



ENVIRONMENTAL  
PROTECTION

97 NOV 20 PM 3:53  
October 24, 1997

Scott Seery  
Alameda Health Care Services  
Department of Environmental Health  
1131 Harbor Bay Parkway, Suite 250  
Alameda, California 94502-6577

Re: **Third Quarter 1997 Monitoring Report**  
Shell Service Station  
6039 College Avenue  
Oakland, California  
WIC #204-5508-3301  
Cambria Project # 240-314-397

Dear Mr. Seery:

On behalf of Shell Oil Products Company, Cambria Environmental Technology, Inc. (Cambria) is submitting this status report to satisfy the quarterly reporting requirements prescribed by California Administrative Code Title 23 Waters, Division 3, Chapter 16, Article 5, Section 2652.d.

### **THIRD QUARTER 1997 ACTIVITIES**

Blaine Tech Services, Inc. (Blaine) of San Jose, California measured ground water depths, checked for separate-phase hydrocarbons (SPH), and collected ground water samples from selected site wells. No SPH was detected. The Blaine report describing these sampling activities and presenting the analytic results is included as Attachment A. Cambria compiled the ground water elevations and analytic data (Tables 1 and 2) and prepared a ground water elevation contour map (Figure 1). Historic SPH removal data is included in Table 3.

CAMBRIA  
ENVIRONMENTAL  
TECHNOLOGY, INC.  
1144 65TH STREET,  
SUITE B  
OAKLAND,  
CA 94608  
PH: (510) 420-0700  
FAX: (510) 420-9170

Scott Seery  
- October 24, 1997

CAMBRIA

## ANTICIPATED FOURTH QUARTER 1997 ACTIVITIES

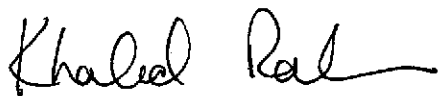
**Quarterly Monitoring Activities:** Blaine will gauge water levels, check for SPH, and sample selected site monitoring wells. Cambria will submit a report presenting a summary of activities for the upcoming quarter.

**Other Activities:** Cambria will conduct a sensitive receptor survey during fourth quarter 1997. At that time, we will submit a *Sensitive Receptor Survey Report* presenting the results of our investigation.

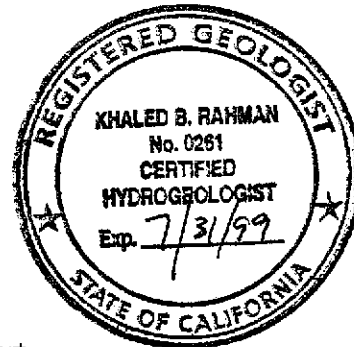
## CLOSING

We appreciate the opportunity to work with you on this project. Please call if you have any questions.

Sincerely,  
Cambria Environmental Technology, Inc.



Khaled B. Rahman, R.G., C.H.G.  
Senior Geologist



Attachments: A - Blaine Quarterly Ground Water Monitoring Report

cc: A. E. (Alex) Perez, Shell Oil Products Company, P.O. Box 8080, Martinez, California 94553  
Tom Callaghan, San Francisco Bay Regional Water Quality Control Board, 2101 Webster Street, Suite 500, Oakland, California 94612

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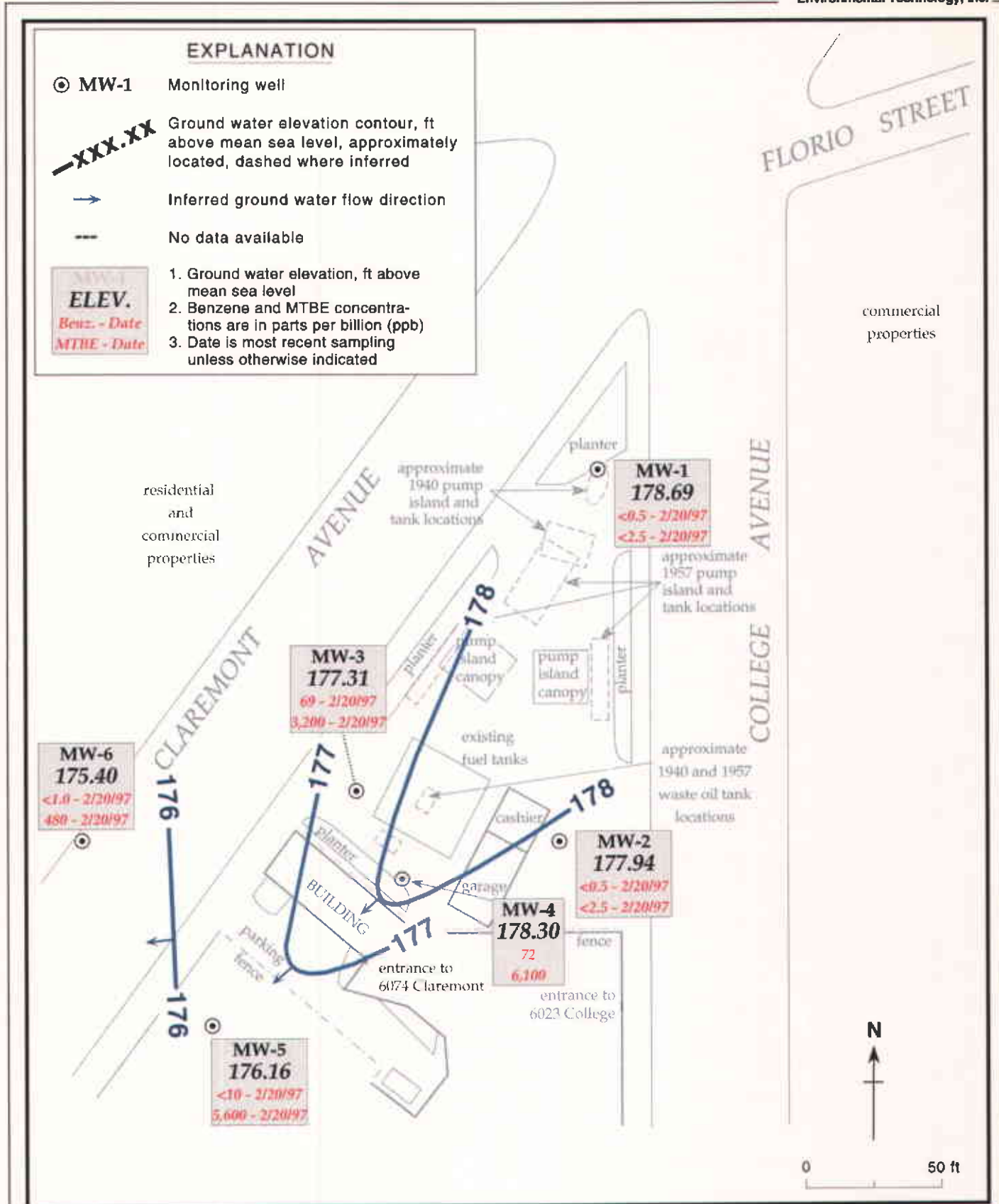


Figure 1. Ground Water Elevation Contours - August 18, 1997 - Shell Service Station WIC #204-5508-3301, 6039 College Avenue, Oakland, California

**Table 1. Ground Water Elevations - Shell Service Station WIC #204-5508-3301,  
6039 College Avenue, Oakland, California**

Well ID	Date	Top-of-Casing Elevation (ft above msl)	Depth to Water (ft below TOC)	Separate-Phase Hydrocarbon Thickness (ft)	Ground Water Elevation (ft above msl) <sup>a</sup>
MW-1	02/15/90	195.89	17.73	---	178.16
	04/19/90		18.51	---	177.38
	05/14/90		18.92	---	176.97
	06/21/90		18.21	---	177.68
	09/12/90		19.81	---	176.08
	11/27/90		20.39	---	175.50
	03/08/91		16.85	---	179.04
	06/03/91		17.82	---	178.07
	08/30/91		19.87	---	176.02
	11/22/91		20.58	---	175.31
	03/18/92		13.55	---	182.34
	05/28/92		17.08	---	178.81
	08/19/92		19.07	---	176.82
	11/17/92		20.11	---	175.78
	02/12/93		12.10	---	183.79
	06/10/93		14.87	---	181.02
	08/18/93		16.90	---	178.99
	11/19/93		19.72	---	176.17
	02/28/94		15.08	---	180.81
	05/04/94		17.20	---	178.69
	08/10/94		18.76	---	177.13
	11/08/94		16.00	---	179.89
	02/01/95		10.18	---	185.71
	05/10/95		11.88	---	184.01
	08/24/95		15.60	---	180.29
	11/10/95		18.24	---	177.65
	02/24/96		9.88	---	186.01
	05/22/96		12.24	---	183.65
	08/19/96		15.86	---	180.03
	12/05/96		16.21	---	179.68
01/08/97	9.73	---	186.16		
02/20/97	11.60	---	184.29		
05/30/97	15.02	---	180.87		
08/18/97	17.20	---	178.69		
MW-2	02/15/90	194.27	16.90	---	177.37
	04/19/90		17.69	---	176.58
	05/14/90		18.01	---	176.26
	06/21/90		17.39	---	176.88
	09/12/90		19.00	---	175.27
	11/27/90		19.44	---	174.83
	03/08/91		15.96	---	178.31
	06/03/91		17.00	---	177.27

**Table 1. Ground Water Elevations - Shell Service Station WIC #204-5508-3301, 6039 College Avenue, Oakland, California (continued)**

Well ID	Date	Top-of-Casing Elevation (ft above msl)	Depth to Water (ft below TOC)	Separate-Phase Hydrocarbon Thickness (ft)	Ground Water Elevation (ft above msl) <sup>a</sup>
	08/30/91		18.95	---	175.32
	11/22/91		19.55	---	174.72
	03/18/92		12.91	---	181.36
	05/28/92		16.25	---	178.02
	08/19/92		18.21	---	176.06
	11/17/92		19.15	---	175.12
	02/12/93		11.60	---	182.67
	06/10/93		14.14	---	180.13
	08/18/93		16.10	---	178.17
	11/19/93		18.77	---	175.50
	02/28/94		14.35	---	179.92
	05/04/94		16.34	---	177.93
	08/10/94		15.79	---	178.48
	11/08/94		15.04	---	179.23
	02/01/95		10.08	---	184.19
	05/10/95		11.68	---	182.59
	08/24/95		14.94	---	179.33
	11/10/95		13.36	---	180.91
	02/24/96		9.90	---	184.37
	05/22/96		11.80	---	182.47
	08/19/96		15.08	---	179.19
	12/05/96		15.16	---	179.11
	01/08/97		9.76	---	184.51
	02/20/97		11.47	---	182.80
	05/30/97		14.30	---	179.97
	08/18/97		16.83	---	177.94
MW-3	02/15/90	192.52	15.81	---	176.71
	04/19/90		16.57	---	175.95
	05/14/90		16.97	---	175.55
	06/21/90		16.27	---	176.25
	09/12/90		18.78	---	173.74
	11/27/90		18.27	---	174.25
	03/08/91		14.86	---	177.66
	06/03/91		15.84	---	176.68
	08/30/91		17.79	---	174.73
	11/22/91		18.40	---	174.12
	03/18/92		12.03	---	180.49
	05/28/92		15.16	---	177.36
	08/19/92		17.03	---	175.49
	11/17/92		17.94	---	174.58
	02/12/93		9.16	---	183.36
	06/10/93		13.20	---	179.32

**Table 1. Ground Water Elevations - Shell Service Station WIC #204-5508-3301, 6039 College Avenue, Oakland, California (continued)**

Well ID	Date	Top-of-Casing Elevation (ft above msl)	Depth to Water (ft below TOC)	Separate-Phase Hydrocarbon Thickness (ft)	Ground Water Elevation (ft above msl) <sup>a</sup>
	08/18/93		14.93	---	177.59
	11/19/93		17.58	---	174.94
	02/28/94		13.30	---	179.22
	05/04/94		15.25	---	177.27
	08/10/94		16.63	---	175.89
	11/08/94		13.88	---	178.64
	02/01/95		9.25	---	183.27
	05/10/95		10.76	---	181.74
	08/24/95		13.90	---	178.62
	11/10/95		16.20	---	176.32
	02/24/96		8.93	---	183.59
	05/22/96		10.86	---	181.66
	08/19/96		13.97	---	178.55
	12/05/96		14.06	---	178.46
	02/20/97		10.60	---	181.92
	05/30/97		13.26	---	179.26
	08/18/97		15.21	---	177.31
MW-4	02/15/90	193.37	16.73	---	176.65
	04/19/90		17.48	---	175.89
	05/14/90		17.88	---	175.49
	06/21/90		17.18	---	176.19
	09/12/90		17.85	---	175.52
	11/27/90		19.16	---	174.21
	03/08/91		15.77	---	177.60
	06/03/91		16.77	---	176.60
	08/30/91		18.71	---	174.66
	11/22/91		---	---	---
	03/18/92 <sup>a</sup>		13.15	0.24	180.41
	05/28/92 <sup>a</sup>		16.22	0.12	177.25
	08/19/92 <sup>a</sup>		18.05	0.09	175.39
	11/17/92		18.89	---	174.48
	02/12/93		11.78	<0.01	181.59
	06/10/93		14.20	---	179.17
	08/18/93		15.95	0.01	177.43
	11/19/93		18.48	0.01	174.90
	02/28/94		14.60	<0.01	178.77
	05/04/94		16.15	<0.01	177.22
	08/10/94		17.58	0.02	175.81
	11/08/94		15.05	0.05	178.36
	02/01/95		10.71	0.04	182.69
	05/10/95		11.90	0.06	181.52
	08/24/95		14.97	0.02	178.42

**Table 1. Ground Water Elevations - Shell Service Station WIC #204-5508-3301, 6039 College Avenue, Oakland, California (continued)**

Well ID	Date	Top-of-Casing Elevation (ft above msl)	Depth to Water (ft below TOC)	Separate-Phase Hydrocarbon Thickness (ft)	Ground Water Elevation (ft above msl) <sup>a</sup>
	11/10/95		17.27	---	176.10
	02/24/96		10.44	0.03	182.95
	05/22/96		11.88	0.03	181.51
	08/19/96		15.23	0.02	178.16
	12/05/96		14.70	0.02	178.69
	01/08/97		11.60	0.02	181.79
	02/20/97		11.91	---	181.46
	05/30/97		14.68	---	178.69
	08/18/97		15.07	---	178.30
MW-5	08/30/91	190.35	16.74	---	173.61
	11/22/91		17.27	---	173.08
	03/18/92		11.28	---	179.07
	05/28/92 <sup>b</sup>		---	---	---
	08/19/92		15.99	---	174.36
	11/17/92		16.84	---	173.51
	02/12/93		10.30	---	180.05
	06/10/93		12.36	---	177.99
	08/18/93		14.02	---	176.33
	11/19/93		16.50	---	173.85
	02/28/94		12.55	---	177.80
	05/04/94		14.27	---	176.08
	08/10/94		15.60	---	174.75
	11/08/94		12.85	---	177.50
	02/01/95		8.98	---	181.37
	05/10/95		10.16	---	180.19
	08/24/95		12.98	---	177.37
	11/10/95		15.12	---	175.23
	02/24/96 <sup>b</sup>		---	---	---
	05/22/96		10.10	---	180.25
	08/19/96		13.09	---	177.26
	12/05/96		13.31	---	177.04
	02/20/97		9.55	---	180.80
	05/30/97		12.40	---	177.95
	08/18/97		14.19	---	176.16
MW-6	09/21/93	189.05	14.64	---	174.41
	11/19/93		---	---	---
	02/28/94		12.18	---	176.87
	05/04/94		13.62	---	175.43
	08/10/94		14.98	---	174.07
	11/08/94		12.20	---	176.85

**Table 1. Ground Water Elevations - Shell Service Station WIC #204-5508-3301, 6039 College Avenue, Oakland, California (continued)**

Well ID	Date	Top-of-Casing Elevation (ft above msl)	Depth to Water (ft below TOC)	Separate-Phase Hydrocarbon Thickness (ft)	Ground Water Elevation (ft above msl) <sup>a</sup>
	02/01/95		8.70	---	180.35
	05/10/95		9.86	---	179.19
	08/24/95		12.46	---	176.59
	11/10/95		14.56	---	174.49
	02/24/96 <sup>b</sup>		---	---	---
	05/22/96		10.23	---	178.82
	08/19/96		12.61	---	176.44
	12/05/96		12.47	---	176.58
	02/20/97		9.85	---	179.20
	05/30/97		11.96	---	177.09
	08/18/97		13.65	---	175.40
T-1	05/30/97	Not Surveyed	Dry	---	Dry
	08/18/97	Not Surveyed	Dry	---	Dry
T-2	05/30/97	Not Surveyed	Dry	---	Dry
	08/18/97	Not Surveyed	Dry	---	Dry

**Notes:**

- a = When separate-phase hydrocarbons are present, ground water elevation is corrected by the relation: Corrected ground water elevation = (Top-of-Casing Elevation) - (depth to water) + (0.8 x separate-phase hydrocarbon thickness).
- b = Well inaccessible
- = Data not available
- Ft = Feet.
- msl = Mean sea level
- TOC = Top of casing



**Table 2a. Analytic Results for Ground Water - Gasoline Components - Shell Service Station WIC #204-5508-3301, 6039 College Avenue, Oakland, California**

Well/ Boring ID	Date Sampled	Depth to Water (ft)	TPH-G	MTBE	parts per billion (µg/L)				X
					B	E	T		
MW-1	02/13/90	17.73	95	--	ND	0.37	0.67	3.2	
	05/14/90	18.92	95	--	0.70	0.71	0.57	3.5	
	09/12/90	19.81	ND	--	ND	ND	ND	ND	
	11/27/90	20.39	--	--	--	--	--	--	
	03/08/91	16.85	ND	--	ND	ND	ND	ND	
	06/03/91	17.82	ND	--	ND	ND	ND	ND	
	08/30/91	19.87	16.85	--	ND	ND	ND	ND	
	11/22/91	20.58	60	--	<0.5	<0.5	<0.5	<0.5	
	03/18/92	13.55	60	--	<0.3	<0.3	<0.3	<0.3	
	05/28/92	17.08	60	--	<0.5	<0.5	<0.5	<0.5	
	08/19/92	19.07	60	--	<0.5	<0.5	<0.5	<0.5	
	11/17/92	20.11	60	--	<0.5	<0.5	<0.5	<0.5	
	02/12/93	12.10	60	--	<0.5	<0.5	<0.5	<0.5	
	06/10/93	14.87	60	--	<0.5	<0.5	<0.5	<0.5	
	06/10/93 <sup>dup</sup>	14.87	60	--	<0.5	<0.5	<0.5	<0.5	
	08/18/93	16.90	60	--	<0.5	<0.5	<0.5	<0.5	
	11/19/93	19.72	60	--	<0.5	<0.5	<0.5	<0.5	
	02/18/94	15.08	60	--	<0.5	<0.5	<0.5	1.7	
	05/04/94	17.20	60	--	<0.5	<0.5	<0.5	<0.5	
	08/10/94	18.76	60	--	<0.5	<0.5	<0.5	<0.5	
	08/10/94 <sup>dup</sup>	18.76	60	--	<0.5	<0.5	<0.5	<0.5	
	11/08/94	16.00	60	--	<0.5	<0.5	<0.5	<0.5	
	02/01/95	10.18	60	--	<0.5	<0.5	<0.5	<0.5	
	05/10/95	11.88	60	--	<0.5	<0.5	<0.5	<0.5	
	08/24/95	15.60	60	--	<0.5	<0.5	<0.5	<0.5	
	11/10/95	18.24	60	--	<0.5	<0.5	<0.5	<0.5	
	02/24/96	9.88	60	--	<0.5	<0.5	<0.5	<0.5	
	05/22/96	12.24	60	<2.5	<0.5	<0.5	<0.5	<0.5	
	08/19/96	15.86	60	<2.5	<0.5	<0.5	<0.5	<0.5	
	12/05/96	16.21	160	<2.5	7.3	5.5	8.2	23	
	01/08/97	9.73	60	<2.5	<0.50	<0.50	<0.50	<0.50	
	02/20/97	11.60	60	<2.5	<0.50	<0.50	<0.50	<0.50	
	02/20/97 <sup>dup</sup>	11.60	60	<2.5	<0.50	<0.50	<0.50	<0.50	

**Table 2a. Analytic Results for Ground Water - Gasoline Components - Shell Service Station WIC #204-5508-3301, 6039 College Avenue, Oakland, California (continued)**

Well/ Boring ID	Date Sampled	Depth to Water (ft)	TPH-G	MTBE	←————— parts per billion (µg/L) —————→			X
					B	E	T	
MW-2	02/13/90	16.90	ND	--	ND	ND	ND	ND
	05/14/90	18.01	ND	--	ND	ND	ND	ND
	09/12/90	19.00	ND	--	ND	ND	ND	ND
	11/27/90	19.44	ND	--	ND	ND	ND	ND
	03/08/91	15.96	ND	--	ND	ND	ND	ND
	06/03/91	17.00	ND	--	ND	ND	ND	ND
	08/30/91	18.95	ND	--	ND	ND	ND	ND
	11/22/91	19.55	<50	--	<0.5	<0.5	<0.5	<0.5
	03/18/92	12.91	<30	--	<0.3	<0.3	<0.3	<0.3
	05/28/92	16.25	<50	--	<0.5	<0.5	<0.5	<0.5
	08/19/92	18.21	<50	--	<0.5	1.2	2	1.9
	11/17/92	19.15	<50	--	<0.5	1.2	2	1.9
	02/12/93 <sup>dup</sup>	11.60	<50	--	<0.5	<0.5	<0.5	<0.5
	02/12/93	11.60	<50	--	<0.5	<0.5	<0.5	<0.5
	06/10/93	14.14	<50	--	<0.5	<0.5	<0.5	<0.5
	08/18/93	16.10	<50	--	<0.5	<0.5	<0.5	<0.5
	08/18/93 <sup>dup</sup>	16.10	<50	--	<0.5	<0.5	<0.5	<0.5
	11/19/93	18.77	<50	--	<0.5	<0.5	<0.5	<0.5
	02/18/94	14.55	<50	--	<0.5	<0.5	<0.5	1.6
	05/04/94	16.34	<50	--	<0.5	<0.5	<0.5	<0.5
	08/10/94	15.79	<50	--	<0.5	<0.5	<0.5	<0.5
	11/08/94	15.04	<50	--	<0.5	<0.5	<0.5	<0.5
	02/01/95	10.08	<50	--	<0.5	<0.5	<0.5	<0.5
	05/10/95	11.68	<50	--	<0.5	<0.5	<0.5	<0.5
	08/24/95	14.94	<50	--	<0.5	<0.5	<0.5	<0.5
	11/10/95	13.36	<50	--	1.7	1.4	0.8	4.9
	02/24/96	9.90	<50	--	<0.5	<0.5	<0.5	<0.5
	02/24/96 <sup>dup</sup>	9.90	<50	--	<0.5	<0.5	<0.5	<0.5
	05/22/96	11.80	<50	<2.5	<0.5	<0.5	<0.5	<0.5
	08/19/96	15.08	<50	<2.5	<0.5	<0.5	<0.5	<0.5
	08/19/96 <sup>dup</sup>	15.08	<50	<2.5	<0.5	<0.5	<0.5	<0.5
	12/05/96	15.16	<50	<2.5	1.5	1.2	1.6	5.2
	01/08/97	9.76	<50	<2.5	<0.50	<0.50	<0.50	<0.50
	02/20/97	11.47	<50	<2.5	<0.50	<0.50	<0.50	<0.50

**Table 2a. Analytic Results for Ground Water - Gasoline Components - Shell Service Station WIC #204-5508-3301, 6039 College Avenue, Oakland, California (continued)**

Well/ Boring ID	Date Sampled	Depth to Water (ft)	TPH-G	MTBE	parts per billion (µg/L)				X
					B	E	T		
MW-3	02/13/90	15.81	4,700	—	320	110	29	33	
	02/13/90 <sup>dup</sup>	15.81	4,600	—	380	160	8.6	57	
	05/14/90	16.97	1,400	—	130	40	8.6	17	
	05/14/90 <sup>dup</sup>	16.97	8,200	—	120	38	31	13	
	09/12/90	18.78	2,000	—	58	16	5.8	15	
	11/27/90	18.27	540	—	18	8.7	1.5	2.5	
	03/08/91	14.86	3,400	—	630	270	33	18	
	06/03/91	15.84	1,700	—	260	98	13	24	
	08/30/91	17.79	870	—	44	10	6.1	2.9	
	11/22/91	18.40	310	—	18	3.3	1.2	2.9	
	03/18/92	12.03	67,100	—	620	220	28	38	
	05/28/92	15.16	2,300	—	200	71	9	17	
	08/19/92	17.03	5,700	—	71	52	77	130	
	11/17/92	17.94	3,600	—	16	24	8.6	50	
	02/12/93	9.16	4,700	—	820	130	58	77	
	06/10/93	13.20	2,200	—	310	89	23	23	
	08/18/93	14.93	260	—	27	7.0	2.0	2.2	
	11/19/93	17.58	1,500 <sup>a</sup>	—	24	37	54	17	
	02/18/94	13.30	2,700	—	65	16	5.2	6.3	
	02/18/94 <sup>dup</sup>		3,100	—	82	19	6.7	7.9	
	05/04/94	15.25	780	—	120	21	7.5	6.9	
	05/04/94 <sup>dup</sup>	15.25	920	—	120	22	7.7	7.1	
	08/10/94	16.63	920	—	20	3.0	2.3	2.2	
	11/08/94	13.88	1,300	—	180	7.0	16	12	
	11/08/94 <sup>dup</sup>	13.88	1,200	—	170	7.2	15	11	
	02/01/95	9.25	1,400	—	210	11	8.5	8.7	
	05/10/95	10.76	460	—	97	1.0	10	19	
	08/24/95	13.90	640	—	68	14	21	19	
	11/10/95	16.20	350	—	15	1.2	2.3	2.5	
	02/24/96	8.93	3,300	—	240	38	53	55	
	05/22/96	10.86	1,300	3,500	110	<10	15	<10	
	08/19/96	13.97	350	340	15	3.4	3.3	3.3	
	12/05/96	14.06	290	370	12	5.4	7.6	16	

**Table 2a. Analytic Results for Ground Water - Gasoline Components - Shell Service Station WIC #204-5508-3301, 6039 College Avenue, Oakland, California (continued)**

Well/ Boring ID	Date Sampled	Depth to Water (ft)	TPH-G	MTBE	parts per billion (µg/L)			X
					B	E	T	
	12/05/96 <sup>dup</sup>	14.06	290	360	13	5.8	7.6	17
	02/20/97	10.60	980	3,200	69	14	7.9	15
MW-4	02/13/90	16.73	ND	---	ND	ND	ND	ND
	05/14/90	17.88	650	---	160	1.9	7	3.1
	09/12/90	17.85	440	---	91	0.75	1.1	0.79
	09/12/90 <sup>dup</sup>	17.85	520	---	85	0.71	0.71	0.81
	11/27/90	19.16	470	---	64	0.80	1.2	2.7
	03/08/91	15.77	1,100	---	330	88	3.5	5.8
	06/03/91	16.77	670	---	240	1.6	2.3	2.3
	08/30/91	18.71	570	---	64	0.9	1.8	0.9
	11/22/91 <sup>SPH</sup>	---	---	---	---	---	---	---
	03/18/92 <sup>SPH</sup>	13.15	---	---	---	---	---	---
	05/28/92 <sup>SPH</sup>	16.22	---	---	---	---	---	---
	08/19/92 <sup>SPH</sup>	18.05	---	---	---	---	---	---
	11/17/92 <sup>SPH</sup>	18.89	---	---	---	---	---	---
	02/12/93 <sup>SPH</sup>	11.78	---	---	---	---	---	---
	06/10/93	14.20	---	---	---	---	---	---
	08/18/93 <sup>SPH</sup>	15.95	---	---	---	---	---	---
	11/19/93 <sup>SPH</sup>	18.48	---	---	---	---	---	---
	02/28/94 <sup>SPH</sup>	14.60	---	---	---	---	---	---
	05/04/94 <sup>SPH</sup>	16.15	---	---	---	---	---	---
	08/10/94 <sup>SPH</sup>	17.58	---	---	---	---	---	---
	11/08/94 <sup>SPH</sup>	15.05	---	---	---	---	---	---
	02/01/95 <sup>SPH</sup>	10.71	---	---	---	---	---	---
	05/10/95	11.90	---	---	---	---	---	---
	08/24/95	14.97	---	---	---	---	---	---
	11/10/95	17.27	4,700	---	100	23	22	38
	02/24/96	10.44	---	---	---	---	---	---
	08/19/96 <sup>SPH</sup>	15.23	---	---	---	---	---	---
	12/05/96 <sup>SPH</sup>	14.07	---	---	---	---	---	---
	01/08/97	11.60	<10,000	24,000	<100	<100	<100	<100
	02/20/97	11.91	<10,000	59,000	490	<100	<100	<100

**Table 2a. Analytic Results for Ground Water - Gasoline Components - Shell Service Station WIC #204-5508-3301, 6039 College Avenue, Oakland, California (continued)**

Well/ Boring ID	Date Sampled	Depth to Water (ft)	TPH-G	MTBE	parts per billion (µg/L)				
					B	E	T	X	
	05/30/97	14.68	<2,000	6,100	72	<20	<20	<20	
	08/18/97	15.07	<5,000	31,000	150	<50	570	130	
MW-5	08/30/91	16.74	ND	—	ND	ND	ND	ND	
	11/22/91	17.27	<50	—	<0.5	<0.5	<0.5	<0.5	
	03/18/92	11.28	<30	—	<0.3	<0.3	<0.3	<0.3	
	05/28/92 <sup>b</sup>	—	—	—	—	—	—	—	
	08/19/92	15.99	<50	—	<0.5	<0.5	<0.5	<0.5	
	11/17/92	16.84	<50	—	<0.5	<0.5	<0.5	<0.5	
	02/12/93	10.30	<50	—	<0.5	<0.5	<0.5	<0.5	
	06/10/93	12.36	<50	—	<0.5	<0.5	<0.5	<0.5	
	08/18/93	14.02	<50	—	<0.5	<0.5	<0.5	<0.5	
	11/19/93	16.50	<50	—	<0.5	<0.5	<0.5	<0.5	
	11/19/93 <sup>dup</sup>	16.50	<50	—	<0.5	<0.5	<0.5	<0.5	
	02/18/94	12.55	<50	—	<0.5	<0.5	<0.5	<0.5	
	05/04/94	14.27	<50	—	<0.5	<0.5	<0.5	<0.5	
	08/10/94	15.60	70 <sup>f</sup>	—	<0.5	<0.5	<0.5	<0.5	
	11/08/94	12.85	<50	—	<0.5	<0.5	<0.5	<0.5	
	02/01/95	8.98	<50	—	<0.5	<0.5	<0.5	<0.5	
	05/10/95	10.16	<50	—	<0.5	<0.5	<0.5	<0.5	
	05/10/95 <sup>dup</sup>	10.16	<50	—	<0.5	<0.5	<0.5	<0.5	
	08/24/95	12.98	<50	—	<0.5	<0.5	<0.5	<0.5	
	11/10/95	15.12	<50	—	<0.5	<0.5	<0.5	<0.5	
	02/24/96 <sup>b</sup>	—	—	—	—	—	—	—	
	05/22/96	10.10	<2,000	9,800	<20	<20	<20	<20	
	08/19/96	13.09	<2,500	13,000	<25	<25	<25	<25	
	12/05/96	13.31	<500	2,800	<5.0	<5.0	<5.0	<5.0	
	02/20/97	9.55	<1,000	5,600	<10	<10	<10	<10	
MW-6	09/21/93	14.64	<50	—	<0.5	<0.5	<0.5	<0.5	
	11/19/93 <sup>c</sup>	—	—	—	—	—	—	—	
	02/28/94	12.18	98 <sup>d</sup>	—	<0.5	<0.5	<0.5	<0.5	
	05/04/94	13.62	<50	—	<0.5	<0.5	<0.5	<0.5	
	08/10/94	14.98	80 <sup>f</sup>	—	<0.5	<0.5	<0.5	<0.5	

**Table 2a. Analytic Results for Ground Water - Gasoline Components - Shell Service Station WIC #204-5508-3301, 6039 College Avenue, Oakland, California (continued)**

Well/ Boring ID	Date Sampled	Depth to Water (ft)	TPH-G	MTBE	parts per billion (µg/L)			
					B	E	T	X
	11/08/94 <sup>b</sup>	12.20	—	—	—	—	—	—
	02/01/95	8.70	120	—	3.5	3.4	21	22
	02/01/95 <sup>dup</sup>	8.70	110	—	0.6	0.5	0.6	0.9
	05/10/95	9.86	—	—	—	—	—	—
	08/24/95	12.46	80	—	<0.5	1.8	<0.5	2.4
	08/24/95 <sup>dup</sup>	12.46	70	—	<0.5	1.2	<0.5	1.3
	11/10/95	14.56	<50	—	<0.5	<0.5	<0.5	<0.5
	11/10/95	14.56	60	—	<0.5	<0.5	<0.5	<0.5
	02/24/96 <sup>b</sup>	—	—	—	—	—	—	—
	05/22/96	10.23	<50	290	<0.5	<0.5	<0.5	<0.5
	08/19/96	12.61	<1,250	1,100	<12	<12	<12	<12
	12/05/96	12.47	<125	440	<1.2	<1.2	<1.2	<1.2
	02/20/97	9.85	<100	480	<1.0	<1.0	<1.0	<1.0
BH-A	09/09/93	16.50	4,900	—	18	54	<5	11
BH-B	09/09/93	15.85	<50	—	<0.5	<0.5	<0.5	<0.5
BH-C <sup>e</sup>	09/10/93	15.80	640 <sup>f</sup>	—	3.5	0.6	<0.5	<0.5
BH-D <sup>e</sup>	09/10/93	14.2	24,000 <sup>f</sup>	—	720	44	86	11
Bailer	08/19/92	—	<50	—	<0.5	<0.5	<0.5	<0.5
Blank	11/17/92	—	<50	—	<0.5	<0.5	<0.5	<0.5
Trip	02/13/90	—	ND	—	ND	ND	ND	ND
Blank	05/14/90	—	ND	—	ND	ND	ND	ND
	09/12/90	—	ND	—	ND	ND	ND	ND
	03/08/91	—	ND	—	ND	ND	ND	ND
	06/03/91	—	ND	—	ND	ND	ND	ND
	08/30/91	—	ND	—	ND	ND	ND	ND
	03/18/92	—	<30	—	<0.3	<0.3	<0.3	<0.3
	05/28/92	—	<50	—	<0.5	<0.5	<0.5	<0.5
	08/19/92	—	<50	—	<0.5	<0.5	<0.5	<0.5

**Table 2a. Analytic Results for Ground Water - Gasoline Components - Shell Service Station WIC #204-5508-3301, 6039 College Avenue, Oakland, California (continued)**

Well/ Boring ID	Date Sampled	Depth to Water (ft)	TPH-G	MTBE	parts per billion (µg/L)			
					B	E	T	X
	11/17/92	---	<50	---	<0.5	<0.5	<0.5	<0.5
	02/12/93	---	<50	---	<0.5	<0.5	<0.5	<0.5
	06/10/93	---	<50	---	<0.5	<0.5	<0.5	<0.5
	11/19/93	---	<50	---	<0.5	<0.5	<0.5	<0.5
	02/28/94	---	<50	---	<0.5	<0.5	<0.5	<0.5
	05/04/94	---	<50	---	<0.5	<0.5	<0.5	<0.5
	08/10/94	---	<50	---	<0.5	<0.5	<0.5	<0.5
	11/08/94	---	<50	---	<0.5	<0.5	<0.5	<0.5
	02/01/95	---	<50	---	<0.5	<0.5	<0.5	<0.5
	05/10/95	---	<50	---	<0.5	<0.5	<0.5	<0.5
	08/24/95	---	<50	---	<0.5	<0.5	<0.5	<0.5
	11/10/95	---	<50	---	<0.5	<0.5	0.7	<0.5
MCLs			NE	---	1	700	150	1,750

**Abbreviations:**

TPH-G = Total petroleum hydrocarbons as gasoline by Modified EPA Method 8015  
 MTBE = Methyl t-Butyl Ether by EPA Method 8020  
 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  
 MCLs = California Primary Maximum Contaminant Levels for drinking water  
 (22 CCR 64444)  
 --- = Not analyzed or measured  
 dup = Duplicate sample  
 µg/L = Micrograms per liter

**Notes:**

- a = Concentration reported as gasoline is due to the presence of gasoline and a discrete peak not indicative of gasoline
- b = Well inaccessible and not sampled
- c = Well inadvertently not sampled
- d = The concentration reported as gasoline is primarily due to the presence of a discrete peak not indicative of gasoline
- e = Due to chain of custody mis-communication analyses run after holding time expiration
- f = The positive result has an atypical pattern for gasoline analysis

**Table 2b. Analytic Results for Groundwater - Non-Gasoline Components - Shell Service Station WIC #204-5508-3301, 6039 College Avenue, Oakland, California**

Well/ Boring ID	Date Sampled	Depth to Water (ft)	TPH-D	TPH-MO	POG	Naphthalene*	2-Methylnaphthalene*	DO (mg/L)
			←————— parts per billion (µg/L) —————→					
MW-1	02/13/90	17.73	650	770	—	—	—	—
	05/14/90	18.92	ND	770	—	—	—	—
	09/12/90	19.81	84	ND	—	—	—	—
	11/27/90	20.39	—	—	—	—	—	—
	03/08/91	16.85	50	ND	—	—	—	—
	06/03/91	17.82	ND	ND	—	—	—	—
	08/30/91	19.87	520	ND	—	—	—	—
	11/22/91	20.58	<50	<500	—	—	—	—
	03/18/92	13.55	<50	—	—	—	—	—
	05/28/92	17.08	<50	—	—	—	—	—
	08/19/92	19.07	<50	—	—	—	—	—
	11/17/92	20.11	<50	—	—	—	—	—
	02/12/93	12.10	<50	—	—	—	—	—
	06/10/93	14.87	—	—	—	—	—	—
	06/10/93 <sup>dup</sup>	14.87	—	—	—	—	—	—
	08/18/93	16.90	—	—	—	—	—	—
	11/19/93	19.72	—	—	—	—	—	—
	02/18/94	15.08	—	—	—	—	—	—
	05/04/94	17.20	—	—	—	—	—	—
	08/10/94	18.76	—	—	—	—	—	—
	08/10/94 <sup>dup</sup>	18.76	—	—	—	—	—	—
	11/08/94	16.00	—	—	—	—	—	—
	02/01/95	10.18	—	—	—	—	—	—
	05/10/95	11.88	—	—	—	—	—	—
	08/24/95	15.60	—	—	—	—	—	—
	11/10/95	18.24	—	—	—	—	—	—
	02/24/96	9.88	—	—	—	—	—	—
	05/22/96	12.24	—	—	—	—	—	—
	08/19/96	15.86	—	—	—	—	—	—
	12/05/96	16.21	—	—	—	—	—	8.6
	02/20/97	11.60	—	—	—	—	—	8.0



**Table 2b. Analytic Results for Groundwater - Non-Gasoline Components - Shell Service Station WIC #204-5508-3301, 6039 College Avenue, Oakland, California (continued)**

Well/ Boring ID	Date Sampled	Depth to Water (ft)	TPH-D	TPH-MO	POG	Naphthalene*		2-Methylnaphthalene*	DO (mg/L)
						parts per billion (µg/L)			
MW-2	02/13/90	16.90	560	ND	--	--	--	--	--
	05/14/90	18.01	ND	ND	--	--	--	--	--
	09/12/90	19.00	ND	ND	--	--	--	--	--
	11/27/90	19.44	ND	ND	--	--	--	--	--
	03/08/91	15.96	ND	ND	--	--	--	--	--
	06/03/91	17.00	ND	ND	--	--	--	--	--
	08/30/91	18.95	ND	ND	--	--	--	--	--
	11/22/91	19.55	<50	<500	--	--	--	--	--
	03/18/92	12.91	--	--	--	--	--	--	--
	05/28/92	16.25	--	--	--	--	--	--	--
	08/19/92	18.21	--	--	--	--	--	--	--
	11/17/92	19.15	--	--	--	--	--	--	--
	02/12/93 <sup>dup</sup>	11.60	--	--	--	--	--	--	--
	02/12/93	11.60	--	--	--	--	--	--	--
	06/10/93	14.14	--	--	--	--	--	--	--
	08/18/93	16.10	--	--	--	--	--	--	--
	08/18/93 <sup>dup</sup>	16.10	--	--	--	--	--	--	--
	11/19/93	18.77	--	--	--	--	--	--	--
	02/18/94	14.55	--	--	--	--	--	--	--
	05/04/94	16.34	--	--	--	--	--	--	--
	08/10/94	15.79	--	--	--	--	--	--	--
	11/08/94	15.04	--	--	--	--	--	--	--
	02/01/95	10.08	--	--	--	--	--	--	--
	05/10/95	11.68	--	--	--	--	--	--	--
	08/24/95	14.94	--	--	--	--	--	--	--
	11/10/95	13.36	--	--	--	--	--	--	--
	02/24/96	9.90	--	--	--	--	--	--	--
	02/24/96 <sup>dup</sup>	9.90	--	--	--	--	--	--	--
	05/22/96	11.80	--	--	--	--	--	--	--
	08/19/96	15.08	--	--	--	--	--	--	--
	08/19/96 <sup>dup</sup>	15.08	--	--	--	--	--	--	--

**Table 2b. Analytic Results for Groundwater - Non-Gasoline Components - Shell Service Station WIC #204-5508-3301, 6039 College Avenue, Oakland, California (continued)**

Well/ Boring ID	Date Sampled	Depth to Water (ft)	TPH-D	TPH-MO	POG		Naphthalene*		2-Methylnaphthalene*		DO (mg/L)
					parts per billion (µg/L)						
	12/05/96	15.16	---	---	---	---	---	---	---	7.0	
	02/20/97	11.47	---	---	---	---	---	---	---	7.1	
MW-3	02/13/90	15.81	3,100	3,000	---	---	---	---	---	---	
	02/13/90 <sup>dup</sup>	15.81	4,500	8,300	---	---	---	---	---	---	
	05/14/90	16.97	620	40,000	---	---	---	---	---	---	
	05/14/90 <sup>dup</sup>	16.97	660	10,000	---	---	---	---	---	---	
	09/12/90	18.78	1,500	19,000	---	---	---	---	---	---	
	11/27/90	18.27	240	460	---	---	---	---	---	---	
	03/08/91	14.86	2,100	ND	---	---	---	---	---	---	
	06/03/91	15.84	690 <sup>a</sup>	ND	---	---	---	---	---	---	
	08/30/91	17.79	370 <sup>b</sup>	500	---	---	---	---	---	---	
	11/22/91	18.40	140	500	---	---	---	---	---	---	
	03/18/92	12.03	1,900	20,000	---	---	---	---	---	---	
	05/28/92	15.16	1,100 <sup>c</sup>	4,600	---	---	---	---	---	---	
	08/19/92	17.03	1,000 <sup>c</sup>	1,800	---	---	---	---	---	---	
	11/17/92	17.94	160 <sup>c</sup>	1,200	---	---	---	---	---	---	
	02/12/93	9.16	560 <sup>c</sup>	<50	---	---	---	---	---	---	
	06/10/93	13.20	---	940 <sup>d</sup>	---	---	---	---	---	---	
	08/18/93	14.93	---	460 <sup>d</sup>	---	---	---	---	---	---	
	11/19/93	17.58	---	960 <sup>d</sup>	<5,000	---	---	---	---	---	
	02/18/94	13.30	---	1,600	<5,000	---	---	---	---	---	
	02/18/94 <sup>dup</sup>	---	---	2,200	<5,000	---	---	---	---	---	
	05/04/94	15.25	---	710	<5,000	---	e	e	---	---	
	05/04/94 <sup>dup</sup>	15.25	---	1,600	<5,000	---	f	f	---	---	
	08/10/94	16.63	---	<500	<5,000	---	ND	ND	---	---	
	11/08/94	13.88	---	1,300	---	---	---	---	---	---	
	11/08/94 <sup>dup</sup>	13.88	---	730	---	---	---	---	---	---	
	02/01/95	9.25	---	900 <sup>j</sup>	---	---	27	ND	---	---	
	05/10/95	10.76	---	---	<5,000	---	ND	ND	---	---	
	08/24/95	13.90	---	---	<5,000	---	12	ND	---	---	
	11/10/95	16.20	---	---	<5,000	---	---	---	---	---	

**Table 2b. Analytic Results for Groundwater - Non-Gasoline Components - Shell Service Station WIC #204-5508-3301, 6039 College Avenue, Oakland, California (continued)**

Well/ Boring ID	Date Sampled	Depth to Water (ft)	TPH-D	TPH-MO	POG	Naphthalene*		2-Methylnaphthalene*	DO (mg/L)
						parts per billion (µg/L)			
	02/24/96	8.93	--	--	<5,000	--	--	--	--
	05/22/96	10.86	--	--	<5,000	37	8.4	--	--
	08/19/96	13.97	--	--	9,200	ND	ND	--	--
	12/05/96	14.06	--	--	--	ND	ND	8.4	8.4
	12/05/96 <sup>dup</sup>	14.06	--	--	--	ND	ND	8.4	8.4
	02/20/97	10.60	--	--	<5,000	23	<5.0	8.2	8.2
MW-4	02/13/90	16.73	1,200	3,000	--	--	--	--	--
	05/14/90	17.88	350	12,000	--	--	--	--	--
	09/12/90	17.85	260	2,600	--	--	--	--	--
	09/12/90 <sup>dup</sup>	17.85	1,100	16,000	--	--	--	--	--
	11/27/90	19.16	2,400	1,000	--	--	--	--	--
	03/08/91	15.77	2,600	15,000	--	--	--	--	--
	06/03/91	16.77	1,100	ND	--	6.5	--	--	--
	08/30/91	18.71	280	2,000	--	11.0	--	--	--
	11/22/91 <sup>SPH</sup>	--	--	--	--	--	--	--	--
	03/18/92 <sup>SPH</sup>	13.15	--	--	--	--	--	--	--
	05/28/92 <sup>SPH</sup>	16.22	--	--	--	--	--	--	--
	08/19/92 <sup>SPH</sup>	18.05	--	--	--	--	--	--	--
	11/17/92 <sup>SPH</sup>	18.89	--	--	--	--	--	--	--
	02/12/93 <sup>SPH</sup>	11.78	--	--	--	--	--	--	--
	06/10/93	14.20	--	--	--	--	--	--	--
	08/18/93 <sup>SPH</sup>	15.95	--	--	--	--	--	--	--
	11/19/93 <sup>SPH</sup>	18.48	--	--	--	--	--	--	--
	02/28/94 <sup>SPH</sup>	14.60	--	--	--	--	--	--	--
	05/04/94 <sup>SPH</sup>	16.15	--	--	--	--	--	--	--
	08/10/94 <sup>SPH</sup>	17.58	--	--	--	--	--	--	--
	11/08/94 <sup>SPH</sup>	15.05	--	--	--	--	--	--	--
	02/01/95 <sup>SPH</sup>	10.71	--	--	--	--	--	--	--
	05/10/95	11.90	--	--	--	--	--	--	--
	08/24/95	14.97	--	--	--	--	--	--	--
	11/10/95	17.27	--	--	29,000	--	--	--	--

**Table 2b. Analytic Results for Groundwater - Non-Gasoline Components - Shell Service Station WIC #204-5508-3301, 6039 College Avenue, Oakland, California (continued)**

Well/ Boring ID	Date Sampled	Depth to Water (ft)	TPH-D	TPH-MO	POG	Naphthalene*	2-Methylnaphthalene*	DO (mg/L)
			←————— parts per billion (µg/L) —————→					
	02/24/96	10.44	---	---	---	---	---	---
	08/19/96 <sup>SPH</sup>	15.23	---	---	---	---	---	---
	12/05/96 <sup>SPH</sup>	14.07	---	---	---	---	---	---
	02/20/97	11.91	---	---	8,700	5.6	<5.0	7.0
	05/30/97	14.68	---	---	8,100	<5.0	<5.0	9.0
	<b>08/18/97</b>	<b>15.07</b>	---	---	<b>67,000</b>	<b>&lt;5.0</b>	<b>&lt;5.0</b>	<b>3.9</b>
MW-5	08/30/91	16.74	80	ND	---	---	---	---
	11/22/91	17.27	<50	<500	---	---	---	---
	03/18/92	11.28	<50	---	---	---	---	---
	05/28/92 <sup>g</sup>	---	---	---	---	---	---	---
	08/19/92	15.99	<50	---	---	---	---	---
	11/17/92	16.84	<50	---	---	---	---	---
	02/12/93	10.30	<50	---	---	---	---	---
	06/10/93	12.36	---	---	---	---	---	---
	08/18/93	14.02	---	---	---	---	---	---
	11/19/93	16.50	---	---	---	---	---	---
	11/19/93 <sup>dup</sup>	16.50	---	---	---	---	---	---
	02/18/94	12.55	---	---	---	---	---	---
	05/04/94	14.27	---	---	---	---	---	---
	08/10/94	15.60	---	---	---	---	---	---
	11/08/94	12.85	---	---	---	---	---	---
	02/01/95	8.98	---	---	---	---	---	---
	05/10/95	10.16	---	---	---	---	---	---
	05/10/95 <sup>dup</sup>	10.16	---	---	---	---	---	---
	08/24/95	12.98	---	---	---	---	---	---
	11/10/95	15.12	---	---	---	---	---	---
	02/24/96 <sup>j</sup>	---	---	---	---	---	---	---
	05/22/96	10.10	---	---	---	---	---	---
	08/19/96	13.09	---	---	---	---	---	---
	12/05/96	13.31	---	---	---	---	---	4.0
	02/20/97	9.55	---	---	---	---	---	4.2

**Table 2b. Analytic Results for Groundwater - Non-Gasoline Components - Shell Service Station WIC #204-5508-3301, 6039 College Avenue, Oakland, California (continued)**

Well/ Boring ID	Date Sampled	Depth to Water (ft)	TPH-D	TPH-MO	POG	Naphthalene*		2-Methylnaphthalene*	DO (mg/L)
						parts per billion (µg/L)			
MW-6	09/21/93	14.64	<50	--	<5,000	<10-50	<10-50	--	
	11/19/93 <sup>h</sup>	--	--	--	--	--	--	--	
	02/28/94	12.18	--	--	<5,000	--	--	--	
	05/04/94	13.62	--	--	<5,000	<2-10	<2-10	--	
	08/10/94	14.98	--	--	<5,000	ND	ND	--	
	11/08/94 <sup>i</sup>	12.20	--	--	--	--	--	--	
	02/01/95	8.70	--	--	--	--	--	--	
	02/01/95 <sup>dup</sup>	8.70	--	--	--	--	--	--	
	05/10/95	9.86	--	--	--	--	--	--	
	08/24/95	12.46	--	--	--	--	--	--	
	08/24/95 <sup>dup</sup>	12.46	--	--	--	--	--	--	
	11/10/95	14.56	--	--	--	--	--	--	
	11/10/95	14.56	--	--	--	--	--	--	
	02/24/96 <sup>j</sup>	--	--	--	--	--	--	--	
	05/22/96	10.23	--	--	--	--	--	--	
	08/19/96	12.61	--	--	--	--	--	--	
12/05/96	12.47	--	--	--	--	--	3.6		
02/20/97	9.85	--	--	--	--	--	3.9		
BH-A	09/09/93	16.50	2,900 <sup>c</sup>	--	<5,000	23	13	--	
BH-B	09/09/93	15.85	150	--	<5,000	ND	ND	--	
BH-C <sup>d</sup>	09/10/93	15.80	100	--	<5,000	ND	ND	--	
BH-D <sup>d</sup>	09/10/93	14.2	25,000 <sup>c</sup>	--	20,000	18	75	--	
Bailer	08/19/92	--	--	--	--	--	--	--	
Blank	11/17/92	--	--	--	--	--	--	--	
Trip	02/13/90	--	--	--	--	--	--	--	
Blank	05/14/90	--	--	--	--	--	--	--	

**Table 2b. Analytic Results for Groundwater - Non-Gasoline Components - Shell Service Station WIC #204-5508-3301, 6039 College Avenue, Oakland, California (continued)**

Well/ Boring ID	Date Sampled	Depth to Water (ft)	TPH-D	TPH-MO	POG	Naphthalene*	2-Methylnaphthalene*	DO (mg/L)
			←————— parts per billion (µg/L) —————→					
	09/12/90	---	---	---	---	---	---	---
	03/08/91	---	---	---	---	---	---	---
	06/03/91	---	---	---	---	---	---	---
	08/30/91	---	---	---	---	---	---	---
	03/18/92	---	<50	---	---	---	---	---
	05/28/92	---	---	---	---	---	---	---
	08/19/92	---	---	---	---	---	---	---
	11/17/92	---	---	---	---	---	---	---
	02/12/93	---	---	---	---	---	---	---
	06/10/93	---	---	---	---	---	---	---
	11/19/93	---	---	---	---	---	---	---
	02/28/94	---	---	---	---	---	---	---
	05/04/94	---	---	---	---	---	---	---
	08/10/94	---	---	---	---	---	---	---
	11/08/94	---	---	---	---	---	---	---
	02/01/95	---	---	---	---	---	---	---
	05/10/95	---	---	---	---	---	---	---
	08/24/95	---	---	---	---	---	---	---
	11/10/95	---	---	---	---	---	---	---

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**Table 2b. Analytic Results for Groundwater - Non-Gasoline Components - Shell Service Station WIC #204-5508-3301, 6039 College Avenue, Oakland, California (continued)**

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**Abbreviations:**

TPH-D = Total petroleum hydrocarbons as diesel by Modified EPA Method 8015  
TPH-MO = Total petroleum hydrocarbons as motor oil by Modified EPA Method 8015  
POG = Polar Oil & Grease by EPA Method 5520B/F  
DO = Dissolved Oxygen  
\* = Semivolatile organic compounds by EPA Method 8270; only detected compounds tabulated  
-- = Not analyzed or measured  
<n = Not detected at detection limits of n ppb  
ND = Not detected, detection limit not known  
SPH = Separate-phase hydrocarbons in well, not sampled  
dup = Duplicate sample  
mg/L = milligrams per liter  
µg/L = micrograms per liter  
ft = feet

**Notes:**

a = Positive results for diesel appear to be less volatile constituents of gasoline  
b = Positive results for diesel has a typical diesel pattern  
c = Concentration reported as diesel is primarily due to the presence of a lighter petroleum product, possibly gasoline or kerosene  
d = Concentration reported as motor oil is due to the presence of a combination of motor oil and a lighter petroleum product of hydrocarbon range C6-C12, possibly gasoline  
e = Compounds are within chromatographic range of gasoline but are not characteristic of the standard gasoline pattern  
f = Results include compounds apparently due to gasoline as well as those due to diesel  
g = Well inaccessible and not sampled  
h = Well inadvertently not sampled  
i = Due to chain of custody mis-communication analyses run after holding time expiration  
j = Concentration reported as motor oil is due to the presence of heavier and lighter petroleum products.

**Table 3. Separate-Phase Hydrocarbon Removal - Shell Service Station  
WIC #204-5508-3301, 6039 College Avenue, Oakland, California**

Well ID	Date	Separate-Phase Hydrocarbon Thickness (ft)	Separate-Phase Hydrocarbons Removed (lbs)	Cumulative Hydrocarbons Removed (lbs)
MW-4 <sup>a</sup>	01/15/92	---	3.12	3.12
	02/15/92	---	3.12	6.24
	03/18/92	0.24	---	6.24
	04/29/92	---	1.50	7.74
	05/28/92	0.12	0.18	7.92
	08/19/92	0.09	0.96	8.86
	11/17/92	---	0.96	9.82
	02/12/93	<0.01	---	9.82
	06/10/93	0.02	0.06	9.88
	08/18/93	0.01	0.06	9.94
	11/19/93	0.01	0.06	10.00
	02/28/94	0.01	0.06	10.06
	05/04/94	0.00	0.06	10.12
	08/10/94	0.02	0.06	10.18
	11/10/94	0.05	0.08	10.26
	02/01/95	0.04	0.06	10.32
	05/10/95	0.06	0.16	10.48
	08/24/95	0.02	---	10.48
	11/10/95	<0.01	---	10.48
	02/24/96	0.03	0.44	10.92
	05/22/96	0.03	---	10.92
	08/19/96	0.02	---	10.92
	12/05/96	0.02	---	10.92
	01/08/97	0.02	0.08	11.00
	05/30/97	---	---	11.00
	<b>08/18/97</b>	<b>---</b>	<b>---</b>	<b>11.00</b>

**Notes:**

a = Petrotrap separate-phase hydrocarbon skimmer installed in well.  
 --- = Not measured or no hydrocarbons removed.



CAMBRIA

**ATTACHMENT A**

Blaine Quarterly Ground Water Monitoring Report

**BLAINE**  
TECH SERVICES INC.



1680 ROGERS AVENUE  
SAN JOSE, CALIFORNIA 95112  
(408) 573-7771 FAX  
(408) 573-0555 PHONE

September 12, 1997

Shell Oil Company  
P.O. Box 5278  
Concord, CA 94520-9998

Attn: Alex Perez

Shell WIC #204-5508-3301  
6039 College Avenue  
Oakland, California

3rd Quarter 1997

## Groundwater Monitoring Report 970818-D-2

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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)573-0555 ext. 201.

Yours truly,



Francis Thie

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

cc: Cambria Environmental Technology, Inc.  
1144 65th Street, Suite C  
Oakland, CA 94608  
Attn: Josh Bergstrom

(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	8/18/97	TOC	--	NONE	--	--	17.20	24.29
MW-2	8/18/97	TOC	--	NONE	--	--	16.33	24.21
MW-3	8/18/97	TOC	--	NONE	--	--	15.21	24.81
MW-4	8/18/97	TOC	SHEEN/ ODOR	NONE	--	--	15.07	24.33
MW-5	8/18/97	TOC	--	NONE	--	--	14.19	28.57
MW-6	8/18/97	TOC	--	NONE	--	--	13.65	24.22
T-1	8/18/97	TOC	DRY	NONE	--	--	--	4.21
T-2	8/18/97	TOC	DRY	NONE	--	--	--	8.01



**SHELL OIL COMPANY**  
RETAIL ENVIRONMENTAL ENGINEERING - WEST

**CHAIN OF CUSTODY RECORD**  
Serial No: 970818-D2

Date: / /  
Page 1 of 1

Silo Address: 6039 College Ave., Oakland

WIC#: 204-5508-3301

Shell Engineer: Alex Perez  
Phone No.: (510) 575-6168  
Fax #: 675-6172

Consultant Name & Address:  
Blaine Tech Services, Inc.  
1680 Rogers Ave., San Jose, CA 95112

Consultant Contact: Fran Thie  
Phone No.: (408) 573-0555  
Fax #: 573-7771

Comments:

Sampled by: [Signature]  
Printed Name: Jeff Downie

Analysis Required

LAB: Seymour

CHECK ONE (1) BOX ONLY	CSI/DI	TURN AROUND TIME
Quarterly Monitoring	<input checked="" type="checkbox"/> 6441	24 hours <input type="checkbox"/>
Site Investigation	<input type="checkbox"/> 6441	48 hours <input type="checkbox"/>
Soil Classfy/Dhposal	<input type="checkbox"/> 6442	16 days <input checked="" type="checkbox"/> (Normal)
Water Classfy/Dhposal	<input type="checkbox"/> 6443	Other <input type="checkbox"/>
Soil/Air Rem. of Sys. O & M	<input type="checkbox"/> 6452	NOTE: HOLBY LAB AS SOON AS POSSIBLE OF 24/48 HR. TAT.
Water Rem. of Sys. O & M	<input type="checkbox"/> 6453	
Other	<input type="checkbox"/>	

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 & MBE	EPA 8270	Oil & Grease	Asbestos	Container Size	Preparation Used	Composite Y/N
						X	X	X			

MATERIAL DESCRIPTION	SAMPLE CONDITION/COMMENTS
	<u>9708AZ7</u>

Sample ID	Date	Sludge	Soil	Water	Air	No. of conts.
1 <del>TPH</del> -4	8/19			X		7
2 EB				X		3

Released By (signature): <u>[Signature]</u>	Printed Name: <u>Jeff Downie</u>	Date: <u>8/19/97</u> Time: <u>12:35</u>	Received (signature): <u>[Signature]</u>	Printed Name: <u>Foltcher</u>	Date: <u>8/19/97</u> Time: <u>12:35</u>
Approved By (signature): <u>[Signature]</u>	Printed Name:	Date: <u>8/19/97</u> Time:	Received (signature): <u>[Signature]</u>	Printed Name:	Date: <u>8/19/97</u> Time: <u>13:55</u>
Shipped By (signature): <u>[Signature]</u>	Printed Name:	Date: <u>8/19/97</u> Time:	Received (signature): <u>Tara Parsley</u>	Printed Name: <u>Tara Parsley</u>	Date: <u>8/19/97</u> Time: <u>13:55</u>

THE LABORATORY MUST PROVIDE A COPY OF THIS CHAIN-OF-CUSTODY WITH INVOICE AND RESULTS



# Sequoia Analytical

680 Chesapeake Drive  
404 N. Wiget Lane  
819 Striker Avenue, Suite 8

Redwood City, CA 94063  
Walnut Creek, CA 94598  
Sacramento, CA 95834

(650) 364-9600  
(510) 988-9600  
(916) 921-9600

FAX (650) 364-9233  
FAX (510) 988-9673  
FAX (916) 921-0100

Blaine Tech Services  
1680 Rogers Avenue  
San Jose, CA 95112  
Attention: Fran Thie

Project: Shell Oakland/970818-D2

Enclosed are the results from samples received at Sequoia Analytical on August 19, 1997.  
The requested analyses are listed below:

<u>SAMPLE #</u>	<u>SAMPLE DESCRIPTION</u>	<u>DATE COLLECTED</u>	<u>TEST METHOD</u>
9708A27 -01	LIQUID, MW-4	08/18/97	TPGBMW Purgeable TPH/BTEX
9708A27 -01	LIQUID, MW-4	08/18/97	8270 SemiVolatile Organi
9708A27 -01	LIQUID, MW-4	08/18/97	TRPH (SM 5520 B&F)
9708A27 -02	LIQUID, EB	08/18/97	TPGBMW 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





Blaine Tech Services 1680 Rogers Avenue San Jose, CA 95112	Client Proj. ID: Shell Oakland/970818-D2  Lab Proj. ID: 9708A27	Sampled: 08/18/97 Received: 08/19/97 Analyzed: see below  Reported: 08/27/97
Attention: Fran Thie		

**LABORATORY ANALYSIS**

Analyte	Units	Date Analyzed	Detection Limit	Sample Results
Lab No: 9708A27-01 Sample Desc : LIQUID,MW-4				
1624 TRPH (SM 5520 B&F)	mg/L	08/25/97	5.0	67

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

# ELAP Number  
**SEQUOIA ANALYTICAL - ELAP #1210**

Peggy Penner  
Project Manager





Blaine Tech Services 1680 Rogers Avenue San Jose, CA 95112	Client Proj. ID: Shell Oakland/970818-D2 Sample Descript: MW-4 Matrix: LIQUID Analysis Method: 8015Mod/8020 Lab Number: 9708A27-01	Sampled: 08/18/97 Received: 08/19/97 Analyzed: 08/26/97 Reported: 08/27/97
--	--	---

QC Batch Number: GC082697BTEX01A  
Instrument ID: GCHP01

**Total Purgeable Petroleum Hydrocarbons (TPPH) with BTEX and MTBE**

Analyte	Detection Limit ug/L	Sample Results ug/L
TPPH as Gas	5000	N.D.
Methyl t-Butyl Ether	250	31000
Benzene	50	150
Toluene	50	570
Ethyl Benzene	50	N.D.
Xylenes (Total)	50	130
Chromatogram Pattern:		
<b>Surrogates</b>	<b>Control Limits %</b>	<b>% Recovery</b>
Trifluorotoluene	70 130	94

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

**SEQUOIA ANALYTICAL** - ELAP #1210

  
Peggy Penner  
Project Manager





Blaine Tech Services 1680 Rogers Avenue San Jose, CA 95112	Client Proj. ID: Shell Oakland/970818-D2 Sample Descript: MW-4 Matrix: LIQUID Analysis Method: EPA 8270 Lab Number: 9708A27-01	Sampled: 08/18/97 Received: 08/19/97 Extracted: 08/21/97 Analyzed: 08/22/97 Reported: 08/27/97
Attention: Fran Thie		
QC Batch Number: MS0820978270EXB		
Instrument ID: F4		

**Semivolatile Organics (EPA 8270)**

Analyte	Detection Limit ug/L	Sample Results ug/L
Acenaphthene	5.0	N.D.
Acenaphthylene	5.0	N.D.
Anthracene	5.0	N.D.
Benzoic Acid	10	N.D.
Benzo(a)anthracene	5.0	N.D.
Benzo(b)fluoranthene	5.0	N.D.
Benzo(k)fluoranthene	5.0	N.D.
Benzo(g,h,i)perylene	5.0	N.D.
Benzo(a)pyrene	5.0	N.D.
Benzyl alcohol	5.0	N.D.
Bis(2-chloroethoxy)methane	5.0	N.D.
Bis(2-chloroethyl)ether	5.0	N.D.
Bis(2-chloroisopropyl)ether	5.0	N.D.
Bis(2-ethylhexyl)phthalate	10	N.D.
4-Bromophenyl phenyl ether	5.0	N.D.
Butyl benzyl phthalate	5.0	N.D.
4-Chloroaniline	10	N.D.
2-Chloronaphthalene	5.0	N.D.
4-Chloro-3-methylphenol	5.0	N.D.
2-Chlorophenol	5.0	N.D.
4-Chlorophenyl phenyl ether	5.0	N.D.
Chrysene	5.0	N.D.
Dibenzo(a,h)anthracene	5.0	N.D.
Dibenzofuran	5.0	N.D.
Di-n-butyl phthalate	10	N.D.
1,2-Dichlorobenzene	5.0	N.D.
1,3-Dichlorobenzene	5.0	N.D.
1,4-Dichlorobenzene	5.0	N.D.
3,3-Dichlorobenzidine	10	N.D.
2,4-Dichlorophenol	5.0	N.D.
Diethyl phthalate	5.0	N.D.
2,4-Dimethylphenol	5.0	N.D.
Dimethyl phthalate	5.0	N.D.
4,6-Dinitro-2-methylphenol	10	N.D.
2,4-Dinitrophenol	10	N.D.
2,4-Dinitrotoluene	5.0	N.D.
2,6-Dinitrotoluene	5.0	N.D.
Di-n-octyl phthalate	5.0	N.D.
Fluoranthene	5.0	N.D.







# Sequoia Analytical

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FAX (510) 988-9673  
FAX (916) 921-0100

Blaine Tech Services  
1680 Rogers Avenue  
San Jose, CA 95112

Client Proj. ID: Shell Oakland/970818-D2  
Sample Descript: MW-4  
Matrix: LIQUID  
Analysis Method: EPA 8270  
Lab Number: 9708A27-01

Sampled: 08/18/97  
Received: 08/19/97  
Extracted: 08/21/97  
Analyzed: 08/22/97  
Reported: 08/27/97

QC Batch Number: MS0820978270EXB  
Instrument ID: F4

Analyte	Detection Limit ug/L	Sample Results ug/L
Fluorene	5.0	N.D.
Hexachlorobenzene	5.0	N.D.
Hexachlorobutadiene	5.0	N.D.
Hexachlorocyclopentadiene	10	N.D.
Hexachloroethane	5.0	N.D.
Indeno(1,2,3-cd)pyrene	5.0	N.D.
Isophorone	5.0	N.D.
2-Methylnaphthalene	5.0	N.D.
2-Methylphenol	5.0	N.D.
4-Methylphenol	5.0	N.D.
Naphthalene	5.0	N.D.
2-Nitroaniline	10	N.D.
3-Nitroaniline	10	N.D.
4-Nitroaniline	10	N.D.
Nitrobenzene	5.0	N.D.
2-Nitrophenol	5.0	N.D.
4-Nitrophenol	10	N.D.
n-Nitrosodiphenylamine	5.0	N.D.
n-Nitroso-di-n-propylamine	5.0	N.D.
Pentachlorophenol	10	N.D.
Phenanthrene	5.0	N.D.
Phenol	5.0	N.D.
Pyrene	5.0	N.D.
1,2,4-Trichlorobenzene	5.0	N.D.
2,4,5-Trichlorophenol	10	N.D.
2,4,6-Trichlorophenol	5.0	N.D.

Surrogates	Control Limits %		% Recovery
2-Fluorophenol	21	110	54
Phenol-d5	10	110	39
Nitrobenzene-d5	35	114	68
2-Fluorobiphenyl	43	116	67
2,4,6-Tribromophenol	10	123	83
p-Terphenyl-d14	33	141	58

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

**SEQUOIA ANALYTICAL** - ELAP #1210

  
Peggy Penner  
Project Manager





Blaine Tech Services 1680 Rogers Avenue San Jose, CA 95112	Client Proj. ID: Shell Oakland/970818-D2 Sample Descript: EB Matrix: LIQUID Analysis Method: 8015Mod/8020 Lab Number: 9708A27-02	Sampled: 08/18/97 Received: 08/19/97 Analyzed: 08/26/97 Reported: 08/27/97
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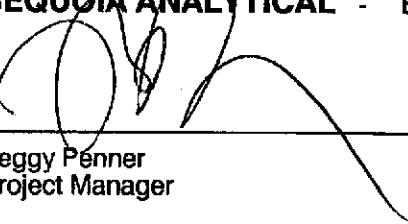
QC Batch Number: GC082697BTEX01A  
Instrument ID: GCHP01

**Total Purgeable Petroleum Hydrocarbons (TPPH) with BTEX and MTBE**

Analyte	Detection Limit ug/L	Sample Results ug/L
TPPH as Gas	50	N.D.
Methyl t-Butyl Ether	2.5	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:		
<b>Surrogates</b>	<b>Control Limits %</b>	<b>% Recovery</b>
Trifluorotoluene	70 130	99

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

**SEQUOIA ANALYTICAL - ELAP #1210**

  
Peggy Penner  
Project Manager





Blaine Tech Services, Inc.  
1680 Rogers Ave.  
San Jose, CA 95112  
Attention: Fran Thie

Client Project ID: Shell Oakland / 970818-D2  
Matrix: Liquid

QC Sample Group 9708A27 -01

Reported: Aug 28, 1997

**QUALITY CONTROL DATA REPORT**

**ANALYTE** Total Oil & Grease

**Method:** SM 5520 BF  
**Analyst:** L. M.  
**Conc. Spiked:** 50  
**Units:** mg/L

**LCS Batch#:** BLK082497

**Date Prepared:** 8/24/97  
**Date Analyzed:** 8/24/97  
**Instrument I.D.#:** BAL4

**LCS %  
Recovery:** 102

**Control Limits:** 70-130

**MS/MSD  
Batch #:** BLK082497

**Date Prepared:** 8/24/97  
**Date Analyzed:** 8/24/97  
**Instrument I.D.#:** BAL4

**Matrix Spike  
% Recovery:** 102

**Matrix Spike  
Duplicate %  
Recovery:** 102

**Relative %  
Difference:** 0.0

**SEQUOIA ANALYTICAL**  
Elap #1624

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 LCS % recovery data is used for validation of sample batch results. Due to matrix effects, the QC limits for MS/MSD's are advisory only and are not used to accept or reject batch results.





Blaine Tech Services, Inc.  
1680 Rogers Ave.  
San Jose, CA 95112  
Attention: Fran Thie

Client Project ID: Shell Oakland / 970818-D2  
Matrix: Liquid

Work Order #: 9708A27-01

Reported: Aug 28, 1997

**QUALITY CONTROL DATA REPORT**

Analyte:	Phenol	2-Chlorophenol	1,4-Dichloro-benzene	N-Nitroso-Di-N-propylamine
QC Batch#:	MS0820978270EXB	MS0820978270EXB	MS0820978270EXB	MS0820978270EXB
Analy. Method:	EPA 8270	EPA 8270	EPA 8270	EPA 8270
Prep. Method:	EPA 3510	EPA 3510	EPA 3510	EPA 3510

Analyst:	E. Manuel	E. Manuel	E. Manuel	E. Manuel
MS/MSD #:	970892602	970892602	970892602	970892602
Sample Conc.:	N.D.	N.D.	N.D.	N.D.
Prepared Date:	8/20/97	8/20/97	8/20/97	8/20/97
Analyzed Date:	8/21/97	8/21/97	8/21/97	8/21/97
Instrument I.D.#:	H5	H5	H5	H5
Conc. Spiked:	200 µg/L	200 µg/L	200 µg/L	200 µg/L
Result:	63	120	114	127
MS % Recovery:	32	60	57	64
Dup. Result:	70	127	118	148
MSD % Recov.:	35	64	59	74
RPD:	11	5.7	3.4	15
RPD Limit:	0-30	0-30	0-30	0-30

LCS #:	WB082197	WB082197	WB082197	WB082197
Prepared Date:	8/21/97	8/21/97	8/21/97	8/21/97
Analyzed Date:	8/21/97	8/21/97	8/21/97	8/21/97
Instrument I.D.#:	H5	H5	H5	H5
Conc. Spiked:	200 µg/L	200 µg/L	200 µg/L	200 µg/L
LCS Result:	84	144	128	156
LCS % Recov.:	42	72	64	78

MS/MSD LCS	Control Limits	Control Limits	Control Limits	Control Limits
	12-110	27-123	36-97	41-116

**Please Note:**

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

**SEQUOIA ANALYTICAL**

Peggy Penner  
Project Manager





Blaine Tech Services, Inc. 1680 Rogers Ave. San Jose, CA 95112 Attention: Fran Thie	Client Project ID: Shell Oakland / 970818-D2 Matrix: Liquid  Work Order #: 9708A27-01	Reported: Aug 28, 1997
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**QUALITY CONTROL DATA REPORT**

Analyte:	1,2,4-Trichloro-benzene	4-Chloro-3-Methylphenol	Acenaphthene	4-Nitrophenol
QC Batch#:	MS0820978270EXB	MS0820978270EXB	MS0820978270EXB	MS0820978270EXB
Analy. Method:	EPA 8270	EPA 8270	EPA 8270	EPA 8270
Prep. Method:	EPA 3510	EPA 3510	EPA 3510	EPA 3510

Analyst:	E. Manuel	E. Manuel	E. Manuel	E. Manuel
MS/MSD #:	970892602	970892602	970892602	970892602
Sample Conc.:	N.D.	N.D.	N.D.	N.D.
Prepared Date:	8/20/97	8/20/97	8/20/97	8/20/97
Analyzed Date:	8/21/97	8/21/97	8/21/97	8/21/97
Instrument I.D.#:	H5	H5	H5	H5
Conc. Spiked:	200 µg/L	200 µg/L	200 µg/L	200 µg/L
Result:	140	122	128	55
MS % Recovery:	70	61	64	28
Dup. Result:	152	146	156	78
MSD % Recov.:	76	73	78	39
RPD:	8.2	18	20	35
RPD Limit:	0-30	0-30	0-30	0-30

LCS #:	WB082197	WB082197	WB082197	WB082197
Prepared Date:	8/21/97	8/21/97	8/21/97	8/21/97
Analyzed Date:	8/21/97	8/21/97	8/21/97	8/21/97
Instrument I.D.#:	H5	H5	H5	H5
Conc. Spiked:	200 µg/L	200 µg/L	200 µg/L	200 µg/L
LCS Result:	146	145	135	40
LCS % Recov.:	73	73	68	20

MS/MSD LCS Control Limits	39-98	23-97	46-118	10-80
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**SEQUOIA ANALYTICAL**  
  
Peggy Penner  
Project Manager

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Blaine Tech Services, Inc.  
1680 Rogers Ave.  
San Jose, CA 95112  
Attention: Fran Thie

Client Project ID: Shell Oakland / 970818-D2  
Matrix: Liquid

Work Order #: 9708A27-01

Reported: Aug 28, 1997

**QUALITY CONTROL DATA REPORT**

Analyte:	2,4-Dinitro-toluene	Pentachloro-phenol	Pyrene
QC Batch#:	MS0820978270EXB	MS0820978270EXB	MS0820978270EXB
Analy. Method:	EPA 8270	EPA 8270	EPA 8270
Prep. Method:	EPA 3510	EPA 3510	EPA 3510

Analyst:	E. Manuel	E. Manuel	E. Manuel
MS/MSD #:	970892602	970892602	970892602
Sample Conc.:	N.D.	N.D.	N.D.
Prepared Date:	8/20/97	8/20/97	8/20/97
Analyzed Date:	8/21/97	8/21/97	8/21/97
Instrument I.D.#:	H5	H5	H5
Conc. Spiked:	200 µg/L	200 µg/L	200 µg/L

Result:	129	102	109
MS % Recovery:	65	51	55

Dup. Result:	172	157	138
MSD % Recov.:	86	79	69

RPD:	29	42	23
RPD Limit:	0-30	0-30	0-30

LCS #:	WB082197	WB082197	WB082197
Prepared Date:	8/21/97	8/21/97	8/21/97
Analyzed Date:	8/21/97	8/21/97	8/21/97
Instrument I.D.#:	H5	H5	H5
Conc. Spiked:	200 µg/L	200 µg/L	200 µg/L

LCS Result:	125	113	150
LCS % Recov.:	63	57	75

MS/MSD LCS Control Limits	24-96	9-103	26-127
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\*\* MS=Matrix Spike, MSD=MS Duplicate, RPD=Relative % Difference

**SEQUOIA ANALYTICAL**

Peggy Penner  
Project Manager





Blaine Tech Services, Inc.  
 1680 Rogers Ave.  
 San Jose, CA 95112  
 Attention: Fran Thie

Client Project ID: Shell Oakland / 970818-D2  
 Matrix: Liquid

Work Order #: 9708A27-01-02

Reported: Aug 28, 1997

**QUALITY CONTROL DATA REPORT**

Analyte:	Benzene	Toluene	Ethyl Benzene	Xylenes	Gas
QC Batch#:	GC082697BTEX01A	GC082697BTEX01A	GC082697BTEX01A	GC082697BTEX01A	GC082697BTEX01A
Analy. Method:	EPA 8020	EPA 8020	EPA 8020	EPA 8020	EPA 8015M
Prep. Method:	EPA 5030	EPA 5030	EPA 5030	EPA 5030	EPA 5030

Analyst:	A. Porter	A. Porter	A. Porter	A. Porter	A. Porter
MS/MSD #:	970877703	970877703	970877703	970877703	970877703
Sample Conc.:	N.D.	N.D.	N.D.	N.D.	N.D.
Prepared Date:	8/26/97	8/26/97	8/26/97	8/26/97	8/26/97
Analyzed Date:	8/26/97	8/26/97	8/26/97	8/26/97	8/26/97
Instrument I.D.#:	GCHP1	GCHP1	GCHP1	GCHP1	GCHP1
Conc. Spiked:	10 µg/L	10 µg/L	10 µg/L	30 µg/L	60 µg/L
Result:	9.1	9.5	9.8	32	47
MS % Recovery:	91	95	98	107	78
Dup. Result:	8.9	9.1	9.8	30	46
MSD % Recov.:	89	91	98	100	77
RPD:	2.2	4.3	0.0	6.5	2.2
RPD Limit:	0-25	0-25	0-25	0-25	0-25

LCS #:	BLK082697	BLK082697	BLK082697	BLK082697	BLK082697
Prepared Date:	8/26/97	8/26/97	8/26/97	8/26/97	8/26/97
Analyzed Date:	8/26/97	8/26/97	8/26/97	8/26/97	8/26/97
Instrument I.D.#:	GCHP1	GCHP1	GCHP1	GCHP1	GCHP1
Conc. Spiked:	10 µg/L	10 µg/L	10 µg/L	30 µg/L	60 µg/L
LCS Result:	9.0	9.1	9.7	30	46
LCS % Recov.:	90	91	97	100	77

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

**Please Note:**

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SEQUOIA ANALYTICAL

*Peggy Penner*  
 Peggy Penner  
 Project Manager

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

9708A27.BLA <5>





**Sequoia  
Analytical**

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Blaine Tech Services 1680 Rogers Avenue San Jose, CA 95112 Attention: Fran Thie	Client Proj. ID: Shell Oakland/970818-D2  Lab Proj. ID: 9708A27	Received: 08/19/97  Reported: 08/27/97
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### LABORATORY NARRATIVE

In order to properly interpret this report, it must be reproduced in its entirety. This report contains a total of 17 pages including the laboratory narrative, sample results, quality control, and related documents as required (cover page, COC, raw data, etc.).

**SEQUOIA ANALYTICAL**

  
Peggy Renner  
Project Manager

