

April 24, 1998

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MTBE AA

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

Re: **First Quarter 1998 Monitoring Report**
Shell Service Station
6039 College Avenue
Oakland, California
WIC #204-5508-3301
Cambria Project #24-314-198

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.

FIRST QUARTER 1998 ACTIVITIES

Ground Water Monitoring: 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. **Approximately 1.37 pounds of SPH was manually bailed and removed from the skimmer installed in well MW-4.** The Blaine report, describing these sampling activities and presenting the analytical results, is included as Attachment A. Cambria compiled the ground water elevations and analytical data (Tables 1 and 2) and prepared a ground water elevation contour map (Figure 1). Historic SPH removal data is included in Table 3.

Date?

Potential Receptor Survey: Cambria completed the receptor survey for this site and submitted a *Potential Receptor Survey Report* dated March 5, 1998 to the Alameda County Department of Environmental Health.

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

Scott Seery
April 24, 1998

CAMBRIA

Upgrade Activities: A dispenser upgrade was conducted at this site during the week of February 9, 1998. Cambria visited the site to inspect upgrade activities and collected soil samples on February 11 and 12, 1998.

ANTICIPATED SECOND QUARTER 1998 ACTIVITIES

Ground Water Monitoring: 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.

Upgrade Activities: Cambria will submit a report summarizing upgrade activities at the site.

CLOSING

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

Sincerely,
Cambria Environmental Technology, Inc.



Maureen D. Feineman
Staff Geologist



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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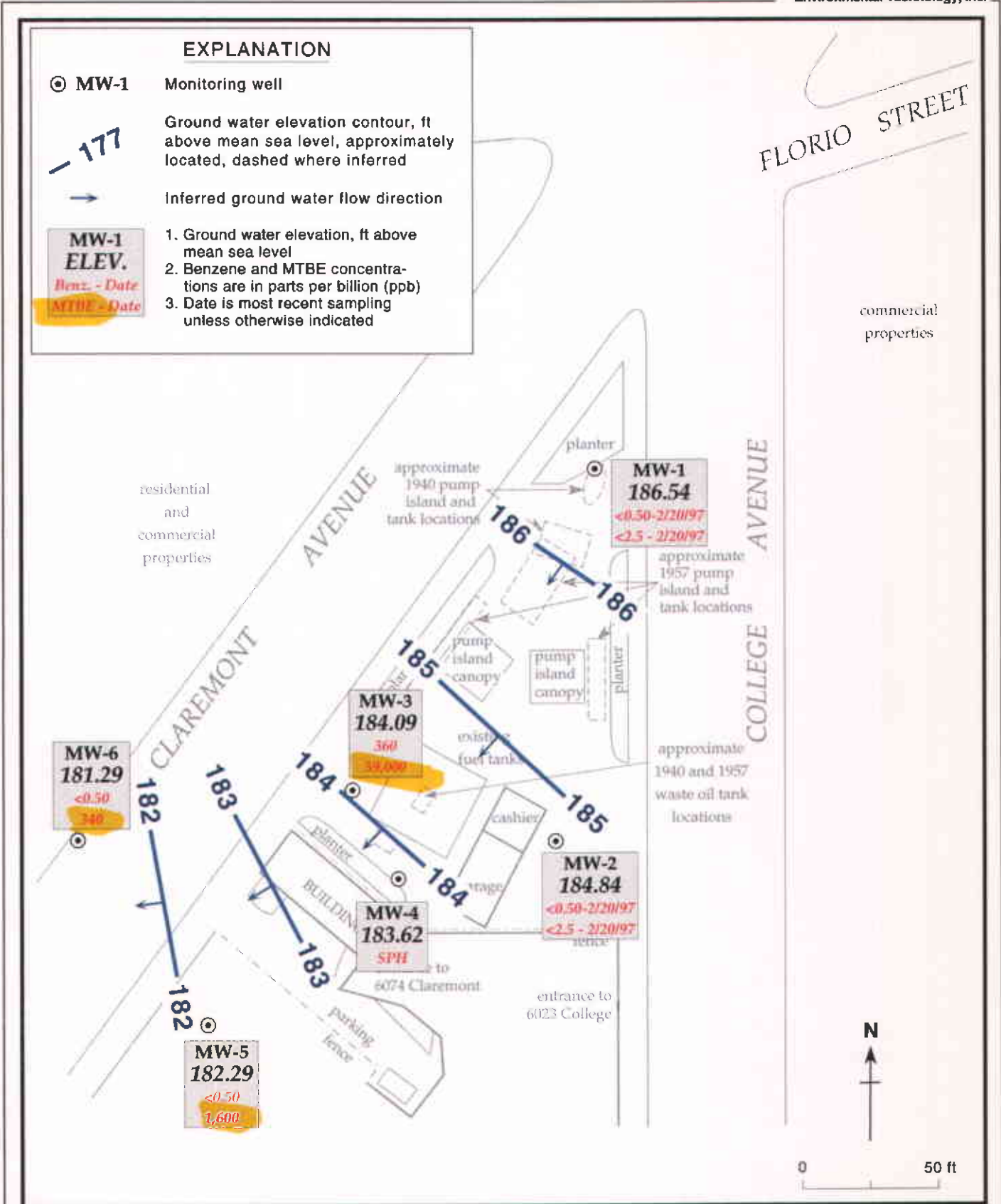


Figure 1. Ground Water Elevation Contours - January 20, 1998 - Shell Service Station, WIC #204-5508-3301, 6039 College Avenue, Oakland, California

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) ^a
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		
11/03/97	16.02	---	179.87		
01/20/98			9.35	---	186.54
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

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) ^a
	06/03/91		17.00	---	177.27
	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		16.33	---	177.94
	11/03/97		15.54	---	178.73
	01/20/98		9.43	---	184.84
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

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) ^a
	02/12/93		9.16	---	183.36
	06/10/93		13.20	---	179.32
	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
	11/03/97		14.49	---	178.03
	01/20/98		8.43	---	184.09
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		13.15	0.24	180.41
	05/28/92		16.22	0.12	177.25
	08/19/92		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

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) ^a
	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
	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
	11/03/97		15.87	---	177.50
	01/20/98		10.25	0.62	183.62
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 ^b		---	---	---
	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 ^b		---	---	---
	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
	11/03/97		13.66	---	176.69
	01/20/98		8.06	---	182.29

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) ^a
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
	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 ^b		---	---	---
	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
	11/03/97 ^b		---	---	---
			01/20/98		7.76
T-1	05/30/97	Not Surveyed	Dry	---	Dry
	08/18/97		Dry	---	Dry
	11/03/97		Dry	---	Dry
	01/20/98		Dry	---	Dry
T-2	05/30/97	Not Surveyed	Dry	---	Dry
	08/18/97		Dry	---	Dry
	11/03/97		Dry	---	Dry
	01/20/98		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. Analytical Results for Ground Water - Gasoline Components - Shell Service Station WIC #204-5508-3301, 6039 College Avenue, Oakland, California

Well/Boring ID (Qtrs Sampled)	Date Sampled	Depth to Water (ft)	TPH-G	MTBE	(Concentrations in µg/L)			
					B	T	E	X
MW-1 (Discontinued)	02/13/90	17.73	95	---	ND	0.67	0.37	3.2
	05/14/90	18.92	95	---	0.70	0.57	0.71	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	<50	---	<0.5	<0.5	<0.5	<0.5
	03/18/92	13.55	<30	---	<0.3	<0.3	<0.3	<0.3
	05/28/92	17.08	<50	---	<0.5	<0.5	<0.5	<0.5
	08/19/92	19.07	<50	---	<0.5	<0.5	<0.5	<0.5
	11/17/92	20.11	<50	---	<0.5	<0.5	<0.5	<0.5
	02/12/93	12.10	<50	---	<0.5	<0.5	<0.5	<0.5
	06/10/93	14.87	<50	---	<0.5	<0.5	<0.5	<0.5
	06/10/93 ^{dup}	14.87	<50	---	<0.5	<0.5	<0.5	<0.5
	08/18/93	16.90	<50	---	<0.5	<0.5	<0.5	<0.5
	11/19/93	19.72	<50	---	<0.5	<0.5	<0.5	<0.5
	02/18/94	15.08	<50	---	<0.5	<0.5	<0.5	1.7
	05/04/94	17.20	<50	---	<0.5	<0.5	<0.5	<0.5
	08/10/94	18.76	<50	---	<0.5	<0.5	<0.5	<0.5
	08/10/94 ^{dup}	18.76	<50	---	<0.5	<0.5	<0.5	<0.5
	11/08/94	16.00	<50	---	<0.5	<0.5	<0.5	<0.5
	02/01/95	10.18	<50	---	<0.5	<0.5	<0.5	<0.5
	05/10/95	11.88	<50	---	<0.5	<0.5	<0.5	<0.5
	08/24/95	15.60	<50	---	<0.5	<0.5	<0.5	<0.5
	11/10/95	18.24	<50	---	<0.5	<0.5	<0.5	<0.5
	02/24/96	9.88	<50	---	<0.5	<0.5	<0.5	<0.5
	05/22/96	12.24	<50	<2.5	<0.5	<0.5	<0.5	<0.5
	08/19/96	15.86	<50	<2.5	<0.5	<0.5	<0.5	<0.5
	12/05/96	16.21	160	<2.5	7.3	8.2	5.5	23
	01/08/97	9.73	<50	<2.5	<0.50	<0.50	<0.50	<0.50
	02/20/97	11.60	<50	<2.5	<0.50	<0.50	<0.50	<0.50
	02/20/97 ^{dup}	11.60	<50	<2.5	<0.50	<0.50	<0.50	<0.50

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

Well/Boring ID (Qtrs Sampled)	Date Sampled	Depth to Water (ft)	TPH-G ←	MTBE	B (Concentrations in µg/L)	T	E →	X
MW-2	02/13/90	16.90	ND	---	ND	ND	ND	ND
(Discontinued)	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	2	1.2	1.9
	11/17/92	19.15	<50	---	<0.5	2	1.2	1.9
	02/12/93 ^{dup}	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 ^{dup}	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	0.8	1.4	4.9
	02/24/96	9.90	<50	---	<0.5	<0.5	<0.5	<0.5
	02/24/96 ^{dup}	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 ^{dup}	15.08	<50	<2.5	<0.5	<0.5	<0.5	<0.5
	12/05/96	15.16	<50	<2.5	1.5	1.6	1.2	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. Analytical Results for Ground Water - Gasoline Components - Shell Service Station WIC #204-5508-3301, 6039 College Avenue, Oakland, California (continued)

Well/Boring ID (Qtrs Sampled)	Date Sampled	Depth to Water (ft)	TPH-G	MTBE	B	T	E	X
			(Concentrations in µg/L)					
MW-3 (1st Quarter)	02/13/90	15.81	4,700	---	320	29	110	33
	02/13/90 ^{dup}	15.81	4,600	---	380	8.6	160	57
	05/14/90	16.97	1,400	---	130	8.6	40	17
	05/14/90 ^{dup}	16.97	8,200	---	120	31	38	13
	09/12/90	18.78	2,000	---	58	5.8	16	15
	11/27/90	18.27	540	---	18	1.5	8.7	2.5
	03/08/91	14.86	3,400	---	630	33	270	18
	06/03/91	15.84	1,700	---	260	13	98	24
	08/30/91	17.79	870	---	44	6.1	10	2.9
	11/22/91	18.40	310	---	18	1.2	3.3	2.9
	03/18/92	12.03	67,100	---	620	28	220	38
	05/28/92	15.16	2,300	---	200	9	71	17
	08/19/92	17.03	5,700	---	71	77	52	130
	11/17/92	17.94	3,600	---	16	8.6	24	50
	02/12/93	9.16	4,700	---	820	58	130	77
	06/10/93	13.20	2,200	---	310	23	89	23
	08/18/93	14.93	260	---	27	2.0	7.0	2.2
	11/19/93	17.58	1,500 ^a	---	24	54	37	17
	02/18/94	13.30	2,700	---	65	5.2	16	6.3
	02/18/94 ^{dup}		3,100	---	82	6.7	19	7.9
	05/04/94	15.25	780	---	120	7.5	21	6.9
	05/04/94 ^{dup}	15.25	920	---	120	7.7	22	7.1
	08/10/94	16.63	920	---	20	2.3	3.0	2.2
	11/08/94	13.88	1,300	---	180	16	7.0	12
	11/08/94 ^{dup}	13.88	1,200	---	170	15	7.2	11
	02/01/95	9.25	1,400	---	210	8.5	11	8.7
	05/10/95	10.76	460	---	97	10	1.0	19
	08/24/95	13.90	640	---	68	21	14	19
	11/10/95	16.20	350	---	15	2.3	1.2	2.5
	02/24/96	8.93	3,300	---	240	53	38	55
05/22/96	10.86	1,300	3,500	110	15	<10	<10	
08/19/96	13.97	350	340	15	3.3	3.4	3.3	
12/05/96	14.06	290	370	12	7.6	5.4	16	
12/05/96 ^{dup}	14.06	290	360	13	7.6	5.8	17	
02/20/97	10.60	980	3,200	69	7.9	14	15	

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

Well/Boring ID (Qtrs Sampled)	Date Sampled	Depth to Water (ft)	TPH-G	MTBE	B	T	E	X
			(Concentrations in µg/L)					
	01/20/98	8.43	3,100	59,000	360	1,000	73	420
	01/20/98 ^{dup}	8.43	3,000	54,000	330	950	68	390
MW-4 (Quarterly)	02/13/90	16.73	ND	---	ND	ND	ND	ND
	05/14/90	17.88	650	---	160	7	1.9	3.1
	09/12/90	17.85	440	---	91	1.1	0.75	0.79
	09/12/90 ^{dup}	17.85	520	---	85	0.71	0.71	0.81
	11/27/90	19.16	470	---	64	1.2	0.80	2.7
	03/08/91	15.77	1,100	---	330	3.5	88	5.8
	06/03/91	16.77	670	---	240	2.3	1.6	2.3
	08/30/91	18.71	570	---	64	1.8	0.9	0.9
	11/22/91 ^{SPH}	---	---	---	---	---	---	---
	03/18/92 ^{SPH}	13.15	---	---	---	---	---	---
	05/28/92 ^{SPH}	16.22	---	---	---	---	---	---
	08/19/92 ^{SPH}	18.05	---	---	---	---	---	---
	11/17/92 ^{SPH}	18.89	---	---	---	---	---	---
	02/12/93 ^{SPH}	11.78	---	---	---	---	---	---
	06/10/93	14.20	---	---	---	---	---	---
	08/18/93 ^{SPH}	15.95	---	---	---	---	---	---
	11/19/93 ^{SPH}	18.48	---	---	---	---	---	---
	02/28/94 ^{SPH}	14.60	---	---	---	---	---	---
	05/04/94 ^{SPH}	16.15	---	---	---	---	---	---
	08/10/94 ^{SPH}	17.58	---	---	---	---	---	---
	11/08/94 ^{SPH}	15.05	---	---	---	---	---	---
	02/01/95 ^{SPH}	10.71	---	---	---	---	---	---
	05/10/95	11.90	---	---	---	---	---	---
	08/24/95	14.97	---	---	---	---	---	---
	11/10/95	17.27	4,700	---	100	22	23	38
	02/24/96	10.44	---	---	---	---	---	---
	08/19/96 ^{SPH}	15.23	---	---	---	---	---	---
	12/05/96 ^{SPH}	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
	05/30/97	14.68	<2,000	6,100	72	<20	<20	<20
	08/18/97	15.07	<5,000	31,000	150	570	<50	130

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

Well/Boring ID (Qtrs Sampled)	Date Sampled	Depth to Water (ft)	TPH-G	MTBE	B	T	E	X
			(Concentrations in µg/L)					
	11/03/97	15.87	32,000	78,000 ^e	1,100	6,100	640	3,600
	01/20/98	10.25	---	---	---	---	---	---
MW-5 (1st Quarter)	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 ^b	---	---	---	---	---	---	---
	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 ^{dup}	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 ^f	---	<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 ^{dup}	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 ^b	---	---	---	---	---	---	---
	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
	01/20/98	8.06	<50	1,600	<0.50	<0.50	<0.50	<0.50
MW-6 (1st Quarter)	09/21/93	14.64	<50	---	<0.5	<0.5	<0.5	<0.5
	11/19/93 ^c	---	---	---	---	---	---	---
	02/28/94	12.18	98 ^d	---	<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 ^f	---	<0.5	<0.5	<0.5	<0.5

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

Well/Boring ID (Qtrs Sampled)	Date Sampled	Depth to Water (ft)	TPH-G	MTBE	B T E X (Concentrations in µg/L)			
					B	T	E	X
	11/08/94 ^b	12.20	---	---	---	---	---	---
	02/01/95	8.70	120	---	3.5	21	3.4	22
	02/01/95 ^{dup}	8.70	110	---	0.6	0.6	0.5	0.9
	05/10/95	9.86	---	---	---	---	---	---
	08/24/95	12.46	80	---	<0.5	<0.5	1.8	2.4
	08/24/95 ^{dup}	12.46	70	---	<0.5	<0.5	1.2	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 ^b	---	---	---	---	---	---	---
	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
	01/20/98	7.76	<50	340	<0.50	<0.50	<0.50	<0.50
BH-A	09/09/93	16.50	4,900	---	18	<5	54	11
BH-B	09/09/93	15.85	<50	---	<0.5	<0.5	<0.5	<0.5
BH-C ^e	09/10/93	15.80	640 ^f	---	3.5	<0.5	0.6	<0.5
BH-D ^e	09/10/93	14.2	24,000 ^f	---	720	86	44	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. Analytical Results for Ground Water - Gasoline Components - Shell Service Station WIC #204-5508-3301, 6039 College Avenue, Oakland, California (continued)

Well/Boring ID (Qtrs Sampled)	Date Sampled	Depth to Water (ft)	TPH-G ←	MTBE	B (Concentrations in µg/L)	T	E	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	0.7	<0.5	<0.5
MCLs			NE	NE	1	150	700	1,750

Abbreviations:

TPH-G = Total petroleum hydrocarbons as gasoline by modified EPA Method 8015
 MTBE = Methyl tert-butyl ether by EPA Method 8020
 B = Benzene by EPA Method 8020
 T = Toluene by EPA Method 8020
 E = Ethylbenzene by EPA Method 8020
 X = Xylenes by EPA Method 8020
 NE = Not established
 ND = Not detected
 MCLs = California primary maximum contaminant levels for drinking water
 (22 CCR 64444)
 --- = Not analyzed
 dup = Duplicate sample
 µg/L = Micrograms per liter
 SPH = Separate phase hydrocarbons present in well; not sampled

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 miscommunication, analyses run after holding time expiration
- f = The positive result has an atypical pattern for gasoline analysis
- g = MTBE result was reported above the calibration range, therefore the result should be considered an estimate

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

Well/Boring ID (Qtrs Sampled)	Date Sampled	Depth to Water (ft)	TPH-D	TPH-MO	POG	Naphthalene*		DO (mg/L)
						parts per billion (µg/L)		
MW-1 (Discontinued)	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 ^{dup}	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 ^{dup}	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	
MW-2 (Discontinued)	02/13/90	16.90	560	ND	---	---	---	---
	05/14/90	18.01	ND	ND	---	---	---	---

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

Well/Boring ID (Qtrs Sampled)	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	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 ^{dup}	11.60	---	---	---	---	---	---
	02/12/93	11.60	---	---	---	---	---	---
	06/10/93	14.14	---	---	---	---	---	---
	08/18/93	16.10	---	---	---	---	---	---
	08/18/93 ^{dup}	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 ^{dup}	9.90	---	---	---	---	---	---
	05/22/96	11.80	---	---	---	---	---	---
	08/19/96	15.08	---	---	---	---	---	---
	08/19/96 ^{dup}	15.08	---	---	---	---	---	---
	12/05/96	15.16	---	---	---	---	---	7.0
	02/20/97	11.47	---	---	---	---	---	7.1

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

Well/Boring ID (Qtrs Sampled)	Date Sampled	Depth to Water (ft)	TPH-D	TPH-MO	POG	Naphthalene*		DO (mg/L)
						parts per billion (µg/L)		
MW-3 (1st Quarter)	02/13/90	15.81	3,100	3,000	---	---	---	---
	02/13/90 ^{dup}	15.81	4,500	8,300	---	---	---	---
	05/14/90	16.97	620	40,000	---	---	---	---
	05/14/90 ^{dup}	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 ^a	ND	---	---	---	---
	08/30/91	17.79	370 ^b	500	---	---	---	---
	11/22/91	18.40	140	500	---	---	---	---
	03/18/92	12.03	1,900	20,000	---	---	---	---
	05/28/92	15.16	1,100 ^c	4,600	---	---	---	---
	08/19/92	17.03	1,000 ^c	1,800	---	---	---	---
	11/17/92	17.94	160 ^c	1,200	---	---	---	---
	02/12/93	9.16	560 ^c	<50	---	---	---	---
	06/10/93	13.20	---	940 ^d	---	---	---	---
	08/18/93	14.93	---	460 ^d	---	---	---	---
	11/19/93	17.58	---	960 ^d	<5,000	---	---	---
	02/18/94	13.30	---	1,600	<5,000	---	---	---
	02/18/94 ^{dup}	---	---	2,200	<5,000	---	---	---
	05/04/94	15.25	---	710	<5,000	e	e	---
	05/04/94 ^{dup}	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 ^{dup}	13.88	---	730	---	---	---	---
	02/01/95	9.25	---	900 ^j	---	---	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	---	---	---
	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	

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

Well/Boring ID (Qtrs Sampled)	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 ^{dup}	14.06	---	---	---	ND	ND	8.4
	02/20/97	10.60	---	---	<5,000	23	<5.0	8.2
	01/20/98	8.43	---	---	<5,000	13	<5.0	6.1
	01/20/98^{dup}	8.43	---	---	<5,000	8.8	<5.0	6.1
MW-4 (Quarterly)	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 ^{dup}	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 ^{SPH}	---	---	---	---	---	---	---
	03/18/92 ^{SPH}	13.15	---	---	---	---	---	---
	05/28/92 ^{SPH}	16.22	---	---	---	---	---	---
	08/19/92 ^{SPH}	18.05	---	---	---	---	---	---
	11/17/92 ^{SPH}	18.89	---	---	---	---	---	---
	02/12/93 ^{SPH}	11.78	---	---	---	---	---	---
	06/10/93	14.20	---	---	---	---	---	---
	08/18/93 ^{SPH}	15.95	---	---	---	---	---	---
	11/19/93 ^{SPH}	18.48	---	---	---	---	---	---
	02/28/94 ^{SPH}	14.60	---	---	---	---	---	---
	05/04/94 ^{SPH}	16.15	---	---	---	---	---	---
	08/10/94 ^{SPH}	17.58	---	---	---	---	---	---
	11/08/94 ^{SPH}	15.05	---	---	---	---	---	---
	02/01/95 ^{SPH}	10.71	---	---	---	---	---	---
	05/10/95	11.90	---	---	---	---	---	---
	08/24/95	14.97	---	---	---	---	---	---
	11/10/95	17.27	---	---	29,000	---	---	---
	02/24/96	10.44	---	---	---	---	---	---
	08/19/96 ^{SPH}	15.23	---	---	---	---	---	---
	12/05/96 ^{SPH}	14.07	---	---	---	---	---	---

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

Well/Boring ID (Qtrs Sampled)	Date Sampled	Depth to Water (ft)	TPH-D	TPH-MO	POG	Naphthalene*		2-Methylnaphthalene*	DO (mg/L)
						parts per billion (µg/L)			
	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
	08/18/97	15.07	---	---	67,000	<5.0	<5.0		3.9
	11/03/97	15.87	---	---	160,000	120	57		1.8
	01/20/98 ^{SPT}	10.25	---	---	---	---	---		---
MW-5 (1st Quarter)	08/30/91	16.74	80	ND	---	---	---		---
	11/22/91	17.27	<50	<500	---	---	---		---
	03/18/92	11.28	<50	---	---	---	---		---
	05/28/92 ^E	---	---	---	---	---	---		---
	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 ^{dup}	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 ^{dup}	10.16	---	---	---	---	---		---
	08/24/95	12.98	---	---	---	---	---		---
	11/10/95	15.12	---	---	---	---	---		---
	02/24/96 ^J	---	---	---	---	---	---		---
	05/22/96	10.10	---	---	---	---	---		---
	08/19/96	13.09	---	---	---	---	---		---
	12/05/96	13.31	---	---	---	---	---		4.0
	02/20/97	9.55	---	---	---	---	---		4.2
	01/20/98	8.06	---	---	---	---	---		3.7

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

Well/Boring ID (Qtrs Sampled)	Date Sampled	Depth to Water (ft)	TPH-D	TPH-MO	POG	Naphthalene*		2-Methylnaphthalene*	DO (mg/L)
						parts per billion (µg/L)			
MW-6 (1st Quarter)	09/21/93	14.64	<50	---	<5,000	<10-50	<10-50	---	
	11/19/93 ^h	---	---	---	---	---	---	---	
	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 ⁱ	12.20	---	---	---	---	---	---	
	02/01/95	8.70	---	---	---	---	---	---	
	02/01/95 ^{dup}	8.70	---	---	---	---	---	---	
	05/10/95	9.86	---	---	---	---	---	---	
	08/24/95	12.46	---	---	---	---	---	---	
	08/24/95 ^{dup}	12.46	---	---	---	---	---	---	
	11/10/95	14.56	---	---	---	---	---	---	
	11/10/95	14.56	---	---	---	---	---	---	
	02/24/96 ^j	---	---	---	---	---	---	---	
	05/22/96	10.23	---	---	---	---	---	---	
	08/19/96	12.61	---	---	---	---	---	---	
	12/05/96	12.47	---	---	---	---	---	3.6	
02/20/97	9.85	---	---	---	---	---	3.9		
01/20/98	7.76	---	---	---	---	---	2.7		
BH-A	09/09/93	16.50	2,900 ^c	---	<5,000	23	13	---	
BH-B	09/09/93	15.85	150	---	<5,000	ND	ND	---	
BH-C ^d	09/10/93	15.80	100	---	<5,000	ND	ND	---	
BH-D ^j	09/10/93	14.2	25,000 ^c	---	20,000	18	75	---	
Bailer	08/19/92	---	---	---	---	---	---	---	
Blank	11/17/92	---	---	---	---	---	---	---	
Trip	02/13/90	---	---	---	---	---	---	---	
Blank	05/14/90	---	---	---	---	---	---	---	

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

Well/Boring ID (Qtrs Sampled)	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	---	---	---	---	---	---	---	---

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

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
* = Semi-volatile organic compounds by EPA Method 8270; only detected compounds tabulated
--- = Not analyzed or measured
<n = Not detected at detection limits of n µg/L
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 atypical 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 miscommunication 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 ^a	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
	08/18/97	---	---	11.00
	11/03/97	---	---	11.00
	01/20/98	0.62	1.37	12.37

Abbreviations & Notes:

ft = Feet

lbs = Pounds

--- = Not measured or no hydrocarbons removed

a = Petrotrap separate-phase hydrocarbon skimmer installed in well

Separate-Phase Hydrocarbons Removed calculated using the relation: 1 liter gasoline = 1.61 lbs.

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

February 18, 1998

Shell Oil Company
P.O. Box 8080
Martinez, CA 94553

Attn: Alex Perez

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

1st Quarter 1998

Groundwater Monitoring Report 980120-K-2

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,

A handwritten signature in black ink, appearing to read 'Francis Thie', is written over a horizontal line.

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: Maureen Feinemen

(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	01/20/98	TOC	--	NONE	--	--	9.35	24.51
MW-2	01/20/98	TOC	--	NONE	--	--	9.43	24.41
MW-3 *	01/20/98	TOC	ODOR	NONE	--	--	8.43	24.88
MW-4	01/20/98	TOC	--	9.63	0.62	850	10.25	--
MW-5	01/20/98	TOC	--	NONE	--	--	8.06	28.65
MW-6	01/20/98	TOC	--	NONE	--	--	7.76	24.15
T-1	01/20/98	TOC	--	NONE	--	--	DRY	4.22
T-2	01/20/98	TOC	--	NONE	--	--	DRY	7.93

* Sample DUP was a duplicate sample taken from well MW-3.



SHELL OIL COMPANY
RETAIL ENVIRONMENTAL ENGINEERING - WEST

CHAIN OF CUSTODY RECORD
Serial No: 980120-K2

9801359

Date: _____
Page 1 of 1

Site Address: 6039 College Ave., Oakland

WICH: 204-5508-3301

Shell Engineer: Alex Perez
Phone No.: (510) 675-6168
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

Commons:

Sampled by: *[Signature]*

Printed Name: Mark Spandler

Analysis Required

LAB: Sequoia

CHECK ONE (1) BOX ONLY	CT/DI	TURN AROUND TIME
Quality Monitoring <input checked="" type="checkbox"/>	6441	24 hours <input type="checkbox"/>
Site Investigation <input type="checkbox"/>	6441	48 hours <input type="checkbox"/>
Soil Classfy/Disposal <input type="checkbox"/>	6442	15 days <input checked="" type="checkbox"/> (Home)
Water Classfy/Disposal <input type="checkbox"/>	6443	Other <input type="checkbox"/>
Soil/Air Rem. of Sys. O & M <input type="checkbox"/>	6462	
Water Rem. of Sys. O & M <input type="checkbox"/>	6463	
Other <input type="checkbox"/>		

NOTE: Home Lab as soon as possible of 24/48 hrs. 1st.

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 (WTBC)	EPA 8270	Oil + Grease	Asbestos	Container Size	Preparation Used	Composite Y/N	MATERIAL DESCRIPTION	SAMPLE CONDITION/ COMMENTS
MW-3 1	1/20/98			3		1						X	X	X						
MW-5 2				3		3						X								
MW-6 3				3		3						X								
DUP 4				3		1						X	X	X						
CB 5				3		3						X								

Relinquished By (signature): <i>[Signature]</i>	Printed Name: Mark Spandler	Date: 1/21/98	Received (signature): <i>[Signature]</i>	Printed Name: Steve Ten	Date: 1/21/98
Relinquished By (signature): <i>[Signature]</i>	Printed Name: Steve Ten	Date: 1/21/98	Received (signature): <i>[Signature]</i>	Printed Name: Steve Ten	Date: 1/21/98
Relinquished By (signature): _____	Printed Name: _____	Date: _____	Received (signature): _____	Printed Name: _____	Date: _____



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/980120-K2

Enclosed are the results from samples received at Sequoia Analytical on January 21, 1998.
The requested analyses are listed below:

<u>SAMPLE #</u>	<u>SAMPLE DESCRIPTION</u>	<u>DATE COLLECTED</u>	<u>TEST METHOD</u>
9801B59 -01	LIQUID, MW-3	01/20/98	TPGM2W Purgeable TPH/BTEX
9801B59 -01	LIQUID, MW-3	01/20/98	8270 SemiVolatile Organi
9801B59 -01	LIQUID, MW-3	01/20/98	TRPH (SM 5520 B&F)
9801B59 -02	LIQUID, MW-5	01/20/98	TPGM2W Purgeable TPH/BTEX
9801B59 -03	LIQUID, MW-6	01/20/98	TPGM2W Purgeable TPH/BTEX
9801B59 -04	LIQUID, Dup	01/20/98	TPGM2W Purgeable TPH/BTEX
9801B59 -04	LIQUID, Dup	01/20/98	8270 SemiVolatile Organi
9801B59 -04	LIQUID, Dup	01/20/98	TRPH (SM 5520 B&F)
9801B59 -05	LIQUID, EB	01/20/98	TPGM2W 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
404 N. Wiget Lane
819 Striker Avenue, Suite 8

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

(650) 364-9600
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(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

Client Proj. ID: Shell Oakland/980120-K2

Lab Proj. ID: 9801B59

Sampled: 01/20/98
Received: 01/21/98
Analyzed: see below

Attention: Fran Thie

Reported: 02/04/98

LABORATORY ANALYSIS

Analyte	Units	Date Analyzed	Detection Limit	Sample Results
Lab No: 9801B59-01 Sample Desc: LIQUID,MW-3				
TRPH (SM 5520 B&F)	mg/L	01/26/98	5.0	N.D.
Lab No: 9801B59-04 Sample Desc: LIQUID,Dup				
TRPH (SM 5520 B&F)	mg/L	01/26/98	5.0	N.D.

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/980120-K2
Sample Descript: MW-3
Matrix: LIQUID
Analysis Method: 8015Mod/8020
Lab Number: 9801B59-01

Sampled: 01/20/98
Received: 01/21/98
Analyzed: 01/30/98
Reported: 02/04/98

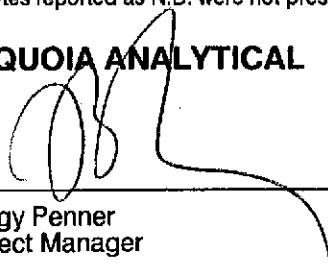
QC Batch Number: GC013098BTEX18A
Instrument ID: GCHP18

Total Purgeable Petroleum Hydrocarbons (TPPH) with BTEX and MTBE

Analyte	Detection Limit ug/L	Sample Results ug/L
TPPH as Gas	500	3100
Methyl t-Butyl Ether	500	59000
Benzene	5.0	360
Toluene	5.0	1000
Ethyl Benzene	5.0	73
Xylenes (Total)	5.0	420
Chromatogram Pattern:		C6-C12
Surrogates	Control Limits %	% Recovery
Trifluorotoluene	70 130	96

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/980120-K2
Sample Descript: MW-3
Matrix: LIQUID
Analysis Method: EPA 8270
Lab Number: 9801B59-01

Sampled: 01/20/98
Received: 01/21/98
Extracted: 01/23/98
Analyzed: 01/23/98
Reported: 02/04/98

Attention: Fran Thie

QC Batch Number: MS0120988270EXB
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

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

Client Proj. ID: Shell Oakland/980120-K2
Sample Descript: MW-3
Matrix: LIQUID
Analysis Method: EPA 8270
Lab Number: 9801B59-01

Sampled: 01/20/98
Received: 01/21/98
Extracted: 01/23/98
Analyzed: 01/23/98
Reported: 02/04/98

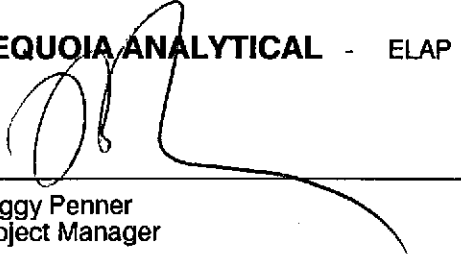
QC Batch Number: MS0120988270EXB
Instrument ID: F4

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	13
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	32
Phenol-d5	10	110	23
Nitrobenzene-d5	35	114	75
2-Fluorobiphenyl	43	116	72
2,4,6-Tribromophenol	10	123	84
p-Terphenyl-d14	33	141	50

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/980120-K2 Sample Descript: MW-5 Matrix: LIQUID Analysis Method: 8015Mod/8020 Lab Number: 9801B59-02	Sampled: 01/20/98 Received: 01/21/98 Analyzed: 02/02/98 Reported: 02/04/98
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QC Batch Number: GC020298BTEX21A
Instrument ID: GCHP21

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	50	1600
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	83

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 Attention: Fran Thie	Client Proj. ID: Shell Oakland/980120-K2 Sample Descript: MW-6 Matrix: LIQUID Analysis Method: 8015Mod/8020 Lab Number: 9801B59-03	Sampled: 01/20/98 Received: 01/21/98 Analyzed: 02/02/98 Reported: 02/04/98
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QC Batch Number: GC020298BTEX21A
Instrument ID: GCHP21

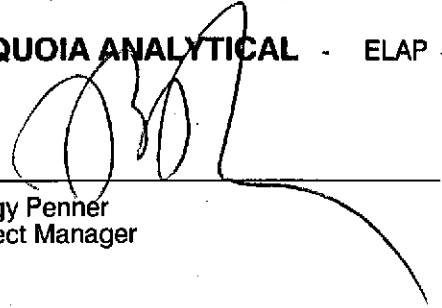
Total Purgeable Petroleum Hydrocarbons (TPPH) with BTEX and MTBE

Analyte	Detection Limit ug/L	Sample Results ug/L
TPPH as Gas	50	N.D.
Methyl t-Butyl Ether	2.5	340
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	87

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/980120-K2 Sample Descript: Dup Matrix: LIQUID Analysis Method: 8015Mod/8020 Lab Number: 9801B59-04	Sampled: 01/20/98 Received: 01/21/98 Analyzed: 01/30/98 Reported: 02/04/98
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GC Batch Number: GC013098BTEX18A
Instrument ID: GCHP18

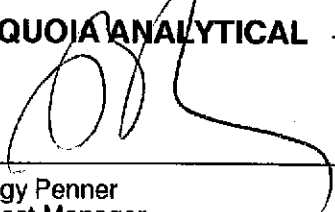
Total Purgeable Petroleum Hydrocarbons (TPPH) with BTEX and MTBE

Analyte	Detection Limit ug/L	Sample Results ug/L
TPPH as Gas	500	3000
Methyl t-Butyl Ether	500	54000
Benzene	5.0	330
Toluene	5.0	950
Ethyl Benzene	5.0	68
Xylenes (Total)	5.0	390
Chromatogram Pattern:		C6-C12

Surrogates	Control Limits %	% Recovery
Trifluorotoluene	70 130	98

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/980120-K2 Sample Descript: Dup Matrix: LIQUID Analysis Method: EPA 8270 Lab Number: 9801B59-04	Sampled: 01/20/98 Received: 01/21/98 Extracted: 01/23/98 Analyzed: 01/23/98 Reported: 02/04/98
--	---	--

QC Batch Number: MS0120988270EXB
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

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	Client Proj. ID: Shell Oakland/980120-K2 Sample Descript: Dup Matrix: LIQUID Analysis Method: EPA 8270 Lab Number: 9801B59-04	Sampled: 01/20/98 Received: 01/21/98 Extracted: 01/23/98 Analyzed: 01/23/98 Reported: 02/04/98
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QC Batch Number: MS0120988270EXB
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	8.8	
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	46
Phenol-d5	10	110	32
Nitrobenzene-d5	35	114	77
2-Fluorobiphenyl	43	116	74
2,4,6-Tribromophenol	10	123	87
p-Terphenyl-d14	33	141	59

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/980120-K2
Sample Descript: EB
Matrix: LIQUID
Analysis Method: 8015Mod/8020
Lab Number: 9801B59-05

Sampled: 01/20/98
Received: 01/21/98
Analyzed: 01/30/98
Reported: 02/04/98

QC Batch Number: GC013098BTEX18A
Instrument ID: GCHP18

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:		
Surrogates	Control Limits %	% Recovery
Trifluorotoluene	70 130	82

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 / 980120-K2
Matrix: Liquid

Work Order #: 9801B59 -01, 04

Reported: Feb 6, 1998

QUALITY CONTROL DATA REPORT

Analyte: Total Recoverable
Petroleum Hydrocarbons
QC Batch#: SP012198552000A
Analy. Method: SM 5520BF
Prep. Method: SM 5520BF

Analyst: P. Cheung
BS/BSD #: BLK012198
Sample Conc.: N.D.
Prepared Date: 1/21/98
Analyzed Date: 1/21/98
Instrument I.D.#: MANUAL
Conc. Spiked: 10 mg/L

Result: 9.0
BS % Recovery: 90

Dup. Result: 9.4
BSD % Recov.: 94

RPD: 4.3
RPD Limit: 0-30

LCS #: LCS012398

Prepared Date: 1/23/98
Analyzed Date: 1/26/98
Instrument I.D.#: MANUAL
Conc. Spiked: 10 mg/L

LCS Result: 7.1
LCS % Recov.: 71

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

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

9801B59.BLA <1>

SEQUOIA ANALYTICAL

Peggy Renner
Project Manager





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

Client Project ID: Shell Oakland / 980120-K2
Matrix: Liquid

Work Order #: 9801B59-01, 04-05

Reported: Feb 6, 1998

QUALITY CONTROL DATA REPORT

Analyte:	Benzene	Toluene	Ethyl Benzene	Xylenes	Gas
QC Batch#:	GC013098BTEX18A	GC013098BTEX18A	GC013098BTEX18A	GC013098BTEX18A	GC013098BTEX18A
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:	J. Minkel	J. Minkel	J. Minkel	J. Minkel	J. Minkel
MS/MSD #:	980191606	980191606	980191606	980191606	980191606
Sample Conc.:	N.D.	N.D.	N.D.	N.D.	N.D.
Prepared Date:	1/30/98	1/30/98	1/30/98	1/30/98	1/30/98
Analyzed Date:	1/30/98	1/30/98	1/30/98	1/30/98	1/30/98
Instrument I.D.#:	GCHP18	GCHP18	GCHP18	GCHP18	GCHP18
Conc. Spiked:	10 µg/L	10 µg/L	10 µg/L	30 µg/L	60 µg/L
Result:	8.1	8.1	8.0	25	52
MS % Recovery:	81	81	80	83	87
Dup. Result:	8.1	8.1	8.4	25	53
MSD % Recov.:	81	81	84	83	88
RPD:	0.0	0.0	4.9	0.0	1.9
RPD Limit:	0-25	0-25	0-25	0-25	0-25

LCS #:	BLK013098	BLK013098	BLK013098	BLK013098	BLK013098
Prepared Date:	1/30/98	1/30/98	1/30/98	1/30/98	1/30/98
Analyzed Date:	1/30/98	1/30/98	1/30/98	1/30/98	1/30/98
Instrument I.D.#:	GCHP18	GCHP18	GCHP18	GCHP18	GCHP18
Conc. Spiked:	10 µg/L	10 µg/L	10 µg/L	30 µg/L	60 µg/L
LCS Result:	8.1	8.6	8.1	25	53
LCS % Recov.:	81	86	81	83	88

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					

SEQUOIA ANALYTICAL

Reggy 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

9801B59.BLA <2>





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

Client Project ID: Shell Oakland / 980120-K2
Matrix: Liquid

Work Order #: 9801B59-02-03

Reported: Feb 6, 1998

QUALITY CONTROL DATA REPORT

Analyte:	Benzene	Toluene	Ethyl Benzene	Xylenes	Gas
QC Batch#:	GC020298BTEX21A	GC020298BTEX21A	GC020298BTEX21A	GC020298BTEX21A	GC020298BTEX21A
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. Miraftab	A. Miraftab	A. Miraftab	A. Miraftab	A. Miraftab
MS/MSD #:	9801B5604	9801B5604	9801B5604	9801B5604	9801B5604
Sample Conc.:	N.D.	N.D.	N.D.	N.D.	N.D.
Prepared Date:	2/2/98	2/2/98	2/2/98	2/2/98	2/2/98
Analyzed Date:	2/2/98	2/2/98	2/2/98	2/2/98	2/2/98
Instrument I.D.#:	GCHP21	GCHP21	GCHP21	GCHP21	GCHP21
Conc. Spiked:	10 µg/L	10 µg/L	10 µg/L	30 µg/L	60 µg/L
Result:	9.1	9.1	9.1	27	54
MS % Recovery:	91	91	91	90	90
Dup. Result:	8.8	8.8	8.8	26	51
MSD % Recov.:	88	88	88	87	85
RPD:	3.4	3.4	3.4	3.8	5.7
RPD Limit:	0-25	0-25	0-25	0-25	0-25

LCS #:	BLK020298	BLK020298	BLK020298	BLK020298	BLK020298
Prepared Date:	2/2/98	2/2/98	2/2/98	2/2/98	2/2/98
Analyzed Date:	2/2/98	2/2/98	2/2/98	2/2/98	2/2/98
Instrument I.D.#:	GCHP21	GCHP21	GCHP21	GCHP21	GCHP21
Conc. Spiked:	10 µg/L	10 µg/L	10 µg/L	30 µg/L	60 µg/L
LCS Result:	8.9	8.8	9.0	26	52
LCS % Recov.:	89	88	90	87	87

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:

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

9801B59.BLA <3>

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 / 980120-K2
Matrix: Liquid

Work Order #: 9801B59-01, 04

Reported: Feb 6, 1998

QUALITY CONTROL DATA REPORT

Analyte:	Phenol	2-Chlorophenol	1,4-Dichloro-benzene	N-Nitroso-Di-N-propylamine
QC Batch#:	MS0120988270EXB	MS0120988270EXB	MS0120988270EXB	MS0120988270EXB
Analy. Method:	EPA 8270	EPA 8270	EPA 8270	EPA 8270
Prep. Method:	EPA 3510	EPA 3510	EPA 3510	EPA 3510

Analyst:	B. Pitamah	B. Pitamah	B. Pitamah	B. Pitamah
MS/MSD #:	BLK012098	BLK012098	BLK012098	BLK012098
Sample Conc.:	N.D.	N.D.	N.D.	N.D.
Prepared Date:	1/20/98	1/20/98	1/20/98	1/20/98
Analyzed Date:	1/20/98	1/20/98	1/20/98	1/20/98
Instrument I.D.#:	F4	F4	F4	F4
Conc. Spiked:	200 µg/L	200 µg/L	200 µg/L	200 µg/L
Result:	88	166	145	170
MS % Recovery:	44	83	73	85
Dup. Result:	81	161	146	173
MSD % Recov.:	41	81	73	87
RPD:	8.3	3.1	0.69	1.7
RPD Limit:	0-30	0-30	0-30	0-30

LCS #:	BLK012398	BLK012398	BLK012398	BLK012398
Prepared Date:	1/23/98	1/23/98	1/23/98	1/23/98
Analyzed Date:	1/23/98	1/23/98	1/23/98	1/23/98
Instrument I.D.#:	F4	F4	F4	F4
Conc. Spiked:	200 µg/L	200 µg/L	200 µg/L	200 µg/L
LCS Result:	67	146	128	152
LCS % Recov.:	34	73	64	76

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

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 / 980120-K2
Matrix: Liquid

Work Order #: 9801B59-01, 04

Reported: Feb 6, 1998

QUALITY CONTROL DATA REPORT

Analyte:	1,2,4-Trichloro-benzene	4-Chloro-3-Methylphenol	Acenaphthene	4-Nitrophenol
QC Batch#:	MS0120988270EXB	MS0120988270EXB	MS0120988270EXB	MS0120988270EXB
Analy. Method:	EPA 8270	EPA 8270	EPA 8270	EPA 8270
Prep. Method:	EPA 3510	EPA 3510	EPA 3510	EPA 3510

Analyst:	B. Pitamah	B. Pitamah	B. Pitamah	B. Pitamah
MS/MSD #:	BLK012098	BLK012098	BLK012098	BLK012098
Sample Conc.:	N.D.	N.D.	N.D.	N.D.
Prepared Date:	1/20/98	1/20/98	1/20/98	1/20/98
Analyzed Date:	1/20/98	1/20/98	1/20/98	1/20/98
Instrument I.D.#:	F4	F4	F4	F4
Conc. Spiked:	200 µg/L	200 µg/L	200 µg/L	200 µg/L
Result:	156	162	159	74
MS % Recovery:	78	81	80	37
Dup. Result:	160	159	158	66
MSD % Recov.:	80	80	79	33
RPD:	2.5	1.9	0.63	11
RPD Limit:	0-30	0-30	0-30	0-30

LCS #:	BLK012398	BLK012398	BLK012398	BLK012398
Prepared Date:	1/23/98	1/23/98	1/23/98	1/23/98
Analyzed Date:	1/23/98	1/23/98	1/23/98	1/23/98
Instrument I.D.#:	F4	F4	F4	F4
Conc. Spiked:	200 µg/L	200 µg/L	200 µg/L	200 µg/L
LCS Result:	138	153	145	48
LCS % Recov.:	69	77	73	24

MS/MSD LCS Control Limits	39-98	23-97	46-118	10-80
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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





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

Client Project ID: Shell Oakland / 980120-K2
Matrix: Liquid

Work Order #: 9801B59-01, 04

Reported: Feb 6, 1998

QUALITY CONTROL DATA REPORT

Analyte:	2,4-Dinitro- toluene	Pentachloro- phenol	Pyrene
QC Batch#:	MS0120988270EXB	MS0120988270EXB	MS0120988270EXB
Analy. Method:	EPA 8270	EPA 8270	EPA 8270
Prep. Method:	EPA 3510	EPA 3510	EPA 3510

Analyst:	B. Pitamah	B. Pitamah	B. Pitamah
MS/MSD #:	BLK012098	BLK012098	BLK012098
Sample Conc.:	N.D.	N.D.	N.D.
Prepared Date:	1/20/98	1/20/98	1/20/98
Analyzed Date:	1/20/98	1/20/98	1/20/98
Instrument I.D.#:	F4	F4	F4
Conc. Spiked:	200 µg/L	200 µg/L	200 µg/L
Result:	165	159	133
MS % Recovery:	83	80	67
Dup. Result:	167	161	134
MSD % Recov.:	84	81	67
RPD:	1.2	1.3	0.75
RPD Limit:	0-30	0-30	0-30

LCS #:	BLK012398	BLK012398	BLK012398
Prepared Date:	1/23/98	1/23/98	1/23/98
Analyzed Date:	1/23/98	1/23/98	1/23/98
Instrument I.D.#:	F4	F4	F4
Conc. Spiked:	200 µg/L	200 µg/L	200 µg/L
LCS Result:	153	126	122
LCS % Recov.:	77	63	61

MS/MSD LCS Control Limits	24-96	9-103	26-127
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SEQUOIA ANALYTICAL

Peggy Penner
Project Manager

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





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	Client Proj. ID: Shell Oakland/980120-K2 Lab Proj. ID: 9801B59	Received: 01/21/98 Reported: 02/04/98
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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 10 pages including the laboratory narrative, sample results, quality control, and related documents as required (cover page, COC, raw data, etc.).

Please note: Samples 9801B59-01, -02 and -03 were analyzed twice in order to obtain the lowest DL's possible for the BTEX compounds.

SEQUOIA ANALYTICAL


Peggy Penner
Project Manager

