505

GETTLER-RYAN INC.

ENVIRONMENTAL PROTECTION

99 APR -9 PM 4:02

TRANSMITTAL

March 25, 1999
G-R #:180106

TO: Mr. David B. De Witt
Tosco Marketing Company
2000 Crow Canyon Place, Suite 400
San Ramon, California 94583

CC: Mr. Doug Lee
Gettler-Ryan Inc.
Dublin, California 94568

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

RE: Tosco (Unocal) SS #7004
15599 Hesperian Blvd.
San Leandro, California

WE HAVE ENCLOSED THE FOLLOWING:

COPIES	DATED	DESCRIPTION
1	March 25, 1999	Groundwater Monitoring and Sampling Report Semi-Annual 1999 - Event of January 11, 1999

COMMENTS:

This report is being sent to you for your review/comment, prior to being distributed on your behalf. If no comments are received by ***April 8, 1999***, this report will be distributed to the following:

Enclosure

cc: ~~Ms. Susan~~ Hugo, Alameda County Health Care Services, 1131 Harbor Bay Parkway, Alameda, CA 94502
Mr. Michael Bakaldin, City of San Leandro Fire Department, 835 East 14th Street, San Leandro, CA 94577

4/13/99
Tom: this is not my site.
Susan

agency/7004dbd.qmt

GETTLER-RYAN INC.

March 25, 1999
G-R Job #180106

Mr. David B. De Witt
Tosco Marketing Company
2000 Crow Canyon Place, Suite 400
San Ramon, California 94583

RE: Semi-Annual 1999 Groundwater Monitoring & Sampling Report
Tosco (Unocal) Service Station #7004
15599 Hesperian Boulevard
San Leandro, California

Dear Mr. De Witt:

This report documents the semi-annual groundwater monitoring and sampling event performed by Gettler-Ryan Inc. (G-R). On January 11, 1999, field personnel monitored and sampled seven wells (MW-1 through MW-6 and RW-1) at the above referenced site.

Static groundwater levels were measured and all wells were checked for the presence of separate-phase hydrocarbons. **Separate-phase hydrocarbons were not present in the wells.** Static water level data and groundwater elevations are summarized in Table 1. Dissolved oxygen concentrations are summarized in Table 2. A Potentiometric Map is included as Figure 1.

Groundwater samples were collected from the monitoring wells as specified by G-R Standard Operating Procedure - Groundwater Sampling (attached). The field data sheets are 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,

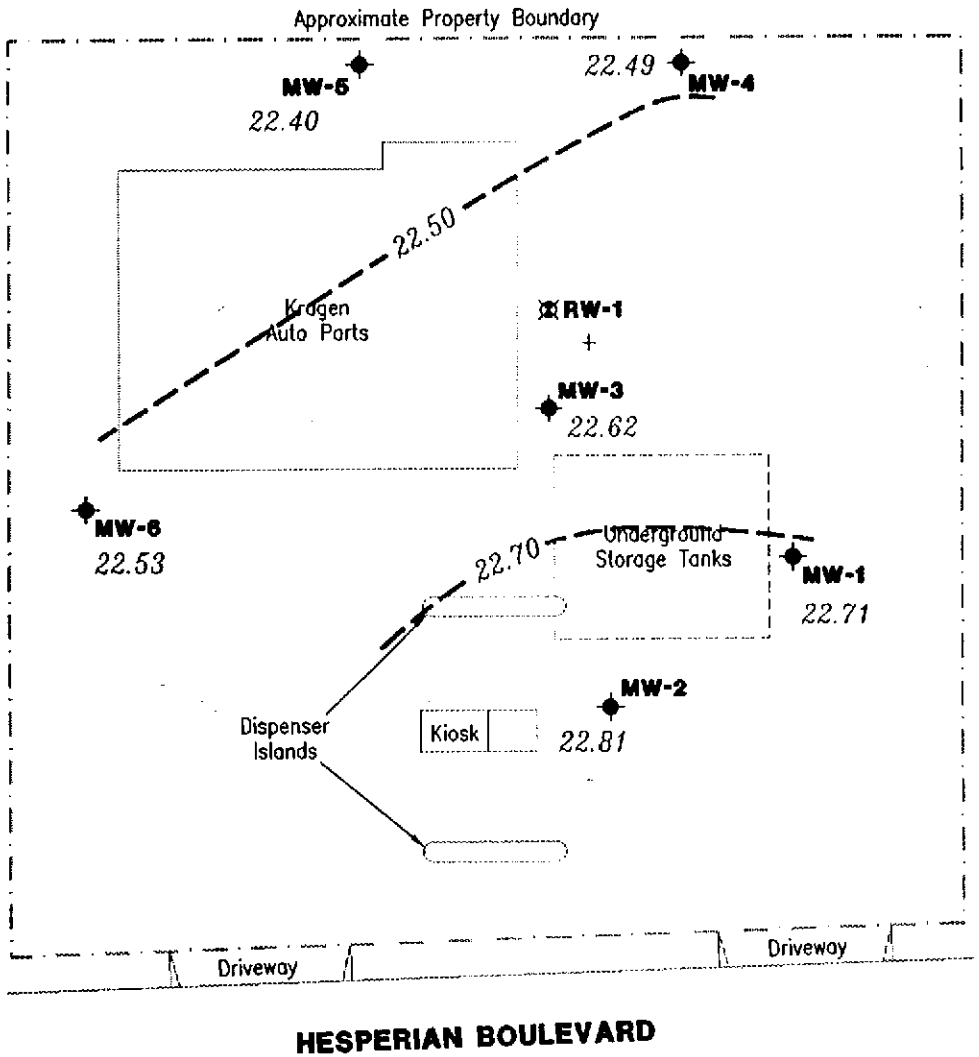
Deanna L. Harding
Project Coordinator

REGISTERED GEOLOGIST
RICKY L. FEARS
No. 6728
STATE OF CALIFORNIA

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

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

7004.qml



EXPLANATION

- Groundwater monitoring well
- Aquifer testing well
- 99.99 — Groundwater elevation in feet referenced to Mean Sea Level (MSL)
- 99.99 — Groundwater elevation contour, dashed where inferred.
- \+ — TOC not avaliable

Approximate groundwater flow direction at a gradient of 0.003 Ft./Ft.

N

0 40

Scale in Feet

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

Gettler - Ryan Inc.

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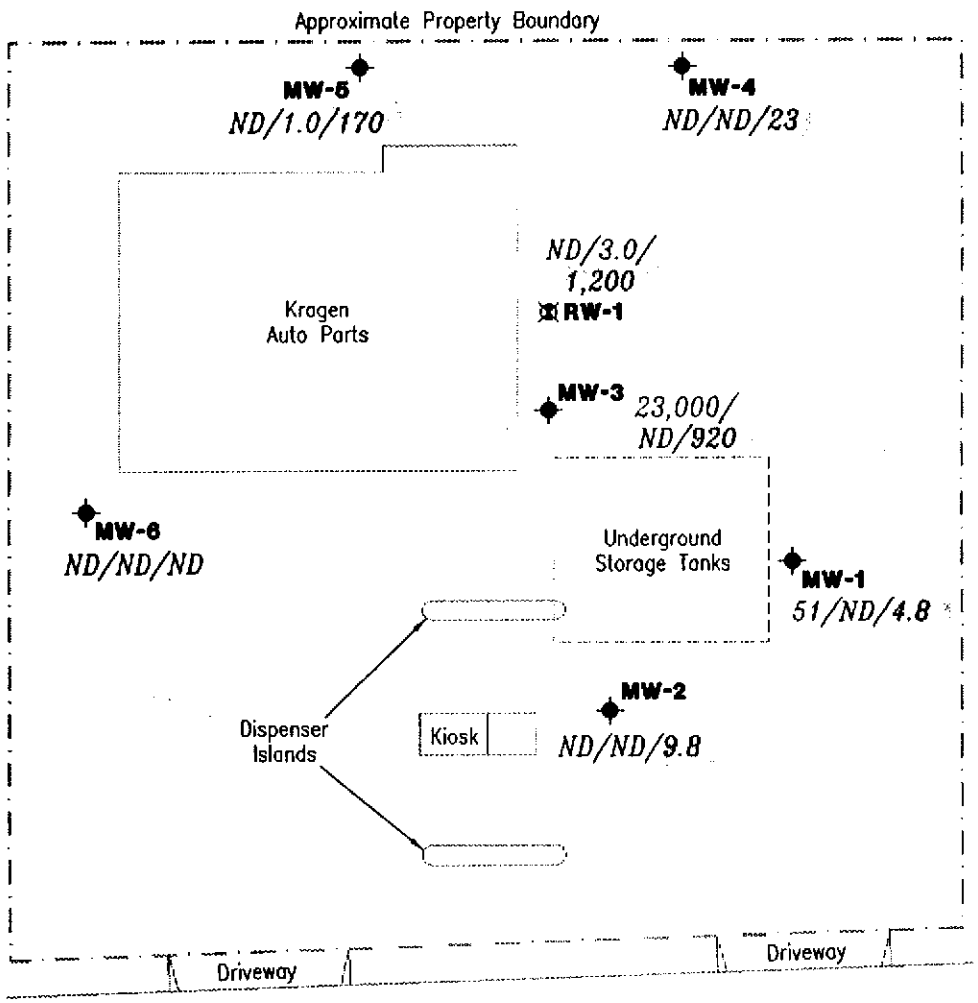
Dublin, CA 94568

POTENTIOMETRIC MAP
Tosco (Unocal) Service Station No. 7004
15599 Hesperian Boulevard
San Leandro, California

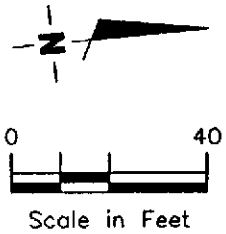
FIGURE 1

JOB NUMBER	REVIEWED BY	DATE	REVISED DATE
180106		January 11, 1999	



EXPLANATION

✦	Groundwater monitoring well
⊠	Aquifer testing well
A/B/C	TPH(G) (Total Petroleum Hydrocarbons as Gasoline)/Benzene/MTBE concentrations in ppb
ND	Not Detected



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

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Dublin, CA 94568

CONCENTRATION MAP
Tosco (Unocal) Service Station No. 7004
15599 Hesperian Boulevard
San Leandro, California

FIGURE
2

JOB NUMBER	REVIEWED BY	DATE	REVISED DATE
180106		January 11, 1999	

Table 1

Groundwater Monitoring Data and Analytical Results

Tosco (Unocal) Service Station #7004

15599 Hesperian Boulevard

San Leandro, California

Well ID/ TOC*	Date	DTW (ft.)	GWE (msl)	TPH(G) (ppb)	B (ppb)	T (ppb)	E (ppb)	X (ppb)	MTBE (ppb)
MW-1	05/04/91	--	--	ND	ND	ND	ND	ND	--
	07/23/91	--	--	ND	ND	ND	ND	ND	--
	10/14/91	--	--	ND	ND	ND	ND	ND	--
	01/14/92	--	--	ND	ND	ND	ND	ND	--
	04/14/92	--	--	76[1]	ND	ND	ND	ND	--
	07/09/92	--	--	70[1]	ND	ND	ND	ND	130
	10/28/92	--	--	SAMPLED SEMI-ANNUALLY		--	--	--	--
	01/21/93	--	--	ND	ND	ND	ND	ND	42
36.89	04/20/93	14.89	22.00	--	--	--	--	--	56
	07/22/93	14.34	22.55	ND	ND	ND	ND	ND	77
36.39	10/06/93	14.87	21.52	--	--	--	--	--	--
	01/11/94	15.14	21.25	ND	ND	ND	ND	ND	--
	04/06/94	14.19	22.20	--	--	--	--	--	--
	07/08/94	14.66	21.73	ND	ND	ND	ND	ND	--
	10/06/94	16.71	19.68	--	--	--	--	--	--
	01/05/95	14.68	21.71	ND	ND	ND	ND	ND	--
	04/05/95	11.76	24.63	--	--	--	--	--	--
	07/14/95	12.93	23.46	ND	0.65	2.2	ND	2.3	--
	10/12/95	14.29	22.10	--	--	--	--	--	--
	01/08/96	14.18	22.21	ND	ND	ND	ND	ND	--
	07/08/96	12.74	23.65	ND	ND	ND	ND	ND	ND
	01/03/97	12.89	23.50	87[1]	ND	ND	ND	ND	ND
	07/02/97	13.66	22.73	ND	ND	ND	ND	ND	ND
	01/15/98	13.08	23.31	ND	ND	ND	ND	ND	ND
	07/08/98	11.25	25.14	ND	ND	ND	ND	ND	ND
	01/11/99	**13.68**	**22.71**	**51[9]**	**ND**	**ND**	**ND**	**ND**	**4.8**
MW-2	05/04/91	--	--	ND	ND	ND	ND	ND	--
	07/23/91	--	--	ND	ND	ND	ND	ND	--
	10/14/91	--	--	ND	ND	ND	ND	ND	--
	01/14/92	--	--	ND	ND	ND	ND	ND	--
	04/14/92	--	--	45[1]	ND	ND	ND	ND	--
	07/09/92	--	--	ND	ND	ND	ND	ND	49

Table 1

Groundwater Monitoring Data and Analytical Results

Tosco (Unocal) Service Station #7004
15599 Hesperian Boulevard
San Leandro, California

Well ID/ TOC*	Date	DTW (ft.)	GWE (msl)	TPH(G) (ppb)	B (ppb)	T (ppb)	E (ppb)	X (ppb)	MTBE (ppb)
MW-2	10/28/92	--	--	SAMPLED SEMI-ANNUALLY		--	--	--	--
(cont)	01/21/93	--	--	ND	ND	ND	ND	ND	17
37.35	04/20/93	15.20	22.15	--	--	--	--	--	80
	07/22/93	14.75	22.60	62[1]	ND	ND	ND	ND	42
37.07	10/06/93	15.49	21.58	--	--	--	--	--	--
	01/11/94	15.77	21.30	120[1]	ND	ND	ND	ND	--
	04/06/94	14.83	22.24	--	--	--	--	--	--
	07/08/94	15.28	21.79	140[1]	ND	ND	ND	ND	--
	10/06/94	16.32	20.75	--	--	--	--	--	--
	01/05/95	15.30	21.77	310[1]	ND	ND	ND	ND	--
	04/05/95	12.12	24.95	--	--	--	--	--	--
	07/14/95	13.55	23.52	86[1]	ND	ND	ND	ND	--
	10/12/95	14.88	22.19	--	--	--	--	--	--
	01/08/96	14.81	22.26	91[1]	ND	ND	ND	ND	--
	07/08/96	13.37	23.70	100[1]	ND	ND	ND	ND	ND
	01/03/97	13.14	23.93	160[1]	ND	ND	ND	ND	ND
	07/02/97	14.26	22.81	91[1]	ND	ND	ND	ND	ND
	01/15/98	13.31	23.76	ND	ND	ND	ND	ND	ND
	07/08/98	11.57	25.50	ND	ND	ND	ND	ND	ND
	01/11/99	**14.26**	**22.81**	**ND**	**ND**	**ND**	**ND**	**ND**	**9.8**
MW-3	05/04/91	--	--	34,000	6,100	32	1,200	6,100	--
	07/23/91	--	--	17,000	5,500	26	1,800	2,800	--
	10/14/91	--	--	25,000	6,300	78	2,000	1,400	--
	01/14/92	--	--	13,000	6,600	19	2,600	1,800	--
	04/14/92	--	--	16,000	3,400	19	1,400	1,300	--
	07/09/92	--	--	13,000	3,200	12	1,900	1,100	--
	10/28/92	--	--	15,000	4,400	15	2,400	800	--
	01/21/93	--	--	12,000	2,800	11	1,600	590	--
37.22	04/20/93	15.13	22.09	18,000	3,700	11	2,300	1,300	410
	07/22/93	13.52	23.70	16,000	4,500	17	3,600	1,900	440
36.79	10/06/93	15.41	21.38	24,000	4,100	ND	3,600	2,000	ND
	01/11/94	15.66	21.13	19,000	3,300	31	3,300	890	--
	04/06/94	14.72	22.07	24,000	3,100	ND	3,300	820	--
	07/08/94	15.20	21.59	18,000	2,200	25	2,500	860	--

Table 1

Groundwater Monitoring Data and Analytical Results

Tosco (Unocal) Service Station #7004

15599 Hesperian Boulevard

San Leandro, California

Well ID/ TOC*	Date	DTW (ft.)	GWE (msl)	TPH(G) *(ppb)*	B *(ppb)*	T *(ppb)*	E *(ppb)*	X *(ppb)*	MTBE *(ppb)*
MW-3	10/06/94	16.23	20.56	20,000	2,100	26	3,000	900	--
(cont)	01/05/95	15.12	21.67	20,000	2,100	ND	3,200	3,800	--
	04/05/95	12.03	24.76	18,000	2,100	ND	3,700	690	--
	07/14/95	13.46	23.33	21,000	1,600	ND	3,900	1,500	--
	10/12/95	14.81	21.98	17,000	1,000	ND	3,600	1,000	--[3]
	01/08/96	14.70	22.09	14,000	760	ND	3,100	380	--[4]
	07/08/96	13.29	23.50	16,000	470	45	4,400	1,000	340
	01/03/97	13.09	23.70	14,000	160	ND	2,100	120	620
	07/02/97	13.96	22.83	23,000	110	ND	3,600	1,600	1,200
	01/15/98	13.26	23.53	12,000	33	ND[5]	2,800	120	1,100
	07/08/98	11.64	25.15	20,000	76	ND[5]	4,100	1,400	750
	01/11/99	**14.17**	**22.62**	**23,000[10]**	**ND[5]**	**ND[5]**	**4,100**	**460**	**920**
MW-4	07/23/91	--	--	ND	ND	ND	ND	ND	--
	10/14/91	--	--	ND	ND	ND	ND	ND	--
	01/14/92	--	--	ND	ND	ND	ND	ND	--
	04/14/92	--	--	ND	ND	ND	ND	ND	--
	07/09/92	--	--	ND	ND	ND	ND	ND	--
	10/28/92	--	--	SAMPLED SEMI-ANNUALLY		--	--	--	--
	01/21/93	--	--	ND	ND	ND	ND	ND	--
35.81	04/20/93	13.84	21.97	--	--	--	--	--	65
	07/22/93	13.52	22.29	ND	ND	ND	ND	ND	54
35.44	10/06/93	14.17	21.27	--	--	--	--	--	--
	01/11/94	14.42	21.02	ND	ND	ND	ND	ND	--
	04/06/94	13.44	22.00	--	--	--	--	--	--
	07/08/94	13.96	21.48	ND	ND	ND	ND	ND	--
	10/06/94	15.00	20.44	--	--	--	--	--	--
	01/05/95	13.83	21.61	ND	ND	ND	ND	ND	--
	04/05/95	11.05	24.39	--	--	--	--	--	--
	07/14/95	12.23	23.21	ND	ND	ND	ND	ND	--
	10/12/95	13.59	21.85	--	--	--	--	--	--
	01/08/96	13.43	22.01	ND	ND	ND	ND	ND	--[4]
	07/08/96	12.04	23.40	ND	ND	ND	ND	ND	ND
	01/03/97	12.38	23.06	80[1]	ND	ND	ND	ND	ND
	07/02/97	13.00	22.44	ND	ND	ND	ND	ND	25

Table 1

Groundwater Monitoring Data and Analytical Results

Tosco (Unocal) Service Station #7004

15599 Hesperian Boulevard

San Leandro, California

Well ID/ TOC*	Date	DTW (ft.)	GWE (msl)	TPH(G) (ppb)	B (ppb)	T (ppb)	E (ppb)	X (ppb)	MTBE (ppb)
MW-4	01/15/98	12.50	22.94	ND	ND	ND	ND	ND	ND
(cont)	07/08/98	10.53	24.91	ND	ND	ND	ND	ND	25
	01/11/99	**12.95**	**22.49**	**ND**	**ND**	**ND**	**ND**	**ND**	**23**
MW-5	07/23/91	--	--	260	1.2	0.39	10	0.71	--
	10/14/91	--	--	140	0.72	ND	1.3	0.89	--
	01/14/92	--	--	60[1]	ND	ND	ND	ND	--
	04/14/92	--	--	86[1]	ND	ND	ND	ND	--
	07/09/92	--	--	ND	ND	ND	ND	ND	71
	10/28/92	--	--	ND	ND	ND	ND	ND	45
	01/21/93	--	--	100[1]	ND	ND	ND	ND	160
37.01	04/20/93	14.87	22.14	99[1]	ND	ND	ND	ND	120
	07/22/93	14.82	22.19	59[2]	ND	ND	2.6	ND	42
36.81	10/06/93	15.61	21.20	150	1.1	ND	3.1	0.85	57
	01/11/94	15.84	20.97	160	ND	0.79	0.54	ND	--
	04/06/94	14.90	21.91	260	1.4	ND	0.88	ND	--
	07/08/94	15.38	21.43	200	ND	ND	ND	ND	--
	10/06/94	16.42	20.39	350	1.3	ND	ND	ND	--
	01/05/95	15.20	21.61	85	ND	ND	ND	ND	--
	04/05/95	11.72	25.09	ND	ND	ND	ND	ND	--
	07/14/95	13.69	23.12	180	1.3	ND	7.9	ND	--
	10/12/95	15.02	21.79	310	ND	ND	31	1.2	--[3]
	01/08/96	14.85	21.96	ND	0.55	ND	ND	0.58	--[4]
	07/08/96	13.52	23.29	140	2.1	1.4	5.6	0.51	110
	07/12/96	14.50	22.31	--	--	--	--	--	--
	01/03/97	12.85	23.96	12,000	150	ND	2,100	120	660
	07/02/97	13.79	23.02	ND	ND	ND	ND	ND	72
	01/15/98	13.03	23.78	69[6]	ND	ND	ND	ND	--[7]
	07/08/98	12.05	24.76	ND	0.74	ND	ND	ND	95
	01/11/99	**14.41**	**22.40**	**ND**	**1.0**	**ND**	**ND**	**ND**	**170**
MW-6	07/23/91	--	--	ND	ND	ND	ND	ND	--
	10/14/91	--	--	ND	ND	ND	ND	ND	--
	01/14/92	--	--	ND	ND	ND	ND	ND	--

Table 1

Groundwater Monitoring Data and Analytical Results

Tosco (Unocal) Service Station #7004
15599 Hesperian Boulevard
San Leandro, California

Well ID/ TOC*	Date	DTW (ft.)	GWE (msl)	TPH(G) *(ppb)*	B *(ppb)*	T *(ppb)*	E *(ppb)*	X *(ppb)*	MTBE *(ppb)*
MW-6	04/14/92	--	--	ND	ND	ND	ND	ND	--
(cont)	07/09/92	--	--	ND	ND	ND	ND	ND	--
	10/28/92	--	--	SAMPLED SEMI-ANNUALLY		--	--	--	--
	01/21/93	--	--	ND	ND	ND	ND	ND	--
37.55	04/20/93	15.27	22.28	--	--	--	--	--	ND
	07/22/93	15.20	22.35	ND	ND	ND	ND	ND	ND
37.13	10/06/93	15.75	21.38	--	--	--	--	--	--
	01/11/94	16.02	21.11	ND	ND	ND	ND	ND	--
	04/06/94	15.07	22.06	--	--	--	--	--	--
	07/08/94	15.55	21.58	ND	ND	ND	ND	ND	--
	10/06/94	16.58	20.55	--	--	--	--	--	--
	01/05/95	15.42	21.71	ND	ND	ND	ND	ND	--
	04/05/95	12.14	24.99	--	--	--	--	--	--
	07/14/95	13.87	23.26	ND	ND	ND	ND	ND	--
	10/12/95	15.17	21.96	--	--	--	--	--	--
	01/08/96	15.05	22.08	ND	ND	ND	ND	ND	--
	07/08/96	13.71	23.42	ND	ND	ND	ND	ND	ND
	01/03/97	13.12	24.01	97[1]	ND	ND	ND	ND	ND
	07/02/97	14.57	22.56	ND	ND	ND	ND	ND	ND
	01/15/98	13.30	23.83	ND	ND	ND	ND	ND	ND
	07/08/98	12.33	24.80	ND	ND	ND	ND	ND	ND
	01/11/99	**14.60**	**22.53**	**ND**	**ND**	**ND**	**ND**	**ND**	**ND**
RW-1	07/08/98	11.72	--	80[8]	1.7	ND	ND	ND	1,300
	01/11/99	**14.05**	--	**ND[5]**	**3.0**	**ND[5]**	**ND[5]**	**ND[5]**	**1,200**
Trip Blank									
TB-LB	01/15/98	--	--	ND	ND	ND	ND	ND	ND
	07/08/98	--	--	ND	ND	ND	ND	ND	ND
	01/11/99	--	--	**ND**	**ND**	**ND**	**ND**	**ND**	**ND**

Table 1

Groundwater Monitoring Data and Analytical Results

Tosco (Unocal) Service Station #7004
15599 Hesperian Boulevard
San Leandro, California

EXPLANATIONS:

Groundwater monitoring data and laboratory analytical results prior to January 15, 1998, were compiled from reports prepared by MPDS Services, Inc.

TOC = Top of Casing elevation
DTW = Depth to Water
(ft.) = Feet
GWE = Groundwater Elevation
msl = Relative to mean sea level

TPH(G) = Total Petroleum Hydrocarbons as Gasoline
B = Benzene
T = Toluene
E = Ethylbenzene
X = Xylenes

MTBE = Methyl tertiary butyl ether
ppb = Parts per billion
ND = Not Detected
-- = Not Measured/Not Analyzed/Not Available

* TOC elevations are relative to mean sea level (msl), based on the City of San Leandro Benchmark (Elevation = 36.04 feet msl). Prior to October 6, 1993, the DTW measurements were taken from the top of well covers.

1 Laboratory report indicates the hydrocarbons detected did not appear to be gasoline.
2 Laboratory report indicates the hydrocarbons detected appeared to be a gasoline and non-gasoline mixture.
3 Laboratory has potentially identified the presence of MTBE at reportable levels in the groundwater sample collected from this well.
4 Laboratory has identified the presence of MTBE at a level above or equal to the taste and odor threshold of 40 ppb in the sample collected from this well.
5 Detection limit raised. Refer to analytical results.
6 Laboratory report indicates unidentified hydrocarbons C6-C8.
7 Laboratory narrative: MTBE was not reported due to the presence of a chlorinated hydrocarbon pattern.
8 Laboratory report indicates discrete peaks and unidentified hydrocarbons $<$C7.
9 Laboratory report indicates discrete peaks.
10 Laboratory report indicates gasoline and unidentified hydrocarbons C6-C12.

Table 2

Dissolved Oxygen Concentrations
Tosco (Unocal) Service Station #7004
15599 Hesperian Boulevard
San Leandro, California

Well ID	Date	Before Purging *(mg/L)*	After Purging *(mg/L)*
MW-5	07/02/97	3.82	3.97
	01/03/97	4.35	4.27
	07/12/96	3.44	3.67
	01/15/98	4.19	4.38
	07/08/98	4.67	4.60

EXPLANATIONS:

Dissolved oxygen concentrations prior to January 15, 1998, were compiled from reports prepared by MPDS Services, Inc.

mg/L = milligrams per liter

Note: Measurements were taken using a LaMotte DO4000 dissolved oxygen meter.

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. 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.

A laboratory supplied trip blank accompanies each sampling set. For sampling sets greater than 20 samples, 5% trip blanks are included. The trip blank is analyzed for some or all of the same compounds as the groundwater samples.

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 # 7004 Job#: 180106

Address: 15599 Hesperian Blvd. Date: 1-11-99

City: San Leandro Sampler: Joe

Well ID MW-1 Well Condition: O.K

Well Diameter 2 in. Hydrocarbon Thickness: 0 (feet) Amount Bailed (product/water): 0 (Gallons)

Total Depth 24.48 ft.

Depth to Water 13.68 ft.

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

10.8 X VF 0.17 = 1.84 X 3 (case volume) = Estimated Purge Volume: 6 (gal.)

Purge Equipment:
- Disposable Bailer
- Bailer
- Stack
- (Suction)
- Grundfos
- Other: _____

Sampling Equipment:
- (Disposable Bailer)
- Bailer
- Pressure Bailer
- Grab Sample
- Other: _____

Starting Time: 7:52 Weather Conditions: clear

Sampling Time: 8:15 a.m Water Color: clear Odor: none

Purging Flow Rate: 1 gpm. Sediment Description: none

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

Time	Volume (gal.)	pH	Conductivity µmhos/cm x 100	Temperature °F	D.O. (mg/L)	ORP (mV)	Alkalinity (ppm)
8:00	2	7.18	7.96	71.5			
8:02	4	7.25	8.02	72.0			
8:04	6	7.31	8.05	71.3			

LABORATORY INFORMATION

SAMPLE ID	(#) - CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
MW-1	3 VOA	Y	HCL	SEQUOIA	TPH(G)/btex/mtbe

COMMENTS: _____

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WELL MONITORING/SAMPLING
FIELD DATA SHEET

Client/
Facility #7004 Job#: 180106

Address: 15599 Hesperian Blvd. Date: 1-18-99

City: San Leandro Sampler: Joe

Well ID MW-2 Well Condition: O.K

Well Diameter 2 in. Hydrocarbon Thickness: 0 (feet) Amount Bailed (product/water): 0 (Gallons)

Total Depth 24.56 ft.

Depth to Water 14.26 ft.

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

10.3 X VF 0.17 = 1.75 X 3 (case volume) = Estimated Purge Volume: 5.5 (gal.)

Purge Equipment:
- Disposable Bailer
- Bailer
- Stack
- (Suction)
- Grundfos
- Other: _____

Sampling Equipment:
- (Disposable Bailer)
- Bailer
- Pressure Bailer
- Grab Sample
- Other: _____

Starting Time: 8:30 Weather Conditions: clear

Sampling Time: 8:50 A.M Water Color: Clear Odor: none

Purging Flow Rate: 1 gpm. Sediment Description: none

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

Time	Volume (gal.)	pH	Conductivity µmhos/cm x 10^3	Temperature °F	D.O. (mg/L)	ORP (mV)	Alkalinity (ppm)
8:37	2	7.85	6.96	71.0			
8:39	4	7.63	6.55	71.5			
8:41	5.5	7.57	6.52	71.4			

LABORATORY INFORMATION

SAMPLE ID	(#) - CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
MW-2	3 VOA	Y	HCL	SEQUOIA	TPH(G)/btex/mtbe

COMMENTS: _____

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WELL MONITORING/SAMPLING
FIELD DATA SHEET

Client/
Facility #7004 Job#: 180106

Address: 15599 Hesperian Blvd. Date: 1-18-99

City: San Leandro Sampler: Joe

Well ID MW-3 Well Condition: O.K

Well Diameter 2 in. Hydrocarbon Thickness: 0 (feet) Amount Bailed (product/water): 0 (Gallons)

Total Depth 25.00 ft.

Depth to Water 14.17 ft.

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

10.83 X VF 0.17 = 1.84 X 3 (case volume) = Estimated Purge Volume: 6 (gal.)

Purge Equipment: Disposable Bailer, Bailer, Stack, (Suction), Grundfos, Other:

Sampling Equipment: (Disposable Bailer), Bailer, Pressure Bailer, Grab Sample, Other:

Starting Time: 11:20 Weather Conditions: clear

Sampling Time: 11:42 Am Water Color: clear Odor: ~~slight~~ yes

Purging Flow Rate: ~1 gpm. Sediment Description: none

Did well de-water? Yes If yes; Time: 11:42 Volume: 6 (gal.)

Time	Volume (gal.)	pH	Conductivity µmhos/cm x 1000	Temperature °F	D.O. (mg/L)	ORP (mV)	Alkalinity (ppm)
11:28	2	7.18	2.36	70.2			
11:30	4	7.22	2.40	69.9			
11:32	6	7.17	2.41	70.4			

LABORATORY INFORMATION

SAMPLE ID	(#) - CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
MW-3	3 VOA	Y	HCL	SEQUOIA	TPH(G)/btex/mtbe

COMMENTS:

WELL MONITORING/SAMPLING
FIELD DATA SHEET

Client/
Facility #7004 Job#: 180106

Address: 15599 Hesperian Blvd. Date: 1-14-99

City: San Leandro Sampler: Joe

Well ID MW-4 Well Condition: O.K

Well Diameter 2 in. Hydrocarbon Thickness: 0 (feet) Amount Bailed (product/water): 0 (Gallons)

Total Depth 25.68 ft.

Depth to Water 12.95 ft.

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

12.73 X VF 0.17 = 2.16 X 3 (case volume) = Estimated Purge Volume: 7 (gal.)

Purge Equipment: Disposable Bailer, Bailer, Stack, (Suction), Grundfos, Other: _____

Sampling Equipment: (Disposable Bailer), Bailer, Pressure Bailer, Grab Sample, Other: _____

Starting Time: 9:30 Weather Conditions: clear

Sampling Time: 9:47 A.M Water Color: Clear Odor: none

Purging Flow Rate: 1 gpm. Sediment Description: none

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

Time	Volume (gal.)	pH	Conductivity (µmhos/cm) @ 15°	Temperature °F	D.O. (mg/L)	ORP (mV)	Alkalinity (ppm)
9:36	2.5	7.47	5.95	69.9			
9:38	5	7.40	5.83	71.2			
9:40	7	7.33	5.82	71.0			

LABORATORY INFORMATION

SAMPLE ID	(#) - CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
MW-4	3 VOA	Y	HCL	SEQUOIA	TPH(G)/btex/mtbe

COMMENTS: _____

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WELL MONITORING/SAMPLING
FIELD DATA SHEET

Client/
Facility #7004 Job#: 180106

Address: 15599 Hesperian Blvd. Date: 1-11-99

City: San Leandro Sampler: Joe

Well ID MW-5 Well Condition: O.K

Well Diameter 2 in. Hydrocarbon Thickness: 0 (feet) Amount Bailed (product/water): 0 (Gallons)

Total Depth 26.22 ft.

Depth to Water 14.41 ft.

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

11.81 X VF 0.17 = 2.00 X 3 (case volume) = Estimated Purge Volume: 6 (gal.)

Purge Equipment:
- Disposable Bailer
- Bailer
- Stack
- (Suction)
- Grundfos
- Other: _____

Sampling Equipment:
- (Disposable Bailer)
- Bailer
- Pressure Bailer
- Grab Sample
- Other: _____

Starting Time: 9.58 Weather Conditions: clear

Sampling Time: 10:20 A.M. Water Color: clear Odor: none

Purging Flow Rate: [illegible] l/gpm. Sediment Description: none

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

Time	Volume (gal.)	pH	Conductivity µmhos/cm x 1000	Temperature °F	D.O. (mg/L)	ORP (mV)	Alkalinity (ppm)
10:10	2	7.18	4.83	73.3			
10:12	4	7.22	4.80	71.4			
10:14	6	7.26	4.81	71.0			

LABORATORY INFORMATION

SAMPLE ID	(#) - CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
MW-5	3VOA	Y	HCL	SEQUOIA	TPH(G)/btex/mtbe

COMMENTS: ORC from well removed.
D.O. reading suspended.

WELL MONITORING/SAMPLING
FIELD DATA SHEET

Client/
Facility #7004 Job#: 180106

Address: 15599 Hesperian Blvd. Date: 1-18-99

City: San Leandro Sampler: Joe

Well ID MW-6 Well Condition: O.K

Well Diameter 2 in. Hydrocarbon Thickness: 0 (feet) Amount Bailed (product/water): 0 (Gallons)

Total Depth 25.70 ft.

Depth to Water 14.60 ft.

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

11.1 X VF 0.17 = 1.89 X 3 (case volume) = Estimated Purge Volume: 6 (gal.)

Purge Equipment:
- Disposable Bailer
- Bailer
- Stack
- (Suction)
- Grundfos
- Other: _____

Sampling Equipment:
- (Disposable Bailer)
- Bailer
- Pressure Bailer
- Grab Sample
- Other: _____

Starting Time: 9:02 Weather Conditions: clear

Sampling Time: 9:22 A.M. Water Color: clear Odor: none

Purging Flow Rate: 1 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)
9:12	2	7.22	8.93	69.6			
9:14	4	7.31	8.90	70.7			
9:16	6	7.35	8.88	70.7			

LABORATORY INFORMATION

SAMPLE ID	(#) - CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
MW-6	3 VOA	Y	HCL	SEQUOIA	TPH(G)/btex/mtbe

COMMENTS: _____

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WELL MONITORING/SAMPLING
FIELD DATA SHEET

Client/
Facility #7004 Job#: 180106

Address: 15599 Hesperian Blvd. Date: 1-14-99

City: San Leandro Sampler: Joe

Well ID RW-1 Well Condition: O.K

Well Diameter 4 in. Hydrocarbon Thickness: 0 (feet) Amount Bailed (product/water): 0 (Gallons)

Total Depth 26.70 ft.

Depth to Water 14.05 ft.

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

12.65 X VF 1.50 = 18.97 X 3 (case volume) = Estimated Purge Volume: 57 (gal.)

Purge Equipment:
- Disposable Bailer
- Bailer
- Stack
- Suction
- Grundfos
- Other: _____

Sampling Equipment:
- (Disposable Bailer)
- Bailer
- Pressure Bailer
- Grab Sample
- Other: _____

Starting Time: 10:35 Weather Conditions: clear

Sampling Time: 11:05 A.M. Water Color: clear Odor: none

Purging Flow Rate: 3.5 gpm. Sediment Description: none

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

Time	Volume (gal.)	pH	Conductivity µmhos/cm x 100	Temperature °F	D.O. (mg/L)	ORP (mV)	Alkalinity (ppm)
10:45	20	7.19	5.17	69.4			
10:50	40	7.24	5.02	69.0			
10:56	57	7.28	5.04	69.2			

LABORATORY INFORMATION

SAMPLE ID	(#) - CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
RW-1	3 VOA	Y	HCL	SEQUOIA	TPH(G)/btex/mtbe

COMMENTS: _____

Chain-of-Custody-Record

TOSCO

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

Facility Number: UNOCAL SS# 7004
Facility Address: 15599 Hesperian Blvd, San Leandro, CA
Consultant Project Number: 180-106
Consultant Name: Gettler-Ryan Inc. (G-R Inc.)
Address: 6747 Sierra Court, Suite J, Dublin, CA 94568
Project Contact (Name): Deanna L. Harding
(Phone) 925-551-7555 (Fax Number) 925-551-7888

Contact (Name): MS. TINA BERRY
(Phone) 925-277-2321
Laboratory Name: Sequoia Analytical
Laboratory Release Number: 9901143
Samples Collected by (Name): JOE AJEMIAN
Collection Date: 1-11-99
Signature: Joe Ajemian

Sample Number	Lab Sample Number	Number of Containers	Matrix S = Soil A = Air W = Water C = Charcoal	Type G = Grab C = Composite D = Discrete	Time	Sample Preservation	Iced (Yes or No)	TPH Gas + BTEX w/MTBE (8020)	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)					Remarks
																				DO NOT BILL TB-LB ANALYSIS
																				Analyses To Be Performed
TB-LB		1 VOA	W	—	—	HCL	Y	✓											9010488	
MW-1		3 VOA	"	G	8:15 A.M	—	—	✓											9010489	A-C
MW-2		"	"	"	8:50 A.M	—	—	✓											9010490	
MW-3		"	"	"	11:42 A.M	—	—	✓											9010491	
MW-4		"	"	"	9:47 A.M	—	—	✓											9010492	
MW-5		"	"	"	10:20 A.M	—	—	✓											9010493	
MW-6		"	"	"	9:22 A.M	—	—	✓											9010494	
RW-1		"	"	"	11:05 A.M	—	—	✓											9010495	V

Relinquished By (Signature)	Organization	Date/Time	Received By (Signature)	Organization	Date/Time
Joe Ajemian	G-R Inc.	1-11-99			
Relinquished By (Signature)	Organization	Date/Time	Received By (Signature)	Organization	Date/Time
		1/11/99 1330		W.C. Sq	1/11/99 1245
Relinquished By (Signature)	Organization	Date/Time	Received For Laboratory By (Signature)		Date/Time
					1/11 1330

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, (925) 988-9600, FAX (925) 988-9673
819 Striker Avenue, Suite 8, Sacramento, CA 95834, (916) 921-9600, FAX (916) 921-0100
1455 McDowell Blvd. North, Ste. D, Petaluma, CA 94954, (707) 792-1865, FAX (707) 792-0342

Gettler-Ryan - Dublin	Client Project ID:	Unocal SS#7004, San Leandro	Sampled: Jan 11, 1999
6747 Sierra Court, Suite J	Sample Matrix:	Water	Received: Jan 11, 1999
Dublin, CA 94568	Analysis Method:	EPA 5030/8015 Mod./8020	Reported: Jan 27, 1999
Attention: Deanna Harding	First Sample #:	901-0488	

TOTAL PURGEABLE PETROLEUM HYDROCARBONS with BTEX / MTBE

Analyte	Reporting Limit µg/L	Sample I.D. 901-0488 TB-LB	Sample I.D. 901-0489 MW-1	Sample I.D. 901-0490 MW-2	Sample I.D. 901-0491 MW-3	Sample I.D. 901-0492 MW-4	Sample I.D. 901-0493 MW-5
Purgeable Hydrocarbons	50	N.D.	51	N.D.	23,000	N.D.	N.D.
Benzene	0.50	N.D.	N.D.	N.D.	N.D.	N.D.	1.0
Toluene	0.50	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
Ethyl Benzene	0.50	N.D.	N.D.	N.D.	4,100	N.D.	N.D.
Total Xylenes	0.50	N.D.	N.D.	N.D.	460	N.D.	N.D.
MTBE	2.5	N.D.	4.8	9.8	920	23	170
Chromatogram Pattern:		--	Discrete Peaks	--	Gasoline & Unidentified Hydrocarbons C6 - C12	--	--

Quality Control Data

Report Limit Multiplication Factor:	1.0	1.0	1.0	100	1.0	1.0
Date Analyzed:	1/21/99	1/21/99	1/21/99	1/21/99	1/21/99	1/21/99
Instrument Identification:	HP-5	HP-2	HP-2	HP-2	HP-2	HP-2
Surrogate Recovery, %: (QC Limits = 70-130%)	94	83	106	113	105	104

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

Julianne Fegley
Project Manager

Sequoia Analytical

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1455 McDowell Blvd. North, Ste. D, Petaluma, CA 94954, (707) 792-1865, FAX (707) 792-0342

Gettler-Ryan - Dublin	Client Project ID:	Unocal SS#7004, San Leandro	Sampled:	Jan 11, 1999
6747 Sierra Court, Suite J	Sample Matrix:	Water	Received:	Jan 11, 1999
Dublin, CA 94568	Analysis Method:	EPA 5030/8015 Mod./8020	Reported:	Jan 27, 1999
Attention: Deanna Harding	First Sample #:	901-0494		

TOTAL PURGEABLE PETROLEUM HYDROCARBONS with BTEX / MTBE

Analyte	Reporting Limit µg/L	Sample I.D. 901-0494 MW-6	Sample I.D. 901-0495 RW-1
Purgeable Hydrocarbons	50	N.D.	N.D.
Benzene	0.50	N.D.	3.0
Toluene	0.50	N.D.	N.D.
Ethyl Benzene	0.50	N.D.	N.D.
Total Xylenes	0.50	N.D.	N.D.
MTBE	2.5	N.D.	1,200
Chromatogram Pattern:		--	--

Quality Control Data

Report Limit Multiplication Factor:	1.0	5.0
Date Analyzed:	1/21/99	1/21/99
Instrument Identification:	HP-2	HP-2
Surrogate Recovery, %: (QC Limits = 70-130%)	100	100

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

Julianne Fegley
Project Manager

Sequoia Analytical

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1455 McDowell Blvd. North, Ste. D, Petaluma, CA 94954, (707) 792-1865, FAX (707) 792-0342

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

Client Project ID: Unocal SS#7004, San Leandro
Matrix: Liquid
QC Sample Group: 9010488-495

Reported: Jan 28, 1999

QUALITY CONTROL DATA REPORT

ANALYTE	Benzene	Toluene	Ethyl Benzene	Xylenes
Method:	EPA 8020	EPA 8020	EPA 8020	EPA 8020
Analyst:	C. Westwater	C. Westwater	C. Westwater	C. Westwater
MS/MSD Batch#:	9010490	9010490	9010490	9010490
Date Prepared:	1/21/99	1/21/99	1/21/99	1/21/99
Date Analyzed:	1/21/99	1/21/99	1/21/99	1/21/99
Instrument I.D.#:	HP-2	HP-2	HP-2	HP-2
Conc. Spiked:	20 µg/L	20 µg/L	20 µg/L	60 µg/L
Matrix Spike % Recovery:	100	95	100	103
Matrix Spike Duplicate % Recovery:	100	90	90	105
Relative % Difference:	0.0	5.4	11	1.6
LCS Batch#:	2LCS012199	2LCS012199	2LCS012199	2LCS012199
Date Prepared:	1/21/99	1/21/99	1/21/99	1/21/99
Date Analyzed:	1/21/99	1/21/99	1/21/99	1/21/99
Instrument I.D.#:	HP-2	HP-2	HP-2	HP-2
LCS % Recovery:	105	95	100	108
% Recovery Control Limits:	70-130	70-130	70-130	70-130

SEQUOIA ANALYTICAL, #1271

Julianne Fegley
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.

Sequoia Analytical

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

Client Project ID: Unocal SS#7004, San Leandro
Matrix: Liquid
QC Sample Group: 9010488-495

Reported: Jan 28, 1999

QUALITY CONTROL DATA REPORT

ANALYTE	Benzene	Toluene	Ethyl Benzene	Xylenes
Method:	EPA 8020	EPA 8020	EPA 8020	EPA 8020
Analyst:	C. Westwater	C. Westwater	C. Westwater	C. Westwater
MS/MSD Batch#:	9010609	9010609	9010609	9010609
Date Prepared:	1/21/99	1/21/99	1/21/99	1/21/99
Date Analyzed:	1/21/99	1/21/99	1/21/99	1/21/99
Instrument I.D.#:	HP-5	HP-5	HP-5	HP-5
Conc. Spiked:	20 µg/L	20 µg/L	20 µg/L	60 µg/L
Matrix Spike % Recovery:	105	105	100	105
Matrix Spike Duplicate % Recovery:	100	100	100	103
Relative % Difference:	4.9	4.9	0.0	1.6
LCS Batch#:	5LCS012199	5LCS012199	5LCS012199	5LCS012199
Date Prepared:	1/21/99	1/21/99	1/21/99	1/21/99
Date Analyzed:	1/21/99	1/21/99	1/21/99	1/21/99
Instrument I.D.#:	HP-5	HP-5	HP-5	HP-5
LCS % Recovery:	110	110	110	113
% Recovery Control Limits:	70-130	70-130	70-130	70-130

SEQUOIA ANALYTICAL, #1271

Julianne Fegley
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.