Weiss Associates Environmental and Geologic Services

5500 Shellmound Street, Emeryville, CA 94608-2411 Fax: 510-547-5043 Phone: **510-450-6000**

June 17, 1996

Susan Hugo
Alameda County Department of
Environmental Health
1131 Harbor Bay Parkway, Suite 250
Alameda, California 94502-6577

96 JUL -1 PM 4:41
ENVIRONMENTAL PROTECTION

Re: **Second Quarter 1996**
Shell Service Station
WIC #204-5508-5306
3420 San Pablo Avenue
Oakland, California
WA Job #81-0612-206

Dear Ms. Hugo:

This status report satisfies the quarterly reporting requirements prescribed by California Administrative Code Title 23 Waters, Division 3, Chapter 16, Article 5, Section 2652.d.

SEPARATE-PHASE HYDROCARBON REMOVAL SUMMARY	
Pounds of Separate-Phase Hydrocarbons Removed This Quarter	***Cumulative Pounds Removed***
0.00	19.88

Second Quarter 1996 Activities:

- Blaine Tech Services (BTS) of San Jose, California measured ground water depths and collected ground water samples from the monitoring wells (Figures 1 and 2). BTS' report describing these activities and the analytic report for the ground water samples are included as Attachment A.

- Weiss Associates (WA) tabulated the depth to water and analytic data (Tables 2 and 3) and contoured ground water elevations (Figure 2).

- WA sampled selected wells for total and fecal coliform. The laboratory reported a most probable number (MPN) concentration above 1,600 total coliform colonies per 100 ml in the sample from well MW-11. According to state guidelines, this

concentration renders ground water around well MW-11 as not suitable for domestic or municipal use. The analytical report is presented in Attachment B.

Anticipated Third Quarter 1996 Activities:

- WA will submit a report presenting the results of the third quarter 1996 ground water sampling and ground water depth measurements. The report will include tabulated chemical analytic results, SPH removal data and a ground water elevation contour map.

- SPH skimmers are installed in wells MW-2, MW-4 and MW-7. The skimmers will be purged of hydrocarbons quarterly until no SPH are measured in these wells. SPH volumes removed will be tabulated in subsequent quarterly status reports.

Please call if you have any questions.

Sincerely,
Weiss Associates

Grady S. Glasser
Technical Assistant

James W. Carmody C.H.G.
Senior Project Hydrogeologist

Attachments: A - BTS Ground Water Monitoring Report

cc: R. Jeff Granberry, Shell Oil Products Company, P.O. Box 4023, Concord, California 94524

GSG/JWC:all
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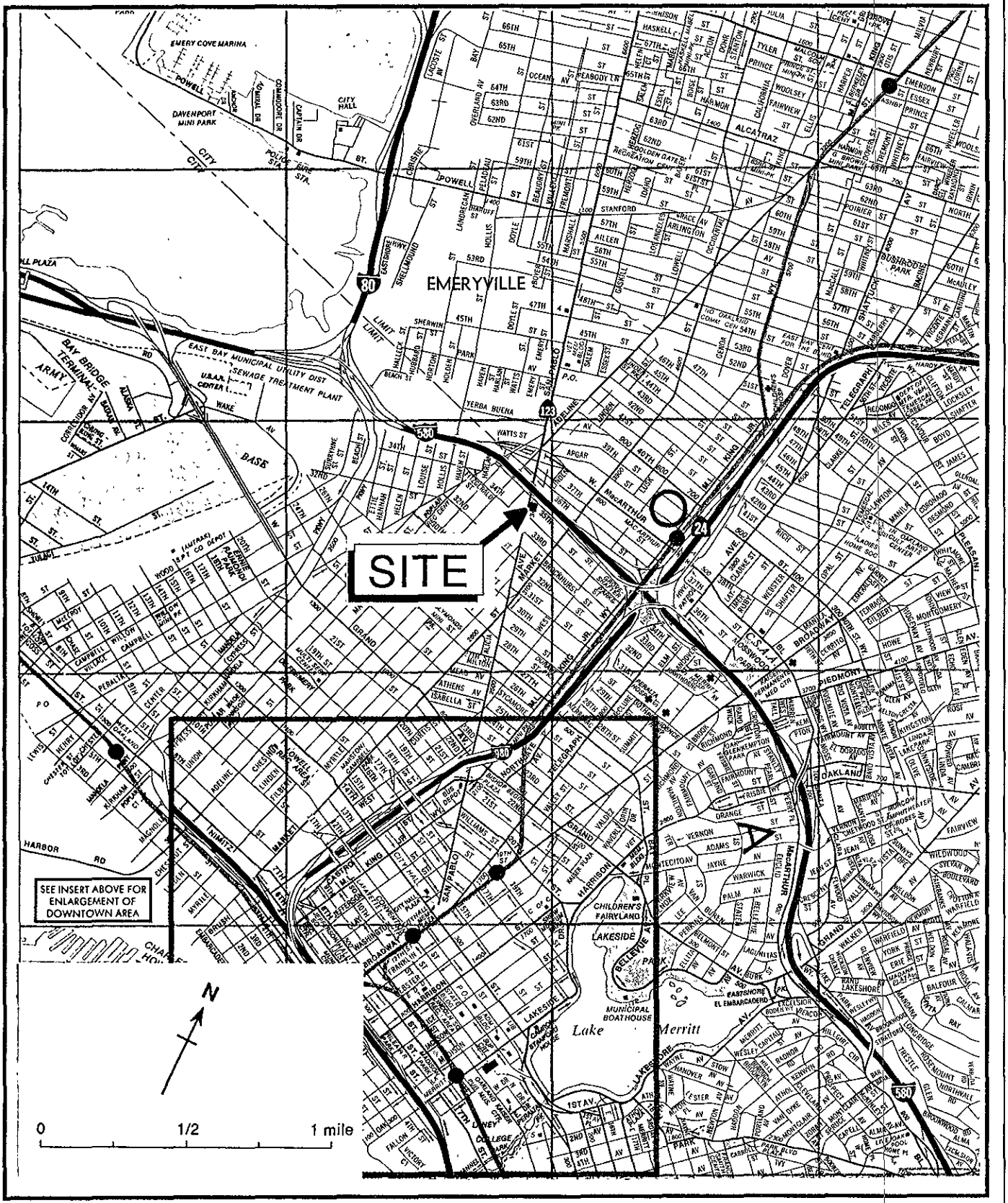

Figure 1. Site Location Map - Shell Service Station WIC #204-5508-5306, 3420 San Pablo Avenue, Oakland, California

2/13/92

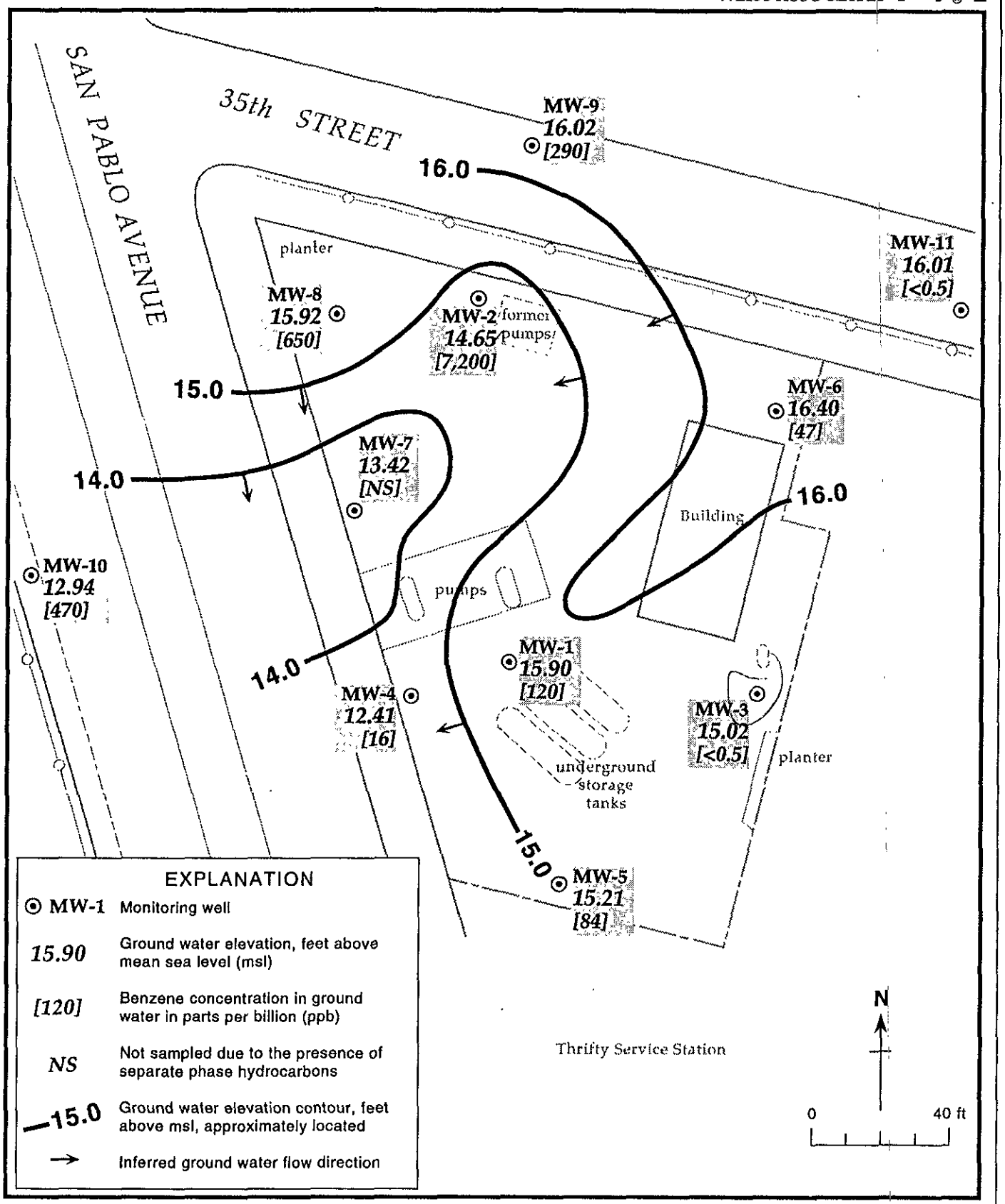

Figure 2. Monitoring Well Locations, Ground Water Elevation Contours, and Benzene Concentration in Ground Water - April 10, 1996 - Shell Service Station WIC #204-5508-5306, 3420 San Pablo Avenue, Oakland, California

Table 1. Separate-Phase Hydrocarbon Removal - Shell Service Station WIC #204-5508-5306, 3420 San Pablo, Avenue, Oakland, California

Well ID	Date	Separate-Phase Hydrocarbon Thickness (ft)	Separate-Phase Hydrocarbons Removed (lbs)	Cumulative Separate-Phase Hydrocarbons Removed (lbs)
MW-1	10/23/91	0.01	---	---
	05/04/92	<0.01	---	---
	10/12/92	0.09	---	---
	01/12/93	0.02	3.12	3.12
	04/06/93	<0.01	0.78	3.90
	07/12/93	0.01	0.18	4.08
	10/13/93	0.01	0.06	4.14
	01/20/94	0.01	0.03	4.17
	04/03/94	0.02	0.12	4.29
MW-2	10/12/92	0.03	---	---
	01/12/93	0.01	1.56	1.56
	04/06/93	<0.01	0.78	2.34
	04/03/94	<0.01	0.03	2.37
MW-4	10/12/92	0.78	---	---
	01/12/93	1.0	---	---
	04/06/93	0.95	---	---
	07/12/93	0.03	6.36	6.36
	10/13/93	0.12	0.78	7.14
	01/20/94	0.02	0.03	7.17
	04/13/94	0.01	0.12	7.29
	10/27/94	0.03	0.79	8.08
	01/03/95	0.01	0.16	8.24
	04/13/95	0.03	0.16	8.40
MW-5	10/12/92	0.01	---	---
	01/12/93	<0.01	---	---
	10/13/93	0.03	---	---
	01/20/94	0.01	---	---
	04/13/94	0.01	0.03	0.06
MW-6	10/12/92	0.48	---	---
	01/12/93	<0.01	---	---
	10/13/93	0.2	---	---
	01/20/94	0.02	---	---
	04/13/94	0.01	0.03	0.03
	07/19/94	0.07	0.03	0.06
	10/27/94	0.11	1.43	1.49
	01/03/95	0.02	0.12	1.61
	04/13/95	0.02	0.13	1.74

Table 1. Separate-Phase Hydrocarbon Removal - Shell Service Station WIC #204-5508-5306, 3420 San Pablo, Avenue, Oakland, California (continued)

Well ID	Date	Separate-Phase Hydrocarbon Thickness (ft)	Separate-Phase Hydrocarbons Removed (lbs)	Cumulative Separate-Phase Hydrocarbons Removed (lbs)
MW-7	01/20/94	0.05	---	---
	04/13/94	0.16	0.66	0.66
	07/19/94	0.20	0.04	0.70
	10/27/94	0.04	1.11	1.81
	01/03/95	0.02	0.16	1.97
	04/13/95	0.02	0.16	2.13
	10/31/95	0.04	0.80	2.93
	01/17/96	0.04	0.09	3.02
	04/10/96	**0.05**	**0.00**	**3.02**
	Total Separate-Phase Hydrocarbons Removed			**19.88**

Table 2. Ground Water Elevations - Shell Service Station WIC #204-5508-5306, 3420 San Pablo Avenue, Oakland, California

Well ID	Date	Top-of-Casing Elevation (ft above msl)	Depth to Water (ft)	Separate-Phase Hydrocarbon Thickness (ft)	Ground Water Elevation (ft above msl)[a]
MW-1	08/06/91	21.28	10.86	---	10.43
	10/23/91		11.05	0.01	10.24
	01/28/92		10.84	---	10.44
	05/04/92		9.42	<0.01	11.86
	07/13/92		11.36	---	9.92
	10/12/92		13.14	0.09	8.21
	01/12/93		7.52	0.02	13.78
	04/06/93		7.13	<0.01	14.16
	07/12/93		11.02	0.01	10.27
	10/13/93		12.18	0.01	9.11[a]
	01/20/94		9.18	0.01	12.10
	04/13/94		8.72	0.02	12.58
	07/19/94		8.76	---	12.52
	10/27/94		10.49	---	10.79
	01/03/95		6.15	---	15.13
	04/13/95		5.24	---	16.04
	06/30/95		7.24	---	14.04
	10/11/91		9.48	---	11.80
	01/17/96		6.48	---	14.80
	04/10/96		**5.38**	**---**	**15.90**
MW-2	08/06/91	21.56	9.72	---	11.84
	10/23/91		10.03	---	11.53
	01/28/92		8.78	---	12.78
	05/04/92		7.58	---	13.98
	07/13/92		9.63	---	11.93
	10/12/92		11.66	0.03	9.92
	01/12/93		7.13	0.01	14.44
	04/06/93		6.40	<0.01	15.17
	07/12/93		8.75	---	12.81
	10/13/93		10.28	---	11.28
	01/20/94		---	---	---
	04/13/94		7.35	<0.01	14.22
	07/19/94		8.24	---	13.32
	10/27/94		10.26	---	13.32
	01/03/95		6.44	---	15.12
	04/13/95		5.89	---	15.67
	06/30/95		7.41	---	14.15
	10/11/95		8.02	---	13.54
	01/17/96		7.42	---	14.14
	04/10/96		**6.91**	**---**	**14.65**

Table 2. Ground Water Elevations - Shell Service Station WIC #204-5508-5306, 3420 San Pablo, Avenue, Oakland, California (continued)

Well ID	Date	Top-of-Casing Elevation (ft above msl)	Depth to Water (ft)	Separate-Phase Hydrocarbon Thickness (ft)	Ground Water Elevation (ft above msl)[a]
MW-3	08/06/91	21.78	11.18	---	10.60
	10/23/91		11.69	---	10.09
	01/28/92		9.99	---	11.79
	05/04/92		9.46	---	12.32
	07/13/92		11.29	---	10.49
	10/12/92		13.10	---	8.68
	01/12/93		7.32	---	14.46
	04/06/93		7.44	---	14.34
	07/12/93		10.62	---	11.16
	10/13/93		12.05	---	9.73
	01/20/94		9.62	---	12.16
	04/13/94		9.15	---	12.63
	07/19/94		10.13	---	11.65
	10/27/94		11.66	---	10.12
	01/03/95		6.89	---	14.89
	04/13/95		6.79	---	14.99
	06/30/95		8.94	---	12.84
	10/11/95		10.62	---	11.16
	01/17/96		7.18	---	14.60
	04/10/96		**6.76**	---	**15.02**
MW-4	08/06/91	20.31	10.57	---	9.74
	10/23/91		10.46	---	9.85
	01/28/92		9.54	---	10.77
	05/04/92		8.33	---	11.98
	07/13/92		9.87	---	10.44
	10/12/92		12.43	0.78	8.50
	01/12/93		7.12	1.0	13.99
	04/06/93		7.23	0.95	13.84
	07/12/93		10.08	0.03	10.25
	10/13/93		11.35	0.12	9.06
	01/20/94		9.06	0.02	11.26
	04/13/94		8.58	0.01	11.74
	07/19/94		9.71	---	10.60
	10/27/94		10.60	0.03	9.73
	01/03/95		5.49	0.01	14.83
	04/13/95		6.53	0.03	13.80
	06/30/95		9.57	---	10.74
	10/11/95		10.30	---	10.01
	01/17/96		6.68	---	13.63
	04/10/96		**5.90**	---	**12.41**

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Table 2. Ground Water Elevations - Shell Service Station WIC #204-5508-5306, 3420 San Pablo, Avenue, Oakland, California (continued)

Well ID	Date	Top-of-Casing Elevation (ft above msl)	Depth to Water (ft)	Separate-Phase Hydrocarbon Thickness (ft)	Ground Water Elevation (ft above msl)[a]
MW-5	08/06/91	20.91	10.23	---	10.68
	10/23/91		10.89	---	10.02
	01/28/92		8.45	---	12.46
	05/04/92		8.05	---	12.86
	07/13/92		10.00	---	10.91
	10/12/92		11.83	0.01	9.09
	01/12/93		6.10	<0.01	14.81
	04/06/93		6.18	---	14.73
	07/12/93		9.59	---	11.32
	10/13/93		10.80	0.03	10.13[a]
	01/20/94		7.42	0.01	13.49
	04/13/94		7.05	0.01	13.87
	07/19/94		8.57	---	12.34
	10/27/94		10.14	---	10.77
	01/03/95		5.84	---	15.07
	04/13/95		5.28	---	15.63
	06/30/95		7.43	---	13.48
	10/11/95		8.90	---	12.01
	01/17/96		6.40	---	14.51
	04/10/96		**5.70**	**---**	**15.21**
MW-6	08/06/91	22.32	10.61	---	11.71
	10/23/91		11.68	---	10.64
	01/28/92		8.90	---	13.42
	05/04/92		8.01	---	14.31
	07/13/92		10.77	---	11.55
	10/12/92		13.36	0.48	9.34
	01/12/93		6.40	<0.01	15.92
	04/06/93		5.93	---	16.39
	07/12/93		10.25	---	12.07
	10/13/93		12.28	0.2	10.20[a]
	01/20/94		9.14	0.02	13.20
	04/13/94		7.67	0.01	14.66
	07/19/94		10.07	0.07	12.31
	10/27/94		11.84	0.11	10.57
	01/03/95		7.80	0.02	14.54
	04/13/95		5.77	0.02	16.57
	06/30/95		7.78	---	14.54
	10/11/95		10.06	---	12.26
	01/17/96		6.91	---	15.41
	04/10/96		**5.92**	**---**	**16.40**

Table 2. Ground Water Elevations - Shell Service Station WIC #204-5508-5306, 3420 San Pablo, Avenue, Oakland, California (continued)

Well ID	Date	Top-of-Casing Elevation (ft above msl)	Depth to Water (ft)	Separate-Phase Hydrocarbon Thickness (ft)	Ground Water Elevation (ft above msl)[a]
MW-7	08/06/91	20.36	8.00	---	12.36
	10/23/91		8.16	---	12.20
	01/28/92		7.11	---	13.25
	05/04/92		6.47	---	13.89
	07/13/92		7.73	---	12.63
	10/12/92		8.68	---	11.68
	01/12/93		6.26	---	14.10
	04/06/93		5.92	---	14.44
	07/12/93		7.27	---	13.09
	10/13/93		9.40	---	10.96
	01/20/94		7.03	0.05	13.37
	04/13/94		6.56	0.16	13.93
	07/19/94		6.91	0.20	13.61
	10/27/94		8.28	0.04	12.11
	01/03/95		6.48	0.02	13.90
	04/13/95		6.54	0.02	13.84
	06/30/95		7.08	---	13.28
	10/11/95		7.88	0.04	12.51
	01/17/96		7.26	0.04	13.13
	04/10/96		**6.98**	**0.05**	**13.42**
MW-8	08/06/91	20.95	9.60	---	11.35
	10/23/91		9.73	---	11.22
	01/28/92		7.72	---	13.23
	05/04/92		6.48	---	14.47
	07/13/92		8.55	---	12.40
	10/12/92		9.97	---	10.98
	01/12/93		6.94	---	14.01
	04/06/93		5.72	---	15.23
	07/12/93		7.65	---	13.30
	10/13/93		8.25	---	12.70
	01/20/94		7.25	---	13.70
	04/13/94		7.12	---	13.83
	07/19/94		7.43	---	13.52
	10/27/94		7.55	---	13.40
	01/03/95		6.04	---	14.91
	04/13/95		5.04	---	15.91
	06/30/95		5.72	---	15.23
	10/11/95		7.06	---	13.89
	01/17/96		5.84	---	15.11
	04/10/96		**5.03**	**---**	**15.92**

Table 2. Ground Water Elevations - Shell Service Station WIC #204-5508-5306, 3420 San Pablo, Avenue, Oakland, California (continued)

Well ID	Date	Top-of-Casing Elevation (ft above msl)	Depth to Water (ft)	Separate-Phase Hydrocarbon Thickness (ft)	Ground Water Elevation (ft above msl)[a]
MW-9	08/06/91	21.19	10.33		10.86
	10/23/91		11.13	---	10.06
	01/28/92		9.02	---	12.17
	05/04/92		7.67	---	13.52
	07/13/92		10.26	---	10.93
	10/12/92		12.19	---	9.0
	01/12/93[b]		---	---	---
	04/06/93[b]		---	---	---
	07/12/93[b]		---	---	---
	10/13/92		11.17	---	10.02
	01/20/94		8.03	---	13.16
	04/13/94		7.81	---	13.38
	07/19/94		8.96	---	12.23
	10/27/94		11.00	---	10.19
	01/03/95		6.60	---	14.59
	04/13/95		6.73	---	14.46
	06/30/95		7.32	---	13.87
	10/11/95		8.10	---	13.09
	01/17/96		5.75	---	15.44
	04/10/96		**5.17**	**---**	**16.02**
MW-10	10/23/91	19.74	8.57	---	11.17
	01/28/92		7.60	---	12.14
	05/04/92		7.54	---	12.20
	07/13/92		8.59	---	11.15
	10/12/92		10.23	---	9.51
	01/12/93[b]		---	---	---
	04/06/93		6.70	---	13.04
	07/12/93[b]		8.05	---	11.69
	10/13/93		8.25	---	11.49
	01/20/94		7.20	---	12.54
	04/13/94		7.57	---	12.17
	07/19/94		8.18	---	11.56
	10/27/94		8.68	---	11.06
	01/03/95		6.86	---	12.88
	04/13/95		6.91	---	12.83
	06/30/95		7.61	---	12.13
	10/11/95		---	---	---
	01/17/96		7.00	---	12.74
	04/10/96		**6.80**	**---**	**12.94**

Table 2. Ground Water Elevations - Shell Service Station WIC #204-5508-5306, 3420 San Pablo, Avenue, Oakland, California (continued)

Well ID	Date	Top-of-Casing Elevation (ft above msl)	Depth to Water (ft)	Separate-Phase Hydrocarbon Thickness (ft)	Ground Water Elevation (ft above msl)[a]
MW-11	10/23/91	22.06	14.00	---	8.06
	01/28/92		8.74	---	3.32
	05/04/92		8.29	---	13.77
	07/13/92		10.50	---	11.56
	10/12/92		12.40	---	9.66
	01/12/93[b]		---	---	---
	04/06/93[b]		---	---	---
	07/12/93[b]		---	---	---
	10/13/93		11.47	---	10.59
	01/20/94		9.09	---	12.97
	04/13/94		8.02	---	14.04
	07/19/94		9.82	---	12.24
	10/27/94		11.66	---	10.40
	01/03/95		6.15	---	15.91
	04/13/95		6.00	---	16.06
	06/30/95		8.31	---	13.75
	10/11/95		10.30	---	11.76
	01/17/96		6.45	---	15.61
	04/10/96		**6.05**	**---**	**16.01**

Notes:

a = When separate-phase hydrocarbons are present ground water elevation is adjusted using the relation: Ground Water Elevation = Top-of-casing elevation - depth to water + (0.8 x hydrocarbon thickness).

b = Well inaccessible, covered by construction debris.

Table 3. Analytic Results for Ground Water - Shell Service Station WIC #204-5508-5306, 3420 San Pablo Avenue, Oakland, California

Well ID	Date Sampled	Depth to Water (ft)	TPH-G	B	E	T	X	MTBE
			← parts per billion (µg/L) →					
MW-1	08/06/91[SPH]	10.86	—	—	—	—	—	—
	10/23/91	11.05	32,000	2,700	550	360	3,700	—
	01/28/92	10.84	14,000	1,000	450	106	1,600	—
	05/05/92	9.42	98,000	11,000	3,500	1,200	18,000	—
	07/13/92	11.36	11,000	1,100	740	130	1,300	—
	10/12/92[SPH]	13.14	—	—	—	—	—	—
	01/12/93[SPH]	7.52	—	—	—	—	—	—
	04/06/93[SPH]	7.13	—	—	—	—	—	—
	07/12/93[SPH]	11.02	—	—	—	—	—	—
	10/13/93[SPH]	12.18	—	—	—	—	—	—
	01/20/94[SPH]	9.18	—	—	—	—	—	—
	04/13/94[SPH]	8.72	—	—	—	—	—	—
	07/19/94	8.76	17,000	420	530	140	1,300	—
	10/27/94	10.49	23,000	1,200	990	130	960	—
	01/03/95	6.15	31,000	610	1,200	160	5,000	—
	04/13/95	5.24	20,000	340	680	42	2,900	—
	06/3095	7.24	16,000	450	460	62	1,200	—
	10/11/95	9.48	8,400	660	510	47	850	8,000
	10/13/95	—	7,400	730	490	54	1,100	8,200
	01/17/96	6.48	24,000	570	820	110	2,900	15,000
	04/10/96	5.38	20,000	120	420	11	1,400	15,000
MW-2	08/06/91	9.72	50,000	15,000	2,700	1,400	13,000	—
	10/23/91	10.03	120,000	11,000	3,500	1,400	19,000	—
	01/28/92	8.78	49,000	7,400	1,800	800	8,300	—
	05/05/92	7.58	52,000	12,000	2,200	1,100	12,000	—
	07/13/92	9.63	47,000	15,000	4,500	2,400	16,000	—
	10/12/92[SPH]	11.66	—	—	—	—	—	—
	01/12/93[SPH]	7.13	—	—	—	—	—	—
	04/06/93[SPH]	6.40	—	—	—	—	—	—
	07/12/93	8.75	59,000	12,000	2,400	950	11,000	—
	10/13/93	10.28	54,000	14,000	3,700	1,200	22,000	—
	01/20/94	—	—	—	—	—	—	—
	04/13/94	7.35	79,000	9,400	2,100	740	12,000	—
	04/13/94[dup]	7.35	110,000	11,000	2,400	710	13,000	—
	07/19/94	8.24	63,000	13,000	1,900	810	13,000	—
	07/19/94[dup]	8.24	12,000	12,000	340	140	12,000	—
	10/27/94	10.26	64,000	8,800	2,100	480	10,000	—
	01/03/95	6.44	67,000	9,800	2,800	720	11,000	—
	01/03/95[dup]	6.44	58,000	9,700	2,700	620	12,000	—

Table 3. Analytic Results for Ground Water - Shell Service Station WIC #204-5508-5306, 3420 San Pablo Avenue, Oakland, California (continued)

Well ID	Date Sampled	Depth to Water (ft)	TPH-G	B	E	T	X	MTBE
			← parts per billion (µg/L) →					
	04/13/95	5.89	83,000	10,000	2,600	490	13,000	—
	04/13/95[dup]	5.89	74,000	9,500	2,100	350	11,000	—
	06/30/95	7.41	65,000	12,000	2,400	1,800	12,000	—
	10/11/95	8.02	68,000	8,800	3,000	840	13,000	1,400
	01/17/96	7.42	79,000	12,000	2,700	640	14,000	2,200
	01/17/96[dup]	7.42	78,000	12,000	2,500	920	12,000	2,500
	04/10/96	**6.91**	**84,000**	**7,200**	**1,700**	**310**	**7,800**	**2,900**
MW-3	08/06/91	11.18	430	8	4	1	15	—
	10/23/91	11.69	390	2.1	0.48	<0.3	2	—
	01/28/92	9.99	190	<0.5	<0.5	<0.5	<0.5	—
	05/04/92	9.46	190	<1	<1	<1	0.71	—
	07/20/92	11.29	200[a]	<0.5	<0.5	<0.5	<0.5	—
	10/12/92	13.10	180[a]	<0.5	<0.5	<0.5	<0.5	—
	01/12/93	7.32	180	<0.5	0.9	2.3	5.6	—
	01/12/93[dup]	7.32	260	<0.5	<0.5	<0.5	<0.5	—
	04/06/93	7.44	280	<0.5	<0.5	<0.5	<0.5	—
	07/12/93	10.62	310[a]	<0.5	<0.5	<0.5	<0.5	—
	10/13/93	12.05	150	<0.5	<0.5	<0.5	<0.5	—
	01/20/94	9.62	180	<0.5	<0.5	<0.5	<0.5	—
	04/13/94	9.15	270	<0.5	<0.5	<0.5	<0.5	—
	07/19/94	10.13	190*	<0.5	<0.5	<0.5	<0.5	—
	10/27/94	11.66	160*	<0.5	<0.5	<0.5	<0.5	—
	01/03/95	6.89	100*	<0.5	<0.5	<0.5	<0.5	—
	04/13/95	6.79	120*	<0.5	<0.5	<0.5	<0.5	—
	06/30/95	8.94	180*	<0.5	<0.5	<0.5	<0.5	—
	10/11/95	10.62	150	2.2	<0.5	<0.5	<0.5	2.3
	01/17/96	7.18	120	<0.5	<0.5	2.3	0.7	7.8
	04/10/96	**6.76**	**160**	**<0.5**	**<0.5**	**<0.5**	**<0.5**	**12**
MW-4	08/06/91	10.57	1,300	28	68	18	150	—
	10/23/91	10.46	1,900	97	38	6.1	77	—
	01/28/92	9.54	200	7.6	3	<0.5	3.3	—
	05/04/92	8.33	690	98	13	3	<1	—
	07/13/92	9.87	1,500	140	17	2.9	12	—
	07/13/92[dup]	9.87	870	95	10	1.9	7.1	—
	10/12/92[SPH]	12.43	—	—	—	—	—	—
	01/12/93[SPH]	7.12	—	—	—	—	—	—
	04/06/93[SPH]	7.23	—	—	—	—	—	—

Table 3. Analytic Results for Ground Water - Shell Service Station WIC #204-5508-5306, 3420 San Pablo Avenue, Oakland, California (continued)

Well ID	Date Sampled	Depth to Water (ft)	TPH-G	B	E	T	X	MTBE
			← parts per billion (µg/L) →					
	07/12/93[SPH]	10.08	—	—	—	—	—	—
	10/13/93[SPH]	11.35	—	—	—	—	—	—
	01/20/94[SPH]	9.06	—	—	—	—	—	—
	04/13/84[SPH]	8.58	—	—	—	—	—	—
	07/18/94	9.71	12,000	230	230	43	660	—
	10/27/94[SPH]	10.60	—	—	—	—	—	—
	01/03/95[SPH]	5.49	—	—	—	—	—	—
	04/13/95[SPH]	6.53	—	—	—	—	—	—
	06/30/95	9.57	7,400	140	160	<0.5	350	—
	10/11/95	10.30	3,000	29	100	10	82	9,700
	01/17/96	6.68	9,700	190	190	<0.5	410	4,500
	04/10/96	7.90	2,800	16	22	<5.0	50	6,100
MW-5	08/06/91	10.23	9,100	210	240	27	660	—
	10/23/91	10.89	12,000	92	230	18	450	—
	01/28/92	8.45	3,300	130	180	10	220	—
	05/04/92	8.05	3,900	95	260	<12.5	120	—
	07/13/92	10.00	4,100	180	250	12	73	—
	10/12/92[SPH]	11.83	—	—	—	—	—	—
	01/12/93[SPH]	6.10	—	—	—	—	—	—
	04/06/93	6.18	6,200	71	53	<0.5	150	—
	07/12/93	9.59	3,400	130	170	<0.5	130	—
	10/13/93[SPH]	10.80	—	—	—	—	—	—
	01/20/94[SPH]	7.42	—	—	—	—	—	—
	04/13/94[SPH]	7.05	—	—	—	—	—	—
	07/19/94	8.57	11,000	180	180	13	260	—
	10/27/94	10.14	6,900	82	210	<5	110	—
	01/03/95	5.84	12,000	110	790	46	510	—
	04/13/95	5.28	10,000	61	330	<20	140	—
	06/30/95	7.43	12,000	180	440	8.6	340	—
	10/11/95	8.90	11,000	<50	440	<50	340	5,100
	10/11/95[dup]	8.90	11,000	95	440	<50	330	660
	01/17/96	6.40	82,000	330	960	120	1,400	820
	04/10/96	5.70	23,000	<50	360	<50	190	770
	04/10/96[dup]	5.70	19,000	84	430	<50	200	590
MW-6	08/06/91	10.61	28,000	1,400	1,300	200	4,200	—
	10/23/91	11.68	53,000	1,400	1,800	230	6,700	—
	01/28/92	8.90	87,000	1,200	2,000	470	6,600	—

Table 3. Analytic Results for Ground Water - Shell Service Station WIC #204-5508-5306, 3420 San Pablo Avenue, Oakland, California (continued)

Well ID	Date Sampled	Depth to Water (ft)	TPH-G	B	E	T	X	MTBE
			←		parts per billion (µg/L)			→
	05/05/92	8.01	230,000	<500	3,200	<500	11,000	---
	07/13/92	10.77	2,700,000	<2,500	14,000	3,500	36,000	---
	10/12/92[SPH]	8.68	---	---	---	---	---	---
	01/12/93[SPH]	6.40	---	---	---	---	---	---
	04/06/93	5.93	320,000	2,500	5,400	980	14,000	---
	07/12/93	10.25	31,000	1,100	1,700	150	4,500	---
	07/12/93[dup]	10.25	25,000	1,200	2,000	270	4,800	---
	10/13/93[SPH]	12.28	---	---	---	---	---	---
	01/20/94[SPH]	9.14	---	---	---	---	---	---
	04/13/94[SPH]	7.67	---	---	---	---	---	---
	07/19/94[SPH]	10.07	---	---	---	---	---	---
	10/27/94[SPH]	11.84	---	---	---	---	---	---
	01/03/95[SPH]	7.80	---	---	---	---	---	---
	04/13/95[SPH]	5.77	---	---	---	---	---	---
	06/30/95	7.78	1,100,000	6,600	12,000	6,100	29,000	---
	10/11/95	10.06	30,000	130	1,400	<50	4,200	710
	01/17/96	6.91	450,000	510	2,700	1,400	11,000	630
	04/10/96	**5.92**	**22,000**	**47**	**350**	**<10**	**860**	**<50**
MW-7	08/06/91	8.00	13,000	4,300	770	76	730	---
	10/23/91	8.16	18,000	3,200	660	31	770	---
	01/28/92	7.11	5,000	1,200	220	<10	54	---
	05/05/92	6.47	9,500	3,100	620	72	880	---
	07/13/92	7.73	20,000	4,200	1,600	130	1,100	---
	10/12/92	9.97	16,000	2,500	560	<50	170	---
	01/12/93	6.26	15,000	2,300	690	<0.5	440	---
	04/06/93	5.92	26,000	5,400	1,200	310	3,000	---
	04/06/93[dup]	5.92	21,000	5,200	1,200	180	3,000	---
	07/12/93	7.27	10,000[a]	3,000	510	100	530	---
	10/13/93	9.40	59,000	13,000	4,400	4,400	20,000	---
	01/20/94[SPH]	7.03	---	---	---	---	---	---
	04/13/94[SPH]	6.56	---	---	---	---	---	---
	07/19/94[SPH]	6.91	---	---	---	---	---	---
	10/27/94[SPH]	8.28	---	---	---	---	---	---
	01/03/95[SPH]	6.48	---	---	---	---	---	---
	04/13/95[SPH]	6.54	---	---	---	---	---	---
	06/30/95	7.08	900,000	11,000	14,000	8,500	52,000	---

Weiss Associates

Table 3. Analytic Results for Ground Water - Shell Service Station WIC #204-5508-5306, 3420 San Pablo Avenue, Oakland, California (continued)

Well ID	Date Sampled	Depth to Water (ft)	TPH-G	B	E	T	X	MTBE
			← parts per billion (µg/L) →					
	10/11/95[SPH]	7.88	—	—	—	—	—	—
	01/17/96[SPH]	7.26	—	—	—	—	—	—
	04/10/96[SPH]	6.98	—	—	—	—	—	—
MW-8	08/06/91	9.60	32,000	3,700	1,400	1,100	6,100	—
	10/23/91	9.73	63,000	4,800	1,300	1,300	6,900	—
	01/28/92	7.72	32,000	1,900	1,400	750	6,300	—
	05/05/92	6.48	180,000	2,200	2,700	2,000	13,000	—
	07/13/92	8.55	56,000	4,500	2,700	1,500	9,100	—
	10/12/92	9.97	34,000	2,400	1,400	550	6,400	—
	10/12/92[dup]	9.97	34,000	3,100	1,500	700	7,200	—
	01/12/93	6.94	110,000	2,100	2,400	1,200	12,000	—
	04/06/93	5.72	38,000	2,500	1,100	840	4,900	—
	07/12/93	7.65	27,000	2,800	1,200	990	5,300	—
	10/13/93	8.25	32,000	3,300	1,600	1,300	8,400	—
	10/13/93[dup]	8.25	47,000	3,200	1,600	1,300	8,500	—
	01/20/94	7.25	78,000	1,900	1,300	670	6,600	—
	01/20/94[dup]	7.25	60,000	1,700	1,100	680	5,500	—
	04/13/94	7.12	41,000	1,300	1,200	720	6,00	—
	07/19/94	7.43	140,000	1,800	2,000	1,400	9,000	—
	10/27/94	7.55	32,000	1,200	1,200	670	5,700	—
	10/27/94[dup]	7.55	42,000	1,100	1,100	650	5,700	—
	01/03/95	6.04	38,000	1,000	1,500	700	7,500	—
	04/13/95	5.04	31,000	1,200	1,000	570	5,300	—
	06/30/95	5.72	110,000	2,000	2,000	1,500	9,700	—
	10/11/95	7.06	36,000	170	1,300	60	6,300	510
	01/17/96	5.84	38,000	1,000	1,100	520	6,200	950
	04/10/96	5.03	54,000	650	850	260	4,700	<250
MW-9	08/06/91	10.33	11,000	1,700	520	95	1,400	—
	10/23/91	11.13	20,000	1,000	<0.3	47	940	—
	01/28/92	9.02	3,500	120	280	<10	36	—
	05/04/92	7.67	7,700	1,200	380	<50	630	—
	07/20/92	10.26	11,000	910	220	<50	1,200	—
	10/12/92	12.19	2,100	340	77	15	44	—
	01/12/93[b]	—	—	—	—	—	—	—
	04/06/93[b]	—	—	—	—	—	—	—
	07/12/93[b]	—	—	—	—	—	—	—
	10/13/93	11.17	2,900	140	<5	<5	120	—

Table 3. Analytic Results for Ground Water - Shell Service Station WIC #204-5508-5306, 3420 San Pablo Avenue, Oakland, California (continued)

Well ID	Date Sampled	Depth to Water (ft)	TPH-G	B	E	T	X	MTBE
			← parts per billion (µg/L) →					
	01/20/94	8.03	1,700	380	150	6.9	400	—
	04/13/94	7.81	6,000	1,000	450	<20	420	—
	07/19/94	8.96	12,000	1,400	740	<5	1,200	—
	10/27/94	11.00	10,000	1,200	280	160	860	—
	01/03/95	6.60	4,400	680	180	7.7	370	—
	04/13/95	6.73	1,700	270	69	<10	170	—
	06/30/95	7.32	14,000	2,200	900	18	2,600	—
	06/30/95[dup]	7.32	13,000	2,100	870	17	2,500	—
	10/11/95	8.10	9,600	35	360	12	980	590
	01/17/96	5.75	2,800	150	54	7.4	130	170
	04/10/96	**5.17**	**5,200**	**290**	**92**	**<5**	**220**	**240**
MW-10	10/23/91	8.57	27,000	1,600	1,800	110	510	—
	01/28/92	7.60	3,800	360	170	14	39	—
	05/04/92	7.54	3,000	360	140	<12.5	26	—
	07/20/92	8.59	15,000	400	180	<25	67	—
	10/12/92	10.23	16,000	320	360	<50	100	—
	01/12/93[b]	—	—	—	—	—	—	—
	04/06/93	6.70	14,000	370	880	<0.5	210	—
	07/12/93	8.05	10,000	440	890	58	220	—
	10/13/93	8.25	15,000	1,000	810	51	170	—
	01/20/94	7.20	12,000	820	1,100	56	350	—
	04/13/94	7.57	18,000	760	700	36	130	—
	07/19/94	8.18	24,000	400	800	2.3	22	—
	10/27/94	8.68	11,000	360	310	43	89	—
	01/03/95	6.86	17,000	770	690	38	160	—
	04/13/95	6.91	9,900	650	280	16	40	—
	06/30/95	7.61	12,000	750	480	20	130	—
	01/17/96	7.00	17,000	870	310	93	260	830
	04/10/96	**6.80**	**14,000**	**470**	**110**	**<20**	**38**	**370**
MW-11	10/23/91	8.06	140	<12	0.37	<0.3	0.56	—
	01/28/92	13.32	<50	<0.5	<0.5	<0.5	<0.5	—
	05/04/92	13.77	<50	<0.5	<0.5	<0.5	<0.5	—
	07/13/92	11.56	140[a]	<0.5	<0.5	<0.5	<0.5	—
	10/12/92	12.40	75[a]	<0.5	<0.5	<0.5	<0.5	—
	01/12/93[b]	—	—	—	—	—	—	—
	04/06/93[b]	—	—	—	—	—	—	—
	07/12/93[b]	—	—	—	—	—	—	—

Table 3. Analytic Results for Ground Water - Shell Service Station WIC #204-5508-5306, 3420 San Pablo Avenue, Oakland, California (continued)

Well ID	Date Sampled	Depth to Water (ft)	TPH-G	B	E	T	X	MTBE
			← parts per billion (µg/L) →					
	10/13/93	11.47	<50	<0.5	<0.5	<0.5	<0.5	—
	01/20/94	9.09	<50	<0.5	<0.5	<0.5	<0.5	—
	04/13/94	8.02	<50	<0.5	<0.5	<0.5	<0.5	—
	07/19/94	9.82	50	<0.5	<0.5	<0.5	<0.5	—
	10/27/94	11.66	60*	<0.5	<0.5	<0.5	<0.5	—
	01/03/95	6.15	<50	<0.5	<0.5	<0.5	<0.5	—
	04/13/95	6.00	<50	<0.5	<0.5	<0.5	<0.5	—
	06/30/95	8.31	70	<0.5	<0.5	<0.5	<0.5	—
	10/11/95	10.30	60	53	<0.5	<0.5	0.8	3.0
	01/17/96	6.45	<50	<0.5	<0.5	<0.5	<0.5	<2
	04/10/96	**6.05**	**<50**	**<0.5**	**<0.5**	**<0.5**	**<0.5**	**3.9**
Bailer Blank	07/13/92		<50	<0.5	<0.5	<0.5	<0.5	—
	07/20/92		<50	<0.5	<0.5	<0.5	<0.5	—
	10/12/92		<50	<0.5	<0.5	<0.5	<0.5	—
	04/13/94		<50	<0.5	<0.5	0.67	<0.5	—
	07/19/94		<50	<0.5	<0.5	<0.5	<0.5	—
	10/27/94		<50	<0.5	<0.5	<0.5	<0.5	—
	01/03/95		<50	<0.5	<0.5	<0.5	<0.5	—
	04/13/95		<50	<0.5	<0.5	<0.5	<0.5	—
	06/30/95		<50	<0.5	<0.5	<0.5	<0.5	—
	10/11/95		<50	<0.5	<0.5	<0.5	<0.5	<0.5
	01/17/96		<50	<0.5	<0.5	<0.5	<0.5	<2
Trip Blank	01/28/92		<50	<0.5	<0.5	<0.5	<0.5	—
	05/05/92		<50	<0.5	<0.5	<0.5	<0.5	—
	07/13/92		<50	<0.5	<0.5	<0.5	<0.5	—
	07/20/92		<50	<0.5	<0.5	<0.5	<0.5	—
	10/12/92		<50	<0.5	<0.5	<0.5	<0.5	—
	01/12/93		<50	<0.5	<0.5	<0.5	<0.5	—
	04/06/93		<50	<0.5	<0.5	<0.5	<0.5	—
	07/12/93		<50	<0.5	<0.5	<0.5	<0.5	—
	10/13/93		<50	<0.5	<0.5	<0.5	<0.5	—
	01/20/94		<50	<0.5	<0.5	<0.5	<0.5	—
	04/13/94		<50	<0.5	<0.5	<0.5	<0.5	—
	07/19/94		<50	<0.5	<0.5	<0.5	<0.5	—
	10/27/94		<50	<0.5	<0.5	<0.5	<0.5	—
	01/03/95		<50	<0.5	<0.5	<0.5	<0.5	—

Table 3. Analytic Results for Ground Water - Shell Service Station WIC #204-5508-5306, 3420 San Pablo Avenue, Oakland, California (continued)

Well ID	Date Sampled	Depth to Water (ft)	TPH-G	B	E	T	X	MTBE
			← parts per billion (µg/L) →					
	04/13/95		<50	<0.5	<0.5	<0.5	<0.5	---
	06/30/95		<50	<0.5	<0.5	<0.5	<0.5	---
	10/11/95		<50	<0.5	<0.5	<0.5	<0.5	<0.5
DHS MCLs			NE	1	680	100[c]	1,750	NE

Abbreviations:

TPH-G = Total petroleum hydrocarbons as gasoline by Modified EPA Method 8015
B = Benzene by EPA Method 8020
E = Ethylbenzene by EPA Method 8020
T = Toluene by EPA Method 8020
X = Xylenes by EPA Method 8020
NE = Not established
DHS MCLs = California Department of Health Services maximum contaminant levels for drinking water
--- = Not analyzed
<n = Not detected at detection limits of n ppb
dup = Duplicate sample
SPH = Not sampled, separate-phase hydrocarbons detected in well

Notes:

a = Concentration reported as gasoline is due to the presence of a discrete hydrocarbon peak that is not indicative of gasoline
b = Not sampled. Well inaccessible
c = DHS recommended action level; MCL not established
* = The result for gasoline is an unknown hydrocarbon which consists of a single peak as confirmed by NET Laboratory

ATTACHMENT A

GROUND WATER MONITORING REPORT AND ANALYTIC REPORT

BLAINE
TECH SERVICES INC.

985 TIMOTHY D
SAN JOSE, CA 9
(408) 995
FAX (408) 293

April 26, 1996

Shell Oil Company
P.O. Box 4023
Concord, CA 94524

Attn: R. Jeff Granberry

Shell WIC #204-5508-5306
3420 San Pablo Avenue
Oakland, California

2nd Quarter 1996

Quarterly Groundwater Monitoring Report 960410-T-1

Blaine Tech Services, Inc. performs environmental sampling and documentation as an independent third party. Copies of our Sampling Report along with the laboratory's Certified Analytical Report are forwarded to the consultant overseeing work at this site. Submission of the assembled documents to interested regulatory agencies will be made by the designated consultant.

Groundwater monitoring at this site was performed in accordance with Standard Operating Procedures provided to the interested regulatory agencies. If you have any questions about the work performed at this site please call me at (408) 995-5535 ext. 201.

Yours truly,

Francis Thie

attachments: Table of Well Gauging Data
Chain of Custody
Field Data Sheets
Certified Analytical Report

cc: Weiss Associates
5500 Shellmound Street
Emeryville, CA 94608-2411
Attn: Grady Glasser

(Any professional evaluations or recommendations will be made by the consultant under separate cover.)

TABLE OF WELL GAUGING DATA

WELL I.D.	DATA COLLECTION DATE	MEASUREMENT REFERENCED TO	QUALITATIVE OBSERVATIONS (sheen)	DEPTH TO FIRST IMMISCIBLES LIQUID (FPZ) (feet)	THICKNESS OF IMMISCIBLES LIQUID ZONE (feet)	VOLUME OF IMMISCIBLES REMOVED (ml)	DEPTH TO WATER (feet)	DEPTH TO WELL BOTTOM (feet)
MW-1	4/10/96	TOC	ODOR	NONE	–	–	5.38	25.01
MW-2	4/10/96	TOC	SHEEN/ODOR	–	–	–	6.91	19.22
MW-3	4/10/96	TOC	–	NONE	–	–	6.76	27.46
MW-4	4/10/96	TOC	SHEEN/ODOR	–	–	–	7.90	25.30
MW-5 *	4/10/96	TOC	SHEEN/ODOR	–	–	–	5.70	24.90
MW-6	4/10/96	TOC	SHEEN/ODOR	–	–	–	5.92	19.90
MW-7	4/10/96	TOC	FREE PRODUCT	6.93	0.05	–	6.98	–
MW-8	4/10/96	TOC	ODOR	NONE	–	–	5.03	19.95
MW-9	4/10/96	TOC	–	NONE	–	–	5.17	19.75
MW-10	4/10/96	TOC	–	NONE	–	–	6.80	18.80
MW-11	4/10/96	TOC	–	NONE	–	–	6.05	18.90

* Sample DUP was a duplicate sample taken from well MW-5.

SHELL OIL COMPANY
RETAIL ENVIRONMENTAL ENGINEERING - WEST

CHAIN OF CUSTODY RECORD
Serial No: 960410-T1

Date: 4/10/96
Page 1 of 2

Site Address: 3420 San Pablo Ave. Oakland

WIC#: 204-5506-5306

Shell Engineer: ~~Ben Kirk~~ R. Jeff Granberry — Phone No.: (510) 675-6168 Fax #: 675-6160

Consultant Name & Address: Blaine Tech Services, Inc. 985 Timothy Drive San Jose, CA 95133

Consultant Contact: Jim Keller — Phone No.: (408) 995-5535 Fax #: 293-8773

Comments:

Sampled by: [signature]

Printed Name: Mike Toll

LAB: SEQUOIA

CHECK ONE (1) BOX ONLY — C1/D1

- Quarterly Monitoring [X] 6441
- Site Investigation [ ] 6441
- Soil Closure/Disposal [ ] 6442
- Water Closure/Disposal [ ] 6443
- Soil/Air Rem. or Sys. O & M [ ] 6462
- Water Rem. or Sys. O & M [ ] 6463
- Other [ ]

TURN AROUND TIME
- 24 hours [ ]
- 48 hours [ ]
- 10 days [X] (Norm
- Other [ ]

NOTE: Notify Lab as soon as Possible of 24/48 hrs. TAT.

Analysis Required

Sample ID	Date	Sludge	Soil	Water	Air	No. of cont.	TPH (EPA 8015 Mod. Gas)	TPH (EPA 8015 Mod. Diesel)	BTEX (EPA 8020/602)	Volatile Organics (EPA 8240)	Test for Disposal	Combination TPH 8015 & BTEX 8020	Total & Fecal Coliform		Asbestos	Container Size	Preparation Used	Composite Y/N	MATERIAL DESCRIPTION	SAMPLE CONDITION/ COMMENTS
MW1	4/10			X		3						X							Date: Total & Fecal COLIFORM. this 24 Hr. Turn AROUND Time.	
MW2	4/10			X		3						X								
MW3	4/10			X		3						X								
MW4	4/10			X		3						X								
MW5	4/10			X		3						X								
MW6	4/10			X		3						X								
MW8	4/10			X		3						X								
MW9	4/10			X		A						X	X							

Relinquished By (signature)	Printed Name	Date	Time	Received (signature)	Printed Name	Date	Time
[signature]	Mike Toll	4/10/96	15:30				
Relinquished By (signature):	Printed Name:	Date:	Time:	Received (signature):	Printed Name:	Date:	Time:
Relinquished By (signature):	Printed Name:	Date:	Time:	Received (signature): [signature]	Printed Name: PHIL TILE.	Date: 04/10/	Time: 15:

SHELL OIL COMPANY
RETAIL ENVIRONMENTAL ENGINEERING - WEST

CHAIN OF CUSTODY RECORD
Serial No: 960410-T1

Date: 4/10/96
Page 2 of 2

Site Address: 3420 San Pablo Ave. Oakland

WIC#: 204-5506-5306

Shell Engineer: ~~Dan Kirk~~ R. Jeff Granberry
Phone No.: (510) 675-6168
Fax #: 675-6160

Consultant Name & Address:
Blaine Tech Services, Inc.
985 Timothy Drive San Jose, CA 95133

Consultant Contact: Jim Keller
Phone No.: (408) 995-5535
Fax #: 293-8773

Comments:

Sampled by: [signature]

Printed Name: Mike Toll

LAB: SEQUOIA

CHECK ONE (1) BOX ONLY	CT/DT	TURN AROUND TIME
Quarterly Monitoring [X]	5461	24 hours [ ]
Site Investigation [ ]	5441	48 hours [ ]
Soil Classify/Disposal [ ]	5442	15 days [X] (Normal)
Water Classify/Disposal [ ]	5443	Other [ ]
Soil/Air Rem. or Sys. O & M [ ]	5452	NOTE: Notify Lab as soon as Possible of 24/48 hrs. TAT.
Water Rem. or Sys. O & M [ ]	5453	
Other [ ]		

Analysis Required

	Sample ID	Date	Sludge	Soil	Water	Air	No. of conts.	TPH (EPA 8015 Mod. Gas)	TPH (EPA 8015 Mod. Diesel)	BTEX (EPA 8020/602)	Volatile Organics (EPA 8240)	Test for Disposal	Combination TPH 8015 & BTEX 8020	Total & Fecal Coliform		Asbestos	Container Size	Preparation Used	Composite Y/N	MATERIAL DESCRIPTION	SAMPLE CONDITION/ COMMENTS
09	MW 10	4/10			X		4						X	X						Note: Total & Fecal Coliform has 24 hr. Turn around Time.	
10	MW 11	4/10			X		4						X	X							
11	EB	4/10			X		3						X								
12	Dup	4/10			X		3						X								

Relinquished By (signature):	Printed Name:	Date: / Time:	Received (signature):	Printed Name:	Date: / Time:
[signature]	Mike Toll	Date: 4/10/96 Time: 15:30			Date: Time:
		Date: Time:			Date: Time:
		Date: Time:	[signature]	PHIL TOLT	Date: 04/10/96 Time: 15:30

Sequoia Analytical

680 Chesapeake Drive, Redwood City, CA 94063, (415) 364-9600, FAX (415) 364-9233
404 N. Wiget Lane, Walnut Creek, CA 94598, (510) 988-9600, FAX (510) 988-9673
819 Striker Avenue, Suite 8, Sacramento, CA 95834, (916) 921-9600, FAX (916) 921-0100

Blaine Technical Services
985 Timothy Drive
San Jose, CA 95133
Attention: Jim Keller

Project: Shell/Oakland/960410-T1

Enclosed are the results from samples received at Sequoia Analytical on April 10, 1996. The requested analyses are listed below:

SAMPLE #	SAMPLE DESCRIPTION	DATE COLLECTED	TEST METHOD
9604881 -01	LIQUID, MW1	04/10/96	TPHGBW Purgeable TPH/BTEX
9604881 -02	LIQUID, MW2	04/10/96	TPHGBW Purgeable TPH/BTEX
9604881 -03	LIQUID, MW3	04/10/96	TPHGBW Purgeable TPH/BTEX
9604881 -04	LIQUID, MW4	04/10/96	TPHGBW Purgeable TPH/BTEX
9604881 -05	LIQUID, MW5	04/10/96	TPHGBW Purgeable TPH/BTEX
9604881 -06	LIQUID, MW6	04/10/96	TPHGBW Purgeable TPH/BTEX
9604881 -07	LIQUID, MW8	04/10/96	TPHGBW Purgeable TPH/BTEX
9604881 -08	LIQUID, MW9	04/10/96	TPHGBW Purgeable TPH/BTEX
9604881 -09	LIQUID, MW10	04/10/96	TPHGBW Purgeable TPH/BTEX
9604881 -10	LIQUID, MW11	04/10/96	TPHGBW Purgeable TPH/BTEX
9604881 -11	LIQUID, EB	04/10/96	TPHGBW Purgeable TPH/BTEX
9604881 -12	LIQUID, DUP	04/10/96	TPHGBW Purgeable TPH/BTEX

Please contact me if you have any questions. In the meantime, thank you for the opportunity to work with you on this project.

Very truly yours,

SEQUOIA ANALYTICAL

Peggy Penner
Project Manager

Sequoia Analytical

680 Chesapeake Drive, Redwood City, CA 94063, (415) 364-9600, FAX (415) 364-9233
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Blaine Technical Services
985 Timothy Drive
San Jose, CA 95133
Attention: Jim Keller

Project: Shell/Oakland/960410-T1

Enclosed are the results from samples received at Sequoia Analytical on April 10, 1996. The requested analyses are listed below:

SAMPLE #	SAMPLE DESCRIPTION	DATE COLLECTED	TEST METHOD
9604796 -01	LIQUID, MW9	04/10/96	Fecal Coliform
9604796 -01	LIQUID, MW9	04/10/96	Total Coliform.
9604796 -02	LIQUID, MW10	04/10/96	Fecal Coliform
9604796 -02	LIQUID, MW10	04/10/96	Total Coliform.
9604796 -03	LIQUID, MW11	04/10/96	Fecal Coliform
9604796 -03	LIQUID, MW11	04/10/96	Total Coliform.

Please contact me if you have any questions. In the meantime, thank you for the opportunity to work with you on this project.

Very truly yours,

SEQUOIA ANALYTICAL

Peggy Penner
Project Manager

Sequoia Analytical

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Blaine Technical Services	*Client Proj. ID:* *Shell/Oakland/960410-T1*	Sampled: 04/10/96
985 Timothy Drive	Sample Descript: MW1	Received: 04/10/96
San Jose, CA 95133	Matrix: LIQUID	
	Analysis Method: 8015Mod/8020	Analyzed: 04/16/96
Attention: Jim Keller	Lab Number: 9604881-01	Reported: 04/23/96

QC Batch Number: GC041696BTEX17A
Instrument ID: GCHP17

Total Purgeable Petroleum Hydrocarbons (TPPH) with BTEX

Analyte	Detection Limit ug/L	Sample Results ug/L
TPPH as Gas	1000	20000
Benzene	10	120
Toluene	10	11
Ethyl Benzene	10	420
Xylenes (Total)	10	1400
Chromatogram Pattern:		C6-C12

Surrogates	Control Limits %		% Recovery
Trifluorotoluene	70	130	90

Analytes reported as N.D. were not present above the stated limit of detection.

SEQUOIA ANALYTICAL - ELAP #1210

Peggy Penner
Project Manager

Sequoia Analytical

680 Chesapeake Drive, Redwood City, CA 94063, (415) 364-9600, FAX (415) 364-9233
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Blaine Technical Services
985 Timothy Drive
San Jose, CA 95133

Attention: Jim Keller

Client Proj. ID: Shell/Oakland/960410-T1
Sample Descript: MW2
Matrix: LIQUID
Analysis Method: 8015Mod/8020
Lab Number: 9604881-02

Sampled: 04/10/96
Received: 04/10/96

Analyzed: 04/16/96
Reported: 04/23/96

QC Batch Number: GC041696BTEX17A
Instrument ID: GCHP17

Total Purgeable Petroleum Hydrocarbons (TPPH) with BTEX

Analyte	Detection Limit ug/L	Sample Results ug/L
TPPH as Gas	**5000**	**84000**
Benzene	**50**	**7200**
Toluene	**50**	**310**
Ethyl Benzene	**50**	**1700**
Xylenes (Total)	**50**	**7800**
Chromatogram Pattern:		**C6-C12**

Surrogates	Control Limits %		% Recovery
Trifluorotoluene	70	130	74

Analytes reported as N.D. were not present above the stated limit of detection.

SEQUOIA ANALYTICAL - ELAP #1210

Peggy Penner
Project Manager

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Blaine Technical Services	Client Proj. ID: Shell/Oakland/960410-T1	Sampled: 04/10/96
985 Timothy Drive	Sample Descript: MW3	Received: 04/10/96
San Jose, CA 95133	Matrix: LIQUID	
	Analysis Method: 8015Mod/8020	Analyzed: 04/16/96
Attention: Jim Keller	Lab Number: 9604881-03	Reported: 04/23/96

QC Batch Number: GC041696BTEX17A
Instrument ID: GCHP17

Total Purgeable Petroleum Hydrocarbons (TPPH) with BTEX

Analyte	Detection Limit ug/L	Sample Results ug/L
TPPH as Gas	**50**	**160**
Benzene	0.50	N.D.
Toluene	0.50	N.D.
Ethyl Benzene	0.50	N.D.
Xylenes (Total)	0.50	N.D.
Chromatogram Pattern:		

Surrogates	Control Limits %		% Recovery
Trifluorotoluene	70	130	75

Analytes reported as N.D. were not present above the stated limit of detection.

SEQUOIA ANALYTICAL - ELAP #1210

Peggy Penner
Project Manager

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Blaine Technical Services
985 Timothy Drive
San Jose, CA 95133

Attention: Jim Keller

Client Proj. ID: Shell/Oakland/960410-T1
Sample Descript: MW4
Matrix: LIQUID
Analysis Method: 8015Mod/8020
Lab Number: 9604881-04

Sampled: 04/10/96
Received: 04/10/96

Analyzed: 04/16/96
Reported: 04/23/96

QC Batch Number: GC041696BTEX17A
Instrument ID: GCHP17

Total Purgeable Petroleum Hydrocarbons (TPPH) with BTEX

Analyte	Detection Limit ug/L	Sample Results ug/L
TPPH as Gas	**500**	**2800**
Benzene	**5.0**	**16**
Toluene	5.0	N.D.
Ethyl Benzene	**5.0**	**22**
Xylenes (Total)	**5.0**	**50**
Chromatogram Pattern:		**C6-C12**

Surrogates	Control Limits %		% Recovery
Trifluorotoluene	70	130	76

Analytes reported as N.D. were not present above the stated limit of detection.

SEQUOIA ANALYTICAL - ELAP #1210

Peggy Penner
Project Manager

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Blaine Technical Services
985 Timothy Drive
San Jose, CA 95133

Attention: Jim Keller

Client Proj. ID: Shell/Oakland/960410-T1
Sample Descript: MW5
Matrix: LIQUID
Analysis Method: 8015Mod/8020
Lab Number: 9604881-05

Sampled: 04/10/96
Received: 04/10/96

Analyzed: 04/16/96
Reported: 04/23/96

QC Batch Number: GC041696BTEX17A
Instrument ID: GCHP17

Total Purgeable Petroleum Hydrocarbons (TPPH) with BTEX

Analyte	Detection Limit ug/L	Sample Results ug/L
TPPH as Gas	**5000**	**23000**
Benzene	50	N.D.
Toluene	50	N.D.
Ethyl Benzene	**50**	**360**
Xylenes (Total)	**50**	**190**
Chromatogram Pattern:		**C6-C12**

Surrogates	**Control Limits %**		**% Recovery**
Trifluorotoluene	70	130	79

Analytes reported as N.D. were not present above the stated limit of detection.

SEQUOIA ANALYTICAL - ELAP #1210

Peggy Penner
Project Manager

Sequoia Analytical

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Blaine Technical Services
985 Timothy Drive
San Jose, CA 95133

Attention: Jim Keller

Client Proj. ID: Shell/Oakland/960410-T1
Sample Descript: MW6
Matrix: LIQUID
Analysis Method: 8015Mod/8020
Lab Number: 9604881-06

Sampled: 04/10/96
Received: 04/10/96

Analyzed: 04/16/96
Reported: 04/23/96

QC Batch Number: GC041696BTEX17A
Instrument ID: GCHP17

Total Purgeable Petroleum Hydrocarbons (TPPH) with BTEX

Analyte	Detection Limit ug/L	Sample Results ug/L
TPPH as Gas	1000	22000
Benzene	10	47
Toluene	10	N.D.
Ethyl Benzene	10	350
Xylenes (Total)	10	860
Chromatogram Pattern:		C6-C12

Surrogates	Control Limits %		% Recovery
Trifluorotoluene	70	130	89

Analytes reported as N.D. were not present above the stated limit of detection.

SEQUOIA ANALYTICAL - ELAP #1210

Peggy Penner
Project Manager

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Blaine Technical Services	Client Proj. ID: Shell/Oakland/960410-T1	Sampled: 04/10/96
985 Timothy Drive	Sample Descript: MW8	Received: 04/10/96
San Jose, CA 95133	Matrix: LIQUID	
	Analysis Method: 8015Mod/8020	Analyzed: 04/16/96
Attention: Jim Keller	Lab Number: 9604881-07	Reported: 04/23/96

QC Batch Number: GC041696BTEX17A
Instrument ID: GCHP17

Total Purgeable Petroleum Hydrocarbons (TPPH) with BTEX

Analyte	Detection Limit ug/L	Sample Results ug/L
TPPH as Gas	**5000**	**54000**
Benzene	**50**	**650**
Toluene	**50**	**260**
Ethyl Benzene	**50**	**850**
Xylenes (Total)	**50**	**4700**
Chromatogram Pattern:		**C6-C12**

Surrogates	Control Limits %		% Recovery
Trifluorotoluene	70	130	83

Analytes reported as N.D. were not present above the stated limit of detection.

SEQUOIA ANALYTICAL - ELAP #1210

Peggy Penner
Project Manager

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985 Timothy Drive
San Jose, CA 95133

Attention: Jim Keller

Client Proj. ID: Shell/Oakland/960410-T1
Sample Descript: MW9
Matrix: LIQUID
Analysis Method: 8015Mod/8020
Lab Number: 9604881-08

Sampled: 04/10/96
Received: 04/10/96

Analyzed: 04/16/96
Reported: 04/23/96

QC Batch Number: GC041696BTEX17A
Instrument ID: GCHP17

Total Purgeable Petroleum Hydrocarbons (TPPH) with BTEX

Analyte	Detection Limit ug/L	Sample Results ug/L
TPPH as Gas	**500**	**5200**
Benzene	**5.0**	**290**
Toluene	5.0	N.D.
Ethyl Benzene	**5.0**	**92**
Xylenes (Total)	**5.0**	**220**
Chromatogram Pattern:		**C6-C12**

Surrogates	Control Limits %		% Recovery
Trifluorotoluene	70	130	81

Analytes reported as N.D. were not present above the stated limit of detection.

SEQUOIA ANALYTICAL - ELAP #1210

Peggy Penner
Project Manager

Sequoia Analytical

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Blaine Technical Services	Client Proj. ID: Shell/Oakland/960410-T1	Sampled: 04/10/96
985 Timothy Drive	Sample Descript: MW10	Received: 04/10/96
San Jose, CA 95133	Matrix: LIQUID	
	Analysis Method: 8015Mod/8020	Analyzed: 04/16/96
Attention: Jim Keller	Lab Number: 9604881-09	Reported: 04/23/96

QC Batch Number: GC041696BTEX17A
Instrument ID: GCHP17

Total Purgeable Petroleum Hydrocarbons (TPPH) with BTEX

Analyte	Detection Limit ug/L	Sample Results ug/L
TPPH as Gas	**2000**	**14000**
Benzene	**20**	**470**
Toluene	20	N.D.
Ethyl Benzene	**20**	**110**
Xylenes (Total)	**20**	**38**
Chromatogram Pattern:		**C6-C12**

Surrogates	Control Limits %		% Recovery
Trifluorotoluene	70	130	83

Analytes reported as N.D. were not present above the stated limit of detection.

SEQUOIA ANALYTICAL - ELAP #1210

Peggy Penner
Project Manager

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Blaine Technical Services
985 Timothy Drive
San Jose, CA 95133

Attention: Jim Keller

Client Proj. ID: Shell/Oakland/960410-T1
Sample Descript: MW11
Matrix: LIQUID
Analysis Method: 8015Mod/8020
Lab Number: 9604881-10

Sampled: 04/10/96
Received: 04/10/96

Analyzed: 04/16/96
Reported: 04/23/96

QC Batch Number: GC041696BTEX17A
Instrument ID: GCHP17

Total Purgeable Petroleum Hydrocarbons (TPPH) with BTEX

Analyte	Detection Limit ug/L	Sample Results ug/L
TPPH as Gas	50	N.D.
Benzene	0.50	N.D.
Toluene	0.50	N.D.
Ethyl Benzene	0.50	N.D.
Xylenes (Total)	0.50	N.D.
Chromatogram Pattern:		

Surrogates	Control Limits %		% Recovery
Trifluorotoluene	70	130	85

Analytes reported as N.D. were not present above the stated limit of detection.

SEQUOIA ANALYTICAL - ELAP #1210

Peggy Penner
Project Manager

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San Jose, CA 95133

Attention: Jim Keller

Client Proj. ID: Shell/Oakland/960410-T1
Sample Descript: EB
Matrix: LIQUID
Analysis Method: 8015Mod/8020
Lab Number: 9604881-11

Sampled: 04/10/96
Received: 04/10/96

Analyzed: 04/16/96
Reported: 04/23/96

QC Batch Number: GC041696BTEX20A
Instrument ID: GCHP20

Total Purgeable Petroleum Hydrocarbons (TPPH) with BTEX

Analyte	Detection Limit ug/L	Sample Results ug/L
TPPH as Gas	50	N.D.
Benzene	0.50	N.D.
Toluene	0.50	N.D.
Ethyl Benzene	0.50	N.D.
Xylenes (Total)	0.50	N.D.
Chromatogram Pattern:		

Surrogates	Control Limits %		% Recovery
Trifluorotoluene	70	130	77

Analytes reported as N.D. were not present above the stated limit of detection.

SEQUOIA ANALYTICAL - ELAP #1210

Peggy Penner
Project Manager

Sequoia Analytical

680 Chesapeake Drive, Redwood City, CA 94063, (415) 364-9600, FAX (415) 364-9233
404 N. Wiget Lane, Walnut Creek, CA 94598, (510) 988-9600, FAX (510) 988-9673
819 Striker Avenue, Suite 8, Sacramento, CA 95834, (916) 921-9600, FAX (916) 921-0100

Blaine Technical Services
985 Timothy Drive
San Jose, CA 95133

Attention: Jim Keller

Client Proj. ID: Shell/Oakland/960410-T1
Sample Descript: DUP
Matrix: LIQUID
Analysis Method: 8015Mod/8020
Lab Number: 9604881-12

Sampled: 04/10/96
Received: 04/10/96

Analyzed: 04/16/96
Reported: 04/23/96

QC Batch Number: GC041696BTEX20A
Instrument ID: GCHP20

Total Purgeable Petroleum Hydrocarbons (TPPH) with BTEX

Analyte	Detection Limit ug/L	Sample Results ug/L
TPPH as Gas	**5000**	**19000**
Benzene	**50**	**84**
Toluene	50	N.D.
Ethyl Benzene	**50**	**430**
Xylenes (Total)	**50**	**200**
Chromatogram Pattern:		**C6-C12**

Surrogates	Control Limits %		% Recovery
Trifluorotoluene	70	130	104

Analytes reported as N.D. were not present above the stated limit of detection.

SEQUOIA ANALYTICAL - ELAP #1210

Peggy Penner
Project Manager

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680 Chesapeake Drive, Redwood City, CA 94063, (415) 364-9600, FAX (415) 364-9233
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Blaine Technical Services
985 Timothy Drive
San Jose, CA 95133

Attention: Jim Keller

Client Proj. ID: Shell/Oakland/960410-T1

Lab Proj. ID: 9604796

Sampled: 04/10/96
Received: 04/10/96
Analyzed: see below

Reported:

LABORATORY ANALYSIS

Analyte	Units	Date Analyzed	Detection Limit	Sample Results
Lab No: 9604796-01				
Sample Desc : **LIQUID,MW9**				
Fecal Coliform	**MPN/100 mL**	**04/10/96**	**2.0**	**11**
Total Coliform.	**MPN/100 mL**	**04/10/96**	**2.0**	**50**
Lab No: 9604796-02				
Sample Desc : **LIQUID,MW10**				
Fecal Coliform	**MPN/100 mL**	**04/10/96**	**2.0**	**2.0**
Total Coliform.	**MPN/100 mL**	**04/10/96**	**2.0**	**2.0**
Lab No: 9604796-03				
Sample Desc : **LIQUID,MW11**				
Fecal Coliform	**MPN/100 mL**	**04/10/96**	**2.0**	**23**
Total Coliform.	**MPN/100 mL**	**04/10/96**	**2.0**	**> 1600**

Analytes reported as N.D. were not present above the stated limit of detection.

SEQUOIA ANALYTICAL - ELAP #1210

Peggy Penner
Project Manager

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680 Chesapeake Drive, Redwood City, CA 94063, (415) 364-9600, FAX (415) 364-9233
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Blaine Tech Services, Inc.
985 Timothy Drive
San Jose, CA 95133
Attention: Jim Keller

Client Project ID: Shell/Oakland/960410-T1
Matrix: Liquid
Work Order #: 9604881 -01 - 10
Reported: Apr 23, 1996

QUALITY CONTROL DATA REPORT

Analyte:	Benzene	Toluene	Ethyl Benzene	Xylenes
QC Batch#:	GC041696BTEX17A	GC041696BTEX17A	GC041696BTEX17A	GC041696BTEX17A
Analy. Method:	EPA 8020	EPA 8020	EPA 8020	EPA 8020
Prep. Method:	EPA 5030	EPA 5030	EPA 5030	EPA 5030
Analyst:	R. Vincent	R. Vincent	R. Vincent	R. Vincent
MS/MSD #:	G9604304-04A	G9604304-04A	G9604304-04A	G9604304-04A
Sample Conc.:	N.D.	N.D.	N.D.	N.D.
Prepared Date:	4/16/96	4/16/96	4/16/96	4/16/96
Analyzed Date:	4/16/96	4/16/96	4/16/96	4/16/96
Instrument I.D.#:	GCHP17	GCHP17	GCHP17	GCHP17
Conc. Spiked:	10 ug/L	10 ug/L	10 ug/L	30 ug/L
Result:	9.6	9.7	9.6	29
MS % Recovery:	96	97	96	97
Dup. Result:	9.1	9.0	9.1	27
MSD % Recov.:	91	90	91	90
RPD:	5.3	7.5	5.3	7.1
RPD Limit:	0-50	0-50	0-50	0-50
LCS #:	GBLK041696A	GBLK041696A	GBLK041696A	GBLK041696A
Prepared Date:	4/16/96	4/16/96	4/16/96	4/16/96
Analyzed Date:	4/16/96	4/16/96	4/16/96	4/16/96
Instrument I.D.#:	GCHP17	GCHP17	GCHP17	GCHP17
Conc. Spiked:	10 ug/L	10 ug/L	10 ug/L	30 ug/L
LCS Result:	9.7	9.7	9.8	30
LCS % Recov.:	97	97	98	100
MS/MSD LCS Control Limits	70-130	70-130	70-130	70-130

SEQUOIA ANALYTICAL

Peggy Penner
Project Manager

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

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

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680 Chesapeake Drive, Redwood City, CA 94063, (415) 364-9600, FAX (415) 364-9233
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Blaine Tech Services, Inc.
985 Timothy Drive
San Jose, CA 95133
Attention: Jim Keller

Client Project ID: Shell/Oakland/960410-T1
Matrix: Liquid
Work Order #: 9604881 -11 - 12
Reported: Apr 23, 1996

QUALITY CONTROL DATA REPORT

Analyte:	Benzene	Toluene	Ethyl Benzene	Xylenes
QC Batch#:	GC041696BTEX20A	GC041696BTEX20A	GC041696BTEX20A	GC041696BTEX20A
Analy. Method:	EPA 8020	EPA 8020	EPA 8020	EPA 8020
Prep. Method:	EPA 5030	EPA 5030	EPA 5030	EPA 5030
Analyst:	R. Vincent	R. Vincent	R. Vincent	R. Vincent
MS/MSD #:	G9604309-04B	G9604309-04B	G9604309-04B	G9604309-04B
Sample Conc.:	N.D.	N.D.	N.D.	N.D.
Prepared Date:	4/16/96	4/16/96	4/16/96	4/16/96
Analyzed Date:	4/16/96	4/16/96	4/16/96	4/16/96
Instrument I.D.#:	GCHP20	GCHP20	GCHP20	GCHP20
Conc. Spiked:	10 ug/L	10 ug/L	10 ug/L	30 ug/L
Result:	10	10	10	31
MS % Recovery:	100	100	100	103
Dup. Result:	11	10	10	31
MSD % Recov.:	110	100	100	103
RPD:	9.5	0.0	0.0	0.0
RPD Limit:	0-50	0-50	0-50	0-50
LCS #:	GBLK041696A	GBLK041696A	GBLK041696A	GBLK041696A
Prepared Date:	4/16/96	4/16/96	4/16/96	4/16/96
Analyzed Date:	4/16/96	4/16/96	4/16/96	4/16/96
Instrument I.D.#:	GCHP20	GCHP20	GCHP20	GCHP20
Conc. Spiked:	10 ug/L	10 ug/L	10 ug/L	30 ug/L
LCS Result:	10	9.4	9.8	29
LCS % Recov.:	100	94	98	97
MS/MSD LCS Control Limits	70-130	70-130	70-130	70-130

SEQUOIA ANALYTICAL

Reggy Renner
Project Manager

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

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

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Blaine Technical Services
985 Timothy Drive
San Jose, CA 95133
Attention: Jim Keller

Project: Shell Oakland 960410-T1

Enclosed are the results from samples received at Sequoia Analytical on April 10, 1996. The requested analyses are listed below:

SAMPLE #	SAMPLE DESCRIPTION	DATE COLLECTED	TEST METHOD
9606185 -01	LIQUID, MW1	04/10/96	MTBE_W Methyl t-Butyl Ethe
9606185 -02	LIQUID, MW2	04/10/96	MTBE_W Methyl t-Butyl Ethe
9606185 -03	LIQUID, MW3	04/10/96	MTBE_W Methyl t-Butyl Ethe
9606185 -04	LIQUID, MW4	04/10/96	MTBE_W Methyl t-Butyl Ethe
9606185 -05	LIQUID, MW5	04/10/96	MTBE_W Methyl t-Butyl Ethe
9606185 -06	LIQUID, MW6	04/10/96	MTBE_W Methyl t-Butyl Ethe
9606185 -07	LIQUID, MW8	04/10/96	MTBE_W Methyl t-Butyl Ethe
9606185 -08	LIQUID, MW9	04/10/96	MTBE_W Methyl t-Butyl Ethe
9606185 -09	LIQUID, MW10	04/10/96	MTBE_W Methyl t-Butyl Ethe
9606185 -10	LIQUID, MW11	04/10/96	MTBE_W Methyl t-Butyl Ethe
9606185 -11	LIQUID, EB	04/10/96	MTBE_W Methyl t-Butyl Ethe
9606185 -12	LIQUID, DUP	04/10/96	MTBE_W Methyl t-Butyl Ethe

Please contact me if you have any questions. In the meantime, thank you for the opportunity to work with you on this project.

Very truly yours,

SEQUOIA ANALYTICAL

Peggy Penner
Project Manager

Sequoia Analytical

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Blaine Technical Services
985 Timothy Drive
San Jose, CA 95133

Attention: Jim Keller

Client Proj. ID: Shell Oakland 960410-T1
Sample Descript: MW1
Matrix: LIQUID
Analysis Method: EPA 8020
Lab Number: 9606185-01

Sampled: 04/10/96
Received: 04/10/96

Analyzed: 04/16/96
Reported: 06/14/96

QC Batch Number: GC041696BTEX17A
Instrument ID: GCHP17

Methyl t-Butyl Ether (MTBE)

Analyte	Detection Limit ug/L	Sample Results ug/L
Methyl t-Butyl Ether	50	15000 J

Surrogates	Control Limits %		% Recovery
Trifluorotoluene	70	130	Q

Analytes reported as N.D. were not present above the stated limit of detection.

SEQUOIA ANALYTICAL - ELAP #1210

Peggy Penner
Project Manager

Sequoia Analytical

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Blaine Technical Services
985 Timothy Drive
San Jose, CA 95133

Attention: Jim Keller

Client Proj. ID: Shell Oakland 960410-T1
Sample Descript: MW2
Matrix: LIQUID
Analysis Method: EPA 8020
Lab Number: 9606185-02

Sampled: 04/10/96
Received: 04/10/96

Analyzed: 04/16/96
Reported: 06/14/96

QC Batch Number: GC041696BTEX17A
Instrument ID: GCHP17

Methyl t-Butyl Ether (MTBE)

Analyte	Detection Limit ug/L	Sample Results ug/L
Methyl t-Butyl Ether	**250**	**2900 J**

Surrogates	Control Limits %		% Recovery
Trifluorotoluene	70	130	Q

Analytes reported as N.D. were not present above the stated limit of detection.

SEQUOIA ANALYTICAL - ELAP #1210

Peggy Penner
Project Manager

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Blaine Technical Services	Client Proj. ID: Shell Oakland 960410-T1	Sampled: 04/10/96
985 Timothy Drive	Sample Descript: MW3	Received: 04/10/96
San Jose, CA 95133	Matrix: LIQUID	
	Analysis Method: EPA 8020	Analyzed: 04/16/96
Attention: Jim Keller	Lab Number: 9606185-03	Reported: 06/14/96

QC Batch Number: GC041696BTEX17A
Instrument ID: GCHP17

Methyl t-Butyl Ether (MTBE)

Analyte	Detection Limit ug/L	Sample Results ug/L
Methyl t-Butyl Ether	2.5	12 J

Surrogates	Control Limits %		% Recovery
Trifluorotoluene	70	130	Q

Analytes reported as N.D. were not present above the stated limit of detection.

SEQUOIA ANALYTICAL - ELAP #1210

Peggy Penner
Project Manager

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Blaine Technical Services
985 Timothy Drive
San Jose, CA 95133

Attention: Jim Keller

Client Proj. ID: Shell Oakland 960410-T1
Sample Descript: MW4
Matrix: LIQUID
Analysis Method: EPA 8020
Lab Number: 9606185-04

Sampled: 04/10/96
Received: 04/10/96

Analyzed: 04/16/96
Reported: 06/14/96

QC Batch Number: GC041696BTEX17A
Instrument ID: GCHP17

Methyl t-Butyl Ether (MTBE)

Analyte	Detection Limit ug/L	Sample Results ug/L
Methyl t-Butyl Ether	25	**6100 J**

Surrogates	Control Limits %		% Recovery
Trifluorotoluene	70	130	Q

Analytes reported as N.D. were not present above the stated limit of detection.

SEQUOIA ANALYTICAL - ELAP #1210

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Project Manager

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Blaine Technical Services
985 Timothy Drive
San Jose, CA 95133

Attention: Jim Keller

Client Proj. ID: Shell Oakland 960410-T1
Sample Descript: MW5
Matrix: LIQUID
Analysis Method: EPA 8020
Lab Number: 9606185-05

Sampled: 04/10/96
Received: 04/10/96

Analyzed: 04/16/96
Reported: 06/14/96

QC Batch Number: GC041696BTEX17A
Instrument ID: GCHP17

Methyl t-Butyl Ether (MTBE)

Analyte	Detection Limit ug/L	Sample Results ug/L
Methyl t-Butyl Ether	250	770 J

Surrogates	Control Limits %		% Recovery
Trifluorotoluene	70	130	Q

Analytes reported as N.D. were not present above the stated limit of detection.

SEQUOIA ANALYTICAL - ELAP #1210

Peggy Penner
Project Manager

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Blaine Technical Services	Client Proj. ID: Shell Oakland 960410-T1	Sampled: 04/10/96
985 Timothy Drive	Sample Descript: MW6	Received: 04/10/96
San Jose, CA 95133	Matrix: LIQUID	
	Analysis Method: EPA 8020	Analyzed: 04/16/96
Attention: Jim Keller	Lab Number: 9606185-06	Reported: 06/14/96

QC Batch Number: GC041696BTEX17A
Instrument ID: GCHP17

Methyl t-Butyl Ether (MTBE)

Analyte	Detection Limit ug/L	Sample Results ug/L
Methyl t-Butyl Ether	50	N.D. J

Surrogates	Control Limits %		% Recovery
Trifluorotoluene	70	130	Q

Analytes reported as N.D. were not present above the stated limit of detection.

SEQUOIA ANALYTICAL - ELAP #1210

Peggy Penner
Project Manager

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404 N. Wiget Lane, Walnut Creek, CA 94598, (510) 988-9600, FAX (510) 988-9673
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Blaine Technical Services	Client Proj. ID: Shell Oakland 960410-T1	Sampled: 04/10/96
985 Timothy Drive	Sample Descript: MW8	Received: 04/10/96
San Jose, CA 95133	Matrix: LIQUID	
	Analysis Method: EPA 8020	Analyzed: 04/16/96
Attention: Jim Keller	Lab Number: 9606185-07	Reported: 06/14/96

QC Batch Number: GC041696BTEX17A
Instrument ID: GCHP17

Methyl t-Butyl Ether (MTBE)

Analyte	Detection Limit ug/L	Sample Results ug/L
Methyl t-Butyl Ether	250	N.D. J

Surrogates	Control Limits %		% Recovery
Trifluorotoluene	70	130	Q

Analytes reported as N.D. were not present above the stated limit of detection.

SEQUOIA ANALYTICAL - ELAP #1210

Peggy Penner
Project Manager

Sequoia Analytical

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Blaine Technical Services
985 Timothy Drive
San Jose, CA 95133

Attention: Jim Keller

Client Proj. ID: Shell Oakland 960410-T1
Sample Descript: MW9
Matrix: LIQUID
Analysis Method: EPA 8020
Lab Number: 9606185-08

Sampled: 04/10/96
Received: 04/10/96

Analyzed: 04/16/96
Reported: 06/14/96

QC Batch Number: GC041696BTEX17A
Instrument ID: GCHP17A

Methyl t-Butyl Ether (MTBE)

Analyte	Detection Limit ug/L	Sample Results ug/L
Methyl t-Butyl Ether	25	240 J

Surrogates	Control Limits %		% Recovery
Trifluorotoluene	70	130	Q

Analytes reported as N.D. were not present above the stated limit of detection.

SEQUOIA ANALYTICAL - ELAP #1210

Peggy Renner
Project Manager

Sequoia Analytical

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Blaine Technical Services
985 Timothy Drive
San Jose, CA 95133

Attention: Jim Keller

Client Proj. ID: Shell Oakland 960410-T1
Sample Descript: MW10
Matrix: LIQUID
Analysis Method: EPA 8020
Lab Number: 9606185-09

Sampled: 04/10/96
Received: 04/10/96

Analyzed: 04/16/96
Reported: 06/14/96

QC Batch Number: GC041696BTEX17A
Instrument ID: GCHP17

Methyl t-Butyl Ether (MTBE)

Analyte	Detection Limit ug/L	Sample Results ug/L
Methyl t-Butyl Ether	100	370 J

Surrogates	Control Limits %		% Recovery
Trifluorotoluene	70	130	Q

Analytes reported as N.D. were not present above the stated limit of detection.

SEQUOIA ANALYTICAL - ELAP #1210

Peggy Penner
Project Manager

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Blaine Technical Services	*Client Proj. ID:* Shell Oakland 960410-T1	Sampled: 04/10/96
985 Timothy Drive	Sample Descript: MW11	Received: 04/10/96
San Jose, CA 95133	Matrix: LIQUID	
	Analysis Method: EPA 8020	Analyzed: 04/16/96
Attention: Jim Keller	Lab Number: 9606185-10	Reported: 06/14/96

QC Batch Number: GC041696BTEX17A
Instrument ID: GCHP17

Methyl t-Butyl Ether (MTBE)

Analyte	Detection Limit ug/L	Sample Results ug/L
Methyl t-Butyl Ether	2.5	3.9 J

Surrogates	Control Limits %		% Recovery
Trifluorotoluene	70	130	Q

Analytes reported as N.D. were not present above the stated limit of detection.

SEQUOIA ANALYTICAL - ELAP #1210

Peggy Penner
Project Manager

Sequoia Analytical

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Blaine Technical Services
985 Timothy Drive
San Jose, CA 95133

Attention: Jim Keller

Client Proj. ID: Shell Oakland 960410-T1
Sample Descript: EB
Matrix: LIQUID
Analysis Method: EPA 8020.
Lab Number: 9606185-11

Sampled: 04/10/96
Received: 04/10/96

Analyzed: 04/16/96
Reported: 06/14/96

QC Batch Number: GC041696BTEX20A
Instrument ID: GCHP20

Methyl t-Butyl Ether (MTBE)

Analyte	Detection Limit ug/L	Sample Results ug/L
Methyl t-Butyl Ether	2.5	N.D. J

Surrogates	Control Limits %		% Recovery
Trifluorotoluene	70	130	Q

Analytes reported as N.D. were not present above the stated limit of detection.

SEQUOIA ANALYTICAL - ELAP #1210

Peggy Penner
Project Manager

Sequoia Analytical

680 Chesapeake Drive, Redwood City, CA 94063, (415) 364-9600, FAX (415) 364-9233
404 N. Wiget Lane, Walnut Creek, CA 94598, (510) 988-9600, FAX (510) 988-9673
819 Striker Avenue, Suite 8, Sacramento, CA 95834, (916) 921-9600, FAX (916) 921-0100

Blaine Technical Services
985 Timothy Drive
San Jose, CA 95133

Attention: Jim Keller

Client Proj. ID: Shell Oakland 960410-T1
Sample Descript: DUP
Matrix: LIQUID
Analysis Method: EPA 8020
Lab Number: 9606185-12

Sampled: 04/10/96
Received: 04/10/96

Analyzed: 04/16/96
Reported: 06/14/96

QC Batch Number: GC042096BTEX20A
Instrument ID: GCHP20

Methyl t-Butyl Ether (MTBE)

Analyte	Detection Limit ug/L	Sample Results ug/L
Methyl t-Butyl Ether	250	590 J

Surrogates	Control Limits %		% Recovery
Trifluorotoluene	70	130	Q

Analytes reported as N.D. were not present above the stated limit of detection.

SEQUOIA ANALYTICAL - ELAP #1210

Peggy Penner
Project Manager

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Blaine Technical Services	Client Proj. ID: Shell Oakland 960410-T1	Received: 04/10/96
985 Timothy Drive		
San Jose, CA 95133	Lab Proj. ID: 9606185	Reported: 06/14/96
Attention: Jim Keller		

LABORATORY NARRATIVE

Please note: All MTBE result on this report have been J Flagged to denote that they should be considered estimated.

SEQUOIA ANALYTICAL

Peggy Penner
Project Manager

Sequoia Analytical Relog Sheet

Reason for Relog: (X) Client Request ( ) Login Correction ( ) Other: _____

CLIENT: Blaine

PROJECT ID: Shell

PROJ. MANAGER: PEGGY PENNER

MATRIX: Liquid Solid Other

DATE RELOG: 6/6/96

DATE DUE: 6/12/96

DATE SAMPLED: 4/10/96

PREVIOUSLY LOGGED IN SAMPLES

[ ] TAT Change status to: 10Day 7Day 5Day 3Day 2Day 1Day ASAP

Change status as of: Date: _____ Time: _____

[X] CHANGE ANALYSIS

Cancel Analysis [ ]

Add to this work order [ ]

Create new work order [X]

[ ] RERUN

Redigest & Reanalyze [ ]

Re-extract & Reanalyze [ ]

Reanalyze Only [ ]

New work order #: 9606185

Assign new sample #: [ ]

Sample Number	Analysis
9606481-01	Requantitate MTBE
12	

SAMPLES ON HOLD

New work order #: _____

Add analyses to existing work order [ ]

Create a new work order [ ]

TAT _____

Sample Description	Analyses

Client Authorization (person/date/time): _____

Project Manager: _____