GETTLER-RYAN INC.

TRANSMITTAL

June 8, 1999
G-R #: 180047

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
FROM:	Deanna L. Harding Project Coordinator Gettler-Ryan Inc. 6747 Sierra Court, Suite J Dublin, California 94568
RE:	**Tosco (Unocal) SS #6034 4700 First Street Livermore, California**

WE HAVE ENCLOSED THE FOLLOWING:

COPIES	DATED	DESCRIPTION
1	June 3, 1999	Groundwater Monitoring and Sampling Report Semi-Annual 1999 - Event of April 14, 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 ***June 21, 1999***, this report will be distributed to the following:

Enclosure

cc: [redacted]
1131 Harbor Bay Parkway
Alameda, California 94502

agency/6034dbd.qmt

GETTLER-RYAN INC.

June 3, 1999
G-R Job #180047

Mr. David 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 #6034
4700 First Street
Livermore, California

Dear Mr. De Witt:

This report documents the semi-annual groundwater monitoring and sampling event performed by Gettler-Ryan Inc. (G-R). On April 14, 1999, field personnel monitored seven wells (MW-1 through MW-7) and sampled two wells (MW-2 and MW-4) at the above referenced site. A joint groundwater monitoring was conducted at the Chevron Facility No. 9-1924 located at 4904 South Front Road, Livermore, California.

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 3. 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 4. A Concentration Map is included as Figure 2. The chain of custody document and laboratory analytical reports are also attached.

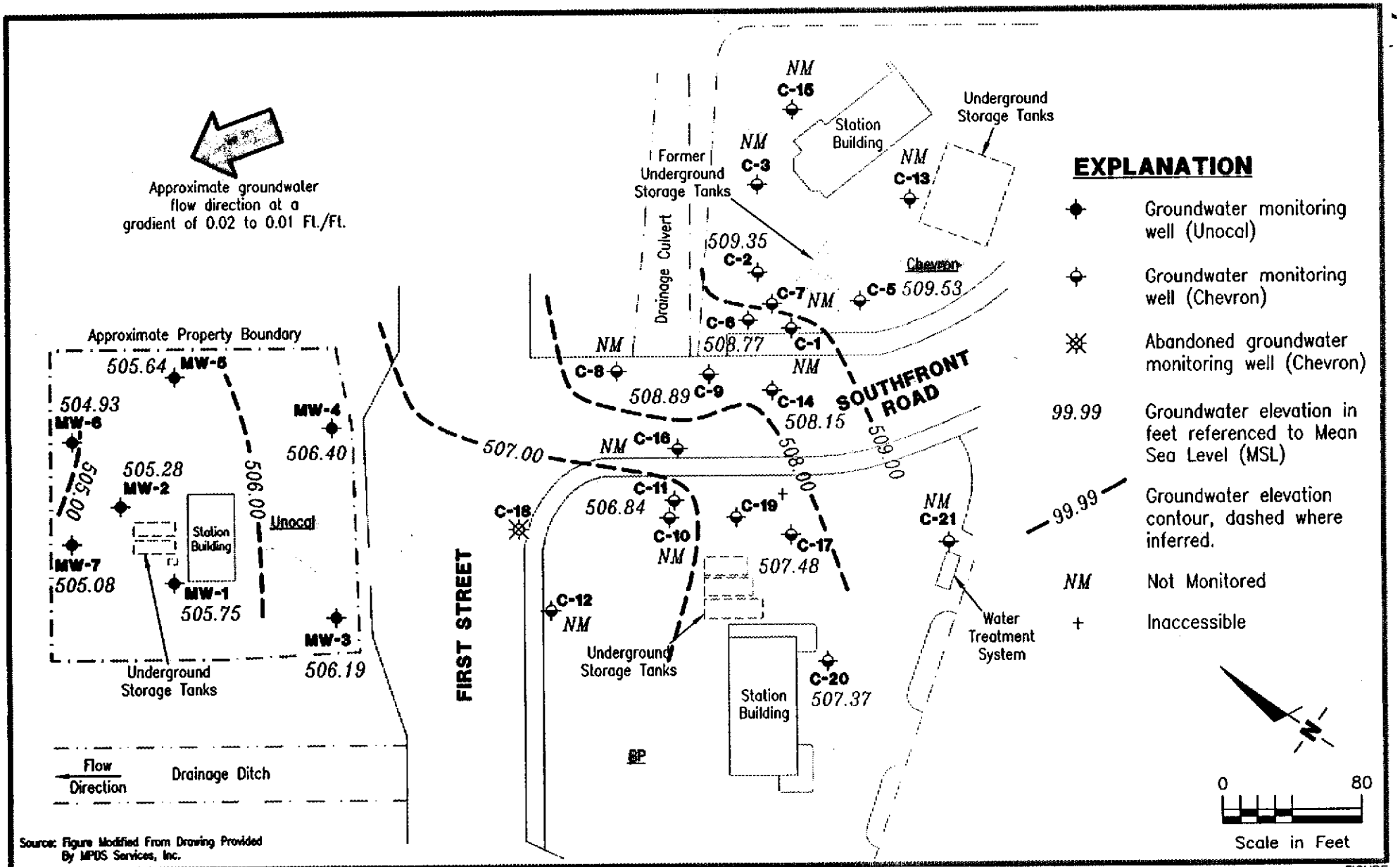
Sincerely,

Deanna L. Harding
Project Coordinator

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:	Dissolved Oxygen Concentrations
Table 4:	Groundwater Analytical Results - Oxygenate Compounds
Table 5:	Joint Groundwater Monitoring Data - Chevron Facility No. 9-1924
Attachments:	Standard Operating Procedure - Groundwater Sampling
	Field Data Sheets
6034.qml	Chain of Custody Document and Laboratory Analytical Reports



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

FIGURE 1

Gettler - Ryan Inc.

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

POTENTIOMETRIC MAP
Tesco (Unocal) Service Station No. 6034
4700 First Street
Livermore, California

JOB NUMBER	REVIEWED BY	DATE	REVISED DATE
180047		April 14, 1999	

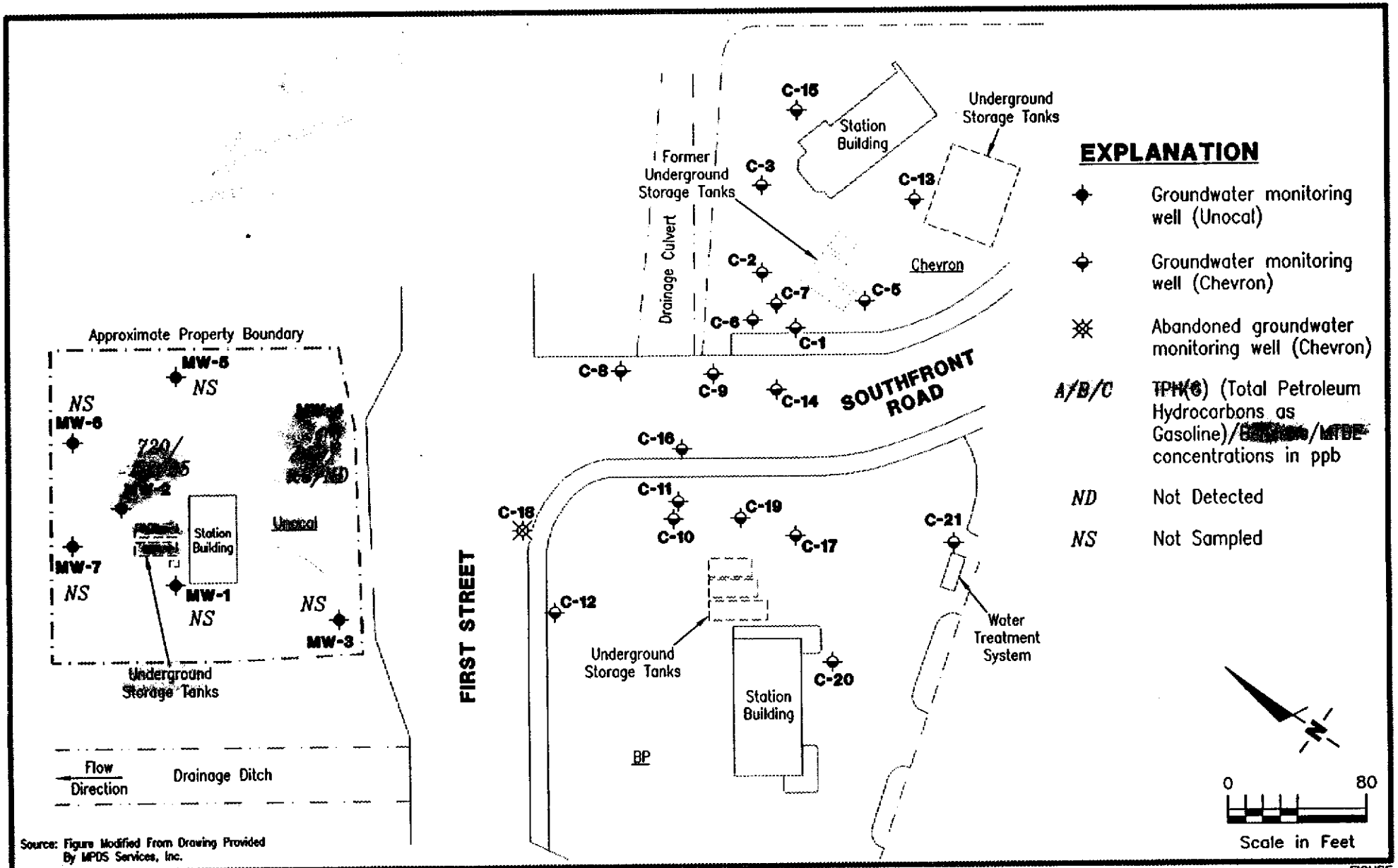


FIGURE 2

Gettler - Ryan Inc.

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

CONCENTRATION MAP
Tosco (Unocal) Service Station No. 6034
4700 First Street
Livermore, California

JOB NUMBER	REVIEWED BY	DATE	REVISED DATE
180047		April 14, 1999	

Table 1

Groundwater Monitoring Data and Analytical Results

Tosco (Unocal) Service Station #6034

4700 First Street

Livermore, California

Well ID/ TOC*	Date	DTW (ft.)	GWE (msl)	TPH(G) (ppb)	B (ppb)	T (ppb)	E (ppb)	X (ppb)	MTBE (ppb)
MW-1	11/18/89	--	--	ND	ND	ND	ND	ND	--
	03/08/90	--	--	ND	ND	ND	ND	ND	--
	06/05/90	--	--	ND	ND	ND	ND	ND	--
	09/07/90	--	--	ND	ND	1.2	ND	ND	--
	12/24/90	--	--	ND	ND	ND	ND	0.40	--
	04/10/91	--	--	ND	ND	ND	ND	ND	--
	07/10/91	--	--	ND	ND	ND	ND	ND	--
520.88	04/22/93	15.47	505.41	--	--	--	--	--	--
	07/20/93	18.04	502.84	--	--	--	--	--	--
520.64	10/20/93	15.69	504.95	--	--	--	--	--	--
	01/20/94	15.65	504.99	--	--	--	--	--	--
	04/21/94	15.58	505.06	ND	ND	ND	ND	ND	--
	07/21/94	15.62	505.02	SAMPLED ANNUALLY		--	--	--	--
	10/19/94	15.28	505.36	--	--	--	--	--	--
	01/18/95	14.56	506.08	--	--	--	--	--	--
	04/17/95	14.82	505.82	ND	ND	ND	ND	ND	--
	07/18/95	14.78	505.86	--	--	--	--	--	--
	10/17/95	14.83	505.81	--	--	--	--	--	--
	01/17/96	14.96	505.68	--	--	--	--	--	--
	04/17/96	14.47	506.17	ND	ND	ND	ND	ND	ND
	07/16/96	14.57	506.07	--	--	--	--	--	--
	10/16/96	14.50	506.14	--	--	--	--	--	--
	04/08/97	15.05	505.59	SAMPLING DISCONTINUED		--	--	--	--
	10/06/97	15.00	505.64	--	--	--	--	--	--
	04/02/98	14.80	505.84	--	--	--	--	--	--
	10/07/98	14.72	505.92	--	--	--	--	--	--
	04/14/99	**14.89**	**505.75**	**--**	**--**	**--**	**--**	**--**	**--**
MW-2	11/18/89	--	--	53,000	540	500	130	22,000	--
	03/08/90	--	--	26,000	230	410	1,300	2,100	--
	06/05/90	--	--	31,000	250	460	950	9,200	--
	09/07/90	--	--	ND	ND	1.5	ND	ND	--
	12/24/90	--	--	32,000	440	340	460	13,000	--
	04/10/91	--	--	22,000	170	190	490	6,200	--
	07/10/91	--	--	14,000	70	160	570	5,400	--

Table 1

Groundwater Monitoring Data and Analytical Results

Tosco (Unocal) Service Station #6034

4700 First Street

Livermore, California

Well ID/ TOC*	Date	DTW (ft.)	GWE (msl)	TPH(G) (ppb)	B (ppb)	T (ppb)	E (ppb)	X (ppb)	MTBE (ppb)
MW-2	10/14/91	--	--	11,000	79	130	660	4,700	--
(cont)	01/14/92	--	--	5,600	36	120	450	2,600	--
	04/06/92	--	--	760	6.3	2.1	ND	130	--
	07/07/92	--	--	44,000	160	1,100	1,000	17,000	--
	10/16/92	--	--	290	2.3	ND	5.1	15	--
	01/14/93	--	--	19,000	75	430	900	8,400	--
520.17	04/22/93	14.98	505.19	49,000	150	1,000	3,000	18,000	--
	07/20/93	17.41	502.76	25,000	68	94	1,000	6,200	--
519.82	10/20/93	15.08	504.74	12,000	27	10	100	3,000	--
	01/20/94	15.02	504.80	20,000	ND	ND	270	3,300	--
	04/21/94	14.96	504.86	27,000	85	65	880	5,300	--
	07/21/94	14.99	504.83	31,000	58	29	940	6,200	--
	10/19/94	14.80	505.02	4,100	16	3.5	8.6	1,100	--
	01/18/95	14.10	505.72	5,100	6.8	7.3	100	1,500	--
	04/17/95	14.13	505.69	320	1.3	0.67	6.6	74	--
	07/18/95	14.11	505.71	12,000	25	24	550	3,700	--
	10/17/95	14.15	505.67	77,000	60	58	760	8,300	220
	01/17/96	14.35	505.47	7,000	15	ND	150	1,600	370
	04/17/96	13.93	505.89	19,000	ND	ND	600	4,900	6,100
	07/16/96	14.00	505.82	23,000	16	22	900	4,500	410
	10/16/96	14.12	505.70	14,000	28	31	1,600	6,900	9,600
	01/13/97	--	--	4,300	12	5.0	28	890	1,300
	04/08/97	14.49	505.33	4,700	ND	6.5	170	830	290
	10/06/97	14.41	505.41	5,800	14	ND	19	860	570
	04/02/98	14.26	505.56	24,000	ND[3]	ND[3]	980	5,200	6,800
	10/07/98	14.35	505.47	41,000[5]	ND[3]	ND[3]	2,100	7,800	3,700/2,700[6]
	04/14/99	**14.54**	[redacted]	**720**	**12**	**ND**	**29**	**260**	**96/57[6]**
MW-3	11/18/89	--	--	ND	0.35	ND	ND	ND	--
	03/08/90	--	--	ND	ND	ND	ND	ND	--
	06/05/90	--	--	ND	ND	ND	ND	ND	--
	09/07/90	--	--	1,100	11	ND	6.6	16	--
	12/24/90	--	--	ND	ND	ND	ND	ND	--
	04/10/91	--	--	ND	ND	ND	ND	ND	--
	07/10/91	--	--	ND	ND	ND	ND	ND	--

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Groundwater Monitoring Data and Analytical Results

Tosco (Unocal) Service Station #6034

4700 First Street

Livermore, California

Well ID/ TOC*	Date	DTW (ft.)	GWE (msl)	TPH(G) (ppb)	B (ppb)	T (ppb)	E (ppb)	X (ppb)	MTBE (ppb)
MW-3	10/14/91	--	--	ND	ND	ND	ND	ND	--
(cont)	01/14/92	--	--	ND	ND	ND	ND	ND	--
	04/06/92	--	--	ND	ND	ND	ND	ND	--
	07/07/92	--	--	ND	ND	ND	ND	ND	--
	10/16/92	--	--	ND	ND	ND	ND	ND	--
	01/14/93	--	--	ND	ND	ND	ND	ND	--
519.91	04/22/93	14.33	505.58	ND	ND	ND	ND	ND	--
	07/20/93	16.90	503.01	ND	ND	ND	ND	ND	--
519.66	10/20/93	14.42	505.24	ND	ND	ND	ND	ND	--
	01/20/94	14.37	505.29	SAMPLED ANNUALLY		--	--	--	--
	04/21/94	14.30	505.36	ND	ND	ND	ND	ND	--
	07/21/94	14.34	505.32	SAMPLED SEMI-ANNUALLY		--	--	--	--
	10/19/94	14.08	505.58	ND	ND	0.61	ND	0.51	--
	01/18/95	13.23	506.43	--	--	--	--	--	--
	04/17/95	13.2	506.46	ND	ND	ND	ND	ND	--
	07/18/95	13.19	506.47	--	--	--	--	--	--
	10/17/95	13.24	506.42	ND	ND	ND	ND	ND	ND
	01/17/96	13.68	505.98	SAMPLED ANNUALLY[2]		--	--	--	--
	04/17/96	13.04	506.62	ND	ND	ND	ND	ND	ND
	07/16/96	13.24	506.42	--	--	--	--	--	--
	10/16/96	13.10	506.56	--	--	--	--	--	--
	04/08/97	13.73	505.93	SAMPLING DISCONTINUED		--	--	--	--
	10/06/97	13.70	505.96	--	--	--	--	--	--
	04/02/98	13.43	506.23	--	--	--	--	--	--
	10/07/98	13.33	506.33	--	--	--	--	--	--
	04/14/99	**13.47**	**506.19**	--	--	--	--	--	--
MW-4	11/18/89	--	--	990	9.8	10	7.1	4.7	--
	03/08/90	--	--	1,200	18	8.4	37	28	--
	06/05/90	--	--	1,400	1.2	4.7	24	12	--
	09/07/90	--	--	15,000	100	140	210	4,600	--
	12/24/90	--	--	1,400	ND	8.7	15	10	--
	04/10/91	--	--	950	0.84	4.3	9.6	5.0	--
	07/10/91	--	--	830	8.4	19	7.7	7.2	--
	10/14/91	--	--	880	3.8	2.2	8.6	5.8	--

Table 1

Groundwater Monitoring Data and Analytical Results

Tosco (Unocal) Service Station #6034

4700 First Street

Livermore, California

Well ID/ TOC*	Date	DTW (ft.)	GWE (msl)	TPH(G) (ppb)	B (ppb)	T (ppb)	E (ppb)	X (ppb)	MTBE (ppb)
MW-4	01/14/92	--	--	1,500	4.2	7.1	18	9.2	--
(cont)	04/06/92	--	--	660	1.3	3.8	2.9	4.1	--
	07/07/92	--	--	340	ND	2.2	2.4	2.4	--
	10/16/92	--	--	300	2.1	ND	4.8	13	--
	01/14/93	--	--	920	ND	6.3	12	3.9	--
520.12	04/22/93	14.30	505.82	1,100	8.8	1.0	7.2	6.0	--
	07/20/93	16.35	503.77	NOT SAMPLED - SAMPLING ACCESS DENIED			--	--	--
519.61	10/20/93	14.16	505.45	640	ND	2.5	2.3	1.9	--
	01/20/94	14.15	505.46	1,200	ND	2.6	4.7	7.4	--
	04/21/94	14.13	505.48	380	0.83	1.2	1.2	1.7	--
	07/21/94	14.26	505.35	320	0.51	1.4	1.0	1.6	--
	10/19/94	13.95	505.66	750	ND	3.6	4.2	3.4	--
	01/18/95	13.16	506.45	790	1.5	3.3	1.2	2.6	--
	04/17/95	13.19	506.42	570	2.8	ND	3.3	3.9	--
	07/18/95	13.21	506.40	340	1.0	1.9	2.8	2.7	--
	10/17/95	13.22	506.39	260	1.1	0.57	0.69	1.6	2.0
	01/17/96	13.02	506.59	SAMPLED SEMI-ANNUALLY			--	--	--
	04/17/96	13.08	506.53	720	3.0	2.6	6.1	6.9	ND
	07/16/96	12.91	506.70	--	--	--	--	--	--
	10/16/96	12.98	506.63	1,100	6.6	23	24	85	15
	01/13/97	--	--	--	--	--	--	--	--
	04/08/97	13.36	506.25	470	1.2	1.9	1.2	6.9	ND
	10/06/97	13.42	506.19	240	ND	0.85	0.83	2.3	ND
	04/02/98	12.76	506.85	270[4]	ND[3]	1.2	ND[3]	4.5	10
	10/07/98	13.04	506.57	350[7]	ND	ND	ND	4.8	ND
	04/14/99	**13.21**	**506.40**	**250[7]**	**1.6**	**ND**	**3.1**	**5.6**	**ND[6]**
MW-5	04/10/91	--	--	630	35	14	47	30	--
	07/10/91	--	--	220	5.1	8.7	9.1	9.7	--
	10/14/91	--	--	660	55	4.4	50	66	--
	01/14/92	--	--	99	1.0	1.2	ND	0.32	1.2
	04/06/92	--	--	240[1]	ND	ND	0.35	ND	--
	07/07/92	--	--	76	0.48	1.1	0.32	1.3	1.5

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Groundwater Monitoring Data and Analytical Results

Tosco (Unocal) Service Station #6034

4700 First Street

Livermore, California

Well ID/ TOC*	Date	DTW (ft.)	GWE (msl)	TPH(G) (ppb)	B (ppb)	T (ppb)	E (ppb)	X (ppb)	MTBE (ppb)
MW-5	10/16/92	--	--	180	7.8	1.1	17	6.4	2.0
(cont)	01/14/93	--	--	91	ND	0.53	1.2	11	--
520.58	04/22/93	15.24	505.34	94	1.2	ND	ND	1.3	0.82
	07/20/93	17.38	503.20	89	1.1	0.51	ND	1.8	2.2
520.27	10/20/93	15.56	504.71	110	0.8	ND	ND	ND	--
	01/20/94	15.39	504.88	ND	ND	ND	ND	ND	--
	04/21/94	15.41	504.86	ND	ND	ND	ND	ND	--
	07/21/94	15.55	504.72	ND	ND	ND	ND	ND	--
	10/19/94	15.20	505.07	ND	ND	0.71	ND	0.57	--
	01/18/95	14.52	505.75	ND	ND	ND	ND	ND	--
	04/17/95	14.50	505.77	ND	ND	ND	ND	ND	--
	07/18/95	14.41	505.86	ND	ND	ND	ND	1.1	--
	10/17/95	14.46	505.81	ND	ND	ND	ND	ND	ND
	01/17/96	14.48	505.79	SAMPLED ANNUALLY[2]		--	--	--	--
	04/17/96	14.22	506.05	ND	ND	ND	ND	ND	ND
	07/16/96	14.27	506.00	--	--	--	--	--	--
	10/16/96	14.15	506.12	--	--	--	--	--	--
	04/08/97	14.71	505.56	SAMPLING DISCONTINUED		--	--	--	--
	10/06/97	14.71	505.56	--	--	--	--	--	--
	04/02/98	14.28	505.99	--	--	--	--	--	--
	10/07/98	14.40	505.87	--	--	--	--	--	--
	04/14/99	**14.63**	**505.64**	**--**	**--**	**--**	**--**	**--**	**--**
MW-6	04/10/91	--	--	ND	ND	ND	ND	ND	--
	07/10/91	--	--	ND	ND	ND	ND	ND	--
	10/14/91	--	--	ND	ND	ND	ND	ND	--
	01/14/92	--	--	ND	ND	ND	ND	ND	--
	04/06/92	--	--	ND	ND	ND	ND	ND	--
	07/07/92	--	--	ND	ND	ND	ND	ND	--
	10/16/92	OBSTRUCTED	--	--	--	--	--	--	--
	01/14/93	OBSTRUCTED	--	--	--	--	--	--	--
519.34	04/22/93	OBSTRUCTED	--	--	--	--	--	--	--
	07/20/93	OBSTRUCTED	--	--	--	--	--	--	--
518.75	10/20/93	14.20	504.55	ND	ND	ND	ND	ND	--
	01/20/94	14.14	504.61	ND	ND	ND	ND	ND	--

Table 1

Groundwater Monitoring Data and Analytical Results

Tosco (Unocal) Service Station #6034

4700 First Street

Livermore, California

Well ID/ TOC*	Date	DTW (ft.)	GWE (msl)	TPH(G) (ppb)	B (ppb)	T (ppb)	E (ppb)	X (ppb)	MTBE (ppb)
MW-6	04/21/94	14.10	504.65	ND	ND	ND	ND	ND	--
(cont)	07/21/94	14.12	504.63	ND	ND	ND	ND	ND	--
	10/19/94	OBSTRUCTED BY ROOTS		--	--	--	--	--	--
	01/18/95	OBSTRUCTED BY ROOTS		--	--	--	--	--	--
	04/17/95	13.82	504.93	ND	ND	ND	ND	ND	--
	07/18/95	13.84	504.91	ND	ND	ND	ND	ND	--
	10/17/95	13.90	504.85	ND	ND	ND	ND	ND	2.2
	01/17/96	OBSTRUCTED BY ROOTS		SAMPLED ANNUALLY[2]		--	--	--	--
	04/17/96	13.66	505.09	ND	ND	ND	ND	ND	ND
	07/16/96	OBSTRUCTED BY ROOTS		--	--	--	--	--	--
	10/16/96	13.72	505.03	--	--	--	--	--	--
	04/08/97	OBSTRUCTED BY ROOTS		--	--	--	--	--	--
	10/06/97	OBSTRUCTED BY ROOTS		--	--	--	--	--	--
	04/02/98	OBSTRUCTED BY ROOTS		--	--	--	--	--	--
	10/07/98	OBSTRUCTED BY ROOTS		--	--	--	--	--	--
	04/14/99	**13.82**	**504.93**	--	--	--	--	--	--
MW-7	04/10/91	--	--	ND	ND	ND	ND	ND	--
	07/10/91	--	--	ND	ND	ND	ND	ND	--
	10/14/91	--	--	ND	ND	ND	ND	ND	--
	01/14/92	--	--	ND	ND	ND	ND	ND	--
	4/06/92	--	--	ND	ND	ND	ND	ND	--
	07/07/92	--	--	ND	ND	ND	ND	ND	--
	10/16/92	--	--	ND	ND	ND	ND	ND	--
	01/14/93	--	--	ND	ND	ND	ND	ND	--
519.37	04/22/93	14.25	505.12	ND	ND	ND	ND	ND	--
	07/20/93	16.68	502.69	ND	ND	ND	ND	ND	--
518.83	10/20/93	14.29	504.54	ND	ND	ND	ND	ND	--
	01/20/94	14.22	504.61	ND	ND	ND	ND	ND	--
	04/21/94	14.17	504.66	ND	ND	ND	ND	ND	--
	07/21/94	14.21	504.62	ND	ND	ND	ND	ND	--
	10/19/94	14.05	504.78	ND	ND	0.87	ND	0.61	--
	01/18/95	13.34	505.49	ND	ND	ND	ND	ND	--
	04/17/95	13.38	505.45	ND	ND	ND	ND	ND	--
	07/18/95	13.36	505.47	ND	ND	ND	ND	ND	--

Table 1

Groundwater Monitoring Data and Analytical Results

Tosco (Unocal) Service Station #6034

4700 First Street

Livermore, California

Well ID/ TOC*	Date	DTW (ft.)	GWE (msl)	TPH(G) (ppb)	B (ppb)	T (ppb)	E (ppb)	X (ppb)	MTBE (ppb)
MW-7	10/17/95	13.41	505.42	ND	ND	ND	ND	ND	3.5
(cont)	01/17/96	13.56	505.27	SAMPLED ANNUALLY[2]		--	--	--	--
	04/17/96	13.21	505.62	ND	ND	ND	ND	ND	ND
	07/16/96	13.22	505.61	--	--	--	--	--	--
	10/16/96	13.58	505.25	--	--	--	--	--	--
	04/08/97	13.73	505.10	SAMPLING DISCONTINUED		--	--	--	--
	10/06/97	13.65	505.18	--	--	--	--	--	--
	04/02/98	13.55	505.28	--	--	--	--	--	--
	10/07/98	13.64	505.19	--	--	--	--	--	--
	04/14/99	**13.75**	**505.08**	**--**	**--**	**--**	**--**	**--**	**--**
Trip Blank									
TB-LB	04/02/98	--	--	ND	ND	ND	ND	ND	ND
	10/07/98	--	--	ND	ND	ND	ND	ND	ND
	04/14/99	**--**	**--**	**ND**	**ND**	**ND**	**ND**	**ND**	**ND**

Table 1

Groundwater Monitoring Data and Analytical Results

Tosco (Unocal) Service Station #6034
4700 First Street
Livermore, California

EXPLANATIONS:

Groundwater monitoring data and laboratory analytical results prior to April 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
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

* TOC elevations are relative to Mean Sea Level (msl), per the City of Livermore Benchmark No. C-18-5 (Elevation = 551.77 feet msl). Prior to October 20, 1998, DTW measurements were taken from the top of the well covers.

1 Laboratory report indicates the hydrocarbons detected did not appear to be gasoline.
2 Annual sampling beginning April, 1996.
3 Detection limit raised. Refer to analytical results.
4 Laboratory report indicates gasoline and unidentified hydrocarbons < C7.
5 Laboratory report indicates weathered gas C6-C12.
6 MTBE by EPA Method 8260.
7 Laboratory report indicates unidentified hydrocarbons C6-C12.

Table 2

Groundwater Analytical Results

Tosco (Unocal) Service Station #6034
4700 First Street
Livermore, California

Well ID	Date	TPH(D) (ppb)	Total Oil & Grease (ppm)	Trichloroethene (ppb)	Chloroform (ppb)
MW-1	11/18/89	--	3.1	0.55	ND
	03/08/90	--	4.7	ND	ND
	06/05/90	--	ND	ND	ND
	09/07/90	--	ND	ND	ND
	12/24/90	--	ND	ND	ND
	04/10/91	--	ND	ND	ND
	07/10/91	--	ND	ND	ND
	04/21/94	--	ND	ND	ND
	04/17/95	ND	ND	ND	0.69
	04/17/96	100	ND	ND	ND

EXPLANATIONS:

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

TPH(D) = Total Petroleum Hydrocarbons as Diesel
ppb = Parts per billion
ppm = Parts per million
ND = Not Detected
-- = Not Analyzed

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

Table 3

Dissolved Oxygen Concentrations

Tosco (Unocal) Service Station #6034
4700 First Street
Livermore, California

Well ID	Date	Before Purging (mg/L)	After Purging (mg/L)
MW-1	07/16/96	4.24	4.28
MW-2	07/18/95	--	4.22
	10/17/95	--	3.96
	01/17/96	--	5.25
	04/17/96	--	2.59
	07/16/96	4.46	4.35
	10/16/96	3.87	2.92
	01/13/97	4.76	--
	04/08/97	3.76	3.42
	10/06/97	4.13	3.59
	04/02/98	6.32	3.16
	10/07/98[1]	3.85	--
	04/14/99	**3.14**	**--**
MW-3	07/16/96	4.19	4.20
MW-4	07/16/96	4.25	4.30
	01/13/97	4.97	--
MW-5	07/16/96	4.18	4.21
MW-6	07/16/96	OBSTRUCTED BY ROOTS	--
MW-7	07/16/96	4.20	4.19

EXPLANATIONS:

Dissolved oxygen concentrations prior to April 2, 1998, were compiled from reports prepared by MPDS Services, Inc.

mg/L = milligrams per liter
-- = Not Measured

[1] ORC removed from well.

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

Table 4

Groundwater Analytical Results - Oxygenate Compounds

TOSCO (Unocal) Service Station #6034
4700 First Street
Livermore, California

Well ID	Date	Ethanol (ppb)	TBA (ppb)	MTBE (ppb)	DIPE (ppb)	ETBE (ppb)	TAME (ppb)	1,2-DCA (ppb)	EDB (ppb)
MW-2	04/14/99	ND	ND	57	ND	ND	ND	ND/ND[1]	ND/ND[1]
MW-4	04/14/99	ND	ND	16	ND	ND	ND	ND/ND[1]	ND/ND[1]

EXPLANATIONS:

TBA = Tertiary Butyl Alcohol
MTBE = Methyl Tertiary Butyl Ether
DIPE = Di-isopropyl Ether
ETBE = Ethyl Tertiary Butyl Ether
TAME = Tertiary Amyl Methyl Ether
1,2-DCA = 1,2-Dichloroethane
EDB = 1,2-Dibromethane
ppb = Parts per billion
ND = Not Detected

ANALYTICAL METHOD:

EPA Method 8260 for Oxygenate Compounds

[1] Halogenated Volatile Organics by EPA Method 8010.

Table 5

Joint Groundwater Monitoring Data

Chevron Facility No. 9-1924

4904 South Front Road

Livermore, California

WELL ID/ TOC*	Date	DTW *(ft.)*	GWE *(msl)*
C-1			
520.39	04/17/95	11.81	508.58
	07/18/95	12.12	508.27
	10/17/95	12.58	507.81
	04/17/96	10.87	509.52
	07/16/96	11.38	509.01
	10/16/96	11.81	508.58
C-2			
520.76	04/17/95	12.04	508.72
	07/18/95	12.42	508.34
	10/17/95	12.79	507.97
	04/17/96	11.27	509.49
	07/16/96	11.95	508.81
	10/16/96	12.40	508.36
	10/07/98	11.54	509.22
	04/14/99	**11.41**	**509.35**
C-3			
521.31	07/18/95	12.89	508.42
	10/17/95	13.26	508.05
C-5			
520.82	04/17/95	12.17	508.65
	07/18/95	12.31	508.51
	10/17/95	12.46	508.36
	04/17/96	11.11	509.71
	07/16/96	11.42	509.40
	10/16/96	12.00	508.82
	10/07/98	11.04	509.78
	04/14/99	**11.29**	**509.53**
C-6			
519.62	04/17/95	11.27	508.35
	07/18/95	11.46	508.16
	10/17/95	11.98	507.64
	04/17/96	10.47	509.15
	07/16/96	10.97	508.65
	10/16/96	11.50	508.12
	10/07/98	10.91	508.71
	04/14/99	**10.85**	**508.77**
C-7			
520.30	04/17/95	11.74	508.56
	07/18/95	11.98	508.32

Table 5

Joint Groundwater Monitoring Data

Chevron Facility No. 9-1924

4904 South Front Road

Livermore, California

WELL ID/ TOC*	Date	DTW (ft.)	GWE (msl)
C-7	10/17/95	12.48	507.82
(cont)	04/17/96	10.96	509.34
	07/16/96	11.51	508.79
	10/16/96	12.00	508.30
C-8			
519.74	04/17/95	*DRY*	--
	07/18/95	*DRY*	--
	10/17/95	12.20	507.54
	04/17/96	10.87	508.87
	07/16/96	11.48	508.26
	10/16/96	11.96	507.78
C-9			
519.72	04/17/95	11.31	508.41
	07/18/95	11.66	508.06
	10/17/95	11.73	507.99
	04/17/96	10.05	509.67
	07/16/96	10.92	508.80
	10/16/96	11.30	508.42
	10/07/98	10.85	508.87
	04/14/99	**10.83**	**508.89**
C-10			
520.41	04/17/95	13.54	506.87
	07/18/95	13.44	506.97
	10/17/95	13.78	506.63
	04/17/96	13.18	507.23
	07/16/96	13.11	507.30
	10/16/96	13.50	506.91
C-11			
520.04	04/17/95	13.01	507.03
	07/18/95	13.00	507.04
	10/17/95	13.32	506.72
	04/17/96	12.48	507.56
	07/16/96	12.67	507.37
	10/16/96	13.05	506.99
	10/07/98	12.68	507.36
	04/14/99	**13.11**	**506.84**
C-12			
519.82	07/18/95	13.12	506.70
	10/17/95	13.52	506.30

Table 5

Joint Groundwater Monitoring Data

Chevron Facility No. 9-1924

4904 South Front Road

Livermore, California

WELL ID/ TOC*	Date	DTW *(ft.)*	GWE *(msl)*
C-13			
522.24	07/18/95	13.33	508.91
	10/17/95	13.78	508.46
C-14			
520.08	04/17/95	*DRY*	--
	07/18/95	*DRY*	--
	10/17/95	12.44	507.64
	04/17/96	12.17	507.91
	07/16/96	11.53	508.55
	10/16/96	12.10	507.98
	10/07/98	11.81	508.27
	04/14/99	**11.93**	**508.15**
C-15			
522.41	07/18/95	13.80	508.61
	10/17/95	14.26	508.15
C-16			
	04/17/95	INACCESSIBLE - PAVED OVER	
	07/18/95	INACCESSIBLE - PAVED OVER	
	10/17/95	--	--
	04/17/96	INACCESSIBLE - PAVED OVER	
	07/16/96	INACCESSIBLE - PAVED OVER	
	10/16/96	INACCESSIBLE - UNABLE TO LOCATE	
C-17			
520.82	04/17/95	13.25	507.57
	07/18/95	13.44	507.38
	10/17/95	13.50	507.32
	04/17/96	12.70	508.12
	07/16/96	12.67	508.15
	10/16/96	13.70	507.12
	10/07/98	12.93	507.89
	04/14/99	**13.05**	**507.48**
C-18	04/17/95	ABANDONED	--
C-19			
518.96	04/17/95	13.80	505.16
	07/18/95	13.72	505.24
	10/17/95	14.10	504.86
	04/17/96	13.40	505.56
	07/16/96	13.47	505.49
	10/16/96	13.83	505.13
	10/07/98	13.09	505.87
	04/14/99	**INACCESSIBLE**	**--**

Table 5

Joint Groundwater Monitoring Data

Chevron Facility No. 9-1924

4904 South Front Road

Livermore, California

WELL ID/ TOC*	Date	DTW *(ft.)*	GWE *(msl)*
C-20			
520.67	07/16/96	12.93	507.74
	10/16/96	13.24	507.43
	10/07/98	12.68	507.99
	04/14/99	**13.30**	**507.37**
C-21			
519.64	07/16/96	11.40	508.24
	10/16/96	11.47	508.17

EXPLANATIONS:

Groundwater monitoring data provided by Blaine Tech Services, Inc.

* TOC elevations were surveyed relative to mean sea level (msl).

TOC = Top of Casing elevation
DTW = Depth to Water
(ft.) = Feet
GWE = Groundwater Elevation
msl = Relative to mean sea level
-- = Not Measured

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 # 6034 Job#: 180047

Address: 4700 First st. Date: 4-14-99

City: Livermore 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 27.90 ft.

Depth to Water 14.89 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:	Sampling Equipment:
Disposable Bailer	Disposable Bailer
Bailer	Bailer
Stack	Pressure Bailer
Suction	Grab Sample
Grundfos	Other: _____
Other: _____	

Starting Time: _____ Weather Conditions: clear

Sampling Time: _____ Water Color: clear Odor: _____

Purging Flow Rate: _____ 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)

LABORATORY INFORMATION

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

COMMENTS: M. only

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WELL MONITORING/SAMPLING
FIELD DATA SHEET

Client/
Facility # 6034 Job#: 180047

Address: 4700 First st. Date: 4-14-99

City: Livermore 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 25.65 ft.

Depth to Water 14.54 ft.

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

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

Purge Equipment:	Sampling Equipment:
Disposable Bailer	Disposable Bailer
Bailer	Bailer
Stack	Pressure Bailer
Suction	Grab Sample
Grundfos	Other:
Other:	

Starting Time: 10:35 Weather Conditions: clear

Sampling Time: 10:574-m Water Color: clear Odor: yes

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)
10:45	2	7.26	2.98	70.1	3.14		
10:47	4	7.20	3.14	70.3			
10:49	6	7.14	3.12	70.4			

LABORATORY INFORMATION

SAMPLE ID	(#) - CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
mw-2	3 VOA	Y	HCl	SEQUOIA	TPH(G)/btex/mtbe
"	3 VOA	"	"	"	5 Oxy's + 1,2 DCA (EDC) + EDB

COMMENTS:

WELL MONITORING/SAMPLING
FIELD DATA SHEET

Client/
Facility # 6034 Job#: 180047

Address: 4700 First st. Date: 4-14-99

City: Livermore Sampler: Joe

Well ID MW-3 Well Condition: cover Lid partially broken

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

Total Depth 25.43 ft.

Depth to Water 13.47 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: _____ Water Color: clear Odor: _____

Purging Flow Rate: _____ 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)

LABORATORY INFORMATION

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

COMMENTS: M. only

12" aluminum lid is missing a portion.

WELL MONITORING/SAMPLING
FIELD DATA SHEET

Client/
Facility # 6034 Job#: 180047

Address: 4700 First st. Date: 4-14-99

City: Livermore 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 25.48 ft.

Depth to Water 13.21 ft.

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

12.27 X VF 0.17 = 2.09 X 3 (case volume) = Estimated Purge Volume: 6.5 (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: 10:25 Am Water Color: clear Odor: yes

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)
10:10	2	7.36	3.67	71.2			
10:12	4	7.40	3.72	70.6			
10:14	6.5	7.29	3.75	69.9			

LABORATORY INFORMATION

SAMPLE ID	(#) - CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
mw-4	3 VOA	Y	HCL	SEQUOIA	TPH(G)/btex/mtbe
"	3 VOA	"	"	"	5 Oxy's + 1,2 DCA (EDC) + EDB

COMMENTS: _____

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WELL MONITORING/SAMPLING
FIELD DATA SHEET

Client/
Facility # 6034 Job#: 180047

Address: 4700 First st. Date: 4-14-99

City: Livermore Sampler: JOC

Well ID mw-5 Well Condition: o.k.

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

Total Depth 23.61 ft.

Depth to Water 14.63 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: _____ Water Color: clear Odor: _____

Purging Flow Rate: _____ 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)

LABORATORY INFORMATION

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

COMMENTS: M. only

WELL MONITORING/SAMPLING
FIELD DATA SHEET

Client/
Facility # 6034 Job#: 180047

Address: 4700 First st. Date: 4-14-99

City: Livermore Sampler: JC

Well ID MW-6 Well Condition: O.K.

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

Total Depth 20.40 ft.

Depth to Water 13.82 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: _____ Water Color: clear Odor: _____

Purging Flow Rate: _____ 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)

LABORATORY INFORMATION

SAMPLE ID	(#) - CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
		Y		~~SEQUOIA~~	~~TPH(G)/BTEX/MTBE~~

COMMENTS: M. only

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WELL MONITORING/SAMPLING
FIELD DATA SHEET

Client/
Facility # 6034 Job#: 180017

Address: 4700 First st. Date: 4-14-99

City: Livermore Sampler: JC

Well ID MW-7 Well Condition: O.K.

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

Total Depth 23.65 ft.

Depth to Water 13.75 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: _____ Water Color: clear Odor: _____

Purging Flow Rate: _____ 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)

LABORATORY INFORMATION

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

COMMENTS: M. only

9/97-fieldst.frm

TOSCO

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

Facility Number: UNOCAL SS#6034
Facility Address: 4700 FIRST STREET, LIVERMORE, CA
Consultant Project Number: 180047.85
Consultant Name: Gettler-Ryan Inc. (G-R Inc.)
Address: 6747 Sierra Court, Suite J, Dublin, CA 94568
Project Contact (Name): Deanna L. Harding
(Phone) 925-551-7555 (Fax Number) 925-551-7888

Contact (Name): MR. DAVID DEWITT
(Phone): 925-277-2384
Laboratory Name: Sequoia Analytical
Laboratory Release Number: 9504396
Samples Collected by (Name): JOE ATEMIAN
Collection Date: 4-14-99
Signature: Joe Atemian

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)	OXYS (5)	1,2 DCA (EDC)	EDB		Remarks
								Analyses To Be Performed												DO NOT BILL TB-LB ANALYSIS
TB-LB		1 VOA	W	—	—	HCl	Y	✓												9041358
MW-2		6 VOA	"	G	10:57 A.M	"	"	✓								✓	✓	✓		9041359A-F
MW-4		6 VOA	"	"	10:25 A.M	"	"	✓								✓	✓	✓		9041360 ↓

Relinquished By (Signature)	Organization	Date/Time	Received By (Signature)	Organization	Date/Time
Joe Atemian	G-R Inc.	4-14-99	Kurt Dettle	W.C Seq	4/15/99 14:15
Kurt Dettle	Organization	Date/Time 4/15/99 1520	Received By (Signature)	Organization	Date/Time
Relinquished By (Signature)	Organization	Date/Time	Received For Laboratory By (Signature) Ronald C Jensen		Date/Time 4/15/99 15:20

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

Sequoia Analytical

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

Gettler-Ryan - Dublin	Client Project ID:	Unocal SS#6034, Livermore	Sampled: Apr 14, 1999
6747 Sierra Court, Suite J	Sample Matrix:	Water	Received: Apr 15, 1999
Dublin, CA 94568	Analysis Method:	EPA 5030/8015 Mod./8020	Reported: May 5, 1999
Attention: Deanna Harding	First Sample #:	904-1358	

TOTAL PURGEABLE PETROLEUM HYDROCARBONS with BTEX / MTBE

Analyte	Reporting Limit µg/L	Sample I.D. 904-1358 TB-LB	Sample I.D. 904-1359 MW-2	Sample I.D. 904-1360 MW-4
Purgeable Hydrocarbons	50	N.D.	720	250
Benzene	0.50	N.D.	1.2	1.6
Toluene	0.50	N.D.	N.D.	N.D.
Ethyl Benzene	0.50	N.D.	29	3.1
Total Xylenes	0.50	N.D.	260	5.6
MTBE	2.5	N.D.	95	N.D.
Chromatogram Pattern:		--	Gasoline	Unidentified Hydrocarbons C6 - C12

Quality Control Data

Report Limit Multiplication Factor:	1.0	1.0	1.0
Date Analyzed:	4/20/99	4/20/99	4/20/99
Instrument Identification:	HP-2	HP-2	HP-2
Surrogate Recovery, %: (QC Limits = 70-130%)	99	119	97

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

SEQUOIA ANALYTICAL, #1271

Julianne Fegley

Julianne Fegley
Project Manager

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Gettler-Ryan - Dublin	Client Project ID:	Unocal SS#6034, Livermore	Sampled: Apr 14, 1999
6747 Sierra Court, Suite J	Sample Descript:	Water, MW-2	Received: Apr 15, 1999
Dublin, CA 94568	Analysis Method:	EPA 8260	Analyzed: Apr 28, 1999
Attention: Deanna Harding	Lab Number:	904-1359	Reported: May 5, 1999

OXYGENATED COMPOUNDS (EPA 8260)

Analyte	Detection Limit µg/L	Sample Results µg/L
Ethanol	500	N.D.
t-Butanol	100	N.D.
Methyl t-Butyl Ether (MTBE)	**2.0**	**57**
Di-Isopropyl Ether (DIPE)	2.0	N.D.
Ethyl t-Butyl Ether (ETBE)	2.0	N.D.
t-Amyl Methyl Ether (TAME)	2.0	N.D.
1,2-Dibromoethane	2.0	N.D.
1,2-Dichloroethane	2.0	N.D.

Surrogates	Control Limit %		% Recovery
Dibromofluoromethane	50	150	82
1,2-Dichloroethane-d4	50	150	91

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

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Gettler-Ryan - Dublin	Client Project ID:	Unocal SS#6034, Livermore	Sampled:	Apr 14, 1999
6747 Sierra Court, Suite J	Sample Descript:	Water, MW-4	Received:	Apr 15, 1999
Dublin, CA 94568	Analysis Method:	EPA 8260	Analyzed:	Apr 28, 1999
Attention: Deanna Harding	Lab Number:	904-1360	Reported:	May 5, 1999

OXYGENATED COMPOUNDS (EPA 8260)

Analyte	Detection Limit µg/L	Sample Results µg/L
Ethanol	500	N.D.
t-Butanol	100	N.D.
Methyl t-Butyl Ether (MTBE)	**2.0**	**16**
Di-Isopropyl Ether (DIPE)	2.0	N.D.
Ethyl t-Butyl Ether (ETBE)	2.0	N.D.
t-Amyl Methyl Ether (TAME)	2.0	N.D.
1,2-Dibromoethane	2.0	N.D.
1,2-Dichloroethane	2.0	N.D.

Surrogates	Control Limit %		% Recovery
Dibromofluoromethane	50	150	83
1,2-Dichloroethane-d4	50	150	96

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

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Gettler-Ryan - Dublin	Client Project ID:	Unocal SS#6034, Livermore	Sampled:	Apr 14, 1999
6747 Sierra Court, Suite J	Sample Descript:	Water, MW-2	Received:	Apr 15, 1999
Dublin, CA 94568	Analysis Method:	EPA 5030/8010	Analyzed:	Apr 23, 1999
Attention: Deanna Harding	Lab Number:	904-1359	Reported:	May 5, 1999

HALOGENATED VOLATILE ORGANICS (EPA 8010)

Analyte	Detection Limit µg/L	Sample Results µg/L
1,2-Dichloroethane	0.50	N.D.
EDB	1.0	N.D.

Surrogates	Control Limit %		% Recovery
Chloro-2-fluorobenzene	50	150	70
4-Bromofluorobenzene	50	150	70

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

SEQUOIA ANALYTICAL, #1271

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Gettler-Ryan - Dublin	Client Project ID:	Unocal SS#6034, Livermore	Sampled:	Apr 14, 1999
6747 Sierra Court, Suite J	Sample Descript:	Water, MW-4	Received:	Apr 15, 1999
Dublin, CA 94568	Analysis Method:	EPA 5030/8010	Analyzed:	Apr 23, 1999
Attention: Deanna Harding	Lab Number:	904-1360	Reported:	May 5, 1999

HALOGENATED VOLATILE ORGANICS (EPA 8010)

Analyte	Detection Limit µg/L	Sample Results µg/L
1,2-Dichloroethane	0.50	N.D.
EDB	1.0	N.D.

Surrogates	Control Limit %		% Recovery
Chloro-2-fluorobenzene	50	150	70
4-Bromofluorobenzene	50	150	70

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

SEQUOIA ANALYTICAL, #1271

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

Client Project ID: Unocal SS#6034, Livermore
Matrix: Liquid
QC Sample Group: 9041358-360

Reported: May 5, 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#:	9041183	9041183	9041183	9041183
Date Prepared:	4/20/99	4/20/99	4/20/99	4/20/99
Date Analyzed:	4/20/99	4/20/99	4/20/99	4/20/99
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:	95	90	90	98
Matrix Spike Duplicate % Recovery:	80	75	80	88
Relative % Difference:	17	18	12	11
LCS Batch#:	2LCS042099	2LCS042099	2LCS042099	2LCS042099
Date Prepared:	4/20/99	4/20/99	4/20/99	4/20/99
Date Analyzed:	4/20/99	4/20/99	4/20/99	4/20/99
Instrument I.D.#:	HP-2	HP-2	HP-2	HP-2
LCS % Recovery:	95	90	90	100
% 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.

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

Client Project ID: Unocal SS#6034, Livermore
Matrix: Liquid
QC Sample Group: 9041358-360
Reported: May 5, 1999

QUALITY CONTROL DATA REPORT

ANALYTE	1,1-Dichloro-ethene	Trichloro-ethene	Chloro-benzene	MTBE
Method:	EPA 8010	EPA 8010	EPA 8010	EPA 8260
Analyst:	P. Kosovskaya	P. Kosovskaya	P. Kosovskaya	N. Nelson
MS/MSD Batch#:	9041805	9041805	9041805	9042134
Date Prepared:	4/22/99	4/22/99	4/22/99	4/28/99
Date Analyzed:	4/23/99	4/23/99	4/23/99	4/28/99
Instrument I.D.#:	HP-7	HP-7	HP-7	GC/MS-2
Conc. Spiked:	20 µg/L	20 µg/L	20 µg/L	50 µg/L
Matrix Spike % Recovery:	65	80	80	104
Matrix Spike Duplicate % Recovery:	55	80	80	114
Relative % Difference:	17	0.0	0.0	9.2
LCS Batch#:	LCS042299	LCS042299	LCS042299	LCS042899
Date Prepared:	4/22/99	4/22/99	4/22/99	4/28/99
Date Analyzed:	4/22/99	4/22/99	4/22/99	4/28/99
Instrument I.D.#:	HP-7	HP-7	HP-7	GC/MS-2
LCS % Recovery:	80	80	80	112
% Recovery Control Limits:	65-135	70-130	70-130	70-130

SEQUOIA ANALYTICAL, #1271

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