GETTLER-RYAN INC.

TRANSMITTAL

February 25, 1999
G-R #:180063

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 #0746
3943 Broadway
Oakland, California

WE HAVE ENCLOSED THE FOLLOWING:

COPIES	DATED	DESCRIPTION
1	February 19, 1999	Groundwater Monitoring and Sampling Report Semi-Annual 1998 - Event of November 11, 1998

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 ***March 10, 1999***, this report will be distributed to the following:

Enclosure

cc: Alameda County Health Care Services
1131 Harbor Bay Parkway
Alameda, California 94502

agency/0746dbd.qmt

① MtBE w/ 8260 + other oxygenates.
② Inaccessible well MW-8
③ Creek running along property - sample MW-11

GETTLER-RYAN INC.

February 19, 1999
G-R Job #180063

Mr. David B. De Witt
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 #0746
3943 Broadway
Oakland, California

Dear Mr. De Witt:

This report documents the semi-annual groundwater monitoring and sampling event performed by Gettler-Ryan Inc. (G-R). On November 11, 1998, field personnel monitored eleven wells (MW-1 through MW-7 and MW-9 through MW-12) and sampled four wells (MW-1, MW-3, MW-4, and MW-9) 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 present in one of the wells (MW-5). 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. A Concentration Map is included as Figure 2. The chain of custody document and laboratory analytical reports are also attached.

Sincerely,

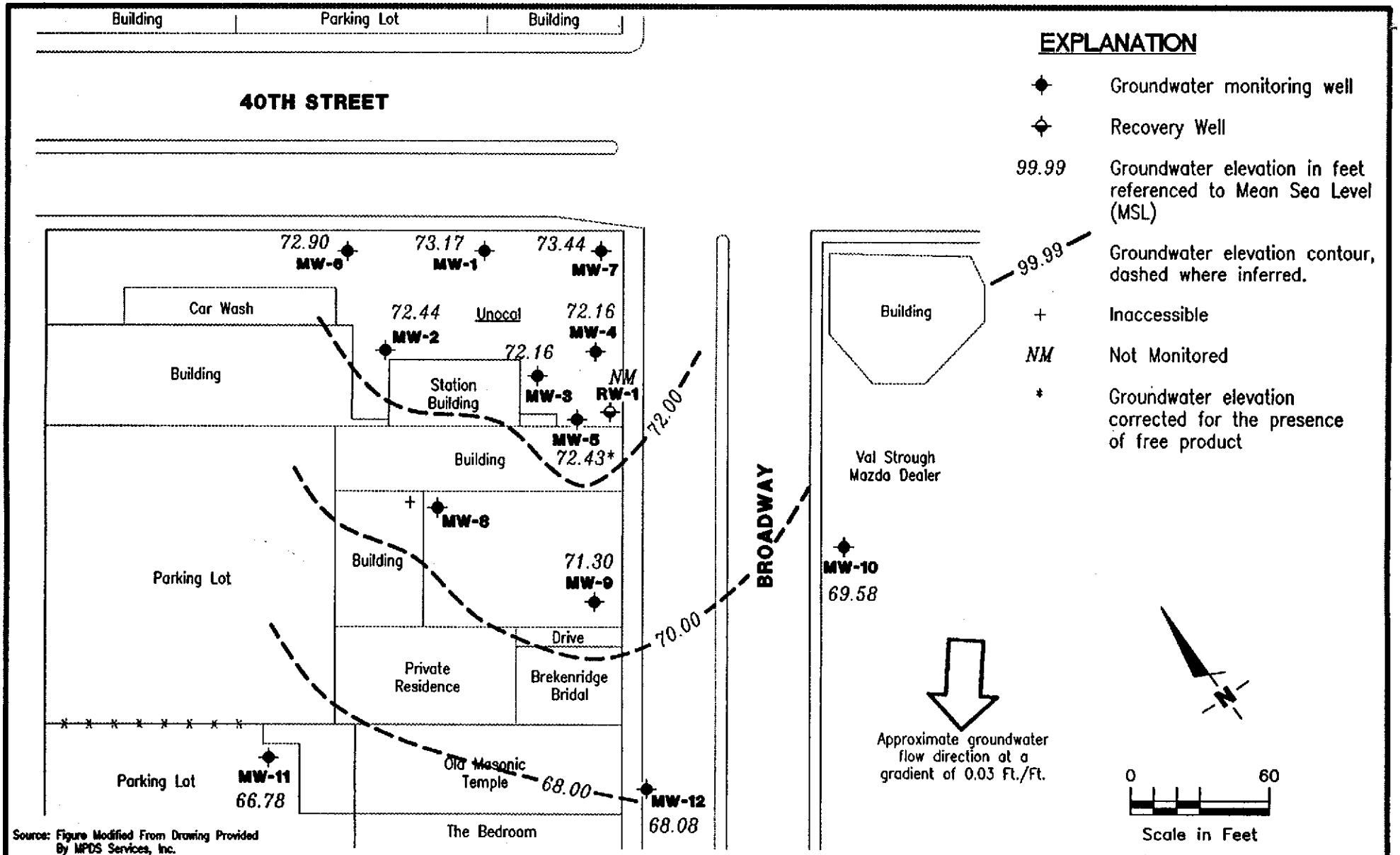
Deanna L. Harding
Project Coordinator

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: Dissolved Oxygen Concentrations
Attachments: Standard Operating Procedure - Groundwater Sampling
Field Data Sheets
Chain of Custody Document and Laboratory Analytical Reports

0746.qml



Gettler - Ryan Inc.
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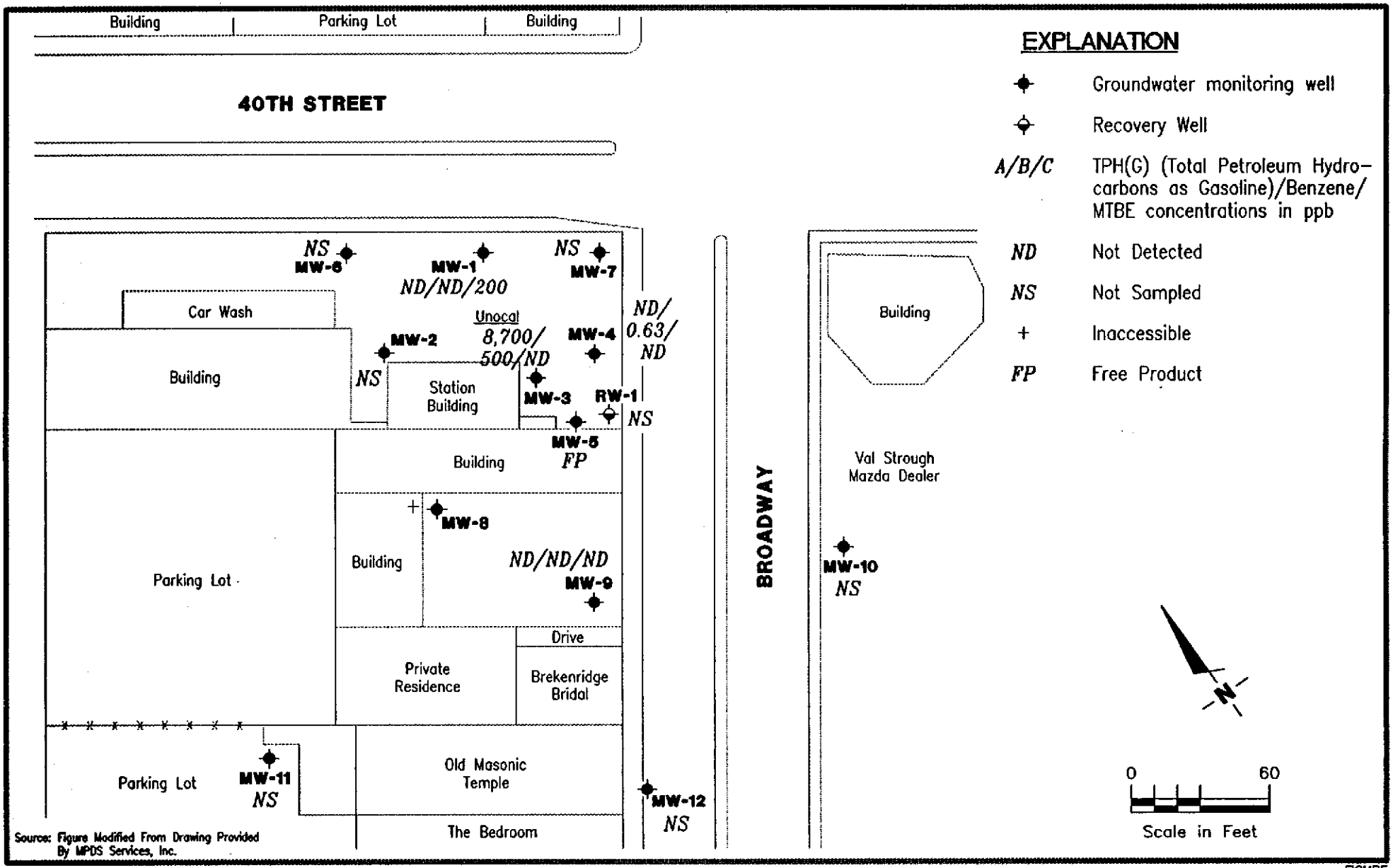
Dublin, CA 94568

POTENTIOMETRIC MAP
Tosco (Unocal) Service Station No. 0746
3943 Broadway
Oakland, California

FIGURE 1

JOB NUMBER	REVIEWED BY	DATE	REVISED DATE
180063		November 11, 1998	



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CONCENTRATION MAP
Tosco (Unocal) Service Station No. 0746
3943 Broadway
Oakland, California

FIGURE
2

JOB NUMBER	REVIEWED BY	DATE	REVISED DATE
180063		November 11, 1998	

Table 1

Groundwater Monitoring Data and Analytical Results

Tosco (Unocal) Service Station #0746

3943 Broadway

Oakland, California

Well ID/ TOC*		Date	DTW (ft.)	GWE (msl)	Product Thickness (ft.)	TPH(G) *(ppb)*	B *(ppb)*	T *(ppb)*	E *(ppb)*	X *(ppb)*	MTBE *(ppb)*
MW-1		11/01/89				ND	ND	ND	ND	0.3	--
		02/15/90				170	7.9	ND	2.2	2.8	--
		08/16/90				ND	ND	ND	ND	ND	--
		11/07/90				45	ND	ND	ND	ND	--
		02/25/91				ND	ND	ND	ND	ND	--
		05/28/91				ND	ND	ND	ND	ND	--
		08/28/91				ND	ND	ND	ND	ND	--
		11/19/91				ND	ND	ND	ND	ND	--
		02/06/92				ND	ND	ND	ND	ND	--
		05/23/92				ND	ND	ND	ND	ND	--
		08/26/92				ND	ND	ND	ND	ND	--
		11/20/92				ND	0.75	ND	ND	ND	--
		02/24/93				1,100	280	4.9	120	140	--
		05/25/93				260	27	4.9	2.6	54	--
		08/25/93				ND	ND	ND	ND	ND	--
		11/30/93				SAMPLED SEMI-ANNUALLY		--	--	--	--
		02/16/94				ND	0.84	ND	ND	0.59	--
		08/31/94				ND	ND	0.98	ND	0.84	--
		11/10/94				--	--	--	--	--	--
		02/07/95				6,100	670	ND	120	60	--
		05/03/95				260	21	39	17	24	--
		08/03/95				--	--	--	--	--	--
		11/07/95				ND	ND	ND	ND	ND	--
80.54		05/06/96	7.40	73.14	0.00	170	1.0	20	2.3	17	55
		11/05/96	7.90	72.64	0.00	ND	ND	ND	ND	ND	5.2
		05/15/97	7.77	72.77	0.00	ND	ND	ND	ND	ND	16
		11/12/97	7.48	73.06	0.00	ND	ND	ND	ND	ND	11
	NP	05/04/98	7.39	73.15	0.00	ND	ND	ND	ND	ND	320
	NP	**11/11/98**	**7.37**	**73.17**	**0.00**	**ND**	**ND**	**ND**	**ND**	**ND**	**200**
MW-2		11/01/89				200	ND	ND	3.0	1.2	--
		02/15/90				ND	ND	ND	ND	ND	--

Table 1

Groundwater Monitoring Data and Analytical Results

Tosco (Unocal) Service Station #0746

3943 Broadway

Oakland, California

Well ID/ TOC*	Date	DTW (ft.)	GWE (msl)	Product Thickness (ft.)	TPH(G) (ppb)	B (ppb)	T (ppb)	E (ppb)	X (ppb)	MTBE (ppb)
MW-2	08/16/90				ND	ND	6.7	ND	ND	--
(cont)	11/07/90				ND	ND	ND	ND	ND	--
	02/25/91				ND	0.68	0.42	ND	0.86	--
	05/28/91				ND	ND	ND	ND	ND	--
	08/28/91				ND	ND	ND	ND	ND	--
	11/19/91				ND	ND	ND	ND	ND	--
	02/06/92				ND	0.36	0.66	ND	0.62	--
	05/23/92				ND	ND	ND	ND	ND	--
	08/26/92				ND	ND	ND	ND	ND	--
	11/20/92				510[1]	ND	ND	ND	ND	--
	02/24/93				11,000[1]	ND	ND	ND	ND	--
	05/25/93				1,300[1]	ND	ND	ND	ND	2,700
	08/25/93				190[1]	ND	ND	ND	ND	--
	11/30/93				480[1]	ND	ND	ND	ND	--
	02/16/94				3,200[1]	ND	ND	ND	ND	--
	05/31/94				1,100[1]	ND	ND	ND	ND	--
	08/31/94				310[1]	ND	ND	ND	ND	--
	11/10/94				95[2]	ND	ND	ND	ND	--
	02/07/95				1,600[1]	ND	ND	ND	ND	--
	05/03/95				ND	ND	ND	ND	ND	--
	08/03/95				ND	ND	ND	ND	ND	--
	11/07/95				ND	ND	ND	ND	ND	160[3]
81.32	05/06/96	8.90	72.42	0.00	SAMPLING DISCONTINUED[4]		--	--	--	--
	11/05/96	10.98	70.34	0.00	--	--	--	--	--	--
	05/15/97	9.13	72.19	0.00	--	--	--	--	--	--
	11/12/97	9.84	71.48	0.00	--	--	--	--	--	--
	05/04/98	9.26	72.06	0.00	--	--	--	--	--	--
	11/11/98	**8.88**	**72.44**	**0.00**	--	--	--	--	--	--
MW-3	11/01/89				13,000	57	48	1.7	120	--
	02/15/90				20,000	1,700	2,100	750	3,100	--
	08/16/90				6,800	600	660	760	160	--

Table 1

Groundwater Monitoring Data and Analytical Results

Tosco (Unocal) Service Station #0746

3943 Broadway

Oakland, California

Well ID/ TOC*		Date	DTW (ft.)	GWE (msl)	Product Thickness (ft.)	TPH(G) (ppb)	B (ppb)	T (ppb)	E (ppb)	X (ppb)	MTBE (ppb)
MW-3		11/07/90				42,000	1,400	5,000	1,800	7,500	--
(cont)		02/25/91				37,000	730	2,900	1,300	7,300	--
		05/28/91				24,000	570	1,100	810	4,200	--
		08/28/91				16,000	650	2,200	1,100	5,400	--
		11/19/91				22,000	250	440	660	3,000	--
		02/06/92				24,000	600	1,800	1,200	5,800	--
		05/23/92				25,000	300	130	880	4,900	--
		08/26/92				20,000	690	1,900	1,300	5,700	--
		11/20/92				1,100,000[2]	1,800	6,400	3,000	15,000	--
		02/24/93				NOT SAMPLED DUE TO THE PRESENCE OF FREE PRODUCT				--	--
		05/25/93				NOT SAMPLED DUE TO THE PRESENCE OF FREE PRODUCT				--	--
		08/25/93				NOT SAMPLED DUE TO THE PRESENCE OF FREE PRODUCT				--	--
		11/30/93				NOT SAMPLED DUE TO THE PRESENCE OF FREE PRODUCT				--	--
		02/16/94				57,000	910	2,500	2,100	9,000	--
		05/31/94				39,000	670	630	1,500	6,200	--
		08/31/94				44,000	500	240	1,400	5,700	--
		11/10/94				86,000	3,300	3,800	1,800	8,300	--
		02/07/95				45,000	1,400	1,300	1,500	5,600	--
		05/03/95				26,000	740	990	1,100	4,400	--
		08/03/95				18,000	59	ND	530	1,900	--
		11/07/95				17,000	110	26	400	1,500	880[3]
81.41		05/06/96	9.44	71.97	Sheen	5,100	48	ND	87	210	370
		11/05/96	10.64	70.77	0.00	35,000	2,200	ND	1,200	2,800	460
		05/15/97	9.61	71.80	0.00	2,400	110	ND	ND	140	100
		11/12/97	9.18	72.23	0.00	29,000	2,000	ND	1,800	3,000	ND
	NP	05/04/98	9.50	71.91	0.00	8,200	430	ND[5]	310	320	ND[5]
	NP	**11/11/98**	**9.25**	**72.16**	**0.00**	**8,700**	**500**	**ND[5]**	**330**	**310**	**ND[5]** <50
MW-4		02/15/90				150	8.0	8.0	10	45	--
		08/16/90				3,600	480	17	230	260	--
		11/07/90				180	1.5	0.37	6.3	26	--
		02/25/91				22,000	600	1,300	780	2,800	--

Table 1

Groundwater Monitoring Data and Analytical Results

Tosco (Unocal) Service Station #0746

3943 Broadway

Oakland, California

Well ID/ TOC*		Date	DTW (ft.)	GWE (msl)	Product Thickness (ft.)	TPH(G) *(ppb)*	B *(ppb)*	T *(ppb)*	E *(ppb)*	X *(ppb)*	MTBE *(ppb)*
MW-4		05/28/91				38	ND	ND	ND	1.9	--
(cont)		08/28/91				2,000	1,500	20	120	300	--
		11/19/91				55	9.2	4.5	1.4	6.7	--
		02/06/92				5,700	2,200	140	57	980	--
		05/23/92				ND	ND	ND	ND	ND	--
		08/26/92				120	86	0.52	0.57	1.6	--
		11/20/92				ND	6.2	ND	1.2	0.52	--
		02/24/93				140	12	0.64	9.4	3.7	--
		05/25/93				74	10	ND	4.6	1.8	--
		08/25/93				640	100	1.1	100	22	--
		11/30/93				200	28	ND	17	8.1	--
		02/16/94				190	11	0.98	21	6.6	--
		05/31/94				1,100	190	ND	100	58	--
		08/31/94				400	17	0.94	14	5.2	--
		11/10/94				7,700	1,800	280	460	1,300	--
		02/07/95				540	47	ND	17	2.5	--
		05/03/95				160	8.3	0.52	1.5	3.7	--
		08/03/95				57	2.0	ND	ND	ND	--
		11/07/95				ND	0.71	ND	ND	ND	0.86
81.29		05/06/96	8.70	72.59	0.00	1,200	12	11	15	36	ND
		11/05/96	10.00	71.29	0.00	700	32	0.71	1.8	1.3	6.5
		05/15/97	9.37	71.92	0.00	51	ND	ND	ND	ND	ND
		11/12/97	8.92	72.37	0.00	74	1.7	ND	ND	ND	ND
	NP	05/04/98	9.48	71.81	0.00	ND	ND	ND	ND	ND	ND
	NP	**11/11/98**	**9.13**	**72.16**	**0.00**	**ND**	**0.63**	**ND**	**ND**	**ND**	**ND**
MW-5		02/15/90				24,000	1,500	1,700	260	3,600	--
		08/16/90				16,000	1,400	1,900	2,800	660	--
		11/07/90				20,000	640	1,100	670	3,000	--
		02/25/91				25,000	950	1,300	900	3,500	--
		05/28/91				24,000	2,300	3,400	1,300	6,000	--
		08/28/91				NOT SAMPLED DUE TO THE PRESENCE OF FREE PRODUCT				--	--

Table 1

Groundwater Monitoring Data and Analytical Results

Tosco (Unocal) Service Station #0746

3943 Broadway

Oakland, California

Well ID/ TOC*		Date	DTW (ft.)	GWE (msl)	Product Thickness (ft.)	TPH(G) *(ppb)*	B *(ppb)*	T *(ppb)*	E *(ppb)*	X *(ppb)*	MTBE *(ppb)*
MW-5		11/19/91				NOT SAMPLED DUE TO THE PRESENCE OF FREE PRODUCT				--	--
(cont)		02/06/92				NOT SAMPLED DUE TO THE PRESENCE OF FREE PRODUCT				--	--
		05/23/92				NOT SAMPLED DUE TO THE PRESENCE OF FREE PRODUCT				--	--
		08/26/92				NOT SAMPLED DUE TO THE PRESENCE OF FREE PRODUCT				--	--
		11/20/92				NOT SAMPLED DUE TO THE PRESENCE OF FREE PRODUCT				--	--
		02/24/93				NOT SAMPLED DUE TO THE PRESENCE OF FREE PRODUCT				--	--
		05/25/93				NOT SAMPLED DUE TO THE PRESENCE OF FREE PRODUCT				--	--
		08/25/93				NOT SAMPLED DUE TO THE PRESENCE OF FREE PRODUCT				--	--
		11/30/93				NOT SAMPLED DUE TO THE PRESENCE OF FREE PRODUCT				--	--
		02/16/94				NOT SAMPLED DUE TO THE PRESENCE OF FREE PRODUCT				--	--
		05/31/94				43,000	1,500	1,200	1,600	6,700	--
		08/31/94				NOT SAMPLED DUE TO THE PRESENCE OF FREE PRODUCT				--	--
		11/10/94				NOT SAMPLED DUE TO THE PRESENCE OF FREE PRODUCT				--	--
		02/07/95				25,000	1,400	740	990	3,000	--
		05/03/95				12,000	680	160	600	1,800	--
		08/03/95				23,000	940	280	810	2,700	--
		11/07/95				40,000	510	280	1,000	5,700	630[3]
81.38		05/06/96	9.03	72.35	Sheen	13,000	200	ND	180	610	170
		11/05/96	10.41	70.97	0.00	35,000	1,800	ND	1,300	4,900	580
		05/15/97	9.41	71.97	Sheen	10,000	490	ND	ND	1,300	ND
		11/12/97	9.27	72.11	0.00	100	5.1	ND	ND	ND	74
	NP	05/04/98	9.18	72.20	0.00	39,000	1,600	230	1,000	3,200	ND[5]
		11/11/98	**9.23**	**72.43****	**0.37**	**NOT SAMPLED DUE TO THE PRESENCE OF FREE PRODUCT**				--	--
MW-6		11/07/90				ND	ND	ND	ND	ND	--
		02/25/91				ND	0.37	0.4	0.35	1.5	--
		05/28/91				ND	ND	ND	ND	0.42	--
		08/28/91				ND	ND	ND	ND	ND	--
		11/19/91				ND	ND	ND	ND	ND	--
		02/06/92				ND	ND	ND	ND	ND	--
		05/23/92				ND	ND	ND	ND	ND	--
		08/26/92				ND	ND	ND	ND	ND	--

Table 1

Groundwater Monitoring Data and Analytical Results

Tosco (Unocal) Service Station #0746

3943 Broadway

Oakland, California

Well ID/ TOC*	Date	DTW (ft.)	GWE (msl)	Product Thickness (ft.)	TPH(G) *(ppb)*	B *(ppb)*	T *(ppb)*	E *(ppb)*	X *(ppb)*	MTBE *(ppb)*
MW-6	11/20/92				ND	ND	ND	ND	ND	--
(cont)	02/24/93				ND	ND	ND	ND	ND	--
	05/25/93				ND	ND	ND	ND	ND	--
	08/25/93				ND	ND	ND	ND	ND	--
	11/30/93				SAMPLED SEMI-ANNUALLY		--	--	--	--
	02/16/94				ND	ND	ND	ND	ND	--
	08/31/94				ND	ND	1.5	ND	1.6	--
	11/10/94				--	--	--	--	--	--
	02/07/95				ND	ND	ND	ND	ND	--
	05/03/95				ND	ND	ND	ND	1.0	--
	08/03/95				--	--	--	--	--	--
	11/07/95				ND	ND	ND	ND	ND	--
79.94	05/06/96	7.80	72.14	0.00	SAMPLING DISCONTINUED[4]		--	--	--	--
	11/05/96	7.63	72.31	0.00	--	--	--	--	--	--
	05/15/97	7.41	72.53	0.00	--	--	--	--	--	--
	11/12/97	7.51	72.43	0.00	--	--	--	--	--	--
	05/04/98	7.15	72.79	0.00	--	--	--	--	--	--
	11/11/98	**7.04**	**72.90**	**0.00**	--	--	--	--	--	--
MW-7	11/07/90				ND	ND	ND	ND	ND	--
	02/25/91				70	ND	ND	ND	0.52	--
	05/28/91				39	ND	ND	ND	0.73	--
	08/28/91				ND	ND	ND	ND	ND	--
	11/19/91				32	ND	ND	ND	ND	--
	02/06/92				ND	ND	ND	ND	ND	--
	05/23/92				ND	ND	ND	ND	ND	--
	08/26/92				ND	ND	ND	0.73	ND	--
	11/20/92				ND	ND	ND	ND	ND	--
	02/24/93				ND	ND	ND	ND	ND	--
	05/25/93				ND	ND	ND	ND	ND	--
	08/25/93				ND	ND	ND	ND	ND	--
	11/30/93				SAMPLED SEMI-ANNUALLY		--	--	--	--

Table 1

Groundwater Monitoring Data and Analytical Results

Tosco (Unocal) Service Station #0746

3943 Broadway

Oakland, California

Well ID/ TOC*	Date	DTW (ft.)	GWE (msl)	Product Thickness (ft.)	TPH(G) *(ppb)*	B *(ppb)*	T *(ppb)*	E *(ppb)*	X *(ppb)*	MTBE *(ppb)*
MW-7	02/16/94				ND	ND	ND	ND	0.7	--
(cont)	08/31/94				ND	ND	0.8	ND	0.75	--
	11/10/94				--	--	--	--	--	--
	02/07/95				ND	ND	ND	ND	ND	--
	05/03/95				ND	ND	ND	ND	1.0	--
	08/03/95				--	--	--	--	--	--
	11/07/95				ND	ND	ND	ND	ND	--
81.64	05/06/96	8.15	73.49	0.00	--	--	--	--	--	--
	11/05/96	8.67	72.97	0.00	--	--	--	--	--	--
	05/15/97	8.47	73.17	0.00	--	--	--	--	--	--
	11/12/97	7.88	73.76	0.00	--	--	--	--	--	--
	05/04/98	7.93	73.71	0.00	--	--	--	--	--	--
	11/11/98	**8.20**	**73.44**	**0.00**	--	--	--	--	--	--
MW-8	11/07/90				4,700	28	38	86	7,200	--
	02/25/91				5,300	17	6.1	53	300	--
	05/28/91				4,800	4.2	1.3	5.1	170	--
	08/28/91				1,800	3.2	1.9	19	74	--
	11/19/91				1,600	8.1	1.8	19	52	--
	02/06/92				2,600	4.1	7.0	31	93	--
	05/23/92				2,100	8.6	1.6	1.7	28	--
	08/26/92				1,800	12	8.0	4.0	13	--
	11/20/92	INACCESSIBLE	--	--	--	--	--	--	--	--
	02/24/93	INACCESSIBLE	--	--	--	--	--	--	--	--
	05/25/93				1,200	5.4	ND	9.0	21	--
	08/25/93				1,800	11	17	8.9	29	--
	11/30/93				3,500	18	ND	ND	ND	--
	02/16/94				990	4.9	1.8	2.4	4.5	--
	05/31/94				350	3.0	1.0	0.73	1.7	--
	08/31/94				1,800[1]	ND	ND	ND	ND	--
	11/10/94				940	6.7	6.3	ND	16	--
	02/07/95				230	1.4	0.95	0.9	1.1	--
	05/03/95				75	ND	ND	ND	1.0	--

Table 1

Groundwater Monitoring Data and Analytical Results

Tosco (Unocal) Service Station #0746

3943 Broadway

Oakland, California

Well ID/ TOC*	Date	DTW (ft.)	GWE (msl)	Product Thickness (ft.)	TPH(G) (ppb)	B (ppb)	T (ppb)	E (ppb)	X (ppb)	MTBE (ppb)
MW-8	08/03/95	INACCESSIBLE (PARKED OVER)		--	--	--	--	--	--	--
(cont)	11/07/95				210	1.3	1.2	ND	ND	--[3]
81.41	05/06/96	INACCESSIBLE (PARKED OVER)		--	--	--	--	--	--	--
	11/05/96	INACCESSIBLE (PARKED OVER)		--	--	--	--	--	--	--
	05/15/97	10.46	70.95	0.00	ND	ND	ND	ND	ND	43
	11/12/97	INACCESSIBLE (PARKED OVER)		--	--	--	--	--	--	--
	05/04/98	INACCESSIBLE (PARKED OVER)		--	--	--	--	--	--	--
	11/11/98	**INACCESSIBLE (PARKED OVER)**		**--**	--	--	--	--	--	--
MW-9	11/07/90				480	7.8	1.2	13	47	--
	02/25/91				390	13	1.1	2.8	14	--
	05/28/91				590	6.0	0.43	6.8	1.4	--
	08/28/91				450	17	0.9	13	14	--
	11/19/91				360	17	0.45	15	11	--
	02/06/92				660	41	1.0	33	15	--
	05/23/92				460	18	0.66	1.4	3.2	--
	08/26/92				250	13	ND	8.6	3.8	--
	11/20/92	INACCESSIBLE	--	--	--	--	--	--	--	--
	02/24/93	INACCESSIBLE	--	--	--	--	--	--	--	--
	05/25/93				160	6.1	ND	7.4	1.1	--
	08/25/93				220	10	ND	6.8	1.4	--
	11/30/93				200	5.6	ND	2.9	2.7	--
	02/16/94				250	5.1	1.3	4.4	1.5	--
	05/31/94				360	7.8	0.97	4.6	2.2	--
	08/31/94				650	7.7	2.8	4.4	5.0	59
	11/10/94				ND	ND	ND	ND	ND	--
	02/07/95				57	0.7	ND	0.86	ND	--
	05/03/95				ND	0.85	0.67	1.3	1.0	--
	08/03/95				91	1.1	ND	ND	ND	--
	11/07/95				130	1.5	0.62	0.71	ND	60[3]
80.53	05/06/96	9.01	71.52	0.00	860	6.1	13	6.0	25	ND
	11/05/96	11.42	69.11	0.00	84	0.74	ND	1.2	4.5	ND
	05/15/97	9.89	70.64	0.00	ND	ND	ND	ND	ND	ND
	11/12/97	10.22	70.31	0.00	ND	0.55	ND	ND	ND	74

Table 1

Groundwater Monitoring Data and Analytical Results

Tosco (Unocal) Service Station #0746

3943 Broadway

Oakland, California

Well ID/ TOC*		Date	DTW (ft.)	GWE (msl)	Product Thickness (ft.)	TPH(G) *(ppb)*	B *(ppb)*	T *(ppb)*	E *(ppb)*	X *(ppb)*	MTBE *(ppb)*
MW-9	NP	05/04/98	10.05	70.48	0.00	ND	ND	ND	ND	ND	45
(cont)	NP	**11/11/98**	**9.23**	**71.30**	**0.00**	**ND**	**ND**	**ND**	**ND**	**ND**	**ND**
MW-10		02/06/92				ND	ND	ND	ND	ND	--
		05/23/92				ND	ND	ND	ND	ND	--
		08/26/92				ND	ND	ND	ND	ND	--
		11/20/92				ND	ND	ND	ND	ND	--
		02/24/93				ND	ND	ND	ND	ND	--
		05/25/93				ND	ND	ND	ND	ND	--
		08/25/93				ND	ND	ND	ND	ND	--
		11/30/93	INACCESSIBLE	--	--	--	--	--	--	--	--
		02/16/94				ND	ND	ND	ND	ND	--
		05/31/94				ND	ND	0.9	ND	0.91	--
		08/31/94				ND	ND	0.64	ND	0.54	--
		11/10/94				ND	ND	ND	ND	ND	--
		02/07/95				SAMPLED SEMI-ANNUALLY		--	--	--	--
		05/03/95				ND	ND	ND	ND	0.65	--
		08/03/95				--	--	--	--	--	--
		11/07/95				ND	ND	ND	ND	ND	--
81.61		05/06/96	10.90	70.71	0.00	SAMPLING DISCONTINUED[4]		--	--	--	--
		11/05/96	11.96	69.65	0.00	--	--	--	--	--	--
		05/15/97	10.79	70.82	0.00	--	--	--	--	--	--
		11/12/97	10.07	71.54	0.00	--	--	--	--	--	--
		05/04/98	10.01	71.60	0.00	--	--	--	--	--	--
		11/11/98	**12.03**	**69.58**	**0.00**	**--**	**--**	**--**	**--**	**--**	**--**
MW-11		02/06/92				ND	ND	ND	ND	ND	--
		05/23/92				ND	ND	ND	ND	ND	--
		08/26/92				ND	ND	ND	ND	ND	--
		11/20/92				ND	ND	ND	ND	ND	--
		02/24/93				ND	ND	ND	ND	ND	--
		05/25/93				ND	ND	0.75	ND	1.0	--
		08/25/93				ND	ND	ND	ND	ND	--

Table 1

Groundwater Monitoring Data and Analytical Results

Tosco (Unocal) Service Station #0746

3943 Broadway

Oakland, California

Well ID/ TOC*	Date	DTW (ft.)	GWE (msl)	Product Thickness (ft.)	TPH(G) *(ppb)*	B *(ppb)*	T *(ppb)*	E *(ppb)*	X *(ppb)*	MTBE *(ppb)*
MW-11	11/30/93				ND	ND	ND	ND	ND	--
(cont)	02/16/94				ND	ND	ND	ND	ND	--
	05/31/94				ND	ND	ND	ND	ND	--
	08/31/94				ND	ND	1.5	ND	1.8	--
	11/10/94				ND	ND	ND	ND	ND	--
	02/07/95				SAMPLED SEMI-ANNUALLY		--	--	--	--
	05/03/95				ND	ND	ND	ND	ND	--
	08/03/95				--	--	--	--	--	--
	11/07/95				ND	ND	ND	ND	ND	--
78.18	05/06/96	13.30	64.88	0.00	SAMPLING DISCONTINUED[4]		--	--	--	--
	11/05/96	10.90	67.28	0.00	--	--	--	--	--	--
	05/15/97	11.65	66.53	0.00	--	--	--	--	--	--
	11/12/97	9.66	68.52	0.00	--	--	--	--	--	--
	05/04/98	10.87	67.31	0.00	--	--	--	--	--	--
	11/11/98	**11.40**	**66.78**	**0.00**	--	--	--	--	--	--
MW-12	08/26/92				ND	ND	ND	ND	ND	--
	11/20/92				ND	ND	ND	ND	ND	--
	11/30/93				ND	ND	ND	ND	ND	--
	08/25/93				ND	ND	ND	ND	ND	--
	05/25/93				ND	ND	ND	ND	ND	--
	02/24/93				ND	ND	ND	ND	ND	--
	02/16/94				ND	ND	ND	ND	ND	--
	08/31/94				ND	ND	1.0	ND	1.0	ND
	05/31/94				ND	ND	0.81	ND	0.82	--
	11/10/94				ND	ND	ND	ND	ND	--
	02/07/95				SAMPLED SEMI-ANNUALLY		--	--	--	--
	05/03/95				ND	ND	ND	ND	ND	--
	08/03/95				--	--	--	--	--	--
	11/07/95				ND	ND	ND	ND	ND	--
79.61	05/06/96	13.25	66.36	0.00	SAMPLING DISCONTINUED[4]		--	--	--	--
	11/05/96	11.88	67.73	0.00	--	--	--	--	--	--
	05/15/97	11.72	67.89	0.00	--	--	--	--	--	--

Table 1

Groundwater Monitoring Data and Analytical Results

Tosco (Unocal) Service Station #0746

3943 Broadway

Oakland, California

Well ID/ TOC*	Date	DTW (ft.)	GWE (msl)	Product Thickness (ft.)	TPH(G) *(ppb)*	B *(ppb)*	T *(ppb)*	E *(ppb)*	X *(ppb)*	MTBE *(ppb)*
MW-12	11/12/97	10.01	69.60	0.00	--	--	--	--	--	--
(cont)	05/04/98	10.96	68.65	0.00	--	--	--	--	--	--
	11/11/98	**11.53**	**68.08**	**0.00**	**--**	**--**	**--**	**--**	**--**	**--**
Trip Blank										
TB-LB	05/04/98	--	--	--	ND	ND	ND	ND	ND	ND
	11/11/98	**--**	**--**	**--**	**ND**	**ND**	**ND**	**ND**	**ND**	**ND**

Table 1

Groundwater Monitoring Data and Analytical Results

Tosco (Unocal) Service Station #0746

3943 Broadway

Oakland, California

EXPLANATIONS:

Groundwater monitoring data and laboratory analytical results prior to May 4, 1998, were compiled from reports prepared by MPDS Services, Inc.

TOC = Top of Casing
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
NP = No Purge

* TOC elevations have been surveyed relative to mean sea level (msl) per the City of Oakland Benchmark BM#1336 (Elevation = 82.28 feet msl).

** Groundwater elevation corrected due to the presence of free product; correction factor: [(TOC-DTW)+(Product Thickness x 0.75)].

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 identified the presence of MTBE at a level greater than or equal to the taste and odor threshold of 40 ppb in the sample collected from this well.

4 Sampling discontinued per Alameda County Health Care Services' letter dated January 24, 1996.

5 Detection limit raised. Refer to analytical results.

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

Table 2

Dissolved Oxygen Concentrations

Tosco (Unocal) Service Station #0746

3943 Broadway

Oakland, California

Well ID	Date	Before Purging (mg/L)	After Purging (mg/L)
MW-1	05/06/96	5.21	4.13
	11/05/96	3.12	--[1]
	05/15/97	3.92	--[1]
	11/12/97	4.16	--[1]
	05/04/98	3.84	--[1]
	11/11/98	**2.85**	--[1]
MW-2	08/19/95	--	2.77
	05/15/97	3.01	--[1]
	11/12/97	3.27	--[1]
	05/04/98	3.63	--[1]
MW-3	08/19/95	--	2.06
	11/07/95	--	1.68
	05/06/96	3.18	3.40
	11/05/96	2.03	--[1]
	05/15/97	3.08	--[1]
	05/04/98	2.98	--[1]
	11/11/98	**2.22**	--[1]
MW-4	08/19/95	--	2.19
	11/07/95	--	8.43
	05/06/96	3.75	5.97
	11/05/96	2.11	--[1]
	05/15/97	3.24	--[1]
	11/12/97	3.11	--[1]
	05/04/98	3.73	--[1]
	11/11/98	**4.33**	--[1]
MW-5	08/19/95	--	2.09
	11/07/95	--	1.79
	05/06/96	2.91	1.80
	11/05/96	1.85	--[1]
	05/15/97	2.10	--[1]
	11/12/97	1.98	--[1]
	05/04/98	1.69	--[1]
MW-6	05/15/97	2.90	--[1]
	05/04/98	3.57	--[1]

Table 2

Dissolved Oxygen Concentrations
Tosco (Unocal) Service Station #0746
3943 Broadway
Oakland, California

Well ID	Date	Before Purging *(mg/L)*	After Purging *(mg/L)*
MW-7	05/15/97	2.21	--[1]
	05/04/98	3.09	--[1]
MW-8	11/05/96	INACCESSIBLE (PARKED OVER)	
	05/15/97	2.88	--[1]
	11/12/97	INACCESSIBLE (PARKED OVER)	
	05/04/98	INACCESSIBLE (PARKED OVER)	
	11/11/98	**INACCESSIBLE (PARKED OVER)**	
MW-9	05/06/96	4.23	3.25
	11/05/96	2.98	--[1]
	05/15/97	3.04	--[1]
	11/12/97	4.02	--[1]
	05/04/98	3.41	--[1]
	11/11/98	**5.19**	--[1]
MW-10	05/15/97	1.61	--[1]
	05/04/98	2.85	--[1]
MW-11	05/15/97	1.68	--[1]
	05/04/98	2.94	--[1]
MW-12	05/15/97	2.10	--[1]
	05/04/98	3.41	--[1]
RW-1	11/07/95	--	2.13

EXPLANATIONS:

Dissolved oxygen concentrations prior to May 4, 1998, were compiled from reports prepared by MPDS Services, Inc.

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

[1] Wells were not purged prior to sampling.

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.

FIELD DATA SHEET

Client/
Facility GASCAL SS#0746 (TOSCO) Job#: 180063

Address: 3943 BROADWAY Date: 11-11-98

City: OAKLAND, CA Sampler: STEVE BALLAW

Well ID MW-2 Well Condition: O.K

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

Total Depth 19.96 ft.

Depth to Water 8.88 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: _____

Sampling Time: _____ Water Color: _____ Odor: _____

Purging Flow Rate: _____ gpm. Sediment Description: _____

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
		X		SEQUOIA	TPH(G)/btex/mtbe

COMMENTS: MONITORED ONLY

9/97-fieldat.frm

FIELD DATA SHEET

Client/
Facility: GUNCAL SS#0746 (TOSCO) Job#: 180063

Address: 3943 BROADWAY Date: 11-11-9X

City: OAKLAND, CA Sampler: STEVE BALLAW

Well ID: MW-4 Well Condition: O.K

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

Total Depth: 20.03 ft.

Depth to Water: 9.13 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: 10:22 Weather Conditions: PARTLY CLOUD

Sampling Time: 10:25 Water Color: CLEAR Odor: —

Purging Flow Rate: _____ gpm. Sediment Description: _____

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)
10:25		7.05	698	71.6	4.33		

LABORATORY INFORMATION

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

COMMENTS: NO PURGING REQUIRED
ORC's IN THE WELL

FIELD DATA SHEET

Client/
Facility UNOCAL SS#0746 (TOSCO) Job#: 180063

Address: 3946 BROADWAY Date: 11-11-98

City: OAKLAND, CA Sampler: STEVE BALIAS

Well ID MW-5 Well Condition: O.K

Well Diameter 2" in. Hydrocarbon Thickness: 0.37 (BROWN) (feet) Amount Bailed (product/water): 0.25 (Gallons)

Total Depth 20.18 ft.

Depth to Water 9.23 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: _____

Sampling Time: _____ Water Color: _____ Odor: _____

Purging Flow Rate: _____ gpm. Sediment Description: _____

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: DID NOT SAMPLED, DUE TO PRESENCE OF FREE PRODUCT.
ORC'S IN THE WELL

THE PRODUCT TOOK TO SEQUOIA CAB IN WALNUT CREEK

9/97-fieldst.frm

FIELD DATA SHEET

Client/
Facility ~~UNOCAL~~ SS#0746 (TOSCO) Job#: 180063

Address: 3943 BROADWAY Date: 11-11-98

City: OAKLAND, CA Sampler: STEVE BALIAN

Well ID MW-6 Well Condition: O.K

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

Total Depth 19.78 ft. 7.04

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

Starting Time: _____ Weather Conditions: _____

Sampling Time: _____ Water Color: _____ Odor: _____

Purging Flow Rate: _____ gpm. Sediment Description: _____

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
	3	Y	HCl	SEQUOIA	TPH(G)/btex/mtbe

COMMENTS: MONITORED ONLY

FIELD DATA SHEET

Client/
Facility ~~GASCAL~~ SS#0746 (TOSCO) Job#: 180063

Address: 3943 BROADWAY Date: 11-11-9X

City: OAKLAND, CA Sampler: STEVE BALIAN

Well ID MW-7 Well Condition: O.K

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

Total Depth 18.50 ft.

Depth to Water 8.20 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: _____

Sampling Time: _____ Water Color: _____ Odor: _____

Purging Flow Rate: _____ gpm. Sediment Description: _____

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: MONITORED ONLY

WELL MONITORING/SAMPLING

FIELD DATA SHEET

Client/
Facility UNOCAL SS#0746 (TOSCO) Job#: 180063

Address: 3943 BROADWAY Date: 11-11-9X

City: OAKLAND, CA Sampler: STEVE BALLAW

Well ID MW-8 Well Condition: * see notes below

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

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

Starting Time: _____ Weather Conditions: _____

Sampling Time: _____ Water Color: _____ Odor: _____

Purging Flow Rate: _____ gpm. Sediment Description: _____

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: * OIL NOT SAMPLED, DUE TO PARKED OVER BY JUNK CAR / Inaccessible

WELL MONITORING/SAMPLING

FIELD DATA SHEET

Client/
Facility UNOCAL SS#0746 (TOSCO) Job#: 180063

Address: 3943 BROADWAY Date: 11-11-9X

City: OAKLAND, CA Sampler: STEVE BALIAN

Well ID MW-10 Well Condition: O.K

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

Total Depth 21.78 ft.

Depth to Water 12.03 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: _____

Sampling Time: _____ Water Color: _____ Odor: _____

Purging Flow Rate: _____ gpm. Sediment Description: _____

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: MONITORED ONLY

WELL MONITORING/SAMPLING
FIELD DATA SHEET

Client/
Facility GASCAL SS#0746 (TOSCO) Job#: 180063

Address: 3943 BROADWAY Date: 11-11-97

City: OAKLAND, CA Sampler: STEVE BALIAN

Well ID MW-11 Well Condition: O.K

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

Total Depth 19.20 ft.

Depth to Water 11.40 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: _____

Sampling Time: _____ Water Color: _____ Odor: _____

Purging Flow Rate: _____ gpm. Sediment Description: _____

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: MONITORED ONLY

WELL MONITORING/SAMPLING

FIELD DATA SHEET

Client/
Facility: UNOCAL SS#0746 (TOSCO) Job#: 180063

Address: 3943 BROADWAY Date: 11-11-98

City: OAKLAND, CA Sampler: STEVE BALIAN

Well ID: MW-12 Well Condition: Okay

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

Total Depth: 17.65 ft.

Depth to Water: 11.53 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: _____

Sampling Time: _____ Water Color: _____ Odor: _____

Purging Flow Rate: _____ gpm. Sediment Description: _____

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
				SEQUOIA	TPH(G)/btex/mtbe

COMMENTS: MONITORED ONLY

TOSCO

Tosco Marketing Company
[illegible]

Facility Number UNOCAL SS#BP0746
Facility Address 3943 BROADWAY, OAKLAND, CA
Consultant Project Number 180063.85
Consultant Name Gettler-Ryan Inc. (G-R Inc.)
Address 6747 Sierra Court, Suite J, Dublin, CA 94568
Project Contact (Name) Deanna L. Harding
(Phone) 510-551-7555 (Fax Number) 510-551-7888

Contact (Name) MS. TINA BERRY
(Phone) 925-277-2321
Laboratory Name Sequoia Analytical 9811236
Laboratory Release Number
Samples Collected by (Name) STEVE BALIAN
Collection Date 11-11-98
Signature STEVE BALIAN

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)	Analyses To Be Performed: 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)						DO NOT BILL TB-LB ANALYSIS Remarks
TB-LB		1	W	G		HCl	X	X		8110848											
MW-1		3	"	"	10:55	"	X	X		8110849											
MW-3		3	"	"	11:20	"	X	X		8110850											
MW-4		3	"	"	10:25	"	X	X		8110851											
MW-9		3	"	"	12:20	"	X	X		8110852											

Relinquished By (Signature)	Organization	Date/Time	Received By (Signature)	Organization	Date/Time
STEVE BALIAN	G-R Inc.	11-11-98 13:25			
Relinquished By (Signature)	Organization	Date/Time	Received By (Signature)	Organization	Date/Time
Relinquished By (Signature)	Organization	Date/Time	Received For Laboratory By (Signature)		Date/Time
			[signature]		11/11/98 1325

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

RECEIVED

Gettler-Ryan - Dublin	Client Project ID:	Unocal SS#BP0746, Oakland	Sampled:	Nov 11, 1998
6747 Sierra Court, Suite J	Sample Matrix:	Water	Received:	Nov 11, 1998
Dublin, CA 94568	Analysis Method:	EPA 5030/8015 Mod./8020	Reported:	Nov 24, 1998
Attention: Deanna Harding	First Sample #:	811-0848		

GETTLER-RYAN INC.

TOTAL PURGEABLE PETROLEUM HYDROCARBONS with BTEX / MTBE

Analyte	Reporting Limit µg/L	Sample I.D. 811-0848 TB-LB	Sample I.D. 811-0849 MW-1	Sample I.D. 811-0850 MW-3	Sample I.D. 811-0851 MW-4	Sample I.D. 811-0852 MW-9
Purgeable Hydrocarbons	50	N.D.	N.D.	8,700	N.D.	N.D.
Benzene	0.50	N.D.	N.D.	500	0.63	N.D.
Toluene	0.50	N.D.	N.D.	N.D.	N.D.	N.D.
Ethyl Benzene	0.50	N.D.	N.D.	330	N.D.	N.D.
Total Xylenes	0.50	N.D.	N.D.	310	N.D.	N.D.
MTBE	2.5	N.D.	200	N.D.	N.D.	N.D.
Chromatogram Pattern:		--	--	Gasoline	--	--

Quality Control Data

Report Limit Multiplication Factor:	1.0	1.0	50	1.0	1.0
Date Analyzed:	11/13/98	11/13/98	11/13/98	11/16/98	11/13/98
Instrument Identification:	HP-5	HP-5	HP-5	HP-2	HP-5
Surrogate Recovery, %: (QC Limits = 70-130%)	107	106	86	103	92

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

8110848.GET <1>

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#BP0746, Oakland
Matrix: Liquid
QC Sample Group: 8110848-852

Reported: Nov 24, 1998

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#:	8110852	8110852	8110852	8110852
Date Prepared:	11/13/98	11/13/98	11/13/98	11/13/98
Date Analyzed:	11/13/98	11/13/98	11/13/98	11/13/98
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:	100	100	100	105
Matrix Spike Duplicate % Recovery:	115	115	115	115
Relative % Difference:	14	14	14	9.1
LCS Batch#:	5LCS111398	5LCS111398	5LCS111398	5LCS111398
Date Prepared:	11/13/98	11/13/98	11/13/98	11/13/98
Date Analyzed:	11/13/98	11/13/98	11/13/98	11/13/98
Instrument I.D.#:	HP-5	HP-5	HP-5	HP-5
LCS % Recovery:	100	100	100	105
% 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#BP0746, Oakland
Matrix: Liquid
QC Sample Group: 8110848-852

Reported: Nov 24, 1998

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#:	8111108	8111108	8111108	8111108
Date Prepared:	11/16/98	11/16/98	11/16/98	11/16/98
Date Analyzed:	11/16/98	11/16/98	11/16/98	11/16/98
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:	90	85	90	95
Matrix Spike Duplicate % Recovery:	95	90	100	103
Relative % Difference:	5.4	5.7	11	8.4
LCS Batch#:	2LCS111698	2LCS111698	2LCS111698	2LCS111698
Date Prepared:	11/16/98	11/16/98	11/16/98	11/16/98
Date Analyzed:	11/16/98	11/16/98	11/16/98	11/16/98
Instrument I.D.#:	HP-2	HP-2	HP-2	HP-2
LCS % Recovery:	105	100	100	110
% 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.