

June 22, 2000 G-R Job #180065

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

RE:

Second Quarter 2000 Groundwater Monitoring & Sampling Report

Tosco (Unocal) Service Station #5043

449 Hegenberger Road Oakland, California

Dear Mr. De Witt:

This report documents the monthly site visits and the quarterly groundwater monitoring and sampling event performed by Gettler-Ryan Inc. (G-R). On February 26, and March 31, 2000, field personnel monitored one well (MW-6) and on April 13, 2000, field personnel monitored and sampled six wells (MW-3 and MW-6 through 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 not present in the wells. Static water level data and groundwater elevations are summarized in Table 1. Product Thickness/Removal Data is summarized in Table 3. A Potentiometric Map is included as Figure 1.

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

No. 6882

Sincerely,

Deanna L. Harding

Project Coordinator

Douglas J. Lee

Senior Geologist, R.G. No. 6882

Figure 1:

Potentiometric Map

Figure 2:

Concentration Map

Table 1:

Groundwater Monitoring Data and Analytical Results
Groundwater Analytical Results – Oxygenate Compounds

Table 2: Table 3:

Product Thickness/Removal Data

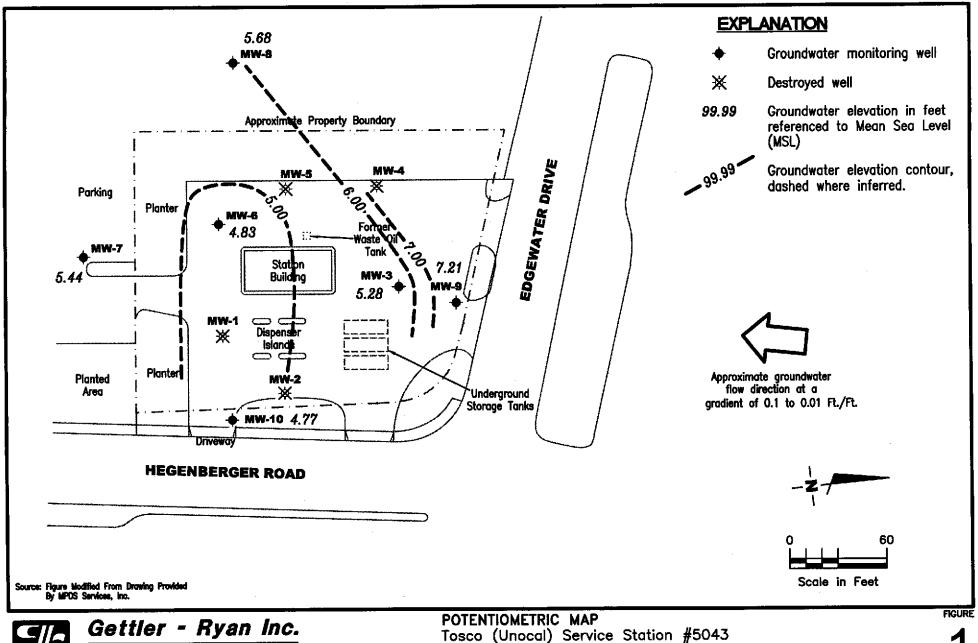
Attachments:

Standard Operating Procedure - Groundwater Sampling

Field Data Sheets

Chain of Custody Document and Laboratory Analytical Reports

5043.qm)





6747 Sierra Ct., Suite J Dublin, CA 94568

(925) 551-7555

449 Hegenberger Road

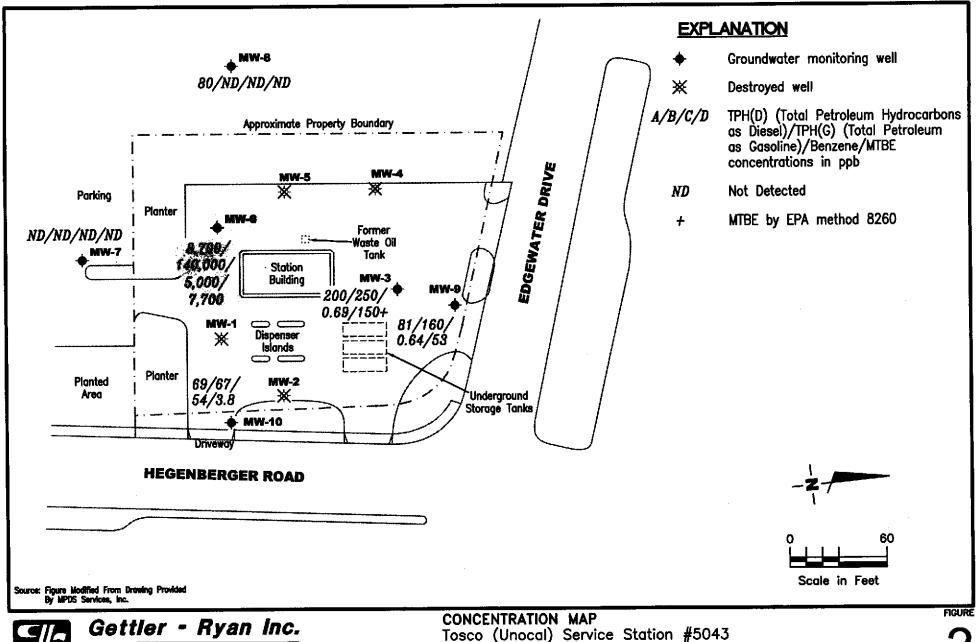
Oakland, California

DATE April 13, 2000

JOB NUMBER 180065

REVIEWED BY

REVISED DATE





6747 Sierro Ct., Suite J Dublin, CA 94568

(925) 551-7555

449 Hegenberger Road Oakland, California

DATE

April 13, 2000

JOB NUMBER 180065

REVIEWED BY

REVISED DATE

Table 1
Groundwater Monitoring Data and Analytical Results

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

WELL ID/	DATE	DTW (ft.)	GWE (msl)	Product Thickness (ft.)	TPH(D) (ppb)	TPH(G) (pph)	B (ppb)	T (ppb)	E (ppb)	X (ppb)	MTBE (ppb)
NATT! 4	001111100	****			13,000	150,000	17,000	26,000	5,200	26,000	
MW-1	02/18/92				13,000		17,000				<b></b>
	05/20/92				8,900 <sup>1</sup>	64,000	13,000	12,000	2,500	22,000	
	08/31/92		`			04,000	13,000	12,000	<b>2,500</b>	22,000	
	11/30/92	<b></b>	••		••	<del></del>					
0.05	02/04/93		 5.73**	0,10	NOT SAMPLE	 D DUE TA TUE	DDESENCE (	JE EDEE DDUI			
8.96w	05/04/93	2.13	3.73** 4.88**	0.10	NOT SAMPLE						
E 60	08/04/93	2.92	4.74	<0.03	NOT SAMPLE						
7.38	11/03/93	3.04	4.74 4.85**	0.03	NOT SAMPLE						
	02/07/94	2.55	4.85** 5.16**	0.03	NOT SAMPLE						
	05/19/94	2.23	5.10** 4.90**	0.01	NOT SAMPLE						
	06/25/94	2.49	4.90**	0.00	NOI SAMPLE	D DOE TO THE	FRESENCE	JY PREET RO			
	07/27/94	3.10	4.28 4.61**	0.00	NOT SAMPLE	 D DITE TO THE	 C DDECENICE (	 NE EDEE DO∕N	DIICT	••	
	08/15/94	2.85	4.50**	0.11	NOT SAMPLE						
	11/14/94	2.97									
	02/21/95	1.53	5.87**	0.02	NOT SAMPLE	D DOE TO THE	E PRESENCE (	JF FREE PRO	DUCI	-	
	05/18/95	DESTROYED (3/95)	**					<del></del>			
MW-2	02/18/92				4,300	29,000	1,000	5,300	260	7,900	
	05/20/92				4,300 <sup>1</sup>	24,000	2,200	7,600	630	11,000	
	08/31/92				1,600 <sup>1</sup>	9,000	1,800	640	140	2,000	
	11/30/92		**		5,700 <sup>1</sup>	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	
8.96w	05/04/93	2.48	6.48	0.00	7,100 <sup>1</sup>	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 SAMPLE	D DUE TO THE	E PRESENCE	OF FREE PRO	DUCT		
	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							

Table 1
Groundwater Monitoring Data and Analytical Results
Tosco (Unocal) Service Station #5043

sco (Unocal) Service Station #5 449 Hegenberger Road Oakland, California

WELL ID/	ÐATE	DTW (ft.)	GWE (msl)	Product Thickness (ft.)	TPH(D)	TPH(G) (ppb)	B (ppb)	T (ppb)	E (ppb)	X (ppb)	MTBE (ppb)
MW-2	08/15/94	3.25	5.33	0.00	$2,800^{2}$	35,000	2,400	850	1,700	15,000	
(cont)	11/14/94	2.13	6.45	0.00	10,000 <sup>1</sup>	43,000	2,200	6,500	1,800	14,000	
(cont)	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)									
MW-3	02/18/92		<del></del> .		ND	230	4.8	22	1.8	33	
	05/20/92	INACCESSIBLE			 92 <sup>2</sup>	210 <sup>4</sup>		 ND	 ND	 ND	
	08/31/92					790 <sup>4</sup>	1 ND	ND ND	ND ND	ND ND	
	11/30/92				94 550 <sup>2</sup>	3,300	320	ND ND	96	6.1	
g.04	02/04/93		 2.52	0.00	250 <sup>2</sup>	3,300 1,800 <sup>3</sup>	95	ND ND	96 ND	ND	
7.84w	05/04/93	4.32	3.52		100	210 <sup>4</sup>	93 ND	ND	ND	ND	
5.40	08/04/93	4.94	2.90 2.89	0.00 0.00	160	640 <sup>4</sup>	ND ND	ND ND	ND ND	ND ND	
7.42	11/03/93	4.53		0.00	620 <sup>2</sup>	2,700	110	ND ND	ND 17	ND ND	
	02/07/94	2.40	5.02	0.00	480 <sup>2</sup>	1,800	83	ND ND	6.2	9.1	
	05/19/94	3.60	3.82						0.2		
	06/25/94	4.58	2.84	0.00							
	07/27/94	4.58	2.84	0.00	110 <sup>2</sup>			0.54	 ND	 0.97	<del>-</del> -
	08/15/94	4.65 3.18	2.77 4.24	0.00 0.00	$150^{2}$	130 1,600 <sup>4</sup>	1.1 <b>ND</b>	ND	ND	ND	
	11/14/94 02/21/95	1.81	5.61	0.00	850 <sup>2</sup>	3,800	350	ND ND	130	22	
•	02/21/95	4.56	2.86	0.00	150 <sup>L</sup>	3,800 1,300 <sup>3</sup>	330 42	ND ND	ND	ND	
	03/18/93	1NACCESSIBLE	•								
	08/1//93	INACCESSIBLE	 		<b>-</b>	<b></b>				<b></b>	
	10/28/96	INACCESSIBLE									
	01/29/97	INACCESSIBLE									
	04/15/97	INACCESSIBLE		<del></del>							
	04/13/97	3.45	4.50	0.00		 670	 6.5	nd	ND	 ND	250
		3.45	4.59 4.54	0.00	610 <sup>2</sup>		6.5		-		
0.04	06/01/97				$240^{2}$	240	NID	NID		NID.	 490
8.04	07/15/97	3.71	4.33	0.00	500 <sup>2</sup>	240	ND	ND	ND	ND	
	10/09/97 01/14/98	3.70 2.16	4.34 5.88	0.00 0.00	340 <sup>7</sup>	270 310	1.1 ND	ND ND	2.4 0.62	1.4 0.65	910 140

Table 1
Groundwater Monitoring Data and Analytical Results

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

				Product							
WELL ID/	DATE	DTW	GWE	Thickness	TPH(D)	TPH(G)	В	T	E	X	MTBE
TOC*		(ft.)	(msl)	(fl.)	(ppb)	(ppb)	(ppb)	(ppb)	(ppb)	(ppb)	(ppb)
V 4332 A	0.4401.400	2.00	E 0.4	0.00	320 <sup>7</sup>	370	5.7	ND <sup>9</sup>	ND <sup>9</sup>	ND <sup>9</sup>	93
MW-3	04/01/98	2.20	5.84 4.66	0.00	510 <sup>10</sup>	460 <sup>11</sup>	ND <sup>9</sup>	ND <sup>9</sup>	ND <sup>9</sup>	ND <sup>9</sup>	230
(cont)	07/15/98	3.38		0.00	67 <sup>13</sup>	330 <sup>14</sup>	4.7	ND <sup>9</sup>	ND <sup>9</sup>	ND <sup>9</sup>	60
	10/16/98	2.30	5.74		120 <sup>7</sup>	420 <sup>14</sup>	1.5	ND <sup>9</sup>	ND <sup>9</sup>	ND <sup>9</sup>	180
	01/25/99	2.42	5.62	0.00	170 <sup>17</sup>	290	0.54	ND	ND	ND	160
	04/15/99	2.16	5.88	0.00	420 <sup>19</sup>	290 290	3.2	ND	ND	ND ND	160
	07/14/99	2.35	5.69	0.00	350 <sup>7</sup>	360 <sup>23</sup>	3.2 0.77	ND	ND ND	ND ND	82
	10/21/99	2.49	5.55	0.00	2,060 <sup>1</sup>	ND	0.77	ND ND	ND ND	ND ND	54
	01/20/00	2.38	5.66	0.00	2,000 <b>200</b> <sup>21</sup>	250 <sup>23</sup>		ND ND	ND ND	ND ND	91/150 <sup>26</sup>
	04/13/00	2.76	5.28	0.00	200	250	0.69	ND	ND	ND	91/130
MW-4	08/31/92				90 <sup>2</sup>	240 <sup>4</sup>	ND	ND	ND	0.54	we.
	11/30/92				61	420 <sup>4</sup>	ND	ND	ND	ND	
	02/04/93				ND	ND	ND	ND	ND	ND	
9.00w	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 <sup>4</sup>	ND	3.5	ND	4.1	
8.41	11/03/93	4.23	4.18	0.00	68	130 <sup>4</sup>	ND	ND	ND	ND	
	02/07/94	3.35	5.06	0.00	ND	56 <sup>4</sup>	ND	ND	ND	ND	
	05/19/94	3.92	4.49	0.00	90²	140 <sup>4</sup>	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 <sup>2</sup>	59⁴	ND	0.6	ND	ND	
	11/14/94	4.05	4.36	0.00	· ND	130 <sup>4</sup>	ND	ND	ND	ND	
	02/21/95	DESTROYED (1/95)									
NATT/ #	00/21/02				690 <sup>t</sup>	78	0.89	ND	ND	13	
MW-5	08/31/92 11/30/92 <sup>5</sup>		•-		470 <sup>2</sup>	930	70	290	0.79	14	
		<del></del>			5,500 <sup>2</sup>			ND	620	170	
	02/04/93 <sup>5</sup>		4.00		4,600 <sup>1</sup>	5,700	38			35	
	05/04/935	4.37	4.90	0.00	4,600 970 <sup>2</sup>	7,400	41	ND	1,000		
	08/04/935	5.81	3.46	0.00		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	

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				Product							
WELL ID/	DATE	DTW	GWE	Thickness	TPH(D)	TPH(G)	В	T	E	X	MTBE
TOC*		(ft.)	(msl)	(ft.)	(ppb)	(ppb)	(ppb)	(ppb)	(ppb)	(ppb)	(ppb)
					2202		0.5	L I'D	270	110	
MW-5	02/07/94	5.11	3.84	0.00	830 <sup>2</sup>	2,000	87	ND	370	110	
(cont)	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 <sup>2</sup>	1,600	110	ND	340	72	
	11/1 <b>4/94</b>	5.63	3.32	0.00	290 <sup>1</sup>	250	40	ND	ND	5	
	02/21/95	DESTROYED (1/95)				<del></del>		**			
MW-6	08/31/92				750 <sup>2</sup>	ND	ND	ND	ND	ND	
IVI VV - 0					1,400 <sup>1</sup>	9,200	550	ND	740	1,600	
	11/30/92 02/04/93	<del></del>			890 <sup>2</sup>	3,600	340	ND	290	550	
0.12	02/04/93	 3.72	 5.40	0.00	1,800 <sup>1</sup>	4,900	360	18	450	430	
9.12w	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 <sup>2</sup>	1,400	320	ND	200	7.7	
0.07	02/07/94	3.23 4.55	4.32	0.00	970 <sup>2</sup>	4,900	650	ND ND	250	35	
	05/19/94	4.62	4.32	0.00	1,400 <sup>2</sup>	3,600	300	1.7	210	41	
	03/19/94	5.08	3.79	0.00	790 <sup>2</sup>	1,300	130	6.7	54	57	
	11/14/94	5.30	3.57	0.00	800 <sup>2</sup>	730	50	ND	ND	39	
	02/21/95	5.37	3.57	0.00	730 <sup>2</sup>	2,000	250	4.6	25	30	
	05/18/95	INACCESSIBLE	3.30	<b>0.00</b>							
	03/18/93	INACCESSIBLE						- <del>-</del> -			
	07/26/96	6.40	5.03**	3.33	NOT SAMPLEI	``` ``````````````````````````````````		 	DUCT		
	10/28/96	4.10	4.93**	0.21	NOT SAMPLE						
	11/13/96	4.10	4.93*** 5.04**	0.21	MOI SAMIFLE		. REDERVE (	J. PRESTAC			
				0.25							
	11/25/96	4.01	5.44** 5.41**								
	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	<b></b>						
	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 SAMPLE	DOE TO THE	PRESENCE (	JF FREE PRO	DUCT		

# Table 1 Groundwater Monitoring Data and Analytical Results Tosco (Unocal) Service Station #5043

osco (Unocal) Service Station 449 Hegenberger Road Oakland, California

				Product						<u></u>	
WELL ID/	DATE	DTW	GWE	Thickness	TPH(D)	TPH(G)	В	T	E	X	MTBE
TOC*		(ft.)	(msl)	(ft.)	(ppb)	(ppb)	(ppb)	(ppb)	(ppb)	(ppb)	(ppb)
N 4337 C	0041407	4.75	E 1 Adub	1.00							
MW-6	02/11/97	4.65	5.14**	1.20		<del></del>					
(cont)	02/24/97	4.81	4.91**	1.10							
•	03/10/97	4.60	5.00**	0.95		<del></del>					
	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 SAMPLE	D DUE TO THE	PRESENCE C	OF FREE PROI	DUCT		
	04/28/97	4.78	4.11**	0.03							<b>~-</b>
	05/15/97	4.60	4.46**	0.25							
•	05/27/97	4.50	4.56**	0.25		<u></u>			••		
	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 SAMPLE	D DUE TO THE	PRESENCE C	OF FREE PROI	DUCT		
	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 SAMPLE	D DUE TO THE	PRESENCE (	OF FREE PRO	DUCT		
	01/14/98	3.90	5.69**	0.94	NOT SAMPLE	D DUE TO THE	PRESENCE O	OF FREE PROI	DUCT		
	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 SAMPLE	D DUE TO THE	PRESENCE O	OF FREE PRO	DUCT		
	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 SAMPLE	D DUE TO THE	PRESENCE (	OF FREE PRO	DUCT		
	08/21/98	4.77	4.12**	0.02							
	09/30/98	5.08	3.81**	0.03							
	10/16/98	4.31	6.41**	2.40	NOT SAMPLE	D DUE TO THE	PRESENCE (	OF FREE PRO	DUCT		
	11/06/98	3.98	5.02**	0.17							
	11/25/98	3.92	5.03**	0.10							
	12/28/98	3.90	5.12**	0.20							
	01/25/99	4.18	5.15**	0.60	NOT SAMPLE	D DUE TO THE	PRESENCE C	E FREE PRO	DUCT		

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Groundwater Monitoring Data and Analytical Results

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

WELL ID/ FOC*	DATE	DTW (ft.)	GWE (mst)	Product Thickness (ft.)	TPH(D) (ppb)	TPH(G)	B (ppb)	T (ppb)	E (ppb)	X (ppb)	MTBE (ppb)
MW-6	02/22/99	4.07	4.97**	0.22							
cont)	03/22/99	4.32	4.67**	0.15							<b></b>
,	04/15/99	4.23	5.37**	0.95	NOT SAMPLE	D DUE TO THE	PRESENCE C	F FREE PROI	DUCT		
	05/28/99	4.38	4.79**	0.39	<del></del>						
**	06/29/99	4.12	4.77**	0.02							
	07/14/99	4.20	4.69**	0.03	NOT SAMPLE	D DUE TO THE	PRESENCE O	F FREE PROI	DUCT		
	08/23/99	4.51	4.54**	0.24							
	09/30/99	4.17	4.83**	0.17						-	
	10/21/99	4.27	4.69**	0.12	NOT SAMPLE	D DUE TO THE	PRESENCE O	F FREE PROI	DUCT		
	11/29/99	4.18	4.69	< 0.01		••					
	12/20/99	4.26	4.62**	0.01			**				(ND <sup>9</sup> )
	01/20/00	4.31	4.56	< 0.01	67,600 <sup>1</sup>	$130,000^{23}$	2,900	8,600	2,000	16,000	(ND <sup>9</sup> )
	02/26/00	3.98	4.89	0.00		**					
	03/31/00	4.14	4.73	0.00							
	04/13/00	4.04	4.83	0.00	8,700 <sup>7</sup>	140,000 <sup>23</sup>	5,000	14,000	3,600	27,000	7,700
∕IW-7	05/27/97	4.50	4.33	0.00		68	ND	ND	ND	ND	ND
3.83	06/01/97	4.54	4.29	0.00	$69^{2}$				w.		
.03	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	190¹	ND	ND	ND	ND	ND	ND
	01/14/98	2.88	5.95	0.00	65 <sup>7</sup>	ND	ND	ND	ND	ND	36
	04/01/98	3.13	5.70	0.00	ND	ND	ND	ND	ND	ND	ND
	04/01/98	4.45	4.38	0.00	74 <sup>12</sup>	ND	ND	ND	ND	ND	ND
	10/16/98	3.45	5.38	0.00	ND	ND	ND	ND	ND	ND	ND
	01/25/99	3.43 3.22	5.61	0.00	ND	ND	ND	ND	ND	ND	ND
	04/15/99	3.22	5.72	0.00	ND ND	ND	ND	ND	ND	ND	ND
	04/15/99	3.11	5.72 5.49	0.00	69 <sup>20</sup>	ND	ND	ND	ND	ND	ND

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Groundwater Monitoring Data and Analytical Results

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

				Product						<u></u>	
WELL ID/	DATE	DTW	GWE	Thickness	TPH(D)	TPH(G)	В	T	E	X	MTBE
TOC*		(ft.)	(msl)	(ft.)	(ppb)	(ррь)	(ppb)	(ppb)	(ppb)	(ppb)	(ppb)
MW-7	10/21/99	3.43	5.40	0.00	ND	ND	ND	ND	ND	ND	ND
(cont)	01/20/00	3.29	5.54	0.00	ND	ND	ND	ND	ND	ND	4.2
(com)	04/13/00	3.39	5.44	0.00	ND <sup>9</sup>	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	$320^{2}$			<del></del>	<b>u=</b>		
0.32	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 <sup>1</sup>	590	1.4	ND	32	4.1	ND
	01/14/98	1.92	6.60	0.00	230 <sup>7</sup>	ND	ND	ND	ND	ND	ND
	04/01/98	2.38	6.14	0.00	510 <sup>7</sup>	ND	ND	ND	ND	ND	4.7
	07/15/98	3.53	4.99	0.00	140 <sup>12</sup>	ND	ND	ND	0.56	1.1	ND
	10/16/98	3.04	5.48	0.00	170 <sup>15</sup>	ND	ND	ND	ND	ND	ND
	01/25/99	2.92	5.60	0.00	$ND^9$	ND	ND	ND	ND	ND	ND
	04/15/99	2.40	6.12	0.00	91 <sup>12</sup>	ND	ND	ND	ND	ND	ND
	07/14/99	3.03	5.49	0.00	120 <sup>21</sup>	ND	ND	ND	ND	ND	ND
	10/21/99	3.11	5.41	0.00	110 <sup>24</sup>	ND	ND	ND	ND	ND	ND
	01/20/00	3.06	5.46	0.00	583 <sup>1</sup>	ND	ND	ND	ND	ND	ND
	04/13/00	2.84	5.68	0.00	80 <sup>24</sup>	ND	ND	ND	ND	ND	ND
MW-9	02/21/95	1.98	6.31	0.00	71 <sup>2</sup>	70 <sup>4</sup>	ND	ND	ND	ND	
8.29	05/18/95	3.47	4.82	0.00	ND	52	ND	1.1	ND	1.9	
0.27	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	99¹	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 <sup>1</sup>	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 <sup>1</sup>	ND	ND	ND	ND	ND	ND
	01/14/98	1.26	7.03	0.00	1107	ND	ND	ND	ND	ND	3.0

5043.xls/#180065

# Table 1 Groundwater Monitoring Data and Analytical Results Tosco (Unocal) Service Station #5043

sco (Unocal) Service Station #5 449 Hegenberger Road Oakland, California

				Product							
WELL ID/	DATE	DTW	GWE	Thickness	TPH(D)	TPH(G)	В	Т	E	X	MTBE
TOC*		(ft.)	(msl)	(fi.)	(ppb)	(ppb)	(ppb)	(ppb)	(ppb)	(ppb)	(ppb)
<b>143</b> 7 0	04/01/98	0.05	7.44	0.00	1107	ND	ND	ND	ND	ND	ND
MW-9		0.85			200 <sup>12</sup>			ND	ND ND	ND ND	ND ND
(cont)	07/15/98	1.52	6.77	0.00		ND	ND				
	10/16/98	0.81	7.48	0.00	ND	ND	ND	ND	ND	ND	ND
	01/25/99	0.92	7.37	0.00	ND	ND	ND	ND	ND	ND	ND
	04/15/99	0.90	7.39	0.00	ND	75 <sup>18</sup>	21	ND	ND	1.1	680
	07/14/99	1.04	7.25	0.00	140 <sup>21</sup>	ND	1.9	ND	ND	ND	260
	10/21/99	1.23	7.06	0.00	210 <sup>24</sup>	ND	ND	ND	ND	ND	170
	01/20/00	1.18	7.11	0.00	519 <sup>1</sup>	ND	1.1	ND	ND	ND	35
	04/13/00	1.08	7.21	0.00	81 <sup>25</sup>	160 <sup>23</sup>	0.64	ND	ND	ND	53
NATE TO	00/01/05	4.60	2.02	0.00	$270^{2}$	1.500	250	26	0.1	160	
MW-10	02/21/95	4.69	3.93	0.00	75 <sup>1</sup>	1,500	250	26	9.1	160	
8.62	05/18/95	4.92	3.70	0.00		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 <sup>7</sup>	230	66	1.7	12	17	6.4
	07/15/98	4.21	4.41	0.00	78 <sup>12</sup>	290	98	45	21	38	21
	10/16/98	4.11	4.51	0.00	ND	1 <b>60</b> 16	44	0.96	2.5	10	17
	01/25/99	3.26	5.36	0.00	ND	140	27	ND	2.8	6.8	23
	04/15/99	3.63	4.99	0.00	ND	120	18	ND	1.8	5.1	14

Table 1
Groundwater Monitoring Data and Analytical Results
Tosco (Unocal) Service Station #5043

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

WELL ID/	DATE	DTW	GWE	Product Thickness	TPH(D)	TPH(G)	В	Т	E	X	MTBE
тос*		( <b>f</b> 1.)	(msl)	(ft.)	(ppb)	(ppb)	(ppb)	(ppb)	(ppb)	(ppb)	(ppb)
MW-10	07/14/99	3.89	4.73	. 0.00	180 <sup>22</sup>	280	55	3.2	11	31	6.1
(cont)	10/21/99	4.09	4.53	0.00	96 <sup>7</sup>	$140^{23}$	22	0.59	1.7	7.7	5.3
(40111)	01/20/00	3.92	4.70	0.00	252 <sup>1</sup>	ND	0.73	0.86	ND	ND	5.2
	04/13/00	3.85	4.77	0.00	69 <sup>24</sup>	67 <sup>23</sup>	54	ND	2.6	ND	3.8
Trip Blank											
TB-LB	01/14/98		••			ND	ND	ND	ND	ND	ND
	04/01/98				<del>-</del> -	ND	ND	ND	ND	ND	ND
	07/15/98				••	ND	ND	ND	ND	ND	ND
	10/16/98					ND	ND	ND	ND	ND	ND
	01/25/99					ND	ND	ND	ND	ND	ND
	04/15/99			••		ND	ND	ND	ND	ND	ND
	07/14/99					ND	ND	ND	ND	ND	ND
	10/21/99				<b></b> .	ND	ND	ND	ND	ND	ND
	01/20/00					ND	ND	ND	ND	ND	ND
	04/13/00	₩.		**		ND	ND	ND	ND	ND	ND

#### **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

B = Benzene

ppb = Parts per billion

DTW = Depth to Water

T = Toluene

ND = Not Detected

(ft.) = Feet

E = Ethylbenzene

-- = Not Measured/Not Analyzed

GWE = Groundwater Elevation

X = Xylenes

TOG = Total Oil and Grease

msl = Relative to mean sea level

MTBE = Methyl Tertiary Butyl Ether

TPH(G) = Total Petroleum Hydrocarbons as Gasoline

- \* 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)].
- w 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).
- Laboratory report indicates the hydrocarbons detected did not appear to be diesel.
- 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.
- Laboratory report indicates the hydrocarbons detected did not appear to be gasoline.
- 5 TOG was ND.
- 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.
- Laboratory report indicates unidentified hydrocarbons C9-C24
- 8 Sample bottle broken at Laboratory.
- Detection limit raised. Refer to analytical reports.
- Laboratory report indicates unidentified hydrocarbons >C14 and <C12.
- Laboratory report indicates gasoline and unidentified hydrocarbons >C8.
- Laboratory report indicates unidentified hydrocarbons >C14.
- Laboratory report indicates non diesel mix >C14.
- Laboratory report indicates gasoline and unidentified hydrocarbons C6-C12.
- Laboratory report indicates non diesel mix C9-C27.
- Laboratory report indicates unidentified hydrocarbons < C7.
- Laboratory report indicates unidentified hydrocarbons >C10.
- Laboratory report indicates unidentified hydrocarbons C6-C12.
- Laboratory report indicates unidentified hydrocarbons >C9.
- Laboratory report indicates discrete peaks and unidentified hydrocarbons >C20.
- <sup>21</sup> Laboratory report indicates discrete peaks and unidentified hydrocarbons >C16.
- Laboratory report indicates unidentified hydrocarbons <C14 and >C16.

#### **Groundwater Monitoring Data and Analytical Results**

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

#### **EXPLANATIONS:**

- <sup>23</sup> Laboratory report indicates gasoline C6-C12.
- <sup>24</sup> Laboratory report indicates unidentified hydrocarbons >C16.
- 25 Laboratory report indicates discrete peaks.
- <sup>26</sup> MTBE by EPA Method 8260.

#### **Groundwater Analytical Results - Oxygenate Compounds**

Tosco (Unocal) Service Station #5043 449 Hegenberger Road

Oakland, California

WELL ID		ETHANOL (ppb)	TBA (ppb)	MTBE (ppb)	DIPE (ppb)	ETBE (ppb)	TAME (ppb)	1,2-DCA (ppb)	EDB (ppb)
MW-3	04/13/00	ND	ND	150	ND	ND	ND	ND	ND

#### **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 = Dichloroethane

EDB = Ethylene dibromide

ppb = Parts per billion

ND = Not Detected

#### ANALYTICAL METHOD:

EPA Method 8260 for Oxygenate Compounds

#### Product Thickness/Removal Data Tosco (Unocal) Service Station #5043

449 Hegenberger Road
Oakland, California

		Oakland, C		
WELL ID	DATE	DTW	Product Thickness	Amount Bailed (Product + Water)
		(ft.)	(ft.)	(gallons)
BASSI &	07/04/04	6.40	3.33	2.10
MW-6	07/26/96		0.21	0.14
	10/28/96	4.10		0.09
	11/13/96	4.02	0.25	0.47
	11/25/96	4.01	0.75 0.50	0.43
	12/04/96	3.65		1.02
	12/19/96	4.80 4.84	2.20	0.59
	01/08/97		1.75 1.15	0.66
	01/14/97	4.51		0.78
	01/27/97	4.00	1.75	0.25
	01/29/97	3.24	0.31	0.62
	02/11/97	4.65	1.20	0.50
	02/24/97	4.81	1.10	0.47
	03/10/97	4.60	0.95	0.35
	03/17/97	4.50	0.89	0.50
	03/31/97	4.65	1.00	
	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
	01/14/981	3.90	0.94	1.50
	02/12/981	3.35	0.64	0.32
	03/03/981	4.51	0.02	2.00
	04/01/981	3.67	1.60	0.50
	05/26/981	4.11	0.50	0.08
	06/15/981	5.03	0.30	0.060
	07/15/98 <sup>1</sup>	4.56	0.05	0.10
	08/21/98 <sup>1</sup>	4.77	0.02	0.040
	09/30/981	5.08	0.03	0.027
	10/16/98 <sup>1</sup>	4.32	2.40	0.98
	11/06/98 <sup>1</sup>	3.98	0.17	0.16
	11/25/981	3.92	0.10	0.12
	12/28/98 <sup>1</sup>	3.90	0.20	0.14
	01/25/991	4.18	0.60	0.27
	02/22/991	4.07	0.22	0.078 product/3.0 water
	03/22/991	4.32	0.15	0.039 product/5.0 water
	04/15/99 <sup>1</sup>	4.23	0.95	1.0 product

#### **Product Thickness/Removal Data**

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

WELL ID	DATE	DTW (ft.)	Product Thickness (ft.)	Amount Balled (Product + Water) (gallons)
MW-6	05/28/991	4.38	0.39	0.141 product/1.0 water
(cont)	06/29/99 <sup>1</sup>	4.12	0.02	0.054 product/8.0 water
•	07/14/99 <sup>1</sup>	4.20	0.03	0.039 product/2.0 water
	08/23/99 <sup>1</sup>	4.51	0.24	0.094 product/1.0 water
	09/30/99 <sup>1</sup>	4.17	0.17	0.141 product/1.0 water
	10/21/99 <sup>1</sup>	4.27	0.12	0.070 product/1.0 water
	11/29/99 <sup>2</sup>	4.18	<0.01	0.0078 product/1.0 water
	12/20/99 <sup>2</sup>	4.26	0.01	0.0156 product/1.0 water
	01/20/00 <sup>2</sup>	4.31	<0.01	0.00
	02/26/00	3.98	0.00	0.00
	03/31/00	4.14	0.00	0.00
	04/13/00	4.04	0.00	0.00

#### **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

Skimmer present in well.

No skimmer found 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 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.

## TOSCO (UNOCAL) SS#5043 OAKLAND, CA

*MONITORING EVENT OF FEBRUARY 26, 2000* 

Thickness:   ftest (product/water):			2-26-0 500	Date:2 Sampler:		er Ko	[ e de v perdi	49 He Flaud	ddress: <u>4</u> ty: <u> </u>
Total Depth   12.7			9.K.		Condition	We	1w-6	jM i	Well ID
Total Depth	(Gallons)			R		Hyc Thi	2-in.		'ell Diameter
Purge Disposable Bailer Sampling Equipment: Disposable Bailer Stack Suction Grundfos Other:  Starting Time: Weather Conditions:  Purging Flow Rate: Sediment Description:  Did well de-water? If yes; Time: Volume: Temperature Grundfos (mg/L) (mV)	= 0.66						· 2.76 ft.	<u>t2</u>	otal Depth
Purge Disposable Bailer Sampling Equipment: Bailer Stack Bailer Stack Suction Grundfos Grab Sample Other: Weather Conditions:  Starting Time: Water Color: Odor:  Purging Flow Rate: gpm. Sediment Description: Did well de-water? If yes; Time: Volume:  Time Volume pH Conductivity Temperature D.O. ORP (mg/L) (mV)	<u></u>	12" = 5.80	50 	6 = 1.5	tor (VF)	Fa	3.98 tr.	r <u> 3</u>	epth to Water
Sampling Time:    Sampling Time:   Water Color:   Odor:	(oal.)	iler r	posable Bai ler ssure Bailer b Sample	pling pment: Disp Bail Pre: Gra	San	•	osable Bailer er :k tion ndfos	Dispos Bailer Stack Suctio Grund	-
Time Volume pH Conductivity Telliptic (mg/L) (mV)		Odor:		or: Description:	Water Col Sediment	<del></del>		e: Rate:	Sampling Time Purging Flow F
	Alkalinity (ppm)						рН		Time
						<u>-</u> <u>-</u>			
	<u>,</u>					<del></del>			
LABORATORY INFORMATION  SAMPLE ID (#) - CONTAINER REFRIG. PRESERV. TYPE / LABORATORY ANALY	YSES	ANALYS	RATORY				CONTAINER	(#) - C	SAMPLE IO
Y SSQUOIA TPH(G)/brow/m	mtbe	7 <del>PH(G)/btox/mt</del>	<u> </u>	SEQUOIA		*			
		<u> </u>							
					<del></del>	<del> </del>	. <del></del>		
conserve. No acabut board is well. Dedicated des		<u> </u>			<u> </u>				

## TOSCO (UNOCAL) SS#5043 OAKLAND, CA

MONITORING EVENT OF MARCH 31, 2000

Client/ Facility # 50	43		Job#: _	180065		
		rl.	Date:	3-31-0	ງ <i>ວ</i>	
Address: 41	. I TEMPORSEINER	<del>. 132</del> .			•	
Date:		<u> </u>				
						•
Well ID	Ww-6	Well Conditio	n:	0,5	· · · · · · · · · · · · · · · · · · ·	<del></del>
Well Diameter	2 in		E-A-		7.75	(gal.)
Total Depth	12.75 #		_	3" = 0.38	4"	= 0.66
Depth to Water	4.14 4	Factor (VF)	<i>6</i> ° =	1.50	12" = 5.80	
	×	VF =	X 3 (case volume)	= Estimated Pu	rge Volume:	(gal.)
	Bailer Stack Suction		quipment: E E F	Bailer Pressure Bailer		,
			Other:		·	
Starting Time:		Weather	Conditions: .		·	
Sampling Time:		<del></del>				
Purging Flow Ra	ite:					
Did well de-wat	er?	if yes;	Time:	Volum	e:	(gal.)
Time	Volume pH (gal.)		Temperature	_		Alkalinity (ppm)
	<u> </u>		- <del> </del>			
			-			
						<del> </del>
<del></del> -		<del>-</del>		, <u> </u>		<del></del>
						···
CALADI E ID	/#\ - CONTAINER			BORATORY	ANAL	rses
<u> </u>				edapie	TRHG, BTEX	MTRE
		<del></del>				
COMMENTS:	No prod	vet found	in well.		<u>-</u>	<u></u>
	1	,				
		•			·	

## TOSCO (UNOCAL) SS#5043 OAKLAND, CA

MONITORING & SAMPLING EVENT OF APRIL 13, 2000

Client/		, ,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	<b>5</b> /11/1 <b>5</b> /12		1000		
acility #_504	3		Job#:		18006		
Address: 440	Hegenberger	- Rd.	Date:	_4	-13-00	<u> </u>	<del></del>
City: Oak	land, CA.		Samp	oler:	Joe		·
Well ID		Well C	Condition:	0	k.		
Well Diameter	2 <sub>in.</sub>	Hydro Thickr	carbon		Amount Ba	-	(gal_)
Total Depth	14.05 #	Volur			3" = 0.38 50	<del></del>	= 0.66
Depth to Water	2.76 ft.					·	
	11.29 x	vf 0.17 .	= 1.9 2 X 3 (case	volume) =	Estimated Pu	rge Volume:	6 lost
Purge	Disposable Bailer	_)	Sampling		چىدىنى ئارىدىنى ئارىدىنى بارىدىنى بارىدىنى بارىدىنى بارىدىنى بارىدىنى بارىدىنى بارىدىنى بارىدىنى بارىدىنى بارى مارىدىنى بارىدىنى ب		
Equipment:	Bailer	•	Equipment:	: Dist	posable Ba	ner	,
	Stack	•		-	ssure Baile	r	
	Suction Grundfos	•			b Sample		
	Other:		•	Other:	<u>.                                    </u>	-	
Sampling Time: Purging Flow Rat Did well de-wate	e:	pm. S	Vater Color: Sediment Descrip f yes; Time:	ىنىـ :noite	0112		(gal.)
	/olume pH (gal.)	Condu	activity (60 Tempo as/cm X 4	crature	D.O. (mg/L)	ORP (mV)	Alkalinity (ppm)
1:35	2 6.89	1.8	87 65	<u>5.3</u>			
9.37	4 6.86			5.9	<u></u>		·
4)39	6. 6.85	<u> </u>	75 66	1.0			
		· 					
						·	
	<u>.,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,</u>	LABOR	ATORY INFORMA	ATION	<u></u>	<u> </u>	
SAMPLE ID	(#) - CONTAINER	REFRIG.	PRESERV. TYPE	LABO	RATORY	ANAL	YSES
MW-3	3 701	Y	HCL	Seq	Joia	TPHG, BTE	X,MTBE
	1 Amb	- 11		<del></del>	1	TPHD	\ 10 0 AA
	2 V D A	i l	11	<del> </del>	<u> </u>	10 x 45/6	1,2 DCA+
COMMENTS: _	ENTIRE	L WELL	L Vault i	s Loc	se.	Grout a	around
	t is broken,		Repl	larero	Cap &	Lock.	
,		1	1		, ,		

Client/ Facility #_504	3		Job#	. 180	0065	
	9 Hegenberger	Rd.	Date	: <u>4-1</u>	3-00	
City: Oak	land, CA		Sam	oler: <u>To e</u>		
Well ID	mw-6	Well	Condition: _	0.k	•	
Well Diameter	2 in		rocarbon kness:	Amo	unt Bailed uct/weterl:	- lool.)
Total Depth	12.75					4" = 0,66
Depth to Water	4.04	1	zor (VF)		12" = 5.50	
Purge Equipment:	Disposable Bailer Bailer Stack Suction Grundfos Other:	•	Sampling Equipment	and the second s	ble Bailer e Bailer mple	4.5 (00)
	4'S 10:0 te:	<u>6                                    </u>	Weather Condition Water Color: Sediment Descrip If yes; Time:	Clear ption: iona	Odor <u></u>	<u> </u>
Time	Volume pH (gal.)	Cone mu	ductivity (NTemp hos/cm X	erature I	).O. ORP ng/L) (mV)	Alkalinity (ppm)
9°56 4°53 10°N	1.5 6.46 3 6.15 4.6 6.80	$\frac{0}{2}$	18 65 65 6			
SAMPLE ID	(#) - CONTAINER	LABOI REFRIG.	RATORY INFORM	ATION LABORATO	RY ANA	LLYSES
Mw-6	3 YeA	Υ	HCL_	Sequoi	a TPHG, BT	EX,MTBE
	1 Amb			, ,	TPHD	
COMMENTS:						

Client/ Facility # <u>504</u>	3		Job#:	18006	5	
Address: 440	1 Hegenberge	Rd.	Date:	4-13-0	<u> </u>	
City: Oak	land, CA		Sampl	er: <u>Joe</u>		
Well ID	Mw-7	Well	Condition:	0.k.	<u> </u>	
Well Diameter	2 <sub>in</sub>	-	rocarbon expenses:	. : Amount Ba		(gel_)
Total Depth	13.15 ft	Vol	ume 2" = 0.1	7 3" = 0.38		= 0.66
Depth to Water	3.39 fr	Fac	zor (VF)	6* = 1.50	17 - 3.50	
Purge (	Disposable Bailer	•	= 1.72 x 3 (case v	general programme and the control of		5.5 (gal.)
Equipment:	Bailer Stack		Equipment:	Disposable Ba Bailer		/
	Suction Grundfos Other:	·. 		Pressure Baile Grab Sample Other:		
	6:40 6:40 te:l gr	An				
Time	Volume pH (gal.)	Con µm	ductivity. (6 <sup>0</sup> Tempe hos/cm X	D.O. (mg/L)	ORP (mV)	Alkalinity (ppm)
6.25	1.5 7.59			کِیَ	<u> </u>	
<u>-6:30</u> _	3 7.37 5.5 7.36		90 65			·
<u></u>					<u> </u>	
<del></del>						•
			RATORY INFORMA		AMA	.YSES
SAMPLE ID	(#) - CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY Sequoia	TPHG, BTE	
may -7	3 VeA		HCL -	11	TPHP	
Ļ	<u></u>	1	1	<u> </u>		
COMMENTS:			<u> </u>			

Client/ Facility # <u>504</u>	3		<b>J</b> ob#	1800	65	
	9 Hegenberger	Rd.	Date:	4-13-0	00	
City: Oak	land, CA.		Samı	oler: <u>Joe</u>		
Well ID	ww - 8	Well	Condition:	0.k.		•
Well Diameter	2 <sub>in.</sub>		rocarbon Ø	Amount		
Total Depth	14.80 5		ume 2" = 0		rater):	' = 0.66
Depth to Water	2.8d to		zor (VF)	6" = 1.50	12" = 5.90	
Purge Equipment:	Disposable Bailer Bailer Stack Suction Grundfos Other:	÷	= 2.43 X 3 (case Sampling Equipment	Disposable I Bailer Pressure Bai Grab Sample Other:	Gailer iler	<u>6 (cel)</u>
Starting Time: Sampling Time: Purging Flow Rate Did well de-wate	#:\n 	<del>•</del> • • • • • • • • • • • • • • • • • •	Sediment Descrip	ons: Clear Clear Otion: ione Volu	Odor:	
#:05	Volume pH (gal.)  2 7.47  4 7.40  6 7.3	- <u>9</u> .	36 66 30 66	F (mg/L)	ORP (mV)	Alkalinity (ppm)
SAMPLE ID	(#) - CONTAINER	LABOI REFRIG.	RATORY INFORMA	LABORATORY	<del></del>	YSES
mw-8	3 YeA	Υ	HCL	Sequoia	TPHG, BTE	X,MTBE
	1 Amb			, ,	TPHD	<u> </u>
COMMENTS: _						

Client/ Facility # <u>504</u>	3		Job#:	18006	5	
Address: 449	Hegenberger	Rd.	Date:	4-13-0	Ø	
City: Oak	and CA		Sampl	er: Joe		
Well ID	MW-9	Well	Condition:	o.k.		
Well Diameter	2 <sub>in.</sub>	•	ocarbon e	Amount B		(osi.)
Total Depth	11.95 +		rness:	7 3" = 0.3	8 4"	= 0.66
Depth to Water	1.08 +	Fac	or (VF)	6" = 1.50	12" = 5.90	
Purge <		vf <u>0.17</u>	Sampling	volume) = Estimated F		للعوا كد ك
Equipment:	Bailer Stack		Equipment:	Disposable B Bailer		/
	Suction	<b></b>		Pressure Bail Grab Sample		
	Grundfos Other:	_	•	Other:		
	8:28 9.52 e:lar	Av	Sediment Descript	ns: <u>Clear</u> clear tion: <u>ione</u> Volum		<del></del>
Did well de-wate	r?pH (gal.)	Cond	functivity (60 Tempo		ORP (mV)	Alkalinity (ppm)
8:36 8:42	1.5 7.40 2.5 7.36 515 7.30	· /	14 6) 85 6 81 6	5.8		
SAMPLE ID	(#) - CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY Sequoia	1	YSES
Mu-q	3 754	<u>Y</u>	HCL	<del> </del>	TPHG, BTE	A,111150
	1 Amb	- 11		, ,	1 PRIP	
COMMENTS:						

Client/ Facility # <u>504</u>	<u>3</u>		Job#	:1	80065		
	Hegenberger	Rd.	Date:	4	-13-00	······································	
City: Oak	land, CA		Samp	oler:	To e		
Well ID	_ww-10	Wel	Condition:	0.	<u>k.</u>		
Well Diameter	2 <sub>in</sub>	•	rocarbon :kness:		Amount Bail product/water		(gal.)
Total Depth	12.80	Vo	lume 2" = 0	.17	3" = 0.38	4"	= 0.6á
Depth to Water	3.85 ft	Fa	ctor (VF)	6" = 1.5	0	12" = 5.90	
Purge Equipment:	Disposable Bailer Bailer Stack Suction Grundfos Other:		= 1.52 X 3 (case Sampling Equipment	: Disp Baile Pres	oosable Baile er ssure Bailer b Sample		S loal )
	9'.n) 	<u>A.w</u>	Weather Condition Water Color: Sediment Descriptifyes; Time:	<u>Clear</u> otion: _ie			
	folume pH (gal.)  7.63 7.60 7.57			5.8 6.1	D.O. (mg/L)	ORP (mV)	Alkalinity (ppm)
SAMPLE ID	(#) - Container	LABO REFRIG.	RATORY INFORM.		ATORY	ANAL	YSES
MW-10	3 404	Y	HCL	Seq	voia '	TPHG, BTE	K,MTBE
	1 Amb	<u>+1</u>		+	1	TPHD	
COMMENTS: _			<u>.</u>				
	·				<del>-</del> -		_a

TOS	CO.	Con	Facili Bultant Pr Bultant Hi Address L	ity Addres roject Hus ome_G8 1747_S	mbor <u>44</u> mbor <u> </u>	9 Hegenba 18006 r-Ryan In a Court, Deanna L.	rger 5,85 C. ( Suft	Road G-R In	nc. ) Juh 1.1	n, C/	•	 68	Laborato Laborato Samples Collection	ry Name ry Relea Collecte	(Phon Se Num d by (I	•) <u>quoi</u> quoi nber Nam•)_	925 a Ana	-277 1yt1	238 cal		
	<u> </u>		····			10-551-75			r) <u>510</u>	-551-	7888		Signature	•• To B	2-6	کو	<u>~</u>		non		DO NOT BILL
Sample Number	Lab Sample Number	Number of Containers	Matrix S = Sol A = Air W = Water C = Charcool	Type 6 = Crab C = Composite D = Discrete	Jim•	Sample Preservation	load (Yes or No.)	TPH Gas - BTEX WATEE (BO20)	TPH Diesed (8015)	01 and Gream (5520)	Purpeoble Holocorbora (8010)	Purgeable Aromatics (8020)	Purg-oble Organica (8240)	Extractable Organica (8270)	CACPEZANI CACPEZANI	0x456)	ľ				TB-LB ANALYSI
I-LB		J. #	W	س	_	HCC	Y				<u> </u>			<u> </u>		<u>  .                                    </u>	ļ	<u> -</u>			
ハルーシ		1 Amb	*	"	9:45	"	1	/	~		<u> </u>		<u> </u>	<u> </u>		1	<u> </u>	<u>                                     </u>	<u> </u>		
nw-6		340A 1 A 24	4	"	10:06	1,	"	~	/												
7-wv		"	11	11	6:40	1,	"	~	1				_	<u> </u>							
NW-8		"	4.	"	8120	,,	٧,	/	~							<u> </u>			· .		
uw-9		1	4	"	8:50	4	1/	J	V												
nw-10		4	"	1,	9:,22	',	1/	~													
<del></del>						<u> </u>	 						<u> </u>								
																				ļ	
						,			-	-			-			<u> </u>		<u> </u>	<del> </del>		
27	(Signature)		G-	nization R Inc	.	Date/Time ((0) 4-13-00 Date/Time 12-0		eceived B	<u>~~</u>	Del	<u> </u>	4	Organizat	Inc.	4.	<u>~(3-</u>		ļ	Turn A	24	ne (Circle Chelce) Hrs.
Jie.	روايا الان ال	J.		~ A I		4-13-00	ŀ	w_W		_		- 1	Organizali Sea		Dole	/ JIMe     1 == 1	5:20				Daye
quiched By	(Signature)	<u> </u>	_	nization		Date/Time		eoleved Fo			y (Slgna		<del>- 19 /</del>	<u> 1</u>		<u>(3 -04</u> /Ilme	2—				Daye

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2 May, 2000

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

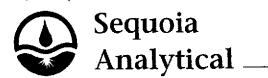
RE: Unocal Sequoia Report: W004310

Enclosed are the results of analyses for samples received by the laboratory on 13-Apr-00 17:10. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Charlie Westwater Project Manager

CA ELAP Certificate #1271



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

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

Dublin CA, 94568

Project: Unocal

Project Number: Unocal # 5043 Project Manager: Deanna L. Harding Reported: 02-May-00 07:23

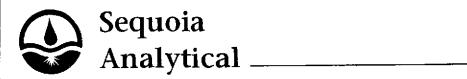
#### ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
TB-LB	W004310-01	Water	13-Apr-00 00:00	13-Apr-00 17:10
MW-3	W004310-02	Water	13-Apr-00 09:45	13-Apr-00 17:10
MW-6	W004310-03	Water	13-Apr-00 10:06	13-Apr-00 17:10
MW-7	W004310-04	Water	13-Apr-00 06:40	13-Apr-00 17:10
MW-8	W004310-05	Water	13-Apr-00 08:20	13-Apr-00 17:10
MW-9	W004310-06	Water	13-Apr-00 08:50	13-Apr-00 17:10
MW-10	W004310-07	Water	13-Apr-00 09:22	13-Apr-00 17:10

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



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

Gettler Ryan, Inc. - Dublin

6747 Sierra Court Suite J

Dublin CA, 94568

Project: Unocal

Project Number: Unocal # 5043

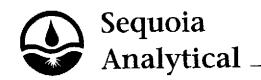
Project Manager: Deanna L. Harding

Reported:

02-May-00 07:23

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

Analyte	Result	porting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
TB-LB (W004310-01) Water	Sampled: 13-Apr-00 00:00	Receive	ed: 13-A]	p <b>r-00 17:1</b> 0	)				
Purgeable Hydrocarbons	ND	50	ug/l	1	0D25001	25-Apr-00	25-Apr-00	EPA 8015M/8020	
Benzene	ND	0.50	**	₩	**	11	Ħ	II .	
Toluene	ND	0.50	**	**	**	**	н	II .	
Ethylbenzene	ND	0.50	11	· ·	11	"	n	H .	
Xylenes (total)	ND	0.50	н	**	п	**	11	n	
Methyl tert-butyl ether	ND	2.5	п	*	II	H	,,	n	
Surrogate: a,a,a-Trifluorotolue	ne	97.0 %	70-	-130	11	"	rt	м	
MW-3 (W004310-02) Water	Sampled: 13-Apr-00 09:45	Receive	d: 13-Ap	r-00 17:10	· 1				P-01
Purgeable Hydrocarbons	250	50	ug/l	1	0D25001	25-Apr-00	25-Арг-00	EPA 8015M/8020	
Benzene	0.69	0.50	n	n	h	п		H*	
Toluene	ND	0.50	17	n	n	11	n	in .	
Ethylbenzene	ND	0.50		"	**	**	19	"	
Xylenes (total)	ND	0.50	**	11	n	**	ti .	11	
Methyl tert-butyl ether	91	2.5	**	"	n	**	11	n	
Surrogate: a,a,a-Trifluorotolue	ene	102 %	70-	-130	"	n	"	"	
MW-6 (W004310-03) Water	Sampled: 13-Apr-00 10:06	Receive	:d: 13-Ap	or-00 17:10	•				P-01
Purgeable Hydrocarbons	140000	100000	ug/l	2000	0D25001	25-Apr-00	25-Apr-00	EPA 8015M/8020	
Benzene	5000	1000	**	•		Ħ	н	11	
Toluene	14000	1000	11	**	•	Ħ	H	11	
Ethylbenzene	3600	1000	Ħ	77		n	Ħ	11	
Xylenes (total)	27000	1000	#	"		"	"	н	
Methyl tert-butyl ether	7700	5000	H	**	н	n	h	H	
Surrogate: a,a,a-Trifluorotolue	ene	98.3 %	70	-130	"	"	"	н	



Gettler Ryan, Inc. - Dublin

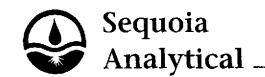
6747 Sierra Court Suite J Dublin CA, 94568 Project: Unocal

Project Number: Unocal # 5043 Project Manager: Deanna L. Harding **Reported:** 02-May-00 07:23

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

Analyte	Result	porting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
MW-7 (W004310-04) Water	Sampled: 13-Apr-00 06:40	Receive	d: 13-Ap	r-00 17:10				·	
Purgeable Hydrocarbons	ND	50	ug/l	1	0D25001	25-Apr-00	25-Apr-00	EPA 8015M/8020	
Benzene	ND	0.50	"	"	**	71	"	u	
Toluene	ND	0.50	#1	#	**	71	H	**	
Ethylbenzene	ND	0.50	n	н	"	<b>81</b>		н	
Xylenes (total)	ND	0.50		n	Ħ	u	11	•	
Methyl tert-butyl ether	ND	2.5	**	u	н	**	n	#	
Surrogate: a,a,a-Trifluorotolu	ene	102 %	70-	130	Ħ	ır	"	n .	
MW-8 (W004310-05) Water		Receive	d: 13-Ap	r-00 17:10	)				
Purgeable Hydrocarbons	ND	50	ug/l	1	0D25001	25-Apr-00	25-Apr-00	EPA 8015M/8020	
Benzene	ND	0.50	n	н	u	**	*	"	
Toluene	ND	0.50	"	n	H	#	IT	n	
Ethylbenzene	ND	0.50	**	"	**	,,	**	"	
Xylenes (total)	ND	0.50			**	а	**	**	
Methyl tert-butyl ether	ND	2.5	71		н		π		
Surrogate: a,a,a-Trifluorotolu	ene	101 %	70-	130	- "	"	<i>n</i>	*	
MW-9 (W004310-06) Water		Receive	d: 13-Ap	r-00 17:10	)				P-01
Purgeable Hydrocarbons	160	50	ug/l	1	0D25001	25-Apr-00	25-Apr-00	EPA 8015M/8020	
Benzene	0.64	0.50			"	"		n	
Toluene	ND	0.50	**	**	11	"	•	•	
Ethylbenzene	ND	0.50	,,		p	n			
Xylenes (total)	ND	0.50	Ħ	•	"	•		₩	
Methyl tert-butyl ether	53	2.5	"	"		n	"	#	
Surrogate: a,a,a-Trifluorotolu	ene	99.3 %	70-	130	"	"	'n		<u> </u>





Gettler Ryan, Inc. - Dublin

6747 Sierra Court Suite J

Dublin CA, 94568

Project: Unocal

Project Number: Unocal # 5043

Project Manager: Deanna L. Harding

Reported: 02-May-00 07:23

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

Analyte	Result	porting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
MW-10 (W004310-07) Water	Sampled: 13-Apr-00 09:22	Receiv	ed: 13-Ap	r-00 17:1	.0				P-01
Purgeable Hydrocarbons	67	50	ug/I	1	0D25001	25-Apr-00	25-Apr-00	EPA 8015M/8020	
Benzene	54	0.50	"	19	H	"	. "	"	
Toluene	ND	0.50	n	n	н	"	"	"	
Ethylbenzene	2.6	0.50	H	li	ţı	н	н	11	
Xylenes (total)	ND	0.50	P	**	11	u	н	w	
Methyl tert-butyl ether	3.8	2.5	•	11	11	u	п	•	
Surrogate: a,a,a-Trifluorotoluen	ne .	94.0 %	70-1	30	n	"	и	"	





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

**Dublin CA, 94568** 

Project: Unocal

Project Number: Unocal # 5043 Project Manager: Deanna L. Harding Reported: 02-May-00 07:23

### Diesel Hydrocarbons (C9-C24) by DHS LUFT

Analyte	Result	porting Limit	Units 1	Dilution	Batch	Prepared	Analyzed	Method	Notes
MW-3 (W004310-02) Water	Sampled: 13-Apr-00 09:45	Received	l: 13-Apr-0	0 17:10				.,.·	
Diesel Range Hydrocarbons	200	50	ug/l	1	0D25012	25-Apr-00	27-Apr-00	EPA 8015M	D-06,D-12
Surrogate: n-Pentacosane		144 %	50-15	0	н	"		"	
MW-6 (W004310-03) Water	Sampled: 13-Apr-00 10:06	Received	l: 13-Apr-(	00 17:10					
Diesel Range Hydrocarbons	8700	63	ug/l	1	0D25012	25-Apr-00	28-Арг-00	EPA 8015M	D-14
Surrogate: n-Pentacosane		240 %	50-15	0	n	"	"	Ħ	D-07
MW-7 (W004310-04) Water	Sampled: 13-Apr-00 06:40	Received	l: 13-Apr-(	00 17:10					
Diesel Range Hydrocarbons	ND	63	ug/l	1	0D25012	25-Apr-00	28-Apr-00	EPA 8015M	
Surrogate: n-Pentacosane		112%	50-15	0	"	n	"	"	
MW-8 (W004310-05) Water	Sampled: 13-Apr-00 08:20	Receive	l: 13-Apr-(	00 17:10					
Diesel Range Hydrocarbons	80	50	ug/l	.1	0D25012	25-Apr-00	28-Apr-00	EPA 8015M	D-12
Surrogate: n-Pentacosane		122 %	50-15	0	,,	"	"	"	
MW-9 (W004310-06) Water	Sampled: 13-Apr-00 08:50	Receive	d: 13-Apr-(	00 17:10	ı				
Diesel Range Hydrocarbons	81	50	ug/l	1	0D25012	25-Apr-00	28-Apr-00	EPA 8015M	D-06
Surrogate: n-Pentacosane	- 10	69.2 %	50-15	0	"	n	n	m m	
MW-10 (W004310-07) Water	Sampled: 13-Apr-00 09:23	2 Receive	ed: 13-Apr	-00 17:1	0				
Diesel Range Hydrocarbons	69	50	ug/l	1	0D25012	25-Apr-00	28-Apr-00	EPA 8015M	D-12
Surrogate: n-Pentacosane		119 %	50-15	50	#	**	"	. "	<del>-</del>





Gettler Ryan, Inc. - Dublin

6747 Sierra Court Suite J Dublin CA, 94568 Project: Unocal

Project Number: Unocal # 5043

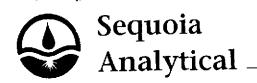
Project Manager: Deanna L. Harding

Reported:

02-May-00 07:23

#### Volatile Organic Compounds by EPA Method 8260A

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
MW-3 (W004310-02) Water	Sampled: 13-Apr-00 09:	45 Receive	d: 13 <b>-A</b> p	r-00 17:10					
Ethanol	ND	500	ug/l	i	0D21021	20-Арг-00	21-Apr-00	EPA 8260A	
tert-Butyl alcohol	ND	100	11	Ħ	ıı	"	n	Ħ	
Methyl tert-butyl ether	150	2.0	**	н		**		н	
Di-isopropyl ether	ND	2.0	#1	н	"	•	н	H	
Ethyl tert-butyl ether	ND	2.0	ŧı	Ħ	H	**	H	**	
tert-Amyl methyl ether	ND	2.0	11	и	"	*	н	44	
1,2-Dichloroethane	ND	2.0	41	н	n		н	"	
Ethylene dibromide	ND	2.0	11	"	n	н	11	н	
Surrogate: Dibromofluorometh	ane	102 %	50-	150	"	*	н .	"	
Surrogate: 1,2-Dichloroethane		88.0 %	50-	150	"	<b>"</b>	"	*	



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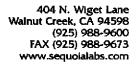
Project Number: Unocal # 5043

Project Manager: Deanna L. Harding

Reported: 02-May-00 07:23

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

Austra	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Analyte	Result		<del></del>	<del></del>			<del></del>			
Batch 0D25001 - EPA 5030B [P/T]						1001	00		<del> </del>	
Blank (0D25001-BLK1)				Prepared	& Analyz	ed: 25-Ap	r-UU			
Purgeable Hydrocarbons	ND	50	ug/l							
Benzene	ND	0.50	н							
Toluene	ND	0.50								
Ethylbenzene	ND	0.50	17							
Xylenes (total)	ND	0.50	11							
Methyl tert-butyl ether	ND	2.5	n							
Surrogate: a, a, a-Trifluorotoluene	30.7			30.0		102	70-130		•	
LCS (0D25001-BS1)				Prepared	& Analyz	ed: 25-Ap	or-00			
Benzene	17.0	0.50	ug/l	20.0		85.0	70-130			
Toluene	17.9	0.50	н	20.0		89.5	70-130			
Ethylbenzene	17.1	0.50	*	20.0		85.5	70-130			
Xylenes (total)	58.0	0.50	н	60.0		96.7	70-130			
Surrogate: a, a, a-Trifluorotoluene	26.0		"	30.0		86.7	70-130			
Matrix Spike (0D25001-MS1)	S	ource: W004	310-04	Prepared & Analyzed: 25-Apr-00						
Benzene	17.0	0.50	ug/l	20.0	ND	85.0	70-130			
Toluene	17.9	0.50	<b>H</b>	20.0	ND	89.5	70-130			
Ethylbenzene	18.6	0.50	w	20.0	ND	93.0	70-130			
Xylenes (total)	59.3	0.50		60.0	ND	98.8	70-130			
Surrogate: a,a,a-Trifluorotoluene	26.9		n	30.0		89.7	70-130			
Matrix Spike Dup (0D25001-MSD1)		ource: W004	310-04	Prepared	i & Analy	zed: 25-Aj	pr-00			
Benzene	17.5	0.50	ug/l	20.0	ND	87.5	70-130	2.90	20	
<del>-</del> ··-	18.7	0.50	11	20.0	ND	93.5	70-130	4.37	20	
Toluene	20.9	0.50	н	20.0	ND	104	70-130	11.6	20	
Ethylbenzene	20.9 62.7	0.50	**	60.0	ND	105	70-130	5.57	20	
Xylenes (total)				30.0		90.3	70-130			
Surrogate: a, a, a-Triftuorotoluene	27.1			20.0						





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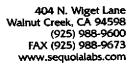
Project Number: Unocal # 5043

Reported: 02-May-00 07:23

Project Manager: Deanna L. Harding

#### Diesel Hydrocarbons (C9-C24) 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 0D25012 - EPA 3510B										
Blank (0D25012-BLK1)				Prepared:	25-Apr-0	0 Analyze	d: 27-Apr	-00		
Diesel Range Hydrocarbons	ND	50	ug/l							
Surrogate: n-Pentacosane	37.7		II.	33.3		113	50-150	· · · · · · ·		
LCS (0D25012-BS1)				Prepared:	25-Apr-0	0 Analyze	:d: 27-Apr	-00		
Diesel Range Hydrocarbons	320	50	ug/l	500		64.0	60-140		· · · · · · · · · · · · · · · · · · ·	
Surrogate: n-Pentacosane	36.3		п	33.3		109	50-150			
LCS Dup (0D25012-BSD1)				Prepared:	25-Apr-0	0 Analyze	d: 28- <b>A</b> pr	-00		
Diesel Range Hydrocarbons	457	50	ug/l	500		91.4	60-140	35.3	50	
Surrogate: n-Pentacosane	41.0		*	33.3	<del></del>	123	50-150			•





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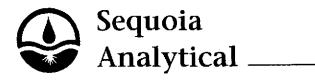
Dublin CA, 94568

Project: Unocal

Project Number: Unocal # 5043 Project Manager: Deanna L. Harding Reported: 02-May-00 07:23

#### Volatile Organic Compounds 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
Batch 0D21021 - EPA 5030B [P/T]						•				
Blank (0D21021-BLK1)				Prepared	& Analyz	ed: 20-Ap	r-00			
Ethanol	ND	500	ug/l				<u> </u>			
tert-Butyl alcohol	ND	100	11							
Methyl tert-butyl ether	ND	2.0	н							
Di-isopropyl ether	ND	2.0								
Ethyl tert-butyl ether	ND	2.0						•		
tert-Amyl methyl ether	ND	2.0								
1,2-Dichloroethane	ND	2.0	**							
Ethylene dibromide	ND	2.0	•							
Surrogate: Dibromofluoromethane	44.0			50.0		88.0	50-150			
Surrogate: 1,2-Dichloroethane-d4	39.0		#	50.0		78.0	50-150			
LCS (0D21021-BS1)				Prepared	& Analyz	ed: 20-Ap	r-00			
Methyl tert-butyl ether	50.9	2.0	ug/l	50.0	-	102	70-130		-	
Surrogate: Dibromofluoromethane	42.0		п	50.0		84.0	50-150			
Surrogate: 1,2-Dichloroethane-d4	37.0		*	50.0		74.0	50-1 <i>50</i>			
Matrix Spike (0D21021-MS1)	So	urce: W0043	314-01	Prepared	& Analyz	ed: 20-Ap	т-00			
Methyl tert-butyl ether	54.2	2.0	ug/l	50.0	ND	108	60-150	.,		
Surrogate: Dibromofluoromethane	43.0		- #	50.0		86.0	50-150			
Surrogate: 1,2-Dichloroethane-d4	39.0		"	50.0		78.0	50-150			
Matrix Spike Dup (0D21021-MSD1)	So	ource: W0043	314-01	Prepared	& Analyz	ed: 20-Ap	r-00			
Methyl tert-butyl ether	61.1	2.0	ug/l	50.0	ND	122	60-150	12.0	25	
Surrogate: Dibromofluoromethane	46.0			50.0		92.0	50-150			
Surrogate: Dioromojaworometnane Surrogate: 1,2-Dichloroethane-d4	44.0		**	50.0		88.0	50-150			



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**RPD** 

Project: Unocal

Project Number: Unocal # 5043 Project Manager: Deanna L. Harding Reported: 02-May-00 07:23

#### **Notes and Definitions**

D-06 Discrete peaks. D-07 Surrogate out of control limits because of peak coelution with the sample. D-12 Chromatogram Pattern: Unidentified Hydrocarbons > C16 D-14 Chromatogram Pattern: Unidentified Hydrocarbons C9-C24 P-01 Chromatogram Pattern: Gasoline C6-C12 DET Analyte DETECTED ND Analyte NOT DETECTED at or above the reporting limit NR Not Reported Sample results reported on a dry weight basis dry

Relative Percent Difference