

June 29, 1999

Ms. Susan Hugo
Alameda County Health Agency
1131 Harbor Bay Parkway, 2nd Floor
Alameda, California 94502

Re: **Removal of Waste Oil UST, Hoists No. 1 & No. 2 and Clarifier Sump
Tosco Service Station 11126 (BP Branded)
1700 Powell Street
Emeryville, California**

Dear Ms. Hugo:

SECOR International Incorporated (SECOR) has prepared this letter on behalf of Tosco Marketing Company (Tosco) to document the excavation and removal of one waste oil underground storage tank (UST), one clarifier, and two hydraulic hoists at the site referenced above (Figures 1 and 2). Excavation and sampling activities were directed and observed by Ms. Susan Hugo of the Alameda County Health Agency (ACHA).

This report summarizes the results of the UST, clarifier, and hoist removals and sampling activities, and is organized as follows:

- Removal Activities
- Soil Sampling and Analytical Results
- Stockpiled Soil Disposal

REMOVAL ACTIVITIES

The clarifier and Hoist Nos. 1 and 2 were removed prior to SECOR's arrival on-site. Excavation and removal of the waste oil UST were performed by Henderson Construction on April 28, 1999. The waste oil UST and Hoist No. 2 were removed from two separate excavations, and the clarifier and Hoist No. 1 were removed from one excavation. The waste oil UST had capacity of 550 gallons and was of fiberglass construction. The waste oil UST appeared to be in good condition with no apparent holes or cracks noted during removal.

Groundwater was encountered at approximately 7.5 feet below ground surface (bgs) in the waste oil UST excavation. Groundwater was not encountered in the clarifier and hoist excavations.

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June 29, 1999
SECOR Job. No. 70888-031-01

ENVIRONMENTAL PROTECTION
CIVIL RIGHTS UNIT

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Alameda County Health Services
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Sampling and Analytical Results

On April 28, 1999, soil samples were collected from the excavations for the waste oil UST, and the clarifier and hoists, and a grab groundwater sample was collected from the excavation for the waste oil UST. Field and laboratory procedures are contained in Appendix A. Analytical results are summarized on Tables 1 through 3, and certified analytical reports and chain-of-custody documentation are presented as Attachment B.

Soil and water samples were analyzed for one or more of the following:

- Total petroleum hydrocarbons as gasoline (TPHg)
- Total extractable petroleum hydrocarbons (TEPH)
- Total petroleum hydrocarbons as motor oil (TPHmo)
- Benzene, toluene, ethylbenzene, and xylenes (BTEX)
- Methyl tertiary-butyl ether (MTBE)
- Halogenated volatile organics compounds (HVOCs)
- Semi-volatile organics compounds (SVOCs)
- Leaking underground fuel tank (LUFT) 5 Metals: cadmium, chromium, lead, nickel, and zinc.

The sampling results are discussed below.

Waste Oil UST

Two soil samples (OILT-1 at 5 feet bgs and OILT-2 at 6 feet bgs) were collected from the sidewalls of the excavation. Groundwater was encountered in the excavation at 7.5 feet bgs. One grab water sample (OILTWS-1) was collected from the excavation. Analytical results for soil samples OILT-1, 5' and OILT-2, 6' are summarized on Table 1. The results are summarized as follows:

Soil Samples

- TPHg, TEPH, and TPHmo were detected only in sample OILT-1 at 18 milligrams per kilogram (mg/kg), 370 mg/kg, and 7,000 mg/kg, respectively. BTEX were also detected in this sample at concentrations ranging from 0.11 mg/kg (ethylbenzene) to 0.4 mg/kg (toluene).
- LUFT metals were detected in OILT-1 and OILT-2 at concentrations ranging from 0.75 mg/kg (cadmium, OILT-1) to 250 mg/kg (zinc, OILT-1).
- MTBE was not detected in the soil samples above the method reporting limit (MRL).

Water Sample

- TEPH and TPHmo were detected at 560 micrograms per liter ($\mu\text{g}/\text{L}$) and 710 $\mu\text{g}/\text{L}$,

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respectively.

- Benzene and MTBE were detected at 10 µg/L and 2,400 µg/L, respectively.
- Chromium, nickel, and zinc were detected at concentrations ranging from 0.24 milligrams per liter (mg/L, chromium) to 0.34 mg/L (zinc).
- No other analytes were detected above the MRLs for these samples.

Clarifier and Hoist No. 1 and No. 2

One soil sample was collected from beneath the former clarifier (CLFR-1 [4 feet bgs]), the former Hoist No. 1 (HST-1 [8 feet bgs]), and Hoist No. 2 (HST-2 [8 feet bgs]) on April 28, 1999.

On May 7, 1999, Henderson over-excavated the clarifier, and Hoist Nos. 1 and 2 based on the initial results of total lead, TPHg, TEPH, and TPHmo analyses. Due to the occurrence of groundwater at approximately 6 feet bgs, over-excavation samples were collected from the sidewalls of each excavation at approximately 5 feet bgs. On May 7, 1999, additional soil samples were collected from beneath the former clarifier (CLFR-2 [5 feet bgs]), Hoist No. 1 (HST-1 [5 feet bgs]) and Hoist No. 2 (HST-2 [5 feet bgs]). Analytical results for the clarifier and hoist soil samples are summarized on Table 1. The results from two sampling events are summarized as follows:

- TPHg, TEPH, and TPHmo were detected at concentrations ranging from 1.4 mg/kg (TPHg, HST-1 [8 feet bgs] and HST-2 [8 feet bgs]) to 5,000 mg/kg (TPHmo, HST-1 [5 feet bgs]).
- BTEX were detected at concentrations ranging from 0.0051 mg/kg (toluene, HST-1 [8 feet bgs]) to 0.028 mg/kg (xylanes, CLFR-1).
- LUFT metals were detected at concentrations ranging from 2.4 mg/kg (cadmium, CLFR-1) to 22,000 mg/kg (lead, CLFR-1).
- MTBE was not detected in the soil samples above the MRL.

Soil Stockpiles

Excavated Soil. One soil stockpile was generated during the removal of the USTs, clarifier, and hoists. Two four-point soil samples, designated SSP (A-D) and SP-2 (A-D), were collected from the stockpile for characterization prior to disposal. In addition to the analyses listed above, sample SSP (A-D) was analyzed for lead by the Soluble Threshold Limiting Concentration (STLC) method, and SP-2 (A-D) was analyzed for lead by the Toxicity Characteristic Leaching Procedure (TCLP) method. Analytical results for the soil stockpile samples are summarized on Tables 2 and 3. The results are summarized as follows:

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- TPHg, TEPH, and TPHmo were detected at concentrations ranging from 1.5 mg/kg (TPHg, SP-2) to 1,400 mg/kg (TPHmo, SSP).
- Benzene, toluene, and xylenes were detected at concentrations ranging from 0.0075 mg/kg (xylenes, SP-2) to 0.014 mg/kg (xylenes, SSP).
- LUFT metals were detected at concentrations ranging from 1.6 mg/kg (cadmium, SSP) to 720 mg/kg (lead, SP-2).
- STLC lead was detected in sample SSP at 15 mg/L.
- TCLP lead was detected in sample SP-2 at 0.13 mg/L.
- Pyrene was detected in sample SSP at 610 mg/kg.
- No other analytes were detected above the MRLs for these samples.

Backfill Soil. One soil sample (PGSP [A-F]) was collected from the pea gravel removed from the waste oil UST excavation and used as backfill for the waste oil excavation. The results are summarized as follows:

- TEPH and TPHmo were detected at 2.3 mg/kg and 11 mg/kg, respectively.
- Xylenes were detected at 0.018 mg/kg.
- LUFT metals nickel and zinc were detected at 14 mg/kg and 13 mg/kg, respectively.
- No other analytes were detected above the MRLs for these samples.

STOCKPILED SOIL DISPOSAL

A total of 17.41 tons of non-RCRA hazardous Class I soil generated during the removal of the UST, hoists, and clarifier sump were hauled by DenBeste Trucking on May 28, 1999, for disposal at Safety-Kleen's Buttonwillow Landfill near Bakersfield, California.

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Alameda County Health Services
June 29, 1999
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If you have any questions or comments regarding this letter, please call Daniel Madsen at our Concord office at 925/686-9780.

Sincerely,
SECOR International Incorporated



Daniel E. Madsen
Associate Geologist



Thomas W. Crosby, C.H.G. #257
Principal Geologist

Attachments: Figure 1 - Site Location Map
Figure 2 - Site Plan
Table 1 - Summary of UST Excavation, Product Lines, Dispensers, and Clarifier Soil Analytical Results
Table 2 - Summary of Soil Stockpile Analytical Results - Organic Compounds
Table 3 - Summary of Soil Stockpile Analytical Results - Inorganic Compounds
Attachment A - Field and Laboratory Procedures
Attachment B - Certified Analytical Reports and Chain-of-Custody Documentation

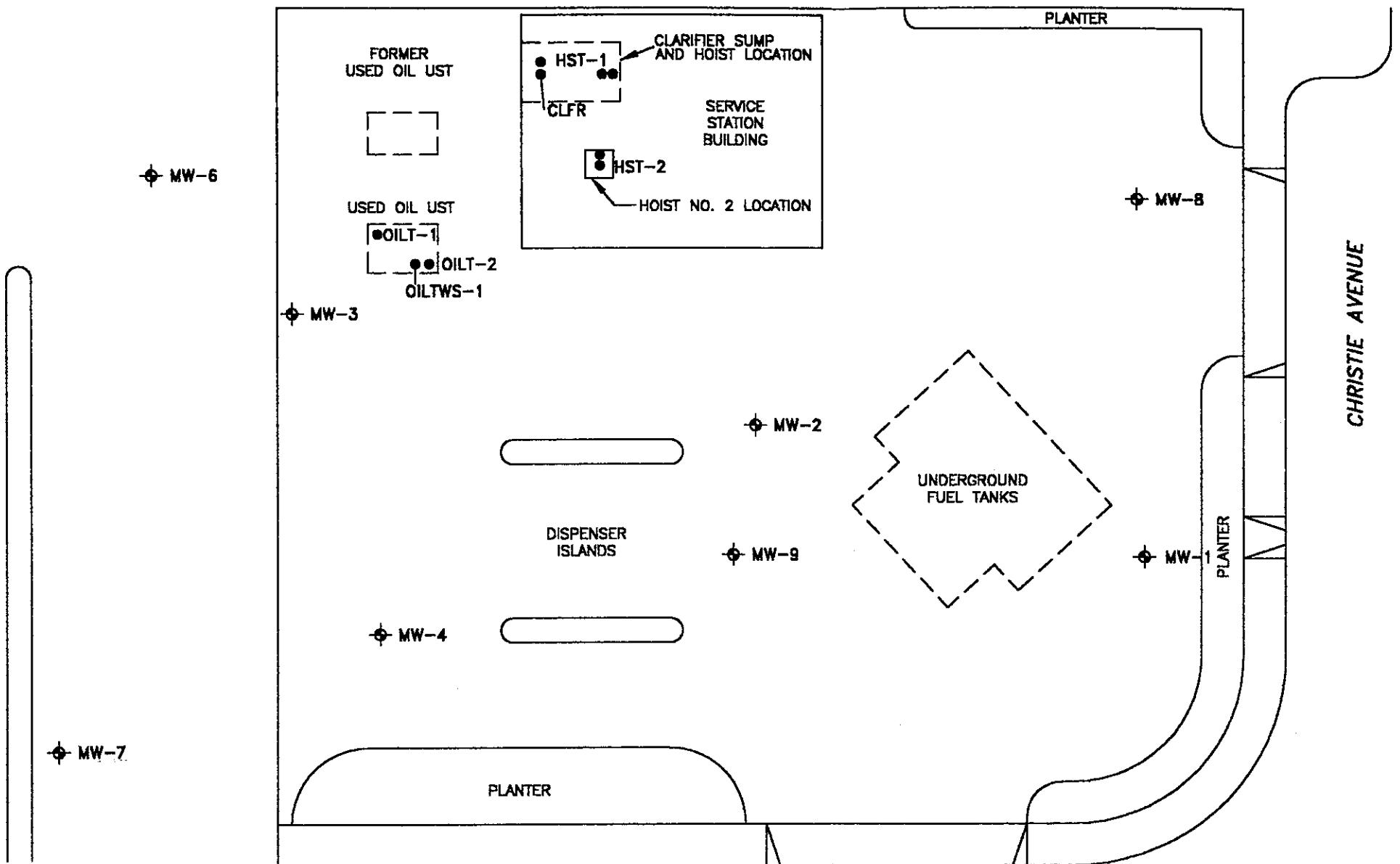
cc: Mr. David DeWitt, Tosco Marketing Company
Mr. Scott Hooten, BP Oil Company

FIGURES

OAKLAND WEST QUADRANGLE
Oakland West, California
7.5 Minute Series (Topographic)



DRAFTED BY: NH	CHECKED BY: AD	Project No. 70888-031-01	Figure 1	SECOR 1390 Willow Pass Road Suite 360 Concord, CA 94520
PREP. DATE: June 7, 1999	REV. DATE: June 7, 1999	Tosco Service Station #BP11126 1700 Powell Street Emeryville, California	Site Location Map	
FILE NAME: I:\Projects\70888\031-01				

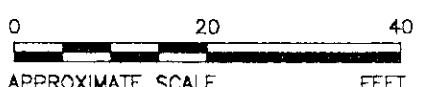


POWELL STREET

MW-5

LEGEND:

- MW-1 GROUNDWATER MONITORING WELL
- OILT-2 SOIL SAMPLE LOCATION
- OILTWS-1 WATER SAMPLE LOCATION



SECOR
International
Incorporated

DRAWN	TJZ
APPR	AD
DATE	10MAY99
JOB NO.	70888-031-01

FIGURE 2
TOSCO SERVICE STATION #BP11126
1700 POWELL STREET
EMERYVILLE, CALIFORNIA
SITE PLAN

TABLES

Table 1
Summary of Waste Oil UST Excavation, Hoists, and Clarifier
Soil and Water Analytical Results

Tosco Service Station 11126 (BP Branded)
 1700 Powell Street
 Emeryville, California

Sample Name	Sample Depth (ft bgs)	Date Sampled	TPHg (mg/kg)	TEPH (mg/kg)	TPHmo (mg/kg)	Benzene (mg/kg)	Toluene (mg/kg)	Ethylbenzene (mg/kg)	Xylenes (mg/kg)	MTBE (mg/kg)	Cadmium (mg/kg)	Chromium (mg/kg)	Lead (mg/kg)	Nickel (mg/kg)	Zinc (mg/kg)
Soil Analytical Results															
OILT-1	5	4/28/99	18	370	7,000	0.19	0.40	0.11	0.12	ND	0.75	89	230	45	250
OILT-2	6	4/28/99	ND	ND	ND	ND	ND	ND	ND	ND	ND	47	47	55	56
CLRF-1	4	4/28/99	3.0	ND	ND	0.013	0.0068	ND	0.028	ND	2.4	44	22,000	34	2,700
CLRF-2	5	5/7/99	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	410	NA	NA
HST-1	8	4/28/99	1.4	870	4,200	0.011	0.0051	ND	0.027	ND	ND	48	650	64	340
HST-1	5	5/7/99	1,200	1,200	5,000	NA	NA	NA	NA	NA	NA	NA	11	NA	NA
HST-2	8	4/28/99	1.4	200	900	0.012	ND	ND	0.012	ND	ND	45	110	42	170
HST-2	5	5/7/99	880	880	2,300	NA	NA	NA	NA	NA	NA	NA	25	NA	NA
Water Analytical Results															
Sample Name	Sample Depth	Date Sampled	TPHg (ug/L)	TEPH (ug/L)	TPHmo (ug/L)	Benzene (ug/L)	Toluene (ug/L)	Ethylbenzene (ug/L)	Xylenes (ug/L)	MTBE (ug/L)	Cadmium (mg/L)	Chromium (mg/L)	Lead (mg/L)	Nickel (mg/L)	Zinc (mg/L)
OILTWS-1	-	4/28/99	ND	560	710	10	ND	ND	ND	2,400	ND	0.24	ND	0.30	0.34

Notes:

Method reporting limits are indicated in certified analytical reports

ft bgs = feet below ground surface

TPHg = Total petroleum hydrocarbons as gasoline

TEPH = Total extractable petroleum hydrocarbons

TPHmo = Total petroleum hydrocarbons as motor oil

MTBE = Methyl tert-butyl ether

mg/kg = Milligrams per kilogram

ug/L = Micrograms per liter

ND = Not detected above the method reporting limit

NA = Not Analyzed

Table 2
Summary of Soil Stockpile Analytical Results
Organic Compounds

Tosco Service Station 11126 (BP Branded)
 1700 Powell Street
 Emeryville, California

Sample Name	Sample Date	TPHg (mg/kg)	TEPH (mg/kg)	TPHmo (mg/kg)	Benzene (mg/kg)	Toluene (mg/kg)	Ethyl-benzene (mg/kg)	Xylenes (mg/kg)	MTBE (mg/kg)	HVOCs (ug/kg)	SVOCs (ug/kg) Pyrene
SSP (A-D)	4/28/99	ND	250	1,400	ND	ND	ND	0.014	ND	ND	610
SP-2 (A-D)	5/7/99	1.5	110	450	0.013	0.012	ND	0.0075	ND	ND	ND
PGSP (A-F)	4/28/99	ND	2.3	11	ND	ND	ND	0.018	ND	ND	ND

NOTES:

Method reporting limits are indicated in certified analytical reports.

TPHg = Total petroleum hydrocarbons as gasoline

TEPH = Total extractable petroleum hydrocarbons

TPHmo = Total petroleum hydrocarbons as motor oil

MTBE = Methyl tert-butyl ether

HVOCs = Halogenated Volatile Organic Compounds

SVOCs = Semivolatile Organic Compounds; only those compounds detected are shown

mg/kg = Milligrams per kilogram

ug/kg = Micrograms per kilogram

ND = Not detected above the method reporting limit

NA = Not Analyzed

Table 3
Summary of Soil Stockpile Analytical Results
Inorganic Compounds

Tosco Service Station 11126 (BP Branded)
 1700 Powell Street
 Emeryville, California

Sample Name	Sample Date	Cadmium (mg/kg)	Chromium (mg/kg)	Total Lead (mg/kg)	Nickel (mg/kg)	Zinc (mg/kg)	TCLP Lead (mg/L)	STLC Lead (mg/L)
SSP (A-D)	4/28/99	1.6	41	190	43	270	NA	15
SP-2 (A-D)	5/7/99	ND	38	720	45	210	0.13	NA
PGSP (A-F)	4/28/99	ND	ND	ND	14	13	NA	NA

Notes:

Method reporting limits are indicated in certified analytical reports.

mg/kg = Milligrams per kilogram

mg/L = Milligrams per liter

ND = Not detected above the method reporting limit

NA = Not Analyzed

ATTACHMENT A

Field and Laboratory Procedures

ATTACHMENT A

FIELD AND LABORATORY PROCEDURES

Soil Sampling

Soil samples were collected by advancing 2-inch diameter brass sample liners into soil removed from an excavation by a backhoe bucket or hand auger. Soil samples for chemical analysis were retained in the brass liners, labeled, and capped with Teflon sheets and plastic end caps. The samples were then sealed in zip-lock bags, placed on ice, and transported to the laboratory accompanied by the appropriate chain-of-custody documentation.

Soil Sampling for Stockpiled Soil

Soil samples were collected by advancing 2-inch diameter brass sample liners into the soil stockpile, after removing approximately 6 inches to 1 foot of surface material in the sample location. Approximately four discrete samples were collected per approximately 50 cubic yards of soil. Soil samples for chemical analysis were retained in the brass liners, labeled, and capped with Teflon sheets and plastic end caps. The samples were then sealed in zip-lock bags, placed on ice, and transported to the laboratory accompanied by the appropriate chain-of-custody documentation. The four discrete soil samples per 50 cubic yards of soil were composited at the laboratory for analysis.

Laboratory Analysis of Soil and Water Samples

Analysis for total petroleum hydrocarbons as gasoline (TPHg), extractable petroleum hydrocarbons (TEPH), and total petroleum hydrocarbons as motor oil (TPHmo) were performed by Environmental Protection Agency (EPA) Method 8015 (modified). Analysis for benzene, toluene, ethylbenzene, and total xylenes (BTEX) and methyl tertiary butyl ether (MTBE) were performed by EPA Method 8020 (except where BTEX was analyzed by EPA Method 8240). Analysis for VOCs were performed by EPA Method 8010, and SVOCs analysis were performed by EPA Method 8270. Analysis for Leaking Underground Fuel Tank (LUFT) 5 Metals and Total Characteristic Leaching Potential (TCLP) analyses were performed by EPA Method 6010. Soluable Threshold Limit Concentration analysis was performed by EPA Method 200.7.

ATTACHMENT B

Certified Analytical Reports and Chain-of-Custody Documentation



Sequoia Analytical

SECOR
 1390 Willow Pass Rd, Ste 360
 Concord, CA 94520
 Attention: Dan Madsen

680 Chesapeake Drive
 404 N. Wiget Lane
 819 Striker Avenue, Suite 8
 1455 McDowell Blvd. North, Ste. D
 1551 Industrial Road

Redwood City, CA 94063
 Walnut Creek, CA 94598
 Sacramento, CA 95834
 Petaluma, CA 94954
 San Carlos, CA 94070-4111

(650) 364-9600
 (925) 988-9600
 (916) 921-9600
 (707) 792-1865
 (650) 232-9600

FAX (650) 364-9233
 FAX (925) 988-9673
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 FAX (707) 792-0342
 FAX (650) 232-9612

Client Project ID: Tosco BP 11126 - Emeryville
 Sample Matrix: Soil
 Analysis Method: EPA 5030/8015 Mod./8020
 First Sample #: 904-2515

Sampled: Apr 28, 1999
 Received: Apr 28, 1999
 Reported: Apr 29, 1999

QC Batch Number: SP042899

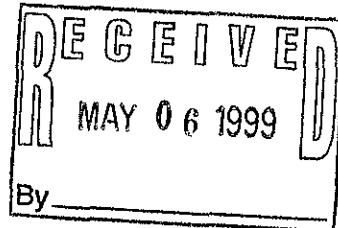
8020EXA

TOTAL PURGEABLE PETROLEUM HYDROCARBONS with BTEX / MTBE

Analyte	Reporting Limit mg/Kg	Sample I.D. 904-2515 SSP(A-D)
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Purgeable Hydrocarbons	1.0	N.D.
Benzene	0.0050	N.D.
Toluene	0.0050	N.D.
Ethyl Benzene	0.0050	N.D.
Total Xylenes	0.0050	0.014
MTBE	0.050	N.D.

Chromatogram Pattern: --



Quality Control Data

Report Limit Multiplication Factor:	1.0
Date Analyzed:	4/28/99
Instrument Identification:	HP-5
Surrogate Recovery, %: (QC Limits = 40-140%)	112

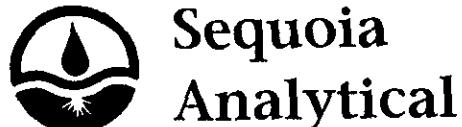
Purgeable Hydrocarbons are quantitated against a fresh gasoline standard.
 Analytes reported as N.D. were not detected above the stated reporting limit.

SEQUOIA ANALYTICAL, #1271

Dimple Sharma
 Project Manager

9042515.SEC <1>





Sequoia Analytical

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1551 Industrial Road	San Carlos, CA 94070-4111	(650) 232-9600	FAX (650) 232-9612

SECOR
1390 Willow Pass Rd, Ste 360
Concord, CA 94520
Attention: Dan Madsen
QC Batch Number:

Client Project ID: Tosco BP 11126 - Emeryville
Sample Matrix: Soil
Analysis Method: EPA 3550/8015 Mod.
First Sample #: 904-2515
SP042899
8015EXC

Sampled: Apr 28, 1999
Received: Apr 28, 1999
Reported: Apr 29, 1999

TOTAL EXTRACTABLE PETROLEUM HYDROCARBONS

Analyte	Reporting Limit mg/kg	Sample I.D. 904-2515 SSP(A-D)
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Extractable Hydrocarbons	1.0	250
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Chromatogram Pattern:	Unidentified Hydrocarbons > C16
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Quality Control Data

Report Limit Multiplication Factor:	50
Date Extracted:	4/28/99
Date Analyzed:	4/29/99
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

Dimple Sharma
Project Manager

9042515.SEC <2>





Sequoia Analytical

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FAX (707) 792-0342
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SÉCOR
1390 Willow Pass Rd, Ste 360
Concord, CA 94520
Attention: Dan Madsen
QC Batch Number:

Client Project ID: Tosco BP 11126 - Emeryville
Sample Matrix: Soil
Analysis Method: EPA 3550/8015 Mod.
First Sample #: 904-2515
SP042899
8015EXC

Sampled: Apr 28, 1999
Received: Apr 28, 1999
Reported: Apr 29, 1999

TOTAL EXTRACTABLE PETROLEUM HYDROCARBONS As Motor Oil

Analyte	Reporting Limit mg/kg	Sample I.D. 904-2515 SSP(A-D)
---------	--------------------------	-------------------------------------

Extractable Hydrocarbons 10 1,400

Chromatogram Pattern: Motor Oil

Quality Control Data

Report Limit Multiplication Factor:	50
Date Extracted:	4/28/99
Date Analyzed:	4/29/99
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

Dimple Sharma
Project Manager





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San Carlos, CA 94070-4111 (650) 232-9600 FAX (650) 232-9612

SECOR
1390 Willow Pass Rd, Ste 360
Concord, CA 94520
Attention: Dan Madsen

Client Project ID: Tosco BP 11126 - Emeryville
Sample Descript: Soil, SSP(A-D)
Analysis Method: EPA 5030/8010
Lab Number: 904-2515

Sampled: Apr 28, 1999
Received: Apr 28, 1999
Analyzed: Apr 28, 1999
Reported: Apr 29, 1999

QC Batch Number: SP0423998010EXA

Instrument ID: HP-6

HALOGENATED VOLATILE ORGANICS (EPA 8010)

Analyte	Detection Limit µg/kg	Sample Results µg/kg
Bromodichloromethane.....	25	.....
Bromoform.....	25	.....
Bromomethane.....	50	.....
Carbon tetrachloride.....	25	.....
Chlorobenzene.....	25	.....
Chloroethane.....	50	.....
Chloroform.....	25	.....
Chloromethane.....	50	.....
Dibromochloromethane.....	25	.....
1,2-Dichlorobenzene.....	25	.....
1,3-Dichlorobenzene.....	25	.....
1,4-Dichlorobenzene.....	25	.....
1,1-Dichloroethane.....	25	.....
1,2-Dichloroethane.....	25	.....
1,1-Dichloroethene.....	25	.....
cis-1,2-Dichloroethene.....	25	.....
trans-1,2-Dichloroethene.....	25	.....
1,2-Dichloropropane.....	25	.....
cis-1,3-Dichloropropene.....	25	.....
trans-1,3-Dichloropropene.....	25	.....
Methylene chloride.....	500	.....
1,1,2,2-Tetrachloroethane.....	25	.....
Tetrachloroethene.....	25	.....
1,1,1-Trichloroethane.....	25	.....
1,1,2-Trichloroethane.....	25	.....
Trichloroethene.....	25	.....
Trichlorofluoromethane.....	25	.....
Vinyl chloride.....	50	.....
Surrogates	Control Limit %	% Recovery
1-Chloro-2-fluorobenzene.....	50	150.....
4-Bromofluorobenzene.....	50	150.....

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

SEQUOIA ANALYTICAL, #1271

Dimple Sharma
Project Manager





Sequoia Analytical

SECOR
1390 Willow Pass Rd, Ste 360
Concord, CA 94520
Attention: Dan Madsen

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San Carlos, CA 94070-4111	(650) 232-9600	FAX (650) 232-9612

Client Project ID: Tosco BP 11126 - Emeryville
Sample Descript: Soil, SSP(A-D)
Lab Number: 904-2515

Sampled:	Apr 28, 1999
Received:	Apr 28, 1999
Digested:	Apr 28, 1999
Analyzed:	Apr 28, 1999
Reported:	Apr 29, 1999

LUFT METALS

Analyte	Detection	Sample	QC Batch	Instrument
	Limit mg/kg	Results mg/kg	Number	ID
Cadmium.....	0.50	1.6	ME0427996010MDC	MV-4
Chromium.....	0.50	41	ME0427996010MDC	MV-4
Lead.....	1.0	190	ME0427996010MDC	MV-4
Nickel.....	1.0	43	ME0427996010MDC	MV-4
Zinc.....	1.0	270	ME0427996010MDC	MV-4

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

SEQUOIA ANALYTICAL, #1271

Dimple Sharma
Project Manager





Sequoia Analytical

680 Chesapeake Drive
404 N. Wiget Lane
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1551 Industrial Road

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Sacramento, CA 95834 (916) 921-9600 FAX (916) 921-0100
Petaluma, CA 94954 (707) 792-1865 FAX (707) 792-0342
San Carlos, CA 94070-4111 (650) 232-9600 FAX (650) 232-9612

SECOR
1390 Willow Pass Rd, Ste 360
Concord, CA 94520
Attention: Dan Madsen

Client Project ID: Tosco BP 11126 - Emeryville
Matrx: Solid

QC Sample Group: 904-2515

Reported: Apr 29, 1999

QUALITY CONTROL DATA REPORT

Analyte:	Benzene	Toluene	Ethyl Benzene	Xylenes	Diesel
QC Batch#:	SP042899	SP042899	SP042899	SP042899	SP042899
	8020EXA	8020EXA	8020EXA	8020EXA	8015EXC
Anal. Method:	EPA 8020	EPA 8020	EPA 8020	EPA 8020	EPA 8015Mod.
Prep. Method:	EPA 5030	EPA 5030	EPA 5030	EPA 5030	EPA 3550
Analyst:	J. Minkel	J. Minkel	J. Minkel	J. Minkel	K. Grubb
MS/MSD #:	9042264	9042264	9042264	9042264	BLK042899
Sample Conc.:	N.D.	N.D.	N.D.	N.D.	N.D.
Prepared Date:	4/28/99	4/28/99	4/28/99	4/28/99	4/28/99
Analyzed Date:	4/28/99	4/28/99	4/28/99	4/28/99	4/29/99
Instrument I.D. #:	HP-5	HP-5	HP-5	HP-5	HP-3B
Conc. Spiked:	0.80 mg/Kg	0.80 mg/Kg	0.80 mg/Kg	2.4 mg/Kg	15 mg/Kg
Result:	0.96	0.96	0.94	3.0	12
MS % Recovery:	120	120	118	125	80
Dup. Result:	0.94	0.96	0.96	3.0	13
MSD % Recov.:	118	120	120	125	87
RPD:	2.1	0.0	2.1	0.0	8.0
RPD Limit:	0-20	0-20	0-20	0-20	0-50

LCS #:	5LCS042899	5LCS042899	5LCS042899	5LCS042899	-
Prepared Date:	4/28/99	4/28/99	4/28/99	4/28/99	-
Analyzed Date:	4/28/99	4/28/99	4/28/99	4/28/99	-
Instrument I.D. #:	HP-5	HP-5	HP-5	HP-5	-
Conc. Spiked:	0.80 mg/Kg	0.80 mg/Kg	0.80 mg/Kg	2.4 mg/Kg	-
LCS Result:	1.2	1.2	1.1	3.4	-
LCS % Recov.:	150	150	138	142	-

MS/MSD					
LCS	50-150	50-150	50-150	50-150	60-140

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.

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

SEQUOIA ANALYTICAL, #1271

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SECOR
1390 Willow Pass Rd, Ste 360
Concord, CA 94520

Client Project ID: **Tosco BP 11126 - Emeryville**
Matrix: Solid

Attention: Dan Madsen

QC Sample Group: 904-2515

Reported: Apr 29, 1999

QUALITY CONTROL DATA REPORT

Analyte:	1,1-Dichloro-	Trichloro-	Chloro-
	ethene	ethene	benzene
QC Batch#:	SP042399	SP042399	SP042399
	8010EXA	8010EXA	8010EXA
Analy. Method:	EPA 8010	EPA 8010	EPA 8010
Prep. Method:	EPA 5030	EPA 5030	EPA 5030

Analyst:	P. Kosovskaya	P. Kosovskaya	P. Kosovskaya
MS/MSD #:	9041836	9041836	9041836
Sample Conc.:	N.D.	N.D.	N.D.
Prepared Date:	4/23/99	4/23/99	4/23/99
Analyzed Date:	4/23/99	4/23/99	4/23/99
Instrument I.D. #:	HP-7	HP-7	HP-7
Conc. Spiked:	1000 µg/Kg	1000 µg/Kg	1000 µg/Kg

Result:	710	910	910
MS % Recovery:	71	91	91
Dup. Result:	470	830	800
MSD % Recov.:	47	83	80
RPD:	41	9.2	13
RPD Limit:	0-25	0-25	0-25

LCS #:	LCS042899	LCS042899	LCS042899
Prepared Date:	4/28/99	4/28/99	4/28/99
Analyzed Date:	4/28/99	4/28/99	4/28/99
Instrument I.D. #:	HP-7	HP-7	HP-7
Conc. Spiked:	1000 µg/Kg	1000 µg/Kg	1000 µg/Kg
LCS Result:	680	920	990
LCS % Recov.:	68	92	99

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

Please Note:

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

SEQUOIA ANALYTICAL, #1271

Dimple Sharma
Project Manager





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SECOR
1390 Willow Pass Rd, Ste 360
Concord, CA 94520

Client Project ID: Tosco BP 11126 - Emeryville
Matrix: Solid

Attention: Dan Madsen

QC Sample Group: 904-2515

Reported: Apr 29, 1999

QUALITY CONTROL DATA REPORT

Analyte:	Cadmium	Chromium	Nickel	Lead	Zinc
QC Batch#:	ME042799	ME042799	ME042799	ME042799	ME042799
	6010MDC	6010MDC	6010MDC	6010MDC	6010MDC
Anal. Method:	EPA 6010				
Prep. Method:	EPA 3050				

Analyst:	J. Kelly	J. Kelly	J. Kelly	J. Kelly	J. Kelly
MS/MSD #:	9042418	9042418	9042418	9042418	9042418
Sample Conc.:	30 mg/Kg	12 mg/Kg	15 mg/Kg	150 mg/Kg	5900 mg/Kg
Prepared Date:	4/27/99	4/27/99	4/27/99	4/27/99	4/27/99
Analyzed Date:	4/28/99	4/28/99	4/28/99	4/28/99	4/28/99
Instrument I.D.#:	MV-4	MV-4	MV-4	MV-4	MV-4
Conc. Spiked:	50 mg/Kg	50 mg/Kg	50 mg/Kg	50 mg/Kg	50 mg/Kg
Result:	62	54	57	190	5800
MS % Recovery:	64	84	84	80	-
Dup. Result:	58	56	61	320	6000
MSD % Recov.:	56	88	92	340	-
RPD:	6.7	3.6	6.8	51	3.4
RPD Limit:	0-20	0-20	0-20	0-20	0-20

LCS #:	LCS042899	LCS042899	LCS042899	LCS042899	LCS042899
Prepared Date:	4/27/99	4/27/99	4/27/99	4/27/99	4/27/99
Analyzed Date:	4/28/99	4/28/99	4/28/99	4/28/99	4/28/99
Instrument I.D.#:	MV-4	MV-4	MV-4	MV-4	MV-4
Conc. Spiked:	50 mg/Kg	50 mg/Kg	50 mg/Kg	50 mg/Kg	50 mg/Kg
LCS Result:	52	51	50	48	51
LCS % Recov.:	104	102	100	96	102

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

SEQUOIA ANALYTICAL, #1271

Dimple Sharma
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



UNOCAL

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- 404 N. Wiget Lane • Walnut Creek, CA 94598 • (925) 988-9600
- 1455 McDowell Blvd. North, Suite D • Petaluma, CA 94954 • (707) 792-1865

- 18939 120th Ave., N.E. Suite 101 • Bothell, WA 98011 • (206) 481-9200
- East 11115 Montgomery, Suite B • Spokane, WA 99206 • (509) 924-9200
- 15055 S.W. Sequoia Pkwy, Suite 110 • Portland, OR 97222 • (503) 624-9800

Consultant Company: <u>SECOR</u>				Project Name: <u>Tesco</u>			
Address: <u>1390 Willow Pass Rd, Ste 3600</u>				UNOCAL Project Manager: <u>Dave Dewitt</u>			
City: <u>Concord</u>	State: <u>CA</u>	Zip Code: <u>94520</u>		AFE #: <u>CAR0000000232 9904672</u>			
Telephone: <u>(925) 686-9780</u>		FAX #: <u>(925) 686-3099</u>		Site #, City, State: <u>BP11126, Emeryville, CA</u>			
Report To: <u>Don Madsen</u>		Sampler: <u>Nyree Nagopian</u>		QC Data: <input checked="" type="checkbox"/> Level D (Standard) <input type="checkbox"/> Level C <input type="checkbox"/> Level B <input type="checkbox"/> Level A			

Turnaround 10 Work Days 5 Work Days 3 Work Days
 Time: 2 Work Days 1 Work Day 2-8 Hours

CODE: Misc. Detect. Eval. Remed. Demol. Closure

- Drinking Water
- Waste Water
- Other

Analyses Requested

Total Lead TPH ^{gasoline} TPH ^{diesel} TPH ^{oil} BTX MTBE Chlorinated Metals ^{TCI} ^{ICP} ^{EDTA}
 Nyree 4/28/99 4/28/99 4/28/99 4/28/99 4/28/99 4/28/99 4/28/99

Client Sample I.D.	Date/Time Sampled	Matrix Desc.	# of Cont.	Cont. Type	Laboratory Sample #	Analyses Requested							Comments
1. SSP(A-D)	4/28/99	Soil	4	Brass	9042515 A-D	X	X	X	X	X	X	X	Composite
2.													
3.													
4.													
5.													
6.													
7.													
8.													
9.													
10.													

Relinquished By:	<u>Nyree Nagopian</u>	Date: <u>4/28/99</u>	Time: <u>14:25</u>	Received By:		Date:		Time:
Relinquished By:		Date:	Time:	Received By:		Date:		Time:
Relinquished By:		Date:	Time:	Received By Lab:	<u>Ronald C. Jensen</u>	Date: <u>4/28/99</u>	Time: <u>14:25</u>	

Were Samples Received in Good Condition? Yes No Samples on Ice? Yes No Method of Shipment _____ Page ____ of ____

To be completed upon receipt of report:

- 1) Were the analyses requested on the Chain of Custody reported? Yes No If no, what analyses are still needed? _____
- 2) Was the report issued within the requested turnaround time? Yes No If no, what was the turnaround time? _____

Approved by: _____ Signature: _____ Company: _____ Date: _____

Pink - Client

Yellow - Laboratory

White - Laboratory



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FAX (707) 792-0342
FAX (650) 232-9612

SECOR
1390 Willow Pass Rd, Ste 360
Concord, CA 94520
Attention: Dan Madsen

Client Project ID: Tosco BP 11126, Emeryville
Sample Matrix: Soil
Analysis Method: EPA 5030/8015 Mod./8020
First Sample #: 904-2514

Sampled: Apr 28, 1999
Received: Apr 28, 1999
Reported: Apr 29, 1999

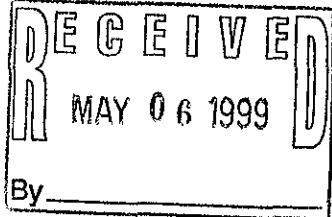
QC Batch Number: SP042899

8020EXA

TOTAL PURGEABLE PETROLEUM HYDROCARBONS with BTEX / MTBE

Analyte	Reporting Limit mg/Kg	Sample I.D. 904-2514 PGSP (A-F)
---------	--------------------------	---------------------------------------

Purgeable Hydrocarbons	1.0	N.D.
Benzene	0.0050	N.D.
Toluene	0.0050	N.D.
Ethyl Benzene	0.0050	N.D.
Total Xylenes	0.0050	0.018
MTBE	0.050	N.D.



Chromatogram Pattern: --

Quality Control Data

Report Limit Multiplication Factor:	1.0
Date Analyzed:	4/28/99
Instrument Identification:	HP-5
Surrogate Recovery, %: (QC Limits = 40-140%)	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

Dimple Sharma
Project Manager



Sequoia Analytical

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SECOR
1390 Willow Pass Rd, Ste 360
Concord, CA 94520
Attention: Dan Madsen
QC Batch Number:

Client Project ID: Tosco BP 11126, Emeryville
Sample Matrix: Soil
Analysis Method: EPA 3550/8015 Mod.
First Sample #: 904-2514
SP042899
8015EXC

Sampled: Apr 28, 1999
Received: Apr 28, 1999
Reported: Apr 29, 1999

TOTAL EXTRACTABLE PETROLEUM HYDROCARBONS

Analyte	Reporting Limit mg/kg	Sample I.D. 904-2514 PGSP(A-F)
---------	--------------------------	--------------------------------------

Extractable Hydrocarbons 1.0 2.3

Chromatogram Pattern: Unidentified Hydrocarbons
 > C16

Quality Control Data

Report Limit Multiplication Factor:	1.0
Date Extracted:	4/28/99
Date Analyzed:	4/29/99
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

Dimple Sharma
Project Manager

9042514.SEC <2>





Sequoia Analytical

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1455 McDowell Blvd. North, Ste. D	Petaluma, CA 94954	(707) 792-1865	FAX (707) 792-0342
1551 Industrial Road	San Carlos, CA 94070-4111	(650) 232-9600	FAX (650) 232-9612

SECOR
1390 Willow Pass Rd, Ste 360
Concord, CA 94520
Attention: Dan Madsen

QC Batch Number: SP042899

8015EXC

TOTAL EXTRACTABLE PETROLEUM HYDROCARBONS As Motor Oil

Analyte	Reporting	Sample	
	Limit	I.D.	
	mg/kg	904-2514	PGSP(A-F)

Extractable
Hydrocarbons 10 11

Chromatogram Pattern: Motor Oil

Quality Control Data

Report Limit Multiplication Factor:	1.0
Date Extracted:	4/28/99
Date Analyzed:	4/29/99
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

Dimple Sharma
Project Manager

9042514.SEC <3>





Sequoia Analytical

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 1551 Industrial Road San Carlos, CA 94070-4111 (650) 232-9600 FAX (650) 232-9612

SECOR Client Project ID: Tosco BP 11126, Emeryville Sampled: Apr 28, 1999
 1390 Willow Pass Rd, Ste 360 Sample Descript: Soil, PGSP (A-F) Received: Apr 28, 1999
 Concord, CA 94520 Analysis Method: EPA 5030/8010 Analyzed: Apr 28, 1999
 Attention: Dan Madsen Lab Number: 904-2514 Reported: Apr 29, 1999

QC Batch Number: SP0423998010EXA

Instrument ID: HP-6

HALOGENATED VOLATILE ORGANICS (EPA 8010)

Analyte	Detection Limit µg/kg	Sample Results µg/kg
Bromodichloromethane.....	25	.....
Bromoform.....	25	.....
Bromomethane.....	50	.....
Carbon tetrachloride.....	25	.....
Chlorobenzene.....	25	.....
Chloroethane.....	50	.....
Chloroform.....	25	.....
Chloromethane.....	50	.....
Dibromochloromethane.....	25	.....
1,2-Dichlorobenzene.....	25	.....
1,3-Dichlorobenzene.....	25	.....
1,4-Dichlorobenzene.....	25	.....
1,1-Dichloroethane.....	25	.....
1,2-Dichloroethane.....	25	.....
1,1-Dichloroethene.....	25	.....
cis-1,2-Dichloroethene.....	25	.....
trans-1,2-Dichloroethene.....	25	.....
1,2-Dichloropropane.....	25	.....
cis-1,3-Dichloropropene.....	25	.....
trans-1,3-Dichloropropene.....	25	.....
Methylene chloride.....	500	.....
1,1,2,2-Tetrachloroethane.....	25	.....
Tetrachloroethene.....	25	.....
1,1,1-Trichloroethane.....	25	.....
1,1,2-Trichloroethane.....	25	.....
Trichloroethene.....	25	.....
Trichlorofluoromethane.....	25	.....
Vinyl chloride.....	50	.....
Surrogates	Control Limit %	% Recovery
1-Chloro-2-fluorobenzene.....	50	150.....
4-Bromofluorobenzene.....	50	150.....

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

SEQUOIA ANALYTICAL, #1271

Dimple Sharma
Project Manager





Sequoia Analytical

SECOR
 1390 Willow Pass Rd, Ste 360
 Concord, CA 94520
 Attention: Dan Madsen

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1551 Industrial Road	San Carlos, CA 94070-4111	(650) 232-9600	FAX (650) 232-9612

Client Project ID: Tosco BP 11126, Emeryville

Sample Descript: Soil, PGSP (A-F)

Lab Number: 904-2514

Sampled:	Apr 28, 1999
Received:	Apr 28, 1999
Digested:	Apr 28, 1999
Analyzed:	Apr 28, 1999
Reported:	Apr 29, 1999

LUFT METALS

Analyte	Detection	Sample	QC Batch	Instrument
	Limit mg/kg	Results mg/kg	Number	ID
Cadmium.....	0.50	N.D.	ME0427996010MDC	MV-4
Chromium.....	0.50	N.D.	ME0427996010MDC	MV-4
Lead.....	1.0	N.D.	ME0427996010MDC	MV-4
Nickel.....	1.0	14	ME0427996010MDC	MV-4
Zinc.....	1.0	13	ME0427996010MDC	MV-4

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

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SECOR
1390 Willow Pass Rd, Ste 360
Concord, CA 94520

Attention: Dan Madsen

Client Project ID: Tosco BP 11126, Emeryville
Matrix: Solid

QC Sample Group: 904-2514

Reported: Apr 29, 1999

QUALITY CONTROL DATA REPORT

Analyte:	Benzene	Toluene	Ethyl Benzene	Xylenes	Diesel
QC Batch#:	SP042899 8020EXA	SP042899 8020EXA	SP042899 8020EXA	SP042899 8020EXA	SP042899 8015EXC
Anal. Method:	EPA 8020	EPA 8020	EPA 8020	EPA 8020	EPA 8015Mod.
Prep. Method:	EPA 5030	EPA 5030	EPA 5030	EPA 5030	EPA 3550

Analyst:	J. Minkel	J. Minkel	J. Minkel	J. Minkel	K. Grubb
MS/MSD #:	9042264	9042264	9042264	9042264	BLK042899
Sample Conc.:	N.D.	N.D.	N.D.	N.D.	N.D.
Prepared Date:	4/28/99	4/28/99	4/28/99	4/28/99	4/28/99
Analyzed Date:	4/28/99	4/28/99	4/28/99	4/28/99	4/29/99
Instrument I.D.#:	HP-5	HP-5	HP-5	HP-5	HP-3B
Conc. Spiked:	0.80 mg/Kg	0.80 mg/Kg	0.80 mg/Kg	2.4 mg/Kg	15 mg/Kg
Result:	0.96	0.96	0.94	3.0	12
MS % Recovery:	120	120	118	125	80
Dup. Result:	0.94	0.96	0.96	3.0	13
MSD % Recov.:	118	120	120	125	87
RPD:	2.1	0.0	2.1	0.0	8.0
RPD Limit:	0-20	0-20	0-20	0-20	0-50

LCS #:	5LCS042899	5LCS042899	5LCS042899	5LCS042899	-
Prepared Date:	4/28/99	4/28/99	4/28/99	4/28/99	-
Analyzed Date:	4/28/99	4/28/99	4/28/99	4/28/99	-
Instrument I.D.#:	HP-5	HP-5	HP-5	HP-5	-
Conc. Spiked:	0.80 mg/Kg	0.80 mg/Kg	0.80 mg/Kg	2.4 mg/Kg	-
LCS Result:	1.2	1.2	1.1	3.4	-
LCS % Recov.:	150	150	138	142	-

MS/MSD LCS Control Limits	50-150	50-150	50-150	50-150	60-140
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Please Note:

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

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

SEQUOIA ANALYTICAL, #1271

Dimple Sharma
Project Manager



**Sequoia
Analytical**

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SECOR
1390 Willow Pass Rd, Ste 360
Concord, CA 94520
Attention: Dan Madsen

Client Project ID: Tosco BP 11126, Emeryville
Matrix: Solid

QC Sample Group: 904-2514

Reported: Apr 29, 1999

QUALITY CONTROL DATA REPORT

Analyte:	1,1-Dichloro-	Trichloro-	Chloro-
	ethene	ethene	benzene
QC Batch#:	SP042399	SP042399	SP042399
	8010EXA	8010EXA	8010EXA
Anal. Method:	EPA 8010	EPA 8010	EPA 8010
Prep. Method:	EPA 5030	EPA 5030	EPA 5030

Analyst:	P. Kosovskaya	P. Kosovskaya	P. Kosovskaya
MS/MSD #:	9041836	9041836	9041836
Sample Conc.:	N.D.	N.D.	N.D.
Prepared Date:	4/23/99	4/23/99	4/23/99
Analyzed Date:	4/23/99	4/23/99	4/23/99
Instrument I.D. #:	HP-7	HP-7	HP-7
Conc. Spiked:	1000 µg/Kg	1000 µg/Kg	1000 µg/Kg
Result:	710	910	910
MS % Recovery:	71	91	91
Dup. Result:	470	830	800
MSD % Recov.:	47	83	80
RPD:	41	9.2	13
RPD Limit:	0-25	0-25	0-25

LCS #:	LCS042899	LCS042899	LCS042899
Prepared Date:	4/28/99	4/28/99	4/28/99
Analyzed Date:	4/28/99	4/28/99	4/28/99
Instrument I.D. #:	HP-7	HP-7	HP-7
Conc. Spiked:	1000 µg/Kg	1000 µg/Kg	1000 µg/Kg
LCS Result:	680	920	990
LCS % Recov.:	68	92	99

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

Please Note:

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

SEQUOIA ANALYTICAL, #1271

Dimple Sharma
Project Manager





Sequoia Analytical

SECOR
1390 Willow Pass Rd, Ste 360
Concord, CA 94520

Attention: Dan Madsen

Client Project ID: Tosco BP 11126, Emeryville

Matrix: Solid

QC Sample Group: 904-2514

Reported: Apr 29, 1999

QUALITY CONTROL DATA REPORT

Analyte:	Cadmium	Chromium	Nickel	Lead	Zinc
QC Batch#:	ME042799	ME042799	ME042799	ME042799	ME042799
	6010MDC	6010MDC	6010MDC	6010MDC	6010MDC
Anal. Method:	EPA 6010	EPA 6010	EPA 6010	EPA 6010	EPA 6010
Prep. Method:	EPA 3050	EPA 3050	EPA 3050	EPA 3050	EPA 3050
Analyst:	J. Kelly	J. Kelly	J. Kelly	J. Kelly	J. Kelly
MS/MSD #:	9042418	9042418	9042418	9042418	9042418
Sample Conc.:	30 mg/Kg	12 mg/Kg	15 mg/Kg	150 mg/Kg	5900 mg/Kg
Prepared Date:	4/27/99	4/27/99	4/27/99	4/27/99	4/27/99
Analyzed Date:	4/28/99	4/28/99	4/28/99	4/28/99	4/28/99
Instrument I.D. #:	MV-4	MV-4	MV-4	MV-4	MV-4
Conc. Spiked:	50 mg/Kg	50 mg/Kg	50 mg/Kg	50 mg/Kg	50 mg/Kg
Result:	62	54	57	190	5800
MS % Recovery:	64	84	84	80	-
Dup. Result:	58	56	61	320	6000
MSD % Recov.:	56	88	92	340	-
RPD:	6.7	3.6	6.8	51	3.4
RPD Limit:	0-20	0-20	0-20	0-20	0-20
LCS #:	LCS042899	LCS042899	LCS042899	LCS042899	LCS042899
Prepared Date:	4/27/99	4/27/99	4/27/99	4/27/99	4/27/99
Analyzed Date:	4/28/99	4/28/99	4/28/99	4/28/99	4/28/99
Instrument I.D. #:	MV-4	MV-4	MV-4	MV-4	MV-4
Conc. Spiked:	50 mg/Kg	50 mg/Kg	50 mg/Kg	50 mg/Kg	50 mg/Kg
LCS Result:	52	51	50	48	51
LCS % Recov.:	104	102	100	96	102
MS/MSD	80-120	80-120	80-120	80-120	80-120
LCS	80-120	80-120	80-120	80-120	80-120
Control Limits					

Please Note:

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 East 11115 Montgomery, Suite B • Spokane, WA 99206 • (509) 924-9200
 15055 S.W. Sequoia Pkwy, Suite 110 • Portland, OR 97222 • (503) 624-9800

Consultant Company: SECOR			Project Name: Tosco		
Address: 1390 Willow Pass Rd, Ste 360			UNOCAL Project Manager: Dave Dewitt		
City: Concord	State: Ca	Zip Code: 94520	AFE #: CAR000000232 9904671		
Telephone: (925) 686-9780	FAX #: (925) 686-3099		Site #, City, State: BPII126, Emeryville, CA		
Report To: Dan Madsen	Sampler: Nyree Nagopian		QC Data: <input checked="" type="checkbox"/> Level D (Standard) <input type="checkbox"/> Level C <input type="checkbox"/> Level B <input type="checkbox"/> Level A		

Turnaround 10 Work Days 5 Work Days 3 Work Days
 Time: 2 Work Days 1 Work Day 2-8 Hours

Drinking Water
 Waste Water
 Other

Analyses Requested

CODE: Misc. Detect. Eval. Remed. Demol. Closure

Client Sample I.D.	Date/Time Sampled	Matrix Desc.	# of Cont.	Cont. Type	Laboratory Sample #	TPH gasoline	TPH diesel	TPH motor oil	BTEX	MME 8020	Chlorinated organics	metals	pH	Comments
1. PGSP (A-F)	4/28/99	Gravel	6	Brass	9042514	X	X	X	X	X				Composite
2.					A-F									
3.														
4.														
5.														
6.														
7.														
8.														
9.														
10.														

Relinquished By: <i>Nyree Nagopian</i>	Date: <i>4/28/99</i>	Time: <i>14:25</i>	Received By: _____	Date: _____	Time: _____
Relinquished By: _____	Date: _____	Time: _____	Received By: _____	Date: _____	Time: _____
Relinquished By: _____	Date: _____	Time: _____	Received By Lab: <i>Ronald C. Jensen</i>	Date: <i>4/28/99</i>	Time: <i>14:25</i>

Were Samples Received in Good Condition? Yes No Samples on Ice? Yes No Method of Shipment _____ Page ____ of ____

To be completed upon receipt of report:

- 1) Were the analyses requested on the Chain of Custody reported? Yes No If no, what analyses are still needed? _____
 2) Was the report issued within the requested turnaround time? Yes No If no, what was the turnaround time? _____

Approved by: _____ Signature: _____ Company: _____ Date: _____



Sequoia Analytical

SECOR
 1390 Willow Pass Rd, Ste 360
 Concord, CA 94520
 Attention: Dan Madsen

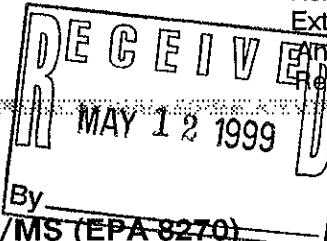
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 San Carlos, CA 94070-4111 (650) 232-9600 FAX (650) 232-9612

QC Batch Number: SP0430998270EXA
 Instrument ID: GC/MS-1

Client Project ID: Tosco BP 11126, Emeryville
 Sample Descript: Soil, SSP(A-D)
 Analysis Method: EPA 8270
 Lab Number: 904-2515

Sampled: Apr 28, 1999
 Relogged: Apr 30, 1999
 Extracted: Apr 30, 1999
 Analyzed: Apr 30, 1999
 Reported: May 3, 1999



SEMI-VOLATILE ORGANICS by GC/MS (EPA 8270)

Analyte	Detection Limit µg/kg	Sample Results µg/kg
Acenaphthene.....	500	..... N.D.
Acenaphthylene.....	500	..... N.D.
Aniline.....	500	..... N.D.
Anthracene.....	500	..... N.D.
Benzidine.....	13,000	..... N.D.
Benzolic Acid.....	2,500	..... N.D.
Benzo(a)anthracene.....	500	..... N.D.
Benzo(b)fluoranthene.....	500	..... N.D.
Benzo(k)fluoranthene.....	500	..... N.D.
Benzo(g,h,i)perylene.....	500	..... N.D.
Benzo(a)pyrene.....	500	..... N.D.
Benzyl alcohol.....	500	..... N.D.
Bis(2-chloroethoxy)methane.....	500	..... N.D.
Bis(2-chloroethyl)ether.....	500	..... N.D.
Bis(2-chloroisopropyl)ether.....	500	..... N.D.
Bis(2-ethylhexyl)phthalate.....	2,500	..... N.D.
4-Bromophenyl phenyl ether.....	500	..... N.D.
Butyl benzyl phthalate.....	500	..... N.D.
4-Chloroaniline.....	500	..... N.D.
2-Chloronaphthalene.....	500	..... N.D.
4-Chloro-3-methylphenol.....	500	..... N.D.
2-Chlorophenol.....	500	..... N.D.
4-Chlorophenyl phenyl ether.....	500	..... N.D.
Chrysene.....	500	..... N.D.
Dibenz(a,h)anthracene.....	500	..... N.D.
Dibenzofuran.....	500	..... N.D.
Di-N-butyl phthalate.....	2,500	..... N.D.
1,3-Dichlorobenzene.....	500	..... N.D.
1,4-Dichlorobenzene.....	500	..... N.D.
1,2-Dichlorobenzene.....	500	..... N.D.
3,3-Dichlorobenzidine.....	2,500	..... N.D.
2,4-Dichlorophenol.....	500	..... N.D.
Diethyl phthalate.....	500	..... N.D.
2,4-Dimethylphenol.....	500	..... N.D.
Dimethyl phthalate.....	500	..... N.D.
4,6-Dinitro-2-methylphenol.....	2,500	..... N.D.
2,4-Dinitrophenol.....	2,500	..... N.D.
2,4-Dinitrotoluene.....	500	..... N.D.
2,6-Dinitrotoluene.....	500 N.D.
Di-N-octyl phthalate.....	500 N.D.
Fluoranthene.....	500 N.D.
Fluorene.....	500 N.D.





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 San Carlos, CA 94070-4111 (650) 232-9600 FAX (650) 232-9612

Client Project ID: Tosco BP 11126, Emeryville
 Sample Descript: Soil, SSP(A-D)
 Analysis Method: EPA 8270
 Lab Number: 904-2515

Sampled: Apr 28, 1999
 Received: Apr 30, 1999
 Extracted: Apr 30, 1999
 Analyzed: Apr 30, 1999
 Reported: May 3, 1999

QC Batch Number: SP0430998270EXA

Instrument ID: GC/MS-1

SEMI-VOLATILE ORGANICS by GC/MS (EPA 8270)

Analyte	Detection Limit µg/kg	Sample Results µg/kg
Hexachlorobenzene.....	500	N.D.
Hexachlorobutadiene.....	500	N.D.
Hexachlorocyclopentadiene.....	500	N.D.
Hexachloroethane.....	500	N.D.
Indeno(1,2,3-cd)pyrene.....	500	N.D.
Isophorone.....	500	N.D.
2-Methylnaphthalene.....	500	N.D.
2-Methylphenol.....	500	N.D.
4-Methylphenol.....	500	N.D.
Naphthalene.....	500	N.D.
2-Nitroaniline.....	2,500	N.D.
3-Nitroaniline.....	2,500	N.D.
4-Nitroaniline.....	2,500	N.D.
Nitrobenzene.....	500	N.D.
2-Nitrophenol.....	500	N.D.
4-Nitrophenol.....	2,500	N.D.
N-Nitrosodimethylamine.....	500	N.D.
N-Nitrosodiphenylamine.....	500	N.D.
N-Nitroso-di-N-propylamine.....	500	N.D.
Pentachlorophenol.....	2,500	N.D.
Phenanthrene.....	500	N.D.
Phenol.....	500	N.D.
Pyrene.....	500	610
1,2,4-Trichlorobenzene.....	500	N.D.
2,4,5-Trichlorophenol.....	2,500	N.D.
2,4,6-Trichlorophenol.....	500	N.D.

Surrogates	Control Limit %	% Recovery
2-Fluorophenol.....	25	121
Phenol-d6.....	24	113
Nitrobenzene-d5.....	23	120
2-Fluorobiphenyl.....	30	115
2,4,6-Tribromophenol.....	19	122
4-Terphenyl-d14.....	18	137

Analytes reported as N.D. were not present above the stated limit of detection. Because matrix effects and/or other factors required additional sample dilution, detection limits for this sample have been raised.

SEQUOIA ANALYTICAL, #1271

Dimple Sharma
 Project Manager





Sequoia Analytical

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San Carlos, CA 94070-4111 (650) 232-9600 FAX (650) 232-9612

Client Project ID: Tosco BP 11126, Emeryville
Sample Descript: STLC Extract Of Soil
Analysis for: Lead
First Sample #: 904-2515

Sampled: Apr 28, 1999
Received: Apr 30, 1999
Extracted: May 3, 1999
Analyzed: May 3, 1999
Reported: May 4, 1999

LABORATORY ANALYSIS FOR: Lead

Sample Number	Sample Description	Detection Limit mg/L	Sample Result mg/L	QC Batch Number	Instrument ID
904-2515	SSP(A-D)	0.040	15	ME050399STLCMDA	MV-3

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

SEQUOIA ANALYTICAL, #1271

Dimple Sharma
Project Manager

904-2515.SEC <3>





**Sequoia
Analytical**

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SECOR
1390 Willow Pass Rd, Ste 360
Concord, CA 94520

Attention: Dan Madsen

Client Project ID: **Tosco BP 11126, Emeryville**
Matrix: **Solid**

QC Sample Group: **904-2515**

Reported: **May 4, 1999**

QUALITY CONTROL DATA REPORT

Analyte:	Phenol	2-Chlorophenol	1,4-Dichloro benzene	N-Nitroso-Di- propylamine	1,2,4-Trichloro benzene	4-Chloro-3 Methylphenol
QC Batch#:	SP043099 8270EXA	SP043099 8270EXA	SP043099 8270EXA	SP043099 8270EXA	SP043099 8270EXA	SP043099 8270EXA
Anal. Method:	EPA 8270	EPA 8270	EPA 8270	EPA 8270	EPA 8270	EPA 8270
Prep. Method:	EPA 3550	EPA 3550	EPA 3550	EPA 3550	EPA 3550	EPA 3550

Analyst:	L. Diaz	L. Diaz	L. Diaz	L. Diaz	L. Diaz	L. Diaz
MS/MSD #:	BLK043099	BLK043099	BLK043099	BLK043099	BLK043099	BLK043099
Sample Conc.:	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
Prepared Date:	4/30/99	4/30/99	4/30/99	4/30/99	4/30/99	4/30/99
Analyzed Date:	4/30/99	4/30/99	4/30/99	4/30/99	4/30/99	4/30/99
Instrument I.D.#:	GC/MS-1	GC/MS-1	GC/MS-1	GC/MS-1	GC/MS-1	GC/MS-1
Conc. Spiked:	5000 µg/kg	5000 µg/kg	3300 µg/kg	3300 µg/kg	3300 µg/kg	5000 µg/kg
Result:	3,400	3,600	2,400	2,600	2,600	3,700
MS % Recovery:	68	72	73	79	79	74
Dup. Result:	3,600	3,800	2,500	2,800	2,800	4,100
MSD % Recov.:	72	76	76	85	85	82
RPD:	5.7	5.4	4.1	7.4	7.4	10
RPD Limit:	0-40	0-40	0-40	0-40	0-40	0-40

LCS #:	-	-	-	-	-	-
Prepared Date:	-	-	-	-	-	-
Analyzed Date:	-	-	-	-	-	-
Instrument I.D.#:	-	-	-	-	-	-
Conc. Spiked:	-	-	-	-	-	-
LCS Result:	-	-	-	-	-	-
LCS % Recov.:	-	-	-	-	-	-

MS/MSD LCS Control Limits	26-90	25-102	28-104	41-126	38-107	26-103
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SEQUOIA ANALYTICAL, #1271

Dimple Sharma
Project Manager





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SECOR
 1390 Willow Pass Rd, Ste 360
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 Attention: Dan Madsen

Client Project ID: Tosco BP 11126, Emeryville
 Matrix: Solid

QC Sample Group: 904-2515

Reported: May 4, 1999

QUALITY CONTROL DATA REPORT

Analyte:	Acenaphthene	4-Nitrophenol	2,4-Dinitrotoluene	Pentachlorophenol	Pyrene
QC Batch#:	SP043099	SP043099	SP043099	SP043099	SP043099
	8270EXA	8270EXA	8270EXA	8270EXA	8270EXA
Anal. Method:	EPA 8270	EPA 8270	EPA 8270	EPA 8270	EPA 8270
Prep. Method:	EPA 3550	EPA 3550	EPA 3550	EPA 3550	EPA 3550
Analyst:	L. Diaz	L. Diaz	L. Diaz	L. Diaz	L. Diaz
MS/MSD #:	BLK043099	BLK043099	BLK043099	BLK043099	BLK043099
Sample Conc.:	N.D.	N.D.	N.D.	N.D.	N.D.
Prepared Date:	4/30/99	4/30/99	4/30/99	4/30/99	4/30/99
Analyzed Date:	4/30/99	4/30/99	4/30/99	4/30/99	4/30/99
Instrument I.D. #:	GC/MS-1	GC/MS-1	GC/MS-1	GC/MS-1	GC/MS-1
Conc. Spiked:	3300 µg/kg	5000 µg/kg	3300 µg/kg	5000 µg/kg	3300 µg/kg
Result:	2,400	3,300	2,400	3,400	2,700
MS % Recovery:	73	66	73	68	82
Dup. Result:	2,600	4,000	2,700	3,900	2,800
MSD % Recov.:	79	80	82	78	85
RPD:	8.00	19.18	11.76	13.70	3.64
RPD Limit:	0-40	0-40	0-40	0-40	0-40

LCS #:	-	-	-	-	-
Prepared Date:	-	-	-	-	-
Analyzed Date:	-	-	-	-	-
Instrument I.D. #:	-	-	-	-	-
Conc. Spiked:	-	-	-	-	-
LCS Result:	-	-	-	-	-
LCS % Recov.:	-	-	-	-	-

MS/MSD					
LCS	31-137	11-114	28-89	17-109	35-142
Control Limits					

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SEQUOIA ANALYTICAL, #1271

Dimple Sharma
 Project Manager



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Petaluma, CA 94954 (707) 792-1865 FAX (707) 792-0342
San Carlos, CA 94070-4111 (650) 232-9600 FAX (650) 232-9612

Client Project ID: Tosco BP 11126, Emeryville
Matrix: STLC Extract

QC Sample Group: 904-2515

Reported: May 4, 1999

QUALITY CONTROL DATA REPORT

Analyte: Lead

QC Batch#: ME050399

STLCMDA

Anal. Method: EPA 200.7

Prep. Method: EPA STLC

Analyst: J. Kelly

MS/MSD #: 9042727

Sample Conc.: 0.49 mg/L

Prepared Date: 5/3/99

Analyzed Date: 5/3/99

Instrument I.D. #: MV-3

Conc. Spiked: 10 mg/L

Result: 11

MS % Recovery: 105

Dup. Result: 11

MSD % Recov.: 105

RPD: 0.0

RPD Limit: 0-20

LCS #: LCS050399

Prepared Date: 5/3/99

Analyzed Date: 5/3/99

Instrument I.D. #: MV-3

Conc. Spiked: 10 mg/L

LCS Result: 10

LCS % Recov.: 100

MS/MSD

LCS

80-120

Control Limits

SEQUOIA ANALYTICAL, #1271

Dimple Sharma
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



UNOCAL

1000 Chesapeake Drive • Redwood City, CA 94083 • (650) 507-3000

819 Striker Ave., Suite 8 • Sacramento, CA 95834 • (916) 921-9600

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1455 McDowell Blvd. North, Suite D • Petaluma, CA 94954 • (707) 792-1865

10300 120th Ave., N.E. Suite 101 • Bothell, WA 98011 • (425) 707-3200

East 11115 Montgomery, Suite B • Spokane, WA 99206 • (509) 924-9200

15055 S.W. Sequoia Pkwy, Suite 110 • Portland, OR 97222 • (503) 624-9800

Consultant Company: SECDR						Project Name: Tosco 9904707						
Address: 1390 Willow Pass Rd, Ste 300						UNOCAL Project Manager: Dave Dewitt						
City: Concord		State: CA		Zip Code: 94520		AFE #: CAR0000000232 9904672						
Telephone: (925) 686-9780		FAX #: (925) 686-3099		Site #, City, State: BP11126, Emeryville, CA								
Report To: Don Madsen		Sampler: Nyree Nagopian		QC Data: <input checked="" type="checkbox"/> Level D (Standard) <input type="checkbox"/> Level C <input type="checkbox"/> Level B <input type="checkbox"/> Level A								
Turnaround Time:		<input type="checkbox"/> 10 Work Days <input type="checkbox"/> 5 Work Days <input checked="" type="checkbox"/> 2 Work Days <input type="checkbox"/> 1 Work Day		<input type="checkbox"/> 3 Work Days <input type="checkbox"/> 2-8 Hours		<input type="checkbox"/> Drinking Water <input type="checkbox"/> Waste Water <input checked="" type="checkbox"/> Other						
Analyses Requested												
CODE: <input type="checkbox"/> Misc. <input type="checkbox"/> Detect. <input type="checkbox"/> Eval. <input type="checkbox"/> Remed. <input type="checkbox"/> Demol. <input type="checkbox"/> Closure						Total Lead TP4 Gasoline TP4 Diesel TP4 Motor BTX MTBE Chlorinated Metals PCBs						
Client Sample I.D.	Date/Time Sampled	Matrix Desc.	# of Cont.	Cont. Type	Laboratory Sample #							Comments
1. SSP(A-D)	4/28/99	Soil	4	Brass	9042515 A-D	X	X	X	X	X	X	Composite
2.												
3.												
4.												
5.												
6.												
7.												
8.												
9.												
10.			"									

Relinquished By: Nyree Nagopian	Date: 4/28/99	Time: 14:25	Received By: _____	Date: _____	Time: _____
Relinquished By: _____	Date: _____	Time: _____	Received By: _____	Date: _____	Time: _____
Relinquished By: _____	Date: _____	Time: _____	Received By Lab: Donald C. Jensen	Date: 4/28/99	Time: 14:25

Were Samples Received in Good Condition? Yes No Samples on Ice? Yes No Method of Shipment _____ Page ____ of ____

To be completed upon receipt of report:

- 1) Were the analyses requested on the Chain of Custody reported? Yes No If no, what analyses are still needed? _____
- 2) Was the report issued within the requested turnaround time? Yes No If no, what was the turnaround time? _____

Approved by: _____ Signature: _____ Company: _____ Date: _____

Pink - Client

Yellow - Laboratory

White - Laboratory



Sequoia Analytical

SECOR
1390 Willow Pass Rd, Ste 360
Concord, CA 94520
Attention: Dan Madsen

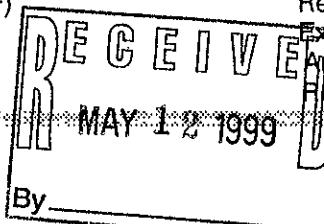
680 Chesapeake Drive
404 N. Wiget Lane
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1551 Industrial Road

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San Carlos, CA 94070-4111 (650) 232-9600 FAX (650) 232-9612

Client Project ID: Tosco BP 11126, Emeryville
Sample Descript: Soil, PGSP(A-F)
Analysis Method: EPA 8270
Lab Number: 904-2514

Sampled: Apr 28, 1999
Relogged: Apr 30, 1999
Extracted: Apr 30, 1999
Analyzed: Apr 30, 1999
Reported: May 3, 1999

QC Batch Number: SP0430998270EXA
Instrument ID: GC/MS-1



SEMI-VOLATILE ORGANICS by GC/MS (EPA 8270)

Analyte	Detection Limit µg/kg	Sample Results µg/kg
Acenaphthene.....	100	N.D.
Acenaphthylene.....	100	N.D.
Aniline.....	100	N.D.
Anthracene.....	100	N.D.
Benzidine.....	2,500	N.D.
Benzolic Acid.....	500	N.D.
Benzo(a)anthracene.....	100	N.D.
Benzo(b)fluoranthene.....	100	N.D.
Benzo(k)fluoranthene.....	100	N.D.
Benzo(g,h,i)perylene.....	100	N.D.
Benzo(a)pyrene.....	100	N.D.
Benzyl alcohol.....	100	N.D.
Bis(2-chloroethoxy)methane.....	100	N.D.
Bis(2-chloroethyl)ether.....	100	N.D.
Bis(2-chloroisopropyl)ether.....	100	N.D.
Bis(2-ethylhexyl)phthalate.....	500	N.D.
4-Bromophenyl phenyl ether.....	100	N.D.
Butyl benzyl phthalate.....	100	N.D.
4-Chloroaniline.....	100	N.D.
2-Chloronaphthalene.....	100	N.D.
4-Chloro-3-methylphenol.....	100	N.D.
2-Chlorophenol.....	100	N.D.
4-Chlorophenyl phenyl ether.....	100	N.D.
Chrysene.....	100	N.D.
Dibenz(a,h)anthracene.....	100	N.D.
Dibenzofuran.....	100	N.D.
Di-N-butyl phthalate.....	500	N.D.
1,3-Dichlorobenzene.....	100	N.D.
1,4-Dichlorobenzene.....	100	N.D.
1,2-Dichlorobenzene.....	100	N.D.
3,3-Dichlorobenzidine.....	500	N.D.
2,4-Dichlorophenol.....	100	N.D.
Diethyl phthalate.....	100	N.D.
2,4-Dimethylphenol.....	100	N.D.
Dimethyl phthalate.....	100	N.D.
4,6-Dinitro-2-methylphenol.....	500	N.D.
2,4-Dinitrophenol.....	500	N.D.
2,4-Dinitrotoluene.....	100	N.D.
2,6-Dinitrotoluene.....	100	N.D.
Di-N-octyl phthalate.....	100	N.D.
Fluoranthene.....	100	N.D.
Fluorene.....	100	N.D.





Sequoia Analytical

SECOR
 1390 Willow Pass Rd, Ste 360
 Concord, CA 94520
 Attention: Dan Madsen

QC Batch Number: SP0430998270EXA
 Instrument ID: GC/MS-1

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 San Carlos, CA 94070-4111 (650) 232-9600 FAX (650) 232-9612

Client Project ID: Tosco BP 11126, Emeryville
 Sample Descript: Soil, PGSP(A-F)
 Analysis Method: EPA 8270
 Lab Number: 904-2514

Sampled: Apr 28, 1999
 Received: Apr 30, 1999
 Extracted: Apr 30, 1999
 Analyzed: Apr 30, 1999
 Reported: May 3, 1999

SEMI-VOLATILE ORGANICS by GC/MS (EPA 8270)

Analyte	Detection Limit µg/kg	Sample Results µg/kg
Hexachlorobenzene.....	100	..... N.D.
Hexachlorobutadiene.....	100	..... N.D.
Hexachlorocyclopentadiene.....	100	..... N.D.
Hexachloroethane.....	100	..... N.D.
Indeno(1,2,3-cd)pyrene.....	100	..... N.D.
Isophorone.....	100	..... N.D.
2-Methylnaphthalene.....	100	..... N.D.
2-Methylphenol.....	100	..... N.D.
4-Methylphenol.....	100	..... N.D.
Naphthalene.....	100	..... N.D.
2-Nitroaniline.....	500	..... N.D.
3-Nitroaniline.....	500	..... N.D.
4-Nitroaniline.....	500	..... N.D.
Nitrobenzene.....	100	..... N.D.
2-Nitrophenol.....	100	..... N.D.
4-Nitrophenol.....	500	..... N.D.
N-Nitrosodimethylamine.....	100	..... N.D.
N-Nitrosodiphenylamine.....	100	..... N.D.
N-Nitroso-di-N-propylamine.....	100	..... N.D.
Pentachlorophenol.....	500	..... N.D.
Phenanthrene.....	100	..... N.D.
Phenol.....	100	..... N.D.
Pyrene.....	100	..... N.D.
1,2,4-Trichlorobenzene.....	100	..... N.D.
2,4,5-Trichlorophenol.....	500	..... N.D.
2,4,6-Trichlorophenol.....	100	..... N.D.

Surrogates	Control Limit %	% Recovery
2-Fluorophenol.....	25	121 62
Phenol-d6.....	24	113 61
Nitrobenzene-d5.....	23	120 70
2-Fluorobiphenyl.....	30	115 74
2,4,6-Tribromophenol.....	19	122 74
4-Terphenyl-d14.....	18	137 77

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

SEQUOIA ANALYTICAL, #1271

Dimple Sharma
 Project Manager



**Sequoia
Analytical**

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FAX (707) 792-0342
FAX (650) 232-9612

SECOR
1390 Willow Pass Rd, Ste 360
Concord, CA 94520
Attention: Dan Madsen

Client Project ID: **Tosco BP 11126, Emeryville**
Matrix: **Solid**

QC Sample Group: **904-2514**

Reported: **May 3, 1999**

QUALITY CONTROL DATA REPORT

Analyte:	Phenol	2-Chlorophenol	1,4-Dichloro benzene	N-Nitroso-Di- propylamine	1,2,4-Trichloro benzene	4-Chloro-3 Methylphenol
QC Batch#:	SP043099	SP043099	SP043099	SP043099	SP043099	SP043099
	8270EXA	8270EXA	8270EXA	8270EXA	8270EXA	8270EXA
Anal. Method:	EPA 8270	EPA 8270	EPA 8270	EPA 8270	EPA 8270	EPA 8270
Prep. Method:	EPA 3550	EPA 3550	EPA 3550	EPA 3550	EPA 3550	EPA 3550
Analyst:	L. Diaz	L. Diaz	L. Diaz	L. Diaz	L. Diaz	L. Diaz
MS/MSD #:	BLK043099	BLK043099	BLK043099	BLK043099	BLK043099	BLK043099
Sample Conc.:	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
Prepared Date:	4/30/99	4/30/99	4/30/99	4/30/99	4/30/99	4/30/99
Analyzed Date:	4/30/99	4/30/99	4/30/99	4/30/99	4/30/99	4/30/99
Instrument I.D. #:	GC/MS-1	GC/MS-1	GC/MS-1	GC/MS-1	GC/MS-1	GC/MS-1
Conc. Spiked:	5000 µg/kg	5000 µg/kg	3300 µg/kg	3300 µg/kg	3300 µg/kg	5000 µg/kg
Result:	3,400	3,600	2,400	2,600	2,600	3,700
MS % Recovery:	68	72	73	79	79	74
Dup. Result:	3,600	3,800	2,500	2,800	2,800	4,100
MSD % Recov.:	72	76	76	85	85	82
RPD:	5.7	5.4	4.1	7.4	7.4	10
RPD Limit:	0-40	0-40	0-40	0-40	0-40	0-40

LCS #:

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

LCS Result:
LCS % Recov.:

MS/MSD	26-90	LCS	25-102	Control Limits	28-104	41-126	38-107	26-103
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Please Note:

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

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

SEQUOIA ANALYTICAL, #1271

Dimple Sharma
Project Manager



Sequoia Analytical

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 San Carlos, CA 94070-4111 (650) 232-9600 FAX (650) 232-9612

SECOR
 1390 Willow Pass Rd, Ste 360
 Concord, CA 94520
 Attention: Dan Madsen

Client Project ID: **Tosco BP 11126, Emeryville**
 Matrix: **Solid**

QC Sample Group: **904-2514**

Reported: **May 3, 1999**

QUALITY CONTROL DATA REPORT

Analyte:	Acenaphthene	4-Nitrophenol	2,4-Dinitrotoluene	Pentachlorophenol	Pyrene
QC Batch#:	SP043099	SP043099	SP043099	SP043099	SP043099
	8270EXA	8270EXA	8270EXA	8270EXA	8270EXA
Anal. Method:	EPA 8270	EPA 8270	EPA 8270	EPA 8270	EPA 8270
Prep. Method:	EPA 3550	EPA 3550	EPA 3550	EPA 3550	EPA 3550
Analyst:	L. Diaz	L. Diaz	L. Diaz	L. Diaz	L. Diaz
MS/MSD #:	BLK043099	BLK043099	BLK043099	BLK043099	BLK043099
Sample Conc.:	N.D.	N.D.	N.D.	N.D.	N.D.
Prepared Date:	4/30/99	4/30/99	4/30/99	4/30/99	4/30/99
Analyzed Date:	4/30/99	4/30/99	4/30/99	4/30/99	4/30/99
Instrument I.D. #:	GC/MS-1	GC/MS-1	GC/MS-1	GC/MS-1	GC/MS-1
Conc. Spiked:	3300 µg/kg	5000 µg/kg	3300 µg/kg	5000 µg/kg	3300 µg/kg
Result:	2,400	3,300	2,400	3,400	2,700
MS % Recovery:	73	66	73	68	82
Dup. Result:	2,600	4,000	2,700	3,900	2,800
MSD % Recov.:	79	80	82	78	85
RPD:	8.0	19	12	14	3.6
RPD Limit:	0-40	0-40	0-40	0-40	0-40

LCS #:

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

LCS Result:
LCS % Recov.:

MS/MSD	31-137	LCS	11-114	Control Limits	28-89	17-109	35-142
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Please Note:

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

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

SEQUOIA ANALYTICAL, #1271

Dimple Sharma
 Project Manager



Sequoia Analytical

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Petaluma, CA 94954 (707) 792-1865 FAX (707) 792-0342
San Carlos, CA 94070-4111 (650) 732-9600 FAX (650) 732-9612

REQUEST TO RELOG SAMPLES

(Please submit to sample control with a copy of the COC)

CLIENT:

SECOR

MATRIX:

Soil

PREVIOUSLY LOGGED SAMPLES

TAT

Change status to:

24 HR

9904708

Change status as of Day: 4/30/99, Time: _____

CHANGE ANALYSES

Add Analyses

Cancel Analyses

Sequoia Project ID:

9904671

Sample Number

Analyses

9042635

9042514

EPA-8270

SAMPLES ON HOLD

Sample Description

Analyses

Client Authorization (Person/Date/Time):

Dan Madsen 4/30/99

Project Manager:

Dimple Sharma

Aleema

UNOCAL

680 Chesapeake Drive • Hedwood City, CA 94063 • (650) 304-9600
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 East 11115 Montgomery, Suite B • Spokane, WA 99206 • (509) 924-9200
 15055 S.W. Sequoia Pkwy, Suite 110 • Portland, OR 97222 • (503) 624-9800

9904671

Consultant Company: SECOR					Project Name: Tosco
Address: 1390 Willow Pass Rd, Ste 360					UNOCAL Project Manager: Dave Dewitt
City: Concord	State: Ca	Zip Code: 94520	AFE #: CAR000000232 9904671		
Telephone: (925) 686-9780		FAX #: (925) 686-3099	Site #, City, State: BPII1Q6, Emeryville, CA		
Report To: Dan Madsen	Sampler: Nyree Nagopian				QC Data: <input checked="" type="checkbox"/> Level D (Standard) <input type="checkbox"/> Level C <input type="checkbox"/> Level B <input type="checkbox"/> Level A

Turnaround 10 Work Days 5 Work Days 3 Work Days
 Time: 2 Work Days 1 Work Day 2-8 Hours

CODE: Misc. Detect. Eval. Remed. Demol. Closure

Drinking Water
 Waste Water
 Other

TPH gasoline	Analyses Requested
TPH diesel	
TPH motor oil	
BTX	
MTBE	
Chlorinated organics	
CAT	
Metal ppm	
TPH ppm	

Client Sample I.D.	Date/Time Sampled	Matrix Desc.	# of Cont.	Cont. Type	Laboratory Sample #	Comments
1. PGSP(A-F)	4/28/99	Gravel	#6 Brass	Brass	9042514 A-F	X X X X X X Composite.
2.						
3.						
4.						
5.						
6.						
7.						
8.						
9.						
10.						

Relinquished By:	Nyree Nagopian	Date: 4/28/99	Time: 14:25	Received By:	Date:	Time:
Relinquished By:		Date:	Time:	Received By:	Date:	Time:
Relinquished By:		Date:	Time:	Received By Lab: Ronald C. Jensen	Date: 4/28/99	Time: 14:25

Were Samples Received in Good Condition? Yes No Samples on Ice? Yes No Method of Shipment _____ Page ____ of ____

To be completed upon receipt of report:

- 1) Were the analyses requested on the Chain of Custody reported? Yes No If no, what analyses are still needed? _____
 2) Was the report issued within the requested turnaround time? Yes No If no, what was the turnaround time? _____

Approved by: _____ Signature: _____ Company: _____ Date: _____

Pink - Client

Yellow - Laboratory

White - Laboratory



Sequoia Analytical

680 Chesapeake Drive
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(707) 792-1865
(650) 232-9600

FAX (650) 364-9233
FAX (925) 988-9673
FAX (916) 921-0100
FAX (707) 792-0342
FAX (650) 232-9612

SECOR
1390 Willow Pass Rd, Ste 360
Concord, CA 94520
Attention: Dan Madsen

QC Batch Number:

Client Project ID: Tosco BP 11126, Emeryville
Sample Matrix: Soil
Analysis Method: EPA 5030/8015 Mod./8020
First Sample #: 904-2516

Sampled: Apr 28, 1999
Received: Apr 28, 1999
Reported: May 5, 1999

SP043099 SP043099 SP043099 SP043099 SP043099
8020EXA 8020EXA 8020EXA 8020EXA 8020EXA

TOTAL PURGEABLE PETROLEUM HYDROCARBONS with BTEX / MTBE

RECEIVED
MAY 17 1999
By _____

Analyte	Reporting Limit mg/Kg	Sample I.D. 904-2516 OILT-1	Sample I.D. 904-2517 OILT-2	Sample I.D. 904-2519 CLRF-1	Sample I.D. 904-2520 HST-1	Sample I.D. 904-2521 HST-2
Purgeable Hydrocarbons	1.0	18	N.D.	3.0	1.4	1.4
Benzene	0.0050	0.19	N.D.	0.013	0.011	0.012
Toluene	0.0050	0.40	N.D.	0.0068	0.0051	N.D.
Ethyl Benzene	0.0050	0.11	N.D.	N.D.	N.D.	N.D.
Total Xylenes	0.0050	0.12	N.D.	0.028	0.027	0.012
MTBE	0.050	N.D.	N.D.	N.D.	N.D.	N.D.

Chromatogram Pattern: Unidentified Hydrocarbons C6-C12 -- Gasoline Gasoline Gasoline

Quality Control Data

Report Limit Multiplication Factor:	1.0	1.0	1.0	1.0	1.0
Date Analyzed:	4/30/99	4/30/99	4/30/99	4/30/99	4/30/99
Instrument Identification:	HP-5	HP-5	HP-5	HP-5	HP-5
Surrogate Recovery, %: (QC Limits = 40-140%)	131*	111	100	104	113

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

Dimple Sharma
Project Manager

Please Note:

* Surrogate recovery above control limit due to coelution.





Sequoia Analytical

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SECOR
1390 Willow Pass Rd, Ste 360
Concord, CA 94520
Attention: Dan Madsen

Client Project ID: Tosco BP 11126, Emeryville
Sample Matrix: Water
Analysis Method: EPA 5030/8015 Mod./8020
First Sample #: 904-2518

Sampled: Apr 28, 1999
Received: Apr 28, 1999
Reported: May 5, 1999

QC Batch Number: GC042999

802004A

TOTAL PURGEABLE PETROLEUM HYDROCARBONS with BTEX / MTBE

Analyte	Reporting Limit µg/L	Sample I.D. 904-2518 OILTWS-1
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Purgeable Hydrocarbons	50	N.D.
Benzene	0.50	10
Toluene	0.50	N.D.
Ethyl Benzene	0.50	N.D.
Total Xylenes	0.50	N.D.
MTBE	2.5	2,400

Chromatogram Pattern: --

Quality Control Data

Report Limit Multiplication Factor:	10
Date Analyzed:	4/29/99
Instrument Identification:	HP-4
Surrogate Recovery, %: (QC Limits = 70-130%)	97

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

Dimple Sharma
Project Manager





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SECOR
 1390 Willow Pass Rd, Ste 360
 Concord, CA 94520
 Attention: Dan Madsen

QC Batch Number:

Client Project ID: Tosco BP 11126, Emeryville
 Sample Matrix: Soil
 Analysis Method: EPA 3550/8015 Mod.
 First Sample #: 904-2516

SP042899	SP042899	SP042899	SP042899	SP042899
8015EXC	8015EXC	8015EXC	8015EXC	8015EXC

TOTAL EXTRACTABLE PETROLEUM HYDROCARBONS

Analyte	Reporting Limit mg/kg	Sample I.D. 904-2516 OILT-1	Sample I.D. 904-2517 OILT-2	Sample I.D. 904-2519 CLRF-1	Sample I.D. 904-2520 HST-1	Sample I.D. 904-2521 HST-2
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Extractable Hydrocarbons	1.0	370	N.D.	N.D.	870	200
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Chromatogram Pattern:	Unidentified Hydrocarbons > C18	--	--	Unidentified Hydrocarbons > C16	Unidentified Hydrocarbons > C16
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Quality Control Data

Report Limit Multiplication Factor:	100	1.0	1.0	100	50
Date Extracted:	4/28/99	4/28/99	4/28/99	4/28/99	4/28/99
Date Analyzed:	4/29/99	4/29/99	4/29/99	4/30/99	4/29/99
Instrument Identification:	HP-3B	HP-3B	HP-3B	HP-3B	HP-3B

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

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SECOR
1390 Willow Pass Rd, Ste 360
Concord, CA 94520
Attention: Dan Madsen
QC Batch Number:

Client Project ID: Tosco BP 11126, Emeryville
Sample Matrix: Water
Analysis Method: EPA 3510/8015 Mod.
First Sample #: 904-2518
SP050399

Sampled: Apr 28, 1999
Received: Apr 28, 1999
Reported: May 5, 1999

8015EXA TOTAL EXTRACTABLE PETROLEUM HYDROCARBONS

Analyte	Reporting Limit µg/L	Sample I.D.
		904-2518 OILTWS-1

Extractable Hydrocarbons 50 560

Chromatogram Pattern: Unidentified Hydrocarbons
 > C10

Quality Control Data

Report Limit Multiplication Factor:	1.0
Date Extracted:	5/3/99
Date Analyzed:	5/4/99
Instrument Identification:	HP-3B

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

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SECOR
 1390 Willow Pass Rd, Ste 360
 Concord, CA 94520
 Attention: Dan Madsen

Client Project ID: Tosco BP 11126, Emeryville
 Sample Matrix: Soil
 Analysis Method: EPA 3550/8015 Mod.
 First Sample #: 904-2516

Sampled:
 Received: Apr 28, 1999
 Reported:

QC Batch Number:

SP042899	SP042899	SP042899	SP042899	SP042899
8015EXC	8015EXC	8015EXC	8015EXC	8015EXC

TOTAL EXTRACTABLE PETROLEUM HYDROCARBONS AS MOTOR OIL

Analyte	Reporting Limit mg/kg	Sample I.D. 904-2516 OILT-1	Sample I.D. 904-2517 OILT-2	Sample I.D. 904-2519 CLRF-1	Sample I.D. 904-2520 HST-1	Sample I.D. 904-2521 HST-2
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Extractable Hydrocarbons	10	7,000	N.D.	N.D.	4,200	900
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Chromatogram Pattern:	Motor Oil	--	--	Motor Oil	Motor Oil
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Quality Control Data

Report Limit Multiplication Factor:	100	1.0	1.0	100	50
Date Extracted:	4/28/99	4/28/99	4/28/99	4/28/99	4/28/99
Date Analyzed:	4/29/99	4/29/99	4/29/99	4/30/99	4/29/99
Instrument Identification:	HP-3B	HP-3B	HP-3B	HP-3B	HP-3B

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

SEQUOIA ANALYTICAL, #1271

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SECOR
1390 Willow Pass Rd, Ste 360
Concord, CA 94520
Attention: Dan Madsen
QC Batch Number:

Client Project ID: Tosco BP 11126, Emeryville
Sample Matrix: Water
Analysis Method: EPA 3510/8015 Mod.
First Sample #: 904-2518
SP050399
8015EXA

Sampled: Apr 28, 1999
Received: Apr 28, 1999
Reported: May 5, 1999

TOTAL EXTRACTABLE PETROLEUM HYDROCARBONS AS MOTOR OIL

Analyte	Reporting Limit µg/L	Sample I.D.
Extractable Hydrocarbons	250	710

Extractable Hydrocarbons 250 710

Chromatogram Pattern: Motor Oil & Unidentified Hydrocarbons > C16

Quality Control Data

Report Limit Multiplication Factor:	1.0
Date Extracted:	5/3/99
Date Analyzed:	5/4/99
Instrument Identification:	HP-3B

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

SEQUOIA ANALYTICAL, #1271

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SECOR
1390 Willow Pass Rd, Ste 360
Concord, CA 94520
Attention: Dan Madsen

Client Project ID: Tosco BP 11126, Emeryville
Sample Descript: Soil, OILT-1
Analysis Method: EPA 5030/8010
Lab Number: 904-2516

Sampled: Apr 28, 1999
Received: Apr 28, 1999
Analyzed: Apr 30, 1999
Reported: May 5, 1999

QC Batch Number: SP0430998010EXA
Instrument ID: HP-6

HALOGENATED VOLATILE ORGANICS (EPA 8010)

Analyte	Detection Limit µg/kg	Sample Results µg/kg
Bromodichloromethane.....	25	.....
Bromoform.....	25	.....
Bromomethane.....	50	.....
Carbon tetrachloride.....	25	.....
Chlorobenzene.....	25	.....
Chloroethane.....	50	.....
Chloroform.....	25	.....
Chloromethane.....	50	.....
Dibromochloromethane.....	25	.....
1,2-Dichlorobenzene.....	25	.....
1,3-Dichlorobenzene.....	25	.....
1,4-Dichlorobenzene.....	25	.....
1,1-Dichloroethane.....	25	.....
1,2-Dichloroethane.....	25	.....
1,1-Dichloroethene.....	25	.....
cis-1,2-Dichloroethene.....	25	.....
trans-1,2-Dichloroethene.....	25	.....
1,2-Dichloropropane.....	25	.....
cis-1,3-Dichloropropene.....	25	.....
trans-1,3-Dichloropropene.....	25	.....
Methylene chloride.....	500	.....
1,1,2,2-Tetrachloroethane.....	25	.....
Tetrachloroethene.....	25	.....
1,1,1-Trichloroethane.....	25	.....
1,1,2-Trichloroethane.....	25	.....
Trichloroethene.....	25	.....
Trichlorofluoromethane.....	25	.....
Vinyl chloride.....	50	.....
Surrogates	Control Limit %	% Recovery
1-Chloro-2-fluorobenzene.....	50	150.....
4-Bromofluorobenzene.....	50	150.....

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

SEQUOIA ANALYTICAL, #1271

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Project Manager



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SECOR
 1390 Willow Pass Rd, Ste 360
 Concord, CA 94520
 Attention: Dan Madsen

Client Project ID: Tosco BP 11126, Emeryville
 Sample Descript: Soil, OILT-2
 Analysis Method: EPA 5030/8010
 Lab Number: 904-2517

Sampled: Apr 28, 1999
 Received: Apr 28, 1999
 Analyzed: Apr 30, 1999
 Reported: May 5, 1999

QC Batch Number: SP0430998010EXA
 Instrument ID: HP-6

HALOGENATED VOLATILE ORGANICS (EPA 8010)

Analyte	Detection Limit µg/kg	Sample Results µg/kg
Bromodichloromethane.....	25	.....
Bromoform.....	25	.....
Bromomethane.....	50	.....
Carbon tetrachloride.....	25	.....
Chlorobenzene.....	25	.....
Chloroethane.....	50	.....
Chloroform.....	25	.....
Chloromethane.....	50	.....
Dibromochloromethane.....	25	.....
1,2-Dichlorobenzene.....	25	.....
1,3-Dichlorobenzene.....	25	.....
1,4-Dichlorobenzene.....	25	.....
1,1-Dichloroethane.....	25	.....
1,2-Dichloroethane.....	25	.....
1,1-Dichloroethene.....	25	.....
cis-1,2-Dichloroethene.....	25	.....
trans-1,2-Dichloroethene.....	25	.....
1,2-Dichloropropane.....	25	.....
cis-1,3-Dichloropropene.....	25	.....
trans-1,3-Dichloropropene.....	25	.....
Methylene chloride.....	500	.....
1,1,2,2-Tetrachloroethane.....	25	.....
Tetrachloroethene.....	25	.....
1,1,1-Trichloroethane.....	25	.....
1,1,2-Trichloroethane.....	25	.....
Trichloroethene.....	25	.....
Trichlorofluoromethane.....	25	.....
Vinyl chloride.....	50	.....
Surrogates	Control Limit %	% Recovery
1-Chloro-2-fluorobenzene.....	50	150.....
4-Bromofluorobenzene.....	50	150.....

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

SEQUOIA ANALYTICAL, #1271

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SECOR
 1390 Willow Pass Rd, Ste 360
 Concord, CA 94520
 Attention: Dan Madsen

Client Project ID: Tosco BP 11126, Emeryville
 Sample Descript: Soil, CLRF-1
 Analysis Method: EPA 5030/8010
 Lab Number: 904-2519

Sampled: Apr 28, 1999
 Received: Apr 28, 1999
 Analyzed: Apr 30, 1999
 Reported: May 5, 1999

QC Batch Number: SP0430998010EXA
 Instrument ID: HP-6

HALOGENATED VOLATILE ORGANICS (EPA 8010)

Analyte	Detection Limit µg/kg	Sample Results µg/kg
Bromodichloromethane.....	25	.....
Bromoform.....	25	.....
Bromomethane.....	50	.....
Carbon tetrachloride.....	25	.....
Chlorobenzene.....	25	.....
Chloroethane.....	50	.....
Chloroform.....	25	.....
Chloromethane.....	50	.....
Dibromochloromethane.....	25	.....
1,2-Dichlorobenzene.....	25	.....
1,3-Dichlorobenzene.....	25	.....
1,4-Dichlorobenzene.....	25	.....
1,1-Dichloroethane.....	25	.....
1,2-Dichloroethane.....	25	.....
1,1-Dichloroethene.....	25	.....
cis-1,2-Dichloroethene.....	25	.....
trans-1,2-Dichloroethene.....	25	.....
1,2-Dichloropropane.....	25	.....
cis-1,3-Dichloropropene.....	25	.....
trans-1,3-Dichloropropene.....	25	.....
Methylene chloride.....	500	.....
1,1,2,2-Tetrachloroethane.....	25	.....
Tetrachloroethene.....	25	.....
1,1,1-Trichloroethane.....	25	.....
1,1,2-Trichloroethane.....	25	.....
Trichloroethene.....	25	.....
Trichlorofluoromethane.....	25	.....
Vinyl chloride.....	50	.....
Surrogates	Control Limit %	% Recovery
1-Chloro-2-fluorobenzene.....	50	150.....
4-Bromofluorobenzene.....	50	150.....

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

SEQUOIA ANALYTICAL, #1271

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 Project Manager





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SECOR
1390 Willow Pass Rd, Ste 360
Concord, CA 94520
Attention: Dan Madsen

Client Project ID: Tosco BP 11126, Emeryville
Sample Descript: Soil, HST-1
Analysis Method: EPA 5030/8010
Lab Number: 904-2520

Sampled: Apr 28, 1999
Received: Apr 28, 1999
Analyzed: May 3, 1999
Reported: May 5, 1999

QC Batch Number: SP0430998010EXA

Instrument ID: HP-6

HALOGENATED VOLATILE ORGANICS (EPA 8010)

Analyte	Detection Limit µg/kg	Sample Results µg/kg
Bromodichloromethane.....	25	.....
Bromoform.....	25	.....
Bromomethane.....	50	.....
Carbon tetrachloride.....	25	.....
Chlorobenzene.....	25	.....
Chloroethane.....	50	.....
Chloroform.....	25	.....
Chloromethane.....	50	.....
Dibromochloromethane.....	25	.....
1,2-Dichlorobenzene.....	25	.....
1,3-Dichlorobenzene.....	25	.....
1,4-Dichlorobenzene.....	25	.....
1,1-Dichloroethane.....	25	.....
1,2-Dichloroethane.....	25	.....
1,1-Dichloroethene.....	25	.....
cis-1,2-Dichloroethene.....	25	.....
trans-1,2-Dichloroethene.....	25	.....
1,2-Dichloropropane.....	25	.....
cis-1,3-Dichloropropene.....	25	.....
trans-1,3-Dichloropropene.....	25	.....
Methylene chloride.....	500	.....
1,1,2,2-Tetrachloroethane.....	25	.....
Tetrachloroethene.....	25	.....
1,1,1-Trichloroethane.....	25	.....
1,1,2-Trichloroethane.....	25	.....
Trichloroethene.....	25	.....
Trichlorofluoromethane.....	25	.....
Vinyl chloride.....	50	.....
Surrogates	Control Limit %	% Recovery
1-Chloro-2-fluorobenzene.....	50	150.....
4-Bromofluorobenzene.....	50	150.....

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

SEQUOIA ANALYTICAL, #1271

Dimple Sharma
Project Manager

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Sequoia Analytical

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SECOR
1390 Willow Pass Rd, Ste 360
Concord, CA 94520
Attention: Dan Madsen

Client Project ID: Tosco BP 11126, Emeryville
Sample Descript: Soil, HST-2
Analysis Method: EPA 5030/8010
Lab Number: 904-2521

Sampled: Apr 28, 1999
Received: Apr 28, 1999
Analyzed: Apr 30, 1999
Reported: May 5, 1999

QC Batch Number: SP0430998010EXA
Instrument ID: HP-6

HALOGENATED VOLATILE ORGANICS (EPA 8010)

Analyte	Detection Limit µg/kg	Sample Results µg/kg
Bromodichloromethane.....	25	.....
Bromoform.....	25	.....
Bromomethane.....	50	.....
Carbon tetrachloride.....	25	.....
Chlorobenzene.....	25	.....
Chloroethane.....	50	.....
Chloroform.....	25	.....
Chloromethane.....	50	.....
Dibromochloromethane.....	25	.....
1,2-Dichlorobenzene.....	25	.....
1,3-Dichlorobenzene.....	25	.....
1,4-Dichlorobenzene.....	25	.....
1,1-Dichloroethane.....	25	.....
1,2-Dichloroethane.....	25	.....
1,1-Dichloroethene.....	25	.....
cis-1,2-Dichloroethene.....	25	.....
trans-1,2-Dichloroethene.....	25	.....
1,2-Dichloropropane.....	25	.....
cis-1,3-Dichloropropene.....	25	.....
trans-1,3-Dichloropropene.....	25	.....
Methylene chloride.....	500	.....
1,1,2,2-Tetrachloroethane.....	25	.....
Tetrachloroethene.....	25	.....
1,1,1-Trichloroethane.....	25	.....
1,1,2-Trichloroethane.....	25	.....
Trichloroethene.....	25	.....
Trichlorofluoromethane.....	25	.....
Vinyl chloride.....	50	.....
Surrogates	Control Limit %	% Recovery
1-Chloro-2-fluorobenzene.....	50	150.....
4-Bromofluorobenzene.....	50	150.....

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

SEQUOIA ANALYTICAL, #1271

Dimple Sharma
Project Manager





Sequoia Analytical

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SECOR
1390 Willow Pass Rd, Ste 360
Concord, CA 94520
Attention: Dan Madsen

Client Project ID: Tosco BP 11126, Emeryville
Sample Descript: Water, OILTWS-1
Analysis Method: EPA 8010
Lab Number: 904-2518

Sampled: Apr 28, 1999
Received: Apr 28, 1999
Analyzed: May 3, 1999
Reported: May 5, 1999

QC Batch Number:

Instrument ID:

HALOGENATED VOLATILE ORGANICS (EPA 8010)

Analyte	Detection Limit µg/L	Sample Results µg/L
Bromodichloromethane.....	0.50	.....
Bromoform.....	0.50	.....
Bromomethane.....	1.0	.....
Carbon tetrachloride.....	0.50	.....
Chlorobenzene.....	0.50	.....
Chloroethane.....	1.0	.....
Chloroform.....	0.50	.....
Chloromethane.....	1.0	.....
Dibromochloromethane.....	0.50	.....
1,3-Dichlorobenzene.....	0.50	.....
1,4-Dichlorobenzene.....	0.50	.....
1,2-Dichlorobenzene.....	0.50	.....
1,1-Dichloroethane.....	0.50	.....
1,2-Dichloroethane.....	0.50	.....
1,1-Dichloroethene.....	0.50	.....
cis-1,2-Dichloroethene.....	0.50	.....
trans-1,2-Dichloroethene.....	0.50	.....
1,2-Dichloropropane.....	0.50	.....
cis-1,3-Dichloropropene.....	0.50	.....
trans-1,3-Dichloropropene.....	0.50	.....
Methylene chloride.....	5.0	.....
1,1,2,2-Tetrachloroethane.....	0.50	.....
Tetrachloroethene.....	0.50	.....
1,1,1-Trichloroethane.....	0.50	.....
1,1,2-Trichloroethane.....	0.50	.....
Trichloroethene.....	0.50	.....
Trichlorofluoromethane.....	0.50	.....
Vinyl chloride.....	1.0	.....
Surrogates		
Dibromodifluoromethane.....	50	150.....
4-Bromofluorobenzene.....	50	150.....
	Control Limit %	% Recovery

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

SEQUOIA ANALYTICAL, #1271

Dimple Sharma
Project Manager





**Sequoia
Analytical**

SECOR
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Concord, CA 94520
Attention: Dan Madsen

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Client Project ID: Tosco BP 11126, Emeryville
Sample Descript: Soil, OILT-1
Lab Number: 904-2516

Sampled: Apr 28, 1999
Received: Apr 28, 1999
Digested: Apr 30, 1999
Analyzed: May 3, 1999
Reported: May 5, 1999

LUFT METALS

Analyte	Detection	Sample	QC Batch	Instrument
	Limit mg/kg	Results mg/kg	Number	ID
Cadmium.....	0.50	0.75	ME0430996010MDA	MV-4
Chromium.....	0.50	89	ME0430996010MDA	MV-4
Lead.....	1.0	230	ME0430996010MDA	MV-4
Nickel.....	1.0	45	ME0430996010MDA	MV-4
Zinc.....	1.0	250	ME0430996010MDA	MV-4

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

SEQUOIA ANALYTICAL, #1271

Dimple Sharma
Project Manager

9042516.SEC <13>





**Sequoia
Analytical**

SECOR
1390 Willow Pass Rd, Ste 360
Concord, CA 94520
Attention: Dan Madsen

680 Chesapeake Drive
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Client Project ID: Tosco BP 11126, Emeryville

Sample Descript: Soil, OILT-2

Sampled: Apr 28, 1999

Received: Apr 28, 1999

Digested: Apr 30, 1999

Analyzed: May 3, 1999

Reported: May 5, 1999

Lab Number: 904-2517

LUFT METALS

Analyte	Detection	Sample	QC Batch	Instrument
	Limit mg/kg	Results mg/kg	Number	ID
Cadmium.....	0.50	N.D.	ME0430996010MDA	MV-4
Chromium.....	0.50	47	ME0430996010MDA	MV-4
Lead.....	1.0	47	ME0430996010MDA	MV-4
Nickel.....	1.0	55	ME0430996010MDA	MV-4
Zinc.....	1.0	56	ME0430996010MDA	MV-4

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

SEQUOIA ANALYTICAL, #1271

Dimple Sharma
Project Manager





**Sequoia
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FAX (650) 232-9612

Client Project ID: **Tosco BP 11126, Emeryville**
Sample Descript: **Soil, CLRF-1**

Lab Number: **904-2519**

Sampled: **Apr 28, 1999**
Received: **Apr 28, 1999**
Digested: **Apr 30, 1999**
Analyzed: **May 3, 1999**
Reported: **May 5, 1999**

LUFT METALS

Analyte	Detection Limit mg/kg	Sample Results mg/kg	QC Batch Number	Instrument ID
Cadmium.....	0.50	2.4	ME0430996010MDA	MV-4
Chromium.....	0.50	44	ME0430996010MDA	MV-4
Lead.....	100	22,000	ME0430996010MDA	MV-4
Nickel.....	1.0	34	ME0430996010MDA	MV-4
Zinc.....	1.0	2,700	ME0430996010MDA	MV-4

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

SEQUOIA ANALYTICAL, #1271

Dimple Sharma
Project Manager

9042516.SEC <15>





**Sequoia
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Client Project ID: Tosco BP 11126, Emeryville
Sample Descript: Soil, HST-1

Lab Number: 904-2520

Sampled: Apr 28, 1999
Received: Apr 28, 1999
Digested: Apr 30, 1999
Analyzed: May 3, 1999
Reported: May 5, 1999

LUFT METALS

Analyte	Detection Limit mg/kg	Sample Results mg/kg	QC Batch Number	Instrument ID
Cadmium.....	0.50	N.D.	ME0430996010MDA	MV-4
Chromium.....	0.50	48	ME0430996010MDA	MV-4
Lead.....	1.0	650	ME0430996010MDA	MV-4
Nickel.....	1.0	64	ME0430996010MDA	MV-4
Zinc.....	1.0	340	ME0430996010MDA	MV-4

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

SEQUOIA ANALYTICAL, #1271

Dimple Sharma
Project Manager



**Sequoia
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680 Chesapeake Drive 404 N. Wiget Lane 819 Striker Avenue, Suite 8 1455 McDowell Blvd. North, Ste. D 1551 Industrial Road	Redwood City, CA 94063 Walnut Creek, CA 94598 Sacramento, CA 95834 Petaluma, CA 94954 San Carlos, CA 94070-4111	(650) 364-9600 (925) 988-9600 (916) 921-9600 (707) 792-1865 (650) 232-9600	FAX (650) 364-9233 FAX (925) 988-9673 FAX (916) 921-0100 FAX (707) 792-0342 FAX (650) 232-9612
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Client Project ID: Tosco BP 11126, Emeryville

Sample Descript: Soil, HST-2

Lab Number: 904-2521

Sampled:	Apr 28, 1999
Received:	Apr 28, 1999
Digested:	Apr 30, 1999
Analyzed:	May 3, 1999
Reported:	May 5, 1999

LUFT METALS

Analyte	Detection Limit mg/kg	Sample Results mg/kg	QC Batch Number	Instrument ID
Cadmium.....	0.50	N.D.	ME0430996010MDA	MV-4
Chromium.....	0.50	45	ME0430996010MDA	MV-4
Lead.....	1.0	110	ME0430996010MDA	MV-4
Nickel.....	1.0	42	ME0430996010MDA	MV-4
Zinc.....	1.0	170	ME0430996010MDA	MV-4

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

SEQUOIA ANALYTICAL, #1271

Dimple Sharma
Project Manager

9042516.SEC <17>





**Sequoia
Analytical**

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Attention: Dan Madsen

680 Chesapeake Drive	Redwood City, CA 94063	(650) 364-9600	FAX (650) 364-9233
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1551 Industrial Road	San Carlos, CA 94070-4111	(650) 232-9600	FAX (650) 232-9612

Client Project ID: Tosco BP 11126, Emeryville
Sample Descript: Water, OILTWS-1

Lab Number: 904-2518

Sampled:	Apr 28, 1999
Received:	Apr 28, 1999
Digested:	Apr 30, 1999
Analyzed:	May 2, 1999
Reported:	May 5, 1999

LUFT METALS

Analyte	Detection Limit mg/L	Sample Results mg/L	QC Batch Number	Instrument ID
Cadmium.....	0.010	N.D.	ME0430992007MDA	MV-4
Chromium.....	0.010	0.24	ME0430992007MDA	MV-4
Lead.....	0.020	N.D.	ME0430992007MDA	MV-4
Nickel.....	0.010	0.30	ME0430992007MDA	MV-4
Zinc.....	0.020	0.34	ME0430992007MDA	MV-4

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

SEQUOIA ANALYTICAL, #1271

Dimple Sharma
Project Manager





Sequoia Analytical

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SECOR
1390 Willow Pass Rd, Ste 360
Concord, CA 94520

Client Project ID: Tosco BP 11126, Emeryville
Matrix: Solid

Attention: Dan Madsen

QC Sample Group: 9042516-521

Reported: May 6, 1999

QUALITY CONTROL DATA REPORT

Analyte:	Benzene	Toluene	Ethyl Benzene	Xylenes	Diesel
QC Batch#:	SP043099 8020EXA	SP043099 8020EXA	SP043099 8020EXA	SP043099 8020EXA	SP042899 8015EXC
Analy. Method:	EPA 8020	EPA 8020	EPA 8020	EPA 8020	EPA 8015Mod.
Prep. Method:	EPA 5030	EPA 5030	EPA 5030	EPA 5030	EPA 3550
Analyst:	C. Westwater	C. Westwater	C. Westwater	C. Westwater	K. Grubb
MS/MSD #:	8041941	8041941	8041941	8041941	BLK042899
Sample Conc.:	N.D.	N.D.	N.D.	N.D.	N.D.
Prepared Date:	4/30/99	4/30/99	4/30/99	4/30/99	4/28/99
Analyzed Date:	4/30/99	4/30/99	4/30/99	4/30/99	4/29/99
Instrument I.D. #:	HP-5	HP-5	HP-5	HP-5	HP-3B
Conc. Spiked:	0.80 mg/Kg	0.80 mg/Kg	0.80 mg/Kg	2.4 mg/Kg	15 mg/Kg
Result:	0.94	0.94	0.99	2.9	12
MS % Recovery:	118	118	124	121	80
Dup. Result:	1.0	1.0	0.98	3.0	13
MSD % Recov.:	125	125	123	125	87
RPD:	6.2	6.2	1.0	3.4	8.0
RPD Limit:	0-20	0-20	0-20	0-20	0-50
LCS #:	5LCS043099	5LCS043099	5LCS043099	5LCS043099	-
Prepared Date:	4/30/99	4/30/99	4/30/99	4/30/99	-
Analyzed Date:	4/30/99	4/30/99	4/30/99	4/30/99	-
Instrument I.D. #:	HP-5	HP-5	HP-5	HP-5	-
Conc. Spiked:	0.80 mg/Kg	0.80 mg/Kg	0.80 mg/Kg	2.4 mg/Kg	-
LCS Result:	0.98	0.98	0.96	3.0	-
LCS % Recov.:	123	123	120	125	-

MS/MSD LCS Control Limits	50-150	50-150	50-150	50-150	60-140
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Please Note:

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

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

SEQUOIA ANALYTICAL, #1271

Dimple Sharma
Project Manager





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SECOR
1390 Willow Pass Rd, Ste 360
Concord, CA 94520

Client Project ID: **Tosco BP 11126, Emeryville**
Matrix: **Liquid**

Attention: Dan Madsen

QC Sample Group: **904-2518**

Reported: **May 6, 1999**

QUALITY CONTROL DATA REPORT

Analyte:	Benzene	Toluene	Ethyl Benzene	Xylenes	Diesel
QC Batch#:	GC042999	GC042999	GC042999	GC042999	SP050399
	802004A	802004A	802004A	802004A	8015EXA
Anal. Method:	EPA 8020	EPA 8020	EPA 8020	EPA 8020	EPA 8015 Mod.
Prep. Method:	EPA 5030	EPA 5030	EPA 5030	EPA 5030	EPA 3510

Analyst:	J. Minkel	J. Minkel	J. Minkel	J. Minkel	K. Grubb
MS/MSD #:	8041941	8041941	8041941	8041941	BLK050399
Sample Conc.:	N.D.	N.D.	N.D.	N.D.	N.D.
Prepared Date:	4/29/99	4/29/99	4/29/99	4/29/99	5/3/99
Analyzed Date:	4/29/99	4/29/99	4/29/99	4/29/99	5/4/99
Instrument I.D. #:	HP-4	HP-4	HP-4	HP-4	HP-3B
Conc. Spiked:	20 µg/L	20 µg/L	20 µg/L	60 µg/L	500 µg/L
Result:	21	17	18	61	450
MS % Recovery:	105	85	90	102	90
Dup. Result:	21	18	18	62	400
MSD % Recov.:	105	90	90	103	80
RPD:	0.0	5.7	0.0	1.6	12.0
RPD Limit:	0-20	0-20	0-20	0-20	0-50

LCS #:	4LCS042998	4LCS042998	4LCS042998	4LCS042998	LCS050399
Prepared Date:	4/29/99	4/29/99	4/29/99	4/29/99	5/3/99
Analyzed Date:	4/29/99	4/29/99	4/29/99	4/29/99	5/4/99
Instrument I.D. #:	HP-4	HP-4	HP-4	HP-4	HP-3B
Conc. Spiked:	20 µg/L	20 µg/L	20 µg/L	60 µg/L	500 µg/L
LCS Result:	20	17	18	62	390
LCS % Recov.:	100	85	90	103	78

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

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

SEQUOIA ANALYTICAL, #1271

Dimple Sharma
Project Manager





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SECOR
1390 Willow Pass Rd, Ste 360
Concord, CA 94520

Client Project ID: **Tosco BP 11126, Emeryville**
Matrix: Solid

Attention: Dan Madsen

QC Sample Group: 9042516-521

Reported: May 6, 1999

QUALITY CONTROL DATA REPORT

Analyte:	1,1-Dichloro-ethene	Trichloro-ethene	Chloro-benzene
QC Batch#:	SP043099	SP043099	SP043099
	8010EXA	8010EXA	8010EXA
Analy. Method:	EPA 8010	EPA 8010	EPA 8010
Prep. Method:	EPA 5030	EPA 5030	EPA 5030

Analyst:	P. Kosovskaya	P. Kosovskaya	P. Kosovskaya
MS/MSD #:	9041684	9041684	9041684
Sample Conc.:	N.D.	N.D.	N.D.
Prepared Date:	4/30/99	4/30/99	4/30/99
Analyzed Date:	4/30/99	4/30/99	4/30/99
Instrument I.D. #:	HP-6	HP-6	HP-6
Conc. Spiked:	1000 µg/Kg	1000 µg/Kg	1000 µg/Kg
 Result:	870	940	910
MS % Recovery:	87	94	91
 Dup. Result:	990	1100	1100
MSD % Recov.:	99	110	110
 RPD:	13	16	19
RPD Limit:	0-25	0-25	0-25

LCS #:	LCS043099	LCS043099	LCS043099
Prepared Date:	4/30/99	4/30/99	4/30/99
Analyzed Date:	4/30/99	4/30/99	4/30/99
Instrument I.D. #:	HP-6	HP-6	HP-6
Conc. Spiked:	1000 µg/Kg	1000 µg/Kg	1000 µg/Kg
 LCS Result:	800	920	960
LCS % Recov.:	80	92	96

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

SEQUOIA ANALYTICAL, #1271

Dimple Sharma
Project Manager

Please Note:

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

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





**Sequoia
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SECOR
1390 Willow Pass Rd, Ste 360
Concord, CA 94520

Attention: Dan Madsen

Client Project ID: Tosco BP 11126, Emeryville
Matrix: Liquid

QC Sample Group: 904-2518

Reported: May 6, 1999

QUALITY CONTROL DATA REPORT

Analyte:	1,1-Dichloro-ethene	Trichloro-ethene	Chloro-benzene
QC Batch#:	GC050399	GC050399	GC050399
	801006A	801006A	801006A
Anal. Method:	EPA 8010	EPA 8010	EPA 8010
Prep. Method:	EPA 5030	EPA 5030	EPA 5030

Analyst:	P. Kovovskaya	P. Kovovskaya	P. Kovovskaya
MS/MSD #:	9042518	9042518	9042518
Sample Conc.:	N.D.	N.D.	N.D.
Prepared Date:	5/3/99	5/3/99	5/3/99
Analyzed Date:	5/3/99	5/3/99	5/3/99
Instrument I.D. #:	HP-6	HP-6	HP-6
Conc. Spiked:	20 µg/L	20 µg/L	20 µg/L
Result:	19	21	21
MS % Recovery:	95	105	105
Dup. Result:	20	23	20
MSD % Recov.:	100	115	100
RPD:	5.1	9.1	4.9
RPD Limit:	0-25	0-25	0-25

LCS #:	LCS050399	LCS050399	LCS050399
Prepared Date:	5/3/99	5/3/99	5/3/99
Analyzed Date:	5/3/99	5/3/99	5/3/99
Instrument I.D. #:	HP-6	HP-6	HP-6
Conc. Spiked:	20 µg/L	20 µg/L	20 µg/L
LCS Result:	15	15	18
LCS % Recov.:	75	75	90

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

SEQUOIA ANALYTICAL, #1271

Dimple Sharma
Project Manager

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

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





Sequoia Analytical

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SECOR
1390 Willow Pass Rd, Ste 360
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Attention: Dan Madsen

Client Project ID: **Tosco BP 11126, Emeryville**
Matrix: **Solid**

QC Sample Group: **9042516-521**

Reported: **May 6, 1999**

QUALITY CONTROL DATA REPORT

Analyte:	Cadmium	Chromium	Lead	Nickel	Zinc
QC Batch#:	ME042999	ME042999	ME042999	ME042999	ME042999
	6010MDA	6010MDA	6010MDA	6010MDA	6010MDA
Anal. Method:	EPA 6010	EPA 6010	EPA 6010	EPA 6010	EPA 6010
Prep. Method:	EPA 3050	EPA 3050	EPA 3050	EPA 3050	EPA 3050
Analyst:	J.Kelly	J.Kelly	J.Kelly	J.Kelly	J.Kelly
MS/MSD #:	9042516	9042516	9042516	9042516	9042516
Sample Conc.:	0.75 mg/Kg	89 mg/Kg	230 mg/Kg	45 mg/Kg	250 mg/Kg
Prepared Date:	4/29/99	4/29/99	4/29/99	4/29/99	4/29/99
Analyzed Date:	5/3/99	5/3/99	5/3/99	5/3/99	5/3/99
Instrument I.D. #:	MV-4	MV-4	MV-4	MV-4	MV-4
Conc. Spiked:	50 mg/Kg	50 mg/Kg	50 mg/Kg	50 mg/Kg	50 mg/Kg
Result:	49	120	350	96	430
MS % Recovery:	97	62	-	102	-
Dup. Result:	49	130	350	100	420
MSD % Recov.:	97	82	-	110	-
RPD:	0.0	8.0	0.0	4.1	2.4
RPD Limit:	0-20	0-20	0-20	0-20	0-20
LCS #:	LCS042999	LCS042999	LCS042999	LCS042999	LCS042999
Prepared Date:	4/29/99	4/29/99	4/29/99	4/29/99	4/29/99
Analyzed Date:	5/3/99	5/3/99	5/3/99	5/3/99	5/3/99
Instrument I.D. #:	MV-4	MV-4	MV-4	MV-4	MV-4
Conc. Spiked:	50 mg/Kg	50 mg/Kg	50 mg/Kg	50 mg/Kg	50 mg/Kg
LCS Result:	51	65	47	54	51
LCS % Recov.:	102	110	94	108	102
MS/MSD Control Limits	80-120	80-120	80-120	80-120	80-120

Please Note:

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

SEQUOIA ANALYTICAL, #1271

Dimple Sharma
Project Manager



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SECOR
1390 Willow Pass Rd, Ste 360
Concord, CA 94520
Attention: Dan Madsen

Client Project ID: Tosco BP 11126, Emeryville
Matrix: Liquid

QC Sample Group: 904-2518

Reported: May 6, 1999

QUALITY CONTROL DATA REPORT

Analyte:	Cadmium	Chromium	Lead	Nickel	Zinc
QC Batch#:	ME043099	ME043099	ME043099	ME043099	ME043099
	2007MDA	2007MDA	2007MDA	2007MDA	2007MDA
Anal. Method:	EPA 200.7				
Prep. Method:	EPA 200.7				

Analyst:	J. Kelly	J. Kelly	J. Kelly	J. Kelly	J. Kelly
MS/MSD #:	9042403	9042403	9042403	9042403	9042403
Sample Conc.:	N.D.	0.10 mg/L	0.17 mg/L	0.24 mg/L	0.028 mg/L
Prepared Date:	4/30/99	4/30/99	4/30/99	4/30/99	4/30/99
Analyzed Date:	5/5/99	5/5/99	5/5/99	5/5/99	5/5/99
Instrument I.D. #:	MV-4	MV-4	MV-4	MV-4	MV-4
Conc. Spiked:	1.0 mg/L	1.0 mg/L	1.0 mg/L	1.0 mg/L	1.0 mg/L
Result:	1.0	1.0	1.0	1.1	0.95
MS % Recovery:	100	90	83	110	92
Dup. Result:	0.98	0.98	0.96	1.0	0.92
MSD % Recov.:	98	98	79	76	89
RPD:	2.0	2.0	4.1	9.5	3.2
RPD Limit:	0-20	0-20	0-20	0-20	0-20

LCS #:	LCS043099	LCS043099	LCS043099	LCS043099	LCS043099
Prepared Date:	4/30/99	4/30/99	4/30/99	4/30/99	4/30/99
Analyzed Date:	5/5/99	5/5/99	5/5/99	5/5/99	5/5/99
Instrument I.D. #:	MV-4	MV-4	MV-4	MV-4	MV-4
Conc. Spiked:	1.0 mg/L	1.0 mg/L	1.0 mg/L	1.0 mg/L	1.0 mg/L
LCS Result:	1.1	1.0	0.87	0.92	1.1
LCS % Recov.:	110	100	87	92	110

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

Please Note:

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

SEQUOIA ANALYTICAL, #1271

Dimple Sharma
Project Manager



UNOCAL

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18939 120th Ave., N.E. Suite 101 • Bothell, WA 98011 • (206) 481-9200
 East 11115 Montgomery, Suite B • Spokane, WA 99206 • (509) 924-9200
 15055 S.W. Sequoia Pkwy, Suite 110 • Portland, OR 97222 • (503) 624-9800

Consultant Company: SECOR				Project Name: Tosco										
Address: 1390 Willow Pass Rd, Site 3600				UNOCAL Project Manager: Dave Dewitt										
City: Concord		State: CA		Zip Code: 94520		AFE #: CAR000000232 9904673								
Telephone: (925) 686-9780		FAX #: (925) 686-3099		Site #, City, State: BP11126, Emeryville, CA										
Report To: Dan Madsen		Sampler: Nyree Haggopian		QC Data: <input checked="" type="checkbox"/> Level D (Standard) <input type="checkbox"/> Level C <input type="checkbox"/> Level B <input type="checkbox"/> Level A		Analyses Requested								
Turnaround Time:		<input type="checkbox"/> 10 Work Days <input type="checkbox"/> 5 Work Days <input checked="" type="checkbox"/> 3 Work Days <input type="checkbox"/> 2 Work Days <input type="checkbox"/> 1 Work Day <input type="checkbox"/> 2-8 Hours		<input type="checkbox"/> Drinking Water <input type="checkbox"/> Waste Water <input checked="" type="checkbox"/> Other										
CODE: <input type="checkbox"/> Misc. <input type="checkbox"/> Detect. <input type="checkbox"/> Eval. <input type="checkbox"/> Remed. <input type="checkbox"/> Demol. <input type="checkbox"/> Closure														
Client Sample I.D.	Date/Time Sampled	Matrix Desc.	# of Cont.	Cont. Type	Laboratory Sample #	TPH _{gasoline}	TPH _{diesel}	TPH _{motor oil}	BTEX	HIP	Chlorinated organics	metals	CFP	Comments
1. OILT-1	4/28/99	Soil	1	Brass	9042516	X	X	X	X	X	X	X		
2. OILT-2	4/28/99	Soil	1	Brass	9042517	X	X	X	X	X	X	X		
3. OILTWs-1	4/28/99 1130	Water	6		9042518	X	X	X	X	X	X	X		
4. CLRF-1	4/28/99	Soil	1	Brass	9042519	X	X	X	X	X	X	X		
5. HST-1	4/28/99	Soil	1	Brass	9042520	X	X	X	X	X	X	X		
6. HST-2	4/28/99	Soil	1	Brass	9042521	X	X	X	X	X	X	X		
7.														
8.														
9.														
10.														

Relinquished By: Nyree Haggopian	Date: 4/28/99	Time: 14:25	Received By: _____	Date: _____	Time: _____
Relinquished By: _____	Date: _____	Time: _____	Received By: _____	Date: _____	Time: _____
Relinquished By: _____	Date: _____	Time: _____	Received By Lab: Komal C. Jensen	Date: 4/28/99	Time: 17:25

Were Samples Received in Good Condition? Yes No Samples on Ice? Yes No Method of Shipment _____ Page ____ of ____

To be completed upon receipt of report:

- 1) Were the analyses requested on the Chain of Custody reported? Yes No If no, what analyses are still needed? _____
 2) Was the report issued within the requested turnaround time? Yes No If no, what was the turnaround time? _____

Approved by: _____ Signature: _____ Company: _____ Date: _____



**Sequoia
Analytical**

SECOR
1390 Willow Pass Rd, Ste 360
Concord, CA 94520
Attention: Dan Madsen

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Client Project ID: Tosco 11126, Emeryville
Sample Descript: Soil
Analysis for: Lead
First Sample #: 905-0611

Sampled: May 7, 1999
Received: May 11, 1999
Digested: May 11, 1999
Analyzed: May 12, 1999
Reported: May 17, 1999

LABORATORY ANALYSIS FOR: Lead

Sample Number	Sample Description	Detection Limit mg/kg	Sample Result mg/kg	QC Batch Number	Instrument ID
905-0611	HST-1-5.0'	1.0	11	ME0510996010MDA	MV-4
905-0612	HST-2-5.0'	1.0	25	ME0510996010MDA	MV-4
905-0613	CIFR-5.0'	1.0	410	ME0510996010MDA	MV-4

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

SEQUOIA ANALYTICAL, #1271

Dimple Sharma
Project Manager

9050614.SEC <7>





**Sequoia
Analytical**

SECOR
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1551 Industrial Road	San Carlos, CA 94070-4111	(650) 232-9600	FAX (650) 232-9612

Client Project ID: Tosco 11126, Emeryville

Sample Descript: Soil, SP-2(A-D)

Lab Number: 905-0614

Sampled: May 7, 1999

Received: May 11, 1999

Digested: May 11, 1999

Analyzed: May 12, 1999

Reported: May 17, 1999

LUFT METALS

Analyte	Detection	Sample	QC Batch	Instrument
	Limit mg/kg	Results mg/kg	Number	ID
Cadmium.....	0.50	N.D.	ME0510996010MDA	MV-4
Chromium.....	0.50	38	ME0510996010MDA	MV-4
Lead.....	1.0	720	ME0510996010MDA	MV-4
Nickel.....	1.0	45	ME0510996010MDA	MV-4
Zinc.....	1.0	210	ME0510996010MDA	MV-4

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

SEQUOIA ANALYTICAL, #1271


Dimple Sharma
Project Manager





Sequoia Analytical

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Client Project ID: **Tosco 11126, Emeryville**
Matrix: **Solid**

QC Sample Group: **905-0614**

Reported: **May 17, 1999**

QUALITY CONTROL DATA REPORT

Analyte:	Benzene	Toluene	Ethyl Benzene	Xylenes
QC Batch#:	SP051399	SP051399	SP051399	SP051399
	8020EXA	8020EXA	8020EXA	8020EXA
Analy. Method:	EPA 8020	EPA 8020	EPA 8020	EPA 8020
Prep. Method:	EPA 5030	EPA 5030	EPA 5030	EPA 5030

Analyst:	J. Minkel	J. Minkel	J. Minkel	J. Minkel
MS/MSD #:	9050635	9050635	9050635	9050635
Sample Conc.:	N.D.	N.D.	N.D.	N.D.
Prepared Date:	5/13/99	5/13/99	5/13/99	5/13/99
Analyzed Date:	5/13/99	5/13/99	5/13/99	5/13/99
Instrument I.D. #:	HP-5	HP-5	HP-5	HP-5
Conc. Spiked:	0.80 mg/Kg	0.80 mg/Kg	0.80 mg/Kg	2.4 mg/Kg
Result:	0.85	0.87	0.87	2.7
MS % Recovery:	106	109	109	113
Dup. Result:	0.91	0.93	0.94	2.8
MSD % Recov.:	114	116	118	117
RPD:	6.8	6.7	7.7	3.6
RPD Limit:	0-20	0-20	0-20	0-20

LCS #:	5LCS051399	5LCS051399	5LCS051399	5LCS051399
Prepared Date:	5/13/99	5/13/99	5/13/99	5/13/99
Analyzed Date:	5/13/99	5/13/99	5/13/99	5/13/99
Instrument I.D. #:	HP-5	HP-5	HP-5	HP-5
Conc. Spiked:	0.80 mg/Kg	0.80 mg/Kg	0.80 mg/Kg	2.4 mg/Kg
LCS Result:	0.79	0.80	0.79	2.4
LCS % Recov.:	99	100	99	100

MS/MSD				
LCS	50-150	50-150	50-150	50-150
Control Limits				

SEQUOIA ANALYTICAL, #1271

Dimple Sharma
Project Manager

Please Note:

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Sequoia Analytical

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1551 Industrial Road	San Carlos, CA 94070-4111	(650) 232-9600	FAX (650) 232-9612

SECOR
1390 Willow Pass Rd, Ste 360
Concord, CA 94520

Attention: Dan Madsen

Client Project ID: Tosco 11126, Emeryville
Matrix: Solid

QC Sample Group: 9050611-614

Reported: May 17, 1999

QUALITY CONTROL DATA REPORT

Analyte: Diesel

QC Batch#: SP051299
8015EXA

Anal. Method: EPA 8015 Mod.
Prep. Method: EPA 3550

Analyst: K. Grubb
MS/MSD #: BLK051299

Sample Conc.: N.D.

Prepared Date: 5/12/99

Analyzed Date: 5/12/99

Instrument I.D. #: HP-3B
Conc. Spiked: 15 mg/Kg

Result: 11
MS % Recovery: 73

Dup. Result: 13
MSD % Recov.: 87

RPD: 17
RPD Limit: 0-50

LCS #: -

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

LCS Result: -
LCS % Recov.: -

MS/MSD	60-140
LCS	
Control Limits	

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SEQUOIA ANALYTICAL, #1271

Dimple Sharma
Project Manager



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SECOR
1390 Willow Pass Rd, Ste 360
Concord, CA 94520

Client Project ID: Tosco 11126, Emeryville
Matrix: Solid

Attention: Dan Madsen

QC Sample Group: 905-0614

Reported: May 17, 1999

QUALITY CONTROL DATA REPORT

Analyte:	Phenol	2-Chlorophenol	1,4-Dichloro benzene	N-Nitroso-Di- propylamine	1,2,4-Trichloro benzene	4-Chloro-3 Methylphenol
QC Batch#:	SP051399 8270EXA	SP051399 8270EXA	SP051399 8270EXA	SP051399 8270EXA	SP051399 8270EXA	SP051399 8270EXA
Anal. Method:	EPA 8270	EPA 8270	EPA 8270	EPA 8270	EPA 8270	EPA 8270
Prep. Method:	EPA 3550	EPA 3550	EPA 3550	EPA 3550	EPA 3550	EPA 3550
Analyst:	L. Diaz	L. Diaz	L. Diaz	L. Diaz	L. Diaz	L. Diaz
MS/MSD #:	BLK051399	BLK051399	BLK051399	BLK051399	BLK051399	BLK051399
Sample Conc.:	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
Prepared Date:	5/13/99	5/13/99	5/13/99	5/13/99	5/13/99	5/13/99
Analyzed Date:	5/13/99	5/13/99	5/13/99	5/13/99	5/13/99	5/13/99
Instrument I.D. #:	GC/MS-1	GC/MS-1	GC/MS-1	GC/MS-1	GC/MS-1	GC/MS-1
Conc. Spiked:	5000 µg/kg	5000 µg/kg	3300 µg/kg	3300 µg/kg	3300 µg/kg	5000 µg/kg
Result:	3,500	3,900	2,500	2,800	2,900	4,100
MS % Recovery:	70	78	76	85	88	82
Dup. Result:	3,400	3,800	2,400	2,800	2,900	4,100
MSD % Recov.:	68	76	73	85	88	82
RPD:	2.9	2.6	4.1	0.0	0.0	0.0
RPD Limit:	0-40	0-40	0-40	0-40	0-40	0-40

LCS #:

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

LCS Result:
LCS % Recov.:

MS/MSD LCS Control Limits	26-90	25-102	28-104	41-126	38-107	26-103
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** MS = Matrix Spike, MSD = MS Duplicate, RPD = Relative % Difference

SEQUOIA ANALYTICAL, #1271

Dimple Sharma
Project Manager





Sequoia Analytical

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SECOR
 1390 Willow Pass Rd, Ste 360
 Concord, CA 94520

Attention: Dan Madsen

Client Project ID: Tosco 11126, Emeryville
 Matrix: Solid

QC Sample Group: 905-0614

Reported: May 17, 1999

QUALITY CONTROL DATA REPORT

Analyte:	Acenaphthene	4-Nitrophenol	2,4-Dinitrotoluene	Pentachlorophenol	Pyrene
QC Batch#:	SP051399	SP051399	SP051399	SP051399	SP051399
	8270EXA	8270EXA	8270EXA	8270EXA	8270EXA
Analy. Method:	EPA 8270	EPA 8270	EPA 8270	EPA 8270	EPA 8270
Prep. Method:	EPA 3550	EPA 3550	EPA 3550	EPA 3550	EPA 3550
Analyst:	L. Diaz	L. Diaz	L. Diaz	L. Diaz	L. Diaz
MS/MSD #:	BLK051399	BLK051399	BLK051399	BLK051399	BLK051399
Sample Conc.:	N.D.	N.D.	N.D.	N.D.	N.D.
Prepared Date:	5/13/99	5/13/99	5/13/99	5/13/99	5/13/99
Analyzed Date:	5/13/99	5/13/99	5/13/99	5/13/99	5/13/99
Instrument I.D. #:	GC/MS-1	GC/MS-1	GC/MS-1	GC/MS-1	GC/MS-1
Conc. Spiked:	3300 µg/kg	5000 µg/kg	3300 µg/kg	5000 µg/kg	3300 µg/kg
Result:	2,600	3,700	2,700	3,800	3,000
MS % Recovery:	79	74	82	76	91
Dup. Result:	2,600	3,800	2,700	4,000	3,100
MSD % Recov.:	79	76	82	80	94
RPD:	0.0	2.7	0.0	5.1	3.3
RPD Limit:	0-40	0-40	0-40	0-40	0-40

LCS #:

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

LCS Result: -
LCS % Recov.: -

MS/MSD	31-137	LCS	11-114	Control Limits	28-89	17-109	35-142
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SEQUOIA ANALYTICAL, #1271

Dimple Sharma
 Project Manager



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San Carlos, CA 94070-4111 (650) 232-9600 FAX (650) 232-9612

Client Project ID: **Tosco 11126, Emeryville**
Matrix: **Solid**

QC Sample Group: **905-0614**

Reported: **May 17, 1999**

QUALITY CONTROL DATA REPORT

Analyte:	1,1-Dichloro-	Trichloro-	Chloro-
	ethene	ethene	benzene
QC Batch#:	SP050699	SP050699	SP050699
	8010EXA	8010EXA	8010EXA
Analy. Method:	EPA 8010	EPA 8010	EPA 8010
Prep. Method:	EPA 5030	EPA 5030	EPA 5030

Analyst:	P. Kosovskaya	P. Kosovskaya	P. Kosovskaya
MS/MSD #:	9042337	9042337	9042337
Sample Conc.:	N.D.	N.D.	N.D.
Prepared Date:	5/6/99	5/6/99	5/6/99
Analyzed Date:	5/6/99	5/6/99	5/6/99
Instrument I.D. #:	HP-6	HP-6	HP-6
Conc. Spiked:	1000 µg/Kg	1000 µg/Kg	1000 µg/Kg
Result:	1,000	1,100	990
MS % Recovery:	100	110	99
Dup. Result:	1,200	1,300	1,100
MSD % Recov.:	120	130	110
RPD:	18	17	11
RPD Limit:	0-25	0-25	0-25

LCS #:	LCS051299	LCS051299	LCS051299
Prepared Date:	5/12/99	5/12/99	5/12/99
Analyzed Date:	5/12/99	5/12/99	5/12/99
Instrument I.D. #:	HP-6	HP-6	HP-6
Conc. Spiked:	1000 µg/Kg	1000 µg/Kg	1000 µg/Kg
LCS Result:	840	860	980
LCS % Recov.:	84	86	98

MS/MSD			
LCS	65-135	70-130	70-130
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.

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

SEQUOIA ANALYTICAL, #1271

Dimple Sharma
Project Manager



Sequoia Analytical

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SECOR
1390 Willow Pass Rd, Ste 360
Concord, CA 94520
Attention: Dan Madsen

Client Project ID: Tosco 11126, Emeryville
Matrix: Solid

QC Sample Group: 9050611-614

Reported: May 17, 1999

QUALITY CONTROL DATA REPORT

Analyte:	Cadmium	Chromium	Lead	Nickel	Zinc
QC Batch#:	ME051099	ME051099	ME051099	ME051099	ME051099
	6010MDA	6010MDA	6010MDA	6010MDA	6010MDA
Anal. Method:	EPA 6010				
Prep. Method:	EPA 3050				

Analyst:	J. Kelly	J. Kelly	J. Kelly	J. Kelly	J. Kelly
MS/MSD #:	9050534	9050534	9050534	9050534	9050534
Sample Conc.:	N.D.	30 mg/Kg	140 mg/Kg	21 mg/Kg	56 mg/Kg
Prepared Date:	5/10/99	5/10/99	5/10/99	5/10/99	5/10/99
Analyzed Date:	5/12/99	5/12/99	5/12/99	5/12/99	5/12/99
Instrument I.D. #:	MV-4	MV-4	MV-4	MV-4	MV-4
Conc. Spiked:	50 mg/Kg	50 mg/Kg	50 mg/Kg	50 mg/Kg	50 mg/Kg
Result:	47	76	140	70	110
MS % Recovery:	94	92	-	98	108
Dup. Result:	47	77	220	69	100
MSD % Recov.:	94	94	-	96	88
RPD:	0.0	1.3	44	1.4	9.5
RPD Limit:	0-20	0-20	0-20	0-20	0-20

LCS #:	LCS051199	LCS051199	LCS051199	LCS051199	LCS051199
Prepared Date:	5/11/99	5/10/99	5/10/99	5/10/99	5/10/99
Analyzed Date:	5/12/99	5/12/99	5/12/99	5/12/99	5/12/99
Instrument I.D. #:	MV-4	MV-4	MV-4	MV-4	MV-4
Conc. Spiked:	50 mg/Kg	50 mg/Kg	50 mg/Kg	50 mg/Kg	50 mg/Kg
LCS Result:	49	51	46	50	49
LCS % Recov.:	98	102	92	100	98

MS/MSD					
LCS	80-120	80-120	80-120	80-120	80-120
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.

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

SEQUOIA ANALYTICAL, #1271

Dimple Sharma
Project Manager

UNOCAL 76

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 404 N. Wiget Lane • Walnut Creek, CA 94598 • (510) 988-9600
 18939 120th Ave., N.E., Suite 101 • Bothell, WA 98011 • (206) 481-9200
 East 11115 Montgomery, Suite B • Spokane, WA 99206 • (509) 924-9200
 15055 S.W. Sequoia Pkwy, Suite 110 • Portland, OR 97222 • (503) 524-9800

Consultant Company:	SECOR	Project Name:	Tosco 11126	9905158
Address:	1390 Willow Pass Rd. #360	UNOCAL Project Manager:	Dave DeWitt	
City:	Concord	State:	CA	Zip Code: 94520
Telephone:	925-686-9780	FAX #:	Site #, City, State: 11126, Emeryville, CA	
Report To:	✓ Dan Madsen	Sampler:	Nils van Doff	QC Data: <input checked="" type="checkbox"/> Level D (Standard) <input type="checkbox"/> Level C <input type="checkbox"/> Level B <input type="checkbox"/> Level A

Turnaround 10 Work Days 5 Work Days 3 Work DaysTime: 2 Work Days 1 Work Day 2-8 HoursCODE: Misc. Detect. Eval. Remed. Demol. Closure

- Drinking Water
 Waste Water
 Other

Analyses Requested

Client Sample I.D.	Date/Time Sampled	Matrix Desc.	# of Cont.	Cont. Type	Laboratory Sample #	TPH _s	TPH _t	TPH _m	MTBE	8910	8920	8720	Total	Cd, Cr, Ni, Zn	Comments
Ast - 1-5.0'	5-7-99	Soil	1	Sleeve	9050611	X	X						X		
Ast - 2-5.0'	"				9050612	X	X						X		
IFR - 5.0'	5-7-99				9050613								X		
SP - 2 - A					9050614	X	X	X	X	X	X	X	X	Metals - 24 hr.	
" - B	Composite				9050615										Metals - 24 hr.
" - C															
" - D															
8															
9															
10															

Relinquished By:	<i>Ronald</i>	Date: 5/10/99	Time: 1000	Received By:	<i>Kurt R. Miller</i>	Date: 5/11/99	Time: 1030
Relinquished By:	<i>Ronald</i>	Date: 5/11/99	Time: 1200	Received By:		Date:	Time:
Relinquished By:		Date:	Time:	Received By Lab:	<i>Ronald</i>	Date:	Time:

Were Samples Received in Good Condition? Yes NoSamples on Ice? Yes No

Method of Shipment Courier

Page 1 of 1

To be completed upon receipt of report:

- 1) Were the analyses requested on the Chain of Custody reported? Yes No If no, what analyses are still needed? _____
 2) Was the report issued within the requested turnaround time? Yes No If no, what was the turnaround time? _____

Approved by:

Signature: _____

Company: _____

Date: _____

Pink - Client

Yellow - Laboratory

White - Laboratory



Sequoia Analytical

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Sacramento, CA 95834	(916) 921-9600	FAX (916) 921-0100
Petaluma, CA 94954	(707) 792-1865	FAX (707) 792-0342
San Carlos, CA 94070-4111	(650) 232-9600	FAX (650) 232-9612

SECOR
1390 Willow Pass Rd, Ste 360
Concord, CA 94520
Attention: Dan Madsen

Client Project ID: Tosco 11126, Emeryville
Sample Matrix: Soil
Analysis Method: EPA 5030/8015 Mod./8020
First Sample #: 905-0614

Sampled: May 7, 1999
Received: May 11, 1999
Reported: May 17, 1999

QC Batch Number: SP051399

8020EXA

TOTAL PURGEABLE PETROLEUM HYDROCARBONS with BTEX / MTBE

Analyte	Reporting Limit mg/Kg	Sample I.D. 905-0614 SP-2(A-D)
Purgeable Hydrocarbons	1.0	1.5
Benzene	0.0050	0.013
Toluene	0.0050	0.012
Ethyl Benzene	0.0050	N.D.
Total Xylenes	0.0050	0.0075
MTBE	0.050	N.D.

Chromatogram Pattern: Gasoline

Quality Control Data

Report Limit Multiplication Factor:	1.0
Date Analyzed:	5/13/99
Instrument Identification:	HP-5
Surrogate Recovery, %: (QC Limits = 40-140%)	106

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

Dimple Sharma
Project Manager





Sequoia Analytical

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SECOR
 1390 Willow Pass Rd, Ste 360
 Concord, CA 94520
 Attention: Dan Madsen

QC Batch Number:

Client Project ID: Tosco 11126, Emeryville
 Sample Matrix: Soil
 Analysis Method: EPA 3550/8015 Mod.
 First Sample #: 905-0611

SP051299 SP051299 SP051299
 8015EXA 8015EXA 8015EXA

Sampled: May 7, 1999
 Received: May 11, 1999
 Reported: May 19, 1999

TOTAL EXTRACTABLE PETROLEUM HYDROCARBONS

Analyte	Reporting Limit mg/kg	Sample I.D. 905-0611 HST-1-5.0'	Sample I.D. 905-0612 HST-2-5.0'	Sample I.D. 905-0614 SP-2(A-D)
---------	--------------------------	---------------------------------------	---------------------------------------	--------------------------------------

Extractable Hydrocarbons	1.0	1,200	880	110
--------------------------	-----	-------	-----	-----

Chromatogram Pattern:	Unidentified Hydrocarbons > C14	Unidentified Hydrocarbons > C12	Unidentified Hydrocarbons > C14
-----------------------	------------------------------------	------------------------------------	------------------------------------

Quality Control Data

Report Limit Multiplication Factor:	20	10	10
Date Extracted:	5/12/99	5/12/99	5/12/99
Date Analyzed:	5/18/99	5/12/99	5/12/99
Instrument Identification:	HP-3A	HP-3B	HP-3B

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

Dimple Sharma
 Project Manager





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SECOR
1390 Willow Pass Rd, Ste 360
Concord, CA 94520
Attention: Dan Madsen

Client Project ID: Tosco 11126, Emeryville
Sample Matrix: Soil
Analysis Method: EPA 3550/8015 Mod.
First Sample #: 905-0611

Sampled: May 7, 1999
Received: May 11, 1999
Reported: May 19, 1999

QC Batch Number:

SP051299 SP051299 SP051299

8015EXA 8015EXA 8015EXA

TOTAL EXTRACTABLE PETROLEUM HYDROCARBONS AS MOTOR OIL

Analyte	Reporting Limit mg/kg	Sample I.D. 905-0611 HST-1-5.0'	Sample I.D. 905-0612 HST-2-5.0'	Sample I.D. 905-0614 SP-2(A-D)
---------	--------------------------	---------------------------------------	---------------------------------------	--------------------------------------

Extractable Hydrocarbons 10 5,000 2,300 450

Chromatogram Pattern: Motor Oil Motor Oil Motor Oil

Quality Control Data

Report Limit Multiplication Factor:	20	10	10
Date Extracted:	5/12/99	5/12/99	5/12/99
Date Analyzed:	5/18/99	5/12/99	5/12/99
Instrument Identification:	HP-3A	HP-3B	HP-3B

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

SEQUOIA ANALYTICAL, #1271

Dimple Sharma
Project Manager





Sequoia Analytical

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Client Project ID: **Tosco 11126, Emeryville**
 Sample Descript: **Soil, SP-2(A-D)**
 Analysis Method: **EPA 8270**
 Lab Number: **905-0614**

Sampled: **May 7, 1999**
 Received: **May 11, 1999**
 Extracted: **May 13, 1999**
 Analyzed: **May 17, 1999**
 Reported: **May 17, 1999**

QC Batch Number: **SP0513998270EXA**

Instrument ID: **GC/MS-1**

SEMI-VOLATILE ORGANICS by GC/MS (EPA 8270)

Analyte	Detection Limit µg/kg	Sample Results µg/kg
Acenaphthene.....	1,000	N.D.
Acenaphthylene.....	1,000	N.D.
Aniline.....	1,000	N.D.
Anthracene.....	1,000	N.D.
Benzidine.....	25,000	N.D.
Benzolic Acid.....	5,000	N.D.
Benzo(a)anthracene.....	1,000	N.D.
Benzo(b)fluoranthene.....	1,000	N.D.
Benzo(k)fluoranthene.....	1,000	N.D.
Benzo(g,h,i)perylene.....	1,000	N.D.
Benzo(a)pyrene.....	1,000	N.D.
Benzyl alcohol.....	1,000	N.D.
Bis(2-chloroethoxy)methane.....	1,000	N.D.
Bis(2-chloroethyl)ether.....	1,000	N.D.
Bis(2-chloroisopropyl)ether.....	1,000	N.D.
Bis(2-ethylhexyl)phthalate.....	5,000	N.D.
4-Bromophenyl phenyl ether.....	1,000	N.D.
Butyl benzyl phthalate.....	1,000	N.D.
4-Chloroaniline.....	1,000	N.D.
2-Chloronaphthalene.....	1,000	N.D.
4-Chloro-3-methylphenol.....	1,000	N.D.
2-Chlorophenol.....	1,000	N.D.
4-Chlorophenyl phenyl ether.....	1,000	N.D.
Chrysene.....	1,000	N.D.
Dibenz(a,h)anthracene.....	1,000	N.D.
Dibenzofuran.....	1,000	N.D.
Di-N-butyl phthalate.....	5,000	N.D.
1,3-Dichlorobenzene.....	1,000	N.D.
1,4-Dichlorobenzene.....	1,000	N.D.
1,2-Dichlorobenzene.....	1,000	N.D.
3,3-Dichlorobenzidine.....	5,000	N.D.
2,4-Dichlorophenol.....	1,000	N.D.
Diethyl phthalate.....	1,000	N.D.
2,4-Dimethylphenol.....	1,000	N.D.
Dimethyl phthalate.....	1,000	N.D.
4,6-Dinitro-2-methylphenol.....	5,000	N.D.
2,4-Dinitrophenol.....	5,000	N.D.
2,4-Dinitrotoluene.....	1,000	N.D.
2,6-Dinitrotoluene.....	1,000	N.D.
Di-N-octyl phthalate.....	1,000	N.D.
Fluoranthene.....	1,000	N.D.
Fluorene.....	1,000	N.D.





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Client Project ID: Tosco 11126, Emeryville
Sample Descript: Soil, SP-2(A-D)
Analysis Method: EPA 8270
Lab Number: 905-0614

Sampled: May 7, 1999
Received: May 11, 1999
Extracted: May 13, 1999
Analyzed: May 17, 1999
Reported: May 17, 1999

QC Batch Number: SP0513998270EXA

Instrument ID: GC/MS-1

SEMI-VOLATILE ORGANICS by GC/MS (EPA 8270)

Analyte	Detection Limit µg/kg	Sample Results µg/kg
Hexachlorobenzene.....	1,000	.....
Hexachlorobutadiene.....	1,000	.....
Hexachlorocyclopentadiene.....	1,000	.....
Hexachloroethane.....	1,000	.....
Indeno(1,2,3-cd)pyrene.....	1,000	.....
Isophorone.....	1,000	.....
2-Methylnaphthalene.....	1,000	.....
2-Methylphenol.....	1,000	.....
4-Methylphenol.....	1,000	.....
Naphthalene.....	1,000	.....
2-Nitroaniline.....	5,000	.....
3-Nitroaniline.....	5,000	.....
4-Nitroaniline.....	5,000	.....
Nitrobenzene.....	1,000	.....
2-Nitrophenol.....	1,000	.....
4-Nitrophenol.....	5,000	.....
N-Nitrosodimethylamine.....	1,000	.....
N-Nitrosodiphenylamine.....	1,000	.....
N-Nitroso-di-N-propylamine.....	1,000	.....
Pentachlorophenol.....	5,000	.....
Phenanthrene.....	1,000	.....
Phenol.....	1,000	.....
Pyrene.....	1,000	.....
1,2,4-Trichlorobenzene.....	1,000	.....
2,4,5-Trichlorophenol.....	5,000	.....
2,4,6-Trichlorophenol.....	1,000	.....

Surrogates	Control Limit %	% Recovery
2-Fluorophenol.....	25	121
Phenol-d6.....	24	113
Nitrobenzene-d5.....	23	120
2-Fluorobiphenyl.....	30	115
2,4,6-Tribromophenol.....	19	122
4-Terphenyl-d14.....	18	137

Analytes reported as N.D. were not present above the stated limit of detection. Because matrix effects and/or other factors required additional sample dilution, detection limits for this sample have been raised.

SEQUOIA ANALYTICAL, #1271


Dimple Sharma
Project Manager



Sequoia Analytical

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SECOR
1390 Willow Pass Rd, Ste 360
Concord, CA 94520
Attention: Dan Madsen

Client Project ID: Tosco 11126, Emeryville
Sample Descript: Soil, SP-2(A-D)
Analysis Method: EPA 5030/8010
Lab Number: 905-0614

Sampled: May 7, 1999
Received: May 11, 1999
Analyzed: May 12, 1999
Reported: May 17, 1999

QC Batch Number: SP0506998010EXA
Instrument ID: HP-6

HALOGENATED VOLATILE ORGANICS (EPA 8010)

Analyte	Detection Limit µg/kg	Sample Results µg/kg
Bromodichloromethane.....	25	.....
Bromoform.....	25	.....
Bromomethane.....	50	.....
Carbon tetrachloride.....	25	.....
Chlorobenzene.....	25	.....
Chloroethane.....	50	.....
Chloroform.....	25	.....
Chloromethane.....	50	.....
Dibromochloromethane.....	25	.....
1,2-Dichlorobenzene.....	25	.....
1,3-Dichlorobenzene.....	25	.....
1,4-Dichlorobenzene.....	25	.....
1,1-Dichloroethane.....	25	.....
1,2-Dichloroethane.....	25	.....
1,1-Dichloroethene.....	25	.....
cis-1,2-Dichloroethene.....	25	.....
trans-1,2-Dichloroethene.....	25	.....
1,2-Dichloropropane.....	25	.....
cis-1,3-Dichloropropene.....	25	.....
trans-1,3-Dichloropropene.....	25	.....
Methylene chloride.....	250	.....
1,1,2,2-Tetrachloroethane.....	25	.....
Tetrachloroethene.....	25	.....
1,1,1-Trichloroethane.....	25	.....
1,1,2-Trichloroethane.....	25	.....
Trichloroethene.....	25	.....
Trichlorofluoromethane.....	25	.....
Vinyl chloride.....	50	.....
Surrogates	Control Limit %	% Recovery
1-Chloro-2-fluorobenzene.....	50	150.....
4-Bromofluorobenzene.....	50	150.....

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

SEQUOIA ANALYTICAL, #1271

Dimple Sharma
Project Manager



Sequoia Analytical

SECOR

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Attention: Dan Madsen

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Client Project ID: Tosco 11126, Emeryville
Sample Descript: TCLP Extract Of Soil
Analysis for: Lead
First Sample #: 905-0614

Sampled: May 7, 1999
Relogged: May 20, 1999
Extracted: May 21, 1999
Analyzed: May 25, 1999
Reported: May 26, 1999

LABORATORY ANALYSIS FOR: Lead

Sample Number	Sample Description	Detection Limit mg/L	Sample Result mg/L	QC Batch Number	Instrument ID
905-0614	SP-2(A-D)	0.020	0.13	ME0521996010MDC	MV-4

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

SEQUOIA ANALYTICAL, #1271


Dimple Sharma
Project Manager

905-0614.SEC <1>





Sequoia Analytical

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SECOR
 1390 Willow Pass Rd, Ste 360
 Concord, CA 94520

Attention: Dan Madsen

Client Project ID: Tosco 11126, Emeryville
 Matrix: TCLP Extract

QC Sample Group: 905-0614

Reported: May 26, 1999

QUALITY CONTROL DATA REPORT

Analyte: Lead

QC Batch#: ME052199

6010MDC

Anal. Method: EPA 6010

Prep. Method: EPA 1311

Analyst: J. kelly

MS/MSD #: 9051529

Sample Conc.: 0.13 mg/L

Prepared Date: 5/21/99

Analyzed Date: 5/25/99

Instrument I.D. #: MV-4

Conc. Spiked: 1.0 mg/L

Result: 1.1

MS % Recovery: 97

Dup. Result: 1.0

MSD % Recov.: 87

RPD: 9.5

RPD Limit: 0-20

LCS #: LCS052199

Prepared Date: 5/21/99

Analyzed Date: 5/25/99

Instrument I.D. #: MV-4

Conc. Spiked: 1.0 mg/L

LCS Result: 0.80

LCS % Recov.: 80

MS/MSD

LCS

80-120

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.

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

SEQUOIA ANALYTICAL, #1271

Dimple Sharma
 Project Manager



Sequoia Analytical

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404 N Wiget Lane
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FAX (650) 232-9612

REQUEST TO RELOG SAMPLES

(Please submit to sample control with a copy of the COC)

CLIENT:

Secos

MATRIX:

Soil

PREVIOUSLY LOGGED SAMPLES



TAT

Change status to:

48 Hrs.

Change status as of Day:

5/20/99

Time: 1105



CHANGE ANALYSES

Add Analyses



Cancel Analyses



Sequoia Project ID:

9905188

Sample Number

Analyses

9051529

NA 9050614

TCLP - Pb

NA

..

Client Authorization (Person/Date/Time):

Dan Madsen 5/20/99 1105AM

Project Manager:

Dimple Sharma

Ashasna

UNOCAL 76

 819 Striker Ave., Suite 8 • Sacramento, CA 95834 • (916) 921-9600 404 N. Wiget Lane • Walnut Creek, CA 94598 • (510) 988-9600 East 11115 Montgomery, Suite B • Spokane, WA 99206 • (509) 924-9200 15055 S.W. Sequoia Pkwy, Suite 110 • Portland, OR 97222 • (503) 624-9800

Consultant Company:	SECOR		Project Name:	Tosco 11126	9905188
Address:	1390 Willow Pass Rd. #360		UNOCAL Project Manager:	Dave DeWitt	
City:	Concord	State: CA	Zip Code:	94520	AFE #: CAR00000232
Telephone:	925-686-9780		FAX #:	Site #, City, State: 11126, Emeryville, CA	
Report To:	Dan Macken	Sampler:	Nids van Doorn	QC Data:	<input checked="" type="checkbox"/> Level D (Standard) <input type="checkbox"/> Level C <input type="checkbox"/> Level B <input type="checkbox"/> Level A

Turnaround 10 Work Days 5 Work Days 3 Work DaysTime: 2 Work Days 1 Work Day 2-8 HoursCODE: Misc. Detect. Eval. Remed. Demol. Closure

- Drinking Water
 Waste Water
 Other

Analyses Requested

Client Sample ID	Date/Time Sampled	Matrix Desc.	# of Cont.	Cont. Type	Laboratory Sample #	TPH _S	TPH _T	TPH _M	MTBE	8000	8020	8220	8270	Total P	Cad/Cr/Ni/As	Comments
H-1-1-5.0'	5.7.99	Soil	1	Sleeve	9050611	X	X							X		
H-1-2-5.0'	"		1		9050612	X	X							X		
LR-5.0'	5.7.99		1		9050613									X		
(-A)					9050614	X	X	X	X	X	X	X	X			
(-B) Composite					9050615	A=0										metals-24 hr.
(-C)																metals-24 hr.
(-D)																

Relinquished By: <u>Karen Rethke</u>	Date: 5/11/99	Time: 1000	Received By: <u>Karen Rethke</u>	Date: 5/11/99	Time: 1030
Relinquished By: <u>Karen Rethke</u>	Date: 5/11/99	Time: 1200	Received By:	Date:	Time:
Relinquished By:	Date:	Time:	Received By Lab: <u>Ronald</u>	Date:	Time:

Samples Received in Good Condition? Yes NoSamples on Ice? Yes No

Method of Shipment: Courier

Page 1 of 1

To be completed upon receipt of report:

- 1) Were the analyses requested on the Chain of Custody reported? Yes No If no, what analyses are still needed? _____
- 2) Was the report issued within the requested turnaround time? Yes No If no, what was the turnaround time? _____

Approved by:

Signature: _____ Company: _____ Date: _____

Pink - Client

Yellow - Laboratory

White - Laboratory