GETTLER-RYAN INC.

TRANSMITTAL

TO: Mr. Barney M. Chan
Alameda County Health Care Services
1131 Harbor Bay Parkway, Suite 250
Alameda, California 94502

DATE: October 19, 1998
G-R #: 180065

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

RE: Tosco (Unocal) SS#5043
449 Hegenberger Road
Oakland, California

WE HAVE ENCLOSED THE FOLLOWING:

COPIES	DATED	DESCRIPTION
1	September 30, 1998	Groundwater Monitoring and Sampling Report Third Quarter 1998 - Event of July 15, 1998

COMMENTS:

At the request of Tosco Marketing Company, we are providing you a copy of the above referenced report. The site is monitored and sampled on a quarterly basis. If you have questions please contact Ms. Tina R. Berry, Tosco Project Manager, at (925) 277-2321.

Enclosure

cc: Mr. Doug Lee, Gettler-Ryan Inc., 6747 Sierra Court, Suite J, Dublin, CA 94568

agency/5043trb.qmt

GETTLER-RYAN INC.

September 30, 1998
G-R Job #180065

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

RE: Third Quarter 1998 Groundwater Monitoring & Sampling Report
Tosco (Unocal) Service Station #5043
449 Hegenberger Road
Oakland, California

Dear Ms. Berry:

This report documents the monthly site visits and the quarterly groundwater monitoring and sampling event performed by Gettler-Ryan Inc. (G-R). On May 26 and June 15, 1998, field personnel monitored one well (MW-6). On July 15, 1998, field personnel monitored six wells (MW-3, MW-6, MW-7, MW-8, MW-9, and MW-10) and sampled five wells (MW-3, MW-7, MW-8, MW-9 and MW-10) at the above referenced site.

Static groundwater levels were measured and all wells were checked for the presence of separate-phase hydrocarbons. Separate-phase hydrocarbons were present in one well (MW-6). Static water level data and groundwater elevations are summarized in Table 1. Product Thickness/Removal Data is summarized in Table 2. A Potentiometric Map is included as Figure 1.

Groundwater samples were collected from the monitoring wells as specified by G-R Standard Operating Procedure - Groundwater Sampling (attached). The field data sheets are also attached. The samples were analyzed by Sequoia Analytical. Analytical results are summarized in Table 1, and a Concentration Map is included as Figure 2. The chain of custody document and laboratory analytical reports are also attached.

Sincerely,

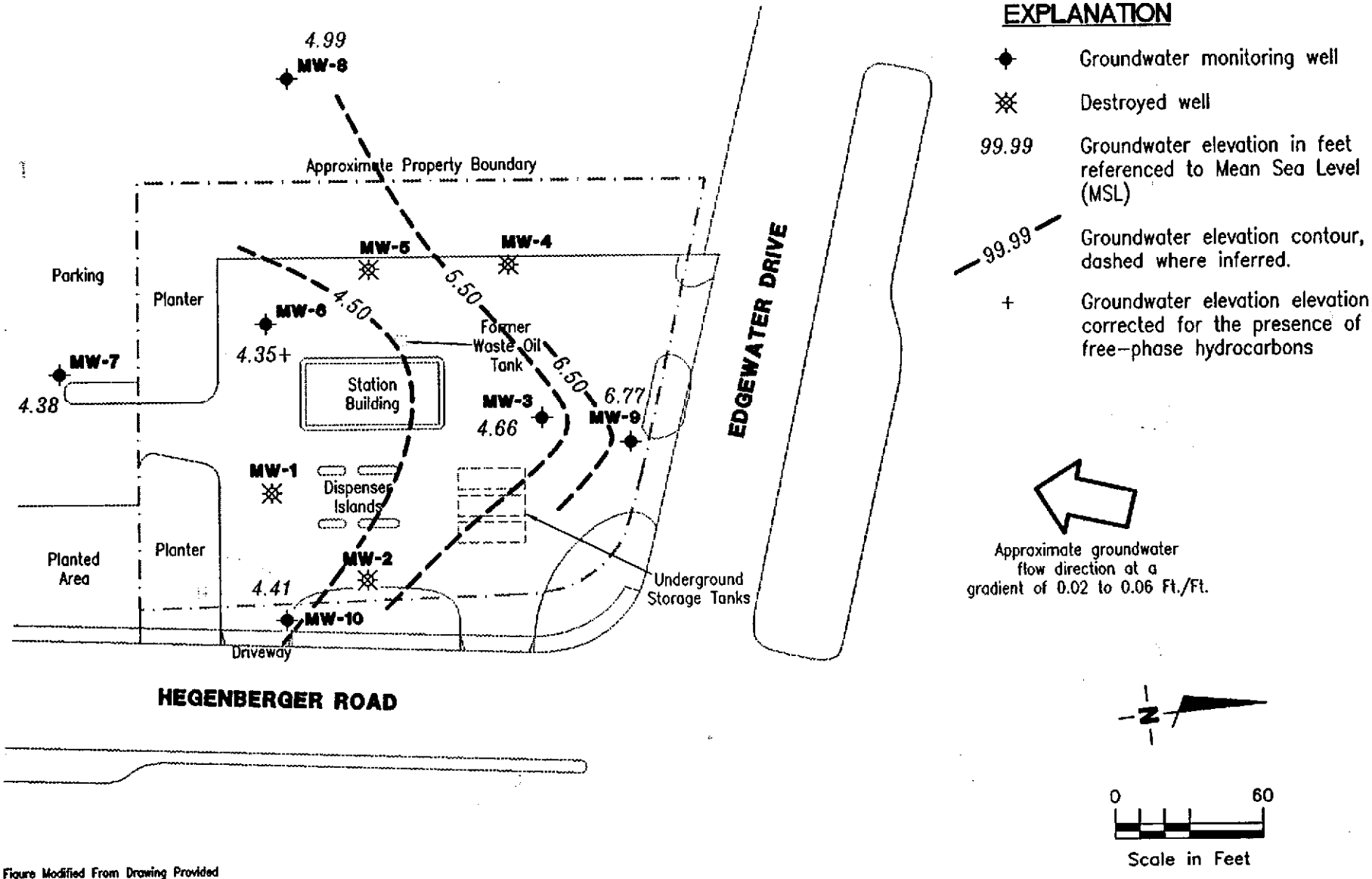
Deanna L. Harding
Project Coordinator

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

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

Figure 1: Potentiometric Map
Figure 2: Concentration Map
Table 1: Groundwater Monitoring Data and Analytical Results
Table 2: Product Thickness/Removal Data
Attachments: Standard Operating Procedure - Groundwater Sampling
Field Data Sheets
Chain of Custody Document and Laboratory Analytical Reports

5043.qml



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

FIGURE 1

Gettler - Ryan Inc.

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Dublin, CA 94568

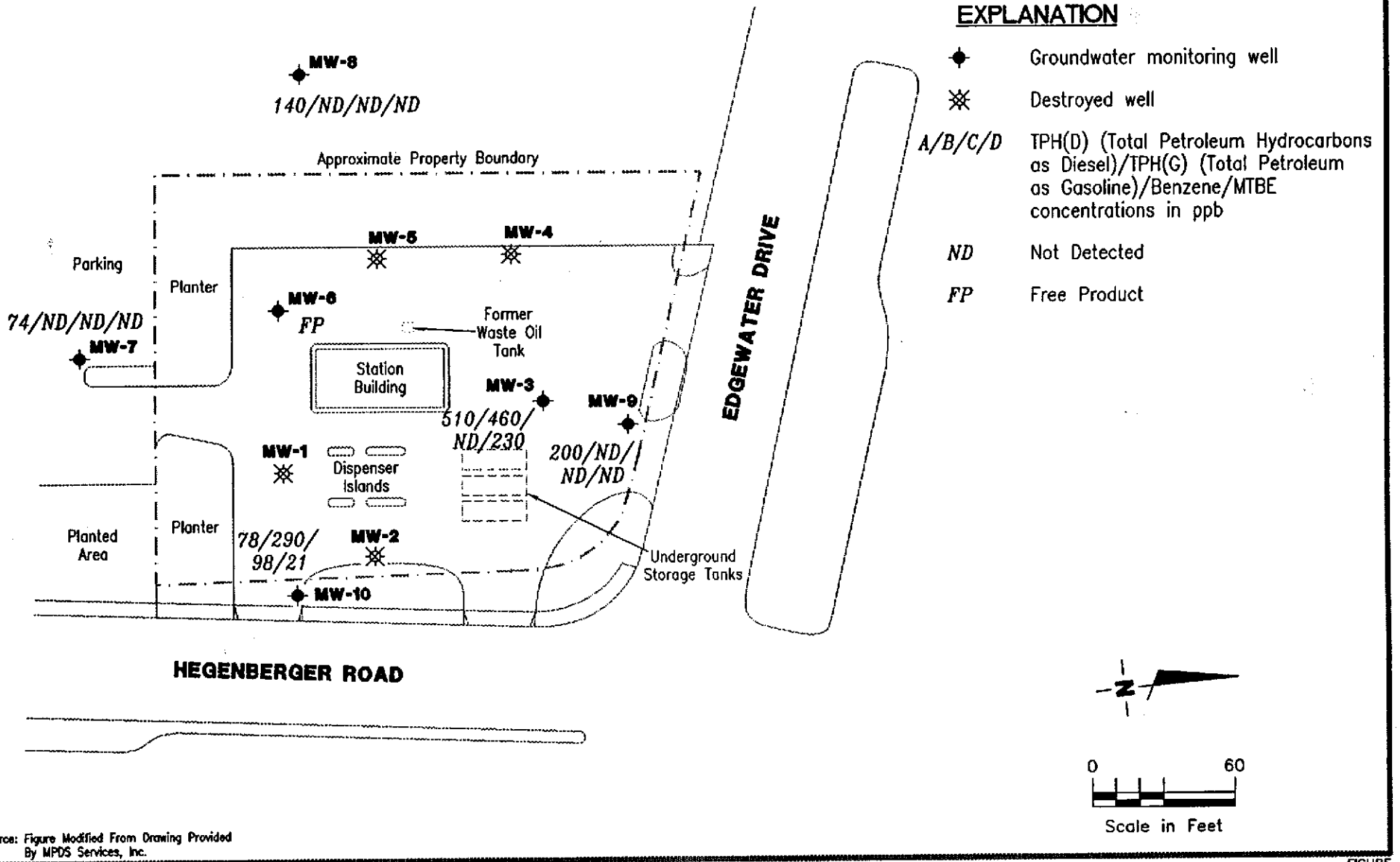
POTENTIOMETRIC MAP
Tosco (Unocal) Service Station No. 5043
449 Hegenberger Road
Oakland, California

JOB NUMBER 180065

REVIEWED BY

DATE July 15, 1998

REVISED DATE



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

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

CONCENTRATION MAP
Tosco (Unocal) Service Station No. 5043
449 Hegenberger Road
Oakland, California

FIGURE
2

JOB NUMBER
180065

REVIEWED BY

DATE
July 15, 1998

REVISED DATE

Table 1

Groundwater Monitoring Data and Analytical Results

Tosco (Unocal) Service Station #5043

449 Hegenberger Road

Oakland, California

Well ID/ TOC*	Date	DTW (ft.)	GWE (msl)	Product Thickness (ft.)	TPH(D)	TPH(G)	B	T	E	X	MTBE
					<----------			ppb			---------->
MW-1	02/18/92	--	--	--	13,000	150,000	17,000	26,000	5,200	26,000	--
	05/20/92	--	--	--	--	--	--	--	--	--	--
	08/31/92	--	--	--	8,900[1]	64,000	13,000	12,000	2,500	22,000	--
	11/30/92	--	--	--	--	--	--	--	--	--	--
	02/04/93	--	--	--	--	--	--	--	--	--	--
8.96◆	05/04/93	2.13	5.73**	0.10	NOT SAMPLED DUE TO THE PRESENCE OF FREE PRODUCT					--	--
	08/04/93	2.92	4.88**	0.03	NOT SAMPLED DUE TO THE PRESENCE OF FREE PRODUCT					--	--
7.38	11/03/93	3.04	4.74	<0.01	NOT SAMPLED DUE TO THE PRESENCE OF FREE PRODUCT					--	--
	02/07/94	2.55	4.85**	0.03	NOT SAMPLED DUE TO THE PRESENCE OF FREE PRODUCT					--	--
	05/19/94	2.23	5.16**	0.01	NOT SAMPLED DUE TO THE PRESENCE OF FREE PRODUCT					--	--
	06/25/94	2.49	4.90**	0.01	NOT SAMPLED DUE TO THE PRESENCE OF FREE PRODUCT					--	--
	07/27/94	3.10	4.28	0.00	--	--	--	--	--	--	--
	08/15/94	2.85	4.61**	0.11	NOT SAMPLED DUE TO THE PRESENCE OF FREE PRODUCT					--	--
	11/14/94	2.97	4.50**	0.12	NOT SAMPLED DUE TO THE PRESENCE OF FREE PRODUCT					--	--
	02/21/95	1.53	5.87**	0.02	NOT SAMPLED DUE TO THE PRESENCE OF FREE PRODUCT					--	--
	05/18/95	DESTROYED (3/95)	--	--	--	--	--	--	--	--	--
MW-2	02/18/92	--	--	--	4,300	29,000	1,000	5,300	260	7,900	--
	05/20/92	--	--	--	4,300[1]	24,000	2,200	7,600	630	11,000	--
	08/31/92	--	--	--	1,600[1]	9,000	1,800	640	140	2,000	--
	11/30/92	--	--	--	5,700[1]	29,000	2,000	3,400	1,200	6,900	--
	02/04/93	--	--	--	6,100[1]	18,000	1,600	3,000	ND	6,900	--
8.96◆	05/04/93	2.48	6.48	0.00	7,100[1]	63,000	3,200	17,000	470	17,000	--
	08/04/93	3.20	5.76	0.00	1,800[2]	45,000	2,100	6,600	1,400	12,000	--
8.58	11/03/93	3.37	5.21	0.00	2,600[2]	72,000	3,700	16,000	3,700	20,000	--
	02/07/94	2.40	6.18	<0.01	NOT SAMPLED DUE TO THE PRESENCE OF FREE PRODUCT					--	--
	05/19/94	2.13	6.45	0.00	3,000[2]	42,000	2,500	1,300	2,300	13,000	--
	06/25/94	2.65	5.93	0.00	--	--	--	--	--	--	--
	07/27/94	3.44	5.14	0.00	--	--	--	--	--	--	--
	08/15/94	3.25	5.33	0.00	2,800[2]	35,000	2,400	850	1,700	15,000	--
	11/14/94	2.13	6.45	0.00	10,000[1]	43,000	2,200	6,500	1,800	14,000	--
	02/21/95	1.65	6.93	0.00	2,000[2]	44,000	2,200	3,200	1,300	1,500	--
	05/18/95	DESTROYED (3/95)	--	--	--	--	--	--	--	--	--

Table 1

Groundwater Monitoring Data and Analytical Results

Tosco (Unocal) Service Station #5043
449 Hegenberger Road
Oakland, California

Well ID/ TOC*	Date	DTW (ft.)	GWE (msl)	Product Thickness (ft.)	TPH(D)	TPH(G)	B	T	E	X	MTBE
					<---			ppb			--->
MW-3	02/18/92	--	--	--	ND	230	4.8	22	1.8	33	--
	05/20/92	INACCESSIBLE	--	--	--	--	--	--	--	--	--
	08/31/92	--	--	--	92[2]	210[4]	1	ND	ND	ND	--
	11/30/92	--	--	--	94	790[4]	ND	ND	ND	ND	--
	02/04/93	--	--	--	550[2]	3,300	320	ND	96	6.1	--
7.84♦	05/04/93	4.32	3.52	0.00	250[2]	1,800[3]	95	ND	ND	ND	--
	08/04/93	4.94	2.90	0.00	100	210[4]	ND	ND	ND	ND	--
7.42	11/03/93	4.53	2.89	0.00	160	640[4]	ND	ND	ND	ND	--
	02/07/94	2.40	5.02	0.00	620[2]	2,700	110	ND	17	ND	--
	05/19/94	3.60	3.82	0.00	480[2]	1,800	83	ND	6.2	9.1	--
	06/25/94	4.58	2.84	0.00	--	--	--	--	--	--	--
	07/27/94	4.58	2.84	0.00	--	--	--	--	--	--	--
	08/15/94	4.65	2.77	0.00	110[2]	130	1.1	0.54	ND	0.97	--
	11/14/94	3.18	4.24	0.00	150[2]	1,600[4]	ND	ND	ND	ND	--
	02/21/95	1.81	5.61	0.00	850[2]	3,800	350	ND	130	22	--
	05/18/95	4.56	2.86	0.00	150[1]	1,300[3]	42	ND	ND	ND	--
	08/17/95	INACCESSIBLE	--	--	--	--	--	--	--	--	--
	07/26/96	INACCESSIBLE	--	--	--	--	--	--	--	--	--
	10/28/96[6]	INACCESSIBLE	--	--	--	--	--	--	--	--	--
	01/29/97	INACCESSIBLE	--	--	--	--	--	--	--	--	--
	04/15/97	INACCESSIBLE	--	--	--	--	--	--	--	--	--
	05/27/97	3.45	4.59	0.00	--	670	6.5	ND	ND	ND	250
	06/01/97	3.50	4.54	0.00	610[2]	--	--	--	--	--	--
8.04	07/15/97	3.71	4.33	0.00	240[2]	240	ND	ND	ND	ND	490
	10/09/97	3.70	4.34	0.00	500[2]	270	1.1	ND	2.4	1.4	910
	01/14/98	2.16	5.88	0.00	340[7]	310	ND	ND	0.62	0.65	140
	04/01/98	2.20	5.84	0.00	320[7]	370	5.7	ND[9]	ND[9]	ND[9]	93
	07/15/98	**3.38**	**4.66**	**0.00**	**510[10]**	**460[11]**	**ND[9]**	**ND[9]**	**ND[9]**	**ND[9]**	**230**
MW-4	08/31/92	--	--	--	90[2]	240[4]	ND	ND	ND	0.54	--
	11/30/92	--	--	--	61	420[4]	ND	ND	ND	ND	--
	02/04/93	--	--	--	ND	ND	ND	ND	ND	ND	--
9.00♦	05/04/93	4.09	4.91	0.00	ND	110[3]	0.95	ND	ND	ND	--
	08/04/93	5.01	3.99	0.00	81	250[4]	ND	3.5	ND	4.1	--
8.41	11/03/93	4.23	4.18	0.00	68	130[4]	ND	ND	ND	ND	--

Table 1

Groundwater Monitoring Data and Analytical Results

Tosco (Unocal) Service Station #5043

449 Hegenberger Road

Oakland, California

Well ID/ TOC*	Date	DTW (ft.)	GWE (msl)	Product Thickness (ft.)	TPH(D)	TPH(G)	B	T	E	X	MTBE
					<----------ppb---------->						
MW-4	02/07/94	3.35	5.06	0.00	ND	56[4]	ND	ND	ND	ND	--
(cont)	05/19/94	3.92	4.49	0.00	90[2]	140[4]	ND	ND	ND	ND	--
	06/25/94	4.35	4.06	0.00	--	--	--	--	--	--	--
	07/27/94	4.28	4.13	0.00	--	--	--	--	--	--	--
	08/15/94	4.27	4.14	0.00	72[2]	59[4]	ND	0.6	ND	ND	--
	11/14/94	4.05	4.36	0.00	ND	130[4]	ND	ND	ND	ND	--
	02/21/95	DESTROYED (1/95)	--	--	--	--	--	--	--	--	--
MW-5	08/31/92	--	--	--	690[1]	78	0.89	ND	ND	13	--
	11/30/92[5]	--	--	--	470[2]	930	70	290	0.79	14	--
	02/04/93[5]	--	--	--	5,500[2]	5,700	38	ND	620	170	--
	05/04/93[5]	4.37	4.90	0.00	4,600[1]	7,400	41	ND	1,000	35	--
	08/04/93[5]	5.81	3.46	0.00	970[2]	1,500	130	1	460	11	--
8.95	11/03/93	5.68	3.27	0.00	2,100[2]	13,000	350	ND	3,500	530	--
	02/07/94	5.11	3.84	0.00	830[2]	2,000	87	ND	370	110	--
	05/19/94	5.09	3.86	0.00	600[2]	260	44	ND	32	4.1	--
	06/25/94	4.55	4.40	0.00	--	--	--	--	--	--	--
	07/27/94	5.72	3.23	0.00	--	--	--	--	--	--	--
	08/15/94	5.68	3.27	0.00	860[2]	1,600	110	ND	340	72	--
	11/14/94	5.63	3.32	0.00	290[1]	250	40	ND	ND	5	--
	02/21/95	DESTROYED (1/95)	--	--	--	--	--	--	--	--	--
MW-6	08/31/92	--	--	--	750[2]	ND	ND	ND	ND	ND	--
	11/30/92	--	--	--	1,400[1]	9,200	550	ND	740	1,600	--
	02/04/93	--	--	--	890[2]	3,600	340	ND	290	550	--
9.12◆	05/04/93	3.72	5.40	0.00	1,800[1]	4,900	360	18	450	430	--
	08/04/93	5.15	3.97	0.00	1,100[2]	3,400	390	ND	440	190	--
8.87	11/03/93	5.25	3.62	0.00	390[2]	1,400	320	ND	200	7.7	--
	02/07/94	4.55	4.32	0.00	970[2]	4,900	650	ND	250	35	--
	05/19/94	4.62	4.25	0.00	1,400[2]	3,600	300	1.7	210	41	--
	08/15/94	5.08	3.79	0.00	790[2]	1,300	130	6.7	54	57	--
	11/14/94	5.30	3.57	0.00	800[2]	730	50	ND	ND	39	--
	02/21/95	5.37	3.50	0.00	730[2]	2,000	250	4.6	25	30	--
	05/18/95	INACCESSIBLE	--	--	--	--	--	--	--	--	--

Table 1

Groundwater Monitoring Data and Analytical Results

Tosco (Unocal) Service Station #5043

449 Hegenberger Road

Oakland, California

Well ID/ TOC*	Date	DTW (ft.)	GWE (msl)	Product Thickness (ft.)	TPH(D)	TPH(G)	B	T	E	X	MTBE
					<----------			ppb			---------->
MW-6	08/17/95	INACCESSIBLE	--	--	--	--	--	--	--	--	--
(cont)	07/26/96	6.40	5.03**	3.33	NOT SAMPLED DUE TO THE PRESENCE OF FREE PRODUCT					--	--
	10/28/96	4.10	4.93**	0.21	NOT SAMPLED DUE TO THE PRESENCE OF FREE PRODUCT					--	--
	11/13/96	4.02	5.04**	0.25	--	--	--	--	--	--	--
	11/25/96	4.01	5.44**	0.75	--	--	--	--	--	--	--
	12/04/96	3.65	5.61**	0.50	--	--	--	--	--	--	--
	12/19/96	4.80	5.76**	2.20	--	--	--	--	--	--	--
	01/08/97	4.84	5.38**	1.75	--	--	--	--	--	--	--
	01/14/97	4.51	5.25**	1.15	--	--	--	--	--	--	--
	01/27/97	4.00	6.22**	1.75	--	--	--	--	--	--	--
	01/29/97	3.24	5.87**	0.31	NOT SAMPLED DUE TO THE PRESENCE OF FREE PRODUCT					--	--
	02/11/97	4.65	5.14**	1.20	--	--	--	--	--	--	--
	02/24/97	4.81	4.91**	1.10	--	--	--	--	--	--	--
	03/10/97	4.60	5.00**	0.95	--	--	--	--	--	--	--
	03/17/97	4.50	5.06**	0.89	--	--	--	--	--	--	--
	03/31/97	4.65	4.99**	1.00	--	--	--	--	--	--	--
	04/15/97	4.90	4.76**	1.03	NOT SAMPLED DUE TO THE PRESENCE OF FREE PRODUCT					--	--
	04/28/97	4.78	4.11**	0.03	--	--	--	--	--	--	--
	05/15/97	4.60	4.46**	0.25	--	--	--	--	--	--	--
	05/27/97	4.50	4.56**	0.25	--	--	--	--	--	--	--
	06/09/97	4.60	4.42**	0.20	--	--	--	--	--	--	--
	06/24/97	4.50	4.56**	0.25	--	--	--	--	--	--	--
	07/09/97	4.80	4.53**	0.60	--	--	--	--	--	--	--
	07/15/97	4.63	4.56**	0.42	NOT SAMPLED DUE TO THE PRESENCE OF FREE PRODUCT					--	--
	07/21/97	4.75	4.31**	0.25	--	--	--	--	--	--	--
	08/06/97	4.50	4.45**	0.10	--	--	--	--	--	--	--
	08/20/97	4.55	4.40**	0.10	--	--	--	--	--	--	--
	09/02/97	4.75	4.16**	0.05	--	--	--	--	--	--	--
	10/09/97	4.84	4.06**	0.04	NOT SAMPLED DUE TO THE PRESENCE OF FREE PRODUCT					--	--
	01/14/98	3.90	5.69**	0.94	NOT SAMPLED DUE TO THE PRESENCE OF FREE PRODUCT					--	--
	02/12/98	3.35	6.01**	0.64	--	--	--	--	--	--	--
	03/03/98	4.51	4.38**	0.02	--	--	--	--	--	--	--
	04/01/98	3.67	6.43**	1.60	NOT SAMPLED DUE TO THE PRESENCE OF FREE PRODUCT					--	--
	05/26/98	**4.11**	**5.15****	**0.50**	--	--	--	--	--	--	--
	06/15/98	**5.03**	**4.07****	**0.30**	--	--	--	--	--	--	--
	07/15/98	**4.56**	**4.35****	**0.05**	**NOT SAMPLED DUE TO THE PRESENCE OF FREE PRODUCT**					--	--

Table 1

Groundwater Monitoring Data and Analytical Results

Tosco (Unocal) Service Station #5043

449 Hegenberger Road

Oakland, California

Well ID/ TOC*	Date	DTW (ft.)	GWE (msl)	Product Thickness (ft.)	TPH(D)	TPH(G)	B	T	E	X	MTBE
					<--------			ppb			-------->
MW-7	05/27/97	4.50	4.33	0.00	--	68	ND	ND	ND	ND	ND
8.83	06/01/97	4.54	4.29	0.00	69[2]	--	--	--	--	--	--
	07/15/97	4.70	4.13	0.00	ND	ND	ND	ND	ND	ND	ND
	10/09/97	4.30	4.53	0.00	190[1]	ND	ND	ND	ND	ND	ND
	01/14/98	2.88	5.95	0.00	65[7]	ND	ND	ND	ND	ND	36
	04/01/98	3.13	5.70	0.00	ND	ND	ND	ND	ND	ND	ND
	07/15/98	**4.45**	**4.38**	**0.00**	**74[12]**	**ND**	**ND**	**ND**	**ND**	**ND**	**ND**
MW-8	05/27/97	3.42	5.10	0.00	--	310	0.88	0.67	15	70	ND
8.52	06/01/97	3.46	5.06	0.00	320[2]	--	--	--	--	--	--
	07/15/97	3.49	5.03	0.00	ND	ND	ND	ND	2.7	3.8	ND
	10/09/97	3.73	4.79	0.00	390[1]	590	1.4	ND	32	4.1	ND
	01/14/98	1.92	6.60	0.00	230[7]	ND	ND	ND	ND	ND	ND
	04/01/98	2.38	6.14	0.00	510[7]	ND	ND	ND	ND	ND	4.7
	07/15/98	**3.53**	**4.99**	**0.00**	**140[12]**	**ND**	**ND**	**ND**	**0.56**	**1.1**	**ND**
MW-9	02/21/95	1.98	6.31	0.00	71[2]	70[4]	ND	ND	ND	ND	--
8.29	05/18/95	3.47	4.82	0.00	ND	52	ND	1.1	ND	1.9	--
	08/17/95	1.49	6.80	0.00	ND	ND	ND	ND	ND	ND	--
	07/26/96	0.28	8.01	0.00	98	ND	ND	ND	ND	ND	ND
	10/28/96	1.15	7.14	0.00	99[1]	ND	ND	ND	ND	ND	7.6
	01/29/97	1.05	7.24	0.00	54	ND	ND	ND	ND	ND	5.4
	04/15/97	1.88	6.41	0.00	94[1]	ND	ND	ND	ND	ND	5.4
	05/27/97	1.05	7.24	0.00	--	--	--	--	--	--	--
	07/15/97	1.90	6.39	0.00	ND	ND	ND	ND	ND	ND	ND
	10/09/97	1.76	6.53	0.00	160[1]	ND	ND	ND	ND	ND	ND
	01/14/98	1.26	7.03	0.00	110[7]	ND	ND	ND	ND	ND	3.0
	04/01/98	0.85	7.44	0.00	110[7]	ND	ND	ND	ND	ND	ND
	07/15/98	**1.52**	**6.77**	**0.00**	**200[12]**	**ND**	**ND**	**ND**	**ND**	**ND**	**ND**

Table 1

Groundwater Monitoring Data and Analytical Results

Tosco (Unocal) Service Station #5043
449 Hegenberger Road
Oakland, California

Well ID/ TOC*	Date	DTW (ft.)	GWE (msl)	Product Thickness (ft.)	TPH(D)	TPH(G)	B	T	E	X	MTBE
					<---	---	---	ppb	---	---	--->
MW-10	02/21/95	4.69	3.93	0.00	270[2]	1,500	250	26	9.1	160	--
8.62	05/18/95	4.92	3.70	0.00	75[1]	810	520	ND	18	23	--
	08/17/95	4.05	4.57	0.00	ND	67	25	ND	2.4	ND	--
	07/26/96	4.08	4.54	0.00	ND	ND	3.7	ND	ND	ND	ND
	10/28/96	4.09	4.53	0.00	ND	ND	1.1	ND	ND	ND	ND
	01/29/97	2.94	5.68	0.00	ND	210	41	0.67	7.2	4.8	11
	04/15/97	4.07	4.55	0.00	ND	110	12	ND	0.77	ND	9.7
	05/27/97	4.40	4.22	0.00	--	--	--	--	--	--	--
	07/15/97	4.19	4.43	0.00	ND	ND	2.1	ND	0.67	0.73	ND
	10/09/97	4.75	3.87	0.00	ND	190	38	0.92	6.6	7.6	ND
	01/14/98	2.66	5.96	0.00	--[8]	59	9.5	0.85	1.2	1.7	4.5
	04/01/98	3.45	5.17	0.00	62[7]	230	66	1.7	12	17	6.4
	07/15/98	**4.21**	**4.41**	**0.00**	**78[12]**	**290**	**98**	**45**	**21**	**38**	**21**
Trip Blank											
TB-LB	01/14/98	--	--	--	--	ND	ND	ND	ND	ND	ND
	04/01/98	--	--	--	--	ND	ND	ND	ND	ND	ND
	07/15/98	**--**	**--**	**--**	**--**	**ND**	**ND**	**ND**	**ND**	**ND**	**ND**

Table 1

Groundwater Monitoring Data and Analytical Results

Tosco (Unocal) Service Station #5043
449 Hegenberger Road
Oakland, California

EXPLANATIONS:

Groundwater monitoring data and laboratory analytical results prior to January 14, 1998, were compiled from reports prepared by MPDS Services, Inc.

TOC = Top of Casing elevation
DTW = Depth to Water
(ft.) = Feet
GWE = Groundwater Elevation
msl = Relative to mean sea level
TPH(G) = Total Petroleum Hydrocarbons as Gasoline

B = Benzene
T = Toluene
E = Ethylbenzene
X = Xylenes
MTBE = Methyl tertiary butyl ether

ppb = Parts per billion
ND = Not Detected
-- = Not Measured/Not Analyzed
TOG = Total Oil and Grease

* TOC elevations are relative to msl, per the City of Oakland Benchmark #3880 (Elevation = 20.37 feet msl).

** Groundwater elevation corrected for the presence of free product [(TOC-DTW)+(Product Thickness x 0.77)].

◆ Elevations were based on the top of the well covers, and were surveyed relative to msl, per the City of Oakland Benchmark #3880 (Elevation = 20.37 feet).

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

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

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

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

5 TOG was ND.

6 The well was obstructed with debris at 0.55 feet. A water sample was collected but was not analyzed as it was considered not representative of groundwater in this well.

7 Laboratory report indicates unidentified hydrocarbons C9-C24

8 Sample bottle broken at Laboratory.

9 Detection limit raised. Refer to analytical results.

10 Laboratory report indicates unidentified hydrocarbons >C14 and <C12.

11 Laboratory report indicates gasoline and unidentified hydrocarbons >C8.

12 Laboratory report indicates unidentified hydrocarbons >C14.

Table 2

Product Thickness/Removal Data

Tosco (Unocal) Service Station #5043

449 Hegenberger Road

Oakland, California

Well ID	Date	DTW (ft.)	Product Thickness (ft.)	Amount Bailed (Product + Water) Gallons
MW-6	07/26/96	6.40	3.33	2.10
	10/28/96	4.10	0.21	0.14
	11/13/96	4.02	0.25	0.09
	11/25/96	4.01	0.75	0.47
	12/04/96	3.65	0.50	0.43
	12/19/96	4.80	2.20	1.02
	01/08/97	4.84	1.75	0.59
	01/14/97	4.51	1.15	0.66
	01/27/97	4.00	1.75	0.78
	01/29/97	3.24	0.31	0.25
	02/11/97	4.65	1.20	0.62
	02/24/97	4.81	1.10	0.50
	03/10/97	4.60	0.95	0.47
	03/17/97	4.50	0.89	0.35
	03/31/97	4.65	1.00	0.50
	04/15/97	4.90	1.03	0.51
	04/28/97	4.78	0.03	0.20
	05/15/97	4.60	0.25	0.20
	05/27/97	4.50	0.25	0.00
	06/09/97	4.60	0.20	0.23
	06/24/97	4.50	0.25	0.25
	07/09/97	4.80	0.60	0.25
	07/15/97	4.63	0.42	0.20
	07/21/97	4.75	0.25	0.27
	08/06/97	4.50	0.10	0.16
	08/20/97	4.55	0.10	0.20
	09/02/97	4.75	0.05	0.12
	10/09/97	4.84	0.04	0.12
	01/14/98[1]	3.90	0.94	1.50
	02/12/98	3.35	0.64	0.32
	03/03/98	4.51	0.02	2.00
	04/01/98	3.67	1.60	0.50
	05/26/98	**4.11**	**0.50**	**0.08**
	06/15/98	**5.03**	**0.30**	**0.060**
	07/15/98	**4.56**	**0.05**	**0.10**

EXPLANATIONS:

Product Thickness/Removal Data prior to January 14, 1998, were compiled from reports prepared by MPDS Services, Inc.

DTW = Depth to Water
(ft.) = Feet

[1] Skimmer present in well.

STANDARD OPERATING PROCEDURE - GROUNDWATER SAMPLING

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

Prior to sampling, the presence or absence of free-phase hydrocarbons is determined using a MMC flexi-dip interface probe. Product thickness, if present, is measured to the nearest 0.01 foot and is noted in the field notes. In addition, static water level measurements are collected with the interface probe and are also recorded in the field notes.

After water levels are collected and prior to sampling, each well is purged a minimum of three well casing volumes of water using pre-cleaned pumps (stack, suction, Grundfos), or polyvinyl chloride bailers. Temperature, pH and electrical conductivity are measured a minimum of three times during the purging. Purging continues until these parameters stabilize.

Groundwater samples are collected using disposable bailers. The water samples are transferred from the bailer into appropriate containers. Pre-preserved containers, supplied by analytical laboratories, are used when possible. When pre-preserved containers are not available, the laboratory is instructed to preserve the sample as appropriate. Duplicate samples are collected for the laboratory to use in maintaining quality assurance/quality control standards. The samples are labeled to include the job number, sample identification, collection date and time, analysis, preservation (if any), and the sample collector's initials. The water samples are placed in a cooler, maintained at 4°C for transport to the laboratory. Once collected in the field, all samples are maintained under chain of custody until delivered to the laboratory.

The chain of custody document includes the job number, type of preservation, if any, analysis requested, sample identification, date and time collected, and the sample collector's name. The chain of custody is signed and dated (including time of transfer) by each person who receives or surrenders the samples, beginning with the field personnel and ending with the laboratory personnel.

A laboratory supplied trip blank accompanies each sampling set. For sampling sets greater than 20 samples, 5% trip blanks are included. The trip blank is analyzed for some or all of the same compounds as the groundwater samples.

As requested by Tosco Marketing Company, the purge water and decontamination water generated during sampling activities is transported to Tosco - San Francisco Area Refinery, located in Rodeo, California.

WELL MONITORING/SAMPLING
FIELD DATA SHEET

Client/ Facility # 5043 Job#: 180065

Address: 449 Hegenberger Rd. Date: 7-15-98

City: Oakland Sampler: Joc

Well ID mw-3 Well Condition: O.K.

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

Total Depth 14.07 ft.

Depth to Water 3.38 ft.

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

10.69 X VF 0.17 = 1.82 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: 10:25 Weather Conditions: clear

Sampling Time: 11:00 A.M Water Color: clear Odor: Some

Purging Flow Rate: 1 gpm. Sediment Description: None

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

Time	Volume (gal.)	pH	Conductivity µmhos/cm x100	Temperature °F	D.O. (mg/L)	ORP (mV)	Alkalinity (ppm)
10:36	2	8.05	2.12	66.2			
10:38	4	7.66	2.18	65.3			
10:40	6	7.57	2.27	65.7			

LABORATORY INFORMATION

SAMPLE ID	(#) - CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
mw-3	3 voA	Y	HCL	SEQUOIA	TPH(G)/btex/mtbe
"	1 Amb.	"	—	"	TPHD

COMMENTS:

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WELL MONITORING/SAMPLING
FIELD DATA SHEET

Client/
Facility # 5043 Job#: 180065

Address: 449 Hegenberger Rd. Date: 5-26-98

City: Oakland Sampler: Joe

Well ID mw-6 Well Condition: O.K

Well Diameter 2 in. Hydrocarbon Thickness: 0.5 / in. Amount Bailed (product/water): 11 ounces (gal.)

Total Depth 12.75 ft.

Depth to Water 4.11 ft.

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

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

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

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

Starting Time: _____ Weather Conditions: _____

Sampling Time: _____ Water Color: _____ Odor: _____

Purging Flow Rate: _____ gpm. Sediment Description: _____

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

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

LABORATORY INFORMATION

SAMPLE ID	(#) - CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES

COMMENTS: Well has a skimmer.

WELL MONITORING/SAMPLING
FIELD DATA SHEET

Client/
Facility # 5043 Job#: 180065

Address: 449 Heyenberger Rd. Date: 6-15-98

City: Oakland Sampler: Joe

Well ID mw-6 Well Condition: o.k.

Well Diameter 2 in. Hydrocarbon Thickness: 0.3' in. Amount Bailed (product/water): 8 ounces (gal.)

Total Depth 12.75 ft.

Depth to Water 5.03 ft.

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

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

Purge Equipment:
- (Disposable Bailer)
- ~~Bailer~~
- Stack
- Suction
- Grundfos
- Other: _____

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

Starting Time: _____ Weather Conditions: _____

Sampling Time: _____ Water Color: _____ Odor: _____

Purging Flow Rate: _____ gpm. Sediment Description: _____

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

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

LABORATORY INFORMATION

SAMPLE ID	(#) • CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES

COMMENTS: _____

WELL MONITORING/SAMPLING
FIELD DATA SHEET

Client/ Facility # 5043 Job#: 180065

Address: 449 Hegenberger Rd. Date: 7-15-98

City: Oakland Sampler: Joe

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

Well Diameter 2 in. Hydrocarbon Thickness: 0.05 (feet) Amount Bailed (product/water): Approx. 3 ounces of FP in skimm and 10 ounces bailed from well (Gallons)

Total Depth 12.75 ft.

Depth to Water 4.56 ft.

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

_____ X VF 0.17 = _____ X 3 (case volume) = Estimated Purge Volume: _____ (gal.)

Purge Equipment:
- Disposable Bailer
- Bailer
- Stack
- (Suction)
- Grundfos
- Other: _____

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

Starting Time: _____ Weather Conditions: clear

Sampling Time: _____ Water Color: clear Odor: _____

Purging Flow Rate: _____ gpm. Sediment Description: None

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

Time	Volume (gal.)	pH	Conductivity µmhos/cm x100	Temperature °F	D.O. (mg/L)	ORP (mV)	Alkalinity (ppm)

LABORATORY INFORMATION

SAMPLE ID	(#) - CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
MW-	3 VOA	Y	HCL	SEQUOIA	TPH(G)/btex/mtbe
"	1 Amb.	"	—	"	TPHD

COMMENTS: Total of 13 ounces of product removed from well.

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WELL MONITORING/SAMPLING
FIELD DATA SHEET

Client/ Facility # 5043 Job#: 180065

Address: 449 Hegenberger Rd. Date: 7-15-98

City: Oakland Sampler: Joe

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

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

Total Depth 13.15 ft.

Depth to Water 4.45 ft.

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

8.70 X VF 0.17 = 1.48 X 3 (case volume) = Estimated Purge Volume: 4.5 (gal.)

Purge Equipment:
- Disposable Bailer
- Bailer
- Stack
- (Suction)
- Grundfos
- Other: _____

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

Starting Time: 9:45 Weather Conditions: clear

Sampling Time: 10:10 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 x100	Temperature °F	D.O. (mg/L)	ORP (mV)	Alkalinity (ppm)
9:55	1.5	7.30	5.16	65.5			
9:58	3	7.36	5.18	66.0			
10:00	4.5	7.37	5.21	65.8			

LABORATORY INFORMATION

SAMPLE ID	(#) - CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
mw-7	3 voA	Y	HCL	SEQUOIA	TPH(G)/btex/mtbe
"	1 Amb.	"	—	"	TPHD

COMMENTS: _____

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WELL MONITORING/SAMPLING
FIELD DATA SHEET

Client/ Facility # 5043 Job#: 180065

Address: 449 Hegenberger Rd. Date: 7-15-98

City: Oakland Sampler: JOC

Well ID mw-8 Well Condition: O.K.

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

Total Depth 14.82 ft.

Depth to Water 3.53 ft.

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

11.29 X VF 0.17 = 1.92 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: 9:00 Weather Conditions: clear

Sampling Time: 9:30 AM Water Color: clear Odor: little

Purging Flow Rate: 1 gpm. Sediment Description: None

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

Time	Volume (gal.)	pH	Conductivity µmhos/cm x100	Temperature °F	D.O. (mg/L)	ORP (mV)	Alkalinity (ppm)
9:15	2	7.18	3.77	65.0			
9:17	4	7.16	3.62	66.0			
9:19	6	7.14	3.69	65.4			

LABORATORY INFORMATION

SAMPLE ID	(#) - CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
mw-8	3 VOA	Y	HCL	SEQUOIA	TPH(G)/btex/mtbe
"	1 Amb.	"	—	"	TPHD

COMMENTS: _____

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WELL MONITORING/SAMPLING
FIELD DATA SHEET

Client/ Facility # 5043 Job#: 180065

Address: 449 Hegenberger Rd. Date: 7-15-98

City: Oakland Sampler: Joe

Well ID mw-9 Well Condition: O.K.

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

Total Depth 11.98 ft.

Depth to Water 1.52 ft.

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

10.46 X VF 0.17 = 1.78 X 3 (case volume) = Estimated Purge Volume: 5.5 (gal.)

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

Starting Time: 8:08 Weather Conditions: clear

Sampling Time: 8:25 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 x100	Temperature °F	D.O. (mg/L)	ORP (mV)	Alkalinity (ppm)
8:18	2	7.12	3.80	65.1			
8:20	4	7.27	3.85	65.2			
8:23	5.5	7.31	3.85	65.7			

LABORATORY INFORMATION

SAMPLE ID	(#) - CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
mw-9	3 x 0A	Y	HCL	SEQUOIA	TPH(G)/btex/mtbe
"	1 Amb.	"	—	"	TPHD

COMMENTS:

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WELL MONITORING/SAMPLING
FIELD DATA SHEET

Client/ Facility # 5043 Job#: 180065

Address: 449 Hegenberger Rd. Date: 7-15-98

City: Oakland Sampler: Joe

Well ID mw-10 Well Condition: O.K.

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

Total Depth 12.80 ft.

Depth to Water 4.21 ft.

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

8.59 X VF 0.17 = 1.46 X 3 (case volume) = Estimated Purge Volume: 4.5 (gal.)

Purge Equipment:
- Disposable Bailer
- Bailer
- Stack
- (Suction)
- Grundfos
- Other: _____

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

Starting Time: 7:15 Weather Conditions: clear

Sampling Time: 7:45 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 x100	Temperature °F	D.O. (mg/L)	ORP (mV)	Alkalinity (ppm)
7:30	1.5	7.40	5.58	65.9			
7:32	3	7.39	6.12	66.2			
7:35	4.5	7.38	6.18	66.0			

LABORATORY INFORMATION

SAMPLE ID	(#) - CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
mw-10	3 VOA	Y	HCL	SEQUOIA	TPH(G)/btex/mtbe
"	1 Amb.	"	—	"	TPHD

COMMENTS: _____

Chain-of-Custody-Record

TOSCO

Tosco Marketing Company
2003 Crow Canyon Pl., Ste. 400
San Ramon, California 94583

Facility Number: UNOCAL SS# 5043
Facility Address: 449 Hegenberger Road, Oakland, CA
Consultant Project Number: 180065.85
Consultant Name: Gettler-Ryan Inc. (G-R Inc.)
Address: 6747 Sierra Court, Suite J, Dublin, CA 94568
Project Contact (Name): Deanna L. Harding
(Phone): 510-551-7555 (Fax Number): 510-551-7888

Contact (Name): MS. TINA BERRY
(Phone): 925-277-2321
Laboratory Name: Sequoia Analytical 9807286
Laboratory Release Number:
Samples Collected by (Name): Joe Ajemian
Collection Date: 7-15-98
Signature: Joe Ajemian

Sample Number	Lab Sample Number	Number of Containers	Matrix S = Soil W = Water A = Air C = Charcoal	Type G = Grab C = Composite D = Discrete	Time	Sample Preservation	Iced (Yes or No)	Analyses To Be Performed: TPH Gas + BTEX w/MTBE (8020)	TPH Diesel (8015)	Oil and Grease (5520)	Purgeable Halocarbons (8010)	Purgeable Aromatics (8020)	Purgeable Organics (8240)	Extractable Organics (8270)	Metals Cd,Cr,Pb,Zn,Ni (ICAP or AA)						DO NOT BILL TB-LB ANALYSIS: Remarks
TB-LB		1 VOA	W	—	—	HCL	Y	✓			8071192										
MW-3		3 VOA 1 Amb	"	G	11:00 A.M	"	"	✓	✓		8071193										
MW-7		"	"	"	10:10 A.M	"	"	✓	✓		8071194										
MW-8		"	"	"	9:30 A.M	"	"	✓	✓		8071195										
MW-9		"	"	"	8:45 A.M	"	"	✓	✓		8071196										
MW-10		"	"	"	7:45 A.M	"	"	✓	✓		8071197										

Relinquished By (Signature)	Organization	Date/Time	Received By (Signature)	Organization	Date/Time
Joe Ajemian	G-R Inc.	7-15-98 4:00 PM	Abel	Seq	7/15/98 1600
Relinquished By (Signature)	Organization	Date/Time	Received By (Signature)	Organization	Date/Time
Abel	Seq	7/15/98	Fred Caldwell		7/15 16:10
Relinquished By (Signature)	Organization	Date/Time	Received For Laboratory By (Signature)		Date/Time
Fred Caldwell		7-15 18:35	J. Kinney		7/15 1425

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

Sequoia Analytical

680 Chesapeake Drive, Redwood City, CA 94063, (650) 364-9600, FAX (650) 364-9233
404 N. Wiget Lane, Walnut Creek, CA 94598, (925) 988-9600, FAX (925) 988-9673
819 Striker Avenue, Suite 8, Sacramento, CA 95834, (916) 921-9600, FAX (916) 921-0100
1455 McDowell Blvd. North, Ste. D, Petaluma, CA 94954, (707) 792-1865, FAX (707) 792-0342

Gettler-Ryan - Dublin	Client Project ID:	Unocal SS#5043, Oakland	Sampled: Jul 15, 1998
6747 Sierra Court, Suite J	Sample Matrix:	Water	Received: Jul 15, 1998
Dublin, CA 94568	Analysis Method:	EPA 3510/8015 Mod.	Reported: Aug 6, 1998
Attention: Deanna Harding	First Sample #:	807-1193	

TOTAL EXTRACTABLE PETROLEUM HYDROCARBONS

Analyte	Reporting Limit µg/L	Sample I.D. 807-1193 MW-3	Sample I.D. 807-1194 MW-7	Sample I.D. 807-1195 MW-8	Sample I.D. 807-1196 MW-9	Sample I.D. 807-1197 MW-10
Extractable Hydrocarbons	50	510	74	140	200	78
Chromatogram Pattern:		Unidentified Hydrocarbons >C14 & <C12	Unidentified Hydrocarbons >C14	Unidentified Hydrocarbons >C14	Unidentified Hydrocarbons >C14	Unidentified Hydrocarbons >C14

Quality Control Data

Report Limit Multiplication Factor:	1.0	1.0	1.0	1.0	1.0
Date Extracted:	7/20/98	7/20/98	7/20/98	7/20/98	7/20/98
Date Analyzed:	7/21/98	7/21/98	7/21/98	7/21/98	7/21/98
Instrument Identification:	HP-3A	HP-3A	HP-3B	HP-3B	HP-3B

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

SEQUOIA ANALYTICAL, #1271

Julianne Fegley

Julianne Fegley
Project Manager

Sequoia Analytical

680 Chesapeake Drive, Redwood City, CA 94063, (650) 364-9600, FAX (650) 364-9233
404 N. Wiget Lane, Walnut Creek, CA 94598, (925) 988-9600, FAX (925) 988-9673
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1455 McDowell Blvd. North, Ste. D, Petaluma, CA 94954, (707) 792-1865, FAX (707) 792-0342

Gettler-Ryan - Dublin	Client Project ID:	Unocal SS#5043, Oakland	Sampled: Jul 15, 1998
6747 Sierra Court, Suite J	Sample Matrix:	Water	Received: Jul 15, 1998
Dublin, CA 94568	Analysis Method:	EPA 5030/8015 Mod./8020	Reported: Aug 6, 1998
Attention: Deanna Harding	First Sample #:	807-1192	

RECEIVED
AUG 11 1998
GETTLER-RYAN INC
GENERAL CONTRACTORS

TOTAL PURGEABLE PETROLEUM HYDROCARBONS with BTEX / MTBE

Analyte	Reporting Limit µg/L	Sample I.D. 807-1192 TB-LB	Sample I.D. 807-1193 MW-3	Sample I.D. 807-1194 MW-7	Sample I.D. 807-1195 MW-8	Sample I.D. 807-1196 MW-9	Sample I.D. 807-1197 MW-10
Purgeable Hydrocarbons	50	N.D.	460	N.D.	N.D.	N.D.	290
Benzene	0.50	N.D.	N.D.	N.D.	N.D.	N.D.	98
Toluene	0.50	N.D.	N.D.	N.D.	N.D.	N.D.	45
Ethyl Benzene	0.50	N.D.	N.D.	N.D.	0.56	N.D.	21
Total Xylenes	0.50	N.D.	N.D.	N.D.	1.1	N.D.	38
MTBE	2.5	N.D.	230	N.D.	N.D.	N.D.	21
Chromatogram Pattern:		--	Gasoline & Unidentified Hydrocarbons > C8	--	--	--	Gasoline

Quality Control Data

Report Limit Multiplication Factor:	1.0	5.0	1.0	1.0	1.0	1.0
Date Analyzed:	7/28/98	8/4/98	7/28/98	7/28/98	7/28/98	7/28/98
Instrument Identification:	HP-5	HP-2	HP-5	HP-5	HP-5	HP-5
Surrogate Recovery, %: (QC Limits = 70-130%)	86	107	78	81	88	80

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

SEQUOIA ANALYTICAL, #1271

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

Client Project ID: Unocal SS#5043, Oakland
Matrix: Liquid
QC Sample Group: 8071192-197

Reported: Aug 6, 1998

QUALITY CONTROL DATA REPORT

Analyte:	Benzene	Toluene	Ethyl Benzene	Xylenes	Diesel
QC Batch#:	GC072898	GC072898	GC072898	GC072898	SP082098
	802005A	802005A	802005A	802005A	8015EXA
Analy. Method:	EPA 8020	EPA 8020	EPA 8020	EPA 8020	EPA 8015
Prep. Method:	EPA 5030	EPA 5030	EPA 5030	EPA 5030	EPA 3510
Analyst:	D. Newcomb	D. Newcomb	D. Newcomb	D. Newcomb	K. Grubb
MS/MSD #:	8071084	8071084	8071084	8071084	BLK072098
Sample Conc.:	N.D.	N.D.	N.D.	N.D.	N.D.
Prepared Date:	7/28/98	7/28/98	7/28/98	7/28/98	7/20/98
Analyzed Date:	7/28/98	7/28/98	7/28/98	7/28/98	7/21/98
Instrument I.D.#:	HP-5	HP-5	HP-5	HP-5	HP-3A
Conc. Spiked:	20 µg/L	20 µg/L	20 µg/L	60 µg/L	500 µg/L
Result:	15	16	16	52	440
MS % Recovery:	75	80	80	87	88
Dup. Result:	17	18	18	57	380
MSD % Recov.:	85	90	90	95	76
RPD:	13	12	12	9.2	7.3
RPD Limit:	0-20	0-20	0-20	0-20	0-50

LCS #:	5LCS072898	5LCS072898	5LCS072898	5LCS072898	LCS072098
Prepared Date:	7/28/98	7/28/98	7/28/98	7/28/98	7/20/98
Analyzed Date:	7/28/98	7/28/98	7/28/98	7/28/98	7/21/98
Instrument I.D.#:	HP-5	HP-5	HP-5	HP-5	HP-3A
Conc. Spiked:	20 µg/L	20 µg/L	20 µg/L	60 µg/L	500 µg/L
LCS Result:	18	18	18	56	380
LCS % Recov.:	90	90	90	93	76

MS/MSD LCS Control Limits	70-130	70-130	70-130	70-130	60-140

SEQUOIA ANALYTICAL, #1271

Julianne Fegley
Project Manager

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

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

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

Client Project ID: Unocal SS#5043, Oakland
Matrix: Liquid
QC Sample Group: 8071192-197

Reported: Aug 6, 1998

QUALITY CONTROL DATA REPORT

Analyte:	Benzene	Toluene	Ethyl Benzene	Xylenes
QC Batch#:	GC080498	GC080498	GC080498	GC080498
	802002A	802002A	802002A	802002A
Analy. Method:	EPA 8020	EPA 8020	EPA 8020	EPA 8020
Prep. Method:	EPA 5030	EPA 5030	EPA 5030	EPA 5030
Analyst:	D. Newcomb	D. Newcomb	D. Newcomb	D. Newcomb
MS/MSD #:	8071856	8071856	8071856	8071856
Sample Conc.:	N.D.	N.D.	N.D.	N.D.
Prepared Date:	8/4/98	8/4/98	8/4/98	8/4/98
Analyzed Date:	8/4/98	8/4/98	8/4/98	8/4/98
Instrument I.D.#:	HP-2	HP-2	HP-2	HP-2
Conc. Spiked:	20 µg/L	20 µg/L	20 µg/L	60 µg/L
Result:	24	24	25	72
MS % Recovery:	120	120	125	120
Dup. Result:	19	18	19	55
MSD % Recov.:	95	90	95	92
RPD:	23	29	27	27
RPD Limit:	0-20	0-20	0-20	0-20

LCS #:	2LCS080498	2LCS080498	2LCS080498	2LCS080498
Prepared Date:	8/4/98	8/4/98	8/4/98	8/4/98
Analyzed Date:	8/4/98	8/4/98	8/4/98	8/4/98
Instrument I.D.#:	HP-2	HP-2	HP-2	HP-2
Conc. Spiked:	20 µg/L	20 µg/L	20 µg/L	60 µg/L
LCS Result:	19	17	18	54
LCS % Recov.:	95	85	90	90

MS/MSD LCS Control Limits	70-130	70-130	70-130	70-130

SEQUOIA ANALYTICAL, #1271

Julianne Fegley
Project Manager

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

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