



GETTLER-RYAN INC.

TRANSMITTAL

JUN 24 2002

June 7, 2002
G-R #180068

TO: Mr. David B. De Witt
Phillips 66 Company
2000 Crow Canyon Place, Suite 400
San Ramon, California 94583

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

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

RE: **Tosco (Former Unocal)**
Service Station #1871
96 MacArthur Boulevard
Oakland, California

WE HAVE ENCLOSED THE FOLLOWING:

COPIES	DATED	DESCRIPTION
1	May 24, 2002	Groundwater Monitoring and Sampling Report Second Quarter - Event of April 11, 2002

COMMENTS:

This report is being sent to you for your review/comment, prior to being distributed on your behalf. If no comments are received by **June 19, 2002**, this report will be distributed to the following:

cc: Alameda County Health Care Services, 1131 Harbor Bay Parkway, Alameda, California 94502

Enclosure



GETTLER - RYAN INC.

May 24, 2002
G-R Job #180068

Mr. David B. De Witt
Phillips 66 Company
2000 Crow Canyon Place, Suite 400
San Ramon, California 94583

JUN 24 2002

RE: Second Quarter Event of April 11, 2002
Groundwater Monitoring & Sampling Report
Tosco (Former Unocal) Service Station #1871
96 MacArthur Boulevard
Oakland, California

Dear Mr. De Witt:

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

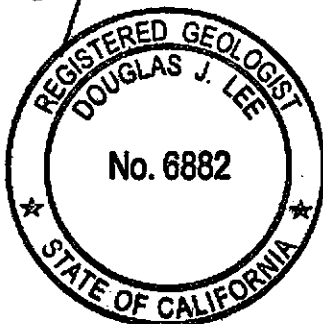
Static groundwater levels were measured and all wells were checked for the presence of separate-phase hydrocarbons. Separate-phase hydrocarbons were not present in the wells. Static water level data and groundwater elevations are summarized in Table 1. A Potentiometric Map is included as Figure 1.

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

Sincerely,

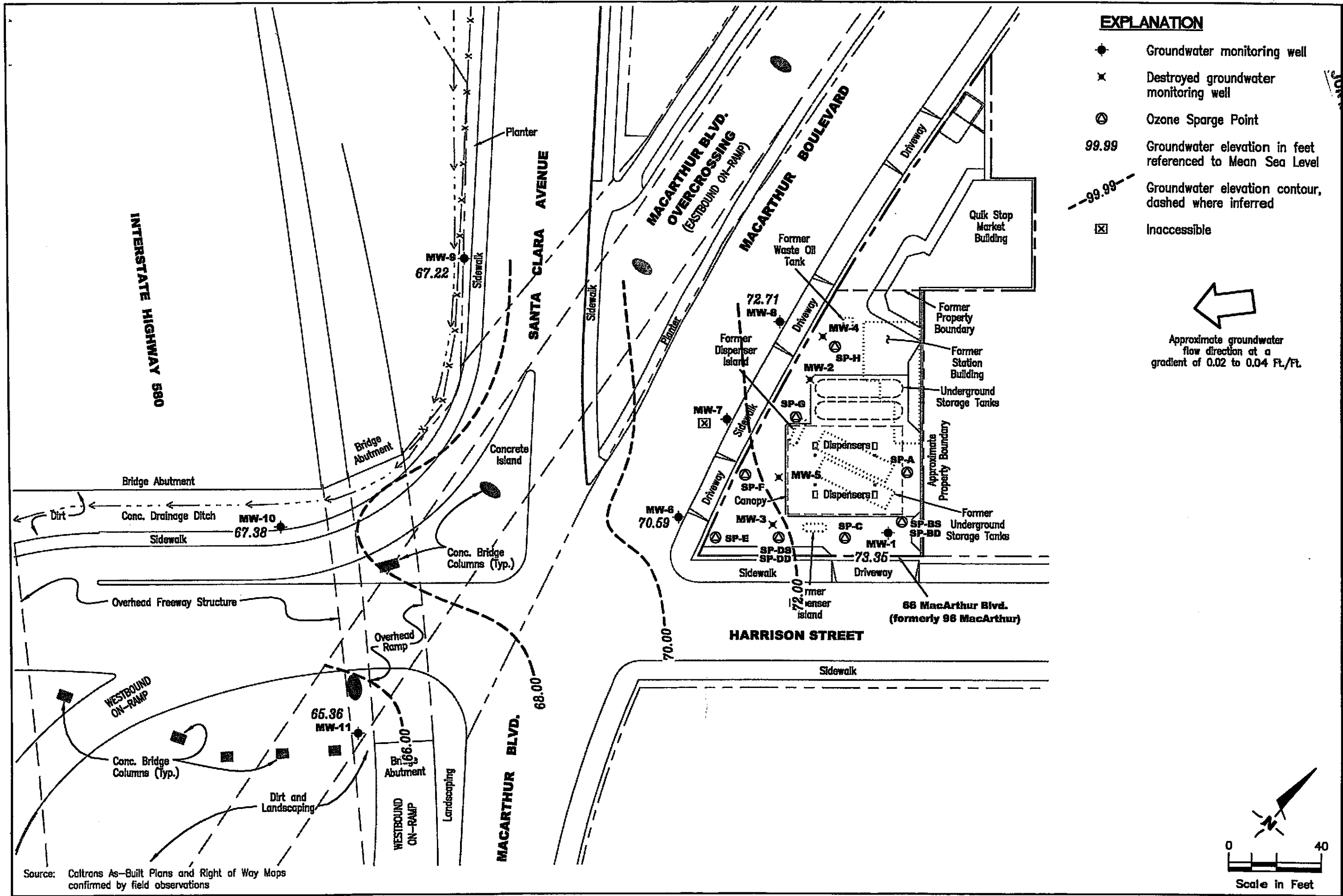
Deanna L. Harding
Project Coordinator

Douglas J. Lee
Senior Geologist, R.G. No. 6882



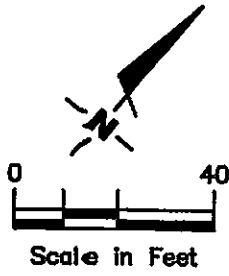
- Figure 1: Potentiometric Map
- Figure 2: Concentration Map
- Table 1: Groundwater Monitoring Data and Analytical Results
- Table 2: Groundwater Analytical Results
- Table 3: Groundwater Analytical Results - Oxygenate Compounds
- Attachments: Standard Operating Procedure - Groundwater Sampling
Field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

1871.qml

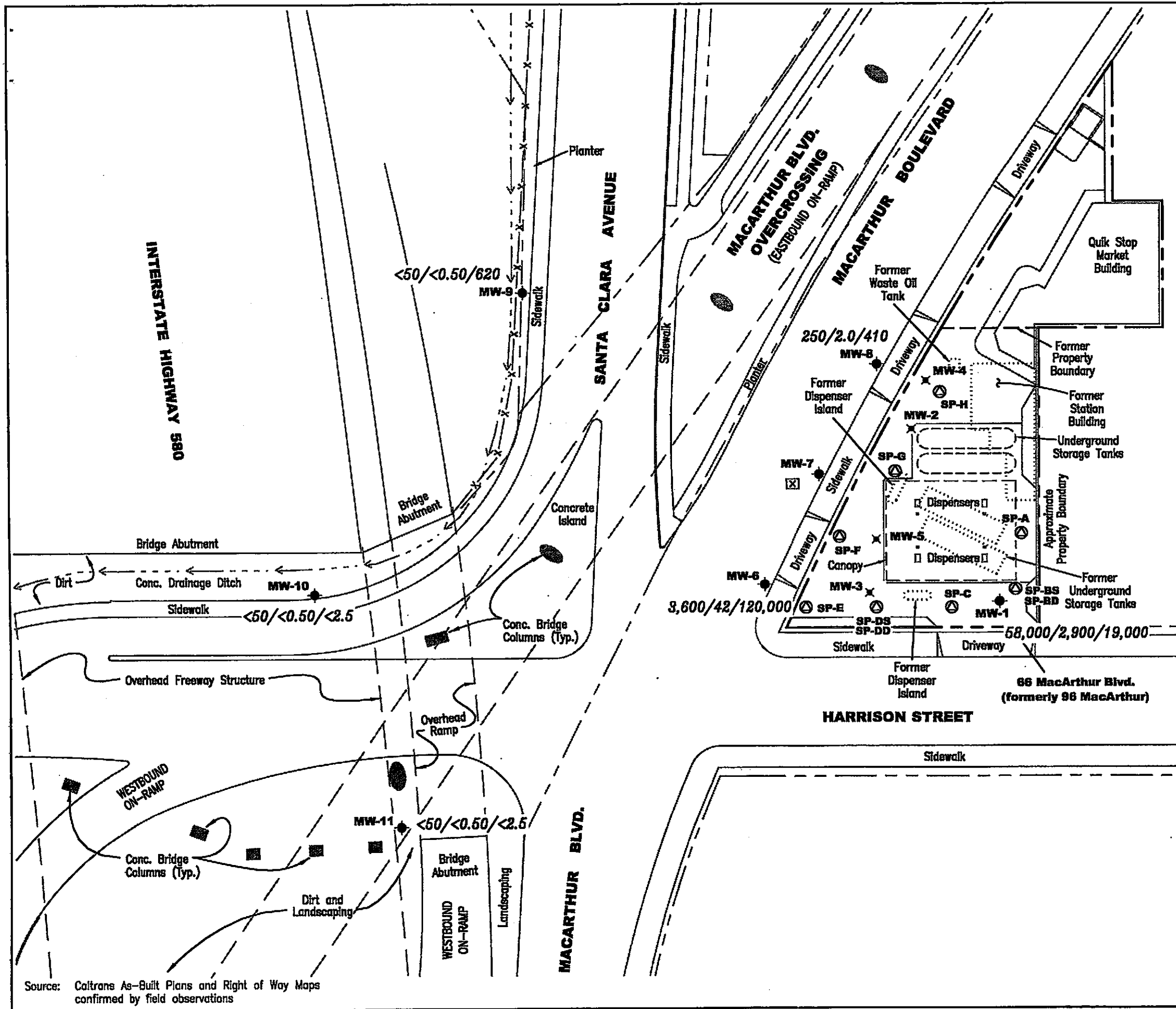


- EXPLANATION**
- Groundwater monitoring well
 - ✕ Destroyed groundwater monitoring well
 - ⊙ Ozone Sparge Point
 - 99.99 Groundwater elevation in feet referenced to Mean Sea Level
 - - - 99.99 - - - Groundwater elevation contour, dashed where inferred
 - ⊠ Inaccessible

←
Approximate groundwater flow direction at a gradient of 0.02 to 0.04 Ft./Ft.



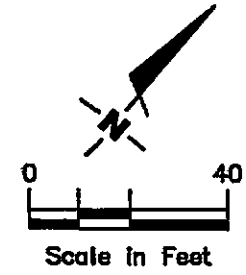
Source: Caltrans As-Built Plans and Right of Way Maps confirmed by field observations



EXPLANATION

- ◆ Groundwater monitoring well
- ✕ Destroyed groundwater monitoring well
- ⊙ Ozone Sparge Point
- A/B/C Total Petroleum Hydrocarbons (TPH) as Gasoline/Benzene/MTBE concentrations in ppb
- ⊠ Inaccessible

JUN 24 2002



Source: Caltrans As-Built Plans and Right of Way Maps confirmed by field observations

CONCENTRATION MAP
 Tosco (Former Unocal) Service Station #1871
 96 MacArthur Boulevard
 Oakland, California

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

PROJECT NUMBER: 180068
 DATE: April 11, 2002
 REVIEWED BY: [Signature]
 FILE NAME: P:\Environ\TOSCO\1871\002-1871.DWG | Layout Tab: Con2

Table 1
Groundwater Monitoring Data and Analytical Results
 Tosco (Former Unocal) Service Station #1871
 96 MacArthur Boulevard
 Oakland, California

WELL ID/ TOC* (ft.)	DATE	DTW (ft.)	S.I. (ft. bgs.)	GWE (msl)	TPH-G (ppb)	B (ppb)	T (ppb)	E (ppb)	X (ppb)	MTBE (ppb)
MW-1	11/03/92	--	9.5-24.5	--	260,000	2,300	4,600	3,700	17,000	--
	01/25/93	--		--	120,000	2,100	4,600	4,900	22,000	--
81.18	04/29/93	13.71		67.47	100,000	850	2,000	4,300	19,000	--
	07/16/93	14.51		66.67	29,000	590	560	980	4,200	--
	10/19/93	15.20		65.98	67,000	1,400	2,600	2,900	5,000	--
	01/20/94	15.17		66.01	92,000	1,200	3,000	3,400	17,000	--
	04/13/94	14.44		66.74	51,000	1,000	2,600	3,200	15,000	--
	07/13/94	14.88		66.30	35,000	550	150	1,400	5,700	--
	10/10/94	15.55		65.63	52,000	1,000	810	3,300	12,000	--
	01/10/95	12.44		68.74	810	16	18	59	250	--
	04/17/95	12.68		68.50	48,000	880	530	2,500	11,000	--
	07/24/95	13.97		67.21	48,000	1,500	420	2,700	9,700	--
	10/23/95	14.85		66.33	47,000	780	210	2,100	11,000	270
	01/18/96	14.21		66.97	30,000	1,500	500	3,500	13,000	2,400
86.24	04/18/96	13.40		72.84	66,000	2,700	2,200	3,100	13,000	57,000
	07/24/96	14.15		72.09	5,600	2,100	ND	160	160	24,000
	10/24/96	14.85		71.39	110,000	7,500	8,000	3,300	14,000	58,000
	01/28/97	11.25		74.99	94,000	7,700	19,000	3,100	15,000	120,000
	07/29/97	14.67		71.57	ND	ND	ND	ND	ND	70,000
	01/14/98	12.27		73.97	85,000	6,100	10,000	3,000	17,000	110,000
	07/01/98	14.32		71.92	110,000	8,700	12,000	2,700	15,000	110,000
	06/18/99	13.93		72.31	49,000	6,900	6,500	380	12,000	72,000/47,000 ⁴
	01/21/00	15.05		71.19	63,700 ⁵	5,520	2,000	2,640	13,100	57,100
	07/10/00	13.97		72.27	67,800 ⁵	9,910	4,120	3,330	16,100	67,400/54,000 ⁴
	01/04/01	14.92		71.32	63,900 ⁵	6,270	784	2,670	12,900	--/38,100 ⁴
	07/16/01	14.32		71.92	66,000 ⁵	7,100	330	2,300	9,800	36,000/41,000 ⁴
86.99	◆ 01/31/02	13.54		73.45	42,000 ⁵	5,800	1,800	2,000	8,200	26,000/26,000 ⁴
	04/11/02	13.64		73.35	58,000	2,900	1,200	1,800	10,000	19,000 ⁴

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Table 1
Groundwater Monitoring Data and Analytical Results
 Tosco (Former Unocal) Service Station #1871
 96 MacArthur Boulevard
 Oakland, California

WELL ID/ TOC*(ft.)	DATE	DTW (ft.)	S.L. (ft. bgs.)	GWE (msl)	TPH-G (ppb)	B (ppb)	T (ppb)	E (ppb)	X (ppb)	MTBE (ppb)
MW-2	11/03/92	--	--	--	140	2.2	ND	ND	2.0	--
	01/25/93	--		--	2,100	56	1.1	90	140	--
76.61	04/29/93	9.73		66.88	1,500	290	ND	33	11	--
	07/16/93	10.17		66.44	510 ¹	17	0.60	3.2	2.5	--
	10/19/93	11.18		65.43	670	24	1.1	7.7	23	--
	01/20/94	11.12		65.49	820	97	ND	12	ND	--
	04/13/94	10.12		66.49	550	71	ND	5.1	1.3	--
	07/13/94	10.86		65.75	2,000	490	ND	17	13	--
	10/10/94	11.48		65.13	2,300	340	ND	25	ND	--
	01/10/95	8.71		67.90	850	3.8	ND	8.5	1.3	--
	04/17/95	8.90		67.71	1,300	4.7	ND	8.3	1.2	--
	07/24/95	9.94		66.67	960	20	ND	4.2	6.2	--
	10/23/95	10.70		65.91	ND	ND	ND	ND	ND	19
	01/18/96	10.11		66.50	900	300	86	7.6	18	4,300
81.66	04/18/96	9.27		72.39	18,000	3,600	680	890	4,100	19,000
	07/24/96	10.02		71.64	100,000	13,000	21,000	2,700	16,000	120,000
	10/24/96	10.78		70.88	800	110	17	11	20	20,000
	01/28/97	7.70		73.96	45,000	2,400	2,900	2,000	7,600	29,000
	07/29/97	10.28		71.38	ND	1.2	0.72	0.63	0.62	17,000
	01/14/98	8.63		73.03	14,000	1,000	150	790	3,300	23,000
	07/01/98	9.53		72.13	2,700	100	ND ³	180	78	7,100
	DESTROYED									
MW-3	11/03/92	--	--	--	2,100	120	15	38	200	--
	01/25/93	--		--	2,300	80	1	55	52	--
77.48	04/29/93	11.37		66.11	4,500	1,700	ND	200	140	--
	07/16/93	12.09		65.39	4,000 ¹	1,100	28	52	70	--
	10/19/93	12.69		64.79	3,800	42	ND	50	56	--
	01/20/94	12.65		64.83	4,200	11	ND	21	15	--
	04/13/94	12.02		65.46	4,200	210	ND	36	53	--
	07/13/94	12.46		65.02	1,800 ²	16	16	ND	21	--

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Table 1
Groundwater Monitoring Data and Analytical Results
 Tosco (Former Unocal) Service Station #1871
 96 MacArthur Boulevard
 Oakland, California

WELL ID/ TOC* (ft.)	DATE	DTW (ft.)	S.L. (ft. bgs.)	GWE (msl)	TPH-G (ppb)	B (ppb)	T (ppb)	E (ppb)	X (ppb)	MTBE (ppb)
MW-3	10/10/94	12.98	--	64.50	4,300	11	ND	12	ND	--
(cont)	01/10/95	10.42		67.06	310	4.6	ND	3.5	2.1	--
	04/17/95	10.42		67.06	7,800	ND	4.6	300	450	--
	07/24/95	11.76		65.72	3,200	170	ND	22	16	--
	10/23/95	12.50		64.98	3,900	55	ND	19	11	4,500
	01/18/96	11.79		65.69	2,200	270	33	26	18	5,500
82.55	04/18/96	11.30		71.25	6,000	1,800	ND	100	230	48,000
	07/24/96	12.17		70.38	ND	2,500	ND	ND	ND	71,000
	10/24/96	12.65		69.90	3,800	660	ND	15	ND	65,000
	01/28/97	9.50		73.05	4,400	250	13	87	47	54,000
	07/29/97	11.99		70.56	ND	3,500	ND	220	ND	75,000
	01/14/98	10.30		72.25	ND ³	430	ND ³	100	380	37,000
	07/01/98	11.70		70.85	ND ³	430	ND ³	ND ³	ND ³	45,000
	DESTROYED									
MW-4										
82.04	04/18/96	9.83	--	72.21	ND	630	ND	ND	ND	18,000
	07/24/96	10.47		71.57	ND	ND	ND	ND	5.2	3,900
	10/24/96	11.14		70.90	ND	ND	ND	ND	ND	6,300
	01/28/97	7.94		74.10	1,200	490	ND	17	6.8	16,000
	07/29/97	10.86		71.18	50	1.5	0.61	0.73	0.78	15,000
	01/14/98	8.73		73.31	ND ³	ND ³	ND ³	ND ³	ND ³	5,200
	07/01/98	10.51		71.53	ND	ND	ND	ND	ND	640
	DESTROYED									
MW-5										
81.80	04/18/96	9.65	--	72.15	31,000	5,500	1,400	1,700	8,100	66,000
	07/24/96	10.80		71.00	32,000	6,400	ND	1,600	6,100	120,000
	10/24/96	11.40		70.40	17,000	6,900	ND	970	130	84,000
	01/28/97	7.76		74.04	19,000	6,100	62	82	310	160,000

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Table 1
Groundwater Monitoring Data and Analytical Results
 Tosco (Former Unocal) Service Station #1871
 96 MacArthur Boulevard
 Oakland, California

WELL ID/ TOC*(ft.)	DATE	DTW (ft.)	S.I. (ft. bgs.)	GWE (msl)	TPH-G (ppb)	B (ppb)	T (ppb)	E (ppb)	X (ppb)	MTBE (ppb)	
MW-5	07/29/97	11.58	--	70.22	ND	ND	ND	ND	ND	71,000	
(cont)	01/14/98	9.08		72.72	ND ³	3,600	ND ³	ND ³	ND ³	80,000	
	07/01/98	11.25		70.55	6,400	2,100	21	120	330	61,000	
	DESTROYED										
MW-6											
78.91	06/18/99	9.30	5.0-25.0	69.61	2,100	21	29	ND ³	47	97,000/71,000 ⁴	
	01/21/00	9.37		69.54	1,880 ⁵	143	31.2	106	196	41,200/48,800 ⁴	
	07/10/00	8.94		69.97	5,710 ⁵	869	209	301	1,430	22,200/19,500 ⁴	
	01/04/01	9.21		69.70	ND	ND	ND	ND	ND	--/9,510 ⁴	
	07/16/01	9.42		69.49	4,800 ⁵	200	21	150	440	29,000/34,000 ⁴	
	01/31/02	8.50		70.41	12,000 ⁷	250	92	500	1,500	26,000/31,000 ⁴	
79.67	04/11/02	9.08		70.59	3,600	42	32	39	280	120,000	
MW-7											
79.92	06/18/99	8.70	5.0-25.0	71.22	ND	ND	ND	ND	ND	16,000/13,000 ⁴	
	01/21/00	9.30		70.62	ND ³	ND ³	ND ³	ND ³	ND ³	12,300/18,200 ⁴	
	07/10/00	8.72		71.20	ND ³	ND ³	ND ³	ND ³	ND ³	16,900/13,800 ⁴	
	01/04/01	9.17		70.75	ND	ND	ND	ND	0.719	--/37.3 ⁴	
	07/16/01	9.02		70.90	ND	ND	ND	ND	ND	7,200/4,700 ⁴	
	01/31/02	7.91		72.01	<50	<0.50	<0.50	<0.50	<0.50	8,900/9,900 ⁴	
80.67	04/11/02	INACCESSIBLE - CAR PARKED OVER WELL				--	--	--	--	--	--
MW-8											
80.96	06/18/99	9.10	5.0-25.0	71.86	ND	ND	ND	ND	ND	290/160 ⁴	
	01/21/00	10.00		70.96	ND	ND	ND	ND	1.09	224/221 ⁴	
	07/10/00	7.94		73.02	ND	ND	ND	ND	ND	234/223 ⁴	
	01/04/01	9.76		71.20	3,790 ⁵	141	8.92	128	375	--/34,200 ⁴	

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Table 1
Groundwater Monitoring Data and Analytical Results
 Tosco (Former Unocal) Service Station #1871
 96 MacArthur Boulevard
 Oakland, California

WELL ID/ TOC*(ft.)	DATE	DTW (ft.)	S.L. (ft. bgs.)	GWE (msl)	TPH-G (ppb)	B (ppb)	T (ppb)	E (ppb)	X (ppb)	MTBE (ppb)
MW-8	07/16/01	9.15	5.0-25.0	71.81	ND	ND	ND	ND	ND	66/70 ⁴
(cont)	01/31/02	7.99		72.97	5,900 ⁷	86	<10	630	390	670/700 ⁴
81.71	04/11/02	9.00		72.71	250	2.0	<0.50	38	2.2	410
MW-9										
82.07	01/31/02 ⁶	14.72	--	67.35	<50	<0.50	<0.50	<0.50	<0.50	680/910 ⁴
	04/11/02	14.85		67.22	<50	<0.50	<0.50	<0.50	<0.50	620
MW-10										
74.98	01/31/02 ⁶	8.02	--	66.96	<50	<0.50	<0.50	<0.50	<0.50	<5.0/1.2 ⁴
	04/11/02	7.60		67.38	<50	<0.50	<0.50	<0.50	<0.50	<2.5
MW-11										
77.31	01/31/02 ⁶	11.71	--	65.60	<50	<0.50	<0.50	<0.50	<0.50	<5.0/<1.0 ⁴
	04/11/02	11.95		65.36	<50	<0.50	<0.50	<0.50	<0.50	<2.5
Trip Blank										
TB-LB	01/14/98	--	--	--	ND	ND	ND	ND	ND	ND
	07/01/98	--	--	--	ND	ND	ND	ND	ND	ND
	06/18/99	--	--	--	ND	ND	ND	ND	ND	ND
	01/21/00	--	--	--	ND	ND	ND	ND	ND	14.6
	07/10/00	--	--	--	ND	ND	ND	ND	ND	ND
	01/04/01	--	--	--	ND	ND	ND	ND	ND	ND
	07/16/01	--	--	--	ND	ND	ND	ND	ND	ND
	01/31/02	--	--	--	<50	<0.50	<0.50	<0.50	<0.50	<5.0
	04/11/02	--	--	--	<50	<0.50	<0.50	<0.50	<0.50	<2.5

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Table 1
Groundwater Monitoring Data and Analytical Results
 Tosco (Former Unocal) Service Station #1871
 96 MacArthur Boulevard
 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 (ft.) = Feet	TPH-G = Total Petroleum Hydrocarbons as Gasoline B = Benzene	(ppb) = Parts per billion ND = Not Detected
DTW = Depth to Water	T = Toluene	-- = Not Measured/Not Analyzed
S. I. = Screen Interval (ft. bgs.) = Feet Below Ground Surface	E = Ethylbenzene X = Xylenes	
GWE = Groundwater Elevation (msl) = Mean sea level	MTBE = Methyl tertiary butyl ether	

* TOC elevation were surveyed by Virgil Chaves Land Surveying on January 15, 2002. Elevations were based on a USGS bronze disc located near the north end of the curb return at the northwest corner of 38th Street and Broadway, Oakland, California, (Benchmark = 85.41 feet NGVD 29). TOC elevations were re-surveyed by Kier & Wright in May, 1996, per City of Oakland Benchmark No. 2310, a cut square in concrete curb at mid point of return at the northeast corner of El Dorado and Fairmont Street. (Elevation = 77.53 feet msl).

◆ Well elevation has been adjusted up 0.75 feet based on Virgil Chavez Land Survey dated March 5, 2002.

- 1 Laboratory report indicates the presence of discrete peaks not indicative of gasoline.
- 2 Laboratory report indicates the hydrocarbons detected appeared to be a gasoline and non-gasoline mixture.
- 3 Detection limit raised. Refer to analytical reports.
- 4 MTBE by EPA Method 8260.
- 5 Laboratory report indicates gasoline C6-C12.
- 6 Well development performed.
- 7 Laboratory report indicates weathered gasoline C6-C12.

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Table 2
Groundwater Analytical Results
 Tosco (Former Unocal) Service Station #1871
 96 MacArthur Boulevard
 Oakland, California

WELL ID	DATE	TPH-D (ppb)	TOG (ppb)	HVOC (ppb)	SVOC (ppb)
MW-1	06/18/99	--	--	ND	--
MW-4	04/18/96	110 ¹	ND	ND	--
	07/24/96	ND	ND	ND	ND
	10/24/96	ND	ND	ND	ND ²
	01/28/97	210 ³	ND	ND	ND ⁴
	07/29/97	ND	ND	ND	ND
	01/14/98	ND	ND	ND	ND
	07/01/98	ND	ND	ND	ND
	DESTROYED				
MW-6	06/18/99	--	--	ND	--
MW-7	06/18/99	--	--	ND	--
MW-8	06/18/99	--	--	ND	ND ⁵

EXPLANATIONS:

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

TPH-D = Total Petroleum Hydrocarbons as Diesel

TOG = Total Oil and Grease

HVOC = Halogenated Volatile Organic Compounds by EPA Method 8010

SVOC = Semi-Volatile Organic Compounds by EPA Method 8270

(ppb) = Parts per billion

-- = Not Analyzed

ND = Not Detected

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

² Bis (2-ethylhexyl) phthalate was detected at a concentration of 14 ppb.

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

⁴ Naphthalene was detected at a concentration of 17 ppb.

⁵ All SVOCs were ND except for Bis(2-ethylhexyl)phthalate at 11 ppb.

All EPA Method 8010 and 8270 constituents were ND, unless noted.

Table 3
Groundwater Analytical Results - Oxygenate Compounds
 Tosco (Former Unocal) Service Station #1871
 96 MacArthur Boulevard
 Oakland, California

WELL ID	DATE	ETHANOL (ppb)	TBA (ppb)	MTBE (ppb)	DIPE (ppb)	ETBE (ppb)	TAME (ppb)	EDB (ppb)	1,2-DCA (ppb)
MW-1	06/18/99	ND ¹	ND ¹	47,000	ND ¹	ND ¹	ND ¹	ND ¹	ND ¹
	07/10/00	--	--	54,000	--	--	--	--	--
	01/04/01	--	--	38,100	--	--	--	--	--
	07/16/01	ND ¹	ND ¹	41,000	ND ¹	ND ¹	ND ¹	ND ¹	ND ¹
	01/31/02	--	--	26,000	--	--	--	--	--
MW-6	06/18/99	ND ¹	ND ¹	71,000	ND ¹	ND ¹	ND ¹	ND ¹	ND ¹
	01/21/00	--	--	48,800	--	--	--	--	--
	07/10/00	--	--	19,500	--	--	--	--	--
	01/04/01	--	--	9,510	--	--	--	--	--
	07/16/01	ND ¹	ND ¹	34,000	ND ¹	ND ¹	ND ¹	ND ¹	ND ¹
	01/31/02	--	--	31,000	--	--	--	--	--
MW-7	06/18/99	ND ¹	ND ¹	13,000	ND ¹	ND ¹	ND ¹	ND ¹	ND ¹
	01/21/00	--	--	18,200	--	--	--	--	--
	07/10/00	--	--	13,800	--	--	--	--	--
	01/04/01	--	--	37.3	--	--	--	--	--
	07/16/01	ND ¹	ND ¹	4,700	ND ¹	ND ¹	ND ¹	ND ¹	ND ¹
	01/31/02	--	--	9,900	--	--	--	--	--
MW-8	06/18/99	ND ¹	ND ¹	160	ND ¹	ND ¹	ND ¹	ND ¹	ND ¹
	01/21/00	--	--	221	--	--	--	--	--
	07/10/00	--	--	223	--	--	--	--	--
	01/04/01	--	--	34,200	--	--	--	--	--
	07/16/01	ND	ND	70	ND	ND	ND	ND	ND
	01/31/02	--	--	700	--	--	--	--	--

JUN 24 2002

Table 3
Groundwater Analytical Results - Oxygenate Compounds
 Tosco (Former Unocal) Service Station #1871
 96 MacArthur Boulevard
 Oakland, California

WELL ID	DATE	ETHANOL (ppb)	TBA (ppb)	MTBE (ppb)	DIPE (ppb)	ETBE (ppb)	TAME (ppb)	EDB (ppb)	1,2-DCA (ppb)
MW-9	01/31/02	<3,600	<140	910	<7.1	<7.1	<7.1	<7.1	<7.1
MW-10	01/31/02	<500	<20	1.2	<1.0	<1.0	<1.0	<1.0	<1.0
MW-11	01/31/02	<500	<20	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0

JUN 24 2002

Table 3
Groundwater Analytical Results - Oxygenate Compounds
Tosco (Former Unocal) Service Station #1871
96 MacArthur Boulevard
Oakland, California

EXPLANATIONS:

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

ANALYTICAL METHOD:

EPA Method 8260 for Oxygenate Compounds

¹ Detection limit raised. Refer to analytical reports.

JUL 24 2002

STANDARD OPERATING PROCEDURE -
GROUNDWATER SAMPLING

JUN 24 2002

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 Phillips 66 Company, the purge water and decontamination water generated during sampling activities is transported to Phillips 66 - San Francisco Refinery, located in Rodeo, California.

**WELL MONITORING/SAMPLING
FIELD DATA SHEET.**

JUNE 24 2002

Client/
Facility # Tasco # 1871
Address: 96 MacArthur Blvd.
City: Oakland, CA

Job #: 180068.85
Date: 4/11/02
Sampler: HAIG K.

Well ID MW-1
Well Diameter 4 in.
Total Depth 24.08 ft.
Depth to Water 13.64 ft.

Well Condition: OK
Hydrocarbon Thickness: Ø (feet) Amount Bailed (product/water): Ø (Gallons)
Volume Factor (VF) 2" = 0.17 3" = 0.38 4" = 0.66
6" = 1.50 12" = 5.80

10.44 x VF 0.66 = 6.8 X 3 (case volume) = Estimated Purge Volume: 20 (gal.)

Purge Equipment: Disposable Bailer
 Stack
 Suction
 Grundfos
Other: _____

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

Starting Time: 1355
Sampling Time: 1425
Purging Flow Rate: 2.1-1 1/4 gpm.
Did well de-water? NO

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

Time	Volume (gal.)	pH	Conductivity μ mhos/cm	Temperature $^{\circ}$ F	D.O. (mg/L)	ORP (mV)	Alkalinity (ppm)
<u>1400</u>	<u>11</u>	<u>7.12</u>	<u>627</u>	<u>20.0</u>			
<u>1406</u>	<u>14</u>	<u>7.08</u>	<u>653</u>	<u>20.5</u>			
<u>1412</u>	<u>20</u>	<u>7.06</u>	<u>646</u>	<u>20.2</u>			

LABORATORY INFORMATION

SAMPLE ID	(#) - CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
<u>MW-1</u>	<u>3 X VOA VIAL</u>	<u>Y</u>	<u>HCL</u>	<u>SEQUOIA</u>	<u>TPH(G)/btex/mtbe</u>

COMMENTS: _____

**WELL MONITORING/SAMPLING
FIELD DATA SHEET.**

Client/
Facility # 123456789 ISCO # 1871
Address: 96 MacArthur Blvd.
City: Oakland, CA

Job#: 180068.85
Date: 4/11/02
Sampler: HAIG K.

Well ID MW-6

Well Condition: OK

Well Diameter 2 in.

Hydrocarbon Thickness: Ø (feet) Amount Bailed (product/water): Ø (Gallons)

Total Depth 24.73 ft.

Depth to Water 9.08 ft.

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

15.65 x VF 0.17 = 2.66 x 3 (case volume) = Estimated Purge Volume: 8 (gal.)

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

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

Starting Time: 1055
Sampling Time: 1120
Purging Flow Rate: _____ gpm.
Did well de-water? NO

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

Time	Volume (gal.)	pH	Conductivity μ mhos/cm	Temperature $^{\circ}$ C	D.O. (mg/L)	ORP (mV)	Alkalinity (ppm)
<u>1101</u>	<u>3</u>	<u>7.66</u>	<u>621</u>	<u>19.8</u>			
<u>1107</u>	<u>6</u>	<u>7.55</u>	<u>649</u>	<u>19.7</u>			
<u>1112</u>	<u>8</u>	<u>7.52</u>	<u>638</u>	<u>19.5</u>			

LABORATORY INFORMATION

SAMPLE ID	(#) - CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
<u>MW-6</u>	<u>3 X VOA VIAL</u>	<u>Y</u>	<u>HCL</u>	<u>SEQUOIA</u>	<u>TPH(G)/btex/mtbe</u>

COMMENTS: _____

**WELL MONITORING/SAMPLING
FIELD DATA SHEET.**

JUN 24 2002

Client/Facility# Tasco # 1871 Job#: 180068.85
 Address: 96 MacArthur Blvd. Date: 4/11/02
 City: Oakland, CA Sampler: HAIG K.

Well ID MW-7 Well Condition: ~~INACCESSIBLE~~
 Well Diameter 2 in. Hydrocarbon Thickness: Ø (feet) Amount Bailed (Gallons)
 Total Depth _____ ft. Volume 2" = 0.17 3" = 0.38 4" = 0.66
 Depth to Water * ft. Factor (VF) 6" = 1.50 12" = 5.80

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

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

Starting Time: _____ Weather Conditions: SUNNY
 Sampling Time: * Water Color: _____ Odor: _____
 Purging Flow Rate: _____ gpm. Sediment Description: _____
 Did well de-water? _____ If yes; Time: _____ Volume: _____ (gal.)

Time	Volume (gal.)	pH	Conductivity μ mhos/cm	Temperature $^{\circ}$ F	D.O. (mg/L)	ORP (mV)	Alkalinity (ppm)

LABORATORY INFORMATION

SAMPLE ID	(#) CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
	X VOA VIAL	Y	HCL	SEQUOIA	TPH(GI)/btex/mtbe

COMMENTS: * INACCESSIBLE (CAR PARKED OVER ALL DAY - UNABLE TO FIND OWNER)

**WELL MONITORING/SAMPLING
FIELD DATA SHEET.**

JUN 24 2002

Client/
Facility # Tasco # 1871
Address: 96 MacArthur Blvd.
City: Oakland, CA

Job#: 180068.85
Date: 4/11/02
Sampler: HAIG R.

Well ID MW-8

Well Condition: OK

Well Diameter 2 in.

Hydrocarbon Thickness: Ø (feet) Amount Bailed (product/water): Ø (Gallons)

Total Depth 24.81 ft.

Depth to Water 9.00 ft.

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

15.81 x VF 0.17 = 2.68 x 3 (case volume) = Estimated Purge Volume: 8 (gal.)

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

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

Starting Time: 1030
Sampling Time: 1045
Purging Flow Rate: 2.1 gpm.
Did well de-water? NO

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

Time	Volume (gal.)	pH	Conductivity μ mhos/cm	Temperature $^{\circ}$ F	D.O. (mg/L)	ORP (mV)	Alkalinity (ppm)
<u>1033</u>	<u>3</u>	<u>7.29</u>	<u>446</u>	<u>18.4</u>			
<u>1036</u>	<u>6</u>	<u>7.24</u>	<u>490</u>	<u>18.7</u>			
<u>1038</u>	<u>8</u>	<u>7.22</u>	<u>482</u>	<u>18.9</u>			

LABORATORY INFORMATION

SAMPLE ID	(#) - CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
<u>MW-8</u>	<u>3 X VOA VIAL</u>	<u>Y</u>	<u>HCL</u>	<u>SEQUOIA</u>	<u>TPH(G)/btex/mtbe</u>

COMMENTS: _____

**WELL MONITORING/SAMPLING
FIELD DATA SHEET.**

JUN 4 2002

Client/
Facility # Tasco # 1871
Address: 96 MacArthur Blvd.
City: Oakland, CA

Job#: 180068.85
Date: 4/11/02
Sampler: HAIG R.

Well ID MW-9 Well Condition: OK

Well Diameter 2 in.
Total Depth 19.91 ft.
Depth to Water 14.85 ft.

Hydrocarbon Thickness: Ø (feet) Amount Bailed (Gallons) Ø

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

5.06 x VF 0.17 = 0.86 x 3 (case volume) = Estimated Purge Volume: 2.5 (gal.)

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

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

Starting Time: 1307 Weather Conditions: SUNNY
Sampling Time: 1335 Water Color: CLOUDY Odor: _____
Purging Flow Rate: _____ gpm. Sediment Description: _____
Did well de-water? N/D If yes; Time: _____ Volume: _____ (gal.)

Time	Volume (gal.)	pH	Conductivity μ mhos/cm	Temperature $^{\circ}$ F $^{\circ}$ C	D.O. (mg/L)	ORP (mV)	Alkalinity (ppm)
<u>1310</u>	<u>1</u>	<u>7.39</u>	<u>562</u>	<u>16.2</u>			
<u>1319</u>	<u>2.5</u>	<u>7.34</u>	<u>590</u>	<u>16.3</u>			

LABORATORY INFORMATION

SAMPLE ID	(#) - CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
<u>MW-9</u>	<u>3 X VOA VIAL</u>	<u>Y</u>	<u>HCL</u>	<u>SEQUOIA</u>	<u>TPH(G)/btex/mtbe</u>

COMMENTS: _____

**WELL MONITORING/SAMPLING
FIELD DATA SHEET.**

JUN 24 2002

Client/
Facility # TASCO # 1871
Address: 96 MacArthur Blvd.
City: Oakland, CA

Job#: 180068.85
Date: 4/11/02
Sampler: HAIG K.

Well ID MW-10

Well Condition: OK

Well Diameter 2 in.

Hydrocarbon Thickness: Ø (feet) Amount Bailed (product/water): Ø (Gallons)

Total Depth 19.98 ft.

Depth to Water 7.60 ft.

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

12.38 x VF 0.17 = 2 X 3 (case volume) = Estimated Purge Volume: 6 (gal.)

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

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

Starting Time: 1222

Weather Conditions: SUNNY

Sampling Time: 1250

Water Color: CLEAR Odor: _____

Purging Flow Rate: _____ gpm.

Sediment Description: _____

Did well de-water? NO

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

Time	Volume (gal.)	pH	Conductivity µmhos/cm	Temperature °C	D.O. (mg/L)	ORP (mV)	Alkalinity (ppm)
<u>1226</u>	<u>2</u>	<u>7.76</u>	<u>432</u>	<u>16.2</u>			
<u>1231</u>	<u>4</u>	<u>7.75</u>	<u>460</u>	<u>16.6</u>			
<u>1236</u>	<u>6</u>	<u>7.71</u>	<u>443</u>	<u>16.8</u>			

LABORATORY INFORMATION

SAMPLE ID	(#) - CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
<u>MW-10</u>	<u>3 X VOA VIAL</u>	<u>Y</u>	<u>HCL</u>	<u>SEQUOIA</u>	<u>TPH(G)/btex/mtbe</u>

COMMENTS: _____

**WELL MONITORING/SAMPLING
FIELD DATA SHEET.**

JUN 24 2002

Client/
Facility # Tasco # 1871
Address: 96 MacArthur Blvd.
City: Oakland, CA

Job#: 180068.85
Date: 4/11/02
Sampler: HAIG K.

Well ID MW-11
Well Diameter 2 in.
Total Depth 30.08 ft.
Depth to Water 11.95 ft.

Well Condition: OK

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

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

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

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

Starting Time: 1138
 Sampling Time: 1200
 Purging Flow Rate: ~1 gpm.
 Did well de-water? NO

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

Time	Volume (gal.)	pH	Conductivity μ mhos/cm	Temperature $^{\circ}$ F / $^{\circ}$ C	D.O. (mg/L)	ORP (mV)	Alkalinity (ppm)
<u>1141</u>	<u>3</u>	<u>8.08</u>	<u>1685</u>	<u>18.8</u>			
<u>1144</u>	<u>6</u>	<u>7.96</u>	<u>1722</u>	<u>19.1</u>			
<u>1148</u>	<u>9</u>	<u>7.94</u>	<u>1736</u>	<u>19.1</u>			

LABORATORY INFORMATION

SAMPLE ID	(#) - CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
<u>MW-11</u>	<u>3 X VOA VIAL</u>	<u>Y</u>	<u>HCL</u>	<u>SEQUOIA</u>	<u>TPH(GI)/btex/mtbe</u>

COMMENTS: _____

04/24/02 08:08 □ :02/02 NU:700



GLOBAL ID# 10600101493

CRIM-01-CUSTODY-REC-01

Facility Number Tosco #1871
 Facility Address 96 MacArthur Blvd., Oakland, CA
 Consultant Project Number 180068.80
 Consultant Name Gattler-Ryan Inc. (G-R Inc.)
 Address 6747 SIERRA COURT, SUITE J, DUBLIN, CA 94568
 Project Contact (Name) Deanna L. Harding
 (Phone) (925) 551-7555 / Fax Number 925-551-7899

Contact (Name) MR. Dave DeWitt
 (Phone) 925-277-2384
 Laboratory Name Sequoia Analytical *W204196*
 Laboratory Release Number _____
 Sample Collected by (Name) HAIG KEVORIK
 Collection Date 4/11/2002
 Signature *[Handwritten Signature]*

925 988 9673

SEQUOIA ANALYTICAL

Sample Number	Lab Sample Number	Number of Containers	Matrix S = Soil A = Air W = Water C = Charcoal	Type G = Grab C = Composite D = Discrete	Time	Sample Preservation	Lead (Yes or No)	Analysis To Be Performed											Remarks				
								TPH Gas + STEK W/ATRA (8010)	TPH Head (8013)	Oil and Grease (8020)	Pyrrolic Hydrocarbons (8010)	Pyrrolic Aromatics (8020)	Phenolics Organics (8240)	Extractable Organics (8270)	Metals Cd, Cr, Pb, Zn, Ni (201 or 21)								
EB-LB	-01A	1	W	G		HCL	YES	X															
1W-1	-02A-C	3	W	G	1425			X															
1W-6	-03	3	W	G	1120			X															
1W-8	-04	3	W	G	1045			X															
1W-9	-05	3	W	G	1335			X															
1W-10	-06	3	W	G	1250			X															
1W-11	-07	3	W	G	1200	↓	↓	X															

DO NOT BILL TB-LB ANALYSIS

2002 4 11 AMT

Inquired By (Signature) <i>[Signature]</i>	Organization G-R Inc.	Date/Time 4/11/02	Received By (Signature) <i>[Signature]</i>	Organization Sequoia	Date/Time 4/11/02 15:25
Inquired By (Signature)	Organization	Date/Time	Received By (Signature)	Organization	Date/Time
Inquired By (Signature)	Organization	Date/Time	Received For Laboratory By (Signature)	Organization	Date/Time

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



**Sequoia
Analytical**

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

24 April, 2002

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

RECEIVED

JUN 24 2002

GETTLER-RYAN INC.
GENERAL CONTRACTORS

RE: Tosco
Sequoia Report: W204196

Enclosed are the results of analyses for samples received by the laboratory on 11-Apr-02 15:25. If you have any questions concerning this report, please feel free to contact me.

Charlie Westwater
Project Manager
CA ELAP Certificate #1271



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

Project: Tosco
Project Number: Tosco # 1871
Project Manager: Deanna L. Harding

Reported:
24-Apr-02 08:52

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
TB-LB	W204196-01	Water	11-Apr-02 00:00	11-Apr-02 15:25
MW-1	W204196-02	Water	11-Apr-02 14:25	11-Apr-02 15:25
MW-6	W204196-03	Water	11-Apr-02 11:20	11-Apr-02 15:25
MW-8	W204196-04	Water	11-Apr-02 10:45	11-Apr-02 15:25
MW-9	W204196-05	Water	11-Apr-02 13:35	11-Apr-02 15:25
MW-10	W204196-06	Water	11-Apr-02 12:50	11-Apr-02 15:25
MW-11	W204196-07	Water	11-Apr-02 12:00	11-Apr-02 15:25

JUN 24 2002

Sequoia Analytical - Walnut Creek

Charlie Westwater, Project Manager

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



JUN 24 2002

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

Project: Tosco
Project Number: Tosco # 1871
Project Manager: Deanna L. Harding

Reported:
24-Apr-02 08:52

**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 (W204196-01) Water Sampled: 11-Apr-02 00:00 Received: 11-Apr-02 15:25									
Purgeable Hydrocarbons (C6-C12)	ND	50	ug/l	1	2D17002	18-Apr-02	18-Apr-02	EPA 8015M/8021	
Benzene	ND	0.50	"	"	"	"	"	"	
Toluene	ND	0.50	"	"	"	"	"	"	
Ethylbenzene	ND	0.50	"	"	"	"	"	"	
Xylenes (total)	ND	0.50	"	"	"	"	"	"	
Methyl tert-butyl ether (MTBE)	ND	2.5	"	"	"	"	"	"	
<i>Surrogate: a,a,a-Trifluorotoluene</i>		110 %	70-130		"	"	"	"	
MW-1 (W204196-02) Water Sampled: 11-Apr-02 14:25 Received: 11-Apr-02 15:25									
Purgeable Hydrocarbons (C6-C12)	58000	5000	ug/l	100	2D17002	18-Apr-02	18-Apr-02	EPA 8015M/8021	
Benzene	2900	50	"	"	"	"	"	"	
Toluene	1200	50	"	"	"	"	"	"	
Ethylbenzene	1800	50	"	"	"	"	"	"	
Xylenes (total)	10000	50	"	"	"	"	"	"	
Methyl tert-butyl ether (MTBE)	19000	250	"	"	"	"	"	"	
<i>Surrogate: a,a,a-Trifluorotoluene</i>		105 %	70-130		"	"	"	"	
MW-6 (W204196-03) Water Sampled: 11-Apr-02 11:20 Received: 11-Apr-02 15:25									
Purgeable Hydrocarbons (C6-C12)	3600	1000	ug/l	20	2D17002	18-Apr-02	18-Apr-02	EPA 8015M/8021	
Benzene	42	10	"	"	"	"	"	"	
Toluene	32	10	"	"	"	"	"	"	
Ethylbenzene	39	10	"	"	"	"	"	"	
Xylenes (total)	280	10	"	"	"	"	"	"	
<i>Surrogate: a,a,a-Trifluorotoluene</i>		97 %	70-130		"	"	"	"	



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

Project: Tosco
Project Number: Tosco # 1871
Project Manager: Deanna L. Harding

Reported:
24-Apr-02 08:52

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
MW-6 (W204196-03RE1) Water Sampled: 11-Apr-02 11:20 Received: 11-Apr-02 15:25									
Methyl tert-butyl ether (MTBE)	120000	1200	ug/l	500	2D17002	18-Apr-02	18-Apr-02	EPA 8015M/8021	Q-28
<i>Surrogate: a,a,a-Trifluorotoluene</i>		110 %	70-130		"	"	"	"	
MW-8 (W204196-04) Water Sampled: 11-Apr-02 10:45 Received: 11-Apr-02 15:25									
Purgeable Hydrocarbons (C6-C12)	250	50	ug/l	1	2D17002	18-Apr-02	18-Apr-02	EPA 8015M/8021	
Benzene	2.0	0.50	"	"	"	"	"	"	
Toluene	ND	0.50	"	"	"	"	"	"	
Ethylbenzene	38	0.50	"	"	"	"	"	"	
Xylenes (total)	2.2	0.50	"	"	"	"	"	"	
Methyl tert-butyl ether (MTBE)	410	2.5	"	"	"	"	"	"	
<i>Surrogate: a,a,a-Trifluorotoluene</i>		93 %	70-130		"	"	"	"	
MW-9 (W204196-05) Water Sampled: 11-Apr-02 13:35 Received: 11-Apr-02 15:25									
Purgeable Hydrocarbons (C6-C12)	ND	50	ug/l	1	2D17002	18-Apr-02	18-Apr-02	EPA 8015M/8021	
Benzene	ND	0.50	"	"	"	"	"	"	
Toluene	ND	0.50	"	"	"	"	"	"	
Ethylbenzene	ND	0.50	"	"	"	"	"	"	
Xylenes (total)	ND	0.50	"	"	"	"	"	"	
<i>Surrogate: a,a,a-Trifluorotoluene</i>		107 %	70-130		"	"	"	"	
MW-9 (W204196-05RE1) Water Sampled: 11-Apr-02 13:35 Received: 11-Apr-02 15:25									
Methyl tert-butyl ether (MTBE)	620	120	ug/l	50	2D17002	18-Apr-02	18-Apr-02	EPA 8015M/8021	Q-28
<i>Surrogate: a,a,a-Trifluorotoluene</i>		105 %	70-130		"	"	"	"	
MW-10 (W204196-06) Water Sampled: 11-Apr-02 12:50 Received: 11-Apr-02 15:25									
Purgeable Hydrocarbons (C6-C12)	ND	50	ug/l	1	2D17002	18-Apr-02	18-Apr-02	EPA 8015M/8021	
Benzene	ND	0.50	"	"	"	"	"	"	
Toluene	ND	0.50	"	"	"	"	"	"	
Ethylbenzene	ND	0.50	"	"	"	"	"	"	
Xylenes (total)	ND	0.50	"	"	"	"	"	"	
Methyl tert-butyl ether (MTBE)	ND	2.5	"	"	"	"	"	"	
<i>Surrogate: a,a,a-Trifluorotoluene</i>		102 %	70-130		"	"	"	"	



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**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
MW-11 (W204196-07) Water Sampled: 11-Apr-02 12:00 Received: 11-Apr-02 15:25									
Purgeable Hydrocarbons (C6-C12)	ND	50	ug/l	1	2D17002	18-Apr-02	18-Apr-02	EPA 8015M/8021	
Benzene	ND	0.50	"	"	"	"	"	"	
Toluene	ND	0.50	"	"	"	"	"	"	
Ethylbenzene	ND	0.50	"	"	"	"	"	"	
Xylenes (total)	ND	0.50	"	"	"	"	"	"	
Methyl tert-butyl ether (MTBE)	ND	2.5	"	"	"	"	"	"	
<i>Surrogate: a,a,a-Trifluorotoluene</i>		103 %		70-130					



JUN 24 2002

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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 2D17002 - EPA 5030B P/T

Blank (2D17002-BLK1)

Prepared & Analyzed: 17-Apr-02

Purgeable Hydrocarbons (C6-C12)	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 (MTBE)	ND	2.5	"							
Surrogate: a,a,a-Trifluorotoluene	32.0		"	30.0		107	70-130			

Blank (2D17002-BLK2)

Prepared & Analyzed: 18-Apr-02

Purgeable Hydrocarbons (C6-C12)	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 (MTBE)	ND	2.5	"							
Surrogate: a,a,a-Trifluorotoluene	34.0		"	30.0		113	70-130			

LCS (2D17002-BS1)

Prepared & Analyzed: 17-Apr-02

Benzene	18.4	0.50	ug/l	20.0		92	70-130			
Toluene	18.3	0.50	"	20.0		92	70-130			
Ethylbenzene	18.2	0.50	"	20.0		91	70-130			
Xylenes (total)	58.0	0.50	"	60.0		97	70-130			
Surrogate: a,a,a-Trifluorotoluene	31.6		"	30.0		105	70-130			

LCS (2D17002-BS2)

Prepared & Analyzed: 18-Apr-02

Benzene	19.8	0.50	ug/l	20.0		99	70-130			
Toluene	19.7	0.50	"	20.0		98	70-130			
Ethylbenzene	19.7	0.50	"	20.0		98	70-130			
Xylenes (total)	61.8	0.50	"	60.0		103	70-130			
Surrogate: a,a,a-Trifluorotoluene	33.3		"	30.0		111	70-130			



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JUN 24 2002

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 2D17002 - EPA 5030B P/T

Matrix Spike (2D17002-MS1)		Source: W204191-04			Prepared & Analyzed: 17-Apr-02					
Benzene	19.5	0.50	ug/l	20.0	ND	98	70-130			
Toluene	19.4	0.50	"	20.0	ND	97	70-130			
Ethylbenzene	18.8	0.50	"	20.0	ND	94	70-130			
Xylenes (total)	59.9	0.50	"	60.0	ND	100	70-130			
<i>Surrogate: a,a,a-Trifluorotoluene</i>	31.6		"	30.0		105	70-130			

Matrix Spike Dup (2D17002-MSD1)		Source: W204191-04			Prepared & Analyzed: 17-Apr-02					
Benzene	18.7	0.50	ug/l	20.0	ND	94	70-130	4	20	
Toluene	18.7	0.50	"	20.0	ND	94	70-130	4	20	
Ethylbenzene	18.3	0.50	"	20.0	ND	92	70-130	3	20	
Xylenes (total)	57.8	0.50	"	60.0	ND	96	70-130	4	20	
<i>Surrogate: a,a,a-Trifluorotoluene</i>	35.2		"	30.0		117	70-130			

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Notes and Definitions

- Q-28 The opening calibration verification standard was outside acceptance criteria by -13%. Although the Laboratory Control Sample verified the accuracy of the batch, this should be considered in evaluating the data for its intended purpose.
- 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

APR 24 2002