GETTLER-RYAN INC.

TRANSMITTAL

TO: Ms. Susan Hugo
Alameda County Health Care Services
1131 Harbor Bay Parkway
Alameda, California 94502

DATE: April 30, 1998
G-R #: 180062

FROM: Deanna L. Harding
Project Manager
Gettler-Ryan Inc.
6747 Sierra Court, Suite J
Dublin, California 94568

RE: Tosco (Unocal) SS #5781
3535 Pierson Street
Oakland, California

WE HAVE ENCLOSED THE FOLLOWING:

COPIES	DATED	DESCRIPTION
1	April 10, 1998	Groundwater Monitoring and Sampling Report Annual 1998-Event of February 2, 1998.

COMMENTS:

At the request of Tosco Marketing Company, we are providing you a copy of the above referenced report. The site is monitored and sampled on a annual basis in February. If you have questions please contact the Tosco Project Manager, Ms. Tina R. Berry at (925) 277-2321.

Enclosure

cc: Mr. Doug Lee, Gettler-Ryan Inc., Dublin, CA

agency/5781trb.qmt

98 MAY -7 PM 4:41

ENVIRONMENTAL PROTECTION

GETTLER-RYAN INC.

April 10, 1998
G-R Job #180062

Ms. Tina R. Berry
Tosco Marketing Company
2000 Crow Canyon Place, Suite 400
San Ramon, California 94583

RE: Annual 1998 Groundwater Monitoring & Sampling Report
Tosco (Unocal) Service Station #5781
3535 Pierson Street
Oakland, California

Dear Ms. Berry:

This report documents the annual groundwater monitoring and sampling event performed by Gettler-Ryan Inc. (G-R). On February 2, 1998, field personnel monitored and sampled one well (MW-A) at the above referenced site.

A static groundwater level was measured and the well was checked for the presence of separate-phase hydrocarbons. Separate-phase hydrocarbons were not present in the well. Static water level data and groundwater elevation history are summarized in Table 1. A Groundwater Elevation Map is included as Figure 1.

The groundwater samples were collected from the monitoring well as specified by G-R Standard Operating Procedure - Groundwater Sampling (attached). The field data sheet is also attached. The samples were analyzed by Sequoia Analytical. Analytical results are summarized in Table 1, and a Concentration Map is included as Figure 2. The chain of custody document and laboratory analytical reports are also attached.

Sincerely,

Deanna L. Harding
Project Manager

Stephen J. Carter
Senior Geologist, R.G. No. 5577

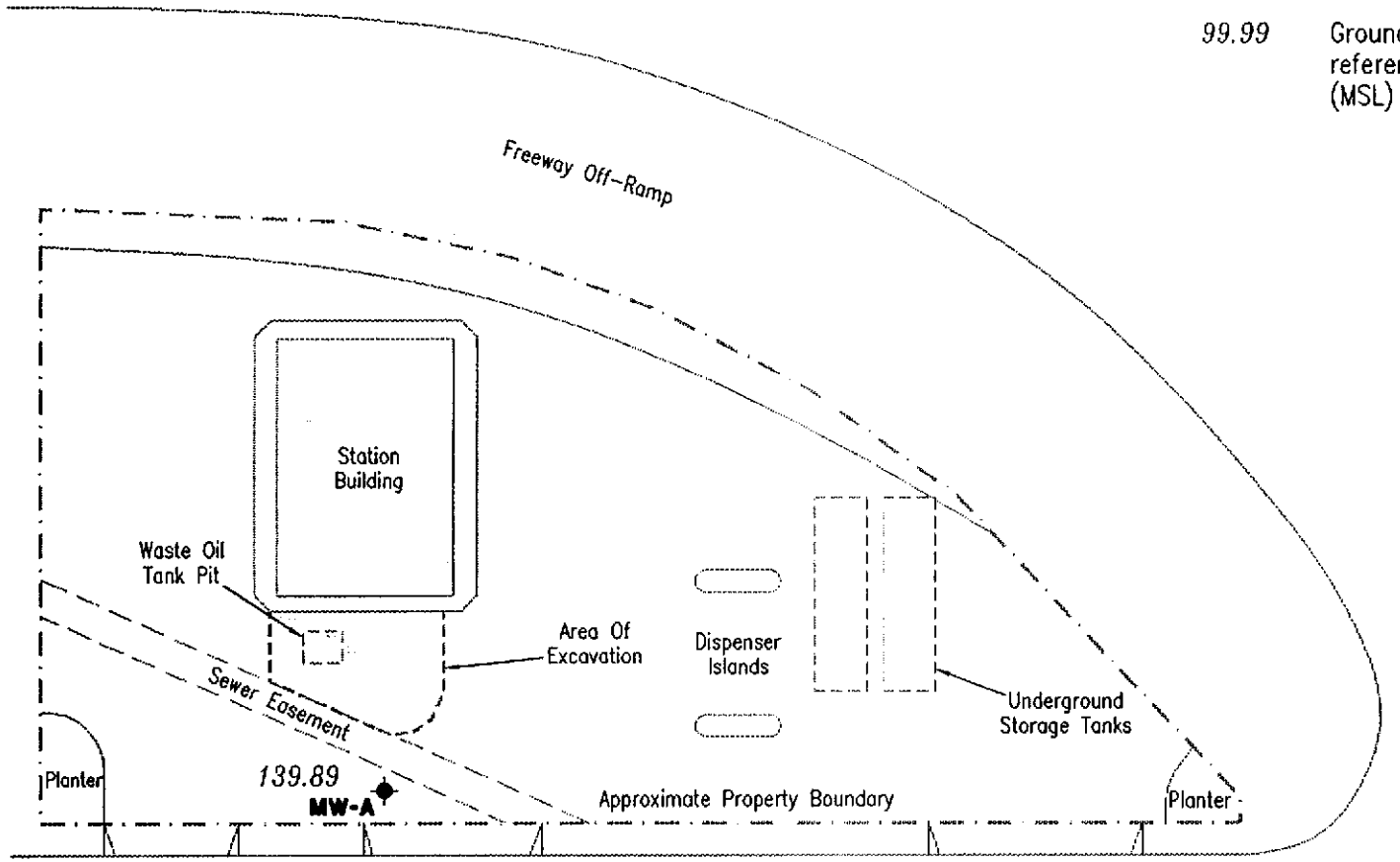
REGISTERED GEOLOGIST
STEPHEN J. CARTER
No. 5577
STATE OF CALIFORNIA

Figure 1: Groundwater Elevation Map
Figure 2: Concentration Map
Table 1: Groundwater Monitoring Data and Analytical Results
Attachments: Standard Operating Procedure - Groundwater Sampling
Field Data Sheets
Chain of Custody Document and Laboratory Analytical Reports

5781.qml

EXPLANATION

- ✦ Groundwater monitoring well
- *99.99* Groundwater elevation in feet referenced to Mean Sea Level (MSL)



Source: Figure Modified From Drawing Provided By MPDS Services, Inc.

Gettler - Ryan Inc.
6747 Sierra Ct., Suite J (925) 551-7555
Dublin, CA 94568

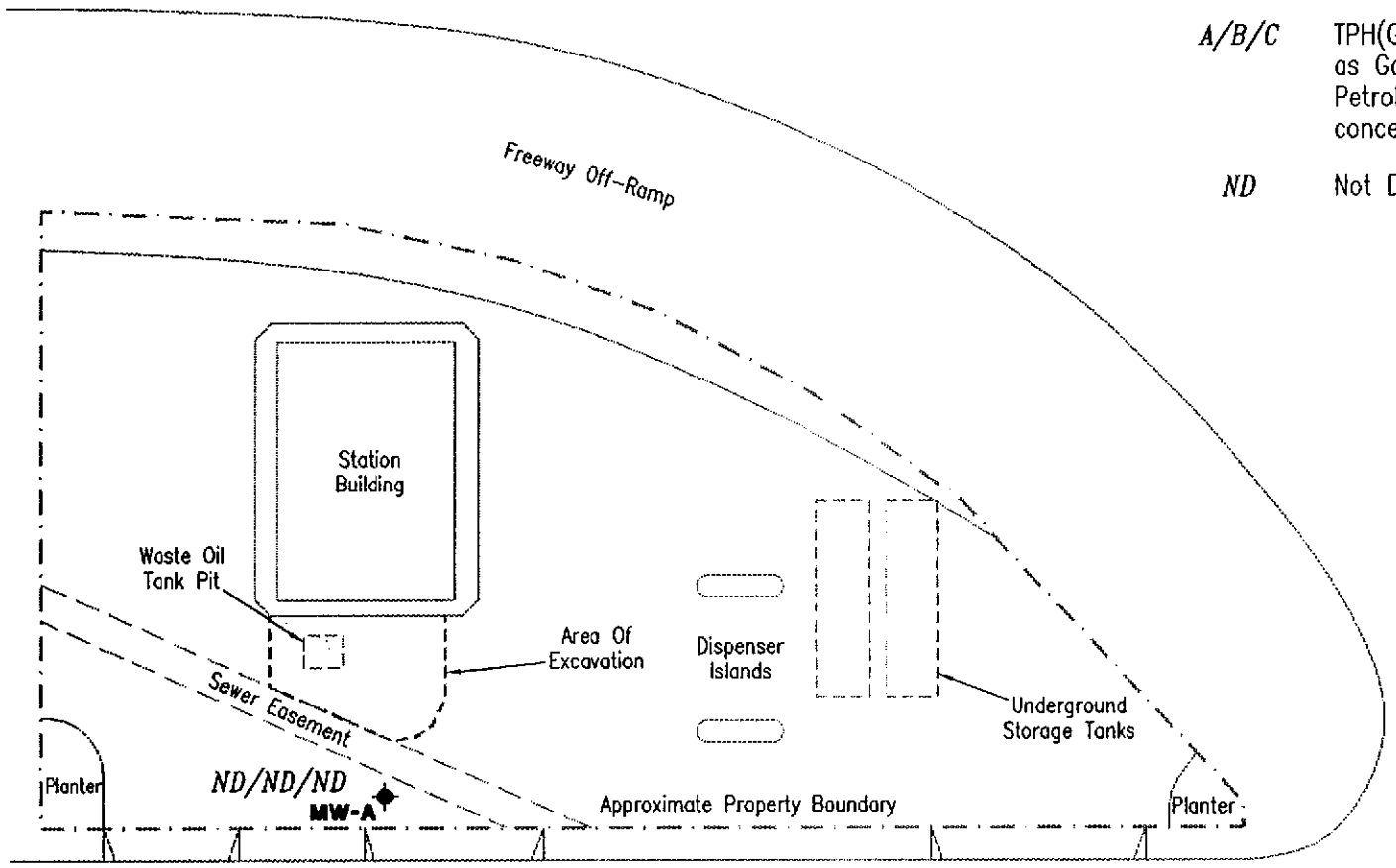
GROUNDWATER ELEVATION MAP
Unocal Service Station No. 5781
3535 Pierson Street
Oakland, California

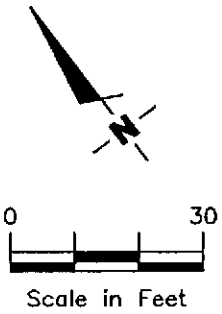
FIGURE
1

JOB NUMBER	REVIEWED BY	DATE	REVISED DATE
180062		February 2, 1998	

EXPLANATION

- ✦ Groundwater monitoring well
- *A/B/C* TPH(G) (Total Petroleum Hydrocarbons as Gasoline)/Benzene/TPH(D) (Total Petroleum Hydrocarbons as Diesel) concentrations in ppb
- *ND* Not Detected





Source: Figure Modified From Drawing Provided By MPDS Services, Inc.

Gettler - Ryan Inc.
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Dublin, CA 94568

CONCENTRATION MAP
Unocal Service Station No. 5781
3535 Pierson Street
Oakland, California

FIGURE **2**

JOB NUMBER	REVIEWED BY	DATE	REVISED DATE
180062		February 2, 1998	

Table 1

Groundwater Monitoring Data and Analytical Results

Tosco (Unocal) Service Station #5781

3535 Pierson Street

Oakland, California

Well ID/ TOC*	Date	DTW (ft.)	GWE (msl)	TPH(D)	TPH(G)	B	T	E	X	MTBE
				<---ppb--->						
MW-A	12/18/90[1,^]	--	--	73	ND	ND	ND	ND	ND	--
	05/03/91[1]	--	--	ND	ND	ND	ND	ND	ND	--
	08/07/91[1]	--	--	ND	ND	ND	ND	ND	ND	--
	11/08/91[1]	--	--	ND	ND	ND	ND	ND	ND	--
151.80	02/06/92[1]	19.88	131.92	ND	ND	ND	ND	ND	ND	--
	08/04/92[1]	18.95	132.85	ND	ND	ND	ND	ND	0.51	--
	02/10/93[1]	17.71	134.09	ND	ND	ND	ND	ND	ND	--
	02/10/94[1]	15.25	136.55	ND	ND	ND	0.52	ND	0.92	--
	02/09/95[1]	15.68	136.12	ND	ND	ND	ND	ND	ND	--
	02/06/96[2]	12.52	139.28	120[3]	ND	ND	ND	ND	2.1	--
	02/05/97[1]	13.01	138.79	61[4]	ND	ND	ND	ND	ND	ND
	02/02/98[1,5]	**11.91**	**139.89**	**ND**	**ND**	**ND**	**ND**	**ND**	**ND**	**ND**
Trip Blank										
TB-LB	**02/02/98**	--	--	--	**ND**	**ND**	**ND**	**ND**	**ND**	**ND**

Table 1

Groundwater Monitoring Data and Analytical Results

Tosco (Unocal) Service Station #5781

3535 Pierson Street

Oakland, California

EXPLANATIONS:

Groundwater monitoring data and laboratory results prior to February 2, 1998, were compiled from reports prepared by MPDS Services, Inc.

TOC = Top of Casing elevation
DTW = Depth to Water
(ft.) = Feet
GWE = Groundwater Elevation
TPH(D) = Total Petroleum Hydrocarbons as Diesel
TPH(G) = Total Petroleum Hydrocarbons as Gasoline

B = Benzene
T = Toluene
E = Ethylbenzene
X = Xylenes
MTBE = Methyl tertiary butyl ether

ppb = Parts per billion
ppm = Parts per million
ND = Not Detected
-- = Not Measured/Not Analyzed
TOG = Total Oil and Grease

* TOC elevation has been surveyed relative to Mean Sea Level (msl) (Elevation = 119.80 msl).

1 TOG and all EPA Method 8010 compounds were ND.

2 TOG and all EPA Method 8010 compounds were ND except for tetrachloroethene, which was detected at a concentration of 1.8 ppb.

3 Laboratory report indicates the hydrocarbons detected did not appear to be diesel.

4 Laboratory report indicates the hydrocarbons detected appeared to be diesel and non-diesel mixture.

5 All EPA Method 8010 constituents were ND. Total recoverable petroleum hydrocarbons TRPH/TOG by SM 5520 B&F, was detected at 7 ppm.

STANDARD OPERATING PROCEDURE - GROUNDWATER SAMPLING

Gettler-Ryan Inc. field personnel adhere to the following procedures for the collection and handling of groundwater samples prior to analysis by the analytical laboratory. Prior to sample collection, the type of analysis to be performed is determined. Loss prevention of volatile compounds is controlled and sample preservation for subsequent analysis is maintained.

Prior to sampling, the presence or absence of free-phase hydrocarbons is determined using a MMC flexi-dip interface probe or equivalent. Product thickness, if present, is measured to the nearest 0.01 foot and is noted in the field notes. In addition, static water level measurements are collected with the interface probe and are also recorded in the field notes.

After water levels are collected and prior to sampling, each well is purged a minimum of three well casing volumes of water using pre-cleaned pumps (stack, suction, Grundfos), or polyvinyl chloride bailers. Temperature, pH and electrical conductivity are measured a minimum of three times during the purging. Purging continues until these parameters stabilize.

Groundwater samples are collected using disposable bailers. The water samples are transferred from the bailer into appropriate containers. Pre-preserved containers, supplied by analytical laboratories, are used when possible. When pre-preserved containers are not available, the laboratory is instructed to preserve the sample as appropriate. Duplicate samples are collected for the laboratory to use in maintaining quality assurance/quality control standards. The samples are labeled to include the job number, sample identification, collection date and time, analysis, preservation (if any), and the sample collector's initials. The water samples are placed in a cooler, maintained at 4°C for transport to the laboratory. Once collected in the field, all samples are maintained under chain of custody until delivered to the laboratory.

The chain of custody document includes the job number, type of preservation, if any, analysis requested, sample identification, date and time collected, and the sample collector's name. The chain of custody is signed and dated (including time of transfer) by each person who receives or surrenders the samples, beginning with the field personnel and ending with the laboratory personnel.

As requested by Tosco Marketing Company, the purge water and decontamination water generated during sampling activities is transported to Tosco - San Francisco Area Refinery, located in Rodeo, California.

WELL MONITORING/SAMPLING
FIELD DATA SHEET

Client/
Facility # 5781 Job#: 180062

Address: 3535 Pierson st. Date: 2-2-98

City: Oakland Sampler: Joe

Well ID mw-A Well Condition: Very slow O.K

Well Diameter 2 in. Hydrocarbon Thickness: ____ in. Amount Bailed (product/water): ____ (gal.)

Total Depth 44.85 ft

Depth to Water 11.91 ft

Volume Factor (VF)	2" = 0.17	3" = 0.38	4" = 0.66
	6" = 1.50	12" = 5.80	

32.94 X VF 0.17 = 5.60 X 3 (case volume) = Estimated Purge Volume: 17 (gal.)

Purge Equipment: Disposable Bailer; Bailer; Stack; (Suction); Grundfos; Other: ____

Sampling Equipment: (Disposable Bailer); Bailer; Pressure Bailer; Grab Sample; Other: ____

Starting Time: 10:07 Weather Conditions: Very heavy rain

Sampling Time: 10:47 A.M Water Color: clear Odor: None

Purging Flow Rate: 1.5 gpm. Sediment Description: None

Did well de-water? ____ If yes; Time: ____ Volume: ____ (gal.)

Time	Volume (gal.)	pH	Conductivity µmhos/cm	Temperature °F	D.O. (mg/L)	ORP (mV)	Alkalinity (ppm)
10:20	0	8.02	8.22	70.5			
~~10:25~~	6	7.55	7.38	71.0			
10:30	11	7.50	7.30	70.2			
10:35	17	7.44	7.30	70.3			

LABORATORY INFORMATION

SAMPLE ID	(#) - CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
mw-A	4 VoA		HCL		TPHG, BTEX, MTBE, 8010
	2 Amber		—		TOG, TPHD

COMMENTS: Well recovered very slowly for sampling; approximately 30 min

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Chain-of-Custody-Record

TOSCO

Tosco Marketing Company
2000 Crow Canyon Pl., Ste. 400
San Ramon, California 94583

Facility Number: UNOCAL SS# 5781
Facility Address: 3535 Pierson St., Oakland, CA
Consultant Project Number: 180062.85
Consultant Name: Gettler-Ryan Inc. (G-R Inc.)
Address: 6747 Sierra Court, Suite J, Dublin, CA 94568
Project Contact (Name): Deanna L. Harding
(Phone) 510-551-7555 (Fax Number) 510-551-7888

Contact (Name): Ms. Tina Berry
(Phone): (510) 277-2321
Laboratory Name: Sequoia Analytical
Laboratory Release Number:
Samples Collected by (Name): JOE AJEMIAN
Collection Date: 2-2-98
Signature: Joe Ajemian

Sample Number	Lab Sample Number	Number of Containers	Matrix S = Soil W = Water A = Air C = Charcoal	Type G = Grab C = Composite D = Discrete	Time	Sample Preservation	Iced (Yes or No)	TPH Gas + BTEX w/MTBE (8015)	TPH Diesel (8015)	Oil and Grease (5520)	Purgeable Halocarbons (8010)	Purgeable Aromatics (8020)	Purgeable Organics (8240)	Extractable Organics (8270)	Metals Cd,Cr,Pb,Zn,Ni (ICAP or AA)					DO NOT BILL TB-LB ANALYSIS Remarks
								Analyses To Be Performed												
TB-LB			W	—	—	HCl	Yes	✓												
MW-A			W	G	10:47 AM	HCl	"	✓	✓	✓	✓									

Relinquished By (Signature)	Organization	Date/Time	Received By (Signature)	Organization	Date/Time
Joe Ajemian	G-R Inc.	2-2-98 1:00 P.M.			
Relinquished By (Signature)	Organization	Date/Time	Received By (Signature)	Organization	Date/Time
Relinquished By (Signature)	Organization	Date/Time	Received For Laboratory By (Signature)		Date/Time 2/2/98 13:00

Turn Around Time (Circle Choice)
24 Hrs.
48 Hrs.
5 Days
10 Days
As Contracted

Sequoia Analytical

680 Chesapeake Drive, Redwood City, CA 94063, (650) 364-9600, FAX (650) 364-9233
404 N. Wiget Lane, Walnut Creek, CA 94598, (510) 988-9600, FAX (510) 988-9673
819 Striker Avenue, Suite 8, Sacramento, CA 95834, (916) 921-9600, FAX (916) 921-0100

Gettler Ryan/Geostrategies
6747 Sierra Court Suite J
Dublin, CA 94568

Attention: Deanna Harding

Client Proj. ID: Unocal 5781, 180062.85
Sample Descript: TB-LB
Matrix: LIQUID
Analysis Method: 8015Mod/8020
Lab Number: 9802238-01

Sampled: 02/02/98
Received: 02/02/98

Analyzed: 02/09/98
Reported: 02/13/98

QC Batch Number: GC020998802004A
Instrument ID: GCHP04

Total Purgeable Petroleum Hydrocarbons (TPPH) with BTEX and MTBE

Analyte	Detection Limit ug/L	Sample Results ug/L
TPPH as Gas	50	N.D.
Methyl t-Butyl Ether	2.5	N.D.
Benzene	0.50	N.D.
Toluene	0.50	N.D.
Ethyl Benzene	0.50	N.D.
Xylenes (Total)	0.50	N.D.
Chromatogram Pattern:		

Surrogates	Control Limits %		% Recovery
Trifluorotoluene	70	130	116

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

SEQUOIA ANALYTICAL - ELAP #1271

Mike Gregory
Project Manager

Sequoia Analytical

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819 Striker Avenue, Suite 8, Sacramento, CA 95834, (916) 921-9600, FAX (916) 921-0100

Gettler Ryan/Geostrategies	Client Proj. ID: Unocal 5781, 180062.85	Sampled: 02/02/98
6747 Sierra Court Suite J	Sample Descript: MW-A	Received: 02/02/98
Dublin, CA 94568	Matrix: LIQUID	Extracted: 02/10/98
	Analysis Method: EPA 8015 Mod	Analyzed: 02/11/98
Attention: Deanna Harding	Lab Number: 9802238-02	Reported: 02/13/98

QC Batch Number: GC0203980HBPEXA
Instrument ID: GCHP4A

Total Extractable Petroleum Hydrocarbons (TEPH)

Analyte	Detection Limit ug/L	Sample Results ug/L
TEPH as Diesel	50	N.D.
Chromatogram Pattern:		

Surrogates	Control Limits %		% Recovery
n-Pentacosane (C25)	50	150	99

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

SEQUOIA ANALYTICAL - ELAP #1210

Mike Gregory
Project Manager

Sequoia Analytical

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Gettler Ryan/Geostrategies
6747 Sierra Court Suite J
Dublin, CA 94568

Attention: Deanna Harding

Client Proj. ID: Unocal 5781, 180062.85
Sample Descript: MW-A
Matrix: LIQUID
Analysis Method: 8015Mod/8020
Lab Number: 9802238-02

Sampled: 02/02/98
Received: 02/02/98

Analyzed: 02/09/98
Reported: 02/13/98

QC Batch Number: GC020998802004A
Instrument ID: GCHP04

Total Purgeable Petroleum Hydrocarbons (TPPH) with BTEX and MTBE

Analyte	Detection Limit ug/L	Sample Results ug/L
TPPH as Gas	50	N.D.
Methyl t-Butyl Ether	2.5	N.D.
Benzene	0.50	N.D.
Toluene	0.50	N.D.
Ethyl Benzene	0.50	N.D.
Xylenes (Total)	0.50	N.D.
Chromatogram Pattern:		

Surrogates	Control Limits %		% Recovery
Trifluorotoluene	70	130	107

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

SEQUOIA ANALYTICAL - ELAP #1271

Mike Gregory
Project Manager

Sequoia Analytical

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Gettler Ryan/Geostrategies
6747 Sierra Court Suite J
Dublin, CA 94568

Attention: Deanna Harding

Client Proj. ID: Unocal 5781, 180062.85

Lab Proj. ID: 9802238

Sampled: 02/02/98
Received: 02/02/98
Analyzed: see below

Reported: 02/13/98

LABORATORY ANALYSIS

Analyte	Units	Date Analyzed	Detection Limit	Sample Results
Lab No: 9802238-02				
Sample Desc : **LIQUID,MW-A**				
TRPH (SM 5520 B&F)	**mg/L**	**02/10/98**	**5.0**	**7**

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

SEQUOIA ANALYTICAL - ELAP #1210

Mike Gregory
Project Manager

Sequoia Analytical

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Gettler Ryan/Geostrategies
6747 Sierra Court Suite J
Dublin, CA 94568

Attention: Deanna Harding

Client Proj. ID: Unocal 5781, 180062.85
Sample Descript: MW-A
Matrix: LIQUID
Analysis Method: EPA 8010
Lab Number: 9802238-02

Sampled: 02/02/98
Received: 02/02/98

Analyzed: 02/10/98
Reported: 02/13/98

QC Batch Number: GC021098801009A
Instrument ID: GCHP09

Halogenated Volatile Organics (EPA 8010)

Analyte	Detection Limit ug/L	Sample Results ug/L
Bromodichloromethane	0.50	N.D.
Bromoform	0.50	N.D.
Bromomethane	1.0	N.D.
Carbon Tetrachloride	0.50	N.D.
Chlorobenzene	0.50	N.D.
Chloroethane	1.0	N.D.
2-Chloroethylvinyl ether	1.0	N.D.
Chloroform	0.50	N.D.
Chloromethane	1.0	N.D.
Dibromochloromethane	0.50	N.D.
1,2-Dichlorobenzene	0.50	N.D.
1,3-Dichlorobenzene	0.50	N.D.
1,4-Dichlorobenzene	0.50	N.D.
1,1-Dichloroethane	0.50	N.D.
1,2-Dichloroethane	0.50	N.D.
1,1-Dichloroethene	0.50	N.D.
cis-1,2-Dichloroethene	0.50	N.D.
trans-1,2-Dichloroethene	0.50	N.D.
1,2-Dichloropropane	0.50	N.D.
cis-1,3-Dichloropropene	0.50	N.D.
trans-1,3-Dichloropropene	0.50	N.D.
Methylene chloride	5.0	N.D.
1,1,2,2-Tetrachloroethane	0.50	N.D.
Tetrachloroethene	0.50	N.D.
1,1,1-Trichloroethane	0.50	N.D.
1,1,2-Trichloroethane	0.50	N.D.
Trichloroethene	0.50	N.D.
Trichlorofluoromethane	0.50	N.D.
Vinyl chloride	1.0	N.D.

Surrogates	Control Limits %		% Recovery
1-Chloro-2-fluorobenzene	70	130	80

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

SEQUOIA ANALYTICAL - ELAP #1210

Mike Gregory
Project Manager

Sequoia Analytical

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Gettler Ryan/Geostrategies
6747 Sierra Court Suite J
Dublin, CA 94568
Attention: Deanna Harding

Client Proj. ID: Unocal 5781, 180062.85
Lab Proj. ID: 9802238

Received: 02/02/98
Reported: 02/13/98

LABORATORY NARRATIVE

In order to properly interpret this report, it must be reproduced in its entirety. This report contains a total of 11 pages including the laboratory narrative, sample results, quality control, and related documents as required (cover page, COC, raw data, etc.).

pH analysis:
The voas had a pH = 1
The oil/grease bottle had pH = 7.5

SEQUOIA ANALYTICAL

Mike Gregory
Project Manager

Sequoia Analytical

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Gettler Ryan/Geostrategies
6747 Sierra Court, Ste J
Dublin, CA 94568
Attention: Deanna Harding

Client Project ID: Unocal 5781, 180062.85
Matrix: Liquid
Work Order #: 9802238 -01, 02

Reported: Feb 17, 1998

QUALITY CONTROL DATA REPORT

Analyte:	Benzene	Toluene	Ethyl Benzene	Xylenes	Gas
QC Batch#:	GC020998802004A	GC020998802004A	GC020998802004A	GC020998802004A	GC020998802004A
Analy. Method:	EPA 8020	EPA 8020	EPA 8020	EPA 8020	EPA 8015M
Prep. Method:	EPA 5030	EPA 5030	EPA 5030	EPA 5030	EPA 5030
Analyst:	K. Nill	K. Nill	K. Nill	K. Nill	K. Nill
MS/MSD #:	8020360	8020360	8020360	8020360	8020360
Sample Conc.:	N.D.	N.D.	N.D.	N.D.	N.D.
Prepared Date:	2/9/98	2/9/98	2/9/98	2/9/98	2/9/98
Analyzed Date:	2/9/98	2/9/98	2/9/98	2/9/98	2/9/98
Instrument I.D.#:	HP4	HP4	HP4	HP4	HP4
Conc. Spiked:	20 µg/L	20 µg/L	20 µg/L	60 µg/L	320 µg/L
Result:	19	19	18	55	310
MS % Recovery:	95	95	90	92	97
Dup. Result:	19	19	17	55	300
MSD % Recov.:	95	95	85	92	94
RPD:	0.0	0.0	5.7	0.0	3.3
RPD Limit:	0-20	0-20	0-20	0-20	0-50
LCS #:	LCS020998	LCS020998	LCS020998	LCS020998	LCS020998
Prepared Date:	2/9/98	2/9/98	2/9/98	2/9/98	2/9/98
Analyzed Date:	2/9/98	2/9/98	2/9/98	2/9/98	2/9/98
Instrument I.D.#:	HP4	HP4	HP4	HP4	HP4
Conc. Spiked:	20 µg/L	20 µg/L	20 µg/L	60 µg/L	320 µg/L
LCS Result:	20	20	19	58	310
LCS % Recov.:	100	100	95	97	97
MS/MSD Control Limits	60-140	60-140	60-140	60-140	60-140
LCS Control Limits	70-130	70-130	70-130	70-130	70-130

SEQUOIA ANALYTICAL
Elap #1271

Mike Gregory
Project Manager

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

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

Sequoia Analytical

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819 Striker Avenue, Suite 8, Sacramento, CA 95834, (916) 921-9600, FAX (916) 921-0100

Gettler Ryan/Geostrategies	Client Project ID:	Unocal 5781, 180062.85	
6747 Sierra Court, Ste J	Matrix:	Liquid	
Dublin, CA 94568			
Attention: Deanna Harding	Work Order #:	9802238-02	Reported: Feb 17, 1998

QUALITY CONTROL DATA REPORT

Analyte:	Diesel
QC Batch#:	GC0209980HBPEXA
Analy. Method:	EPA 8015M
Prep. Method:	EPA 3510
Analyst:	D. Lockhart
BS/BSD #:	BLK020998
Sample Conc.:	N.D.
Prepared Date:	2/9/98
Analyzed Date:	2/9/98
Instrument I.D.#:	GCHP4
Conc. Spiked:	1000 µg/L
Result:	720
BS % Recovery:	72
Dup. Result:	670
BSD % Recov.:	67
RPD:	7.2
RPD Limit:	0-50

LCS #:	BLK021098
Prepared Date:	2/10/98
Analyzed Date:	2/11/98
Instrument I.D.#:	GCHP4
Conc. Spiked:	1000 µg/L
LCS Result:	770
LCS % Recov.:	77

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

SEQUOIA ANALYTICAL

Mike Gregory
Project Manager

Please Note:
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Gettler Ryan/Geostrategies	Client Project ID:	Unocal 5781, 180062.85	
6747 Sierra Court, Ste J	Matrix:	Liquid	
Dublin, CA 94568			
Attention: Deanna Harding	Work Order #:	9802238-02	Reported: Feb 17, 1998

QUALITY CONTROL DATA REPORT

Analyte:	1,1-Dichloro-ethene	Trichloro-ethene	Chloro-Benzene
QC Batch#:	GC021098801009A	GC021098801009A	GC021098801009A
Analy. Method:	EPA 8010	EPA 8010	EPA 8010
Prep. Method:	EPA 5030	EPA 5030	EPA 5030
Analyst:	L. Kim	L. Kim	L. Kim
MS/MSD #:	980235001	980235001	980235001
Sample Conc.:	N.D.	N.D.	N.D.
Prepared Date:	2/10/98	2/10/98	2/10/98
Analyzed Date:	2/10/98	2/10/98	2/10/98
Instrument I.D.#:	GCHP9	GCHP9	GCHP9
Conc. Spiked:	25 µg/L	25 µg/L	25 µg/L
Result:	22	22	23
MS % Recovery:	88	88	92
Dup. Result:	21	21	23
MSD % Recov.:	84	84	92
RPD:	4.7	4.7	0.0
RPD Limit:	0-25	0-25	0-25

LCS #:	BLK021098	BLK021098	BLK021098
Prepared Date:	2/10/98	2/10/98	2/10/98
Analyzed Date:	2/10/98	2/10/98	2/10/98
Instrument I.D.#:	GCHP9	GCHP9	GCHP9
Conc. Spiked:	25 µg/L	25 µg/L	25 µg/L
LCS Result:	20	22	23
LCS % Recov.:	80	88	92

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

SEQUOIA ANALYTICAL

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Gettler Ryan/Geostrategies
6747 Sierra Court, Ste J
Dublin, CA 94568
Attention: Deanna Harding

Client Project ID: Unocal 5781, 180062.85
Matrix: Liquid
Work Order #: 9802238-02

Reported: Feb 17, 1998

QUALITY CONTROL DATA REPORT

Analyte:	Total Recoverable Petroleum Hydrocarbons
QC Batch#:	SP020698552000A
Analy. Method:	SM 5520BF
Prep. Method:	SM 5520BF

Analyst:	P. Cheung
BS/BSD #:	BLK020698
Sample Conc.:	N.D.
Prepared Date:	2/6/98
Analyzed Date:	2/9/98
Instrument I.D.#:	MANUAL
Conc. Spiked:	10 mg/L
Result:	7.0
BS % Recovery:	70
Dup. Result:	7.2
BSD % Recov.:	72
RPD:	2.8
RPD Limit:	0-30

LCS #:	LCS020998
Prepared Date:	2/9/98
Analyzed Date:	2/10/98
Instrument I.D.#:	MANUAL
Conc. Spiked:	10 mg/L
LCS Result:	11
LCS % Recov.:	110

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

SEQUOIA ANALYTICAL

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