



GETTLER-RYAN INC.

April 18, 2001
G-R Job #180067

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

RECEIVED

3:27 pm, May 13, 2009

Alameda County
Environmental Health

RE: Annual Event of March 5, 2001
Groundwater Monitoring & Sampling Report
Tosco (Unocal) Service Station #3135
845 66th Avenue
Oakland, California

Dear Mr. De Witt:

This report documents the most recent groundwater monitoring and sampling event performed by Gettler-Ryan Inc. (G-R) at the referenced site. All field work was conducted in accordance with G-R Standard Operating Procedure - Groundwater Sampling (attached).

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 presented 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
Deanna L. Harding
Project Coordinator

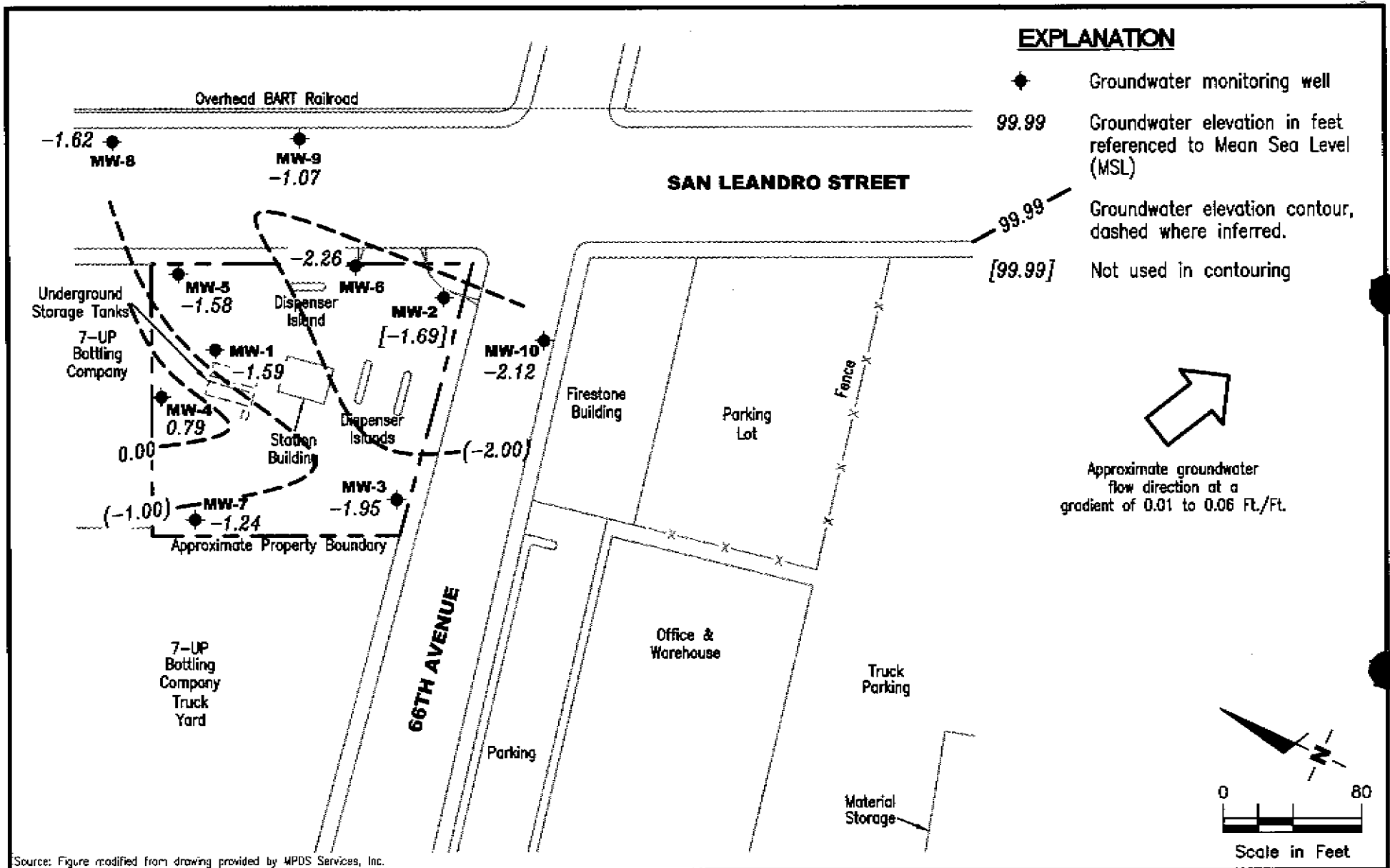
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Hagop Kevork
P.E. No. C55734



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

253135 SS X BP
OM X TRANSMITTAL
3 4

3135.qml



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 Dublin, CA 94568 (925) 551-7555

POTENTIOMETRIC MAP
 Tosco (Unocal) Service Station #3135
 845 66th Avenue
 Oakland, California

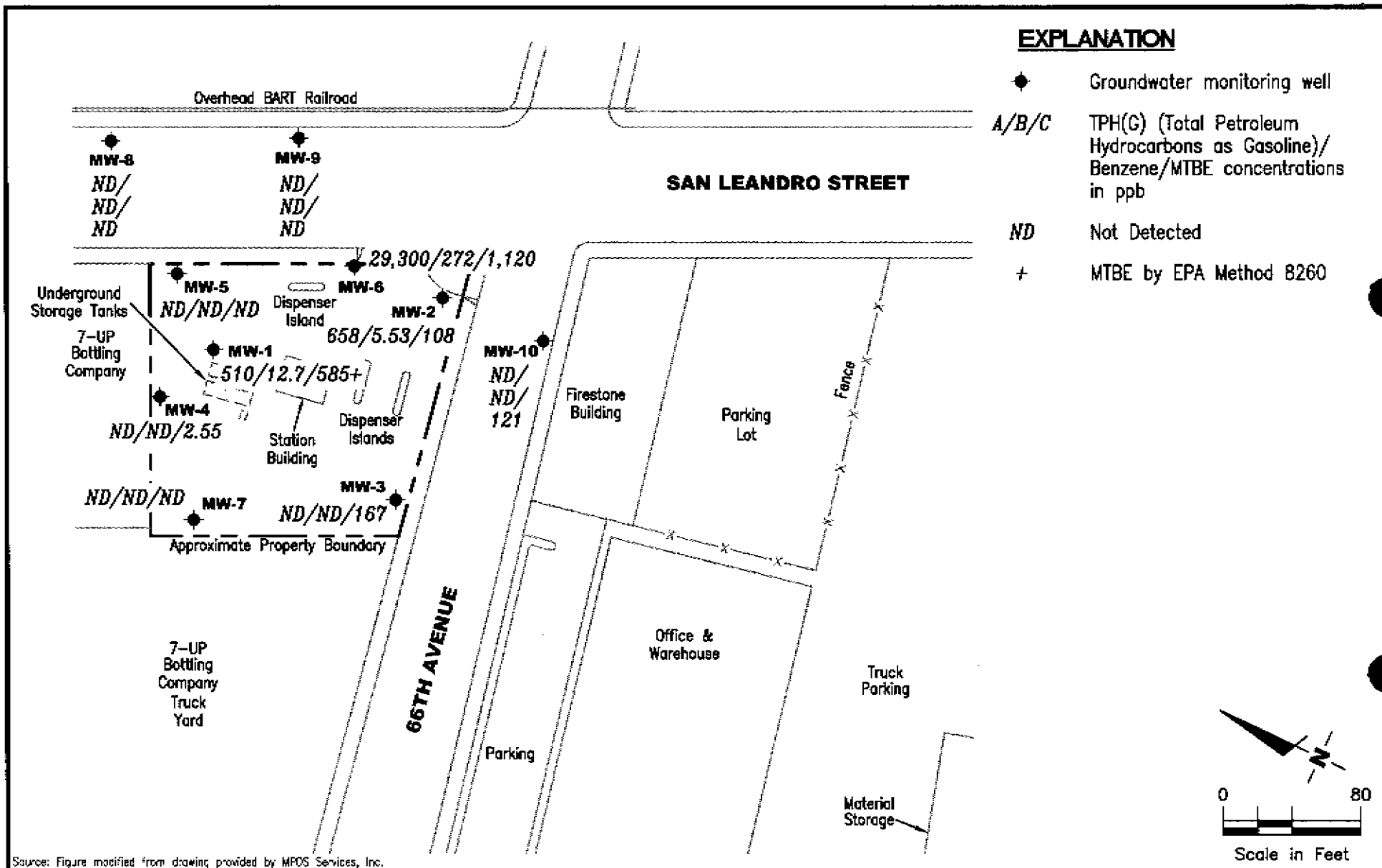
FIGURE
1

PROJECT NUMBER
 180067

REVIEWED BY

DATE
 March 5, 2001

REVISED DATE



Source: Figure modified from drawing provided by MPOS Services, Inc.

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CONCENTRATION MAP
 Tosco (Unocal) Service Station #3135
 845 66th Avenue
 Oakland, California

FIGURE

2

PROJECT NUMBER
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REVIEWED BY

DATE
 March 5, 2001

REVISED DATE

Table 1
Groundwater Monitoring Data and Analytical Results
 Tosco (Unocal) Service Station #3135
 845 66th Avenue
 Oakland, California

WELL ID/ TOC*	DATE	DTW (ft.)	GWE (msl)	TPH-D (ppb)	TPH-G (ppb)	B (ppb)	T (ppb)	E (ppb)	X (ppb)	MTBE (ppb)	
MW-1 (D)	05/11/90	--	--	--	22,000	590	42	1,200	3,600	--	
	08/28/90	--	--	--	1,700	140	1.4	180	150	--	
	08/28/90	--	--	--	2,600	180	3	810	270	--	
	11/26/90	--	--	--	2,900	160	2.3	330	320	--	
	02/21/91	--	--	690	26,000	280	39	1,200	1,900	--	
	08/05/91	--	--	200	1,200	95	6.2	230	80	--	
	11/05/91	--	--	260	4,900	80	ND	150	160	--	
	02/07/92	--	--	ND	220	2.1	ND	10	16	--	
	05/05/92	--	--	120	310	5.7	ND	7.1	15	--	
	08/03/92	--	--	220 ⁴	980	22	0.69	77	82	--	
	11/03/92	--	--	400 ⁴	1,100	28	ND	80	78	--	
	02/03/93	--	--	ND	94 ⁷	ND	ND	1.4	1.6	--	
	5.18	03/01/93	7.30	-2.12	--	--	--	--	--	--	--
		04/01/93	7.12	-1.94	--	--	--	--	--	--	--
05/17/93		8.25	-3.07	490 ⁵	960 ⁷	39	ND	57	60	--	
06/15/93		INACCESSIBLE	--	--	--	--	--	--	--	--	
07/14/93		9.48	-4.30	--	--	--	--	--	--	--	
08/13/93		10.00	-4.82	170 ⁵	860	3.5	ND	17	20	--	
09/13/93		10.40	-5.22	--	--	--	--	--	--	--	
4.99	10/14/93	10.73	-5.55	--	--	--	--	--	--	--	
	11/11/93	10.80	-5.81	160 ⁵	930	7.3	ND	25	19	--	
	12/14/93	9.50	-4.51	--	--	--	--	--	--	--	
	01/10/94	9.80	-4.81	--	--	--	--	--	--	--	
	02/10/94	8.58	-3.59	ND	170 ⁶	0.9	2.3	ND	ND	--	
	03/14/94	7.73	-2.74	--	--	--	--	--	--	--	
	04/23/94	8.28	-3.29	--	--	--	--	--	--	--	
	05/05/94	8.11	-3.12	ND	96 ⁶	ND	ND	ND	ND	--	
	06/07/94	8.09	-3.10	--	--	--	--	--	--	--	
	07/05/94	8.43	-3.44	--	--	--	--	--	--	--	
	08/02/94	8.76	-3.77	130 ⁵	700	13	0.62	2	3.6	--	
	11/07/94	8.26	-3.27	270 ⁴	890	16	ND	31	21	--	
12/03/94	6.59	-1.60	--	--	--	--	--	--	--		

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Groundwater Monitoring Data and Analytical Results
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WELL ID/ TOC*	DATE	DTW (ft.)	GWE (msl)	TPH-D (ppb)	TPH-G (ppb)	B (ppb)	T (ppb)	E (ppb)	X (ppb)	MTBE (ppb)
MW-1	01/10/95	6.12	-1.13	--	--	--	--	--	--	--
(cont)	02/01/95	6.04	-1.05	ND	120	1.7	ND	ND	ND	--
	03/03/95	6.73	-1.74	--	--	--	--	--	--	--
	05/02/95	6.57	-1.58	120 ⁴	460	14	ND	14	13	--
	08/01/95	7.70	-2.71	86 ⁴	190	4	ND	3.7	2	--
	11/01/95	9.08	-4.09	190 ⁵	160	2.5	ND	0.82	0.57	280
	02/01/96	6.22	-1.23	90 ⁴	240	8.7	2	ND	0.66	250
	02/04/97	8.48	-3.49	--	120 ⁶	0.58	ND	ND	ND	150
	02/05/98	5.50	-0.51	--	130	1.3	ND	2.7	11	220
	02/04/99	6.58	-1.59	--	1,600	74	16	ND ⁹	ND ⁹	680/850 ¹⁰
	02/02/00	6.69	-1.70	--	174 ¹²	5.70	1.41	ND	ND	839/787 ¹⁰
	03/05/01	6.58	-1.59	--	510 ¹³	12.7	0.875	2.57	ND	572/585 ¹⁰
MW-2	05/11/90	--	--	--	65,000	3,300	3,300	4,100	12,000	--
	08/28/90 ¹	--	--	3,100	27,000	2,600	1,300	1,900	3,000	--
	11/26/90 ¹	--	--	3,800	15,000	1,600	450	1,100	2,100	--
	02/21/91 ¹	--	--	7,000	3,400	160	61	200	490	--
	08/05/91 ¹	--	--	4,200	33,000	2,900	190	3,400	7,900	--
	11/05/91 ²	--	--	3,900	110,000	4,200	200	3,400	8,600	--
	02/07/92 ¹	--	--	2,300	11,000	1,400	30	1,900	1,400	--
	05/05/92 ¹	--	--	4,600	26,000	2,300	110	2,700	6,900	--
	08/03/92 ¹	--	--	3,300 ⁵	37,000	4,500	480	3,300	9,700	--
	11/03/92 ¹	--	--	9,600 ⁴	40,000	5,600	130	3,000	6,100	--
	02/03/93 ¹	--	--	3,900 ⁴	9,300	780	68	830	1,200	--
3.83	03/01/93	5.92	-2.09	--	--	--	--	--	--	--
	04/01/93	5.76	-1.93	--	--	--	--	--	--	--
	05/17/93	7.08	-3.25	5,500 ⁵	46,000	4,400	510	2,900	9,900	--
	06/15/93	7.02	-3.19	--	--	--	--	--	--	--
	07/14/93	8.13	-4.30	--	--	--	--	--	--	--
	08/13/93	8.64	-4.81	2,800 ⁵	44,000	5,100	600	2,900	8,500	--

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WELL ID/ TOC*	DATE	DTW (ft.)	GWE (msl)	TPH-D (ppb)	TPH-G (ppb)	B (ppb)	T (ppb)	E (ppb)	X (ppb)	MTBE (ppb)
MW-2	09/13/93	9.00	-5.17	--	--	--	--	--	--	--
(cont)	10/14/93	9.03	-5.20	--	--	--	--	--	--	--
3.57	11/11/93	9.22	-5.65	7,000 ⁵	36,000	4,800	970	3,000	8,100	--
	12/14/93	8.05	-4.48	--	--	--	--	--	--	--
	01/10/94	8.29	-4.72	--	--	--	--	--	--	--
	02/10/94	6.93	-3.36	2,000 ⁵	12,000	1,000	17	880	940	--
	03/14/94	6.41	-2.84	--	--	--	--	--	--	--
	04/23/94	6.66	-3.09	--	--	--	--	--	--	--
	05/05/94	6.38	-2.81	3,100 ⁵	36,000	3,200	670	2,700	9,600	--
	06/07/94	6.33	-2.76	--	--	--	--	--	--	--
	07/05/94	6.52	-2.95	--	--	--	--	--	--	--
	08/02/94	6.75	-3.18	8,500 ⁴	32,000	2,400	2,200	2,900	12,000	--
	11/07/94	6.04	-2.47	3,100 ⁵	49,000	1,700	2,000	3,000	10,000	--
	12/03/94	4.95	-1.38	--	--	--	--	--	--	--
	01/10/95	4.59	-1.02	--	--	--	--	--	--	--
	02/01/95	4.54	-0.97	1,800 ⁴	9,300	300	210	630	2,600	--
	03/03/95	5.17	-1.60	--	--	--	--	--	--	--
	05/02/95	5.03	-1.46	2,300 ⁵	5,600	150	ND	150	180	--
	08/01/95	6.16	-2.59	2,900 ⁴	13,000	700	140	1,400	5,500	--
	11/01/95	7.30	-3.73	4,100 ⁴	18,000	490	110	1,300	4,600	190
	02/01/96	4.57	-1.00	5,500 ⁴	22,000	470	77	1,400	5,900	ND
	02/04/97	7.10	-3.53	--	100 ⁶	ND	0.89	ND	ND	81
	02/05/98	4.12	-0.55	--	330	2.6	2.6	17	58	5.5
	08/28/98	6.26	-2.69	--	--	--	--	--	--	--
	02/04/99	5.01	-1.44	--	ND	ND	0.54	0.60	1.5	19/16 ¹⁰
	02/02/00	5.35	-1.78	--	ND	ND	ND	ND	ND	163/150 ¹¹
	03/05/01	5.26	-1.69	--	658 ¹³	5.53	ND ⁹	70.0	152	108
MW-3	5/11/90	--	--	--	ND	ND	ND	ND	ND	--
	08/28/90	--	--	--	ND	ND	ND	ND	0.7	--
	11/26/90	--	--	--	ND	ND	ND	ND	ND	--

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MW-3	02/21/91	--	--	--	ND	ND	ND	ND	0.64	--
(cont)	08/05/91	--	--	63	ND	ND	ND	ND	ND	--
	11/05/91	--	--	ND	31	ND	ND	ND	0.65	--
	02/07/92	--	--	ND	ND	ND	ND	ND	ND	--
	05/05/92	--	--	56	ND	ND	ND	0.43	1.8	--
	08/03/92	--	--	58	ND	ND	ND	ND	ND	--
	11/03/92	--	--	52 ⁴	ND	ND	ND	ND	ND	--
	02/03/93	--	--	ND	ND	ND	ND	ND	ND	--
3.30	03/01/93	4.84	-1.54	--	--	--	--	--	--	--
	04/01/93	4.60	-1.30	--	--	--	--	--	--	--
	05/17/93	5.47	-2.17	53	ND	ND	ND	ND	ND	--
	06/15/93	5.57	-2.27	--	--	--	--	--	--	--
	07/14/93	6.92	-3.62	--	--	--	--	--	--	--
	08/13/93	7.85	-4.55	ND	ND	ND	ND	ND	ND	--
	09/13/93	8.42	-5.12	--	--	--	--	--	--	--
	10/14/93	8.90	-5.60	--	--	--	--	--	--	--
3.12	11/11/93	8.92	-5.80	51	ND	ND	ND	ND	ND	--
	12/14/93	7.36	-4.24	--	--	--	--	--	--	--
	01/10/94	7.54	-4.42	--	--	--	--	--	--	--
	02/10/94	6.23	-3.11	50 ⁵	ND	ND	ND	ND	0.84	--
	03/14/94	5.56	-2.44	--	--	--	--	--	--	--
	04/23/94	7.72	-4.60	--	--	--	--	--	--	--
	05/05/94	5.50	-2.38	66	62 ⁶	ND	ND	ND	ND	--
	06/07/94	5.35	-2.23	--	--	--	--	--	--	--
	07/02/94	5.46	-2.34	--	--	--	--	--	--	--
	08/02/94	5.84	-2.72	76	150 ⁶	ND	ND	ND	ND	--
	11/07/94	6.05	-2.93	ND	94 ⁶	ND	ND	ND	ND	--
	12/03/94	4.51	-1.39	--	--	--	--	--	--	--
	01/10/95	3.82	-0.70	--	--	--	--	--	--	--
	02/01/95	3.84	-0.72	ND	100 ⁶	ND	ND	ND	ND	--
	03/03/95	4.27	-1.15	--	--	--	--	--	--	--
	05/02/95	4.11	-0.99	56	360 ⁶	ND	ND	ND	ND	--

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MW-3	08/01/95	5.10	-1.98	ND	ND	ND	ND	ND	ND	--
(cont)	11/01/95	6.65	-3.53	200 ^d	ND	ND	ND	ND	ND	200
	02/01/96	4.29	-1.17	160 ^d	ND	ND	ND	ND	ND	190
	02/04/97	6.43	-3.31	--	ND	ND	ND	ND	ND	ND
	02/05/98	4.68	-1.56	--	ND	ND	ND	ND	ND	490
	02/04/99	4.62	-1.50	--	ND	ND	ND	ND	ND	480/530 ¹⁰
	02/02/00	5.16	-2.04	--	ND	ND	ND	ND	ND	250/346 ¹⁴
	03/05/01	5.07	-1.95	--	ND	ND	ND	ND	ND	167
MW-4	08/28/90	--	--	--	62,000	810	72	4,400	4,600	--
	11/26/90	--	--	--	49,000	360	36	3,800	11,000	--
	02/21/91	--	--	4,100	33,000	210	21	3,800	12,000	--
	08/05/91	--	--	6,200	37,000	310	70	3,600	9,700	--
	11/05/91	--	--	7,700	140,000	320	ND	4,800	13,000	--
	02/07/92	--	--	2,300	8,100	24	4.9	1,800	3,200	--
	05/05/92	--	--	3,200	15,000	82	12	2,000	5,600	--
	08/03/92	--	--	2,400 ^d	24,000	61	ND	2,100	5,400	--
	11/03/92	--	--	8,300 ^d	36,000	69	ND	3,000	7,400	--
	02/03/93	--	--	720 ⁵	370	2.6	ND	1.2	53	--
5.27	03/01/93	7.63	-2.36	--	--	--	--	--	--	--
	04/01/93	7.25	-1.98	--	--	--	--	--	--	--
	05/17/93	8.46	-3.19	3,100 ^d	2,500	ND	ND	170	410	--
	06/15/93	9.00	-3.73	--	--	--	--	--	--	--
	07/14/93	9.74	-4.47	--	--	--	--	--	--	--
	08/13/93	10.23	-4.96	2,000 ⁵	19,000	ND	ND	1,600	4,100	--
	09/13/93	10.62	-5.35	--	--	--	--	--	--	--
	10/14/93	10.84	-5.57	--	--	--	--	--	--	--
4.93	11/11/93	10.88	-5.95	4,000 ^d	16,000	110	12	1,800	3,800	--
	12/14/93	9.60	-4.67	--	--	--	--	--	--	--
	01/10/94	9.92	-4.99	--	--	--	--	--	--	--
	02/10/94	8.79	-3.86	170 ^d	830	3.5	1.4	36	80	--

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WELL ID/ TOC*	DATE	DTW (ft.)	GWE (msl)	TPH-D (ppb)	TPH-G (ppb)	B (ppb)	T (ppb)	E (ppb)	X (ppb)	MTBE (ppb)
MW-4	03/14/94	7.91	-2.98	--	--	--	--	--	--	--
(cont)	04/23/94	8.41	-3.48	--	--	--	--	--	--	--
	05/05/94	8.27	-3.34	2,000 ⁵	6,900	17	ND	480	1,300	--
	06/07/94	8.27	-3.34	--	--	--	--	--	--	--
	07/05/94	8.58	-3.65	--	--	--	--	--	--	--
	08/02/94	8.91	-3.98	2,500 ⁵	17,000	38	ND	1,800	4,300	--
	11/07/94	8.64	-3.71	2,200 ⁴	20,000	84	17	1,500	3,000	--
	12/03/94	6.78	-1.85	--	--	--	--	--	--	--
	01/10/95	6.35	-1.42	--	--	--	--	--	--	--
	02/01/95	5.73	-0.80	ND	ND	ND	ND	ND	ND	--
	03/03/95	6.82	-1.89	--	--	--	--	--	--	--
	05/02/95	5.74	-0.81	2,500 ⁴	5,400	36	ND	130	710	--
	08/01/95	7.78	-2.85	3,400 ⁴	7,900	21	ND	210	860	--
	11/01/95	9.16	-4.23	3,300 ⁴	4,900	12	ND	190	710	210
	02/01/96	4.64	0.29	ND	91	2.7	ND	1.2	6.8	7.8
	02/04/97	8.65	-3.72	--	130 ⁶	0.58	ND	ND	ND	150
	02/05/98	PAVED OVER	--	--	--	--	--	--	--	--
	02/04/99	4.04	0.89	--	ND	ND	ND	ND	ND	ND
	02/02/00	4.07	0.86	--	ND	ND	ND	ND	ND	ND
	03/05/01	4.14	0.79	--	ND	ND	ND	ND	ND	2.55
MW-5	08/28/90	--	--	--	ND	ND	ND	ND	1.2	--
	11/26/90	--	--	--	ND	ND	ND	ND	ND	--
	02/21/91	--	--	--	56	ND	ND	ND	4.7	--
	08/05/91	--	--	ND	ND	ND	ND	ND	ND	--
	11/05/91	--	--	ND	ND	ND	ND	ND	ND	--
	02/07/92	--	--	ND	ND	ND	ND	0.36	0.94	--
	05/05/92	--	--	72	ND	ND	ND	0.42	1.4	--
	08/03/92	--	--	ND	ND	ND	ND	ND	ND	--

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WELL ID/ TOC*	DATE	DTW (ft.)	GWE (msl)	TPH-D (ppb)	TPH-G (ppb)	B (ppb)	T (ppb)	E (ppb)	X (ppb)	MTBE (ppb)
MW-5	11/03/92	--	--	ND	ND	ND	ND	ND	ND	--
(cont)	02/03/93	--	--	ND	ND	ND	ND	ND	ND	--
4.61	03/01/93	6.68	-2.07	--	--	--	--	--	--	--
	04/01/93	6.51	-1.90	--	--	--	--	--	--	--
	05/17/93	7.75	-3.14	ND	ND	ND	ND	ND	ND	--
	06/15/93	8.18	-3.57	--	--	--	--	--	--	--
	07/14/93	8.98	-4.37	--	--	--	--	--	--	--
	08/13/93	9.49	-4.88	ND	ND	ND	ND	ND	ND	--
	09/13/93	9.88	-5.27	--	--	--	--	--	--	--
	10/14/93	10.04	-5.43	--	--	--	--	--	--	--
4.27	11/11/93	10.13	-5.86	ND	ND	ND	ND	ND	ND	--
	12/14/93	8.85	-4.58	--	--	--	--	--	--	--
	01/10/94	9.10	-4.83	--	--	--	--	--	--	--
	02/10/94	7.71	-3.44	ND	ND	ND	ND	ND	0.59	--
	03/14/94	7.02	-2.75	--	--	--	--	--	--	--
	04/23/94	7.57	-3.30	--	--	--	--	--	--	--
	05/05/94	7.38	-3.11	SAMPLED SEMI-ANNUALLY		--	--	--	--	--
	06/07/94	7.39	-3.12	--	--	--	--	--	--	--
	07/05/94	7.72	-3.45	--	--	--	--	--	--	--
	08/02/94	8.05	-3.78	ND	ND	ND	ND	ND	ND	--
	11/07/94	7.56	-3.29	--	--	--	--	--	--	--
	12/03/94	5.80	-1.53	--	--	--	--	--	--	--
	01/10/95	5.37	-1.10	--	--	--	--	--	--	--
	02/01/95	5.24	-0.97	ND	ND	ND	ND	ND	ND	--
	03/03/95	5.99	-1.72	--	--	--	--	--	--	--
	05/02/95	5.85	-1.58	--	--	--	--	--	--	--
	08/01/95	7.00	-2.73	ND	ND	ND	ND	ND	ND	--
	11/01/95	8.40	-4.13	--	--	--	--	--	--	--
	02/01/96	5.45	-1.18	ND	ND	ND	ND	ND	ND	0.72
	02/04/97	7.82	-3.55	--	ND	ND	ND	ND	ND	ND
	02/05/98	3.85	0.42	--	ND	ND	ND	ND	ND	490

Table 1
Groundwater Monitoring Data and Analytical Results
 Tosco (Unocal) Service Station #3135
 845 66th Avenue
 Oakland, California

WELL ID/ TOC*	DATE	DTW (ft.)	GWE (msl)	TPH-D (ppb)	TPH-G (ppb)	B (ppb)	T (ppb)	E (ppb)	X (ppb)	MTBE (ppb)
MW-5	02/04/99	5.85	-1.58	--	ND	ND	ND	ND	ND	23/26 ¹⁰
(cont)	02/02/00	5.94	-1.67	--	ND	ND	ND	ND	ND	ND
	03/05/01	5.85	-1.58	--	ND	ND	ND	ND	ND	ND
MW-6	08/28/90 ³	--	--	1,000	12,000	1,700	1,400	230	2,100	--
	11/26/90 ¹	--	--	320	4,800	1,000	200	340	650	--
(D)	11/26/90	--	--	--	4,000	800	120	250	440	--
	02/21/91 ¹	--	--	160	750	77	14	23	140	--
	08/05/91 ¹	--	--	130	860	130	11	92	150	--
	11/05/91 ¹	--	--	300	7,100	200	ND	190	580	--
	02/07/92 ¹	--	--	ND	180	22	0.68	22	20	--
	05/05/92 ¹	--	--	47	ND	ND	ND	ND	1.3	--
	08/03/92	--	--	170 ⁴	1,100	180	1.1	62	78	--
	11/03/92	--	--	220 ⁴	920	45	0.76	12	110	--
	02/03/93 ¹	--	--	ND	ND	1.2	ND	ND	ND	--
4.31	03/01/93	6.20	-1.89	--	--	--	--	--	--	--
	04/01/93	6.04	-1.73	--	--	--	--	--	--	--
	05/17/93	7.50	-3.19	1,400 ⁴	4,900	890	46	210	530	--
	06/15/93	7.76	-3.45	--	--	--	--	--	--	--
	07/14/93	8.69	-4.38	--	--	--	--	--	--	--
	08/13/93	9.20	-4.89	440 ⁵	2,300	330	ND	95	40	--
	09/13/93	9.59	-5.28	--	--	--	--	--	--	--
	10/14/93	9.75	-5.44	--	--	--	--	--	--	--
4.03	11/11/93	9.87	-5.84	650 ⁵	3,000	470	ND	220	270	--
	12/14/93	8.60	-4.57	--	--	--	--	--	--	--
	01/10/94	8.81	-4.78	--	--	--	--	--	--	--
	02/10/94	7.23	-3.20	ND	ND	3.5	ND	1.5	ND	--
	03/14/94	6.68	-2.65	--	--	--	--	--	--	--
	04/23/94	7.24	-3.21	--	--	--	--	--	--	--
	05/05/94	7.01	-2.98	630 ⁵	2,600	430	99	24	420	--
	06/07/94	7.02	-2.99	--	--	--	--	--	--	--

Table 1
Groundwater Monitoring Data and Analytical Results
 Tosco (Unocal) Service Station #3135
 845 66th Avenue
 Oakland, California

WELL ID/ TOC*	DATE	DTW (ft.)	GWE (msl)	TPH-D (ppb)	TPH-G (ppb)	B (ppb)	T (ppb)	E (ppb)	X (ppb)	MTBE (ppb)
MW-6	07/05/94	7.41	-3.38	--	--	--	--	--	--	--
(cont)	08/02/94	7.66	-3.63	2,400 ⁵	28,000	2,200	940	1,600	7,500	--
	11/07/94	6.78	-2.75	770 ⁴	23,000	3,800	970	1,400	4,700	--
	12/03/94	5.44	-1.41	--	--	--	--	--	--	--
	01/10/95	5.00	-0.97	--	--	--	--	--	--	--
	02/01/95	4.98	-0.95	2,700 ⁵	55,000	7,700	9,100	4,500	20,000	--
	03/03/95	5.71	-1.68	--	--	--	--	--	--	--
	05/02/95	5.58	-1.55	3,600 ⁵	59,000	4,700	4,400	4,000	18,000	--
	08/01/95	6.76	-2.73	2,800 ⁴	23,000	1,400	510	940	7,300	--
	11/01/95	8.10	-4.07	4,300 ⁴	24,000	1,100	200	1,900	6,000	170
	02/01/96	5.09	-1.06	3,700 ⁴	58,000	2,700	1,800	4,200	17,000	ND
	02/04/97	7.61	-3.58	--	95 ⁶	ND	1.0	ND	ND	96
	02/05/98	4.55	-0.52	--	44,000	2,100	1,600	5,200	20,000	2,800
	08/28/98 ⁸	6.95	-2.92	--	--	--	--	--	--	--
	02/04/99	5.59	-1.56	--	37,000	480	250	2,900	10,000	ND ⁹
	02/02/00	6.24	-2.21	--	24,300 ¹³	313	42.0	1,880	5,490	604/357 ¹⁰
	03/05/01 ¹⁵	6.29	-2.26	--	29,300 ¹³	272	66.8	2,180	7,380	1,120
MW-7										
4.84	05/11/93	4.52	0.32	--	--	--	--	--	--	--
	05/17/93	7.00	-2.16	ND	ND	ND	ND	ND	ND	--
	06/15/93	7.47	-2.63							
	07/14/93	8.55	-3.71							
	08/13/93	9.23	-4.39	ND	ND	ND	ND	ND	ND	--
	09/13/93	10.08	-5.24							
	10/4/93	10.25	-5.41							
4.42	11/11/93	10.27	-5.85	66	ND	ND	ND	ND	ND	--
	12/14/93	8.52	-4.10	--	--	--	--	--	--	--
	01/10/94	9.30	-4.88	--	--	--	--	--	--	--
	02/10/94	7.93	-3.51	ND	ND	ND	ND	ND	ND	--
	03/14/94	6.78	-2.36	--	--	--	--	--	--	--

Table 1
Groundwater Monitoring Data and Analytical Results
 Tosco (Unocal) Service Station #3135
 845 66th Avenue
 Oakland, California

WELL ID/ TOC*	DATE	DTW (ft.)	GWE (msl)	TPH-D (ppb)	TPH-G (ppb)	B (ppb)	T (ppb)	E (ppb)	X (ppb)	MTBE (ppb)
MW-7	04/23/94	INACCESSIBLE	--	--	--	--	--	--	--	--
(cont)	05/05/94	7.13	-2.71	SAMPLED SEMI-ANNUALLY		--	--	--	--	--
	06/07/94	7.09	-2.67	--	--	--	--	--	--	--
	07/05/94	7.49	-3.07	--	--	--	--	--	--	--
	08/02/94	7.98	-3.56	ND	ND	ND	ND	ND	0.63	--
	11/07/94	7.86	-3.44	--	--	--	--	--	--	--
	12/03/94	5.95	-1.53	--	--	--	--	--	--	--
	01/10/95	5.50	-1.08	--	--	--	--	--	--	--
	02/01/95	5.43	-1.01	ND	ND	ND	ND	ND	ND	--
	03/03/95	5.97	-1.55	--	--	--	--	--	--	--
	05/02/95	5.73	-1.31	--	--	--	--	--	--	--
	08/01/95	7.62	-3.20	ND	ND	ND	ND	ND	ND	--
	11/01/95	8.58	-4.16	--	--	--	--	--	--	--
	02/01/96	5.77	-1.35	96 ⁴	ND	ND	ND	ND	ND	1.4
	02/04/97	7.64	-3.22	--	ND	ND	ND	ND	ND	ND
	02/05/98	PAVED OVER	--	--	--	--	--	--	--	--
	02/04/99	5.54	-1.12	--	ND	ND	ND	ND	ND	ND
	02/02/00	5.75	-1.33	--	ND	ND	ND	ND	ND	ND
	03/05/01	5.66	-1.24	--	ND	ND	ND	ND	ND	ND
MW-8	11/03/92	--	--	ND	ND	ND	ND	ND	ND	--
	02/03/93	--	--	ND	ND	ND	ND	ND	ND	--
5.12	03/01/93	6.64	-1.52	--	--	--	--	--	--	--
	04/01/93	6.55	-1.43	--	--	--	--	--	--	--
	05/17/93	8.25	-3.13	ND	ND	ND	ND	ND	ND	--
	06/15/93	8.67	-3.55	--	--	--	--	--	--	--
	07/14/93	9.47	-4.35	--	--	--	--	--	--	--
	08/13/93	10.00	-4.88	ND	ND	ND	ND	ND	ND	--
	09/13/93	10.40	-5.28	--	--	--	--	--	--	--
	10/14/93	10.23	-5.11	--	--	--	--	--	--	--
4.43	11/11/93	10.22	-5.79	ND	ND	ND	ND	ND	ND	--

Table 1
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 Tosco (Unocal) Service Station #3135
 845 66th Avenue
 Oakland, California

WELL ID/ TOC*	DATE	DTW (ft.)	GWE (msl)	TPH-D (ppb)	TPH-G (ppb)	B (ppb)	T (ppb)	E (ppb)	X (ppb)	MTBE (ppb)
MW-8	12/14/93	9.00	-4.57	--	--	--	--	--	--	--
(cont)	01/10/94	9.17	-4.74	--	--	--	--	--	--	--
	02/10/94	7.23	-2.80	ND	ND	ND	ND	ND	ND	--
	03/14/94	6.94	-2.51	--	--	--	--	--	--	--
	04/23/94	7.63	-3.20	--	--	--	--	--	--	--
	05/05/94	7.39	-2.96	SAMPLED SEMI-ANNUALLY		--	--	--	--	--
	06/07/94	7.44	-3.01	--	--	--	--	--	--	--
	07/05/94	7.86	-3.43	--	--	--	--	--	--	--
	08/02/94	8.23	-3.80	ND	ND	ND	ND	ND	ND	--
	11/07/94	6.56	-2.13	--	--	--	--	--	--	--
	12/03/94	5.60	-1.17	--	--	--	--	--	--	--
	01/10/95	4.90	-0.47	--	--	--	--	--	--	--
	02/01/95	5.02	-0.59	ND	ND	ND	ND	ND	ND	--
	03/03/95	5.81	-1.38	--	--	--	--	--	--	--
	05/02/95	5.73	-1.30	--	--	--	--	--	--	--
	08/01/95	7.11	-2.68	ND	ND	ND	ND	ND	ND	--
	11/01/95	8.98	-4.55	--	--	--	--	--	--	--
	02/01/96	5.52	-1.09	110 ⁴	ND	ND	ND	ND	ND	1.3
	02/04/97	8.07	-3.64	--	ND	ND	ND	ND	ND	ND
	02/05/98	4.97	-0.54	--	ND	ND	ND	ND	ND	ND
	02/04/99	6.12	-1.69	--	ND	ND	ND	ND	ND	ND
	02/02/00	6.11	-1.68	--	ND	ND	ND	ND	ND	ND
	03/05/01	6.05	-1.62	--	ND	ND	ND	ND	ND	ND
MW-9	11/03/92	--	--	ND	ND	ND	ND	ND	ND	--
	02/03/93	--	--	ND	ND	ND	ND	ND	ND	--
4.84	03/01/93	6.22	-1.38	--	--	--	--	--	--	--
	04/01/93	6.17	-1.33	--	--	--	--	--	--	--
	05/17/93	7.95	-3.11	ND	ND	ND	ND	ND	ND	--
	06/15/93	8.34	-3.50	--	--	--	--	--	--	--
	07/14/93	9.13	-4.29	--	--	--	--	--	--	--

Table 1
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 Tosco (Unocal) Service Station #3135
 845 66th Avenue
 Oakland, California

WELL ID/ TOC*	DATE	DTW (ft.)	GWE (msl)	TPH-D (ppb)	TPH-G (ppb)	B (ppb)	T (ppb)	E (ppb)	X (ppb)	MTBE (ppb)
MW-9	08/13/93	9.69	-4.85	ND	ND	ND	ND	ND	ND	--
(cont)	09/13/93	10.10	-5.26	--	--	--	--	--	--	--
	10/14/93	10.23	-5.39	--	--	--	--	--	--	--
4.60	11/11/93	10.39	-5.79	ND	ND	ND	ND	ND	ND	--
	12/14/93	9.14	-4.54	--	--	--	--	--	--	--
	01/10/94	9.27	-4.67	--	--	--	--	--	--	--
	02/10/94	7.20	-2.60	ND	ND	ND	ND	ND	ND	--
	03/14/94	7.06	-2.46	--	--	--	--	--	--	--
	04/23/94	7.79	-3.19	--	--	--	--	--	--	--
	05/05/94	7.52	-2.92	SAMPLED SEMI-ANNUALLY		--	--	--	--	--
	06/07/94	7.54	-2.94	--	--	--	--	--	--	--
	07/05/94	7.98	-3.38	--	--	--	--	--	--	--
	08/02/94	8.34	-3.74	ND	ND	ND	ND	ND	ND	--
	11/07/94	6.44	-1.84	--	--	--	--	--	--	--
	12/03/94	5.68	-1.08	--	--	--	--	--	--	--
	01/10/95	4.98	-0.38	--	--	--	--	--	--	--
	02/01/95	5.18	-0.58	65 ^d	ND	ND	ND	ND	ND	--
	03/03/95	5.90	-1.30	--	--	--	--	--	--	--
	05/02/95	5.86	-1.26	--	--	--	--	--	--	--
	08/01/95	7.30	-2.70	ND	ND	ND	ND	ND	ND	--
	11/01/95	8.66	-4.06	--	--	--	--	--	--	--
	02/01/96	5.14	-0.54	76 ^d	ND	ND	ND	ND	ND	ND
	02/04/97	8.12	-3.52	--	ND	ND	ND	ND	ND	ND
	02/05/98	4.95	-0.35	--	ND	ND	ND	ND	ND	ND
	02/04/99	5.81	-1.21	--	ND	ND	ND	ND	ND	ND
	02/02/00	5.71	-1.11	--	ND	ND	ND	ND	ND	ND
	03/05/01	5.67	-1.07	--	ND	ND	ND	ND	ND	ND

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 845 66th Avenue
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WELL ID/ TOC*	DATE	DTW (ft.)	GWE (msl)	TPH-D (ppb)	TPH-G (ppb)	B (ppb)	T (ppb)	E (ppb)	X (ppb)	MTBE (ppb)
MW-10	11/03/92	--	--	160 ⁴	740	11	2.1	32	56	--
	02/03/93	--	--	ND	1,200 ⁶	ND	ND	ND	ND	--
3.34	03/01/93	5.82	-2.48	--	--	--	--	--	--	--
	04/01/93	5.69	-2.35	--	--	--	--	--	--	--
	05/17/93	7.04	-3.70	ND	1,200 ⁶	ND	ND	ND	ND	--
	06/15/93	7.22	-3.88	--	--	--	--	--	--	--
	07/14/93	8.01	-4.67	--	--	--	--	--	--	--
	08/13/93	8.42	-5.08	97 ⁵	1,500 ⁷	ND	ND	41	21	--
	09/13/93	8.74	-5.40	--	--	--	--	--	--	--
	10/14/93	8.57	-5.23	--	--	--	--	--	--	--
2.69	11/11/93	8.59	-5.90	88 ⁵	1,600 ⁶	ND	ND	ND	ND	--
	12/14/93	7.50	-4.81	--	--	--	--	--	--	--
	01/10/94	7.69	-5.00	--	--	--	--	--	--	--
	02/10/94	8.21	-5.52	71	1,480 ⁶	ND	ND	ND	ND	--
	03/14/94	5.56	-2.87	--	--	--	--	--	--	--
	04/23/94	6.22	-3.53	--	--	--	--	--	--	--
	05/05/94	6.03	-3.34	55	1,000 ⁶	ND	ND	ND	ND	--
	06/07/94	6.10	-3.41	--	--	--	--	--	--	--
	07/05/94	6.38	-3.69	--	--	--	--	--	--	--
	08/02/94	6.67	-3.98	110	95 ⁶	ND	ND	ND	ND	--
	11/07/94	6.08	-3.39	120 ⁵	1,100 ⁶	ND	ND	ND	ND	--
	12/03/94	4.68	-1.99	--	--	--	--	--	--	--
	01/10/95	4.21	-1.52	--	--	--	--	--	--	--
	02/01/95	4.26	-1.57	72 ⁴	560 ⁶	ND	ND	ND	ND	--
	03/03/95	4.94	-2.25	--	--	--	--	--	--	--
	05/02/95	4.80	-2.11	99	840 ⁶	ND	ND	ND	9.5	--
	08/01/95	5.79	-3.10	260	ND	ND	ND	ND	ND	--
	11/01/95	6.95	-4.26	280	ND	ND	ND	ND	ND	830
	02/01/96	4.31	-1.62	320 ⁴	ND	ND	ND	ND	ND	1,300
	02/04/97	6.59	-3.90	--	ND	ND	ND	ND	ND	ND
	02/05/98	3.76	-1.07	--	ND	ND	ND	ND	ND	500

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 Oakland, California

WELL ID/ TOC*	DATE	DTW (ft.)	GWE (msl)	TPH-D (ppb)	TPH-G (ppb)	B (ppb)	T (ppb)	E (ppb)	X (ppb)	MTBE (ppb)
MW-10	02/04/99	4.68	-1.99	--	ND ⁹	ND ⁹	ND ⁹	ND ⁹	ND ⁹	620/850 ^{10,11}
(cont)	02/02/00	4.85	-2.16	--	ND	ND	ND	ND	ND	737/696 ¹⁰
	03/05/01	4.81	-2.12	--	ND	ND	ND	ND	ND	121
MWD										
(D)(MW6)	02/22/91	--	--	--	740	74	12	33	140	--
Trip Blank										
TB-LB	02/05/98	--	--	--	ND	ND	ND	ND	ND	ND
	02/04/99	--	--	--	ND	ND	ND	ND	ND	ND
	02/12/99	--	--	--	ND	ND	ND	ND	ND	ND
	02/02/00	--	--	--	ND	ND	ND	ND	ND	ND
	03/05/01	--	--	--	ND	ND	ND	ND	ND	ND

Table 1
Groundwater Monitoring Data and Analytical Results
 Tosco (Unocal) Service Station #3135
 845 66th Avenue
 Oakland, California

EXPLANATIONS:

Groundwater monitoring data and laboratory analytical results prior to February 5, 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) = 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

(D) = Duplicate

(ppb) = Parts per billion

(ppm) = Parts per million

ND = Not Detected

-- = Not Measured/Not Analyzed

TOG = Total Oil and Grease

* TOC elevations are relative to Mean Sea Level (msl), per the City of Oakland Benchmark No. 3881 (Elevation = 4.72 feet msl). Prior to November 11, 1993, DTW measurements were taken from the top of well covers.

¹ TOG was ND.

² TOG was detected at a concentration of 78 ppb.

³ TOG was detected at a concentration of 16 ppb.

⁴ Laboratory report indicates the hydrocarbons detected did not appear to be diesel.

⁵ Laboratory report indicates the hydrocarbons detected appeared to be a diesel and non-diesel mixture.

⁶ Laboratory report indicates the hydrocarbons detected did not appear to be gasoline.

⁷ Laboratory report indicates the hydrocarbons detected appeared to be a gasoline and non-gasoline mixture.

⁸ ORC installed in well.

⁹ Detection limit raised. Refer to analytical reports.

¹⁰ MTBE by EPA Method 8260.

¹¹ Laboratory analyzed sample 9 minutes past holding time.

¹² Laboratory report indicates weathered gasoline C6-C12.

¹³ Laboratory report indicates gasoline C6-C12.

¹⁴ Laboratory report indicates MTBE by EPA Method 8260 was analyzed past EPA recommended holding time.

¹⁵ ORC present in well.

Table 2
Groundwater Analytical Results - Oxygenate Compounds
 Tosco (Unocal) Service Station #3135
 845 66th Avenue
 Oakland, California

WELL ID	DATE	ETHANOL (ppb)	TBA (ppb)	MTBE (ppb)	DIPE (ppb)	ETBE (ppb)	TAME (ppb)	1,2-DCA (ppb)	EDB (ppb)
MW-1	03/05/01	ND ¹	ND ¹	585	ND ¹	ND ¹	ND ¹	ND ¹	ND ¹
MW-2	03/05/01 ²	--	--	--	--	--	--	--	--
MW-3	03/05/01 ²	--	--	--	--	--	--	--	--
MW-4	03/05/01 ²	--	--	--	--	--	--	--	--
MW-6	03/05/01 ²	--	--	--	--	--	--	--	--
MW-10	03/05/01 ²	--	--	--	--	--	--	--	--

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 = Ethylene dibromide
 (ppb) = Parts per billion
 -- = Not Analyzed
 ND = Not Detected

¹ Detection limit raised. Refer to analytical reports.

² Laboratory failed to run requested analysis.

ANALYTICAL METHOD:

EPA Method 8260 for Oxygenate Compounds

Table 3
Dissolved Oxygen Compounds
 Tosco (Unocal) Service Station #3135
 845 66th Avenue
 Oakland, California

WELL ID	DATE	Before Purging (mg/L)	After Purging (mg/L)
MW-1	02/04/99	3.56	--
	02/02/00	3.83	--
	03/05/01	3.97	--
MW-2	08/28/98	0.70	--
	02/04/99	3.64	--
	02/02/00	3.28	--
	03/05/01	2.90	--
MW-3	02/04/99	5.34	--
	02/02/00	6.06	--
	03/05/01	4.93	--
MW-4	02/04/99	6.46	--
	02/02/00	5.93	--
	03/05/01	5.37	--
MW-5	02/04/99	6.65	--
	02/02/00	6.35	--
	03/05/01	5.58	--
MW-6 ¹	08/29/98	0.32	--
	02/05/99	2.78	--
	02/02/00	3.12	--
	03/05/01	2.84	--
MW-7	02/04/99	5.05	--
	02/02/00	4.58	--
	03/05/01	4.81	--
MW-8	08/28/98	0.32	--
	02/04/99	4.95	--
	02/02/00	5.24	--
	03/05/01	4.71	--

Table 3
Dissolved Oxygen Compounds
 Tosco (Unocal) Service Station #3135
 845 66th Avenue
 Oakland, California

WELL ID	DATE	Before Purging (mg/L)	After Purging (mg/L)
MW-9	02/04/99	4.77	--
	02/02/00	5.12	--
	03/05/01	5.28	--
MW-10	02/04/99	4.02	--
	02/02/00	4.84	--
	03/05/01	3.70	--

EXPLANATIONS:

(mg/L) = milligrams per liter

-- = Not Measured

NOTES:

¹ ORC installed in well.

Table 4
Groundwater Analytical Results
 Tosco (Unocal) Service Station #3135
 845 66th Avenue
 Oakland, California

WELL ID	DATE	Nitrate as NO ₃ (ppm)	Sulfate (ppm)	Redox Potential (mV)	Ferrous Iron (ppm)
MW-1	02/04/99	7.0	4.4	-054 ¹	--
	NP 02/12/99	--	--	470	3.3
	02/02/00	ND	13.7	484	0.0456
	03/05/01	3.41	7.12	492	0.0161
MW-2	02/04/99	ND	12	-104 ¹	--
	NP 02/12/99	--	--	380	4.3
	02/02/00	ND	15.2	55.3 ²	1.70
	03/05/01	2.91	53.7	480	0.0812
MW-3	02/04/99	ND	47	-064 ¹	--
	NP 02/12/99	--	--	460	1.4
	02/02/00	ND	26.0	45.0	0.123
	03/05/01	3.52	70.1	476	0.0279
MW-4	02/04/99	5.4	15	007 ¹	--
	NP 02/12/99	--	--	610	6.0
	02/02/00	10.3	38.4	61.0	3.00
	03/05/01	4.63	5.65	474	0.114
MW-5	02/04/99	10	79	102 ¹	--
	NP 02/12/99	--	--	480	0.16
	02/02/00	12.1	98.4	83.7	0.0208
	03/05/01	3.49	5.43	470	0.123
MW-6	02/04/99	ND	4.8	-034 ²	--
	NP 02/12/99	--	--	400	3.2
	02/02/00	ND	8.91	71.5	0.217
	03/05/01	2.95	ND³	467	0.0791
MW-7	02/04/99	ND	4.6	-071 ¹	--
	NP 02/12/99	--	--	450	1.8
	02/02/00	ND	6.43	84.0	0.812
	03/05/01	3.20	ND³	464	0.124

Table 4
Groundwater Analytical Results
 Tosco (Unocal) Service Station #3135
 845 66th Avenue
 Oakland, California

WELL ID	DATE	Nitrate as NO₃ (ppm)	Sulfate (ppm)	Redox Potential (mV)	Ferrous Iron (ppm)
MW-8	02/04/99	ND	41	90 ¹	--
	NP 02/12/99	--	--	470	0.15
	02/02/00	ND	47.5	111	ND
	03/05/01	25.0	28.8	455	ND
MW-9	02/04/99	22	30	78 ¹	--
	NP 02/12/99	--	--	470	0.26
	02/02/00	20.6	36.5	172	ND
	03/05/01	27.1	30.5	468	ND
MW-10	02/04/99	ND	36	94 ¹	--
	NP 02/12/99	--	--	470	0.24
	02/02/00	ND	40.1	110	0.0165
	03/05/01	3.17	66.7	461	0.0248

EXPLANATIONS:

(ppm) = Parts per million

(Mv) = millivolts

-- = Not Analyzed

¹ Redox Potential was measured in the field.

² Laboratory report indicates this value is actually negative.

³ Detection limit raised. Refer to analytical reports.

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 an 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, temperature, pH and electrical conductivity are measured. If purging is to occur, each well is purged a minimum of three well casing volumes of water using pre-cleaned pumps (stack, suction, Grundfos), or polyvinyl chloride bailers. The measurements are taken 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 # 3135
Address: 845 66th Ave.
City: Oakland

Job#: 180067
Date: 3-5-01
Sampler: Joc

Well ID: MW-1
Well Diameter: 2 in.
Total Depth: 22.61 ft
Depth to Water: 6.58 ft

Well Condition: O.K.
Hydrocarbon Thickness: 0 in. Amount Bailed (product/water): 0 (gal.)
Volume Factor (VF) 2" = 0.17 3" = 0.38 4" = 0.66
6" = 1.50 12" = 5.80

16.03 x VF 0.17 = 2.73 X 3 (case volume) = Estimated Purge Volume: 8.5 (gal.)

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

Sampling Equipment: Disposable Bailer
Bailer
Pressure Bailer
Grab Sample
Other: _____

Starting Time: 1:58
Sampling Time: 2:27 PM
Purging Flow Rate: 1 gpm.
Did well de-water? _____

Weather Conditions: Rain
Water Color: clear Odor: none
Sediment Description: _____
If yes; Time: _____ Volume: _____ (gal.)

Time	Volume (gal.)	pH	Conductivity $\mu\text{mhos/cm} \times 10^2$	Temperature $^{\circ}\text{F}$	D.O. (mg/L)	ORP (mV)	Alkalinity (ppm)
<u>2:10</u>	<u>3</u>	<u>7.38</u>	<u>4.67</u>	<u>70.5</u>	<u>3.97</u>		
<u>2:12</u>	<u>5.5</u>	<u>7.37</u>	<u>4.63</u>	<u>69.9</u>			
<u>2:13</u>	<u>8.5</u>	<u>7.3.2</u>	<u>4.61</u>	<u>70.7</u>			

LABORATORY INFORMATION

SAMPLE ID	(#) - CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
<u>MW-1</u>	<u>3YOA</u>	<u>Y</u>	<u>HCL</u>	<u>Seq.</u>	<u>TPHG, BTEX, MTBE</u>
	<u>2 plastic</u>	<u>"</u>	<u>"</u>	<u>"</u>	<u>Nitrate, Sulfate, Ferrous Iron</u>
					<u>Redox Potential</u>

COMMENTS: _____

**WELL MONITORING/SAMPLING
FIELD DATA SHEET**

Client/
Facility # 3135
Address: 845 66th Ave.
City: Oakland

Job#: 180067
Date: 3-5-01
Sampler: Joc

Well ID: MW-2
Well Diameter: 2 in
Total Depth: 22.48 ft
Depth to Water: 5.26 ft

Well Condition: O.F.
Hydrocarbon Thickness: 0 in
Amount Bailed (product/water): 0 (gal.)

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

17.22 x VF 0.17 = 2.93 x 3 (case volume) = Estimated Purge Volume: 9 (gal.)

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

Sampling Equipment: Disposable Bailer
Bailer
Pressure Bailer
Grab Sample
Other: _____

Starting Time: 9:12
Sampling Time: 9:38A.
Purging Flow Rate: 1 gpm
Did well de-water? _____

Weather Conditions: Rain
Water Color: clear Odor: yes
Sediment Description: _____
If yes; Time: _____ Volume: _____ (gal.)

Time	Volume (gal.)	pH	Conductivity $\mu\text{mhos/cm} \times 10^2$	Temperature F	D.O. (mg/L)	ORP (mV)	Alkalinity (ppm)
<u>9:23</u>	<u>3</u>	<u>6.97</u>	<u>2.61</u>	<u>71.2</u>	<u>2.90</u>		
<u>9:25</u>	<u>6</u>	<u>6.95</u>	<u>2.67</u>	<u>71.4</u>			
<u>9:27</u>	<u>9</u>	<u>6.94</u>	<u>2.66</u>	<u>71.0</u>			

LABORATORY INFORMATION

SAMPLE ID	(#) - CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
<u>MW-2</u>	<u>3YOA</u>	<u>Y</u>	<u>HCL</u>	<u>Seq.</u>	<u>TPHG, BTEX, MTBE</u>
	<u>2 plastic</u>	<u>"</u>	<u>—</u>	<u>"</u>	<u>Nitrate, Sulfate, Ferrous Iron,</u>
					<u>Redox Potential</u>

COMMENTS: _____

**WELL MONITORING/SAMPLING
FIELD DATA SHEET**

Client/
Facility # 3135
Address: 845 66th Ave.
City: Oakland

Job#: 180067
Date: 3-5-01
Sampler: Joc

Well ID: MW-3
Well Diameter: 2 in
Total Depth: 21.65 ft
Depth to Water: 5.07 ft

Well Condition: O.F.
Hydrocarbon Thickness: 0 in. Amount Bailed (product/water): 0 (gal.)
Volume Factor (VF) 2" = 0.17 3" = 0.38 4" = 0.66
6" = 1.50 12" = 5.80

16.58 X VF 0.17 = 2.82 X 3 (case volume) = Estimated Purge Volume: 8.5 (gal.)

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

Sampling Equipment: Disposable Bailer
Bailer
Pressure Bailer
Grab Sample
Other: _____

Starting Time: 1:16
Sampling Time: 1:43 P.M.
Purging Flow Rate: 1 gpm.
Did well de-water? _____

Weather Conditions: Rain
Water Color: Clear Odor: none
Sediment Description: _____
If yes; Time: _____ Volume: _____ (gal.)

Time	Volume (gal.)	pH	Conductivity $\mu\text{mhos/cm} \times 10^2$	Temperature $^{\circ}\text{F}$	D.O. (mg/L)	ORP (mV)	Alkalinity (ppm)
<u>1:25</u>	<u>2.5</u>	<u>7.75</u>	<u>10.32</u>	<u>70.8</u>	<u>4.93</u>		
<u>1:27</u>	<u>5.5</u>	<u>7.46</u>	<u>10.38</u>	<u>71.0</u>			
<u>1:29</u>	<u>8.5</u>	<u>7.37</u>	<u>10.41</u>	<u>71.2</u>			

LABORATORY INFORMATION

SAMPLE ID	(#) - CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
<u>MW-3</u>	<u>3 vol</u>	<u>Y</u>	<u>HCL</u>	<u>Seq.</u>	<u>TPHG, BTEX, MTBE</u>
	<u>2 plastic</u>	<u>"</u>	<u>—</u>	<u>"</u>	<u>Nitrate, Sulfate, Ferrrous Iron</u>
					<u>Redox Potential</u>

COMMENTS: _____

**WELL MONITORING/SAMPLING
FIELD DATA SHEET**

Client/
Facility # 3135
Address: 845 66th Ave.
City: Oakland

Job#: 180067
Date: 3-5-01
Sampler: Joc

Well ID MW-4
Well Diameter 2 in
Total Depth 25.10 ft
Depth to Water 4.14 ft

Well Condition: O.K.
Hydrocarbon Thickness: 0 in
Amount Bailed (product/water): 0 (gal.)
Volume Factor (VF) 2" = 0.17 3" = 0.38 4" = 0.66
6" = 1.50 12" = 5.80

20.96 X VF 0.17 = 3.56 X 3 (case volume) = Estimated Purge Volume: 11 (gal.)

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

Sampling Equipment: Disposable Bailer
Bailer
Pressure Bailer
Grab Sample
Other: _____

Starting Time: 7:49
Sampling Time: 8:20 am
Purging Flow Rate: 1 gpm
Did well de-water? _____

Weather Conditions: Rain
Water Color: clear Odor: none
Sediment Description: _____
If yes; Time: _____ Volume: _____ (gal.)

Time	Volume (gal.)	pH	Conductivity $\mu\text{mhos/cm} \times 10^2$	Temperature F	D.O. (mg/L)	ORP (mV)	Alkalinity (ppm)
<u>8:02</u>	<u>4</u>	<u>7.53</u>	<u>8.41</u>	<u>69.7</u>	<u>5.37</u>		
<u>8:04</u>	<u>7.5</u>	<u>7.50</u>	<u>8.44</u>	<u>71.2</u>			
<u>8:06</u>	<u>11</u>	<u>7.47</u>	<u>8.40</u>	<u>71.0</u>			
_____	_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____	_____

LABORATORY INFORMATION

SAMPLE ID	(#) - CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
<u>MW-4</u>	<u>3 vol</u>	<u>Y</u>	<u>HCL</u>	<u>Seq.</u>	<u>TPHG, BTEX, MTBE</u>
	<u>2 plastic</u>	<u>"</u>	<u>—</u>	<u>"</u>	<u>Nitrate, Sulfate, Ferrrous Iron</u>
					<u>Redox Potential</u>

COMMENTS: _____

**WELL MONITORING/SAMPLING
FIELD DATA SHEET**

Client/
Facility # 3135
Address: 845 66th Ave.
City: Oakland

Job#: 180067
Date: 3-5-01
Sampler: Joc

Well ID MW-5

Well Condition: O.K.

Well Diameter 2 in

Hydrocarbon Thickness: 0 in. Amount Bailed (product/water): 0 (gal.)

Total Depth 25.96 ft

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

Depth to Water 5.85 ft

20.11 x VF 0.17 = 3.42 x 3 (case volume) = Estimated Purge Volume: 10.5 (gal.)

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

Sampling Equipment: Disposable Bailer
Bailer
Pressure Bailer
Grab Sample
Other: _____

Starting Time: 12:32

Weather Conditions: Rain

Sampling Time: 12:58 p.m.

Water Color: clear Odor: no

Purging Flow Rate: 1 gpm

Sediment Description: _____

Did well de-water? _____

If yes: Time: _____ Volume: _____ (gal.)

Time	Volume (gal.)	pH	Conductivity $\mu\text{mhos/cm} \times 10^2$	Temperature F	D.O. (mg/L)	ORP (mV)	Alkalinity (ppm)
<u>12:39</u>	<u>3.5</u>	<u>7.70</u>	<u>9.36</u>	<u>71.9</u>	<u>5.58</u>		
<u>12:41</u>	<u>7.5</u>	<u>7.50</u>	<u>9.45</u>	<u>72.0</u>			
<u>12:43</u>	<u>11</u>	<u>7.47</u>	<u>9.50</u>	<u>72.1</u>			

LABORATORY INFORMATION

SAMPLE ID	(#) - CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
<u>MW-5</u>	<u>3 Vol</u>	<u>Y</u>	<u>HCL</u>	<u>Seq.</u>	<u>TPHG, BTEX, MTBE</u>
	<u>2 plastic</u>	<u>"</u>	<u>---</u>	<u>"</u>	<u>Nitrate, Sulfate, Ferrous Iron</u>
					<u>Redox Potential</u>

COMMENTS: _____

**WELL MONITORING/SAMPLING
FIELD DATA SHEET**

Client/
Facility # 3135
Address: 845 66th Ave.
City: Oakland

Job#: 180067
Date: 3-5-01
Sampler: Joc

Well ID MW-6

Well Condition: O.K.

Well Diameter 2 in

Hydrocarbon Thickness: 0 in. Amount Bailed (product/water): 0 (gal.)

Total Depth 25.76 ft

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

Depth to Water 6.29 ft

19.47 x VF 0.17 = 3.31 x 3 (case volume) = Estimated Purge Volume: 10 (gal.)

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

Sampling Equipment: Disposable Bailer
Bailer
Pressure Bailer
Grab Sample
Other: _____

Starting Time: 2:58

Weather Conditions: Rain/showers

Sampling Time: 3:30 P.M.

Water Color: clear Odor: yes

Purging Flow Rate: 1 gpm

Sediment Description: _____

Did well de-water? _____

If yes; Time: _____ Volume: _____ (gal.)

Time	Volume (gal.)	pH	Conductivity $\mu\text{mhos/cm} \times 10^3$	Temperature $^{\circ}\text{F}$	D.O. (mg/L)	ORP (mV)	Alkalinity (ppm)
<u>3:10</u>	<u>3.5</u>	<u>7.36</u>	<u>6.06</u>	<u>71.0</u>	<u>2.84</u>		
<u>3:12</u>	<u>7.5</u>	<u>7.46</u>	<u>6.07</u>	<u>71.4</u>			
<u>3:14</u>	<u>10</u>	<u>7.42</u>	<u>6.10</u>	<u>71.3</u>			

LABORATORY INFORMATION

SAMPLE ID	(#) - CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
<u>MW-6</u>	<u>3YOA</u>	<u>Y</u>	<u>HCL</u>	<u>Seq.</u>	<u>TPHG, BTEX, MTBE</u>
	<u>2 plastic</u>	<u>"</u>	<u>—</u>	<u>"</u>	<u>Nitrate, Sulfate, Ferrous Iron</u>
					<u>Redox Potential</u>

COMMENTS: ORC well.

**WELL MONITORING/SAMPLING
FIELD DATA SHEET**

Client/Facility # 3135 Job#: 180067
 Address: 845 66th Ave. Date: 3-5-01
 City: Oakland Sampler: Joc

Well ID MW-7 Well Condition: O.K.
 Well Diameter 2 in Hydrocarbon Thickness: 0 in Amount Bailed (product/water): 0 (gal.)
 Total Depth 19.82 ft
 Depth to Water 5.66 ft

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

14.16 x VF 0.17 = 2.41 x 3 (case volume) = Estimated Purge Volume: 7.5 (gal.)

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

Starting Time: 8:26 Weather Conditions: Rain
 Sampling Time: 8:55 A.M. Water Color: clear Odor: none
 Purging Flow Rate: 1 gpm Sediment Description: _____
 Did well de-water? _____ If yes: Time: _____ Volume: _____ (gal.)

Time	Volume (gal.)	pH	Conductivity $\mu\text{mhos/cm} \times 10^0$	Temperature F	D.O. (mg/L)	ORP (mV)	Alkalinity (ppm)
<u>8:37</u>	<u>2.5</u>	<u>7.70</u>	<u>8.25</u>	<u>71.0</u>	<u>4.81</u>		
<u>8:40</u>	<u>5</u>	<u>7.64</u>	<u>8.21</u>	<u>70.6</u>			
<u>8:41</u>	<u>7.5</u>	<u>7.58</u>	<u>8.19</u>	<u>70.4</u>			

LABORATORY INFORMATION

SAMPLE ID	(#) - CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
<u>MW-7</u>	<u>340A</u>	<u>Y</u>	<u>HCL</u>	<u>Seq.</u>	<u>TPHG, BTEX, MTBE</u>
	<u>2 plastic</u>	<u>"</u>	<u>—</u>	<u>"</u>	<u>Nitrate, Sulfate, Ferrous Iron</u>
					<u>Redox Potential</u>

COMMENTS: _____

**WELL MONITORING/SAMPLING
FIELD DATA SHEET**

Client/
Facility # 3135
Address: 845 66th Ave.
City: Oakland

Job#: 180067
Date: 3-5-01
Sampler: Joc

Well ID: mw-8
Well Diameter: 2 in.
Total Depth: 23.05 ft
Depth to Water: 6.05 ft

Well Condition: O.F.

Hydrocarbon Thickness:	<u>0</u> in.	Amount Bailed (product/water):	<u>0</u> (gal.)
Volume Factor (VF)	2" = 0.17	3" = 0.38	4" = 0.66
	6" = 1.50	12" = 5.80	

17.0 x VF 0.17 = 2.89 x 3 (case volume) = Estimated Purge Volume: 9 (gal.)

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

Sampling Equipment: Disposable Bailer
Bailer
Pressure Bailer
Grab Sample
Other: _____

Starting Time: 11:50
Sampling Time: 12:14 PM
Purging Flow Rate: 1 gpm
Did well de-water? _____

Weather Conditions: Rain
Water Color: clear Odor: none
Sediment Description: _____
If yes: Time: _____ Volume: _____ (gal.)

Time	Volume (gal.)	pH	Conductivity $\mu\text{mhos/cm} \times 10^2$	Temperature $^{\circ}\text{F}$	D.O. (mg/L)	ORP (mV)	Alkalinity (ppm)
<u>12:00</u>	<u>3</u>	<u>7.60</u>	<u>9.55</u>	<u>70.6</u>	<u>4.71</u>		
<u>12:02</u>	<u>6</u>	<u>7.41</u>	<u>9.58</u>	<u>70.2</u>			
<u>12:04</u>	<u>9</u>	<u>7.37</u>	<u>9.62</u>	<u>70.2</u>			

LABORATORY INFORMATION

SAMPLE ID	(#) - CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
<u>MW-8</u>	<u>3YOA</u>	<u>Y</u>	<u>HCL</u>	<u>Seq.</u>	<u>TPHG, BTEX, MTBE</u>
	<u>2 plastic</u>	<u>"</u>	<u>—</u>	<u>"</u>	<u>Nitrate, Sulfate, Ferrrous Iron</u>
					<u>Redox Potential</u>

COMMENTS: _____

WELL MONITORING/SAMPLING FIELD DATA SHEET

Client/Facility # 3135 Job#: 180067
 Address: 845 66th Ave. Date: 3-5-01
 City: Oakland Sampler: Joc

Well ID MW-9 Well Condition: O.K.
 Well Diameter 2 in Hydrocarbon Thickness: 0 in Amount Bailed (product/water): 0 (gal.)
 Total Depth 23.04 ft
 Depth to Water 5.67 ft

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

17.37 x VF 0.17 = 2.95 x 3 (case volume) = Estimated Purge Volume: 9 (gal.)

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

Sampling Equipment: Disposable Bailer
 Bailer
 Pressure Bailer
 Grab Sample
 Other: _____

Starting Time: 11:02 Weather Conditions: Rain
 Sampling Time: 11:32 A.M. Water Color: clear Odor: none
 Purging Flow Rate: 1 gpm Sediment Description: _____
 Did well de-water? _____ If yes; Time: _____ Volume: _____ (gal.)

Time	Volume (gal.)	pH	Conductivity $\mu\text{hos/cm}^\circ\text{K}$	Temperature $^\circ\text{F}$	D.O. (mg/L)	ORP (mV)	Alkalinity (ppm)
<u>11:14</u>	<u>3</u>	<u>8.02</u>	<u>6.36</u>	<u>72.2</u>	<u>5.28</u>		
<u>11:16</u>	<u>6</u>	<u>7.50</u>	<u>6.76</u>	<u>72.0</u>			
<u>11:18</u>	<u>9</u>	<u>7.48</u>	<u>6.80</u>	<u>71.6</u>			

LABORATORY INFORMATION

SAMPLE ID	(#) - CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
<u>MW-9</u>	<u>3 yoa</u>	<u>Y</u>	<u>HCL</u>	<u>Seq.</u>	<u>TPHG, BTEX, MTBE</u>
	<u>2 plastic</u>	<u>"</u>	<u>---</u>	<u>"</u>	<u>Nitrate, Sulfate, Ferrrous Iron</u>
					<u>Redox Potential</u>

COMMENTS: _____

**WELL MONITORING/SAMPLING
FIELD DATA SHEET**

Client/
Facility # 3135
Address: 845 66th Ave.
City: Oakland

Job#: 180067
Date: 3-5-01
Sampler: Joc

Well ID MW-10
Well Diameter 2 in.
Total Depth 2302 ft
Depth to Water 4.81 ft

Well Condition: O.K.

Hydrocarbon Thickness:	Amount Bailed (product/water):		
<u>0</u> in.	<u>0</u>	<u>0</u>	<u>0</u> (gal.)
Volume Factor (VF)	2" = 0.17	3" = 0.38	4" = 0.66
	6" = 1.50	12" = 5.80	

18.21 x VF 0.17 = 3.10 x 3 (case volume) = Estimated Purge Volume: 9.5 (gal.)

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

Sampling Equipment: Disposable Bailer
Bailer
Pressure Bailer
Grab Sample
Other: _____

Starting Time: 10:16 Weather Conditions: Rain
Sampling Time: 10:45 AM Water Color: clear Odor: none
Purging Flow Rate: 1 gpm Sediment Description: _____
Did well de-water? _____ If yes; Time: _____ Volume: _____ (gal.)

Time	Volume (gal.)	pH	Conductivity $\mu\text{mhos/cm} \times 10^2$	Temperature F	D.O. (mg/L)	ORP (mV)	Alkalinity (ppm)
<u>10:27</u>	<u>3</u>	<u>7.37</u>	<u>5.85</u>	<u>72.1</u>	<u>3.70</u>		
<u>10:30</u>	<u>6</u>	<u>7.30</u>	<u>5.92</u>	<u>73.0</u>			
<u>10:32</u>	<u>9.5</u>	<u>7.22</u>	<u>5.95</u>	<u>72.3</u>			
_____	_____	_____	_____	_____	_____	_____	_____

LABORATORY INFORMATION

SAMPLE ID	(#) - CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
<u>MW-10</u>	<u>3 vol</u>	<u>Y</u>	<u>HCL</u>	<u>Seq.</u>	<u>TPHG, BTEX, MTBE</u>
	<u>2 plastic</u>	<u>"</u>	<u>—</u>	<u>"</u>	<u>Nitrate, Sulfate, Ferrous Iron</u>
					<u>Redox Potential</u>

COMMENTS: _____



Tosco Marketing Company
2100 Central Expressway, Box 600
San Ramon, California 94583

Facility Number UNOCAL SS# 3135
Facility Address 845 66th Avenue, Oakland, CA
Consultant Project Number 180067.85

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) Mr. David Demin
(Phone) (925) 277-2384
Laboratory Name Sequoia Analytical
Laboratory Release Number MKC0105
Samples Collected by (Name) BOE AHEMIAN
Collection Date 3-5-01
Signature [Signature]

Sample Number	Lab Sample Number	Number of Containers	Matrix	Metal	Type of Container	Type of Sample	Time	Sample Preservation	Lot (Yes or No)	Analysis To Be Performed											DO NOT BILL TB-LB ANALYSIS				
										TPH Gas + STEAR W/PATRE (8015)	TPH Diesel (8015)	Oil and Grease (5520)	Purgeable Hydrocarbons (8010)	Purgeable Aromatics (8020)	Purgeable Organics (8240)	Extractable Organics (8270)	Metal CAC/Pb/Zn/H (Cap or AL)	Reflux Potentia	Nitrate/Sulfate	Ferrous Iron		(G) Oxys 1/2 PCA EDB by 8260			
EB-LB		10A		W	G	1	2:27	HCL	Y	✓							✓	✓	✓	✓	01				
MW-1		50A 20A					9:38		✓	✓											02	✓	✓	02	Please filter from unpreserved
MW-2		"					1:43		✓	✓											03	✓	✓	03	plastic bottle
MW-3		"					8:10		✓	✓											04	✓	✓	04	for ferrous Iron analysis A.S.A.P.
MW-4		"					12:58		✓	✓											07	✓	✓	07	
MW-5		"					3:30		✓	✓											08	✓	✓	08	
MW-6		"					8:55		✓	✓											09	✓	✓	09	
MW-7		"					12:14		✓	✓											10	✓	✓	10	
MW-8		"					11:32		✓	✓											11	✓	✓	11	
MW-9		"					10:45		✓	✓															
MW-10		"																							

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

Organization	G-R Inc.
Received By (Signature)	[Signature]
Date/Time	3-5-01
Received By (Signature)	[Signature]
Date/Time	3/5/01
Received For Laboratory By (Signature)	[Signature]
Date/Time	3/5/01

Organization	G-R Inc.
Received By (Signature)	[Signature]
Date/Time	3-5-01
Received By (Signature)	[Signature]
Date/Time	3/5/01
Received For Laboratory By (Signature)	[Signature]
Date/Time	3/5/01

Organization	G-R Inc.
Received By (Signature)	[Signature]
Date/Time	3-5-01
Received By (Signature)	[Signature]
Date/Time	3/5/01
Received For Laboratory By (Signature)	[Signature]
Date/Time	3/5/01



**Sequoia
Analytical**

885 Jarvis Drive
Morgan Hill, CA 95037
(408) 776-9600
FAX (408) 782-6308
www.sequoialabs.com

RECEIVED

MAR 23 2001

GETTLER-RYAN INC.
GENERAL CONTRACTORS

22 March, 2001

Deanna Harding
Gettler Ryan/Geostrategies - Tosco/Unocal
6747 Sierra Ct, Suite J
Dublin, CA 94568

RE: Tosco/Unocal
Sequoia Report: MKC0105

Enclosed are the results of analyses for samples received by the laboratory on 03/05/01 16:15. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

James Hartley
Project Manager

CA ELAP Certificate #1210





Gettler Ryan/Geostrategies - Tosco/Unocal
6747 Sierra Ct, Suite J
Dublin CA, 94568

Project: Tosco/Unocal
Project Number: Unocal SS #3135
Project Manager: Deanna Harding

Reported:
03/22/01 10:28

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
TB-LB	MKC0105-01	Water	03/05/01 00:00	03/05/01 16:15
MW-1	MKC0105-02	Water	03/05/01 14:27	03/05/01 16:15
MW-2	MKC0105-03	Water	03/05/01 09:38	03/05/01 16:15
MW-3	MKC0105-04	Water	03/05/01 13:43	03/05/01 16:15
MW-4	MKC0105-05	Water	03/05/01 08:20	03/05/01 16:15
MW-5	MKC0105-06	Water	03/05/01 12:58	03/05/01 16:15
MW-6	MKC0105-07	Water	03/05/01 15:30	03/05/01 16:15
MW-7	MKC0105-08	Water	03/05/01 08:55	03/05/01 16:15
MW-8	MKC0105-09	Water	03/05/01 12:14	03/05/01 16:15
MW-9	MKC0105-10	Water	03/05/01 11:32	03/05/01 16:15
MW-10	MKC0105-11	Water	03/05/01 10:45	03/05/01 16:15

Sequoia Analytical - Morgan Hill

James Hartley, Project Manager

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.





Gettler Ryan/Geostrategies - Tosco/Unocal
6747 Sierra Ct, Suite J
Dublin CA, 94568

Project: Tosco/Unocal
Project Number: Unocal SS #3135
Project Manager: Deanna Harding

Reported:
03/22/01 10:28

Total Purgeable Hydrocarbons (C6-C12), BTEX and MTBE by DHS LUFT
Sequoia Analytical - Morgan Hill

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
TB-LB (MKC0105-01) Water Sampled: 03/05/01 00:00 Received: 03/05/01 16:15									
Purgeable Hydrocarbons	ND	50.0	ug/l	1	1C08004	03/08/01	03/08/01	DHS LUFT	
Benzene	ND	0.500	"	"	"	"	"	"	
Toluene	ND	0.500	"	"	"	"	"	"	
Ethylbenzene	ND	0.500	"	"	"	"	"	"	
Xylenes (total)	ND	0.500	"	"	"	"	"	"	
Methyl tert-butyl ether	ND	2.50	"	"	"	"	"	"	
Surrogate: a,a,a-Trifluorotoluene		103 %	70-130		"	"	"	"	
MW-1 (MKC0105-02) Water Sampled: 03/05/01 14:27 Received: 03/05/01 16:15									
Purgeable Hydrocarbons	510	50.0	ug/l	1	1C08004	03/08/01	03/08/01	DHS LUFT	P-01
Benzene	12.7	0.500	"	"	"	"	"	"	
Toluene	0.875	0.500	"	"	"	"	"	"	
Ethylbenzene	2.57	0.500	"	"	"	"	"	"	
Xylenes (total)	ND	0.500	"	"	"	"	"	"	
Methyl tert-butyl ether	572	25.0	"	10	"	"	03/08/01	"	M-03
Surrogate: a,a,a-Trifluorotoluene		103 %	70-130		"	"	03/08/01	"	
MW-2 (MKC0105-03) Water Sampled: 03/05/01 09:38 Received: 03/05/01 16:15									
Purgeable Hydrocarbons	658	200	ug/l	4	1C08004	03/08/01	03/08/01	DHS LUFT	P-01
Benzene	5.53	2.00	"	"	"	"	"	"	
Toluene	ND	2.00	"	"	"	"	"	"	
Ethylbenzene	70.0	2.00	"	"	"	"	"	"	
Xylenes (total)	152	2.00	"	"	"	"	"	"	
Methyl tert-butyl ether	108	10.0	"	"	"	"	"	"	
Surrogate: a,a,a-Trifluorotoluene		86.2 %	70-130		"	"	"	"	





Gettler Ryan/Geostrategies - Tosco/Unocal
6747 Sierra Ct, Suite J
Dublin CA, 94568

Project: Tosco/Unocal
Project Number: Unocal SS #3135
Project Manager: Deanna Harding

Reported:
03/22/01 10:28

Total Purgeable Hydrocarbons (C6-C12), BTEX and MTBE by DHS LUFT
Sequoia Analytical - Morgan Hill

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
MW-3 (MKC0105-04) Water Sampled: 03/05/01 13:43 Received: 03/05/01 16:15									
Purgeable Hydrocarbons	ND	50.0	ug/l	1	1C08004	03/08/01	03/08/01	DHS LUFT	
Benzene	ND	0.500	"	"	"	"	"	"	
Toluene	ND	0.500	"	"	"	"	"	"	
Ethylbenzene	ND	0.500	"	"	"	"	"	"	
Xylenes (total)	ND	0.500	"	"	"	"	"	"	
Methyl tert-butyl ether	167	2.50	"	"	"	"	"	"	
<i>Surrogate: a,a,a-Trifluorotoluene</i>		99.7 %		70-130	"	"	"	"	
MW-4 (MKC0105-05) Water Sampled: 03/05/01 08:20 Received: 03/05/01 16:15									
Purgeable Hydrocarbons	ND	50.0	ug/l	1	1C08004	03/08/01	03/08/01	DHS LUFT	
Benzene	ND	0.500	"	"	"	"	"	"	
Toluene	ND	0.500	"	"	"	"	"	"	
Ethylbenzene	ND	0.500	"	"	"	"	"	"	
Xylenes (total)	ND	0.500	"	"	"	"	"	"	
Methyl tert-butyl ether	2.55	2.50	"	"	"	"	"	"	
<i>Surrogate: a,a,a-Trifluorotoluene</i>		100 %		70-130	"	"	"	"	
MW-5 (MKC0105-06) Water Sampled: 03/05/01 12:58 Received: 03/05/01 16:15									
Purgeable Hydrocarbons	ND	50.0	ug/l	1	1C08004	03/08/01	03/08/01	DHS LUFT	
Benzene	ND	0.500	"	"	"	"	"	"	
Toluene	ND	0.500	"	"	"	"	"	"	
Ethylbenzene	ND	0.500	"	"	"	"	"	"	
Xylenes (total)	ND	0.500	"	"	"	"	"	"	
Methyl tert-butyl ether	ND	2.50	"	"	"	"	"	"	
<i>Surrogate: a,a,a-Trifluorotoluene</i>		97.0 %		70-130	"	"	"	"	





Gettler Ryan/Geostrategies - Tosco/Unocal
6747 Sierra Ct, Suite J
Dublin CA, 94568

Project: Tosco/Unocal
Project Number: Unocal SS #3135
Project Manager: Deanna Harding

Reported:
03/22/01 10:28

Total Purgeable Hydrocarbons (C6-C12), BTEX and MTBE by DHS LUFT
Sequoia Analytical - Morgan Hill

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
MW-6 (MKC0105-07) Water Sampled: 03/05/01 15:30 Received: 03/05/01 16:15									
Purgeable Hydrocarbons	29300	5000	ug/l	100	1C07018	03/07/01	03/07/01	DHS LUFT	P-01
Benzene	272	50.0	"	"	"	"	"	"	
Toluene	66.8	50.0	"	"	"	"	"	"	
Ethylbenzene	2180	50.0	"	"	"	"	"	"	
Xylenes (total)	7380	50.0	"	"	"	"	"	"	
Methyl tert-butyl ether	1120	250	"	"	"	"	"	"	
Surrogate: a,a,a-Trifluorotoluene		106 %		70-130	"	"	"	"	
MW-7 (MKC0105-08) Water Sampled: 03/05/01 08:55 Received: 03/05/01 16:15									
Purgeable Hydrocarbons	ND	50.0	ug/l	1	1C07018	03/07/01	03/07/01	DHS LUFT	
Benzene	ND	0.500	"	"	"	"	"	"	
Toluene	ND	0.500	"	"	"	"	"	"	
Ethylbenzene	ND	0.500	"	"	"	"	"	"	
Xylenes (total)	ND	0.500	"	"	"	"	"	"	
Methyl tert-butyl ether	ND	2.50	"	"	"	"	"	"	
Surrogate: a,a,a-Trifluorotoluene		103 %		70-130	"	"	"	"	
MW-8 (MKC0105-09) Water Sampled: 03/05/01 12:14 Received: 03/05/01 16:15									
Purgeable Hydrocarbons	ND	50.0	ug/l	1	1C07018	03/07/01	03/07/01	DHS LUFT	
Benzene	ND	0.500	"	"	"	"	"	"	
Toluene	ND	0.500	"	"	"	"	"	"	
Ethylbenzene	ND	0.500	"	"	"	"	"	"	
Xylenes (total)	ND	0.500	"	"	"	"	"	"	
Methyl tert-butyl ether	ND	2.50	"	"	"	"	"	"	
Surrogate: a,a,a-Trifluorotoluene		95.9 %		70-130	"	"	"	"	





Gettler Ryan/Gcostrategies - Tosco/Unocal
6747 Sierra Ct, Suite J
Dublin CA, 94568

Project: Tosco/Unocal
Project Number: Unocal SS #3135
Project Manager: Deanna Harding

Reported:
03/22/01 10:28

Total Purgeable Hydrocarbons (C6-C12), BTEX and MTBE by DHS LUFT
Sequoia Analytical - Morgan Hill

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
MW-9 (MKC0105-10) Water Sampled: 03/05/01 11:32 Received: 03/05/01 16:15									
Purgeable Hydrocarbons	ND	50.0	ug/l	1	1C07018	03/07/01	03/07/01	DHS LUFT	
Benzene	ND	0.500	"	"	"	"	"	"	
Toluene	ND	0.500	"	"	"	"	"	"	
Ethylbenzene	ND	0.500	"	"	"	"	"	"	
Xylenes (total)	ND	0.500	"	"	"	"	"	"	
Methyl tert-butyl ether	ND	2.50	"	"	"	"	"	"	
<i>Surrogate: a,a,a-Trifluorotoluene</i>		95.0 %		70-130	"	"	"	"	
MW-10 (MKC0105-11) Water Sampled: 03/05/01 10:45 Received: 03/05/01 16:15									
Purgeable Hydrocarbons	ND	50.0	ug/l	1	1C07018	03/07/01	03/07/01	DHS LUFT	
Benzene	ND	0.500	"	"	"	"	"	"	
Toluene	ND	0.500	"	"	"	"	"	"	
Ethylbenzene	ND	0.500	"	"	"	"	"	"	
Xylenes (total)	ND	0.500	"	"	"	"	"	"	
Methyl tert-butyl ether	121	2.50	"	"	"	"	"	"	
<i>Surrogate: a,a,a-Trifluorotoluene</i>		97.3 %		70-130	"	"	"	"	





Gettler Ryan/Geostrategies - Tosco/Unocal
6747 Sierra Ct, Suite J
Dublin CA, 94568

Project: Tosco/Unocal
Project Number: Unocal SS #3135
Project Manager: Deanna Harding

Reported:
03/22/01 10:28

**Total Metals by EPA 6000/7000 Series Methods
Sequoia Analytical - Morgan Hill**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
MW-1 (MKC0105-02) Water Sampled: 03/05/01 14:27 Received: 03/05/01 16:15									
Ferrous Iron	0.0161	0.0100	mg/l	1	1C21019	03/21/01	03/21/01	EPA 6010A	
MW-2 (MKC0105-03) Water Sampled: 03/05/01 09:38 Received: 03/05/01 16:15									
Ferrous Iron	0.0812	0.0100	mg/l	1	1C21019	03/21/01	03/21/01	EPA 6010A	
MW-3 (MKC0105-04) Water Sampled: 03/05/01 13:43 Received: 03/05/01 16:15									
Ferrous Iron	0.0279	0.0100	mg/l	1	1C21019	03/21/01	03/21/01	EPA 6010A	
MW-4 (MKC0105-05) Water Sampled: 03/05/01 08:20 Received: 03/05/01 16:15									
Ferrous Iron	0.114	0.0100	mg/l	1	1C21019	03/21/01	03/21/01	EPA 6010A	
MW-5 (MKC0105-06) Water Sampled: 03/05/01 12:58 Received: 03/05/01 16:15									
Ferrous Iron	0.123	0.0100	mg/l	1	1C21019	03/21/01	03/21/01	EPA 6010A	
MW-6 (MKC0105-07) Water Sampled: 03/05/01 15:30 Received: 03/05/01 16:15									
Ferrous Iron	0.0791	0.0100	mg/l	1	1C21019	03/21/01	03/21/01	EPA 6010A	
MW-7 (MKC0105-08) Water Sampled: 03/05/01 08:55 Received: 03/05/01 16:15									
Ferrous Iron	0.124	0.0100	mg/l	1	1C21019	03/21/01	03/21/01	EPA 6010A	
MW-8 (MKC0105-09) Water Sampled: 03/05/01 12:14 Received: 03/05/01 16:15									
Ferrous Iron	ND	0.0100	mg/l	1	1C21019	03/21/01	03/21/01	EPA 6010A	
MW-9 (MKC0105-10) Water Sampled: 03/05/01 11:32 Received: 03/05/01 16:15									
Ferrous Iron	ND	0.0100	mg/l	1	1C21019	03/21/01	03/21/01	EPA 6010A	





Giessler Ryan/Geostrategies - Tosco/Unocal
6747 Sierra Ct, Suite J
Dublin CA, 94568

Project: Tosco/Unocal
Project Number: Unocal SS #3135
Project Manager: Deanna Harding

Reported:
03/22/01 10:28

**Total Metals by EPA 6000/7000 Series Methods
Sequoia Analytical - Morgan Hill**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
MW-10 (MKC0105-11) Water Sampled: 03/05/01 10:45 Received: 03/05/01 16:15									
Ferrous Iron	0.0248	0.0100	mg/l	1	1C21019	03/21/01	03/21/01	EPA 6010A	





Gettler Ryan/Geostrategies - Tosco/Unocal
6747 Sierra Ct, Suite J
Dublin CA, 94568

Project: Tosco/Unocal
Project Number: Unocal SS #3135
Project Manager: Deanna Harding

Reported:
03/22/01 10:28

**Volatile Organic Compounds by EPA Method 8260A
Sequoia Analytical - Morgan Hill**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
MW-1 (MKC0105-02) Water Sampled: 03/05/01 14:27 Received: 03/05/01 16:15									
Ethanol	ND	8000	ug/l	20	1C13001	03/12/01	03/12/01	EPA 8260A	A-01
tert-Butyl alcohol	ND	400	"	"	"	"	"	"	"
Methyl tert-butyl ether	585	20.0	"	"	"	"	"	"	"
Di-isopropyl ether	ND	20.0	"	"	"	"	"	"	"
Ethyl tert-butyl ether	ND	20.0	"	"	"	"	"	"	"
tert-Amyl methyl ether	ND	20.0	"	"	"	"	"	"	"
1,2-Dichloroethane	ND	20.0	"	"	"	"	"	"	"
Ethylene dibromide	ND	20.0	"	"	"	"	"	"	"
<i>Surrogate: 1,2-Dichloroethane-d4</i>		90.5 %		70-130	"	"	"	"	"





Gettler Ryan/Gcostrategies - Tosco/Unocal
6747 Sierra Ct, Suite J
Dublin CA, 94568

Project: Tosco/Unocal
Project Number: Unocal SS #3135
Project Manager: Deanna Harding

Reported:
03/22/01 10:28

**Anions by EPA Method 300.0
Sequoia Analytical - Morgan Hill**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
MW-1 (MKC0105-02) Water Sampled: 03/05/01 14:27 Received: 03/05/01 16:15									
Nitrate as NO3	3.41	1.00	mg/l	10	1C16013	03/06/01	03/06/01	EPA 300.0	
Sulfate as SO4	7.12	5.00	"	"	"	"	"	"	
MW-2 (MKC0105-03) Water Sampled: 03/05/01 09:38 Received: 03/05/01 16:15									
Nitrate as NO3	2.91	1.00	mg/l	10	1C16013	03/06/01	03/06/01	EPA 300.0	
Sulfate as SO4	53.7	5.00	"	"	"	"	"	"	
MW-3 (MKC0105-04) Water Sampled: 03/05/01 13:43 Received: 03/05/01 16:15									
Nitrate as NO3	3.52	1.00	mg/l	10	1C16013	03/06/01	03/06/01	EPA 300.0	
Sulfate as SO4	70.1	5.00	"	"	"	"	"	"	
MW-4 (MKC0105-05) Water Sampled: 03/05/01 08:20 Received: 03/05/01 16:15									
Nitrate as NO3	4.63	1.00	mg/l	10	1C16013	03/06/01	03/06/01	EPA 300.0	
Sulfate as SO4	5.65	5.00	"	"	"	"	"	"	
MW-5 (MKC0105-06) Water Sampled: 03/05/01 12:58 Received: 03/05/01 16:15									
Nitrate as NO3	3.49	1.00	mg/l	10	1C16013	03/06/01	03/06/01	EPA 300.0	
Sulfate as SO4	5.43	5.00	"	"	"	"	"	"	
MW-6 (MKC0105-07) Water Sampled: 03/05/01 15:30 Received: 03/05/01 16:15									
Nitrate as NO3	2.95	1.00	mg/l	10	1C16013	03/06/01	03/06/01	EPA 300.0	
Sulfate as SO4	ND	5.00	"	"	"	"	"	"	
MW-7 (MKC0105-08) Water Sampled: 03/05/01 08:55 Received: 03/05/01 16:15									
Nitrate as NO3	3.20	1.00	mg/l	10	1C16013	03/06/01	03/06/01	EPA 300.0	
Sulfate as SO4	ND	5.00	"	"	"	"	"	"	





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6747 Sierra Ct, Suite J
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Project: Tosco/Unocal
Project Number: Unocal SS #3135
Project Manager: Deanna Harding

Reported:
03/22/01 10:28

**Anions by EPA Method 300.0
Sequoia Analytical - Morgan Hill**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
MW-8 (MKC0105-09) Water Sampled: 03/05/01 12:14 Received: 03/05/01 16:15									
Nitrate as NO3	25.0	1.00	mg/l	10	1C16013	03/06/01	03/06/01	EPA 300.0	
Sulfate as SO4	28.8	5.00	"	"	"	"	"	"	
MW-9 (MKC0105-10) Water Sampled: 03/05/01 11:32 Received: 03/05/01 16:15									
Nitrate as NO3	27.1	1.00	mg/l	10	1C16013	03/06/01	03/06/01	EPA 300.0	
Sulfate as SO4	30.5	5.00	"	"	"	"	"	"	
MW-10 (MKC0105-11) Water Sampled: 03/05/01 10:45 Received: 03/05/01 16:15									
Nitrate as NO3	3.17	1.00	mg/l	10	1C16013	03/06/01	03/06/01	EPA 300.0	
Sulfate as SO4	66.7	5.00	"	"	"	"	"	"	





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6747 Sierra Ct, Suite J
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Project: Tosco/Unocal
Project Number: Unocal SS #3135
Project Manager: Deanna Harding

Reported:
03/22/01 10:28

Subcontracted Analyses Sequoia Analytical - Morgan Hill

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
MW-1 (MKC0105-02) Water Sampled: 03/05/01 14:27 Received: 03/05/01 16:15									
Oxidation/Reduction Potential	492	10.0	mv	1	1C19024	03/16/01	03/16/01	ASTM D149876	
MW-2 (MKC0105-03) Water Sampled: 03/05/01 09:38 Received: 03/05/01 16:15									
Oxidation/Reduction Potential	480	10.0	mv	1	1C19024	03/16/01	03/16/01	ASTM D149876	
MW-3 (MKC0105-04) Water Sampled: 03/05/01 13:43 Received: 03/05/01 16:15									
Oxidation/Reduction Potential	476	10.0	mv	1	1C19024	03/16/01	03/16/01	ASTM D149876	
MW-4 (MKC0105-05) Water Sampled: 03/05/01 08:20 Received: 03/05/01 16:15									
Oxidation/Reduction Potential	474	10.0	mv	1	1C19024	03/16/01	03/16/01	ASTM D149876	
MW-5 (MKC0105-06) Water Sampled: 03/05/01 12:58 Received: 03/05/01 16:15									
Oxidation/Reduction Potential	470	10.0	mv	1	1C19024	03/16/01	03/16/01	ASTM D149876	
MW-6 (MKC0105-07) Water Sampled: 03/05/01 15:30 Received: 03/05/01 16:15									
Oxidation/Reduction Potential	467	10.0	mv	1	1C19024	03/16/01	03/16/01	ASTM D149876	
MW-7 (MKC0105-08) Water Sampled: 03/05/01 08:55 Received: 03/05/01 16:15									
Oxidation/Reduction Potential	464	10.0	mv	1	1C19024	03/16/01	03/16/01	ASTM D149876	
MW-8 (MKC0105-09) Water Sampled: 03/05/01 12:14 Received: 03/05/01 16:15									
Oxidation/Reduction Potential	455	10.0	mv	1	1C19024	03/16/01	03/16/01	ASTM D149876	
MW-9 (MKC0105-10) Water Sampled: 03/05/01 11:32 Received: 03/05/01 16:15									
Oxidation/Reduction Potential	468	10.0	mv	1	1C19024	03/16/01	03/16/01	ASTM D149876	





Gettler Ryan/Geostrategies - Tosco/Unocal
6747 Sierra Ct, Suite J
Dublin CA, 94568

Project: Tosco/Unocal
Project Number: Unocal SS #3135
Project Manager: Deanna Harding

Reported:
03/22/01 10:28

**Subcontracted Analyses
Sequoia Analytical - Morgan Hill**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
MW-10 (MKC0105-11) Water Sampled: 03/05/01 10:45 Received: 03/05/01 16:15									
Oxidation/Reduction Potential	461	10.0	mv	1	1C19024	03/16/01	03/16/01	ASTM D149876	





Gettler Ryan/Geostrategies - Tosco/Unocal
6747 Sierra Ct, Suite J
Dublin CA, 94568

Project: Tosco/Unocal
Project Number: Unocal SS #3135
Project Manager: Deanna Harding

Reported:
03/22/01 10:28

Total Purgeable Hydrocarbons (C6-C12), BTEX and MTBE by DHS LUFT - Quality Control
Sequoia Analytical - Morgan Hill

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 1C07018 - EPA 5030B [P/T]

Blank (1C07018-BLK1)

Prepared & Analyzed: 03/07/01

Purgeable Hydrocarbons	ND	50.0	ug/l							
Benzene	ND	0.500	"							
Toluene	ND	0.500	"							
Ethylbenzene	ND	0.500	"							
Xylenes (total)	ND	0.500	"							
Methyl tert-butyl ether	ND	2.50	"							
<i>Surrogate: a,a,a-Trifluorotoluene</i>	9.86		"	10.0		98.6	70-130			

LCS (1C07018-BS1)

Prepared & Analyzed: 03/07/01

Purgeable Hydrocarbons	226	50.0	ug/l	250		90.4	70-130			
<i>Surrogate: a,a,a-Trifluorotoluene</i>	14.8		"	10.0		148	70-130			S-02

Matrix Spike (1C07018-MS1)

Source: MKC0105-10

Prepared & Analyzed: 03/07/01

Purgeable Hydrocarbons	206	50.0	ug/l	250	ND	82.4	60-140			
<i>Surrogate: a,a,a-Trifluorotoluene</i>	20.4		"	10.0		204	70-130			S-02

Matrix Spike Dup (1C07018-MSD1)

Source: MKC0105-10

Prepared & Analyzed: 03/07/01

Purgeable Hydrocarbons	215	50.0	ug/l	250	ND	86.0	60-140	4.28	25	
<i>Surrogate: a,a,a-Trifluorotoluene</i>	20.1		"	10.0		201	70-130			S-02

Batch 1C08004 - EPA 5030B [P/T]

Blank (1C08004-BLK1)

Prepared & Analyzed: 03/08/01

Purgeable Hydrocarbons	ND	50.0	ug/l							
Benzene	ND	0.500	"							
Toluene	ND	0.500	"							
Ethylbenzene	ND	0.500	"							
Xylenes (total)	ND	0.500	"							
Methyl tert-butyl ether	ND	2.50	"							
<i>Surrogate: a,a,a-Trifluorotoluene</i>	10.4		"	10.0		104	70-130			





Gettler Ryan/Geostrategies - Tosco/Unocal
6747 Sierra Ct, Suite J
Dublin CA, 94568

Project: Tosco/Unocal
Project Number: Unocal SS #3135
Project Manager: Deanna Harding

Reported:
03/22/01 10:28

Total Purgeable Hydrocarbons (C6-C12), BTEX and MTBE by DHS LUFT - Quality Control
Sequoia Analytical - Morgan Hill

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 1C08004 - EPA 5030B [P/T]

ICS (1C08004-BS1)

Prepared & Analyzed: 03/08/01

Benzene	9.66	0.500	ug/l	10.0		96.6	70-130			
Toluene	9.99	0.500	"	10.0		99.9	70-130			
Ethylbenzene	10.2	0.500	"	10.0		102	70-130			
Xylenes (total)	30.9	0.500	"	30.0		103	70-130			
Surrogate: <i>a,a,a</i> -Trifluorotoluene	10.3		"	10.0		103	70-130			

Matrix Spike (1C08004-MS1)

Source: MKC0154-02

Prepared & Analyzed: 03/08/01

Benzene	9.72	0.500	ug/l	10.0	ND	97.2	60-140			
Toluene	10.2	0.500	"	10.0	ND	102	60-140			
Ethylbenzene	10.3	0.500	"	10.0	ND	103	60-140			
Xylenes (total)	31.3	0.500	"	30.0	ND	104	60-140			
Surrogate: <i>a,a,a</i> -Trifluorotoluene	10.6		"	10.0		106	70-130			

Matrix Spike Dup (1C08004-MSD1)

Source: MKC0154-02

Prepared & Analyzed: 03/08/01

Benzene	9.21	0.500	ug/l	10.0	ND	92.1	60-140	5.39	25	
Toluene	9.54	0.500	"	10.0	ND	95.4	60-140	6.69	25	
Ethylbenzene	9.66	0.500	"	10.0	ND	96.6	60-140	6.41	25	
Xylenes (total)	29.5	0.500	"	30.0	ND	98.3	60-140	5.92	25	
Surrogate: <i>a,a,a</i> -Trifluorotoluene	9.69		"	10.0		96.9	70-130			





Gettler Ryan/Geostrategies - Tosco/Unocal
6747 Sierra Ct, Suite J
Dublin CA, 94568

Project: Tosco/Unocal
Project Number: Unocal SS #3135
Project Manager: Deanna Harding

Reported:
03/22/01 10:28

**Total Metals by EPA 6000/7000 Series Methods - Quality Control
Sequoia Analytical - Morgan Hill**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1C21019 - 200.7/ No Digest										
Blank (1C21019-BLK1)				Prepared & Analyzed: 03/21/01						
Ferrous Iron	ND	0.0100	mg/l							
LCS (1C21019-BS1)				Prepared & Analyzed: 03/21/01						
Ferrous Iron	1.01	0.0100	mg/l				80-120			
Matrix Spike (1C21019-MS1)				Prepared & Analyzed: 03/21/01						
Ferrous Iron	0.994	0.0100	mg/l		0.0161		80-120			
Matrix Spike Dup (1C21019-MSD1)				Prepared & Analyzed: 03/21/01						
Ferrous Iron	1.00	0.0100	mg/l		0.0161		80-120	0.602	20	





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Project: Tosco/Unocal
Project Number: Unocal SS #3135
Project Manager: Deanna Harding

Reported:
03/22/01 10:28

**Volatile Organic Compounds by EPA Method 8260A - Quality Control
Sequoia Analytical - Morgan Hill**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC %REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 1C13001 - EPA 5030B P/T

Blank (1C13001-BLK1)

Prepared & Analyzed: 03/12/01

Ethanol	ND	400	ug/l							A-01a
tert-Butyl alcohol	ND	20.0	"							
Methyl tert-butyl ether	ND	1.00	"							
Di-isopropyl ether	ND	1.00	"							
Ethyl tert-butyl ether	ND	1.00	"							
tert-Amyl methyl ether	ND	1.00	"							
1,2-Dichloroethane	ND	1.00	"							
Ethylene dibromide	ND	1.00	"							

Surrogate: 1,2-Dichloroethane-d4

9.28 " 10.0 92.8 70-130

LCS (1C13001-BS1)

Prepared & Analyzed: 03/12/01

Methyl tert-butyl ether	10.5	1.00	ug/l	10.0		105	70-130			
Surrogate: 1,2-Dichloroethane-d4	9.88		"	10.0		98.8	70-130			

LCS Dup (1C13001-BSD1)

Prepared & Analyzed: 03/12/01

Methyl tert-butyl ether	10.9	1.00	ug/l	10.0		109	70-130	3.74	25	
Surrogate: 1,2-Dichloroethane-d4	10.4		"	10.0		104	70-130			

Matrix Spike (1C13001-MS1)

Source: MKC0155-06

Prepared & Analyzed: 03/12/01

Methyl tert-butyl ether	12.7	1.00	ug/l	10.0	ND	127	70-130			
Surrogate: 1,2-Dichloroethane-d4	10.1		"	10.0		101	70-130			

Matrix Spike Dup (1C13001-MSD1)

Source: MKC0155-06

Prepared & Analyzed: 03/12/01

Methyl tert-butyl ether	13.6	1.00	ug/l	10.0	ND	136	70-130	6.84	25	Q-01
Surrogate: 1,2-Dichloroethane-d4	9.73		"	10.0		97.3	70-130			





Gettler Ryan/Geostrategies - Tosco/Unocal
6747 Sierra Ct, Suite J
Dublin CA, 94568

Project: Tosco/Unocal
Project Number: Unocal SS #3135
Project Manager: Deanna Harding

Reported:
03/22/01 10:28

**Anions by EPA Method 300.0 - Quality Control
Sequoia Analytical - Morgan Hill**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 1C16013 - General Preparation

Blank (1C16013-BLK1)

Prepared & Analyzed: 03/06/01

Nitrate as NO3	ND	0.100	mg/l							
Sulfate as SO4	ND	0.500	"							

LCS (1C16013-BS1)

Prepared & Analyzed: 03/06/01

Nitrate as NO3	9.10	0.100	mg/l	10.0		91.0	90-110			
Sulfate as SO4	9.03	0.500	"	10.0		90.3	90-110			

Matrix Spike (1C16013-MS1)

Source: MKC0105-09

Prepared & Analyzed: 03/06/01

Nitrate as NO3	112	1.00	mg/l	100	25.0	87.0	80-120			
Sulfate as SO4	115	5.00	"	100	28.8	86.2	80-120			

Matrix Spike Dup (1C16013-MSD1)

Source: MKC0105-09

Prepared & Analyzed: 03/06/01

Nitrate as NO3	120	1.00	mg/l	100	25.0	95.0	80-120	6.90	20	
Sulfate as SO4	122	5.00	"	100	28.8	93.2	80-120	5.91	20	





Gettler Ryan/Geostrategies - Tosco/Unocal
6747 Sierra Ct, Suite J
Dublin CA, 94568

Project: Tosco/Unocal
Project Number: Unocal SS #3135
Project Manager: Deanna Harding

Reported:
03/22/01 10:28

**Subcontracted Analyses - Quality Control
Sequoia Analytical - Morgan Hill**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC %REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 1C19024 - General Preparation

Duplicate (1C19024-DUPI)

Source: MKC0105-05

Prepared & Analyzed: 03/16/01

Oxidation/Reduction Potential

455

10.0

mv

474

4.09

20





Gettler Ryan/Geostrategies - Tosco/Unocal
6747 Sierra Ct, Suite J
Dublin CA, 94568

Project: Tosco/Unocal
Project Number: Unocal SS #3135
Project Manager: Deanna Harding

Reported:
03/22/01 10:28

Notes and Definitions

- A-01 CCV percent recovery for Ethanol is 137%. Control limits is from 80-120%.
- A-01a CCV percent recovery for Ethanol is 137%. Control limits is from 80-120%.
- M-03 Sample was analyzed at a second dilution.
- P-01 Chromatogram Pattern: Gasoline C6-C12
- Q-01 The spike recovery for this QC sample is outside of established control limits. Review of associated batch QC indicates the recovery for this analyte does not represent an out-of-control condition for the batch
- S-02 The surrogate recovery for this sample cannot be accurately quantified due to interference from coeluting organic compounds present in the sample.
- DET Analyte DETECTED
- ND Analyte NOT DETECTED at or above the reporting limit
- NR Not Reported
- dry Sample results reported on a dry weight basis
- RPD Relative Percent Difference

