



GETTLER-RYAN INC.

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Alameda County
Environmental Health

November 27, 2000
G-R Job #180061

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

RE: Third Quarter 2000 Groundwater Monitoring & Sampling Report
Tosco (Unocal) Service Station #5325
3220 Lakeshore Avenue
Oakland, California

Dear Mr. De Witt:

This report documents the quarterly groundwater monitoring and sampling event performed by Gettler-Ryan Inc. (G-R). On September 27, 2000, field personnel monitored and sampled six wells (U-1 through U-6) at the above referenced site.

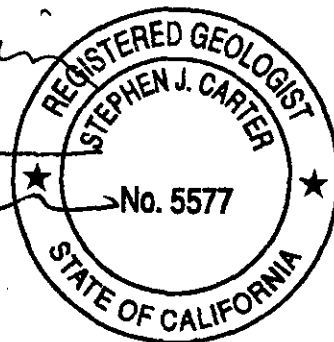
Static groundwater levels were measured and all wells were checked for the presence of separate-phase hydrocarbons. Separate-phase hydrocarbons were not present in any wells. Static water level data and groundwater elevations are summarized in Table 1. Dissolved Oxygen Concentrations are summarized in Table 4. A Potentiometric Map is included as Figure 1.

Groundwater samples were collected from the monitoring wells as specified by Standard Operating Procedure Groundwater Sampling (attached). The field data sheets are also attached. The samples were analyzed by Sequoia Analytical. Analytical results are summarized in Tables 1, 2 and 3. A Concentration Map is included as Figure 2. The chain of custody document and laboratory analytical reports are also attached.

Sincerely,

Deanna L. Harding
Deanna L. Harding
Project Coordinator

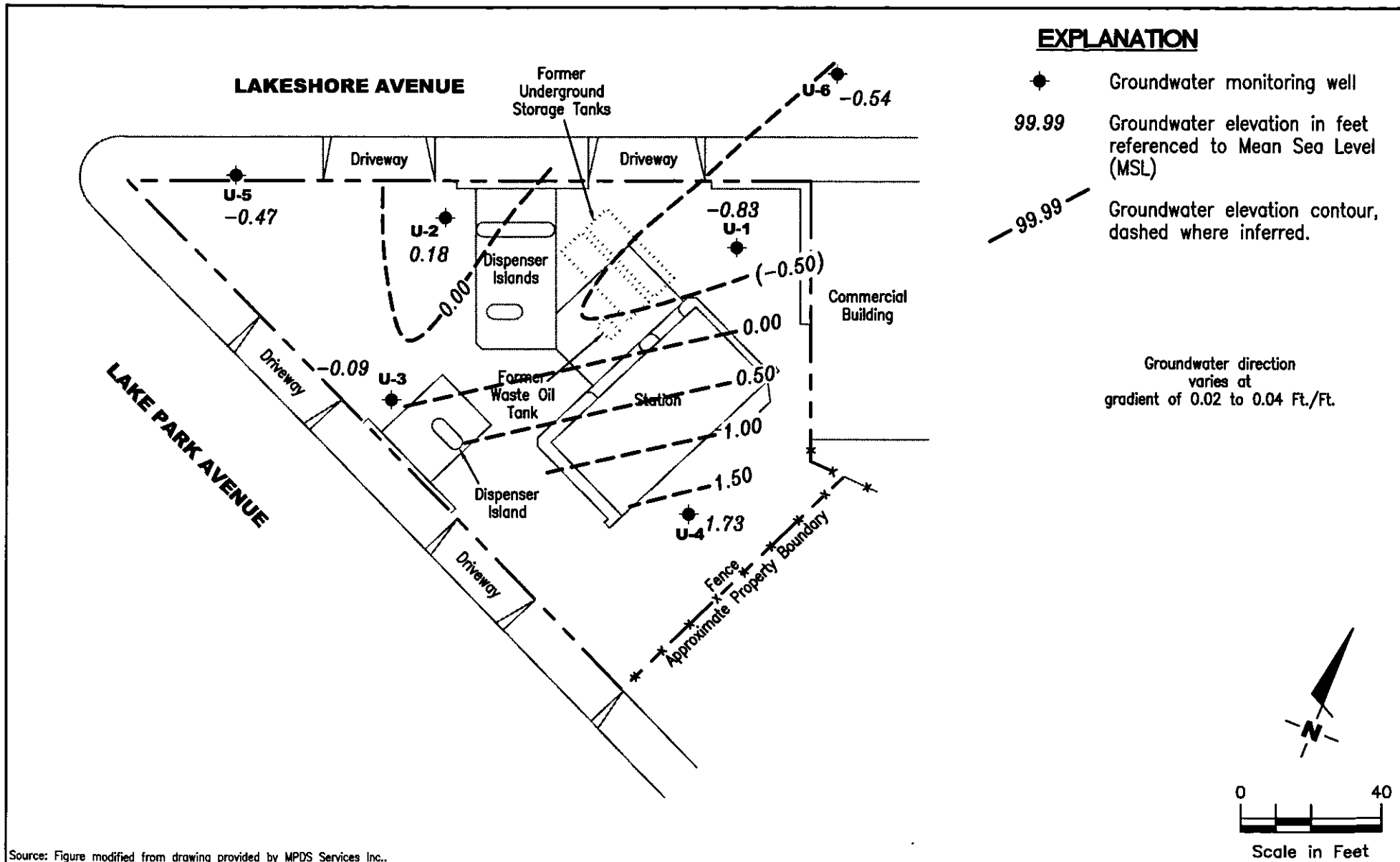
Stephen J. Carter
Stephen J. Carter
Senior Geologist, R.G. No.5577



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

FILE #	253325	SS	X	BP
	QM	X	TRANSMITTAL	
	3	4	5	6

5325.qml



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



Gettler - Ryan Inc.

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

POTENTIOMIC MAP
 Tosco (Unocal) Services Station #5325
 3220 Lakeshore Avenue
 Oakland, California

FIGURE

1

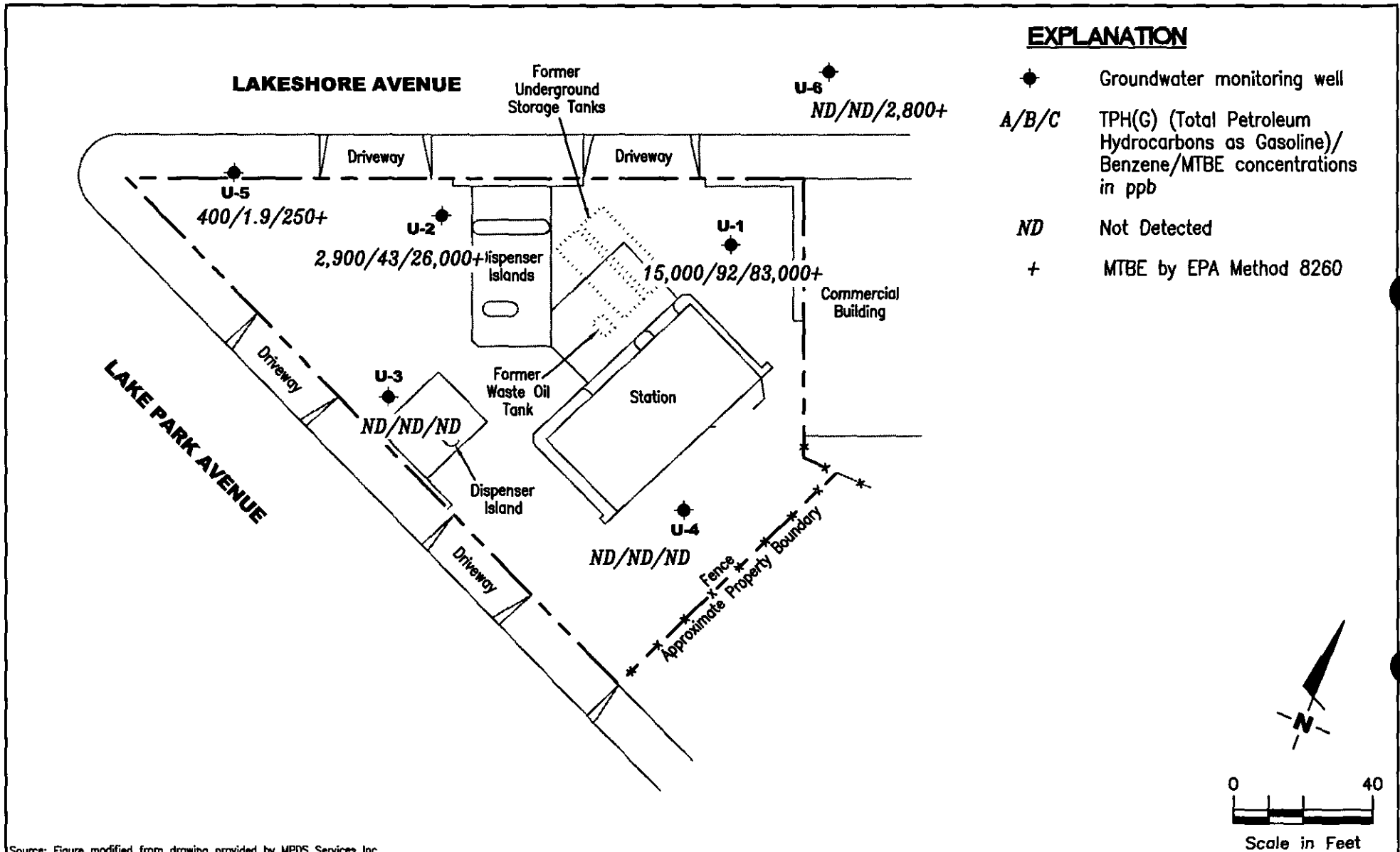
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DATE
September 27, 2000

REVISED DATE

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



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Dublin, CA 94568 (925) 551-7555

CONCENTRATION MAP
Tosco (Unocal) Services Station #5325
3220 Lakeshore Avenue
Oakland, California

FIGURE

2

PROJECT NUMBER
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REVIEWED BY

DATE
September 27, 2000

REVISED DATE

Table 1
Groundwater Monitoring Data and Analytical Results
 Tosco (Unocal) Service Station #5325
 3220 Lakeshore Avenue
 Oakland, California

WELL ID/ TOC*	DATE	DTW (ft.)	GWE (ft.)	Product Thickness (ft.)	TPH(G) (ppb)	B (ppb)	T (ppb)	E (ppb)	X (ppb)	MTBE (ppb)
U-1	08/10/90	--	--	--	690	38	75	8.6	130	--
	01/07/91	--	--	--	250	22	16	4.2	17	--
	04/01/91	--	--	--	160	13	8.6	1.0	15	--
	07/03/91	--	--	--	140	21	4.3	0.36	17	--
	10/09/91	--	--	--	ND	ND	ND	ND	ND	--
	02/12/92	--	--	--	250	ND	ND	ND	ND	--
	05/05/92	--	--	--	230	1.2	ND	ND	ND	--
	06/11/92	--	--	--	1,000	80	1.4	6.7	41	--
	08/20/92	--	--	--	400 ¹	1.0	ND	ND	0.6	--
	02/22/93	--	--	--	34,000	1,400	5,500	910	7,300	--
	05/07/93	--	--	--	8,700	600	240	650	3,300	--
	08/08/93	--	--	--	4,900 ²	79	ND	832	270	--
5.32	11/16/93	8.61	-3.29	0.00	690 ³	ND	ND	ND	ND	--
	02/16/94	8.54	-3.22	0.00	6,800 ⁴	ND	ND	ND	ND	--
8.46	06/22/94	8.39	0.07	0.00	200	ND	ND	5.9	21	--
	09/22/94	8.66	-0.20	0.00	6,100 ³	ND	ND	ND	ND	--
	12/24/94	8.04	0.42	0.00	50,000	2,500	9,700	2,400	17,000	--
	03/25/95	7.72	1.02**	0.37	NOT SAMPLED DUE TO THE PRESENCE OF FREE PRODUCT				--	--
	06/21/95	9.30	-0.69**	0.20	NOT SAMPLED DUE TO THE PRESENCE OF FREE PRODUCT				--	--
	09/19/95	9.29	-0.53**	0.40	NOT SAMPLED DUE TO THE PRESENCE OF FREE PRODUCT				--	--
	12/19/95	8.98	-0.50**	0.03	NOT SAMPLED DUE TO THE PRESENCE OF FREE PRODUCT				--	--
	03/18/96	8.25	0.21	0.00	27,000	ND	2,300	1,400	11,000	4,900
	06/27/96	7.92	0.54	<0.01	120,000	540	4,300	2,600	26,000	ND
	09/26/96	9.10	-0.62**	0.02	NOT SAMPLED DUE TO THE PRESENCE OF FREE PRODUCT				--	--
	12/09/96	6.88	1.60**	0.03	NOT SAMPLED DUE TO THE PRESENCE OF FREE PRODUCT				--	--
	03/14/97	9.02	-0.15**	0.55	NOT SAMPLED DUE TO THE PRESENCE OF FREE PRODUCT				--	--
	06/30/97	8.41	0.07**	0.02	NOT SAMPLED DUE TO THE PRESENCE OF FREE PRODUCT				--	--
	09/19/97	8.56	-0.08**	0.02	NOT SAMPLED DUE TO THE PRESENCE OF FREE PRODUCT				--	--
	12/12/97	8.58	-0.11**	0.01	NOT SAMPLED DUE TO THE PRESENCE OF FREE PRODUCT				--	--
	03/03/98	8.23	0.26**	0.04	NOT SAMPLED DUE TO THE PRESENCE OF FREE PRODUCT				--	--
	06/15/98	8.37	0.09	Sheen	52,000	ND ⁷	900	1,800	13,000	ND ⁷
	09/30/98	8.94	-0.48	Sheen	1,000,000 ⁸	ND ⁷	2,600	13,000	83,000	4,800

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WELL ID/ TOC*	DATE	DTW (ft.)	GWE (ft.)	Product Thickness (ft.)	TPH(G) (ppb)	B (ppb)	T (ppb)	E (ppb)	X (ppb)	MTBE (ppb)
U-1	12/28/98	8.57	-0.11	<0.01	1,100,000 ⁹	ND ⁷	1,600	8,600	71,000	5,700
(cont)	03/22/99	8.18	0.28	Sheen	130,000	470	1,100	2,000	28,000	5,700
	06/09/99	9.37	-0.91	0.00	40,000	230	640	590	13,000	3,500/2,100 ¹⁰
	09/08/99	9.53	-1.07	0.00	55,000 ¹¹	217	202	745	14,300	6,890/6,690 ¹⁰
	12/07/99	9.67	-1.21	0.00	41,200 ¹³	89.3	ND ⁷	385	6,930	15,800/14,700 ¹²
	03/13/00	8.44	0.02	0.00	48,000 ¹¹	490	610	2,400	10,000	22,000/23,000 ¹⁰
	06/21/00	9.45	-0.99	0.00	37,000 ¹¹	200	ND ⁷	1,200	7,200	15,000/20,000 ¹⁰
	09/27/00	9.29	-0.83	0.00	15,000 ¹¹	92	ND ⁷	540	2,800	74,000/83,000 ¹⁵
U-2	08/10/90	--	--	--	780	27	46	15	130	--
	01/07/91	--	--	--	1,900	67	5.8	58	69	--
	04/01/91	--	--	--	1,700	250	89	34	190	--
	07/03/91	--	--	--	2,100	150	25	3.1	290	--
	10/09/91	--	--	--	230	7.1	ND	ND	11	--
	02/12/92	--	--	--	410	1.9	ND	0.36	0.4	--
	05/05/92	--	--	--	1,600	120	52	6.2	290	--
	06/11/92	--	--	--	620	17	2.1	ND	37	--
	08/20/92	--	--	--	700	28	6.5	1.3	4.6	--
	02/22/93	--	--	--	3,400	2,400	2,100	1,200	5,800	--
	05/07/93	--	--	--	17,000	1,800	660	1,700	4,000	--
	08/08/93	--	--	--	5,600 ²	420	ND	410	670	--
4.53	11/16/93	8.17	-3.64	0.00	510 ³	ND	ND	ND	ND	--
	02/16/94	7.73	-3.20	0.00	980 ⁴	49	13	2.7	40	--
7.62	06/22/94	7.60	0.02	0.00	31,000	2,200	62	1,500	3,500	--
	09/22/94	7.93	-0.31	0.00	8,500 ³	29	ND	ND	ND	--
	12/24/94	7.27	0.35	0.00	32,000	1,500	890	1,300	5,000	--
	03/25/95	7.01	0.61	0.00	170,000	1,900	21,000	4,800	33,000	--
	06/21/95	6.98	0.64	0.00	16,000	2,100	ND	1,800	1,700	--
	09/19/95	7.70	-0.08	0.00	3,000	610	ND	78	240	-- ⁵
	12/19/95	7.30	0.32	0.00	1,600	140	55	52	270	-- ⁶
	03/18/96	6.45	1.17	0.00	12,000	2,200	ND	1,200	2,200	22,000

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U-2	06/27/96	7.41	0.21	0.00	28,000	3,400	ND	2,800	3,100	3,000
(cont)	09/26/96	7.90	-0.28	0.00	5,900	750	ND	ND	ND	18,000
	12/09/96	6.76	0.86	0.00	13,000	5,100	290	980	370	2,700
	03/14/97	7.12	0.52**	0.03	NOT SAMPLED DUE TO THE PRESENCE OF FREE PRODUCT				--	--
	06/30/97	6.19	1.43	<0.01	NOT SAMPLED DUE TO THE PRESENCE OF FREE PRODUCT				--	--
	09/19/97	7.31	0.31	<0.01	NOT SAMPLED DUE TO THE PRESENCE OF FREE PRODUCT				--	--
	12/12/97	6.75	0.88**	<0.01	NOT SAMPLED DUE TO THE PRESENCE OF FREE PRODUCT				--	--
	03/03/98	6.36	1.26	Sheen	80,000	3,000	1,100	820	16,000	16,000
	06/15/98	6.51	1.11	Sheen	48,000	1,800	330	470	7,900	20,000
	09/30/98	7.17	0.45	Sheen	60,000	1,300	ND ⁷	500	9,700	19,000
	12/28/98	7.06	0.56	0.00	63,000	590	160	320	5,600	16,000
	03/22/99	6.82	0.80	0.00	28,000	1,100	ND ⁷	360	2,900	25,000
	06/09/99	7.51	0.11	0.00	21,000	110	190	310	2,600	7,900/7,800 ¹⁰
	09/08/99	8.16	-0.54	0.00	23,300 ¹¹	477	138	286	4,110	16,400/15,300 ¹⁰
	12/07/99	8.31	-0.69	0.00	4,840 ¹³	17.2	ND ⁷	ND ⁷	157	14,900/15,600 ¹²
	03/13/00	6.69	0.93	0.00	11,000 ¹¹	380	160	ND ⁷	2,100	22,000/26,000 ¹⁰
	06/21/00	7.67	-0.05	0.00	9,100 ¹¹	22	ND ⁷	ND ⁷	800	16,000/22,000 ¹⁰
	09/27/00	7.44	0.18	0.00	2,900¹¹	43	ND⁷	ND⁷	39	20,000/26,000¹⁵
U-3	08/10/90	--	--	--	ND	ND	ND	ND	ND	--
	01/07/91	--	--	--	ND	ND	ND	ND	1.8	--
	04/01/91	--	--	--	ND	1.0	2.9	0.53	5.4	--
	07/03/91	--	--	--	ND	ND	ND	ND	ND	--
	10/09/91	--	--	--	ND	ND	ND	ND	ND	--
	02/12/92	--	--	--	ND	ND	ND	ND	ND	--
	05/05/92	--	--	--	ND	ND	ND	ND	ND	--
	06/11/92	--	--	--	ND	ND	ND	ND	ND	--
	08/20/92	--	--	--	ND	ND	ND	ND	ND	--
	02/22/93	--	--	--	ND	ND	ND	ND	ND	--

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U-3	05/07/93	--	--	--	ND	ND	ND	ND	ND	--
(cont)	08/08/93	--	--	--	210	5.0	9.7	0.7	4.1	--
7.86	11/16/93	11.82	-3.96	0.00	ND	ND	ND	ND	ND	--
	02/16/94	11.62	-3.76	0.00	ND	ND	ND	ND	ND	--
10.98	06/22/94	11.64	-0.66	0.00	ND	ND	ND	ND	ND	--
	09/22/94	11.76	-0.78	0.00	ND	ND	ND	ND	ND	--
	12/24/94	11.28	-0.30	0.00	ND	ND	ND	ND	ND	--
	03/25/95	10.96	0.02	0.00	ND	ND	ND	ND	ND	--
	06/21/95	11.37	-0.39	0.00	ND	ND	ND	ND	ND	--
	09/19/95	11.55	-0.57	0.00	ND	ND	ND	ND	ND	-- ⁵
	12/19/95	11.45	-0.47	0.00	ND	ND	ND	ND	ND	--
	03/18/96	11.10	-0.12	0.00	ND	ND	ND	ND	ND	--
	06/27/96	11.16	-0.18	0.00	440	49	50	51	140	50
	09/26/96	11.55	-0.57	0.00	ND	ND	ND	ND	ND	ND
	12/09/96	10.12	0.86	0.00	ND	ND	ND	ND	ND	29
	03/14/97	10.87	0.11	0.00	ND	ND	ND	ND	ND	ND
	06/30/97	11.08	-0.10	0.00	ND	ND	ND	ND	ND	ND
	09/19/97	11.05	-0.07	0.00	ND	ND	ND	ND	ND	ND
	12/12/97	10.58	0.40	0.00	ND	ND	ND	ND	ND	ND
	03/03/98	9.84	1.14	0.00	ND	ND	ND	ND	ND	ND
	06/15/98	10.56	0.42	0.00	ND	ND	ND	ND	ND	ND
	09/30/98	11.12	-0.14	0.00	ND	ND	ND	ND	ND	ND
	12/28/98	10.96	0.02	0.00	ND	ND	ND	ND	ND	ND
	03/22/99	9.46	1.52	0.00	ND	ND	ND	ND	ND	ND
	06/09/99	11.01	-0.03	0.00	ND	ND	ND	ND	ND	ND
	09/08/99	11.31	-0.33	0.00	ND	ND	ND	ND	ND	ND
	12/07/99	11.26	-0.28	0.00	ND	ND	ND	ND	ND	ND
	03/13/00	8.28	2.70	0.00	ND	ND	ND	ND	ND	ND
	06/21/00	11.12	-0.14	0.00	ND	ND	ND	ND	ND	ND
	09/27/00	11.07	-0.09	0.00	ND	ND	ND	ND	ND	ND

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U-4										
11.15	06/22/94	10.16	0.99	0.00	ND	ND	ND	ND	ND	--
	09/22/94	10.79	0.36	0.00	ND	0.78	1.3	ND	1.4	--
	12/24/94	9.81	1.34	0.00	ND	ND	ND	ND	ND	--
	03/25/95	9.51	1.64	0.00	ND	ND	ND	ND	ND	--
	06/21/95	9.54	1.61	0.00	ND	ND	ND	ND	ND	--
	09/19/95	10.17	0.98	0.00	ND	ND	ND	ND	ND	--
	12/19/95	9.98	1.17	0.00	ND	ND	ND	ND	ND	--
	03/18/96	9.66	1.49	0.00	ND	ND	ND	ND	ND	--
	06/27/96	9.74	1.41	0.00	ND	ND	ND	ND	ND	ND
	09/26/96	10.14	1.01	0.00	ND	ND	ND	ND	ND	ND
	12/09/96	8.67	2.48	0.00	ND	ND	ND	ND	ND	33
	03/14/97	9.35	1.80	0.00	ND	ND	ND	ND	ND	ND
	06/30/97	9.89	1.26	0.00	ND	ND	ND	ND	ND	ND
	09/19/97	9.96	1.19	0.00	ND	ND	ND	ND	ND	ND
	12/12/97	8.56	2.59	0.00	ND	ND	ND	ND	ND	ND
	03/03/98	7.85	3.30	0.00	ND	ND	ND	ND	ND	ND
	06/15/98	9.08	2.07	0.00	ND	ND	ND	ND	ND	ND
	09/30/98	9.75	1.40	0.00	ND	ND	ND	ND	ND	ND
	12/28/98	9.59	1.56	0.00	ND	ND	ND	ND	ND	ND
	03/22/99	8.34	2.81	0.00	ND	ND	ND	ND	ND	ND
	06/09/99	9.39	1.76	0.00	ND	ND	ND	ND	ND	ND
	09/08/99	9.90	1.25	0.00	ND	ND	ND	ND	ND	ND
	12/07/99	10.05	1.10	0.00	ND	ND	ND	ND	ND	ND
	03/13/00	7.24	3.91	0.00	ND	ND	ND	ND	ND	ND
	06/21/00	9.48	1.67	0.00	ND	ND	ND	ND	ND	ND
	09/27/00	9.42	1.73	0.00	ND	ND	ND	ND	ND	ND

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WELL ID/ TOC*	DATE	DTW (ft.)	GWE (ft.)	Product Thickness (ft.)	TPH(G) (ppb)	B (ppb)	T (ppb)	E (ppb)	X (ppb)	MTBE (ppb)
U-5										
6.98	06/22/94	6.83	0.15	0.00	210	7.1	13	4.5	26	--
	09/22/94	6.90	0.08	0.00	170	8.4	10	8.5	18	--
	12/24/94	6.43	0.55	0.00	8,700	560	70	670	430	--
	03/25/95	6.35	0.63	0.00	44,000	390	960	1,500	7,600	--
	06/21/95	7.11	-0.13	0.00	400	2.3	ND	9.1	3.5	--
	09/19/95	6.99	-0.01	0.00	850	14	7.1	13	66	-- ⁵
	12/19/95	7.17	-0.19	0.00	ND	ND	ND	ND	ND	--
	03/18/96	6.65	0.33	0.00	100	0.67	0.5	0.51	5.4	--
	06/27/96	6.49	0.49	0.00	16,000	280	150	1,400	4,600	530
	09/26/96	7.13	-0.15	0.00	ND	ND	0.57	ND	0.96	ND
	12/09/96	5.90	1.08	0.00	1,300	29	46	ND	140	97
	03/14/97	6.99	-0.01	0.00	ND	ND	ND	ND	ND	14
	06/30/97	7.08	-0.10	0.00	4,200	74	51	180	980	270
	09/19/97	6.78	0.20	0.00	6,300	160	13	370	1000	480
	12/12/97	6.94	0.04	0.00	60	1.3	ND	1.6	2.1	47
	03/03/98	6.50	0.48	0.00	1,700	29	ND ⁷	150	190	330
	06/15/98	6.85	0.13	0.00	1,500	32	ND ⁷	91	83	330
	09/30/98	7.31	-0.33	0.00	1,700	44	ND ⁷	39	150	60
	12/28/98	7.25	-0.27	0.00	1,400	59	ND ⁷	13	27	150
	03/22/99	6.86	0.12	0.00	780	8.9	ND	0.76	4.5	350
	06/09/99	7.28	-0.30	0.00	1,000	ND ⁷	ND ⁷	10	35	280/350 ¹⁰
	09/08/99	7.52	-0.54	0.00	2,620 ¹¹	26.2	ND ⁷	32.2	157	280/239 ¹²
	12/07/99	7.67	-0.69	0.00	949 ¹¹	9.26	ND ⁷	11.2	22.7	235/301 ¹²
	03/13/00	6.73	0.25	0.00	880 ¹⁴	12	1.0	5.6	8.7	46/37 ¹⁰
	06/21/00	7.39	-0.41	0.00	700 ¹¹	4.0	ND	0.99	4.0	120/140 ¹⁰
	09/27/00	7.45	-0.47	0.00	400 ¹¹	1.9	ND	ND	1.5	160/250 ¹⁵

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U-6										
7.14	06/22/94	7.14	0.00	0.00	ND	ND	ND	ND	ND	--
	09/22/94	7.34	-0.20	0.00	130	1.3	0.8	ND	0.73	--
	12/24/94	6.67	0.47	0.00	6,900	500	59	600	380	--
	03/25/95	6.29	0.85	0.00	47,000	450	1,300	1,700	8,200	--
	06/21/95	7.60	-0.46	0.00	ND	ND	ND	ND	ND	--
	09/19/95	7.70	-0.56	0.00	ND	ND	ND	ND	ND	-- ⁵
	12/19/95	7.75	-0.61	0.00	210	2.5	1.0	2.9	17	--
	03/18/96	6.86	0.28	0.00	ND	ND	ND	ND	ND	--
	06/27/96	6.52	0.62	0.00	ND	ND	ND	ND	ND	510
	09/26/96	7.62	-0.48	0.00	ND	ND	ND	ND	ND	1,400
	12/09/96	5.88	1.26	0.00	1,200	29	48	6.4	140	58
	03/14/97	7.30	-0.16	0.00	ND	ND	ND	ND	ND	1,500
	06/30/97	7.35	-0.21	0.00	ND	ND	ND	ND	ND	990
	09/19/97	7.25	-0.11	0.00	ND	ND	ND	ND	ND	1,400
	12/12/97	7.29	-0.15	0.00	ND	ND	ND	ND	ND	680
	03/03/98	7.00	0.14	0.00	ND	ND	ND	ND	ND	1,600
	06/15/98	7.18	-0.04	0.00	ND ⁷	ND ⁷	ND ⁷	ND ⁷	ND ⁷	1,000
	09/30/98	7.90	-0.76	0.00	ND	ND	ND	ND	ND	1,200
	12/28/98	7.79	-0.65	0.00	ND ⁷	ND ⁷	ND ⁷	ND ⁷	ND ⁷	730
	03/22/99	7.47	-0.33	0.00	ND	ND	ND	ND	ND	1,800
	06/09/99	7.73	-0.59	0.00	ND ⁷	ND ⁷	ND ⁷	ND ⁷	ND ⁷	1,000/850 ¹⁰
	09/08/99	7.95	-0.81	0.00	ND	ND	ND	ND	ND	851/1,040 ¹⁰
	12/07/99	8.10	-0.96	0.00	ND	ND	ND	ND	ND	1,140/1,150 ¹²
	03/13/00	6.95	0.19	0.00	ND	ND	ND	ND	ND	560/670 ¹⁰
	06/21/00	7.84	-0.70	0.00	ND	ND	ND	ND	ND	400/590 ¹⁰
	09/27/00	7.68	-0.54	0.00	ND	ND	ND	ND	ND	2,500/2,800 ¹⁵

Table 1
Groundwater Monitoring Data and Analytical Results
 Tosco (Unocal) Service Station #5325
 3220 Lakeshore Avenue
 Oakland, California

WELL ID/ TOC*	DATE	DTW (ft.)	GWE (ft.)	Product Thickness (ft.)	TPH(G) (ppb)	B (ppb)	T (ppb)	E (ppb)	X (ppb)	MTBE (ppb)
Trip Blank										
TB-LB	03/03/98	--	--	--	ND	ND	ND	ND	ND	ND
	06/15/98	--	--	--	ND	ND	ND	ND	ND	ND
	09/30/98	--	--	--	ND	ND	1.7	ND	2.2	ND
	12/28/98	--	--	--	ND	ND	0.71	ND	0.72	9.5
	03/22/99	--	--	--	ND	ND	ND	ND	ND	ND
	06/09/99	--	--	--	ND	ND	ND	ND	ND	ND
	09/08/99	--	--	--	ND	ND	ND	ND	ND	ND
	12/07/99	--	--	--	ND	ND	0.762	ND	ND	ND
	03/13/00	--	--	--	ND	ND	ND	ND	ND	ND
	06/21/00	--	--	--	ND	ND	ND	ND	ND	ND
	09/27/00	--	--	--	ND	ND	ND	ND	ND	ND

Table 1
Groundwater Monitoring Data and Analytical Results
 Tosco (Unocal) Service Station #5325
 3220 Lakeshore Avenue
 Oakland, California

EXPLANATIONS:

Groundwater monitoring data and laboratory analytical results prior to March 3, 1998, were compiled from reports prepared by MPDS Services, Inc.

TOC = Top of Casing	B = Benzene	(ppb) = Parts per billion
DTW = Depth to Water	T = Toluene	(ppm) = Parts per million
(ft.) = Feet	E = Ethylbenzene	ND = Not Detected
GWE = Groundwater Elevation	X = Xylenes	-- = Not Measured/Not Analyzed
TPH(G) = Total Petroleum Hydrocarbons as Gasoline	MTBE = Methyl tertiary butyl ether	

- * TOC elevations are surveyed relative to City of Oakland Benchmark, at the northeasterly corner of Weller and Cheney Avenue (Elevation = 9.055 feet, city datum; add 3.00' to U.S.G.S. datum). Prior to November 16, 1993, the DTW measurements were taken from the well cover.
- ** Groundwater elevation corrected due to the presence of free product; correction factor = [(TOC-DTW)+(Product Thickness x 0.75)].
- 1 The positive result for gasoline does not appear to have a typical gasoline pattern.
- 2 The concentration reported as gasoline is primarily due to the presence of a combination of gasoline and a discrete peak not indicative of gasoline.
- 3 Laboratory report indicates the hydrocarbons detected did not appear to be gasoline
- 4 Laboratory report indicates the hydrocarbons detected appeared to be a gasoline and non-gasoline mixture.
- 5 Laboratory has potentially identified the presence of MTBE at reportable levels in the groundwater sample collected from this well.
- 6 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.
- 7 Detection limit raised. Refer to analytical reports.
- 8 Laboratory report indicates unidentified hydrocarbons C6-C12.
- 9 Laboratory report indicates gasoline and unidentified hydrocarbons >C8.
- 10 MTBE by EPA Method 8260.
- 11 Laboratory report indicates gasoline C6-C12.
- 12 MTBE by EPA Method 8260 analyzed past the recommended holding time.
- 13 Laboratory report indicates weathered gasoline C6-C12.
- 14 Laboratory report indicates gasoline C6-C12 + unidentified hydrocarbons <C6.
- 15 Laboratory report indicates sample was originally analyzed within holding time. Re-analysis for confirmation or dilution was performed past the recommended holding time.

Table 2
Groundwater Analytical Results - Oxygenate Compounds
 Tosco (Unocal) Service Station #5325
 3220 Lakeshore Avenue
 Oakland, California

WELL ID	DATE	TBA (ppb)	MTBE (ppb)	DIPE (ppb)	ETBE (ppb)	TAME (ppb)	1,2-DCA (ppb)	EDB (ppb)
U-1	09/27/00 ¹	ND ²	83,000	ND ²	ND ²	ND ²	ND ²	ND ²
U-2	09/27/00	--	26,000 ¹	--	--	--	--	--
U-5	09/27/00	--	250 ¹	--	--	--	--	--
U-6	09/27/00	--	2,800 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
 ND = Not Detected
 -- = Not Analyzed

ANALYTICAL METHOD:

EPA Method 8260 for Oxygenate Compounds

¹ Laboratory report indicates sample was originally analyzed withing holding time. Re-analysis for confirmation or dilution was performed past the recommended holding time.

² Detection limit raised. Refer to analytical reports.

Table 3
Groundwater Analytical Results
Tosco (Unocal) Service Station #5325
3220 Lakeshore Avenue
Oakland, California

WELL ID	DATE	Iron (ppm)	Nitrate as NO3 (ppm)	Phosphate as PO4 (ppm)	Redox Potential mV ²
U-1	06/15/98	39	ND	ND	382 ²
	09/30/98	17	ND	ND	366 ²
	12/28/98	4.3	6.3	28	298 ²
	03/22/99	4.9	ND	3.5	320 ³
	06/09/99	1.2	ND	ND	260 ³
	09/08/99	1.80	ND ¹	ND ¹	85 ³
	12/07/99	5.70	ND ¹	17.0	404 ³
	03/13/00	8.0	0.18	ND	² 117/262 ³
	06/21/00	9.3	ND ¹	ND ¹	148 ²
	09/27/00	2.8	ND¹	18.4	119²
U-2	03/03/98	25	ND	ND	369 ²
	06/15/98	42	ND	ND	341 ²
	09/30/98	25	ND	ND	354 ²
	12/28/98	28	ND	ND	276 ²
	03/22/99	0.68	ND	2.3	320 ³
	06/09/99	0.50	ND	ND	290 ³
	09/08/99	1.90	ND ¹	ND ¹	235 ³
	12/07/99	0.250	ND ¹	ND ¹	389 ³
	03/13/00	4.3	0.31	ND	² 121/184 ³
	06/21/00	0.26	ND ¹	ND ¹	136 ²
09/27/00	0.64	ND¹	10.5	142²	
U-3	06/30/97	1.4	21	0.86	190 ³
	09/19/97	0.57	19	ND	75 ³
	12/12/97	1.9	23	0.85	390 ³
	03/03/98	0.013	36	ND	358 ²
	06/15/98	0.16	33	ND	318 ²
	09/30/98	0.040	31	ND	295 ²
	12/28/98	ND	29	ND	281 ²
	03/22/99	0.015	30	0.14	310 ³
	06/09/99	ND	26	1.2	350 ³
	09/08/99	ND	32.9	ND ¹	417 ³
	12/07/99	0.0520	27.9	ND ¹	437 ³
	03/13/00	0.15	33	ND	² 226/307 ³
	06/21/00	0.20	32	ND ¹	225 ²
09/27/00	ND	34	15.7	211²	
U-4	06/30/97	0.13	35	0.52	200 ³
	09/19/97	0.35	30	ND	45 ³
	12/12/97	0.68	31	0.73	380 ³
	03/03/98	0.018	3.2	ND	284 ²

Table 3
Groundwater Analytical Results
 Tosco (Unocal) Service Station #5325
 3220 Lakeshore Avenue
 Oakland, California

WELL ID	DATE	Iron (ppm)	Nitrate as NO3 (ppm)	Phosphate as PO4 (ppm)	Redox Potential mV ²
U-4	06/15/98	0.14	33	ND	256 ²
(cont)	09/30/98	0.049	31	ND	276 ²
	12/28/98	0.36	31	ND	280 ²
	03/22/99	ND	30	0.14	320 ³
	06/09/99	ND	35	0.91	340 ³
	09/08/99	ND	24	ND ¹	391 ³
	12/07/99	ND	27.7	ND ¹	478 ³
	03/13/00	ND	33	ND	² 219/244 ³
	06/21/00	0.034	32	ND ¹	248 ²
	09/27/00	ND	28	ND¹	198²
U-5	06/30/97	16	ND	ND	160 ³
	09/19/97	0.22	ND	ND	63 ³
	12/12/97	6.7	ND	ND	400 ³
	03/03/98	18	3.1	ND	345 ²
	06/15/98	17	ND	ND	333 ²
	09/30/98	17	ND	ND	318 ²
	12/28/98	17	6.6	ND	305 ²
	03/22/99	0.12	ND	2.4	340 ³
	06/09/99	0.23	ND	ND	320 ³
	09/08/99	2.10	ND ¹	ND ¹	335 ³
	12/07/99	0.310	ND ¹	ND ¹	408 ³
	03/13/00	0.33	0.16	ND	² 111/264 ³
	06/21/00	0.15	ND ¹	ND ¹	159 ²
	09/27/00	0.33	ND¹	ND¹	136²
U-6	06/30/97	88	0.80	ND	190 ³
	09/19/97	2.9	1.80	ND	ND ³
	12/12/97	51	ND	ND	380 ³
	03/03/98	60	3.5	ND	327 ²
	06/15/98	590	4.8	ND	315 ²
	09/30/98	33	ND	ND	345 ²
	12/28/98	83	7.2	ND	297 ²
	03/22/99	2.1	ND	0.98	330 ³
	06/09/99	0.47	0.20	ND	320 ³
	09/08/99	0.140	5.59	ND ¹	305 ³
	12/07/99	0.260	ND ¹	ND ¹	443 ³
	03/13/00	0.79	0.26	ND	² 68/222 ³
	06/21/00	1.9	ND ¹	ND ¹	159 ²
	09/27/00	2.6	ND¹	ND¹	170²

Table 3
Groundwater Analytical Results
Tosco (Unocal) Service Station #5325
3220 Lakeshore Avenue
Oakland, California

EXPLANATIONS:

Groundwater analytical results prior to March 3, 1998, were compiled from reports prepared by MPDS Services, Inc.

(ppm) = Parts per million

ND = Not Detected

mV = millivolts

¹ Detection limit raised. Refer to analytical reports.

² Field measurement.

³ Analyzed by laboratory.

Table 4
Dissolved Oxygen Concentrations
 Tosco (Unocal) Service Station #5325
 3220 Lakeshore Avenue
 Oakland, California

WELL ID	DATE	Before Purge (mg/L)
U-1	12/07/99	1.36
	06/21/00	1.53
	09/27/00	1.63
U-2	12/07/99	2.28
	06/21/00	1.96
	09/27/00	2.12
U-3	06/30/97	4.1
	09/19/97	4.2
	12/12/97	2.97
	03/03/98	2.63
	06/15/98	2.93
	09/30/98	3.11
	12/28/98	3.59
	03/22/99	4.02
	06/09/99	3.70
	09/08/99	3.96
	12/07/99	4.21
	06/21/00	4.27
09/27/00	4.67	
U-4	06/30/97	5.4
	09/19/97	5.1
	12/12/97	3.11
	03/03/98	2.94
	06/15/98	3.08
	09/30/98	4.05
	12/28/98	4.57
	03/22/99	4.26
	06/09/99	3.61
	09/08/99	3.75
	12/07/99	4.03
	06/21/00	4.89
09/27/00	5.09	
U-5	06/30/97	3.4
	09/19/97	0.6
	12/12/97	1.75
	03/03/98	2.36
	06/15/98	2.55
	09/30/98	1.93
12/28/98	1.64	

Table 4
Dissolved Oxygen Concentrations
 Tosco (Unocal) Service Station #5325
 3220 Lakeshore Avenue
 Oakland, California

WELL ID	DATE	Before Purge (mg/L)
U-5 (cont)	03/22/99	1.99
	06/09/99	2.10
	09/08/99	2.21
	12/07/99	2.66
	06/21/00	3.42
	09/27/00	3.85
U-6	06/30/97	0.30
	09/19/97	0.60
	12/12/97	2.70
	03/03/98	2.18
	06/15/98	2.48
	09/30/98	3.06
	12/28/98	3.42
	03/22/99	3.88
	06/09/99	3.29
	09/08/99	3.12
	12/07/99	3.44
	06/21/00	3.27
09/27/00	3.49	

EXPLANATIONS:

Dissolved oxygen concentrations prior to March 3, 1998, were compiled from reports prepared by MPDS Services, Inc.

(mg/L) = milligrams per liter

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 # 5325
Address: 3220 Lakeshore Ave.
City: Oakland

Job#: 180061
Date: 9-27-00
Sampler: Joe

Well ID U-1
Well Diameter 3 in
Total Depth 19.70 ft
Depth to Water 9.29 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" = 5.50	

10.41 x VF 0.38 = 3.96 x 3 (case volume) = Estimated Purge Volume: 12 (gal)

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

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

Starting Time: 11:46 Weather Conditions: Hot
Sampling Time: 12:20 P.M. Water Color: clear Odor: yes
Purging Flow Rate: 1 gpm Sediment Description: none
Did well de-water? _____ If yes; Time: _____ Volume: _____ (gal)

Time	Volume (gal)	pH	Conductivity (µmhos/cm) ²⁰	Temperature (F)	D.O. (mg/L)	ORP (mV)	Alkalinity (ppm)
<u>12:00</u>	<u>4</u>	<u>6.72</u>	<u>1.44</u>	<u>72.2</u>	<u>1.63</u>	<u>119</u>	
<u>12:03</u>	<u>8</u>	<u>6.70</u>	<u>1.48</u>	<u>73.0</u>			
<u>12:05</u>	<u>12</u>	<u>6.74</u>	<u>1.51</u>	<u>73.1</u>			

LABORATORY INFORMATION

SAMPLE ID	(?) - CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
<u>U-1</u>	<u>3VBA</u>	<u>Y</u>	<u>HCL</u>	<u>Sequoia</u>	<u>TPHC, BTEX, MTBE</u>
	<u>1 plastic</u>	<u>"</u>	<u>-</u>	<u>"</u>	<u>Iron</u>
					<u>Nitrate</u>
					<u>Phosphate</u>

COMMENTS: No FP found in skimmer.

**WELL MONITORING/SAMPLING
FIELD DATA SHEET**

Client/
Facility # 5325
Address: 3220 Lakeshore Ave.
City: Oakland

Job#: 180061
Date: 9-27-00
Sampler: Joc

Well ID U-2
Well Diameter 3 in
Total Depth 19.62
Depth to Water 7.44

Well Condition: O.K

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

Volume	2" = 0.17	3" = 0.38	4" = 0.66
Factor (VF)	6" = 1.50	12" = 5.50	

12.18 x VF 0.38 = 4.63 x 3 (case volume) = Estimated Purge Volume: 14 (gal.)

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

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

Starting Time: 11:00 Weather Conditions: Hot
Sampling Time: 11:30 AM Water Color: clear Odor: yes
Purging Flow Rate: 1 gpm Sediment Description: None
Did well de-water? _____ If yes; Time: _____ Volume: _____ (gal.)

Time	Volume (gal)	pH	Conductivity μ mhos/cm X ¹⁰⁰⁰	Temperature F	D.O. (mg/L)	ORP (mV)	Alkalinity (ppm)
<u>11:10</u>	<u>4</u>	<u>7.05</u>	<u>1.95</u>	<u>73.3</u>	<u>2.12</u>	<u>142</u>	
<u>11:12</u>	<u>9</u>	<u>7.01</u>	<u>1.92</u>	<u>73.1</u>			
<u>11:14</u>	<u>14</u>	<u>6.96</u>	<u>1.91</u>	<u>73.6</u>			
_____	_____	_____	_____	_____	_____	_____	_____

LABORATORY INFORMATION

SAMPLE ID	(#) - CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
<u>U-2</u>	<u>3VSA</u>	<u>Y</u>	<u>HCL</u>	<u>Sequoia</u>	<u>TPH, BTEX, MTBE</u>
	<u>1 plastic</u>	<u>"</u>	<u>-</u>	<u>"</u>	<u>Iron</u>
					<u>Nitrate</u>
					<u>phosphate</u>

COMMENTS: _____

**WELL MONITORING/SAMPLING
FIELD DATA SHEET**

Client/
Facility # 5325
Address: 3220 Lakeshore Ave.
City: Oakland

Job#: 180061
Date: 9-27-00
Sampler: Joc

Well ID U-3
Well Diameter 3 in
Total Depth 19.40 +
Depth to Water 11.07 +

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" = 5.50

8.33 x VF 0.38 = 3.17 x 3 (case volume) = Estimated Purge Volume: 10 (gal.)

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

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

Starting Time: 8:45
Sampling Time: 9:15 AM
Purging Flow Rate: 1 gpm
Did well de-water? _____

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

Time	Volume (gal.)	pH	Conductivity $\mu\text{mhos/cm}$	Temperature F	D.O. (mg/L)	ORP (mV)	Alkalinity (ppm)
9:00	3.5	7.91	10.16	74.0	4.67	211	
9:02	6	7.80	10.11	73.9			
9:04	10	7.67	10.12	73.8			

LABORATORY INFORMATION

SAMPLE ID	(#) - CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
U-3	3VSA	Y	HCL	Sequoia	TPH, BTEX, MTBE
	1 plastic	"	"	"	Iron
					Nitrate
					Phosphate

COMMENTS: _____

**WATER MONITORING/SAMPLING
FIELD DATA SHEET**

Client/
Facility # 5325
Address: 3220 Lakeshore Ave.
City: Oakland

Job #: 180061
Date: 9-27-00
Sampler: Joe

Well ID: U-4
Well Diameter: 4 in
Total Depth: 20.15 ft
Depth to Water: 9.42 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" = 5.50

10.73 x VF 0.66 = 7.08 x 3 (case volume) = Estimated Purge Volume: 22 (gal)

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

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

Starting Time: 7:54 Weather Conditions: Hot
Sampling Time: 8:35 A.M. Water Color: clear Odor: none
Purging Flow Rate: 2 gpm Sediment Description: none
Did well de-water? _____ If yes; Time: _____ Volume: _____ (gal)

Time	Volume (gal)	pH	Conductivity μ mhos/cm X	Temperature F	D.O. (mg/L)	ORP (mV)	Alkalinity (ppm)
<u>8:12</u>	<u>7</u>	<u>7.57</u>	<u>12.14</u>	<u>73.1</u>	<u>5.09</u>	<u>198</u>	
<u>8:15</u>	<u>14</u>	<u>7.41</u>	<u>12.18</u>	<u>73.2</u>			
<u>8:17</u>	<u>22</u>	<u>7.43</u>	<u>12.20</u>	<u>73.0</u>			

LABORATORY INFORMATION

SAMPLE ID	(#) - CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
<u>U-4</u>	<u>3VBA</u>	<u>Y</u>	<u>HCL</u>	<u>Sequoia</u>	<u>TPH, BTEX, MTBE</u>
	<u>plastic</u>	<u>"</u>	<u>-</u>	<u>"</u>	<u>Iron</u>
					<u>Nitrate</u>
					<u>phosphate</u>

COMMENTS: _____

**WELL MONITORING/SAMPLING
FIELD DATA SHEET**

Client/ Facility # 5325 Job#: 180061
 Address: 3220 Lakeshore Ave. Date: 9-27-00
 City: Oakland Sampler: Joe

Well ID U-5 Well Condition: O.K.
 Well Diameter 4 in. Hydrocarbon Thickness: 0 in. Amount Bailed (product/water): 0 (gal.)
 Total Depth 20.05 ft. Volume Factor (VF) $2" = 0.17$ $3" = 0.38$ $4" = 0.66$
 Depth to Water 7.45 ft. $6" = 1.50$ $12" = 5.50$

12.6 x VF 0.66 = 8.32 x 3 (case volume) = Estimated Purge Volume: 25 (gal.)

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

Starting Time: 10:15 Weather Conditions: Hot
 Sampling Time: 10:45 A.M. Water Color: clear Odor: yes
 Purging Flow Rate: 2 gpm Sediment Description: none
 Did well de-water? _____ If yes; Time: _____ Volume: _____ (gal.)

Time	Volume (gal.)	pH	Conductivity $\mu\text{mhos/cm}$	Temperature $^{\circ}\text{F}$	D.O. (mg/L)	ORP (mV)	Alkalinity (ppm)
<u>10:25</u>	<u>8</u>	<u>7.25</u>	<u>3.68</u>	<u>73.9</u>	<u>3.85</u>	<u>136</u>	
<u>10:28</u>	<u>17</u>	<u>7.30</u>	<u>4.15</u>	<u>74.0</u>			
<u>10:31</u>	<u>25</u>	<u>7.36</u>	<u>4.18</u>	<u>74.2</u>			

LABORATORY INFORMATION

SAMPLE ID	(#) - CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
<u>U-5</u>	<u>3 GAL</u>	<u>Y</u>	<u>HCL</u>	<u>Sequoia</u>	<u>TPHG, BTEX, MTBE</u>
	<u>1 plastic</u>	<u> </u>	<u> </u>	<u> </u>	<u>Iron</u>
					<u>Nitrate</u>
					<u>Phosphate</u>

COMMENTS: _____

**WATER MONITORING/SAMPLING
FIELD DATA SHEET**

Client/ Facility # 5325 Job#: 180061
 Address: 3220 Lakeshore Ave. Date: 9-27-00
 City: Oakland Sampler: Joe

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

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

Total Depth 23.80 ft.
 Depth to Water 7.68 ft.

Volume Factor (VF)	2" = 0.17	3" = 0.38	4" = 0.66
	6" = 1.50	12" = 5.50	

16.12 x VF 0.17 = 2.74 x 3 (case volume) = Estimated Purge Volume: 8.5 (gal)

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

Starting Time: 9:30 Weather Conditions: Hot
 Sampling Time: 10:02 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 $\mu\text{mhos/cm}$	Temperature $^{\circ}\text{F}$	D.O. (mg/L)	ORP (mV)	Alkalinity (ppm)
<u>9:40</u>	<u>3</u>	<u>7.47</u>	<u>5.36</u>	<u>75.0</u>	<u>3.49</u>	<u>170</u>	
<u>9:42</u>	<u>5</u>	<u>7.52</u>	<u>5.31</u>	<u>74.1</u>			
<u>9:43</u>	<u>8.5</u>	<u>7.44</u>	<u>5.28</u>	<u>73.8</u>			

LABORATORY INFORMATION

SAMPLE ID	(?) - CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
<u>U-6</u>	<u>3VSA</u>	<u>Y</u>	<u>HCL</u>	<u>Sequoia</u>	<u>TPH, BTEX, MTBE</u>
	<u>1 plastic</u>	<u>"</u>	<u>-</u>	<u>"</u>	<u>Iron</u>
					<u>Nitrate</u>
					<u>phosphate</u>

COMMENTS: _____



TOSCO

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

Chain-of-Custody-Record

Facility Number Unocal # 5325
 Facility Address 3220 Lakeshore Ave. Oakland, CA
 Consultant Project Number 180061.85
 Consultant Name Gettler-Ryan Inc. (G-R Inc.)
 Address 6747 Sierra Court, Suite J, Dublin, CA 94568
 Project Contact (Name) Deanna L. Harding
 (Phone) 510-551-7555 (Fax Number) 510-551-7888

Contact (Name) Mr. Dave DeWitt
 (Phone) (925) 277-5325
 Laboratory Name Sequoia Analytical
 Laboratory Release Number _____
 Samples Collected by (Name) JOE AJEMIAN
 Collection Date 9-27-00 W009709
 Signature [Signature]

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)	Analytes To Be Performed										DO NOT BILL TB-LB ANALYSIS Confirm any MTBE hit by 8260 Remarks			
								TPH GMS+ BTX w/MTBE (8018)	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 (805 or AA)	Ferrous, Iron	Nitrate, Phosphate				
B-LB		2 vials	W	G	-	HCC	Y	<input checked="" type="checkbox"/>													Please filter
U-1	3 vials	1 pl.			11:20			<input checked="" type="checkbox"/>										<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>		from plain
U-2					11:30			<input checked="" type="checkbox"/>										<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>		plastic and
U-3					9:15			<input checked="" type="checkbox"/>										<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>		preserve for
U-4					8:35			<input checked="" type="checkbox"/>										<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>		Ferrous Iron
U-5					10:45			<input checked="" type="checkbox"/>										<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>		analysis
U-6					10:02			<input checked="" type="checkbox"/>										<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>		
* Amended CWC - Run (5) oxys w/ 2 DCA & 2 DB on highest hit of mbr. gw																					

Relinquished By (Signature) <u>[Signature]</u>	Organization G-R Inc.	Date/Time 9-27-00	Received By (Signature) <u>[Signature]</u>	Organization	Date/Time (600) 9/27/00	Turn Around Time (Circle Choice) 24 Hrs. 48 Hrs. 6 Days 10 Days <u>As Contracted</u>
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	

FROM : GETTLER RYAN INC

FAX NO. : 9255517899

Nov. 08 2000 05:11PM P2



Sequoia Analytical

404 N. Wiget Lane
Walnut Creek, CA 94598
(925) 988-9600
FAX (925) 988-9673
www.sequoialabs.com

9 November, 2000

Deanna L. Harding
Gettler Ryan, Inc. - Dublin
6747 Sierra Court Suite J
Dublin, CA 94568

RE: Unocal
Sequoia Report W009709

Enclosed are the results of analyses for samples received by the laboratory on 27-Sep-00 16:00. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Charlie Westwater
Project Manager

CA ELAP Certificate #1271





Gettler Ryan, Inc. - Dublin
6747 Sierra Court Suite J
Dublin CA, 94568

Project: Unocal
Project Number: Unocal # 5325
Project Manager: Deanna L. Harding

Reported:
09-Nov-00 10:29

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
TB-LB	W009709-01	Water	27-Sep-00 00:00	27-Sep-00 16:00
U-1	W009709-02	Water	27-Sep-00 12:20	27-Sep-00 16:00
U-2	W009709-03	Water	27-Sep-00 11:30	27-Sep-00 16:00
U-3	W009709-04	Water	27-Sep-00 09:15	27-Sep-00 16:00
U-4	W009709-05	Water	27-Sep-00 08:35	27-Sep-00 16:00
U-5	W009709-06	Water	27-Sep-00 10:45	27-Sep-00 16:00
U-6	W009709-07	Water	27-Sep-00 10:02	27-Sep-00 16:00

Sequoia Analytical - Walnut Creek

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

Charlie Westwater, Project Manager





Gettler Ryan, Inc. - Dublin
6747 Sierra Court Suite J
Dublin CA, 94568

Project: Unocal
Project Number: Unocal # 5325
Project Manager: Deanna L. Harding

Reported:
09-Nov-00 10:29

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

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
TB-LB (W009709-01) Water Sampled: 27-Sep-00 00:00 Received: 27-Sep-00 16:00									
Purgeable Hydrocarbons	ND	50	ug/l	1	0J06001	06-Oct-00	06-Oct-00	EPA 8015M/8020	
Benzene	ND	0.50	"	"	"	"	"	"	
Toluene	ND	0.50	"	"	"	"	"	"	
Ethylbenzene	ND	0.50	"	"	"	"	"	"	
Xylenes (total)	ND	0.50	"	"	"	"	"	"	
Methyl tert-butyl ether	ND	2.5	"	"	"	"	"	"	
Surrogate: a,a,a-Trifluorotoluene		116 %	70-130		"	"	"	"	
U-1 (W009709-02) Water Sampled: 27-Sep-00 12:20 Received: 27-Sep-00 16:00 P-01									
Purgeable Hydrocarbons	15000	5000	ug/l	100	0J06001	06-Oct-00	06-Oct-00	EPA 8015M/8020	
Benzene	92	50	"	"	"	"	"	"	
Toluene	ND	50	"	"	"	"	"	"	
Ethylbenzene	540	50	"	"	"	"	"	"	
Xylenes (total)	2800	50	"	"	"	"	"	"	
Surrogate: a,a,a-Trifluorotoluene		99.7 %	70-130		"	"	"	"	
U-1 (W009709-02RE1) Water Sampled: 27-Sep-00 12:20 Received: 27-Sep-00 16:00 P-01									
Methyl tert-butyl ether	74000	5000	ug/l	2000	0J06001	06-Oct-00	06-Oct-00	EPA 8015M/8020	CC-3
Surrogate: a,a,a-Trifluorotoluene		100 %	70-130		"	"	"	"	
U-2 (W009709-03) Water Sampled: 27-Sep-00 11:30 Received: 27-Sep-00 16:00 P-01									
Purgeable Hydrocarbons	2900	1000	ug/l	20	0J06001	06-Oct-00	06-Oct-00	EPA 8015M/8020	
Benzene	43	10	"	"	"	"	"	"	
Toluene	ND	10	"	"	"	"	"	"	
Ethylbenzene	ND	10	"	"	"	"	"	"	
Xylenes (total)	39	10	"	"	"	"	"	"	
Surrogate: a,a,a-Trifluorotoluene		95.3 %	70-130		"	"	"	"	





Gettler Ryan, Inc. - Dublin
6747 Sierra Court Suite J
Dublin CA, 94568

Project: Unocal
Project Number: Unocal # 5325
Project Manager: Deanna L. Harding

Reported:
09-Nov-00 10:29

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

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
U-2 (W009709-03RE1) Water Sampled: 27-Sep-00 11:30 Received: 27-Sep-00 16:00									P-01
Methyl tert-butyl ether	20000	500	ug/l	200	0J06001	06-Oct-00	06-Oct-00	EPA 8015M/8020	CC-3
Surrogate: a,a,a-Trifluorotoluene		99.7 %		70-130	"	"	"	"	
U-3 (W009709-04) Water Sampled: 27-Sep-00 09:15 Received: 27-Sep-00 16:00									
Purgeable Hydrocarbons	ND	50	ug/l	1	0J06001	06-Oct-00	06-Oct-00	EPA 8015M/8020	
Benzene	ND	0.50	"	"	"	"	"	"	
Toluene	ND	0.50	"	"	"	"	"	"	
Ethylbenzene	ND	0.50	"	"	"	"	"	"	
Xylenes (total)	ND	0.50	"	"	"	"	"	"	
Methyl tert-butyl ether	ND	2.5	"	"	"	"	"	"	
Surrogate: a,a,a-Trifluorotoluene		101 %		70-130	"	"	"	"	
U-4 (W009709-05) Water Sampled: 27-Sep-00 08:35 Received: 27-Sep-00 16:00									
Purgeable Hydrocarbons	ND	50	ug/l	1	0J06001	06-Oct-00	06-Oct-00	EPA 8015M/8020	
Benzene	ND	0.50	"	"	"	"	"	"	
Toluene	ND	0.50	"	"	"	"	"	"	
Ethylbenzene	ND	0.50	"	"	"	"	"	"	
Xylenes (total)	ND	0.50	"	"	"	"	"	"	
Methyl tert-butyl ether	ND	2.5	"	"	"	"	"	"	
Surrogate: a,a,a-Trifluorotoluene		91.0 %		70-130	"	"	"	"	
U-5 (W009709-06) Water Sampled: 27-Sep-00 10:45 Received: 27-Sep-00 16:00									P-01
Purgeable Hydrocarbons	400	50	ug/l	1	0J09024	07-Oct-00	07-Oct-00	EPA 8015M/8020	
Benzene	1.9	0.50	"	"	"	"	"	"	
Toluene	ND	0.50	"	"	"	"	"	"	
Ethylbenzene	ND	0.50	"	"	"	"	"	"	
Xylenes (total)	1.5	0.50	"	"	"	"	"	"	
Methyl tert-butyl ether	160	2.5	"	"	"	"	"	"	CC-3
Surrogate: a,a,a-Trifluorotoluene		92.3 %		70-130	"	"	"	"	





Gettler Ryan, Inc. - Dublin
6747 Sierra Court Suite J
Dublin CA, 94568

Project: Unocal
Project Number: Unocal # 5325
Project Manager: Deanna L. Harding

Reported:
09-Nov-00 10:29

**Total Purgeable Hydrocarbons (C6-C12), BTEX and MTBE by DHS LUFT
Sequoia Analytical - Walnut Creek**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
U-6 (W009709-07) Water Sampled: 27-Sep-00 10:02 Received: 27-Sep-00 16:00									
Purgeable Hydrocarbons	ND	50	ug/l	1	0J06001	06-Oct-00	06-Oct-00	EPA 8015M/8020	
Benzene	ND	0.50	"	"	"	"	"	"	
Toluene	ND	0.50	"	"	"	"	"	"	
Ethylbenzene	ND	0.50	"	"	"	"	"	"	
Xylenes (total)	ND	0.50	"	"	"	"	"	"	
<i>Surrogate: a,a,a-Trifluorotoluene</i>		97.3 %	70-130		"	"	"	"	
U-6 (W009709-07RE1) Water Sampled: 27-Sep-00 10:02 Received: 27-Sep-00 16:00									
Methyl tert-butyl ether	2500	25	ug/l	10	0J06001	06-Oct-00	07-Oct-00	EPA 8015M/8020	CC-3
<i>Surrogate: a,a,a-Trifluorotoluene</i>		94.3 %	70-130		"	"	"	"	





Gettler Ryan, Inc. - Dublin
6747 Sierra Court Suite J
Dublin CA, 94568

Project: Unocal
Project Number: Unocal # 5325
Project Manager: Deanna L. Harding

Reported:
09-Nov-00 10:29

**MTBE Confirmation by EPA Method 8260A
Sequoia Analytical - Walnut Creek**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
U-1 (W009709-02) Water Sampled: 27-Sep-00 12:20 Received: 27-Sep-00 16:00									A-03
1,2-Dibromoethane	ND	2000	ug/l	1000	0J17023	15-Oct-00	15-Oct-00	EPA 8260B	
1,2-Dichloroethane	ND	2000	"	"	"	"	"	"	
Di-isopropyl ether	ND	2000	"	"	"	"	"	"	
Ethyl tert-butyl ether	ND	2000	"	"	"	"	"	"	
tert-Amyl methyl ether	ND	2000	"	"	"	"	"	"	
tert-Butyl alcohol	ND	50000	"	"	"	"	"	"	
Methyl tert-butyl ether	83000	2000	"	"	"	"	"	"	
<i>Surrogate: Dibromofluoromethane</i>		106 %	50-150		"	"	"	"	
U-2 (W009709-03) Water Sampled: 27-Sep-00 11:30 Received: 27-Sep-00 16:00									A-03
Methyl tert-butyl ether	26000	400	ug/l	200	0J17023	15-Oct-00	15-Oct-00	EPA 8260B	
<i>Surrogate: Dibromofluoromethane</i>		98.0 %	50-150		"	"	"	"	
U-5 (W009709-06) Water Sampled: 27-Sep-00 10:45 Received: 27-Sep-00 16:00									A-03
Methyl tert-butyl ether	250	10	ug/l	5	0J17023	15-Oct-00	15-Oct-00	EPA 8260B	
<i>Surrogate: Dibromofluoromethane</i>		112 %	50-150		"	"	"	"	
U-6 (W009709-07) Water Sampled: 27-Sep-00 10:02 Received: 27-Sep-00 16:00									A-03
Methyl tert-butyl ether	2800	100	ug/l	50	0J17023	15-Oct-00	15-Oct-00	EPA 8260B	
<i>Surrogate: Dibromofluoromethane</i>		104 %	50-150		"	"	"	"	





Gettler Ryan, Inc. - Dublin
6747 Sierra Court Suite J
Dublin CA, 94568

Project: Unocal
Project Number: Unocal # 5325
Project Manager: Deanna L. Harding

Reported:
09-Nov-00 10:29

**Total Metals by EPA 6000/7000 Series Methods
Sequoia Analytical - Walnut Creek**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
U-1 (W009709-02) Water	Sampled: 27-Sep-00 12:20		Received: 27-Sep-00 16:00						
Ferrous Iron	2.8	0.010	mg/l	1	OJ12006	12-Oct-00	20-Oct-00	EPA 6010A	
U-2 (W009709-03) Water	Sampled: 27-Sep-00 11:30		Received: 27-Sep-00 16:00						
Ferrous Iron	0.64	0.010	mg/l	1	OJ12006	12-Oct-00	20-Oct-00	EPA 6010A	
U-3 (W009709-04) Water	Sampled: 27-Sep-00 09:15		Received: 27-Sep-00 16:00						
Ferrous Iron	ND	0.010	mg/l	1	OJ12006	12-Oct-00	20-Oct-00	EPA 6010A	
U-4 (W009709-05) Water	Sampled: 27-Sep-00 08:35		Received: 27-Sep-00 16:00						
Ferrous Iron	ND	0.010	mg/l	1	OJ12006	12-Oct-00	20-Oct-00	EPA 6010A	
U-5 (W009709-06) Water	Sampled: 27-Sep-00 10:45		Received: 27-Sep-00 16:00						
Ferrous Iron	0.33	0.010	mg/l	1	OJ12006	12-Oct-00	20-Oct-00	EPA 6010A	
U-6 (W009709-07) Water	Sampled: 27-Sep-00 10:02		Received: 27-Sep-00 16:00						
Ferrous Iron	2.6	0.010	mg/l	1	OJ12006	12-Oct-00	20-Oct-00	EPA 6010A	





Gettler Ryan, Inc. - Dublin
6747 Sierra Court Suite J
Dublin CA, 94568

Project: Unocal
Project Number: Unocal # 5325
Project Manager: Deanna L. Harding

Reported:
09-Nov-00 10:29

Anions by EPA Method 300.0

Sequoia Analytical - Walnut Creek

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
U-1 (W009709-02) Water Sampled: 27-Sep-00 12:20 Received: 27-Sep-00 16:00									
Nitrate as NO3	ND	1.0	mg/l	10	0J03004	29-Sep-00	29-Sep-00	EPA 300.0	
Phosphate	18.4	5.00	"	"	"	"	"	"	
U-2 (W009709-03) Water Sampled: 27-Sep-00 11:30 Received: 27-Sep-00 16:00									
Nitrate as NO3	ND	1.0	mg/l	10	0J03004	29-Sep-00	29-Sep-00	EPA 300.0	
Phosphate	10.5	5.00	"	"	"	"	"	"	
U-3 (W009709-04) Water Sampled: 27-Sep-00 09:15 Received: 27-Sep-00 16:00									
Nitrate as NO3	34	1.0	mg/l	10	0J03004	29-Sep-00	29-Sep-00	EPA 300.0	
Phosphate	15.7	5.00	"	"	"	"	"	"	
U-4 (W009709-05) Water Sampled: 27-Sep-00 08:35 Received: 27-Sep-00 16:00									
Nitrate as NO3	28	1.0	mg/l	10	0J03004	29-Sep-00	29-Sep-00	EPA 300.0	
Phosphate	ND	5.00	"	"	"	"	"	"	
U-5 (W009709-06) Water Sampled: 27-Sep-00 10:45 Received: 27-Sep-00 16:00									
Nitrate as NO3	ND	1.0	mg/l	10	0J03004	29-Sep-00	29-Sep-00	EPA 300.0	
Phosphate	ND	5.00	"	"	"	"	"	"	
U-6 (W009709-07) Water Sampled: 27-Sep-00 10:02 Received: 27-Sep-00 16:00									
Nitrate as NO3	ND	1.0	mg/l	10	0J03004	29-Sep-00	29-Sep-00	EPA 300.0	
Phosphate	ND	5.00	"	"	"	"	"	"	





Gettler Ryan, Inc. - Dublin
6747 Sierra Court Suite J
Dublin CA, 94568

Project: Unocal
Project Number: Unocal # 5325
Project Manager: Deanna L. Harding

Reported:
09-Nov-00 10:29

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

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
---------	--------	-----------------	-------	-------------	---------------	------	-------------	-----	-----------	-------

Batch 0J06001 - EPA 5030B [P/T]

Blank (0J06001-BLK1)

Prepared & Analyzed: 06-Oct-00

Purgeable Hydrocarbons	ND	50	ug/l							
Benzene	ND	0.50	"							
Toluene	ND	0.50	"							
Ethylbenzene	ND	0.50	"							
Xylenes (total)	ND	0.50	"							
Methyl tert-butyl ether	ND	2.5	"							
<i>Surrogate: a,a,a-Trifluorotoluene</i>	31.6		"	30.0		105	70-130			

LCS (0J06001-BS1)

Prepared & Analyzed: 06-Oct-00

Benzene	20.0	0.50	ug/l	20.0		100	70-130			
Toluene	21.8	0.50	"	20.0		109	70-130			
Ethylbenzene	22.0	0.50	"	20.0		110	70-130			
Xylenes (total)	64.1	0.50	"	60.0		107	70-130			
<i>Surrogate: a,a,a-Trifluorotoluene</i>	28.5		"	30.0		95.0	70-130			

Matrix Spike (0J06001-MS1)

Source: W009709-04

Prepared & Analyzed: 06-Oct-00

Benzene	18.2	0.50	ug/l	20.0	ND	91.0	70-130			
Toluene	19.4	0.50	"	20.0	ND	97.0	70-130			
Ethylbenzene	19.5	0.50	"	20.0	ND	97.5	70-130			
Xylenes (total)	56.7	0.50	"	60.0	ND	94.5	70-130			
<i>Surrogate: a,a,a-Trifluorotoluene</i>	28.1		"	30.0		93.7	70-130			

Matrix Spike Dup (0J06001-MSD1)

Source: W009709-04

Prepared & Analyzed: 06-Oct-00

Benzene	16.7	0.50	ug/l	20.0	ND	83.5	70-130	8.60	20	
Toluene	17.8	0.50	"	20.0	ND	89.0	70-130	8.60	20	
Ethylbenzene	17.9	0.50	"	20.0	ND	89.5	70-130	8.56	20	
Xylenes (total)	51.8	0.50	"	60.0	ND	86.3	70-130	9.07	20	
<i>Surrogate: a,a,a-Trifluorotoluene</i>	25.3		"	30.0		84.3	70-130			





Gettler Ryan, Inc. - Dublin
6747 Sierra Court Suite J
Dublin CA, 94568

Project: Unocal
Project Number: Unocal # 5325
Project Manager: Deanna L. Harding

Reported:
09-Nov-00 10:29

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

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 0J09024 - EPA 5030B [P/T]

Blank (0J09024-BLK1)

Prepared: 07-Oct-00 Analyzed: 08-Oct-00

Purgeable Hydrocarbons	ND	50	ug/l							
Benzene	ND	0.50	"							
Toluene	ND	0.50	"							
Ethylbenzene	ND	0.50	"							
Xylenes (total)	ND	0.50	"							
Methyl tert-butyl ether	ND	2.5	"							
<i>Surrogate: a, a, a-Trifluorotoluene</i>	27.1		"	30.0		90.3	70-130			

Blank (0J09024-BLK2)

Prepared & Analyzed: 08-Oct-00

Purgeable Hydrocarbons	ND	50	ug/l							
Benzene	ND	0.50	"							
Toluene	ND	0.50	"							
Ethylbenzene	ND	0.50	"							
Xylenes (total)	ND	0.50	"							
Methyl tert-butyl ether	ND	2.5	"							
<i>Surrogate: a, a, a-Trifluorotoluene</i>	27.3		"	30.0		91.0	70-130			

LCS (0J09024-BS1)

Prepared: 07-Oct-00 Analyzed: 08-Oct-00

Benzene	20.8	0.50	ug/l	20.0		104	70-130			
Toluene	21.2	0.50	"	20.0		106	70-130			
Ethylbenzene	21.4	0.50	"	20.0		107	70-130			
Xylenes (total)	61.1	0.50	"	60.0		102	70-130			
<i>Surrogate: a, a, a-Trifluorotoluene</i>	28.9		"	30.0		96.3	70-130			

LCS (0J09024-BS2)

Prepared & Analyzed: 08-Oct-00

Benzene	18.7	0.50	ug/l	20.0		93.5	70-130			
Toluene	19.1	0.50	"	20.0		95.5	70-130			
Ethylbenzene	19.4	0.50	"	20.0		97.0	70-130			
Xylenes (total)	56.0	0.50	"	60.0		93.3	70-130			
<i>Surrogate: a, a, a-Trifluorotoluene</i>	27.2		"	30.0		90.7	70-130			





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Project: Unocal
Project Number: Unocal # 5325
Project Manager: Deanna L. Harding

Reported:
09-Nov-00 10:29

**Total Purgeable Hydrocarbons (C6-C12), BTEX and MTBE by DHS LUFT - Quality Control
Sequoia Analytical - Walnut Creek**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC %REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 0J09024 - EPA 5030B [P/T]

Matrix Spike (0J09024-MS1)		Source: W009735-02			Prepared & Analyzed: 08-Oct-00					
Benzene	19.5	0.50	ug/l	20.0	ND	97.5	70-130			
Toluene	19.7	0.50	"	20.0	ND	98.5	70-130			
Ethylbenzene	20.1	0.50	"	20.0	ND	101	70-130			
Xylenes (total)	57.0	0.50	"	60.0	ND	95.0	70-130			
<i>Surrogate: a, a, a-Trifluorotoluene</i>	28.7		"	30.0		95.7	70-130			
Matrix Spike Dup (0J09024-MSD1)		Source: W009735-02			Prepared & Analyzed: 08-Oct-00					
Benzene	19.6	0.50	ug/l	20.0	ND	98.0	70-130	0.512	20	
Toluene	20.0	0.50	"	20.0	ND	100	70-130	1.51	20	
Ethylbenzene	20.2	0.50	"	20.0	ND	101	70-130	0	20	
Xylenes (total)	57.6	0.50	"	60.0	ND	96.0	70-130	1.05	20	
<i>Surrogate: a, a, a-Trifluorotoluene</i>	28.4		"	30.0		94.7	70-130			





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Reported:
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**MTBE Confirmation by EPA Method 8260A - Quality Control
Sequoia Analytical - Walnut Creek**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 0J17023 - EPA 5030B [P/T]

Blank (0J17023-BLK1)

Prepared & Analyzed: 14-Oct-00

Methyl tert-butyl ether	ND	2.0	ug/l							
Surrogate: Dibromofluoromethane	50.0		"	50.0		100	50-150			

Blank (0J17023-BLK2)

Prepared & Analyzed: 15-Oct-00

1,2-Dibromoethane	ND	2.0	ug/l							
1,2-Dichloroethane	ND	2.0	"							
Di-isopropyl ether	ND	2.0	"							
Ethyl tert-butyl ether	ND	2.0	"							
tert-Amyl methyl ether	ND	2.0	"							
tert-Butyl alcohol	ND	50	"							
Methyl tert-butyl ether	ND	2.0	"							
Surrogate: Dibromofluoromethane	51.0		"	50.0		102	50-150			

LCS (0J17023-BS1)

Prepared & Analyzed: 14-Oct-00

Methyl tert-butyl ether	60.6	2.0	ug/l	50.0		121	70-130			
Surrogate: Dibromofluoromethane	45.0		"	50.0		90.0	50-150			

LCS (0J17023-BS2)

Prepared & Analyzed: 15-Oct-00

Methyl tert-butyl ether	60.4	2.0	ug/l	50.0		121	70-130			
Surrogate: Dibromofluoromethane	45.0		"	50.0		90.0	50-150			

LCS Dup (0J17023-BSD1)

Prepared & Analyzed: 15-Oct-00

Methyl tert-butyl ether	49.8	2.0	ug/l	50.0		99.6	70-130	19.6	25	
Surrogate: Dibromofluoromethane	44.0		"	50.0		88.0	50-150			





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Project: Unocal
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Reported:
09-Nov-00 10:29

**Total Metals by EPA 6000/7000 Series Methods - Quality Control
Sequoia Analytical - Walnut Creek**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 0J12006 - 200.7										
Blank (0J12006-BLK1)										
				Prepared: 12-Oct-00 Analyzed: 20-Oct-00						
Ferrous Iron	ND	0.010	mg/l							
LCS (0J12006-BS1)										
				Prepared: 12-Oct-00 Analyzed: 20-Oct-00						
Ferrous Iron	0.880	0.010	mg/l	1.00		88.0	80-120			
LCS Dup (0J12006-BSD1)										
				Prepared: 12-Oct-00 Analyzed: 20-Oct-00						
Ferrous Iron	0.910	0.010	mg/l	1.00		91.0	80-120	3.35	20	
Matrix Spike (0J12006-MS1)										
				Source: W009656-01		Prepared: 12-Oct-00 Analyzed: 20-Oct-00				
Ferrous Iron	1.00	0.010	mg/l	1.00	0.12	88.0	80-120			
Matrix Spike Dup (0J12006-MSD1)										
				Source: W009656-01		Prepared: 12-Oct-00 Analyzed: 20-Oct-00				
Ferrous Iron	0.980	0.010	mg/l	1.00	0.12	86.0	80-120	2.02	20	





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Project Number: Unocal # 5325
Project Manager: Deanna L. Harding

Reported:
09-Nov-00 10:29

Anions by EPA Method 300.0 - Quality Control Sequoia Analytical - Walnut Creek

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 0J03004 - General Preparation										
Blank (0J03004-BLK1)										
Prepared & Analyzed: 29-Sep-00										
Nitrate as NO3	ND	0.10	mg/l							
Phosphate	ND	0.500	"							
LCS (0J03004-BS1)										
Prepared & Analyzed: 29-Sep-00										
Nitrate as NO3	10.4	0.10	mg/l	10.0		104	80-120			
Phosphate	18.1	0.500	"	20.0		90.5	80-120			
Matrix Spike (0J03004-MS1)										
Source: W009709-04										
Prepared & Analyzed: 29-Sep-00										
Nitrate as NO3	131	2.0	mg/l	100	34	97.0	75-125			
Phosphate	167	10.0	"	200	15.7	75.7	75-125			
Matrix Spike Dup (0J03004-MSD1)										
Source: W009709-04										
Prepared & Analyzed: 29-Sep-00										
Nitrate as NO3	131	2.0	mg/l	100	34	97.0	75-125	0	20	
Phosphate	172	10.0	"	200	15.7	78.2	75-125	2.95	20	





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Reported:
09-Nov-00 10:29

Notes and Definitions

- A-03 This sample was originally analyzed within holding time. Re-analysis for confirmation or dilution was performed past the recommended holding time.
- CC-3 Continuing Calibration indicates that the quantitative result for this analyte includes a greater than 15% degree of uncertainty. The value as reported is within method acceptance.
- P-01 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
- RPD Relative Percent Difference

