GETTLER-RYAN INC.

March 31, 1998
G-R Job #180066

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

RE: Semi-Annual 1998 Groundwater Monitoring & Sampling Report
Tosco (Unocal) Service Station #0752
800 Harrison Street
Oakland, California

Dear Ms. Berry:

This report documents the quarterly groundwater monitoring and sampling event performed by Gettler-Ryan Inc. (G-R). On January 26, 1998, field personnel monitored and sampled eight wells (MW-1 through MW-8) 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. 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 Tables 1, 2 and 3. Dissolved Oxygen Concentrations are summarized in Table 4. A Concentration Map is included as Figure 2. The chain of custody document and laboratory analytical reports are also attached.

Sincerely,

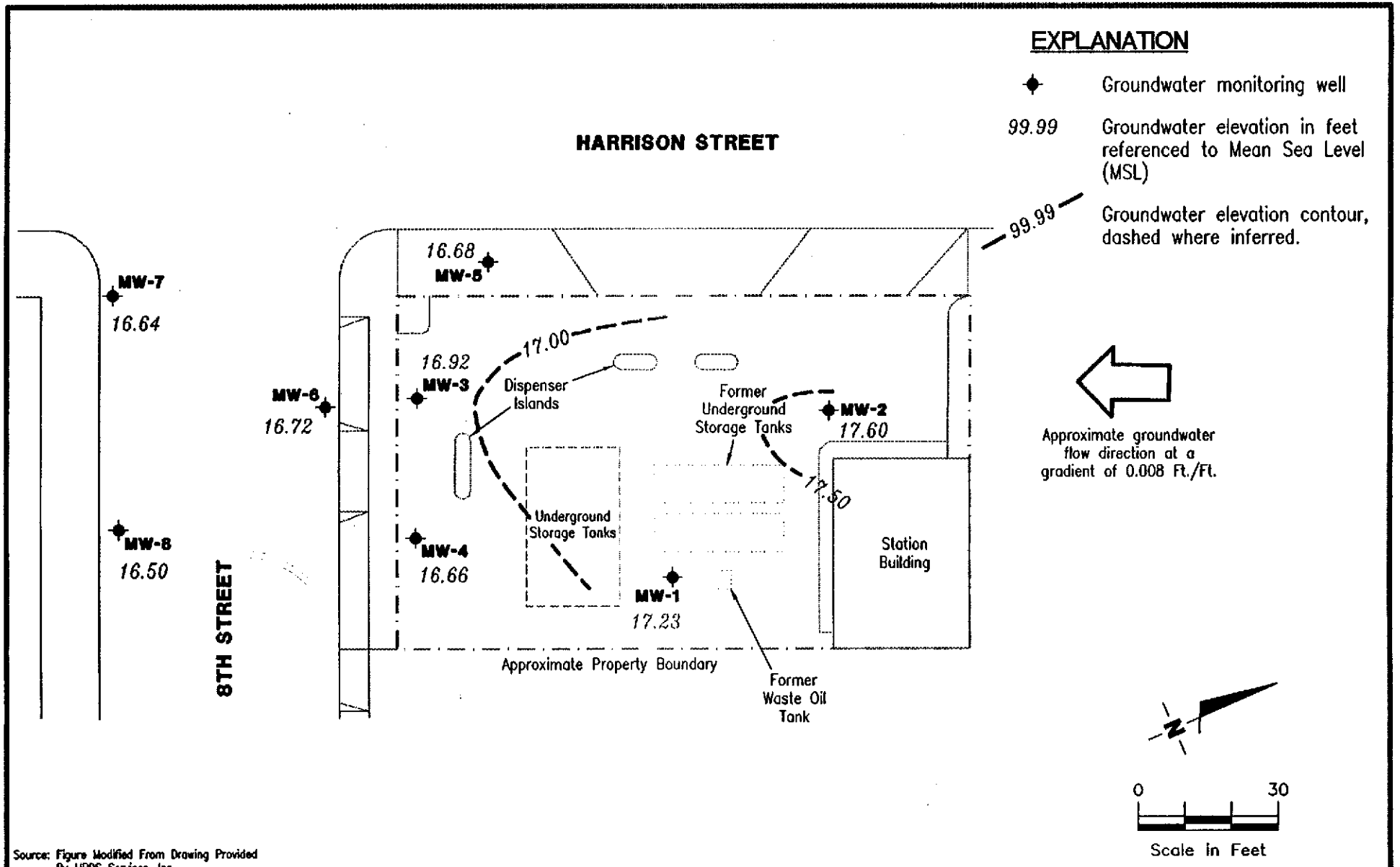
Deanna L. Harding
Project Manager

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

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

Figure 1: Potentiometric Map
Figure 2: Concentration Map
Table 1: Groundwater Monitoring Data and Analytical Results
Table 2: Groundwater Analytical Results
Table 3: Groundwater Analytical Results
Table 4: Dissolved Oxygen Concentrations
Attachments: Standard Operating Procedure - Groundwater Sampling
Field Data Sheets
Chain of Custody Document and Laboratory Analytical Reports

0752.qml



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

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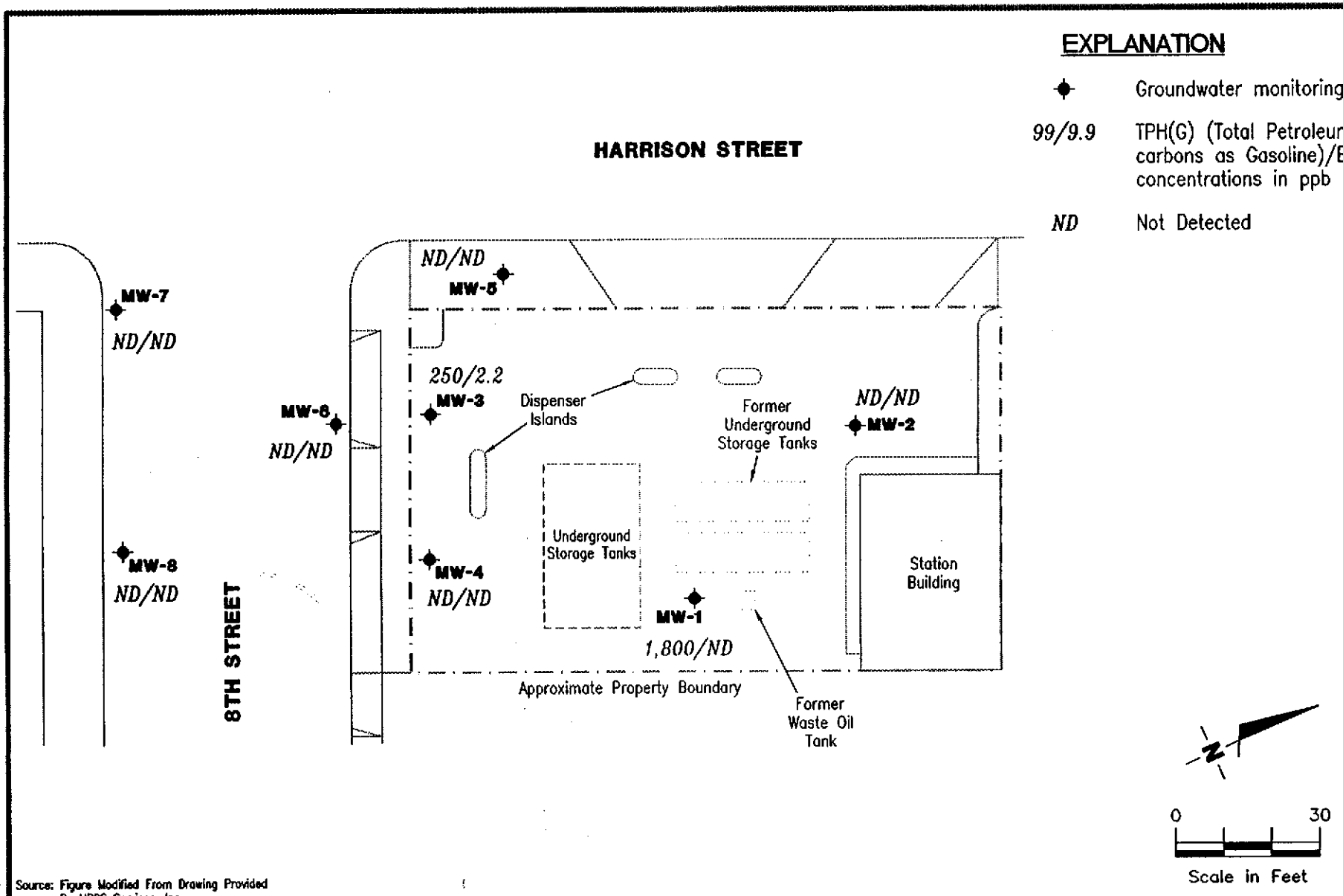
6747 Sierra Ct., Suite J (510) 551-7555
Dublin, CA 94568

POTENTIOMETRIC MAP
Unocal Service Station No. 0752
800 Harrison Street
Oakland, California

FIGURE
1

JOB NUMBER	REVIEWED BY	DATE	REVISED DATE
180066		January 26, 199	



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

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Dublin, CA 94568

CONCENTRATION MAP
Unocal Service Station No. 0752
800 Harrison Street
Oakland, California

FIGURE
2

JOB NUMBER
180066

REVIEWED BY

DATE
January 26, 1998

REVISED DATE

Table 1

Groundwater Monitoring Data and Analytical Results

Tosco (Unocal) Service Station #0752

800 Harrison Street

Oakland, California

Well ID/ TOC*	Date	DTW (ft.)	GWE (msl)	TPH(D)	TPH(G)	B	T	E	X	MTBE	Chloro-form**	Tetrachloro-ethene**	Trichloro-ethene**
				<				ppb					>
MW-1	06/05/91			ND	47	ND	ND	ND	ND	--	7.8	2.9	1.3
	09/30/91			ND	ND	ND	ND	ND	ND	--	--	--	--
	12/30/91			ND	ND	ND	ND	ND	ND	--	6.4	2.1	0.9
	04/02/92			94	ND	ND	ND	ND	ND	--	7.1	2.6	1.4
	06/30/92			120	ND	ND	ND	ND	ND	--	9.5	2.2	1.3
	09/15/92			ND	76	1.0	ND	ND	ND	--	12	2.2	1.3
	12/21/92			ND	95	0.69	ND	ND	1.0	--	12	1.4	0.83
	04/28/93[1]			470[2]	920	3.1	2.3	1.2	9.7	--	12	0.89	0.85
	07/23/93			ND	ND	0.5	0.66	ND	ND	--	16	1.3	0.91
	10/05/93			57[3]	92[5]	1.5	ND	ND	0.72	--	13	1.3	0.66
	01/03/94[6]			ND	ND	ND	ND	ND	ND	--	18	1.4	0.93
	04/02/94			ND	ND	ND	ND	ND	ND	--	15	1.1	0.68
	07/05/94			--	250	4.8	13	1.2	7.3	--	--	--	--
	10/06/94			--	540	1.4	ND	0.66	11	--	--	--	--
	01/02/95			--	140	ND	ND	ND	ND	--	--	--	--
	04/03/95			--	580	3.6	0.75	ND	4.0	--	--	--	--
	07/14/95			--	260	2.1	ND	ND	1.2	--	--	--	--
	10/10/95			--	220	2.0	ND	25	5.6	29	--	--	--
	01/03/96			--	190	2.4	ND	0.71	1.2	--	--	--	--
34.69	04/10/96	17.65	17.04	--	540	8.9	1.7	1.5	7.4	50	--	--	--
	07/09/96	18.52	16.17	--	490	3.0	1.4	1.3	2.5	150	--	--	--
	01/24/97	17.72	16.97	--	760	27	0.89	5.2	10	510	--	--	--
	07/23/97	19.42	15.27	--	ND	ND	ND	ND	ND	550	--	--	--
	01/26/98	**17.46**	**17.23**	--	**1,800[8]**	**ND[9]**	**ND[9]**	**ND[9]**	**ND[9]**	**4,800**	--	--	--
MW-2	06/05/91			--	49	ND	ND	ND	ND		--	--	--
	09/30/91			--	130	18	0.53	14	9.6		--	--	--
	12/30/91			--	91	16	0.89	11	1.9		--	--	--
	04/02/92			--	88	12	0.32	6.3	7.2		--	--	--
	06/30/92			--	76	9.3	0.76	4.8	6.9		--	--	--
	09/15/92			--	1,300	91	5.7	80	110		--	--	--
	12/21/92			--	960	97	3.2	74	96		--	--	--
	04/28/93			--	1,300	76	1.9	130	87		--	--	--
	07/23/93			--	66	1.8	ND	2.5	2.0		--	--	--
	10/05/93			--	120	12	ND	2.1	12		--	--	--

Table 1

Groundwater Monitoring Data and Analytical Results

Tosco (Unocal) Service Station #0752
800 Harrison Street
Oakland, California

Well ID/ TOC*	Date	DTW (ft.)	GWE (msl)	TPH(D)	TPH(G)	B	T	E	X	MTBE	Chloro-form**	Tetrachloro-ethene**	Trichloro-ethene**
				<					ppb				>
MW-2	01/03/94			--	260	25	ND	5.5	26		--	--	--
(cont)	04/02/94			--	ND	0.65	ND	ND	0.99		--	--	--
	07/05/94			--	160	16	ND	0.73	10		--	--	--
	10/06/94			--	170	15	ND	1.4	11		--	--	--
	01/02/95			--	190	27	ND	0.95	11		--	--	--
	04/03/95			--	2,400	65	6.6	19	63		--	--	--
	07/14/95			--	750	270	ND	ND	13		--	--	--
	10/10/95			--	50	1.6	ND	ND	ND	200	--	--	--
	01/03/96			--	ND	ND	ND	ND	ND	--	--	--	--
34.72	04/10/96	17.35	17.37	--	300	42	ND	2.4	9.0	620	--	--	--
	07/09/96	18.22	16.50	--	760	230	ND	1.3	2.4	1,500	--	--	--
	01/24/97	17.59	17.13	--	2,900	400	350	190	720	1,300	--	--	--
	07/23/97	19.13	15.59	--	ND	ND	ND	ND	ND	65	--	--	--
	01/26/98	**17.12**	**17.60**	**--**	**ND**	**ND**	**ND**	**ND**	**0.58**	**13**	**--**	**--**	**--**
MW-3	06/05/91			--	5,800	1,200	40	140	97		--	--	--
	09/30/91			--	6,800	1,400	130	290	240		--	--	--
	12/30/91			--	7,200	2,100	690	410	550		--	--	--
	04/02/92			--	8,000	1,400	200	300	310		--	--	--
	06/30/92			--	8,900	1,900	210	430	550		--	--	--
	09/15/92			--	10,000	1,900	330	400	580		--	--	--
	12/21/92			--	8,500	1,500	150	310	330		--	--	--
	04/28/93			--	2,600	220	7.6	41	27		--	--	--
	07/23/93			--	4,400	660	26	160	82		--	--	--
	10/05/93			--	9,200	720	88	140	140		--	--	--
	01/03/94			--	4,900	830	100	170	150		--	--	--
	04/02/94			--	6,000	800	30	140	110		--	--	--
	07/05/94			--	25,000[5]	ND	ND	ND	ND		--	--	--
	10/06/94			--	49,000[4]	1,300	200	280	300		--	--	--
	01/02/95			--	480	1.6	ND	1.4	ND		--	--	--
	04/03/95			--	8,100[5]	65	ND	ND	ND		--	--	--
	07/14/95			--	ND	1,300	ND	ND	ND		--	--	--
	10/10/95			--	3,100	1,400	36	50	53	190,000	--	--	--
	01/03/96[7]			--	ND	2,300	110	150	140	--	--	--	--
33.14	04/10/96	16.40	16.74	--	940	38	33	39	47	69,000	--	--	--

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Groundwater Monitoring Data and Analytical Results

Tosco (Unocal) Service Station #0752

800 Harrison Street

Oakland, California

Well ID/ TOC*	Date	DTW (ft.)	GWE (msl)	TPH(D)	TPH(G)	B	T	E	X	MTBE	Chloro-form**	Tetrachloro-ethene**	Trichloro-ethene**
				<				ppb					>
MW-3	07/09/96	17.43 ✓	15.71	--	ND	2,000	ND	150	160	140,000 ✓	--	--	--
(cont)	01/24/97	16.57	16.57	--	540	8.0	ND	11	9.9	45	--	--	--
	07/23/97	18.38 ✓	14.76	--	7,400	1,900	180	140	340	45,000 ✓	--	--	--
	01/26/98	**16.22**	**16.92**	**--**	**250**	**2.2**	**1.9**	**0.87**	**1.9**	**4.0**	**--**	**--**	**--**
MW-4	10/19/92			--	480	0.51	2.1	2.8	6.8	--	--	--	--
	12/21/92			--	220[4]	ND	ND	0.97	0.74	--	--	--	--
	04/28/93			--	ND	ND	ND	ND	ND	--	--	--	--
	07/23/93			--	85[4]	ND	ND	ND	ND	--	--	--	--
	10/05/93			--	130[5]	ND	ND	ND	ND	--	--	--	--
	01/03/94			--	210	ND	ND	0.76	1.6	240	9.0	1.0	ND
	04/02/94			--	89	ND	ND	ND	ND	--	--	--	--
	07/05/94			--	190[5]	ND	ND	ND	ND	--	--	--	--
	10/06/94			--	170	0.85	ND	ND	0.74	--	--	--	--
	01/02/95			--	ND	ND	ND	ND	ND	--	--	--	--
	04/03/95			--	98[5]	ND	ND	ND	ND	--	--	--	--
	07/14/95			--	ND	ND	ND	ND	ND	--	--	--	--
	10/10/95			--	ND	ND	ND	ND	ND	120	--	--	--
	01/03/96[7]			--	ND	ND	ND	ND	ND	--	--	--	--
32.71	04/10/96	16.00	16.71	--	ND	ND	ND	ND	ND	240	--	--	--
	07/09/96	16.96	15.75	--	ND	ND	ND	ND	ND	480	--	--	--
	01/24/97	16.04	16.67	--	ND	ND	ND	ND	ND	270	--	--	--
	07/23/97	17.87	14.84	--	ND	ND	ND	ND	ND	460	--	--	--
	01/26/98	**16.05**	**16.66**	**--**	**ND**	**ND**	**ND**	**ND**	**ND**	**17**	**--**	**--**	**--**
MW-5	10/19/92			--	2,700	61	5.0	100	61	--	--	--	--
	12/21/92			--	1,700	51	4.7	83	34	--	--	--	--
	04/28/93			--	6,700	200	190	250	430	--	--	--	--
	07/23/93			--	2,000	122	8.0	68	47	--	--	--	--
	10/05/93			--	1,700	70	6.2	54	40	--	--	--	--
	01/03/94			--	1,500	44	ND	42	46	--	--	--	--
	04/02/94			--	1,800	46	5.1	38	35	--	--	--	--
	07/05/94			--	2,200	97	8.4	37	36	--	--	--	--
	10/06/94			--	1,600	79	5.7	28	22	--	--	--	--

Table 1

Groundwater Monitoring Data and Analytical Results

Tosco (Unocal) Service Station #0752
800 Harrison Street
Oakland, California

Well ID/ TOC*	Date	DTW (ft.)	GWE (msl)	TPH(D)	TPH(G)	B	T	E	X	MTBE	Chloro-form**	Tetrachloro-ethene**	Trichloro-ethene**
				<					ppb				>
MW-5	01/02/95			--	1,700	50	8.6	30	28	--	--	--	--
(cont)	04/03/95			--	5,400[5]	190	240	170	420	--	--	--	--
	07/14/95			--	3,800	210	100	130	190	--	--	--	--
	10/10/95			--	1,300	92	14	15	39	1,100	--	--	--
	01/03/96[7]			--	630	53	4.4	8.3	13	--	--	--	--
32.95	04/10/96	16.05	16.90	--	500	25	18	7.0	20	640	--	--	--
	07/09/96	17.11	15.84	--	1,000	44	20	10	34	150	--	--	--
	01/24/97	16.36	16.59	--	4,000	190	400	160	430	600	--	--	--
	07/23/97	18.08	14.87	--	1,700	200	23	18	45	2,500	--	--	--
	01/26/98	**16.27**	**16.68**	**--**	**ND**	**ND**	**ND**	**ND**	**ND**	**ND**	**--**	**--**	**--**
MW-6	10/19/92			--	3,900	420	12	60	28		--	--	--
	12/21/92			--	2,300	370	11	39	15		--	--	--
	04/28/93			--	1,200	54	1.5	11	5.3		--	--	--
	07/23/93			--	580	19	0.99	3.4	2.7		--	--	--
	10/05/93			--	1,400	34	ND	5.3	7.3		--	--	--
	01/03/94			--	1,400	57	ND	8.5	11		--	--	--
	04/02/94			--	5,300[4]	ND	ND	ND	ND		--	--	--
	07/05/94			--	ND	ND	ND	ND	ND		--	--	--
	10/06/94			--	11,000[5]	ND	ND	ND	ND		--	--	--
	01/02/95			--	550	18	0.92	2.0	1.8		--	--	--
	04/03/95			--	6,600[5]	ND	ND	ND	ND		--	--	--
	07/14/95			--	ND	ND	ND	ND	ND		--	--	--
	10/10/95			--	ND	81	ND	ND	ND	75,000	--	--	--
	01/03/96[7]			--	70	9.9	0.58	ND	0.81	--	--	--	--
32.16	04/10/96	15.56	16.60	--	300	25	4.7	0.94	2.7	53,000	--	--	--
	07/09/96	16.59	15.57	--	1,800	410	ND	12	ND	76,000	--	--	--
	01/24/97	15.69	16.47	--	ND	0.80	ND	ND	ND	390	--	--	--
	07/23/97	17.53	14.63	--	5,700	1,100	240	240	700	16,000	--	--	--
	01/26/98	**15.44**	**16.72**	**--**	**ND**	**ND**	**ND**	**ND**	**ND**	**ND**	**--**	**--**	**--**
MW-7	04/28/93			--	110	2.8	1.3	1.4	1.7	--	--	--	--
	07/23/93			--	790	23	3.3	28	5.4	--	--	--	--
	10/05/93			--	360	10	1.2	0.91	0.99	--	--	--	--

Table 1

Groundwater Monitoring Data and Analytical Results

Tosco (Unocal) Service Station #0752

800 Harrison Street

Oakland, California

Well ID/ TOC*	Date	DTW (ft.)	GWE (msl)	TPH(D)	TPH(G)	B	T	E	X	MTBE	Chloro-form**	Tetrachloro-ethene**	Trichloro-ethene**
				<					ppb				>
MW-7	01/03/94			--	ND	0.93	ND	0.75	1.9	--	--	--	--
(cont)	04/02/94			--	360	2.0	ND	ND	0.8	--	--	--	--
	07/05/94			--	ND	ND	ND	ND	ND	--	--	--	--
	10/06/94			--	340	5.6	0.85	ND	1.2	--	--	--	--
	01/02/95			--	ND	ND	ND	ND	ND	--	--	--	--
	04/03/95			--	570	24	ND	3.4	5.8	--	--	--	--
	07/14/95			--	ND	14	ND	ND	ND	--	--	--	--
	10/10/95			--	740	170	ND	ND	ND	13,000	--	--	--
	01/03/96[7]			--	360	16	1.3	2.7	1.4	--	--	--	--
32.20	04/10/96	15.81	16.39	--	120	4.1	1.5	ND	0.88	3,200	--	--	--
	07/09/96	16.99	15.21	--	ND	ND	ND	ND	ND	3,400	--	--	--
	01/24/97	16.08	16.12	--	ND	16	ND	ND	ND	6,600	--	--	--
	07/23/97	17.99	14.21	--	ND	1.5	ND	ND	0.62	10,000	--	--	--
	01/26/98	**15.56**	**16.64**	**--**	**ND**	**ND**	**ND**	**ND**	**0.56**	**ND**	**--**	**--**	**--**
MW-8	04/28/93			--	450	18	1.8	1.8	1.4	--	--	--	--
	07/23/93			--	260	5.1	ND	0.6	ND	--	--	--	--
	10/05/93			--	120[5]	1.7	ND	ND	ND	--	--	--	--
	01/03/94[1]			--	ND	ND	ND	ND	ND	51	1.5	1.2	ND
	04/02/94			--	150	1.2	ND	ND	ND	--	--	--	--
	07/05/94			--	730	17	ND	1.6	ND	--	--	--	--
	10/06/94			--	140[5]	ND	ND	ND	ND	--	--	--	--
	01/02/95			--	440	18	0.72	2.0	1.8	--	--	--	--
	04/03/95			--	960	11	ND	ND	ND	--	--	--	--
	07/14/95			--	280	4.2	2.6	1.1	3.3	--	--	--	--
	10/10/95			--	110	1.3	0.62	0.67	ND	170	--	--	--
	01/03/96[7]			--	63	ND	0.51	ND	1.8	--	--	--	--
32.00	04/10/96	15.70	16.30	--	ND	1.1	0.61	ND	ND	60	--	--	--
	07/09/96	16.78	15.22	--	72	1.0	ND	ND	ND	140	--	--	--
	01/24/97	15.79	16.21	--	ND	ND	ND	ND	ND	76	--	--	--
	07/23/97	17.69	14.31	--	ND	ND	ND	ND	ND	270	--	--	--
	01/26/98	**15.50**	**16.50**	**--**	**ND**	**ND**	**ND**	**ND**	**0.76**	**2.9**	**--**	**--**	**--**

Table 1

Groundwater Monitoring Data and Analytical Results

Tosco (Unocal) Service Station #0752
800 Harrison Street
Oakland, California

Well ID/ TOC*	Date	DTW (ft.)	GWE (msl)	TPH(D)	TPH(G)	B	T	E	X	MTBE	Chloro-form**	Tetrachloro-ethene**	Trichloro-ethene**
				<--					ppb				-->
Trip Blank													
TB-LB	**01/26/98**	–	–	–	**ND**	**ND**	**ND**	**ND**	**ND**	**ND**	–	–	–

EXPLANATIONS:

Groundwater monitoring data and laboratory analytical results prior to January 26, 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(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

* TOC elevations are relative to Mean Sea Level (msl), per the City of Oakland benchmark disk stamped "25/A" at the northeast corner of 7th and Harrison (Elevation = 28.81 feet msl).

** All EPA Method 8010 constituents were ND, except as indicated above.

1 1,2-dichloroethane was detected in MW-8 at a concentration of 4.0 ppm on 1/03/94, and 1.1 ppm in MW-1 on 4/28/93.

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

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

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

5 Laboratory report indicates the hydrocarbons detected did not appear to be gasoline.

6 A fuel fingerprint analysis was conducted on this sample. Laboratory report indicates that total extractable petroleum hydrocarbons in this sample were not detected in high enough concentrations to compare with known standards and approximate their makeup.

7 Laboratory has identified the presence of MTBE at a level above or equal to the taste and odor threshold of 40 ppm in the sample collected from this well.

8 Laboratory report indicates gas and unidentified hydrocarbons C6-C-8.

9 Detection limit raised. Refer to analytical results.

Depth to water and groundwater elevation history will be updated in future reports.

Table 2

Groundwater Analytical Results

Tosco (Unocal) Service Station #0752
800 Harrison Street
Oakland, California

Well ID	Date	TOG	Cadmium	Chromium	Lead	Nickel	Zinc
		<--------		ppm			-------->
MW-1	06/30/92	ND	ND	0.079	0.009	0.1	0.087
	04/02/92	ND	ND	0.015	0.016	ND	0.02
	12/30/91	ND	ND	0.0078	0.0057	ND	0.046
	09/30/91	ND	ND	0.019	ND	ND	0.11
	06/05/91	ND	ND	0.0083	0.011	0.063	0.023

EXPLANATIONS:

Groundwater results were compiled from reports prepared by MPDS Services, Inc.

TOG = Total Oil and Grease.
ppm = Parts per million
ND = Not Detected

Table 3

Groundwater Analytical Results

Tosco (Unocal) Service Station #0752
800 Harrison Street
Oakland, California

Well ID	Date	BOD	Bicarbonate Alkalinity	Calcium	Iron	Manganese	Nitrate	Sulfate	Heterotrophic Plate Count (CFU/ml)
MW-1	04/10/96	--	160	21	15	2.6	--	--	--
MW-2	01/03/96	2.2	130	27	77	3.0	0.22	97	>5,700
	04/10/96	--	460	58	60	7.0	--	--	--
MW-3	01/03/96	4.3	430	43	61	5.4	0.23	16	350
	04/10/96	--	360	40	60	3.7	--	--	--
MW-4	01/03/96	ND	120	20	61	3.3	10	44	1,000
	04/10/96	--	160	25	43	2.0	--	--	--
MW-5	01/03/96	3.4	240	31	80	3.3	ND	17	>5,700
	04/10/96	--	240	22	18	2.4	--	--	--
MW-6	04/10/96	--	240	35	61	3.7	--	--	--
MW-7	04/10/96	--	210	44	120	4.8	--	--	--
MW-8	01/03/96	ND	310	37	62	3.3	0.57	20	>5,700
	04/10/96	--	380	37	63	3.6	--	--	--

EXPLANATIONS:

Groundwater laboratory analytical results were compiled from reports prepared by MPDS Services, Inc.

BOD = Biochemical Oxygen Demand
CFU/mL = Colony Forming Units per milliliter.
-- = Not Measured/Not Analyzed
ND = Not Detected

Results are in milligrams per liter (mg/L), unless otherwise indicated.

Table 4

Dissolved Oxygen Concentrations

Tosco (Unocal) Service Station #0752

800 Harrison Street

Oakland, California

Well ID	Date	Before Purging (mg/L)	After Purging (mg/L)
MW-1	04/10/96	--	3.04
	07/09/96	--	3.13
	01/24/97	--	2.56
	07/23/97	2.26	2.81
	01/26/98	**3.97**	--
MW-2	01/03/96		1.80
	04/10/96	--	5.88
	07/09/96	--	0.71
	01/24/97	--	2.37
	07/23/97	1.40	0.97
	01/26/98	**4.12**	--
MW-3	01/03/96		1.50
	04/10/96	--	4.63
	07/09/96	--	1.04
	01/24/97	--	1.46
	07/23/97	3.84	1.37
	01/26/98	**1.84**	--
MW-4	01/03/96		1.20
	04/10/96	--	5.23
	07/09/96	--	4.91
	01/24/97	--	3.04
	07/23/97	9.28	3.68
	01/26/98	**3.36**	--
MW-5	01/03/96		2.80
	04/10/96	--	3.73
	07/09/96	--	3.25
	01/24/97	--	1.47
	07/23/97	7.96	4.56
	01/26/98	**5.30**	--
MW-6	04/10/96		4.50
	07/09/96	--	3.62
	01/24/97	--	6.21
	07/23/97	10.90	3.31
	01/26/98	**2.55**	--
MW-7	04/10/96	--	5.10
	07/09/96	--	2.34
	01/24/97	--	1.91
	07/23/97	3.25	2.83
	01/26/98	**3.44**	--

Table 4

Dissolved Oxygen Concentrations

Tosco (Unocal) Service Station #0752

800 Harrison Street

Oakland, California

Well ID	Date	Before Purging (mg/L)	After Purging (mg/L)
MW-8	01/03/96	--	1.30
	04/10/96	--	4.80
	07/09/96	--	1.32
	01/24/97	--	2.09
	07/23/97	4.08	3.27
	01/26/98	**4.71**	--

EXPLANATIONS:

Dissolved Oxygen concentrations prior to January 26, 1998, were compiled from reports prepared by MPDS Services, Inc.

-- = Not Measured/Not Analyzed

Results are in milligrams per liter (mg/L).

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 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 # 0752 Job#: 180066

Address: 800 Harrison St. Date: 1-26-98

City: Oakland Sampler: JDC

Well ID MW-1 Well Condition: O.K

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

Total Depth 33.56 ft.

Depth to Water 17.46 ft.

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

____ X VF ____ = ____ X 3 (case volume) = Estimated Purge Volume: ____ (gal.)

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

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

Starting Time: ____ Weather Conditions: Rain

Sampling Time: 7:35 A.M Water Color: clear Odor: None

Purging Flow Rate: ____ gpm. Sediment Description: None

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

Time	Volume (gal.)	pH	Conductivity µmhos/cm	Temperature °C	D.O. (mg/L)	ORP (mV)	Alkalinity (ppm)
					3.97		

LABORATORY INFORMATION

SAMPLE ID	(#) - CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
MW-1	2 VOA	✓	HCL		TPHG, BTEX, MTBE

COMMENTS: ORC well - NO purge

WELL MONITORING/SAMPLING
FIELD DATA SHEET

Client/
Facility # 0752 Job#: 180066

Address: 800 Harrison st. Date: 1-26-98

City: Oakland Sampler: Joe

Well ID MW-2 Well Condition: O.K

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

Total Depth 30.40 ft.

Depth to Water 17.12 ft.

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

____ X VF ____ = ____ X 3 (case volume) = Estimated Purge Volume: ____ (gal.)

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

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

Starting Time: ____ Weather Conditions: Cloudy

Sampling Time: 8:03 A.M. Water Color: clear Odor: None

Purging Flow Rate: ____ gpm Sediment Description: None

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

Time	Volume (gal.)	pH	Conductivity µmhos/cm	Temperature °C	D.O. (mg/L)	ORP (mV)	Alkalinity (ppm)
					4.12		

LABORATORY INFORMATION

SAMPLE ID	(#) - CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
MW-2	2 VOA	✓	HCL		TPHG, BTEX, MTBE

COMMENTS: ORC well - No purge

WELL MONITORING/SAMPLING
FIELD DATA SHEET

Client/
Facility # 0752 Job#: 1800GC

Address: 800 Harrison St. Date: 1-26-98

City: Oakland Sampler: Joe

Well ID MW-3 Well Condition: O.K

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

Total Depth 30.53 ft.

Depth to Water 16.22 ft.

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

____ X VF ____ = ____ X 3 (case volume) = Estimated Purge Volume: ____ (gal.)

Purge Equipment: Disposable Bailer, Bailer, Stack, Suction, Grundfos, Other: ____

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

Starting Time: ____ Weather Conditions: Cloudy

Sampling Time: 10:44 A.M. Water Color: Clear Odor: ~~None~~ Some

Purging Flow Rate: ____ gpm. Sediment Description: None

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

Time	Volume (gal.)	pH	Conductivity µmhos/cm	Temperature °C	D.O. (mg/L)	ORP (mV)	Alkalinity (ppm)
					1.84		

LABORATORY INFORMATION

SAMPLE ID	(#) - CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
MW-3	2 VOA	✓	HCL		TPHG, BTEX, MTBE

COMMENTS: ORC well. - No purge

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WELL MONITORING/SAMPLING
FIELD DATA SHEET

Client/
Facility # 0752 Job#: 180066

Address: 800 Harrison St. Date: 1-26-98

City: Oakland Sampler: Joe

Well ID MW-4 Well Condition: O.K

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

Total Depth 32.30 ft.

Depth to Water 16.85 ft.

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

____ X VF ____ = ____ X 3 (case volume) = Estimated Purge Volume: ____ (gal.)

Purge Equipment: Disposable Bailer, Bailer, Stack, Suction, Grundfos, Other: ____

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

Starting Time: ____ Weather Conditions: Clear

Sampling Time: 8:30 A.M. Water Color: Clear Odor: None

Purging Flow Rate: ____ gpm. Sediment Description: None

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

Time	Volume (gal.)	pH	Conductivity µmhos/cm	Temperature °C	D.O. (mg/L)	ORP (mV)	Alkalinity (ppm)
					3.36		

LABORATORY INFORMATION

SAMPLE ID	(#) - CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
MW-4	2 x 40A	✓	HCl		TPHG, BTEX, MTBE

COMMENTS: ORC well - No purge

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WELL MONITORING/SAMPLING
FIELD DATA SHEET

Client/
Facility # 0752 Job#: 180066

Address: 800 Harrison St. Date: 1-26-98

City: Oakland Sampler: Joe

Well ID MW-5 Well Condition: O.K.

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

Total Depth 31.71 ft.

Depth to Water 16.27 ft.

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

____ X VF ____ = ____ X 3 (case volume) = Estimated Purge Volume: ____ (gal.)

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

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

Starting Time: ____ Weather Conditions: cloudy

Sampling Time: 9:55 A.m Water Color: clear Odor: ~~Strong~~ Some

Purging Flow Rate: ____ gpm Sediment Description: None

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

Time	Volume (gal.)	pH	Conductivity µmhos/cm	Temperature °C	D.O. (mg/L)	ORP (mV)	Alkalinity (ppm)
					5.30		

LABORATORY INFORMATION

SAMPLE ID	(#) - CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
MW-5	2 VOA	✓	HCL		TPHG, BTEX + MTBE

COMMENTS: ORC Well. - No purge

WELL MONITORING/SAMPLING
FIELD DATA SHEET

Client/
Facility # 0752 Job#: 180066

Address: 800 Harrison St. Date: 1-26-98

City: Oakland Sampler: Joe

Well ID MW-6 Well Condition: O.K

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

Total Depth 30.92 ft.

Depth to Water 15.44 ft.

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

____ X VF ____ = ____ X 3 (case volume) = Estimated Purge Volume: ____ (gal.)

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

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

Starting Time: ____ Weather Conditions: cloudy

Sampling Time: 10:22 A.m Water Color: clear Odor: Some

Purging Flow Rate: ____ gpm. Sediment Description: None

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

Time	Volume (gal.)	pH	Conductivity µmhos/cm	Temperature °C	D.O. (mg/L)	ORP (mV)	Alkalinity (ppm)
					2.55		

LABORATORY INFORMATION

SAMPLE ID	(#) - CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
MW-6	2 VOA	✓	HCL		TPHG, BTEX, MTBE

COMMENTS: ORC well. - NO purge

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WELL MONITORING/SAMPLING
FIELD DATA SHEET

Client/
Facility # 0752 Job#: 180066

Address: 800 Harrison St. Date: 1-26-98

City: Oakland Sampler: JOC

Well ID MW-7 Well Condition: O.K

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

Total Depth 31.53 ft.

Depth to Water 15.56 ft.

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

____ X VF ____ = ____ X 3 (case volume) = Estimated Purge Volume: ____ (gal.)

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

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

Starting Time: ____ Weather Conditions: Cloudy

Sampling Time: 9:33 A.M. Water Color: clear Odor: None

Purging Flow Rate: ____ gpm. Sediment Description: None

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

Time	Volume (gal.)	pH	Conductivity µmhos/cm	Temperature °C	D.O. (mg/L)	ORP (mV)	Alkalinity (ppm)
					3.44		

LABORATORY INFORMATION

SAMPLE ID	(#) - CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
MW-7	2 VOA	✓	HCl		TPHG, BTEX, MTBE

COMMENTS: ORC well - NO purge

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WELL MONITORING/SAMPLING
FIELD DATA SHEET

Client/
Facility # 0752 Job#: 180066

Address: 800 Harrison St Date: 1-26-98

City: Oakland Sampler: Joe

Well ID MW-8 Well Condition: O.K

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

Total Depth ____ ft.

Depth to Water ____ ft.

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

____ X VF ____ = ____ X 3 (case volume) = Estimated Purge Volume: ____ (gal.)

Purge Equipment: Disposable Bailer, Bailer, Stack, Suction, Grundfos, Other: ____

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

Starting Time: ____ Weather Conditions: Cloudy

Sampling Time: 9:08 A.M Water Color: Clear Odor: None

Purging Flow Rate: ____ gpm. Sediment Description: None

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

Time	Volume (gal.)	pH	Conductivity µmhos/cm	Temperature °C	D.O. (mg/L)	ORP (mV)	Alkalinity (ppm)
					4.71		

LABORATORY INFORMATION

SAMPLE ID	(#) - CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
MW-8	2 x 40	-	HCl		TPHG, BTEX, MTBE

COMMENTS: DRC well. — NO purge

Chain-of-Custody-Record

TOSCO

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

Facility Number: UNOCAL #0752
Facility Address: 800 Harrison Street, Oakland
Consultant Project Number: 180066
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) 477-2321
Laboratory Name: Sequoia Analytical
Laboratory Release Number:
Samples Collected by (Name): Joe Ajemian
Collection Date: 1-26-98
Signature: Joe Ajemian

DO NOT BILL TB-LB ANALYSIS

9801F80

Remarks: 27 12 32

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)	Analyses To Be Performed: TPH Gas + BTEX w/MTBE (8020) (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)					
TB-LB	1	VOA	W	—	—	HCl	Yes	✓												
MW-1	2	2 VOA	W	G	7:35 A.M	—	—	✓												
MW-2	3	"	"	—	8:03 A.M	—	—	✓												
MW-3	4	"	"	—	10:44 A.M	—	—	✓												
MW-4	5	"	"	—	8:30 A.M	—	—	✓												
MW-5	6	"	"	—	9:55 A.M	—	—	✓												
MW-6	7	"	"	—	10:22 A.M	—	—	✓												
MW-7	8	"	"	—	9:33 A.M	—	—	✓												
MW-8	9	"	"	—	9:08 A.M	—	—	✓												

Relinquished By (Signature)	Organization	Date/Time	Received By (Signature)	Organization	Date/Time
Joe Ajemian	G-R Inc.	1-26-98 1:50	D. Harding	GR	1/26/98 1150
D. Harding	G R	1/27/98 9:45	Ray Kwong	Sequoia	1/27/98 9:45
[illegible]	Sequoia	1/27/98	Received For Laboratory By (Signature)		1/27/98 12:32

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	Client Proj. ID: Unocal 0752	Sampled: 01/26/98
6747 Sierra Court Suite J	Sample Descript: TB-LB	Received: 01/27/98
Dublin, CA 94568	Matrix: LIQUID	
	Analysis Method: 8015Mod/8020	Analyzed: 02/06/98
Attention: Deanna Harding	Lab Number: 9801E80-01	Reported: 02/11/98

QC Batch Number: GC020698BTEX03A
Instrument ID: GCHP3

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	81

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

SEQUOIA ANALYTICAL - ELAP #1210

Mike Gregory
Project Manager

Sequoia Analytical

680 Chesapeake Drive, Redwood City, CA 94063, (650) 364-9600, FAX (650) 364-9233
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Gettler Ryan/Geostrategies
6747 Sierra Court Suite J
Dublin, CA 94568

Attention: Deanna Harding

Client Proj. ID: Unocal 0752
Sample Descript: MW-1
Matrix: LIQUID
Analysis Method: 8015Mod/8020
Lab Number: 9801E80-02

Sampled: 01/26/98
Received: 01/27/98

Analyzed: 02/09/98
Reported: 02/11/98

QC Batch Number: GC020998BTEX02A
Instrument ID: GCHP2

Total Purgeable Petroleum Hydrocarbons (TPPH) with BTEX and MTBE

Analyte	Detection Limit ug/L	Sample Results ug/L
TPPH as Gas	**1000**	**1800**
Methyl t-Butyl Ether	**50**	**4800**
Benzene	10	N.D.
Toluene	10	N.D.
Ethyl Benzene	10	N.D.
Xylenes (Total)	10	N.D.
Chromatogram Pattern:		
Gas & Unidentified HC		**C6-C8**

Surrogates	Control Limits %		% Recovery
Trifluorotoluene	70	130	91

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

SEQUOIA ANALYTICAL - ELAP #1210

Mike Gregory
Project Manager

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 0752
Sample Descript: MW-2
Matrix: LIQUID
Analysis Method: 8015Mod/8020
Lab Number: 9801E80-03

Sampled: 01/26/98
Received: 01/27/98

Analyzed: 02/09/98
Reported: 02/11/98

QC Batch Number: GC020998BTEX02A
Instrument ID: GCHP2

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**	**13**
Benzene	0.50	N.D.
Toluene	0.50	N.D.
Ethyl Benzene	0.50	N.D.
Xylenes (Total)	**0.50**	**0.58**
Chromatogram Pattern:		

Surrogates	Control Limits %		% Recovery
Trifluorotoluene	70	130	92

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

SEQUOIA ANALYTICAL - ELAP #1210

Mike Gregory
Project Manager

Sequoia Analytical

680 Chesapeake Drive, Redwood City, CA 94063, (650) 364-9600, FAX (650) 364-9233
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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 0752	Sampled: 01/26/98
6747 Sierra Court Suite J	Sample Descript: MW-3	Received: 01/27/98
Dublin, CA 94568	Matrix: LIQUID	
	Analysis Method: 8015Mod/8020	Analyzed: 02/10/98
Attention: Deanna Harding	Lab Number: 9801E80-04	Reported: 02/11/98

QC Batch Number: GC021098BTEX17A
Instrument ID: GCHP17

Total Purgeable Petroleum Hydrocarbons (TPPH) with BTEX and MTBE

Analyte	Detection Limit ug/L	Sample Results ug/L
TPPH as Gas	50	250
Methyl t-Butyl Ether	2.5	4.0
Benzene	0.50	2.2
Toluene	0.50	1.9
Ethyl Benzene	0.50	0.87
Xylenes (Total)	0.50	1.9
Chromatogram Pattern:		Gas

Surrogates	Control Limits %		% Recovery
Trifluorotoluene	70	130	84

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

SEQUOIA ANALYTICAL - ELAP #1210

Mike Gregory
Project Manager

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Gettler Ryan/Geostrategies	Client Proj. ID: Unocal 0752	Sampled: 01/26/98
6747 Sierra Court Suite J	Sample Descript: MW-4	Received: 01/27/98
Dublin, CA 94568	Matrix: LIQUID	
	Analysis Method: 8015Mod/8020	Analyzed: 02/06/98
Attention: Deanna Harding	Lab Number: 9801E80-05	Reported: 02/11/98

QC Batch Number: GC020698BTEX03A
Instrument ID: GCHP3

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**	**17**
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	87

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

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Mike Gregory
Project Manager

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Gettler Ryan/Geostrategies	Client Proj. ID: Unocal 0752	Sampled: 01/26/98
6747 Sierra Court Suite J	Sample Descript: MW-5	Received: 01/27/98
Dublin, CA 94568	Matrix: LIQUID	
	Analysis Method: 8015Mod/8020	Analyzed: 02/06/98
Attention: Deanna Harding	Lab Number: 9801E80-06	Reported: 02/11/98

QC Batch Number: GC020698BTEX03A
Instrument ID: GCHP3

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	89

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

SEQUOIA ANALYTICAL - ELAP #1210

Mike Gregory
Project Manager

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Gettler Ryan/Geostrategies	Client Proj. ID: Unocal 0752	Sampled: 01/26/98
6747 Sierra Court Suite J	Sample Descript: MW-6	Received: 01/27/98
Dublin, CA 94568	Matrix: LIQUID	
	Analysis Method: 8015Mod/8020	Analyzed: 02/06/98
Attention: Deanna Harding	Lab Number: 9801E80-07	Reported: 02/11/98

QC Batch Number: GC020698BTEX03A
Instrument ID: GCHP3

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	92

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

SEQUOIA ANALYTICAL - ELAP #1210

Mike Gregory
Project Manager

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Gettler Ryan/Geostrategies	Client Proj. ID: Unocal 0752	Sampled: 01/26/98
6747 Sierra Court Suite J	Sample Descript: MW-7	Received: 01/27/98
Dublin, CA 94568	Matrix: LIQUID	
	Analysis Method: 8015Mod/8020	Analyzed: 02/06/98
Attention: Deanna Harding	Lab Number: 9801E80-08	Reported: 02/11/98

QC Batch Number: GC020698BTEX03A
Instrument ID: GCHP3

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**	**0.56**
Chromatogram Pattern:		

Surrogates	Control Limits %		% Recovery
Trifluorotoluene	70	130	89

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

SEQUOIA ANALYTICAL - ELAP #1210

Mike Gregory
Project Manager

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Gettler Ryan/Geostrategies	Client Proj. ID: Unocal 0752	Sampled: 01/26/98
6747 Sierra Court Suite J	Sample Descript: MW-8	Received: 01/27/98
Dublin, CA 94568	Matrix: LIQUID	
	Analysis Method: 8015Mod/8020	Analyzed: 02/09/98
Attention: Deanna Harding	Lab Number: 9801E80-09	Reported: 02/11/98

QC Batch Number: GC020998BTEX02A
Instrument ID: GCHP2

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**	**2.9**
Benzene	0.50	N.D.
Toluene	0.50	N.D.
Ethyl Benzene	0.50	N.D.
Xylenes (Total)	**0.50**	**0.76**
Chromatogram Pattern:		

Surrogates	Control Limits %		% Recovery
Trifluorotoluene	70	130	94

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

SEQUOIA ANALYTICAL - ELAP #1210

Mike Gregory
Project Manager

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Gettler Ryan/Geostrategies	Client Proj. ID: Unocal 0752	Received: 01/27/98
6747 Sierra Court Suite J		
Dublin, CA 94568	Lab Proj. ID: 9801E80	Reported: 02/11/98
Attention: Deanna Harding		

LABORATORY NARRATIVE

In order to properly interpret this report, it must be reproduced in its entirety. This report contains a total of 14 pages including the laboratory narrative, sample results, quality control, and related documents as required (cover page, COC, raw data, etc.).

TPGBMW: Sample #4 was analyzed within the fourteen day hold time. However, it was run at a 10x dilution with non-detect results. The sample was re-analyzed past hold time and had a low gas pattern.

pH analysis:
The voas had a pH = 4

SEQUOIA ANALYTICAL

Mike Gregory
Project Manager

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

Client Project ID: Unocal 0752
Matrix: Liquid
Work Order #: 9801E80 -01, 05-08

Reported: Feb 12, 1998

QUALITY CONTROL DATA REPORT

Analyte:	Benzene	Toluene	Ethyl Benzene	Xylenes	Gas
QC Batch#:	GC020698BTEX03A	GC020698BTEX03A	GC020698BTEX03A	GC020698BTEX03A	GC020698BTEX03A
Analy. Method:	EPA 8020	EPA 8020	EPA 8020	EPA 8020	EPA 8015M
Prep. Method:	EPA 5030	EPA 5030	EPA 5030	EPA 5030	EPA 5030
Analyst:	A. Miraftab	A. Miraftab	A. Miraftab	A. Miraftab	A. Miraftab
MS/MSD #:	9801D0802	9801D0802	9801D0802	9801D0802	9801D0802
Sample Conc.:	N.D.	N.D.	N.D.	N.D.	N.D.
Prepared Date:	2/6/98	2/6/98	2/6/98	2/6/98	2/6/98
Analyzed Date:	2/6/98	2/6/98	2/6/98	2/6/98	2/6/98
Instrument I.D.#:	GCHP3	GCHP3	GCHP3	GCHP3	GCHP3
Conc. Spiked:	10 µg/L	10 µg/L	10 µg/L	30 µg/L	60 µg/L
Result:	11	10	11	31	66
MS % Recovery:	110	100	110	103	110
Dup. Result:	11	10	11	33	57
MSD % Recov.:	110	100	110	110	95
RPD:	0.0	0.0	0.0	6.3	15
RPD Limit:	0-25	0-25	0-25	0-25	0-25
LCS #:	BLK020698	BLK020698	BLK020698	BLK020698	BLK020698
Prepared Date:	2/6/98	2/6/98	2/6/98	2/6/98	2/6/98
Analyzed Date:	2/6/98	2/6/98	2/6/98	2/6/98	2/6/98
Instrument I.D.#:	GCHP3	GCHP3	GCHP3	GCHP3	GCHP3
Conc. Spiked:	10 µg/L	10 µg/L	10 µg/L	30 µg/L	60 µg/L
LCS Result:	10	10	10	31	65
LCS % Recov.:	100	100	100	103	108
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

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

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

Client Project ID: Unocal 0752
Matrix: Liquid
Work Order #: 9801E80-02, 03, 09

Reported: Feb 12, 1998

QUALITY CONTROL DATA REPORT

Analyte:	Benzene	Toluene	Ethyl Benzene	Xylenes	Gas
QC Batch#:	GC020998BTEX02A	GC020998BTEX02A	GC020998BTEX02A	GC020998BTEX02A	GC020998BTEX02A
Analy. Method:	EPA 8020	EPA 8020	EPA 8020	EPA 8020	EPA 8015M
Prep. Method:	EPA 5030	EPA 5030	EPA 5030	EPA 5030	EPA 5030
Analyst:	A. Miraftab	A. Miraftab	A. Miraftab	A. Miraftab	A. Miraftab
MS/MSD #:	980130103	980130103	980130103	980130103	980130103
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.#:	GCHP2	GCHP2	GCHP2	GCHP2	GCHP2
Conc. Spiked:	10 µg/L	10 µg/L	10 µg/L	30 µg/L	60 µg/L
Result:	8.0	7.7	7.7	24	53
MS % Recovery:	80	77	77	80	88
Dup. Result:	9.2	8.8	8.8	26	64
MSD % Recov.:	92	88	88	87	107
RPD:	14	13	13	8.0	19
RPD Limit:	0-25	0-25	0-25	0-25	0-25
LCS #:	BLK020998	BLK020998	BLK020998	BLK020998	BLK020998
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.#:	GCHP2	GCHP2	GCHP2	GCHP2	GCHP2
Conc. Spiked:	10 µg/L	10 µg/L	10 µg/L	30 µg/L	60 µg/L
LCS Result:	8.6	8.2	8.2	24	56
LCS % Recov.:	86	82	82	80	93
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

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

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

Client Project ID: Unocal 0752
Matrix: Liquid
Work Order #: 9801E80-04

Reported: Feb 12, 1998

QUALITY CONTROL DATA REPORT

Analyte:	Benzene	Toluene	Ethyl Benzene	Xylenes	Gas
QC Batch#:	GC021098BTEX17A	GC021098BTEX17A	GC021098BTEX17A	GC021098BTEX17A	GC021098BTEX17A
Analy. Method:	EPA 8020	EPA 8020	EPA 8020	EPA 8020	EPA 8015M
Prep. Method:	EPA 5030	EPA 5030	EPA 5030	EPA 5030	EPA 5030
Analyst:	A. Miraftab	A. Miraftab	A. Miraftab	A. Miraftab	A. Miraftab
MS/MSD #:	980230105	980230105	980230105	980230105	980230105
Sample Conc.:	N.D.	N.D.	N.D.	N.D.	N.D.
Prepared Date:	2/10/98	2/10/98	2/10/98	2/10/98	2/10/98
Analyzed Date:	2/10/98	2/10/98	2/10/98	2/10/98	2/10/98
Instrument I.D.#:	GCHP17	GCHP17	GCHP17	GCHP17	GCHP17
Conc. Spiked:	10 µg/L	10 µg/L	10 µg/L	30 µg/L	60 µg/L
Result:	10	9.8	8.8	29	66
MS % Recovery:	100	98	88	97	110
Dup. Result:	11	10	9.4	31	70
MSD % Recov.:	110	100	94	103	117
RPD:	9.5	2.0	6.6	6.7	5.9
RPD Limit:	0-25	0-25	0-25	0-25	0-25
LCS #:	BLK021098	BLK021098	BLK021098	BLK021098	BLK021098
Prepared Date:	2/10/98	2/10/98	2/10/98	2/10/98	2/10/98
Analyzed Date:	2/10/98	2/10/98	2/10/98	2/10/98	2/10/98
Instrument I.D.#:	GCHP17	GCHP17	GCHP17	GCHP17	GCHP17
Conc. Spiked:	10 µg/L	10 µg/L	10 µg/L	30 µg/L	60 µg/L
LCS Result:	10	9.6	9.6	30	66
LCS % Recov.:	100	96	96	100	110
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

Please Note:
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SEQUOIA ANALYTICAL

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Project Manager

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