



GETTLER-RYAN INC.

TRANSMITTAL

STUD 918
LS

October 10, 2000
G-R #180066

TO: Mr. David B. De Witt
Tosco Marketing Company
2000 Crow Canyon Place, Suite 400
San Ramon, California 94586

CC: Mr. David Vossler
Gettler-Ryan Inc.
Petaluma, California

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

RE: Tosco (Unocal) SS #0752
800 Harrison Street
Oakland, California

WE HAVE ENCLOSED THE FOLLOWING:

COPIES	DATED	DESCRIPTION
1	October 6, 2000	Groundwater Monitoring and Sampling Report Semi-Annual 2000 - Events of July 19 and October 3, 2000

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 **October 23, 2000**, this report will be distributed to the following:

Enclosure

cc: Ms. Jennifer Eberle, Alameda County Health Care Services, 1131 Harbor Bay Parkway, Alameda, CA 94502

trans/0752.dbd



GETTLER-RYAN INC.

October 6, 2000
G-R Job #180066

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

RE: Semi-Annual 2000 Groundwater Monitoring & Sampling Report
Tosco (Unocal) Service Station #0752
800 Harrison Street
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 July 19, 2000, field personnel monitored and sampled eight wells (MW-1 through MW-8). In addition, on October 3, 2000, field personnel monitored and sampled one well (MW-5) at the above referenced site.

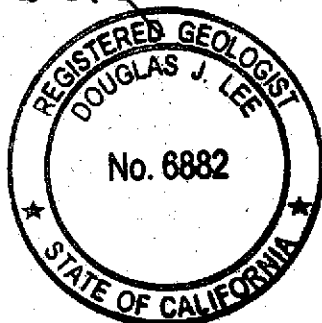
Static groundwater levels were measured and all wells were checked for the presence of separate-phase hydrocarbons. Separate-phase hydrocarbons were not present in the wells. Static water level data and groundwater elevations are summarized in Table 1. Dissolved Oxygen Concentrations are summarized in Table 5. 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, 3 and 4. A Concentration Map is included as Figure 2. The chain of custody document and laboratory analytical reports are also attached.

Sincerely,

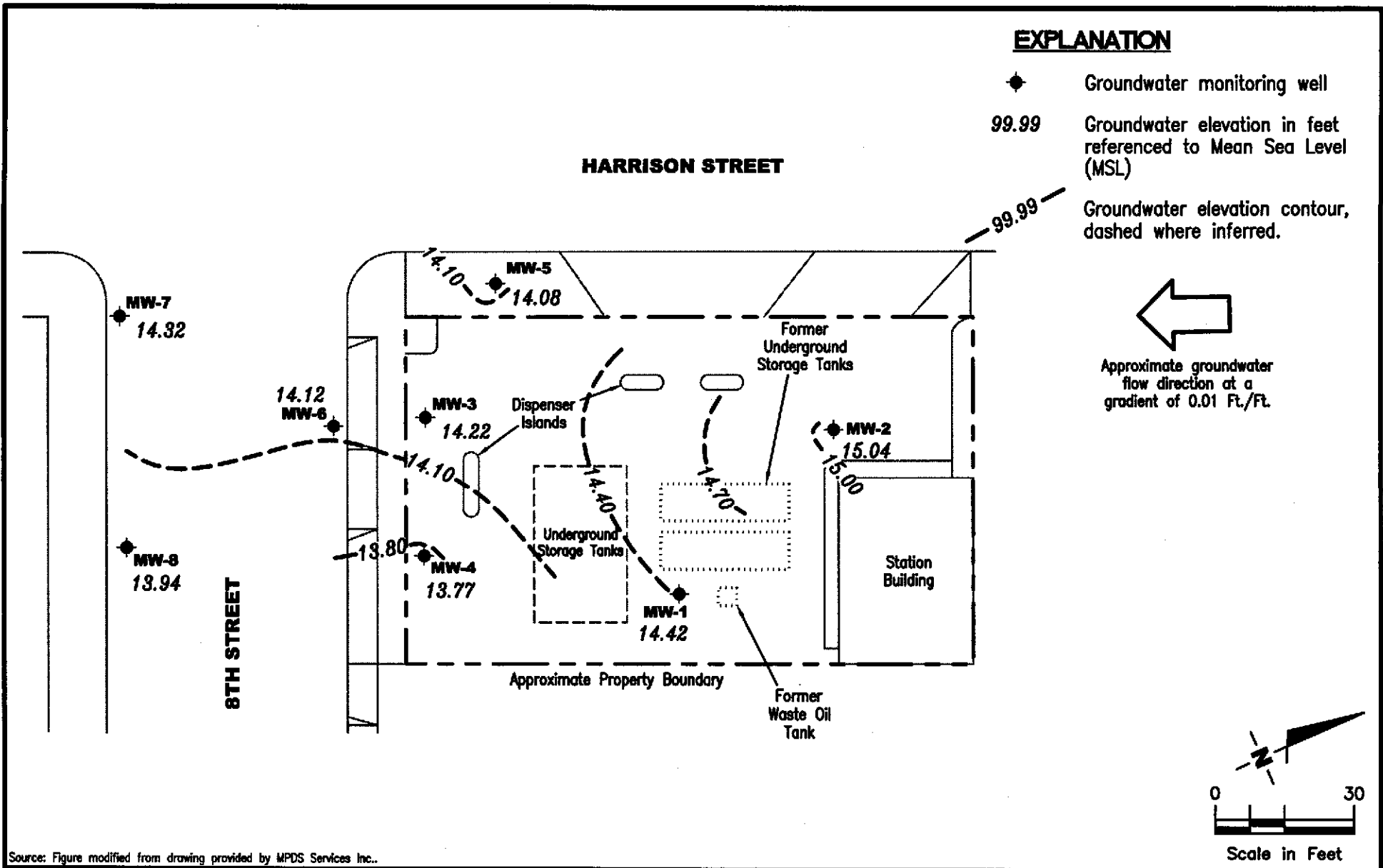
Deanna L. Harding
Project Coordinator

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



- 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: Groundwater Analytical Results
- Table 4: Groundwater Analytical Results
- Table 5: Dissolved Oxygen Concentrations
- Attachments: Standard Operating Procedure - Groundwater Sampling
Field Data Sheets

0752.qml



Gettler - Ryan Inc.

6747 Sierra Ct., Suite J
Dublin, CA 94568 (925) 551-7555

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

FIGURE

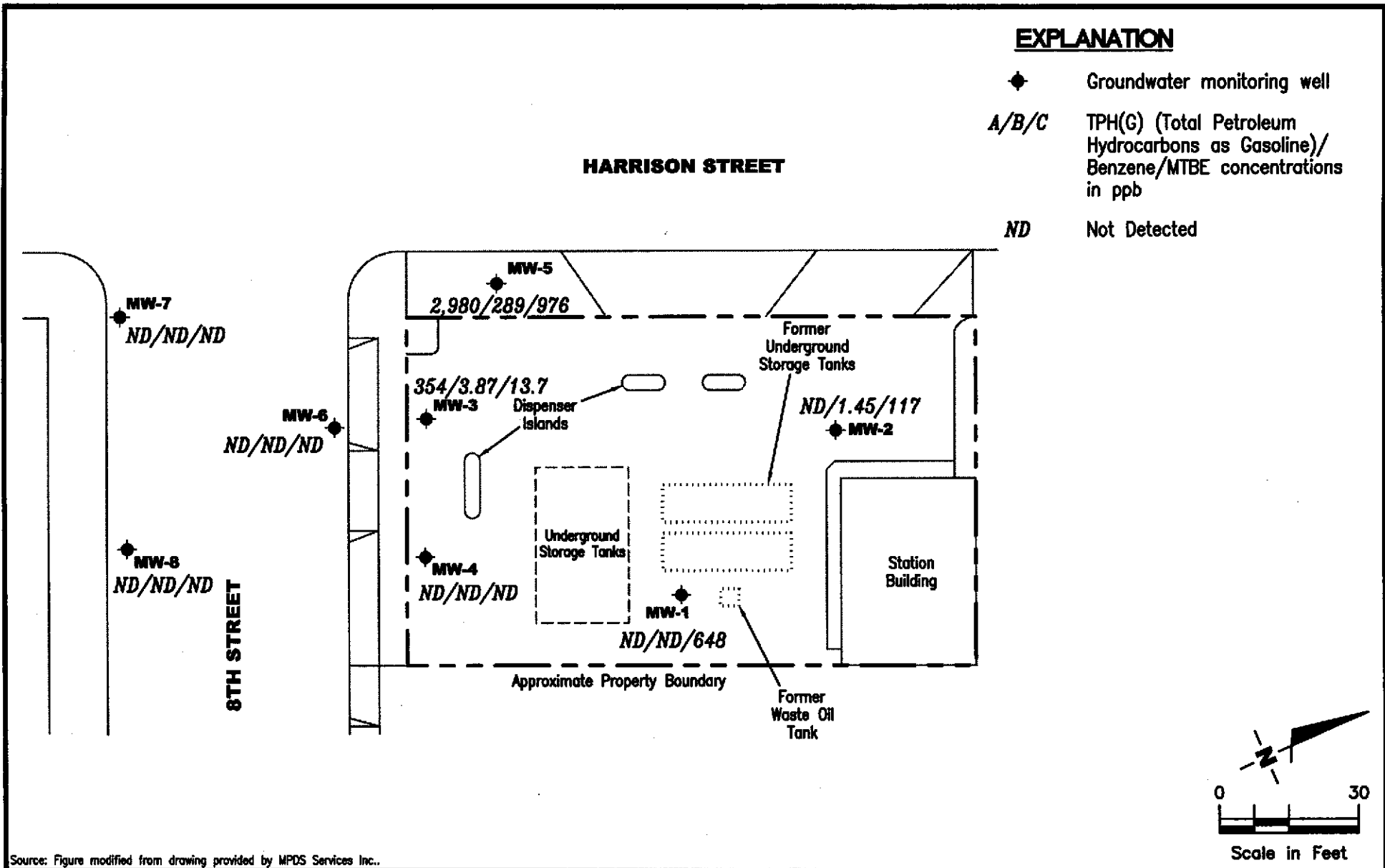
1

PROJECT NUMBER
180066

REVIEWED BY

DATE
July 19, 2000

REVISED DATE



Source: Figure modified from drawing provided by MPDS Services Inc..



Gettler - Ryan Inc.

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Dublin, CA 94568

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

FIGURE

2

PROJECT NUMBER
180066

REVIEWED BY

DATE
July 19, 2000

REVISED DATE

Table 1
Groundwater Monitoring Data and Analytical Results
 Tosco (Unocal) Service Station #0752
 800 Harrison Street
 Oakland, California

WELL ID/ TOC*	DATE	DTW (ft.)	GWE (msl)	TPH(D) (ppb)	TPH(G) (ppb)	B (ppb)	T (ppb)	E (ppb)	X (ppb)	MTBE (ppb)	Chloro- form** (ppb)	PCE** (ppb)	TCE** (ppb)
MW-1	06/05/91	--	--	ND	47	ND	ND	ND	ND	--	7.8	2.9	1.3
	09/30/91	--	--	ND	ND	ND	ND	ND	ND	--	--	--	--
	12/30/91	--	--	ND	ND	ND	ND	ND	ND	--	6.4	2.1	0.9
	04/02/92	--	--	94	ND	ND	ND	ND	ND	--	7.1	2.6	1.4
	06/30/92	--	--	120	ND	ND	ND	ND	ND	--	9.5	2.2	1.3
	09/15/92	--	--	ND	76	1.0	ND	ND	ND	--	12	2.2	1.3
34.94	12/21/92	21.17	13.77	ND	95	0.69	ND	ND	1.0	--	12	1.4	0.83
	04/28/93 ¹	--	--	470 ²	920	3.1	2.3	1.2	9.7	--	12	0.89	0.85
	07/23/93	20.13	14.81	ND	ND	0.5	0.66	ND	ND	--	16	1.3	0.91
34.69	10/05/93	20.30	14.39	57 ³	92 ⁵	1.5	ND	ND	0.72	--	13	1.3	0.66
	01/03/94 ⁶	20.52	14.17	ND	ND	ND	ND	ND	ND	--	18	1.4	0.93
	04/02/94	20.16	14.53	ND	ND	ND	ND	ND	ND	--	15	1.1	0.68
	07/05/94	19.27	15.42	--	250	4.8	13	1.2	7.3	--	--	--	--
	10/06/94	20.87	13.82	--	540	1.4	ND	0.66	11	--	--	--	--
	01/02/95	19.67	15.02	--	140	ND	ND	ND	ND	--	--	--	--
	04/03/95	17.61	17.08	--	580	3.6	0.75	ND	4.0	--	--	--	--
	07/14/95	18.58	16.11	--	260	2.1	ND	ND	1.2	--	--	--	--
	10/10/95	19.60	15.09	--	220	2.0	ND	25	5.6	29	--	--	--
	01/03/96	19.69	15.00	--	190	2.4	ND	0.71	1.2	--	--	--	--
	04/10/96	17.65	17.04	--	540	8.9	1.7	1.5	7.4	50	--	--	--
	07/09/96	18.52	16.17	--	490	3.0	1.4	1.3	2.5	150	--	--	--
	01/24/97	17.72	16.97	--	760	27	0.89	5.2	10	510	--	--	--
	07/23/97	19.42	15.27	--	ND	ND	ND	ND	ND	550	--	--	--
NP	01/26/98	17.46	17.23	--	1,800 ⁸	ND ⁹	ND ⁹	ND ⁹	ND ⁹	4,800	--	--	--
NP	07/03/98	18.61	16.08	--	ND ⁹	ND ⁹	ND ⁹	ND ⁹	ND ⁹	1,800	--	--	--
	01/14/99	18.92	15.77	--	83 ¹⁰	ND	ND	ND	ND	230	--	--	--
	07/15/99	17.84	16.85	--	110	ND	ND	ND	1.0	290	--	--	--
	01/07/00	19.13	15.56	--	ND	ND	ND	ND	ND	260	--	--	--
	07/19/00	20.27	14.42	--	ND	ND	ND	ND	ND	648	--	--	--

Table 1
Groundwater Monitoring Data and Analytical Results
 Tosco (Unocal) Service Station #0752
 800 Harrison Street
 Oakland, California

WELL ID/ TOC*	DATE	DTW (ft.)	GWE (msl)	TPH(D) (ppb)	TPH(G) (ppb)	B (ppb)	T (ppb)	E (ppb)	X (ppb)	MTBE (ppb)	Chloro- form** (ppb)	PCE** (ppb)	TCE** (ppb)
MW-2	06/05/91	--	--	--	49	ND	ND	ND	ND	--	--	--	--
	09/30/91	--	--	--	130	18	0.53	14	9.6	--	--	--	--
	12/30/91	--	--	--	91	16	0.89	11	1.9	--	--	--	--
	04/02/92	--	--	--	88	12	0.32	6.3	7.2	--	--	--	--
	06/30/92	--	--	--	76	9.3	0.76	4.8	6.9	--	--	--	--
	09/15/92	--	--	--	1,300	91	5.7	80	110	--	--	--	--
34.97	12/21/92	20.85	14.12	--	960	97	3.2	74	96	--	--	--	--
	04/28/93	--	--	--	1,300	76	1.9	130	87	--	--	--	--
	07/23/93	19.81	15.16	--	66	1.8	ND	2.5	2.0	--	--	--	--
34.72	10/05/93	19.95	14.77	--	120	12	ND	2.1	12	--	--	--	--
	01/03/94	20.21	14.51	--	260	25	ND	5.5	26	--	--	--	--
	04/02/94	19.88	14.84	--	ND	0.65	ND	ND	0.99	--	--	--	--
	07/05/94	19.07	15.65	--	160	16	ND	0.73	10	--	--	--	--
	10/06/94	20.55	14.17	--	170	15	ND	1.4	11	--	--	--	--
	01/02/95	19.25	15.47	--	190	27	ND	0.95	11	--	--	--	--
	04/03/95	17.49	17.23	--	2,400	65	6.6	19	63	--	--	--	--
	07/14/95	18.30	16.42	--	750	270	ND	ND	13	--	--	--	--
	10/10/95	19.25	15.47	--	50	1.6	ND	ND	ND	200	--	--	--
	01/03/96	19.40	15.32	--	ND	ND	ND	ND	ND	--	--	--	--
	04/10/96	17.35	17.37	--	300	42	ND	2.4	9.0	620	--	--	--
	07/09/96	18.22	16.50	--	760	230	ND	1.3	2.4	1,500	--	--	--
	01/24/97	17.59	17.13	--	2,900	400	350	190	720	1,300	--	--	--
	07/23/97	19.13	15.59	--	ND	ND	ND	ND	ND	65	--	--	--
NP	01/26/98	17.12	17.60	--	ND	ND	ND	ND	0.58	13	--	--	--
NP	07/03/98	18.20	16.52	--	140	26	ND	0.95	5.0	330	--	--	--
	01/14/99	18.56	16.16	--	ND	0.54	ND	ND	ND	350	--	--	--
	07/15/99	17.39	17.33	--	ND	0.88	ND	ND	ND	39	--	--	--
	01/07/00	18.78	15.94	--	ND	ND	ND	ND	ND	24	--	--	--
	07/19/00	19.68	15.04	--	ND	1.45	ND	ND	ND	117	--	--	--

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MW-3	06/05/91	--	--	--	5,800	1,200	40	140	97	--	--	--	--
	09/30/91	--	--	--	6,800	1,400	130	290	240	--	--	--	--
	12/30/91	--	--	--	7,200	2,100	690	410	550	--	--	--	--
	04/02/92	--	--	--	8,000	1,400	200	300	310	--	--	--	--
	06/30/92	--	--	--	8,900	1,900	210	430	550	--	--	--	--
	09/15/92	--	--	--	10,000	1,900	330	400	580	--	--	--	--
33.39	12/21/92	20.02	13.37	--	8,500	1,500	150	310	330	--	--	--	--
	04/28/93	--	--	--	2,600	220	7.6	41	27	--	--	--	--
	07/23/93	19.00	14.39	--	4,400	660	26	160	82	--	--	--	--
33.14	10/05/93	19.20	13.94	--	9,200	720	88	140	140	--	--	--	--
	01/03/94	19.40	13.74	--	4,900	830	100	170	150	--	--	--	--
	04/02/94	19.01	14.13	--	6,000	800	30	140	110	--	--	--	--
	07/05/94	18.14	15.00	--	25,000 ⁵	ND	ND	ND	ND	--	--	--	--
	10/06/94	19.73	13.41	--	49,000 ⁴	1,300	200	280	300	--	--	--	--
	01/02/95	18.36	14.78	--	480	1.6	ND	1.4	ND	--	--	--	--
	04/03/95	16.38	16.76	--	8,100 ⁵	65	ND	ND	ND	--	--	--	--
	07/14/95	17.49	15.65	--	ND	1,300	ND	ND	ND	--	--	--	--
	10/10/95	18.50	14.64	--	3,100	1,400	36	50	53	190,000	--	--	--
	01/03/96 ⁷	18.54	14.60	--	ND	2,300	110	150	140	--	--	--	--
	04/10/96	16.40	16.74	--	940	38	33	39	47	69,000	--	--	--
	07/09/96	17.43	15.71	--	ND	2,000	ND	150	160	140,000	--	--	--
	01/24/97	16.57	16.57	--	540	8.0	ND	11	9.9	45	--	--	--
	07/23/97	18.38	14.76	--	7,400	1,900	180	140	340	45,000	--	--	--
NP	01/26/98	16.22	16.92	--	250	2.2	1.9	0.87	1.9	4.0	--	--	--
NP	07/03/98	17.46	15.68	--	230	1.8	2.5	1.5	3.4	6.3	--	--	--
	01/14/99	17.73	15.41	--	400 ¹⁰	8.2	2.7	0.90	5.9	140	--	--	--
	07/15/99	16.58	16.56	--	290 ¹⁰	3.3	3.6	1.7	2.5	13	--	--	--
	01/07/00	17.84	15.30	--	ND ⁹	890	91	100	480	20,000	--	--	--
	07/19/00	18.92	14.22	--	354 ¹²	3.87	2.61	0.646	ND	13.7	--	--	--

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MW-4	10/19/92	--	--	--	480	0.51	2.1	2.8	6.8	--	--	--	--
33.12	12/21/92	19.73	13.39	--	220 ⁴	ND	ND	0.97	0.74	--	--	--	--
	04/28/93	--	--	--	ND	ND	ND	ND	ND	--	--	--	--
	07/23/93	18.72	14.40	--	85 ⁴	ND	ND	ND	ND	--	--	--	--
32.71	10/05/93	18.74	13.97	--	130 ⁵	ND	ND	ND	ND	--	--	--	--
	01/03/94	18.93	13.78	--	210	ND	ND	0.76	1.6	240	9.0	1.0	ND
	04/02/94	18.53	14.18	--	89	ND	ND	ND	ND	--	--	--	--
	07/05/94	17.67	15.04	--	190 ⁵	ND	ND	ND	ND	--	--	--	--
	10/06/94	19.25	13.46	--	170	0.85	ND	ND	0.74	--	--	--	--
	01/02/95	17.75	14.96	--	ND	ND	ND	ND	ND	--	--	--	--
	04/03/95	15.87	16.84	--	98 ⁵	ND	ND	ND	ND	--	--	--	--
	07/14/95	17.01	15.70	--	ND	ND	ND	ND	ND	--	--	--	--
	10/10/95	18.03	14.68	--	ND	ND	ND	ND	ND	120	--	--	--
	01/03/96 ⁷	18.05	14.66	--	ND	ND	ND	ND	ND	--	--	--	--
	04/10/96	16.00	16.71	--	ND	ND	ND	ND	ND	240	--	--	--
	07/09/96	16.96	15.75	--	ND	ND	ND	ND	ND	480	--	--	--
	01/24/97	16.04	16.67	--	ND	ND	ND	ND	ND	270	--	--	--
	07/23/97	17.87	14.84	--	ND	ND	ND	ND	ND	460	--	--	--
NP	01/26/98	16.05	16.66	--	ND	ND	ND	ND	ND	17	--	--	--
NP	07/03/98	16.95	15.76	--	ND	ND	ND	ND	ND	3.8	--	--	--
	01/14/99	17.34	15.37	--	ND	ND	ND	ND	ND	4,600	--	--	--
	07/15/99	16.36	16.35	--	ND	ND	ND	ND	ND	ND	--	--	--
	01/07/00	17.81	14.90	--	ND	ND	ND	ND	ND	450	--	--	--
	07/19/00	18.94	13.77	--	ND	ND	ND	ND	ND	ND	--	--	--
MW-5	10/19/92	--	--	--	2,700	61	5.0	100	61	--	--	--	--
33.25	12/21/92	19.75	13.50	--	1,700	51	4.7	83	34	--	--	--	--
	04/28/93	--	--	--	6,700	200	190	250	430	--	--	--	--
	07/23/93	18.74	14.51	--	2,000	122	8.0	68	47	--	--	--	--
32.95	10/05/93	18.83	14.12	--	1,700	70	6.2	54	40	--	--	--	--
	01/03/94	19.05	13.90	--	1,500	44	ND	42	46	--	--	--	--
	04/02/94	18.68	14.27	--	1,800	46	5.1	38	35	--	--	--	--

Table 1
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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)	Chloro- form** (ppb)	PCE** (ppb)	TCE** (ppb)
MW-5	07/05/94	17.90	15.05	--	2,200	97	8.4	37	36	--	--	--	--
(cont)	10/06/94	19.37	13.58	--	1,600	79	5.7	28	22	--	--	--	--
	01/02/95	17.92	15.03	--	1,700	50	8.6	30	28	--	--	--	--
	04/03/95	16.15	16.80	--	5,400 ⁵	190	240	170	420	--	--	--	--
	07/14/95	17.18	15.77	--	3,800	210	100	130	190	--	--	--	--
	10/10/95	18.15	14.80	--	1,300	92	14	15	39	1,100	--	--	--
	01/03/96 ⁷	18.20	14.75	--	630	53	4.4	8.3	13	--	--	--	--
	04/10/96	16.05	16.90	--	500	25	18	7.0	20	640	--	--	--
	07/09/96	17.11	15.84	--	1,000	44	20	10	34	150	--	--	--
	01/24/97	16.36	16.59	--	4,000	190	400	160	430	600	--	--	--
	07/23/97	18.08	14.87	--	1,700	200	23	18	45	2,500	--	--	--
NP	01/26/98	16.27	16.68	--	ND	ND	ND	ND	ND	ND	--	--	--
NP	07/03/98	17.27	15.68	--	ND	ND	ND	ND	ND	ND	--	--	--
	01/14/99	17.55	15.40	--	330	61	4.1	2.2	2.9	560	--	--	--
	07/15/99	16.41	16.54	--	1,100	170	ND ⁹	ND ⁹	27	660	--	--	--
	01/07/00	17.85	15.10	--	1,000 ¹¹	180	6.3	ND ⁹	14	430	--	--	--
	07/19/00	18.87	14.08	--	2,980 ¹¹	289	57.3	65.3	43.4	976	--	--	--
	10/03/00	18.47	14.48	--	--	--	--	--	--	--/553 ¹³	--	--	--
MW-6	10/19/92	--	--	--	3,900	420	12	60	28	--	--	--	--
32.42	12/21/92	19.17	13.25	--	2,300	370	11	39	15	--	--	--	--
	04/28/93	--	--	--	1,200	54	1.5	11	5.3	--	--	--	--
	07/23/93	18.17	14.25	--	580	19	0.99	3.4	2.7	--	--	--	--
32.16	10/05/93	18.35	13.81	--	1,400	34	ND	5.3	7.3	--	--	--	--
	01/03/94	18.54	13.62	--	1,400	57	ND	8.5	11	--	--	--	--
	04/02/94	18.15	14.01	--	5,300 ⁴	ND	ND	ND	ND	--	--	--	--
	07/05/94	17.25	14.91	--	ND	ND	ND	ND	ND	--	--	--	--
	10/06/94	18.85	13.31	--	11,000 ⁵	ND	ND	ND	ND	--	--	--	--
	01/02/95	17.51	14.65	--	550	18	0.92	2.0	1.8	--	--	--	--
	04/03/95	15.48	16.68	--	6,600 ⁵	ND	ND	ND	ND	--	--	--	--
	07/14/95	16.63	15.53	--	ND	ND	ND	ND	ND	--	--	--	--
	10/10/95	17.68	14.48	--	ND	81	ND	ND	ND	75,000	--	--	--

Table 1
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 Tosco (Unocal) Service Station #0752
 800 Harrison Street
 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)	Chloro- form** (ppb)	PCE** (ppb)	TCE** (ppb)
MW-6	01/03/96 ⁷	17.66	14.50	--	70	9.9	0.58	ND	0.81	--	--	--	--
(cont)	04/10/96	15.56	16.60	--	300	25	4.7	0.94	2.7	53,000	--	--	--
	07/09/96	16.59	15.57	--	1,800	410	ND	12	ND	76,000	--	--	--
	01/24/97	15.69	16.47	--	ND	0.80	ND	ND	ND	390	--	--	--
	07/23/97	17.53	14.63	--	5,700	1,100	240	240	700	16,000	--	--	--
NP	01/26/98	15.44	16.72	--	ND	ND	ND	ND	ND	ND	--	--	--
NP	07/03/98	16.58	15.58	--	ND	ND	ND	ND	ND	ND	--	--	--
	01/14/99	17.02	15.14	--	ND	ND	ND	ND	ND	14	--	--	--
	07/15/99	15.95	16.21	--	ND	ND	ND	ND	ND	2.8	--	--	--
	01/07/00	16.96	15.20	--	78 ¹¹	24	ND	0.66	17	280	--	--	--
	07/19/00	18.04	14.12	--	ND	ND	1.32	ND	0.974	ND	--	--	--
MW-7													
32.49	04/28/93	--	--	--	110	2.8	1.3	1.4	1.7	--	--	--	--
	07/23/93	18.60	13.89	--	790	23	3.3	28	5.4	--	--	--	--
32.20	10/05/93	18.76	13.44	--	360	10	1.2	0.91	0.99	--	--	--	--
	01/03/94	18.91	13.29	--	ND	0.93	ND	0.75	1.9	--	--	--	--
	04/02/94	18.50	13.70	--	360	2.0	ND	ND	0.8	--	--	--	--
	07/05/94	17.52	14.68	--	ND	ND	ND	ND	ND	--	--	--	--
	10/06/94	19.25	12.95	--	340	5.6	0.85	ND	1.2	--	--	--	--
	01/02/95	17.67	14.53	--	ND	ND	ND	ND	ND	--	--	--	--
	04/03/95	15.81	16.39	--	570	24	ND	3.4	5.8	--	--	--	--
	07/14/95	17.05	15.15	--	ND	14	ND	ND	ND	--	--	--	--
	10/10/95	18.08	14.12	--	740	170	ND	ND	ND	13,000 ←	--	--	--
	01/03/96 ⁷	18.02	14.18	--	360	16	1.3	2.7	1.4	--	--	--	--
	04/10/96	15.81	16.39	--	120	4.1	1.5	ND	0.88	3,200	--	--	--
	07/09/96	16.99	15.21	--	ND	ND	ND	ND	ND	3,400	--	--	--
	01/24/97	16.08	16.12	--	ND	16	ND	ND	ND	6,600 ←	--	--	--
	07/23/97	17.99	14.21	--	ND	1.5	ND	ND	0.62	10,000 ←	--	--	--
NP	01/26/98	15.56	16.64	--	ND	ND	ND	ND	0.56	ND	--	--	--
NP	07/03/98	17.04	15.16	--	ND	ND	ND	ND	ND	ND	--	--	--
	01/14/99	INACCESSIBLE (PARKED CAR)		--	--	--	--	--	--	--	--	--	--

Table 1
Groundwater Monitoring Data and Analytical Results
Tosco (Unocal) Service Station #0752
800 Harrison Street
Oakland, California

WELL ID/ TOC*	DATE	DTW (ft.)	GWE (msl)	TPH(D) (ppb)	TPH(G) (ppb)	B (ppb)	T (ppb)	E (ppb)	X (ppb)	MTBE (ppb)	Chloro- form** (ppb)	PCE** (ppb)	TCE** (ppb)
MW-7	07/15/99	15.72	16.48	--	ND	ND	ND	ND	ND	290	--	--	--
(cont)	01/07/00	16.80	15.40	--	ND	7.7	ND	ND	4.4	98	--	--	--
	07/19/00	17.88	14.32	--	ND	ND	1.27	ND	0.979	ND	--	--	--
MW-8													
32.33	04/28/93	--	--	--	450	18	1.8	1.8	1.4	--	--	--	--
	07/23/93	18.45	13.88	--	260	5.1	ND	0.6	ND	--	--	--	--
32.00	10/05/93	18.57	13.43	--	120 ⁵	1.7	ND	ND	ND	--	--	--	--
	01/03/94 ¹	18.73	13.27	--	ND	ND	ND	ND	ND	51	1.5	1.2	ND
	04/02/94	18.30	13.70	--	150	1.2	ND	ND	ND	--	--	--	--
	07/05/94	17.41	14.59	--	730	17	ND	1.6	ND	--	--	--	--
	10/06/94	18.98	13.02	--	140 ⁵	ND	ND	ND	ND	--	--	--	--
	01/02/95	17.58	14.42	--	440	18	0.72	2.0	1.8	--	--	--	--
	04/03/95	15.54	16.46	--	960	11	ND	ND	ND	--	--	--	--
	07/14/95	16.81	15.19	--	280	4.2	2.6	1.1	3.3	--	--	--	--
	10/10/95	17.85	14.15	--	110	1.3	0.62	0.67	ND	170	--	--	--
	01/03/96 ⁷	17.82	14.18	--	63	ND	0.51	ND	1.8	--	--	--	--
	04/10/96	15.70	16.30	--	ND	1.1	0.61	ND	ND	60	--	--	--
	07/09/96	16.78	15.22	--	72	1.0	ND	ND	ND	140	--	--	--
	01/24/97	15.79	16.21	--	ND	ND	ND	ND	ND	76	--	--	--
	07/23/97	17.69	14.31	--	ND	ND	ND	ND	ND	270	--	--	--
NP	01/26/98	15.50	16.50	--	ND	ND	ND	ND	0.76	2.9	--	--	--
NP	07/03/98	16.80	15.20	--	ND	ND	ND	ND	ND	ND	--	--	--
	01/14/99	17.13	14.87	--	ND	ND	ND	ND	ND	11	--	--	--
	07/15/99	15.85	16.15	--	ND	ND	ND	ND	ND	ND	--	--	--
	01/07/00	16.94	15.06	--	ND	ND	ND	ND	ND	11	--	--	--
	07/19/00	18.06	13.94	--	ND	ND	2.99	0.521	ND	ND	--	--	--
Trip Blank													
TB-LB	01/26/98	--	--	--	ND	ND	ND	ND	ND	ND	--	--	--
	07/03/98	--	--	--	ND	ND	ND	ND	ND	ND	--	--	--

Table 1
Groundwater Monitoring Data and Analytical Results
 Tosco (Unocal) Service Station #0752
 800 Harrison Street
 Oakland, California

WELL ID/ TOC*	DATE	DTW (ft.)	GWE (msl)	TPH(D) (ppb)	TPH(G) (ppb)	B (ppb)	T (ppb)	E (ppb)	X (ppb)	MTBE (ppb)	Chloro- form** (ppb)	PCE** (ppb)	TCE** (ppb)
TB-LB	01/14/99	--	--	--	ND	ND	ND	ND	ND	ND	--	--	--
(cont)	07/15/99	--	--	--	ND	ND	ND	ND	ND	ND	--	--	--
	01/07/00	--	--	--	ND	ND	ND	ND	ND	ND	--	--	--
	07/19/00	--	--	--	ND	ND	ND	ND	ND	ND	--	--	--

Table 1
Groundwater Monitoring Data and Analytical Results
 Tosco (Unocal) Service Station #0752
 800 Harrison Street
 Oakland, California

EXPLANATIONS:

Groundwater monitoring data and laboratory analytical results prior to January 26, 1998, were compiled from reports prepared by MPDS Services, Inc.

TOC = Top of Casing	B = Benzene	PCE = Tetrachloroethene
DTW = Depth to Water	T = Toluene	TCE = Trichloroethene
(ft.) = Feet	E = Ethylbenzene	ppb = Parts per billion
GWE = Groundwater Elevation	X = Xylenes	ND = Not Detected
msl = Relative to mean sea level	MTBE = Methyl tertiary butyl ether	-- = Not Measured/Not Analyzed
TPH(D) = Total Petroleum Hydrocarbons as Diesel		NP = No Purge
TPH(G) = Total Petroleum Hydrocarbons as Gasoline		

- * TOC elevations are relative to mean sea level (msl), per the City of Oakland benchmark disk stamped "25/A" at the northeast corner of 7th and Harrison (Elevation = 28.81 feet msl). Prior to October 5, 1993, the DTW measurements were taken from the top of well covers.
- ** All EPA Method 8010 constituents were ND, except as indicated above.
- ¹ 1,2-dichloroethane (1,2-DCA) was detected in MW-8 at a concentration of 4.0 ppb on 01/03/94, and 1.1 ppb in MW-1 on 04/28/93.
- ² Laboratory report indicates the hydrocarbons detected did not appear to be diesel.
- ³ Laboratory report indicates the hydrocarbons detected appeared to be a diesel and non-diesel mixture.
- ⁴ Laboratory report indicates the hydrocarbons detected appeared to be a gasoline and non-gasoline mixture.
- ⁵ Laboratory report indicates the hydrocarbons detected did not appear to be gasoline.
- ⁶ A fuel fingerprint analysis was conducted on this sample. Laboratory report indicates total extractable petroleum hydrocarbons in this sample were not detected in high enough concentrations to compare with known standards and approximate their makeup.
- ⁷ Laboratory has identified the presence of MTBE at a level above or equal to the taste and odor threshold of 40 ppb in the sample collected from this well.
- ⁸ Laboratory report indicates gasoline and unidentified hydrocarbons C6-C8.
- ⁹ Detection limit raised. Refer to analytical reports.
- ¹⁰ Laboratory report indicates gasoline and unidentified hydrocarbons C6-C12.
- ¹¹ Laboratory report indicates gasoline C6-C12.
- ¹² Laboratory report indicates unidentified hydrocarbons C6-C12.
- ¹³ MTBE by EPA Method 8260.

Table 2
Groundwater Analytical Results - Oxygenate Compounds
 Tosco (Unocal) Service Station #0752
 800 Harrison Street
 Oakland, California

WELL ID	DATE	TBA (ppb)	MTBE (ppb)	DIPE (ppb)	ETBE (ppb)	TAME (ppb)	1,2-DCA (ppb)	EDB (ppb)
MW-5	10/03/00	ND ¹	553	ND ¹	ND ¹	ND ¹	ND ¹	ND ¹

EXPLANATIONS:

TBA = Tertiary butyl alcohol
 MTBE = Methyl tertiary butyl ether
 DIPE = Di-isopropyl ether
 ETBE = Ethyl tertiary butyl ether
 TAME = Tertiary amyl methyl ether
 1,2-DCA = 1,2-Dichloroethane
 EDB = 1,2-Dibromoethane
 ppb = Parts per billion
 -- = Not Analyzed

ANALYTICAL METHOD:

EPA Method 8260 for Oxygenate Compounds

¹ Detection limit raised. Refer to analytical reports.

Table 3
Groundwater Analytical Results
 Tosco (Unocal) Service Station #0752
 800 Harrison Street
 Oakland, California

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

EXPLANATIONS:

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

TOG = Total Oil and Grease

ppm = Parts per million

ND = Not Detected

Table 4
Groundwater Analytical Results
 Tosco (Unocal) Service Station #0752
 800 Harrison Street
 Oakland, California

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

EXPLANATIONS:

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

BOD = Biochemical Oxygen Demand

ppm = Parts per million

CFU/mL = Colony Forming Units per milliliter

-- = Not Analyzed

ND = Not Detected

Table 5
Dissolved Oxygen Concentrations
 Tosco (Unocal) Service Station #0752
 800 Harrison Street
 Oakland, California

WELL ID	DATE	Before Purging (mg/L)	After Purging (mg/L)
MW-1	04/10/96	--	3.04
	07/09/96	--	3.13
	01/24/97	--	2.56
	07/23/97	2.26	2.81
	01/26/98	3.97	--
	07/03/98	3.58	--
MW-2	01/03/96		1.80
	04/10/96	--	5.88
	07/09/96	--	0.71
	01/24/97	--	2.37
	07/23/97	1.40	0.97
	01/26/98	4.12	--
	07/03/98	3.99	--
MW-3	01/03/96		1.50
	04/10/96	--	4.63
	07/09/96	--	1.04
	01/24/97	--	1.46
	07/23/97	3.84	1.37
	01/26/98	1.84	--
	07/03/98	2.16	--
MW-4	01/03/96		1.20
	04/10/96	--	5.23
	07/09/96	--	4.91
	01/24/97	--	3.04
	07/23/97	9.28	3.68
	01/26/98	3.36	--
	07/03/98	4.07	--
MW-5	01/03/96		2.80
	04/10/96	--	3.73
	07/09/96	--	3.25
	01/24/97	--	1.47
	07/23/97	7.96	4.56
	01/26/98	5.30	--
	07/03/98	4.73	--
MW-6	04/10/96		4.50
	07/09/96	--	3.62
	01/24/97	--	6.21
	07/23/97	10.90	3.31
	01/26/98	2.55	--
	07/03/98	3.11	--

Table 5
Dissolved Oxygen Concentrations
 Tosco (Unocal) Service Station #0752
 800 Harrison Street
 Oakland, California

WELL ID	DATE	Before Purging (mg/L)	After Purging (mg/L)
MW-7	04/10/96	--	5.10
	07/09/96	--	2.34
	01/24/97	--	1.91
	07/23/97	3.25	2.83
	01/26/98	3.44	--
	07/03/98	3.83	--
MW-8	01/03/96	--	1.30
	04/10/96	--	4.80
	07/09/96	--	1.32
	01/24/97	--	2.09
	07/23/97	4.08	3.27
	01/26/98	4.71	--
	07/03/98	5.16	--

EXPLANATIONS:

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

mg/L = milligrams per liter

-- = Not Measured

STANDARD OPERATING PROCEDURE - GROUNDWATER SAMPLING

Gettler-Ryan Inc. field personnel adhere to the following procedures for the collection and handling of groundwater samples prior to analysis by the analytical laboratory. Prior to sample collection, the type of analysis to be performed is determined. Loss prevention of volatile compounds is controlled and sample preservation for subsequent analysis is maintained.

Prior to sampling, the presence or absence of free-phase hydrocarbons is determined using 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 # 0752
Address: 800 Harrison st.
City: Oakland

Job#: 180066
Date: 7-19-00
Sampler: Joe

Well ID MW-1

Well Condition: O.K.

Well Diameter 2 in.

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

Total Depth 33.50 ft.

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

Depth to Water 20.27 ft.

13.23 x VF 0.17 = 2.25 x 3 (case volume) = Estimated Purge Volume: 7 (gal.)

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

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

Starting Time: 3:45

Weather Conditions: clear/hot

Sampling Time: 4:05 PM

Water Color: clear Odor: none

Purging Flow Rate: 1 gpm

Sediment Description: none

Did well de-water? _____

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

Time	Volume (gal.)	pH	Conductivity (µmhos/cm) ⁸⁰	Temperature (F)	D.O. (mg/L)	ORP (mV)	Alkalinity (ppm)
<u>3:55</u>	<u>2.5</u>	<u>7.45</u>	<u>7.77</u>	<u>73.2</u>	_____	_____	_____
<u>3:56</u>	<u>5</u>	<u>7.39</u>	<u>7.78</u>	<u>73.5</u>	_____	_____	_____
<u>3:58</u>	<u>7</u>	<u>7.41</u>	<u>7.80</u>	<u>73.6</u>	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____	_____

LABORATORY INFORMATION

SAMPLE ID	(#) - CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
<u>MW-1</u>	<u>3YEA</u>	<u>Y</u>	<u>HCL</u>	<u>Sequoia</u>	<u>TPHG, BTEX, MTBC</u>
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____

COMMENTS: _____

**WELL MONITORING/SAMPLING
FIELD DATA SHEET**

Client/
Facility # 0752
Address: 800 Harrison st.
City: Oakland

Job#: 180066
Date: 7-19-00
Sampler: Joe

Well ID MW-2

Well Condition: O.K.

Well Diameter 2 in.

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

Total Depth 30.35 ft.

Volume Factor (VF)	2" = 0.17	3" = 0.38	4" = 0.66
	6" = 1.50	12" = 5.90	

Depth to Water 19.68 ft.

10.67 x VF 0.17 = 1.81 x 3 (case volume) = Estimated Purge Volume: 5.5 (gal.)

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

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

Starting Time: 4:12
Sampling Time: 4:30 P.M.
Purging Flow Rate: 1 gpm
Did well de-water? _____

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

Time	Volume (gal.)	pH	Conductivity (µmhos/cm)	Temperature (F)	D.O. (mg/L)	ORP (mV)	Alkalinity (ppm)
<u>4:19</u>	<u>1.5</u>	<u>7.85</u>	<u>5.19</u>	<u>74.2</u>			
<u>4:20</u>	<u>3</u>	<u>7.36</u>	<u>5.27</u>	<u>74.5</u>			
<u>4:21</u>	<u>5.5</u>	<u>7.30</u>	<u>5.31</u>	<u>74.2</u>			

LABORATORY INFORMATION

SAMPLE ID	(#) - CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
<u>MW-2</u>	<u>3YCA</u>	<u>Y</u>	<u>HCL</u>	<u>Sequoia</u>	<u>TPRG, STEX, MTBC</u>

COMMENTS: _____

**WELL MONITORING/SAMPLING
FIELD DATA SHEET**

Client/
Facility # 0752
Address: 800 Harrison St.
City: Oakland

Job#: 180066
Date: 7-19-00
Sampler: Joe

Well ID MW-3
Well Diameter 2 in.
Total Depth 30.50 ft.
Depth to Water 18.92 ft.

Well Condition: OK
Hydrocarbon Thickness: 0 in. Amount Bailed (product/water): 0 (gal.)
Volume Factor (VF) $2" = 0.17$ $3" = 0.38$ $4" = 0.66$
 $6" = 1.50$ $12" = 5.90$

11.58 x VF 0.17 = 1.97 x 3 (case volume) = Estimated Purge Volume: 6 (gal.)

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

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

Starting Time: 5:45
Sampling Time: 6:10 P.M.
Purging Flow Rate: 1 gpm.
Did well de-water? _____

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

Time	Volume (gal.)	pH	Conductivity (μ mhos/cm @ 60)	Temperature (F)	D.O. (mg/L)	ORP (mV)	Alkalinity (ppm)
<u>5:55</u>	<u>2</u>	<u>7.22</u>	<u>2.65</u>	<u>73.5</u>	_____	_____	_____
<u>5:56</u>	<u>4</u>	<u>7.11</u>	<u>2.62</u>	<u>73.6</u>	_____	_____	_____
<u>5:57</u>	<u>6</u>	<u>6.89</u>	<u>2.66</u>	<u>73.2</u>	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____	_____

LABORATORY INFORMATION

SAMPLE ID	(#) - CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
<u>MW-3</u>	<u>3YCA</u>	<u>Y</u>	<u>HCL</u>	<u>Sequoia</u>	<u>TPHG, BTEX, MTBC</u>
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____

COMMENTS: _____

**WELL MONITORING/SAMPLING
FIELD DATA SHEET**

Client/
Facility # 0752
Address: 800 Harrison st.
City: Oakland

Job #: 180066
Date: 7-19-00
Sampler: Joe

Well ID MW-4
Well Diameter 2 in.
Total Depth 32.30 ft.
Depth to Water 18.94 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" = 5.90

13.36 x VF 0.17 = 2.27 x 3 (case volume) = Estimated Purge Volume: 7 (gal.)

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

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

Starting Time: 4:40
Sampling Time: 5:05 a.m.
Purging Flow Rate: 1 gpm.
Did well de-water? _____

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

Time	Volume (gal.)	pH	Conductivity (µmhos/cm)	Temperature (°F)	D.O. (mg/L)	ORP (mV)	Alkalinity (ppm)
<u>4:50</u>	<u>2.5</u>	<u>7.80</u>	<u>3.67</u>	<u>73.8</u>	_____	_____	_____
<u>4:51</u>	<u>5</u>	<u>7.50</u>	<u>4.19</u>	<u>74.0</u>	_____	_____	_____
<u>4:53</u>	<u>7</u>	<u>7.45</u>	<u>4.22</u>	<u>73.6</u>	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____	_____

LABORATORY INFORMATION

SAMPLE ID	(#) - CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
<u>MW-4</u>	<u>3 YCA</u>	<u>Y</u>	<u>HCL</u>	<u>Sequoia</u>	<u>TPMG, BTEX, MTBE</u>
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____

COMMENTS: _____

**WELL MONITORING/SAMPLING
FIELD DATA SHEET**

Client/
Facility # 0752
Address: 800 Harrison St.
City: Oakland

Job#: 180066
Date: 7-19-00
Sampler: Joe

Well ID MW-5

Well Condition: O.K.

Well Diameter 2 in.

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

Total Depth 31.65 ft.

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

Depth to Water 18.87 ft.

12.78 x VF 0.17 = 2.17 x 3 (case volume) = Estimated Purge Volume: 7 (gal.)

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

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

Starting Time: 5:15
Sampling Time: 5:35 P.M.
Purging Flow Rate: 1 gpm.
Did well de-water? _____

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

Time	Volume (gal.)	pH	Conductivity (umhos/cm) @ 25°C	Temperature (F)	D.O. (mg/L)	ORP (mV)	Alkalinity (ppm)
<u>5:21</u>	<u>2.5</u>	<u>7.16</u>	<u>4.32</u>	<u>74.5</u>	_____	_____	_____
<u>5:23</u>	<u>5</u>	<u>7.20</u>	<u>4.35</u>	<u>73.6</u>	_____	_____	_____
<u>5:24</u>	<u>7</u>	<u>7.14</u>	<u>4.36</u>	<u>73.9</u>	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____	_____

LABORATORY INFORMATION

SAMPLE ID	(#) - CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
<u>MW-5</u>	<u>3 YCA</u>	<u>Y</u>	<u>HCL</u>	<u>Sequoia</u>	<u>TPNG, BTEX, MTBC</u>
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____

COMMENTS: _____

**WELL MONITORING/SAMPLING
FIELD DATA SHEET**

Client/
Facility # 0752
Address: 800 Harrison St.
City: Oakland

Job#: 180066
Date: 7-19-00
Sampler: Joe

Well ID: MW-6 Well Condition: O.K.
Well Diameter: 2 in. Hydrocarbon Thickness: 0 in. Amount Bailed (product/water): 0 gal.
Total Depth: 30.90 ft.
Depth to Water: 18.04 ft.

Volume Factor (VF)	2" = 0.17	3" = 0.38	4" = 0.66
	6" = 1.50	12" = 5.90	

12.86 x VF 0.17 = 2.19 x 3 (case volume) = Estimated Purge Volume: 7 gal.

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

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

Starting Time: 3:15 Weather Conditions: clear/hot
Sampling Time: 3:35 P.M. Water Color: clear Odor: none
Purging Flow Rate: 1 gpm. Sediment Description: none
Did well de-water? _____ If yes, Time: _____ Volume: _____ (gal.)

Time	Volume (gal.)	pH	Conductivity (µmhos/cm) @ 25°C	Temperature (F)	D.O. (mg/L)	ORP (mV)	Alkalinity (ppm)
<u>3:22</u>	<u>2.5</u>	<u>7.96</u>	<u>6.82</u>	<u>73.6</u>			
<u>3:23</u>	<u>5</u>	<u>7.55</u>	<u>6.85</u>	<u>74.1</u>			
<u>3:25</u>	<u>7</u>	<u>7.50</u>	<u>6.91</u>	<u>74.2</u>			

LABORATORY INFORMATION

SAMPLE ID	(#) - CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
<u>MW-6</u>	<u>3 YEA</u>	<u>Y</u>	<u>HCL</u>	<u>Sequoia</u>	<u>TPH, BTEX, MTBE</u>

COMMENTS: _____

**WELL MONITORING/SAMPLING
FIELD DATA SHEET**

Client/
Facility # 0752
Address: 800 Harrison st.
City: Oakland

Job#: 180066
Date: 7-19-00
Sampler: Joe

Well ID MW-7

Well Condition: O.K.

Well Diameter 2 in.

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

Total Depth 31.50 ft.

Volume Factor (VF)	2" = 0.17	3" = 0.38	4" = 0.66
	6" = 1.50	12" = 5.90	

Depth to Water 17.88 ft.

13.62 x VF 0.17 = 2.32 x 3 (case volume) = Estimated Purge Volume: 7 (gal.)

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

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

Starting Time: 2:40

Weather Conditions: clear/hot

Sampling Time: 2:55 a.m.

Water Color: clear Odor: none

Purging Flow Rate: 1 gpm

Sediment Description: none

Did well de-water? _____

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

Time	Volume (gal.)	pH	Conductivity (µmhos/cm) @ 25°C	Temperature (F)	D.O. (mg/L)	ORP (mV)	Alkalinity (ppm)
<u>2:42</u>	<u>2.5</u>	<u>7.67</u>	<u>7.32</u>	<u>74.2</u>	_____	_____	_____
<u>2:43</u>	<u>5</u>	<u>7.60</u>	<u>7.38</u>	<u>74.1</u>	_____	_____	_____
<u>2:45</u>	<u>7</u>	<u>7.57</u>	<u>7.28</u>	<u>74.8</u>	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____	_____

LABORATORY INFORMATION

SAMPLE ID	(#) - CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
<u>MW-7</u>	<u>3VSA</u>	<u>Y</u>	<u>HCL</u>	<u>Sequoia</u>	<u>TPH, BTEX, MTBE</u>
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____

COMMENTS: _____

**WELL MONITORING/SAMPLING
FIELD DATA SHEET**

Client/
Facility # 0752
Address: 800 Harrison st.
City: Oakland

Job#: 180066
Date: 7-19-00
Sampler: Joe

Well ID: MW-8 Well Condition: OK.

Well Diameter: 2 in. Hydrocarbon Thickness: 0 in. Amount Bailed (product/water): 0 gal.
Total Depth: 27.85 ft.
Depth to Water: 18.06 ft.

Volume Factor (VF)	2" = 0.17	3" = 0.38	4" = 0.66
	6" = 1.50	12" = 5.90	

9.79 x VF 0.17 = 1.67 x 3 (case volume) = Estimated Purge Volume: 5 gal.

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

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

Starting Time: 2:07 Weather Conditions: clear/hot
Sampling Time: 2:30 PM Water Color: clear Odor: _____
Purging Flow Rate: 1 gpm Sediment Description: none
Did well de-water? _____ If yes: Time: _____ Volume: _____ (gal.)

Time	Volume (gal.)	pH	Conductivity μ mhos/cm @ 25°C	Temperature °F	D.O. (mg/L)	ORP (mV)	Alkalinity (ppm)
<u>2:15</u>	<u>1.5</u>	<u>7.51</u>	<u>8.96</u>	<u>73.3</u>			
<u>2:16</u>	<u>3</u>	<u>7.48</u>	<u>8.99</u>	<u>74.0</u>			
<u>2:17</u>	<u>5</u>	<u>7.54</u>	<u>9.05</u>	<u>73.7</u>			

LABORATORY INFORMATION

SAMPLE ID	(#) - CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
<u>MW-8</u>	<u>3VCA</u>	<u>Y</u>	<u>HCL</u>	<u>Sequoia</u>	<u>TPHG, BTEX, MTBE</u>

COMMENTS: _____

Chain-of-Custody-Record



Tosco Marketing Company
2609 Cross Canyon Pl., Ste. 400
San Placencia, California 94602

Facility Number Uucal sc# 0752
 Facility Address 800 Harrison St. Oakland, CA
 Consultant Project Number 18006685
 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. Dave Dewitt
 (Phone) (925) 277-2384
 Laboratory Name Sequoia Analytical
 Laboratory Release Number _____
 Samples Collected by (Name) JOE AJEMIAN
 Collection Date 7-19-00
 Signature [Signature]

Sample Number	Lab Sample Number	Number of Containers	Matrix A - Air S - Soil W - Water C - Charcoal	Type C - Grab C - Composite D - Discrete	Time	Sample Preservation	Iced (Yes or No)	Analytes To Be Performed										DO NOT BILL TB-LB ANALYSIS <u>LOO7108</u> Remarks
								TPH Gas-STDx (8010)	TPH (8013)	Oil and Grease (8020)	Purgeable Hydrocarbons (8010)	Purgeable Aromatics (8026)	Purgeable Organics (8040)	Extractable Organics (8070)	Metals Cd, Cr, Pb, Zn, Ni (ICAP or AA)			
TB-LB	01	Vol	W	C	-	HCL	Y	✓										
MW-1	02	Vol	"	"	4:05	"	"	✓										
MW-2	03	"	"	"	4:30	"	"	✓										
MW-3	04	"	"	"	6:10	"	"	✓										
MW-4	05	"	"	"	5:05	"	"	✓										
MW-5	06	"	"	"	5:35	"	"	✓										
MW-6	07	"	"	"	3:35	"	"	✓										
MW-7	08	"	"	"	2:55	"	"	✓										
MW-8	09	"	"	"	2:30	"	"	✓										

Retrieved By (Signature) <u>[Signature]</u>	Organization G-R Inc.	Date/Time 7-20-00	Received By (Signature) <u>[Signature]</u>	Organization	Date/Time (See) 7/20/00	Turn Around Time (Circle Choice) 24 Hrs. 48 Hrs. 6 Days 10 Days <u>As Contracted</u>
Retrieved By (Signature)	Organization	Date/Time	Received By (Signature)	Organization	Date/Time	
Retrieved By (Signature)	Organization	Date/Time	Received For Laboratory By (Signature)		Date/Time	



Sequoia Analytical

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August 7, 2000

Deanna Harding
Gettler-Ryan/Geostrategies(1)
6747 Sierra Court, Suite J
Dublin, CA 94568

RE: Tosco(4)/L007168

Dear Deanna Harding:

Enclosed are the results of analyses for sample(s) received by the laboratory on July 20, 2000. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Kevin Cesar
Sample Control Analyst

CA ELAP Certificate Number I-2360





Gettler-Ryan/Geostrategies(1)
6747 Sierra Court, Suite J
Dublin, CA 94568

Project: Tosco(4)
Project Number: Unocal SS#0752/ 800 Harrison St., Oakland
Project Manager: Deanna Harding

Sampled: 7/19/00
Received: 7/20/00
Reported: 8/7/00

ANALYTICAL REPORT FOR L007168

Sample Description	Laboratory Sample Number	Sample Matrix	Date Sampled
TB-LB	L007168-01	Water	7/19/00
MW-1	L007168-02	Water	7/19/00
MW-2	L007168-03	Water	7/19/00
MW-3	L007168-04	Water	7/19/00
MW-4	L007168-05	Water	7/19/00
MW-5	L007168-06	Water	7/19/00
MW-6	L007168-07	Water	7/19/00
MW-7	L007168-08	Water	7/19/00
MW-8	L007168-09	Water	7/19/00





Gettler-Ryan/Geostrategies(1) 6747 Sierra Court, Suite J Dublin, CA 94568	Project: Tosco(4) Project Number: Unocal SS#0752/ 800 Harrison St., Oakland Project Manager: Deanna Harding	Sampled: 7/19/00 Received: 7/20/00 Reported: 8/7/00
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Sample Description: TB-LB
Laboratory Sample Number: L007168-01

Analyte	Batch Number	Date Prepared	Date Analyzed	Specific Method/ Surrogate Limits	Reporting Limit	Result	Units	Notes*
Sequoia Analytical - San Carlos								
Total Purgeable Hydrocarbons (C6-C12), BTEX and MTBE by DHS LUFT								
Purgeable Hydrocarbons as Gasoline	0080002	8/1/00	8/1/00		50.0	ND	ug/l	
Benzene	"	"	"		0.500	ND	"	
Toluene	"	"	"		0.500	ND	"	
Ethylbenzene	"	"	"		0.500	ND	"	
Xylenes (total)	"	"	"		0.500	ND	"	
Methyl tert-butyl ether	"	"	"		5.00	ND	"	
Surrogate: <i>a,a,a</i> -Trifluorotoluene	"	"	"	70.0-130		107	%	





Gettler-Ryan/Geostrategies(1) 6747 Sierra Court, Suite J Dublin, CA 94568	Project: Tosco(4) Project Number: Unocal SS#0752/ 800 Harrison St., Oakland Project Manager: Deanna Harding	Sampled: 7/19/00 Received: 7/20/00 Reported: 8/7/00
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Sample Description: **MW-1**
Laboratory Sample Number: **L007168-02**

Analyte	Batch Number	Date Prepared	Date Analyzed	Specific Method/ Surrogate Limits	Reporting Limit	Result	Units	Notes*
Sequoia Analytical - San Carlos								
Total Purgeable Hydrocarbons (C6-C12), BTEX and MTBE by DHS LUFT								
Purgeable Hydrocarbons as Gasoline	0080007	8/2/00	8/2/00		50.0	ND	ug/l	
Benzene	"	"	"		0.500	ND	"	
Toluene	"	"	"		0.500	ND	"	
Ethylbenzene	"	"	"		0.500	ND	"	
Xylenes (total)	"	"	"		0.500	ND	"	
Methyl tert-butyl ether	"	"	8/1/00		10.0	648	"	1
Surrogate: <i>a,a,a-Trifluorotoluene</i>	"	"	8/2/00	70.0-130		103	%	





Gettler-Ryan/Geostrategies(1) 6747 Sierra Court, Suite J Dublin, CA 94568	Project: Tosco(4) Project Number: Unocal SS#0752/ 800 Harrison St., Oakland Project Manager: Deanna Harding	Sampled: 7/19/00 Received: 7/20/00 Reported: 8/7/00
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Sample Description: MW-2
Laboratory Sample Number: L007168-03

Analyte	Batch Number	Date Prepared	Date Analyzed	Specific Method/ Surrogate Limits	Reporting Limit	Result	Units	Notes*
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Sequoia Analytical - San Carlos

Total Purgeable Hydrocarbons (C6-C12), BTEX and MTBE by DHS LUFT

Purgeable Hydrocarbons as Gasoline	0080002	8/1/00	8/1/00		50.0	ND	ug/l	
Benzene	"	"	"		0.500	1.45	"	
Toluene	"	"	"		0.500	ND	"	
Ethylbenzene	"	"	"		0.500	ND	"	
Xylenes (total)	"	"	"		0.500	ND	"	
Methyl tert-butyl ether	"	"	"		5.00	117	"	
Surrogate: a,a,a-Trifluorotoluene	"	"	"	70.0-130		116	%	





Gettler-Ryan/Geostrategies(1) 6747 Sierra Court, Suite J Dublin, CA 94568	Project: Tosco(4) Project Number: Unocal SS#0752/ 800 Harrison St., Oakland Project Manager: Deanna Harding	Sampled: 7/19/00 Received: 7/20/00 Reported: 8/7/00
---	---	---

Sample Description: **MW-3**
Laboratory Sample Number: **L007168-04**

Analyte	Batch Number	Date Prepared	Date Analyzed	Specific Method/ Surrogate Limits	Reporting Limit	Result	Units	Notes*
Sequoia Analytical - San Carlos								
Total Purgeable Hydrocarbons (C6-C12), BTEX and MTBE by DHS LUFT								
Purgeable Hydrocarbons as Gasoline	0080002	8/1/00	8/2/00		50.0	345	ug/l	2
Benzene	"	"	"		0.500	3.87	"	
Toluene	"	"	"		0.500	2.61	"	
Ethylbenzene	"	"	"		0.500	0.646	"	
Xylenes (total)	"	"	"		0.500	ND	"	
Methyl tert-butyl ether	"	"	"		5.00	13.7	"	
Surrogate: <i>a,a,a-Trifluorotoluene</i>	"	"	"	70.0-130		147	%	3





Gettler-Ryan/Geostrategies(1) 6747 Sierra Court, Suite J Dublin, CA 94568	Project: Tosco(4) Project Number: Unocal SS#0752/ 800 Harrison St., Oakland Project Manager: Deanna Harding	Sampled: 7/19/00 Received: 7/20/00 Reported: 8/7/00
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Sample Description: MW-4
Laboratory Sample Number: L007168-05

Analyte	Batch Number	Date Prepared	Date Analyzed	Specific Method/ Surrogate Limits	Reporting Limit	Result	Units	Notes*
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Sequoia Analytical - San Carlos

<u>Total Purgeable Hydrocarbons (C6-C12), BTEX and MTBE by DHS LUFT</u>								
Purgeable Hydrocarbons as Gasoline	0080002	8/1/00	8/1/00		50.0	ND	ug/l	
Benzene	"	"	"		0.500	ND	"	
Toluene	"	"	"		0.500	ND	"	
Ethylbenzene	"	"	"		0.500	ND	"	
Xylenes (total)	"	"	"		0.500	ND	"	
Methyl tert-butyl ether	"	"	"		5.00	ND	"	
Surrogate: <i>a,a,a-Trifluorotoluene</i>	"	"	"	70.0-130		109	%	





Gettler-Ryan/Geostrategies(1) 6747 Sierra Court, Suite J Dublin, CA 94568	Project: Tosco(4) Project Number: Unocal SS#0752/ 800 Harrison St., Oakland Project Manager: Deanna Harding	Sampled: 7/19/00 Received: 7/20/00 Reported: 8/7/00
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Sample Description: MW-5
Laboratory Sample Number: L007168-06

Analyte	Batch Number	Date Prepared	Date Analyzed	Specific Method/ Surrogate Limits	Reporting Limit	Result	Units	Notes*
Sequoia Analytical - San Carlos								
Total Purgeable Hydrocarbons (C6-C12), BTEX and MTBE by DHS LUFT								
Purgeable Hydrocarbons as Gasoline	0080007	8/2/00	8/2/00		500	2980	ug/l	4
Benzene	"	"	"		5.00	289	"	
Toluene	"	"	"		5.00	57.3	"	
Ethylbenzene	"	"	"		5.00	65.3	"	
Xylenes (total)	"	"	"		5.00	43.4	"	
Methyl tert-butyl ether	"	"	"		50.0	976	"	
Surrogate: <i>a,a,a</i> -Trifluorotoluene	"	"	"	70.0-130		130	%	





Sequoia Analytical

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Gettler-Ryan/Geostrategies(1) 6747 Sierra Court, Suite J Dublin, CA 94568	Project: Tosco(4) Project Number: Unocal SS#0752/ 800 Harrison St., Oakland Project Manager: Deanna Harding	Sampled: 7/19/00 Received: 7/20/00 Reported: 8/7/00
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Sample Description: MW-6
 Laboratory Sample Number: L007168-07

Analyte	Batch Number	Date Prepared	Date Analyzed	Specific Method/ Surrogate Limits	Reporting Limit	Result	Units	Notes*
Sequoia Analytical - San Carlos								
Total Purgeable Hydrocarbons (C6-C12), BTEX and MTBE by DHS LUFT								
Purgeable Hydrocarbons as Gasoline	0080002	8/1/00	8/2/00		50.0	ND	ug/l	
Benzene	"	"	"		0.500	ND	"	
Toluene	"	"	"		0.500	1.32	"	
Ethylbenzene	"	"	"		0.500	ND	"	
Xylenes (total)	"	"	"		0.500	0.974	"	
Methyl tert-butyl ether	"	"	"		5.00	ND	"	
Surrogate: <i>a,a,a</i> -Trifluorotoluene	"	"	"	70.0-130		101	%	





Gettler-Ryan/Geostrategies(1) 6747 Sierra Court, Suite J Dublin, CA 94568	Project:	Tosco(4)	Sampled:	7/19/00
	Project Number:	Unocal SS#0752/ 800 Harrison St., Oakland	Received:	7/20/00
	Project Manager:	Deanna Harding	Reported:	8/7/00

Sample Description: **MW-7**
Laboratory Sample Number: **L007168-08**

Analyte	Batch Number	Date Prepared	Date Analyzed	Specific Method/ Surrogate Limits	Reporting Limit	Result	Units	Notes*
Sequoia Analytical - San Carlos								
Total Purgeable Hydrocarbons (C6-C12), BTEX and MTBE by DHS LUFT								
Purgeable Hydrocarbons as Gasoline	0080002	8/1/00	8/2/00		50.0	ND	ug/l	
Benzene	"	"	"		0.500	ND	"	
Toluene	"	"	"		0.500	1.27	"	
Ethylbenzene	"	"	"		0.500	ND	"	
Xylenes (total)	"	"	"		0.500	0.979	"	
Methyl tert-butyl ether	"	"	"		5.00	ND	"	
Surrogate: <i>a,a,a</i> -Trifluorotoluene	"	"	"	70.0-130		105	%	





Gettler-Ryan/Geostrategies(1) 6747 Sierra Court, Suite J Dublin, CA 94568	Project: Tosco(4) Project Number: Unocal SS#0752/ 800 Harrison St., Oakland Project Manager: Deanna Harding	Sampled: 7/19/00 Received: 7/20/00 Reported: 8/7/00
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Sample Description: MW-8
Laboratory Sample Number: L007168-09

Analyte	Batch Number	Date Prepared	Date Analyzed	Specific Method/ Surrogate Limits	Reporting Limit	Result	Units	Notes*
Sequoia Analytical - San Carlos								
Total Purgeable Hydrocarbons (C6-C12), BTEX and MTBE by DHS LUFT								
Purgeable Hydrocarbons as Gasoline	0080002	8/1/00	8/2/00		50.0	ND	ug/l	
Benzene	"	"	"		0.500	ND	"	
Toluene	"	"	"		0.500	2.99	"	
Ethylbenzene	"	"	"		0.500	0.521	"	
Xylenes (total)	"	"	"		0.500	ND	"	
Methyl tert-butyl ether	"	"	"		5.00	ND	"	
Surrogate: a,a,a-Trifluorotoluene	"	"	"	70.0-130		103	%	





Sequoia Analytical

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

Gettler-Ryan/Geostrategies(1)
6747 Sierra Court, Suite J
Dublin, CA 94568

Project: Tosco(4)
Project Number: Unocal SS#0752/ 800 Harrison St., Oakland
Project Manager: Deanna Harding

Sampled: 7/19/00
Received: 7/20/00
Reported: 8/7/00

Analyte	Date Analyzed	Spike Level	Sample Result	QC Result	Units	Reporting Limit Recov. Limits	Recov. %	RPD Limit	RPD %	Notes*
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Batch: 0080002 **Date Prepared: 8/1/00** **Extraction Method: EPA 5030B [P/T]**
Blank **0080002-BLK1**

Purgeable Hydrocarbons as Gasoline	8/1/00			ND	ug/l	50.0				
Benzene	"			ND	"	0.500				
Toluene	"			ND	"	0.500				
Ethylbenzene	"			ND	"	0.500				
Xylenes (total)	"			ND	"	0.500				
Methyl tert-butyl ether	"			ND	"	5.00				
<i>Surrogate: a,a,a-Trifluorotoluene</i>	"	10.0		11.3	"	70.0-130	113			

LCS **0080002-BS1**

Benzene	8/1/00	10.0		10.2	ug/l	70.0-130	102			
Toluene	"	10.0		9.41	"	70.0-130	94.1			
Ethylbenzene	"	10.0		9.46	"	70.0-130	94.6			
Xylenes (total)	"	30.0		28.5	"	70.0-130	95.0			
<i>Surrogate: a,a,a-Trifluorotoluene</i>	"	10.0		11.0	"	70.0-130	110			

LCS **0080002-BS2**

Purgeable Hydrocarbons as Gasoline	8/1/00	250		266	ug/l	70.0-130	106			
<i>Surrogate: a,a,a-Trifluorotoluene</i>	"	10.0		10.9	"	70.0-130	109			

Matrix Spike **0080002-MS1** **L007158-02**

Benzene	8/1/00	10.0	ND	11.0	ug/l	60.0-140	110			
Toluene	"	10.0	ND	10.7	"	60.0-140	107			
Ethylbenzene	"	10.0	ND	10.5	"	60.0-140	105			
Xylenes (total)	"	30.0	ND	31.4	"	60.0-140	105			
<i>Surrogate: a,a,a-Trifluorotoluene</i>	"	10.0		12.0	"	70.0-130	120			

Matrix Spike Dup **0080002-MSD1** **L007158-02**

Benzene	8/1/00	10.0	ND	11.5	ug/l	60.0-140	115	25.0	4.44	
Toluene	"	10.0	ND	10.9	"	60.0-140	109	25.0	1.85	
Ethylbenzene	"	10.0	ND	10.7	"	60.0-140	107	25.0	1.89	
Xylenes (total)	"	30.0	ND	32.5	"	60.0-140	108	25.0	2.82	
<i>Surrogate: a,a,a-Trifluorotoluene</i>	"	10.0		11.1	"	70.0-130	111			

Batch: 0080007 **Date Prepared: 8/2/00** **Extraction Method: EPA 5030B [P/T]**
Blank **0080007-BLK1**

Purgeable Hydrocarbons as Gasoline	8/2/00			ND	ug/l	50.0				
Benzene	"			ND	"	0.500				
Toluene	"			ND	"	0.500				
Ethylbenzene	"			ND	"	0.500				
Xylenes (total)	"			ND	"	0.500				





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Gettler-Ryan/Geostrategies(1) 6747 Sierra Court, Suite J Dublin, CA 94568	Project: Tosco(4) Project Number: Unocal SS#0752/ 800 Harrison St., Oakland Project Manager: Deanna Harding	Sampled: 7/19/00 Received: 7/20/00 Reported: 8/7/00
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Total Purgeable Hydrocarbons (TPH) by GC/MS and GC/FID

Analyte	Date Analyzed	Spike Level	Sample Result	QC Result	Units	Reporting Limit Recov. Limits	Recov. %	RPD Limit	RPD %	Notes*
Blank (continued)	0080007-BLK1									
Methyl tert-butyl ether	8/2/00			ND	ug/l	5.00				
Surrogate: a,a,a-Trifluorotoluene	"	10.0		9.67	"	70.0-130	96.7			
LCS	0080007-BS1									
Benzene	8/2/00	10.0		9.72	ug/l	70.0-130	97.2			
Toluene	"	10.0		9.06	"	70.0-130	90.6			
Ethylbenzene	"	10.0		9.03	"	70.0-130	90.3			
Xylenes (total)	"	30.0		27.6	"	70.0-130	92.0			
Surrogate: a,a,a-Trifluorotoluene	"	10.0		10.7	"	70.0-130	107			
LCS	0080007-BS2									
Purgeable Hydrocarbons as Gasoline	8/2/00	250		245	ug/l	70.0-130	98.0			
Surrogate: a,a,a-Trifluorotoluene	"	10.0		11.1	"	70.0-130	111			
Matrix Spike	0080007-MS1 L007191-02									
Purgeable Hydrocarbons as Gasoline	8/2/00	250	ND	253	ug/l	60.0-140	101			
Surrogate: a,a,a-Trifluorotoluene	"	10.0		10.8	"	70.0-130	108			
Matrix Spike Dup	0080007-MSD1 L007191-02									
Purgeable Hydrocarbons as Gasoline	8/2/00	250	ND	262	ug/l	60.0-140	105	25.0	3.88	
Surrogate: a,a,a-Trifluorotoluene	"	10.0		11.2	"	70.0-130	112			





Gettler-Ryan/Geostrategies(1)
6747 Sierra Court, Suite J
Dublin, CA 94568

Project: Tosco(4)
Project Number: Unocal SS#0752/ 800 Harrison St., Oakland
Project Manager: Deanna Harding

Sampled: 7/19/00
Received: 7/20/00
Reported: 8/7/00

Notes and Definitions

#	Note
---	------

- | | |
|--------|--|
| 1 | MTBE was reported from second analysis. |
| 2 | Chromatogram Pattern: Unidentified Hydrocarbons C6-C12 |
| 3 | The surrogate recovery for this sample is outside of established control limits due to a sample matrix effect. |
| 4 | Chromatogram Pattern: Gasoline C6-C12 |
| 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 |
| Recov. | Recovery |
| RPD | Relative Percent Difference |



**WELL MONITORING/SAMPLING
FIELD DATA SHEET**

Client/
Facility # 0752
Address: 800 Harrison St.
City: Oakland

Job#: 180066
Date: 10-3-00
Sampler: Soe

Well ID: MW-5
Well Diameter: 2 in
Total Depth: 31.65 +
Depth to Water: 18.47 +

Well Condition: O.K.

Hydrocarbon Thickness:	Amount Bailed (product/water):			
<u>0</u> in.	2" = 0.17	3" = 0.38	4" = 0.66	(gal.)
	5" = 1.50	6" = 1.50	12" = 5.50	

13.18 x VF 0.17 2.24 x 3 (case volume) = Estimated Purge Volume: 7 (gal.)

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

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

Starting Time: 9:05
Sampling Time: 9:25 AM
Purging Flow Rate: 1 gpm
Did well de-water? _____

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

Time	Volume (gal.)	pH	Conductivity (umhos/cm)	Temperature (F)	D.O. (mg/L)	ORP (mV)	Alkalinity (ppm)
<u>9:15</u>	<u>2.5</u>	<u>7.33</u>	<u>5.19</u>	<u>73.6</u>			
<u>9:17</u>	<u>5</u>	<u>7.30</u>	<u>4.75</u>	<u>73.4</u>			
<u>9:18</u>	<u>7</u>	<u>7.26</u>	<u>4.68</u>	<u>73.4</u>			

LABORATORY INFORMATION

SAMPLE ID	(#) - CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
<u>MW-5</u>	<u>2 VOA</u>	<u>Y</u>	<u>HCL</u>	<u>Sequoia</u>	<u>TPHC, STEN, MTBC</u>
					<u>(5) org's, 1,2 DCA/EDB</u>

COMMENTS: _____



Tesco Marketing Company
3000 Carr Canyon Pl., Ste. 400
San Ramon, California 94583

Facility Number Unocal SS# 0752
 Facility Address 800 Harrison St. Oakland CA.
 Consultant Project Number 18006685
 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. Dave Demitt
 (Phone) (925) 277-2384
 Laboratory Name Sequoia Analytical
 Laboratory Release Number _____
 Samples Collected by (Name) JOE A SEMIAN
 Collection Date 10-3-00
 Signature [Signature]

Sample Number	Lab Sample Number	Number of Containers	Matrix		Type	Time	Sample Preservation	Ice (Yes or No)	Analytes To Be Performed													Remarks	DO NOT BILL TB-LB ANALYSIS	
			S = Soil	A = Air					C = Composite	D = Discrete	TPH Gas+ BTX WATBE (9013)	TPH Diesel (9015)	Oil and Grease (9020)	Purgeable Hydrocarbons (9010)	Purgeable Aromatics (9020)	Purgeable Organics (9040)	Extractable Organics (9070)	Metals Cd,Cr,Pb,Zn,Mn (ICAP or AA)	(S) ☐ x,y,s,t,z PCAs EDS					
<u>L0001</u>																								
<u>TB-LB</u>	<u>01</u>	<u>2</u>	<u>W</u>	<u>A</u>	<u>C</u>	<u>9:25</u>	<u>HCL</u>	<u>Y</u>																
<u>MW-5</u>																								

Relinquished By (Signature) <u>[Signature]</u>	Organization <u>G-R Inc.</u>	Date/Time <u>10-3-00</u>	Received By (Signature) <u>[Signature]</u>	Organization	Date/Time <u>10/3/00</u>	Turn Around Time (Circle Choice) <u>24 Hrs.</u> 48 Hrs. 5 Days 10 Days As Contracted
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	



**Sequoia
Analytical**

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RECEIVED

OCT 06 2000

GETTLER-RYAN INC.
GENERAL CONTRACTOR

October 4, 2000

Deanna Harding
Gettler-Ryan/Geostrategies(1)
6747 Sierra Court, Suite J
Dublin, CA 94568

RE: Tosco(4)/L010011

Dear Deanna Harding

Enclosed are the results of analyses for sample(s) received by the laboratory on October 3, 2000. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Latonya Pelt
Project Manager

CA ELAP Certificate Number I2360





Gettler-Ryan/Geostrategies(1) 6747 Sierra Court, Suite J Dublin, CA 94568	Project: Tosco(4) Project Number: Unocal SS#0752 Project Manager: Deanna Harding	Sampled: 10/3/00 Received: 10/3/00 Reported: 10/4/00
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ANALYTICAL REPORT FOR L010011

Sample Description	Laboratory Sample Number	Sample Matrix	Date Sampled
MW-5	L010011-01	Water	10/3/00





Gettler-Ryan/Geostrategies(1) 6747 Sierra Court, Suite J Dublin, CA 94568	Project: Tosco(4) Project Number: Unocal SS#0752 Project Manager: Deanna Harding	Sampled: 10/3/00 Received: 10/3/00 Reported: 10/4/00
---	--	--

**Volatile Organic Oxygenated Compounds by EPA Method 8260B
Sequoia Analytical - San Carlos**

Analyte	Batch Number	Date Prepared	Date Analyzed	Surrogate Limits	Reporting Limit	Result	Units	Notes*
MW-5				L010011-01			Water	
1,2-Dibromoethane	0100014	10/3/00	10/4/00		12.5	ND	ug/l	
1,2-Dichloroethane	"	"	"		12.5	ND	"	
Di-isopropyl ether	"	"	"		12.5	ND	"	
Ethyl tert-butyl ether	"	"	"		12.5	ND	"	
Methyl tert-butyl ether	"	"	"		12.5	553	"	
Tert-amyl methyl ether	"	"	"		12.5	ND	"	
Tert-butyl alcohol	"	"	"		625	ND	"	
Surrogate: 1,2-Dichloroethane-d4	"	"	"	76.0-114		102	%	
Surrogate: Toluene-d8	"	"	"	88.0-110		102	"	





Gettler-Ryan/Geostrategies(1) 6747 Sierra Court, Suite J Dublin, CA 94568	Project: Tosco(4) Project Number: Unocal SS#0752 Project Manager: Deanna Harding	Sampled: 10/3/00 Received: 10/3/00 Reported: 10/4/00
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Volatiles Organic Oxygenated Compounds by EPA Method 8260B/On-line GC/MS
Sequoia Analytical - San Carlos

Analyte	Date Analyzed	Spike Level	Sample Result	QC Result	Units	Reporting Limit Recov. Limits	Recov. %	RPD Limit	RPD %	Notes*
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Batch: 0100014	Date Prepared: 10/3/00			Extraction Method: EPA 5030B [P/T]						
Blank	0100014-BLK1									
Ethanol	10/3/00			ND	ug/l	1000				
1,2-Dibromoethane	"			ND	"	2.00				
1,2-Dichloroethane	"			ND	"	2.00				
Di-isopropyl ether	"			ND	"	2.00				
Ethyl tert-butyl ether	"			ND	"	2.00				
Methyl tert-butyl ether	"			ND	"	2.00				
Tert-amyl methyl ether	"			ND	"	2.00				
Tert-butyl alcohol	"			ND	"	100				
Surrogate: 1,2-Dichloroethane-d4	"	50.0		49.4	"	76.0-114	98.8			
Surrogate: Toluene-d8	"	50.0		50.5	"	88.0-110	101			

LCS	0100014-BS1									
Methyl tert-butyl ether	10/3/00	50.0		53.6	ug/l	70.0-130	107			
Surrogate: 1,2-Dichloroethane-d4	"	50.0		50.2	"	76.0-114	100			
Surrogate: Toluene-d8	"	50.0		49.0	"	88.0-110	98.0			

Matrix Spike	0100014-MS1		L009216-02							
Methyl tert-butyl ether	10/3/00	50.0	ND	49.1	ug/l	60.0-140	98.2			
Surrogate: 1,2-Dichloroethane-d4	"	50.0		50.4	"	76.0-114	101			
Surrogate: Toluene-d8	"	50.0		51.1	"	88.0-110	102			

Matrix Spike Dup	0100014-MSD1		L009216-02							
Methyl tert-butyl ether	10/3/00	50.0	ND	48.9	ug/l	60.0-140	97.8	25.0	0.408	
Surrogate: 1,2-Dichloroethane-d4	"	50.0		49.8	"	76.0-114	99.6			
Surrogate: Toluene-d8	"	50.0		51.2	"	88.0-110	102			





00 OCT 24 PM 3:32

Gettler-Ryan/Geostrategies(1) 6747 Sierra Court, Suite J Dublin, CA 94568	Project: Tosco(4) Project Number: Unocal SS#0752 Project Manager: Deanna Harding	Sampled: 10/3/00 Received: 10/3/00 Reported: 10/4/00
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Notes and Definitions

#	Note
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- 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
- Recov. Recovery
- RPD Relative Percent Difference

