal Fotal			Bioassay - Titk	Bioassay • Effluent	H01		Code 2	汝	Site Assessment
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Sludge	<u> </u>	8/2	<del> </del>	IKL TCE	0	4-4x , Ander 1-12 4-420	-	N.	Z.	× ×	$\sqcup$	\$	4	$\vdash$	Re	4 <b>4</b>	<del>pol</del>	4	1	<u> </u>	X	<u> </u>	Code 4		(Plan Devipmt.) Active Remed.
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t	'		<u> </u>	1'			[_!																Code 7		Closure
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