CAMBRIA

R0220

July 22, 1997

Barney Chan
Alameda County Department
of Environmental Health
1131 Harbor Bay Parkway, Suite 250
Alameda, CA 94502

Re: **Second Quarter 1997 Monitoring Report**
Shell Service Station
285 Hegenberger Road
Oakland, California
WIC #204-5508-5504
Cambria Project #240-314-297

Dear Mr. Chan:

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. Presented below are a hydrocarbon removal summary, the second quarter 1997 activities, and the anticipated future activities.

Hydrocarbon Removal Summary

Hydrocarbon Removal	Cumulative (lbs)
Vapor-Phase	707
Total	707

The table above summarizes the historical vapor-phase hydrocarbons removal by soil vapor extraction. Soil vapor extraction system operation was discontinued on February 9, 1995.

Second Quarter 1997 Activities

Blaine Tech Services, Inc. (Blaine) of San Jose, California measured ground water depths and collected water samples from the site wells (Figure 1). The Blaine report, describing these sampling activities and presenting the analytic results is included as Attachment A. Cambria calculated ground water elevations (Table 1), compiled the analytic data (Table 2) and prepared a ground water elevation contour map (Figure 1).

CAMBRIA
ENVIRONMENTAL
TECHNOLOGY, INC.
1144 65TH STREET,
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CA 94608
PH: (510) 420-0700
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Anticipated Future Activities

The next sampling event is scheduled for fourth quarter 1997. At that time, Blaine will measure water levels, and collect ground water samples from selected site wells. Cambria will submit a report presenting a summary of the sampling activities.

Closing

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

Sincerely,
Cambria Environmental Technology, Inc.

N. Scott MacLeod, R.G.
Principal Geologist

Attachments: A - Blaine Quarterly Ground Water Monitoring Report

cc: A. E. (Alex) Perez, Shell Oil Products Company, P.O. Box 4023 Concord, California 94524
Brad Boschetto, Shell Oil Products Company, P.O. Box 4023, Concord, California 94524
Anne Singley, Shell Oil Products Company, P.O. Box 4023, Concord, California 94524
Richard Hiett, Regional Water Quality Control Board - San Francisco Bay Region, 2101 Webster Street, Suite 500, Oakland, California 94612
Ms. Terry O'Rourke, Port of Oakland, 530 Water Street, Oakland, CA, 94604

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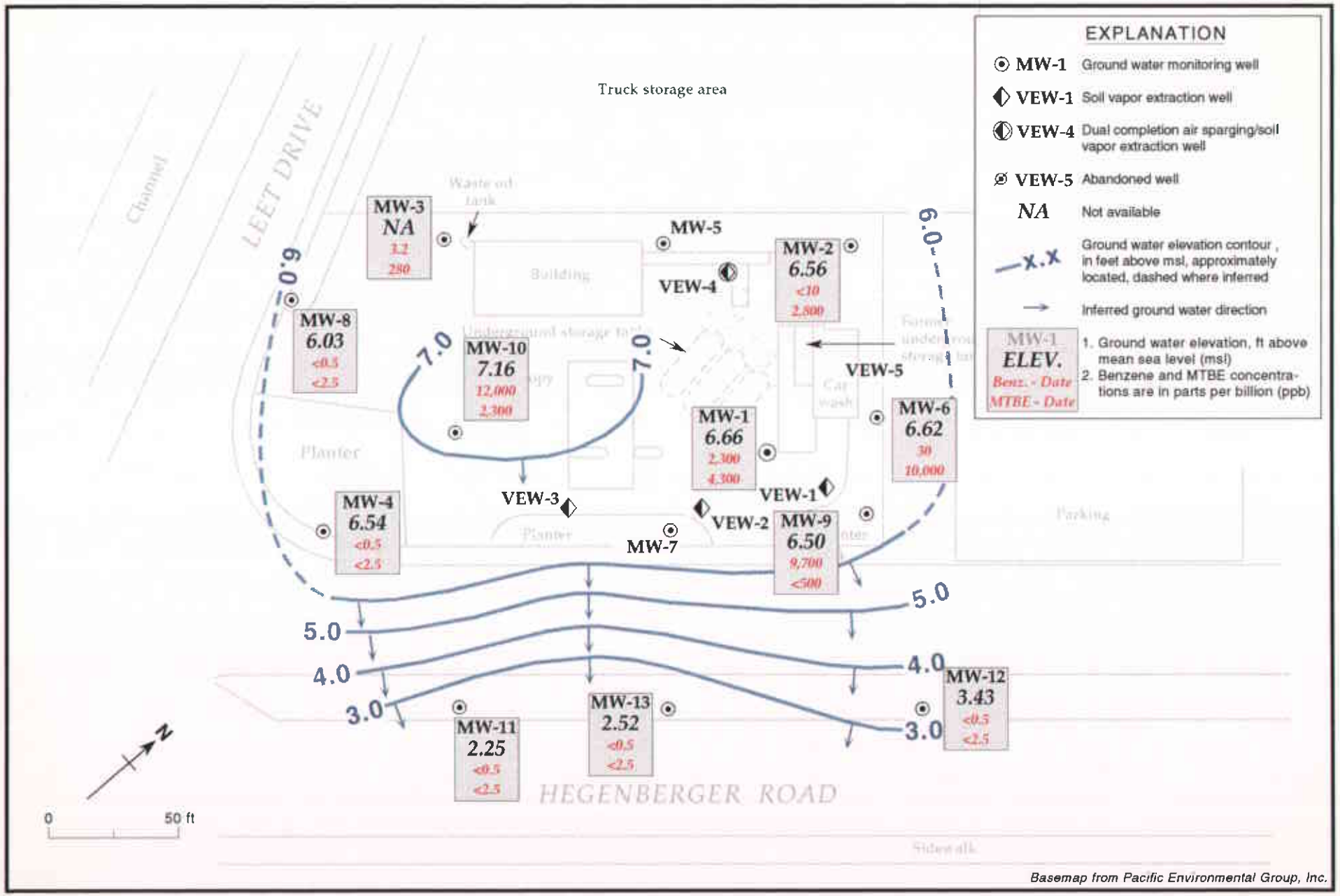

Figure 1. Ground Water Elevation Contours - April 3, 1997 - Shell Service Station - WIC# 204-5508-5504, 285 Hegenberger Road, Oakland, California

Table 1. **Ground Water Elevations** - Shell Service Station WIC #204-5508-5504, 285 Hegenberger Road, Oakland, California

Well Number	Date Sampled	Well Elevation (ft, MSL)	Depth to Water (ft, TOC)	Ground Water Elevation (ft, MSL)
MW-1	02/16/89	6.64	3.83	2.81
	05/23/89		3.59	3.05
	08/03/89		4.04	2.60
	12/15/89		4.22	2.42
	02/07/90		4.60	2.04
	04/18/90		4.02	2.62
	07/23/90		4.17	2.47
	09/27/90		4.60	2.04
	01/03/91		4.88	1.76
	04/10/91		3.55	3.09
	07/12/91		3.97	2.67
	10/08/91		4.26	2.38
	02/06/92		4.94	1.70
	05/04/92		3.58	3.06
	07/28/92		3.91	2.73
	10/27/92		4.79	1.85
	01/14/93		3.39	3.25
	04/23/93		2.67	3.97
	07/20/93	9.50	3.48	6.02
	10/18/93		4.20	5.30
	01/06/94		4.13	5.37
	04/12/94		2.42	7.08
	07/25/94		3.37	6.13
	10/25/94		4.07	5.43
	01/09/95		2.65	6.85
	04/11/95		2.38	7.12
	07/18/95		3.49	6.01
	10/18/95	←	Well Inaccessible	→
	01/09/96		2.95	6.55
	04/02/96		2.00	7.50
	10/03/96		3.21	6.29
	04/03/97		**2.84**	**6.66**
MW-2	02/16/89	7.68	5.33	2.35
	05/23/89		5.23	2.45
	08/03/89		6.03	1.65
	12/15/89		6.43	1.25
	02/07/90		5.82	1.86
	04/18/90		5.88	1.80
	07/23/90		6.05	1.63
	01/03/91		6.82	0.86
	04/10/91		4.80	2.88
	07/12/91		5.70	1.98
	10/08/91		6.40	1.28
	02/06/92		6.40	1.28

Table 1. **Ground Water Elevations** - Shell Service Station WIC #204-5508-5504, 285 Hegenberger Road, Oakland, California

Well Number	Date Sampled	Well Elevation (ft, MSL)	Depth to Water (ft, TOC)	Ground Water Elevation (ft, MSL)
	05/04/92		4.68	3.00
	07/28/92		5.86	1.82
	10/27/92		6.96	0.72
	01/14/93		4.12	3.56
	04/23/93		3.84	3.84
	07/20/93	10.55	5.17	5.38
	10/18/93		6.20	4.35
	01/06/94		5.39	5.16
	04/12/94		4.72	5.83
	07/25/94		5.44	5.11
	10/25/94		6.73	3.82
	01/09/95		4.34	6.21
	04/11/95		3.72	6.83
	07/18/95		4.91	5.64
	10/18/95		5.88	4.67
	01/09/96		4.75	5.80
	04/02/96		3.25	7.30
	10/03/96		5.27	5.28
	04/03/97		**3.99**	**6.56**
MW-3	02/16/89	7.81	5.17	2.64
	05/23/89		5.09	2.72
	08/03/89		5.34	2.47
	12/15/89		6.02	1.79
	02/07/90		4.95	2.86
	04/18/90		5.55	2.26
	07/23/90		5.81	2.00
	09/27/90		6.86	0.95
	01/03/91		6.84	0.97
	04/10/91		4.93	2.88
	07/12/91		5.56	2.25
	10/08/91		6.62	1.19
	02/06/92		6.28	1.53
	05/04/92		4.65	3.16
	07/28/92		5.56	2.25
	10/27/92		6.65	1.16
	01/14/93		3.88	3.93
	04/23/93	← Well Inaccessible →		
	07/20/93	11.25 (TOB)	← Well Inaccessible →	
	10/18/93	← Well Inaccessible →		
	01/06/94		5.54	N/A
	04/12/94		4.82	N/A
	07/25/94		6.03 (TOB)	5.22
	10/25/94		6.48	N/A
	01/09/95		4.86 (TOB)	6.39

Table 1. **Ground Water Elevations** - Shell Service Station WIC #204-5508-5504, 285 Hegenberger Road, Oakland, California

Well Number	Date Sampled	Well Elevation (ft, MSL)	Depth to Water (ft, TOC)	Ground Water Elevation (ft, MSL)
	04/11/95		4.22 (TOB)	7.03
	07/18/95		5.44 (TOB)	5.81
	10/18/95		5.72	N/A
	01/09/96		4.96	N/A
	04/02/96		3.43	N/A
	10/03/96		5.39	N/A
	04/03/97		4.20	N/A
MW-4	05/23/89	7.38	5.60	1.78
	08/03/89		6.37	1.01
	12/15/89		6.91	0.47
	03/08/90		6.06	1.32
	04/18/90		5.84	1.54
	07/23/90		6.92	0.46
	07/23/90		6.92	0.46
	09/27/91		8.03	0.65
	01/03/91		7.54	-0.16
	04/10/91		5.06	2.32
	07/12/91		6.86	0.52
	10/08/91		7.44	-0.06
	02/06/92		7.29	0.09
	05/04/92		5.33	2.05
	07/28/92		6.95	0.43
	10/27/92		7.65	-0.27
	01/14/93		4.84	2.54
	04/23/93		4.84	2.54
	07/20/93	10.28	6.47	3.81
	10/18/93		7.35	2.93
	01/06/94		7.64	2.64
	04/12/94		6.39	3.89
	07/25/94		7.00	3.28
	10/25/94		7.53	2.75
	01/09/95		4.90	5.38
	04/11/95		5.04	5.24
	07/18/95		6.18	4.10
	10/18/95		6.63	3.65
	01/09/96		3.82	6.46
	04/02/96		3.97	6.31
	10/03/96		3.74	6.54
	04/03/97		3.74	6.54
MW-5	05/23/89	8.18	5.47	2.71
	08/03/89		5.94	2.24
	12/15/89		6.75	1.43
	02/07/90		6.03	2.15

Table 1. **Ground Water Elevations** - Shell Service Station WIC #204-5508-5504, 285 Hegenberger Road, Oakland, California

Well Number	Date Sampled	Well Elevation (ft, MSL)	Depth to Water (ft, TOC)	Ground Water Elevation (ft, MSL)
	04/18/90		5.80	2.38
	07/23/90		6.00	2.18
	09/23/90		7.18	1.00
	01/03/91		7.17	1.01
	04/10/91		5.25	2.93
	07/12/91		5.70	2.48
	10/08/91		6.50	1.68
	02/06/92		6.35	1.83
	05/04/92		4.87	3.31
	07/28/92		5.73	2.45
	10/27/92		6.98	1.20
	01/14/93		4.70	3.48
	04/23/93		4.19	3.99
	07/20/93	10.87	5.10	5.77
	10/18/93		5.79	5.08
	01/06/94		5.56	5.31
	04/12/94		4.90	5.97
	07/25/94		5.38	5.49
	10/25/94		6.16	4.71
	01/09/95		4.60	6.27
	04/11/95		3.74	7.13
	07/18/95		4.97	5.90
	10/18/95		5.67	5.20
	01/09/96		---	---
	04/02/96		---	---
	10/03/96	← Well Inaccessible →		
	04/03/97	← Well Inaccessible →		
MW-6	05/23/89	8.21	5.47	2.74
	08/03/89		5.91	2.30
	12/15/89		5.98	2.23
	02/07/90		5.47	2.74
	04/18/90		5.80	2.41
	07/23/90		5.85	2.36
	09/27/90		6.42	1.79
	01/03/91		6.73	1.48
	04/10/91		5.24	2.97
	07/12/91		5.78	2.43
	10/08/91		6.36	1.85
	02/06/92		6.15	2.06
	05/04/92		5.07	3.14
	07/28/92		5.85	2.36
	10/27/92		6.69	1.52
	01/14/93		4.52	3.69
	04/23/93		4.32	3.89

Table 1. **Ground Water Elevations** - Shell Service Station WIC #204-5508-5504, 285 Hegenberger Road, Oakland, California

Well Number	Date Sampled	Well Elevation (ft, MSL)	Depth to Water (ft, TOC)	Ground Water Elevation (ft, MSL)
	07/20/93	11.04	5.39	5.65
	10/18/93		6.67	4.37
	01/06/94		5.66	5.38
	04/12/94		4.91	6.13
	07/25/94		5.55	5.49
	10/25/94		6.24	4.80
	01/09/95		4.58	6.46
	04/11/95		4.04	7.00
	07/18/95		5.01	6.03
	10/18/95		5.86	5.18
	01/09/96		4.75	6.29
	04/02/96		3.82	7.22
	10/03/96		5.27	5.77
	04/03/97		4.42	6.62
MW-7	05/23/89	7.44	5.48	1.96
	08/03/89		4.22	3.22
	12/15/89		4.58	2.86
	02/07/90		5.34	2.10
	04/18/90		4.92	2.52
	07/23/90		4.99	2.45
	09/27/90		6.16	1.28
	01/03/91		4.96	2.48
	04/10/91		4.13	3.31
	07/12/91		4.98	2.46
	10/08/91		5.48	1.96
	02/06/92		5.05	2.39
	05/04/92		4.43	3.01
	07/28/92		4.88	2.56
	10/27/92		5.39	2.05
	01/14/93		4.26	3.18
	04/23/93		4.04	3.40
	07/20/93	10.28	4.36	5.92
	10/18/93		5.14	5.14
	01/06/94		4.83	5.45
	04/12/94		4.24	6.04
	07/25/94		4.58	5.70
	10/25/94		5.07	5.21
	01/09/95		3.38	6.90
	04/11/95		3.52	6.76
	07/18/95		4.70	5.58
	10/18/95		5.25	5.03
	01/09/96		---	---
	04/02/96		---	---

Table 1. **Ground Water Elevations** - Shell Service Station WIC #204-5508-5504, 285 Hegenberger Road, Oakland, California

Well Number	Date Sampled	Well Elevation (ft, MSL)	Depth to Water (ft, TOC)	Ground Water Elevation (ft, MSL)
	10/03/96	←Well Inaccessible→		
	04/03/97	**←Well Inaccessible→**		
MW-8	05/23/89	7.79	6.62	1.17
	08/03/89		6.62	1.17
	12/15/89		6.71	1.08
	03/08/90		4.95	2.84
	04/18/90		6.40	1.89
	07/23/90		6.62	1.17
	09/27/90		6.98	0.81
	01/03/91		7.03	0.76
	04/10/91		4.40	3.39
	07/12/91		6.80	0.99
	10/08/91		7.56	0.23
	02/06/92		6.94	0.85
	05/04/92		5.86	1.93
	07/28/92		6.94	0.85
	10/27/92		7.83	-0.04
	01/14/93		3.60	4.19
	04/23/93		4.12	3.67
	07/20/93	10.61	6.38	4.23
	10/18/93		7.47	3.14
	01/06/94		7.20	3.41
	04/12/94		6.16	4.45
	07/25/94		6.94	3.67
	10/25/94		7.43	3.18
	01/09/95		3.98	6.63
	04/11/95		4.12	6.49
	07/18/95		5.21	5.40
	10/18/95		5.58	5.03
	01/09/96		5.09	5.52
	04/02/96		3.42	7.19
	10/03/96		4.30	6.31
	04/03/97		**4.58**	**6.03**
MW-9	08/03/89	7.63	5.78	1.85
	12/15/89		5.24	2.39
	02/07/90		5.23	2.40
	04/18/90		5.34	2.29
	07/23/90		5.65	1.98
	09/27/90		5.96	1.67
	01/03/91		6.23	1.40
	04/10/91		4.65	2.98
	07/12/91		5.65	1.98
	10/08/91		6.08	1.55

Table 1. **Ground Water Elevations** - Shell Service Station WIC #204-5508-5504, 285 Hegenberger Road, Oakland, California

Well Number	Date Sampled	Well Elevation (ft, MSL)	Depth to Water (ft, TOC)	Ground Water Elevation (ft, MSL)
	02/06/92		5.92	1.71
	05/04/92		4.80	2.83
	07/28/92		5.61	2.02
	10/27/92		6.24	1.39
	01/14/93		4.95	2.68
	04/23/93		4.54	3.09
	07/20/93	10.48	5.25	5.23
	10/18/93		6.00	4.48
	01/06/94		5.62	4.86
	04/12/94		4.31	6.17
	07/25/94		5.43	5.05
	10/25/94		6.00	4.48
	01/09/95		4.26	6.22
	04/11/95		4.08	6.40
	07/18/95		5.07	5.41
	10/18/95		5.82	4.66
	01/09/96		4.36	6.12
	04/02/96		3.86	6.62
	10/03/96		4.90	5.58
	04/03/97		**3.98**	**6.50**
MW-10	12/15/89	7.45	6.33	0.82
	03/08/90		5.41	2.00
	04/18/90		5.60	1.85
	07/23/90		5.81	1.64
	09/27/90		6.64	0.81
	01/03/91		6.96	0.49
	04/10/91		4.70	2.75
	07/12/91		5.90	1.55
	10/08/91		6.68	0.77
	02/06/92		7.04	0.41
	05/04/92		4.69	2.76
	07/28/92		6.00	1.45
	10/27/92	←	Well Inaccessible	→
	01/14/93		6.07	1.38
	04/23/93		4.14	3.31
	07/20/93	10.61	5.62	4.99
	10/18/93		6.43	4.18
	01/06/94		6.74	3.87
	04/12/94		5.98	4.63
	07/25/94		6.31	4.30
	10/25/94		6.64	3.97
	01/09/95		5.70	4.91
	04/11/95		5.82	4.79
	07/18/95		6.79	3.82

Table 1. **Ground Water Elevations** - Shell Service Station WIC #204-5508-5504, 285 Hegenberger Road, Oakland, California

Well Number	Date Sampled	Well Elevation (ft, MSL)	Depth to Water (ft, TOC)	Ground Water Elevation (ft, MSL)
	10/18/95		5.31	5.30
	01/09/96		5.92	4.69
	04/02/96		5.43	5.18
	10/03/96		6.07	4.54
	04/03/97		**3.45**	**7.16**
MW-11	07/20/93	10.56	8.08	2.48
	10/18/93		8.24	2.32
	01/06/94		8.47	2.09
	04/12/94		8.44	2.12
	07/25/94		8.20	2.36
	10/25/94		8.67	1.89
	01/09/95		7.63	2.93
	04/11/95		8.06	2.50
	07/18/95		9.31	1.25
	10/18/95		8.34	2.22
	01/09/96		8.22	2.34
	04/02/96		7.97	2.59
	10/03/96		8.37	2.19
	04/03/97		**8.31**	**2.25**
MW-12	07/20/93	9.56	6.76	2.80
	10/18/93		7.12	2.44
	01/06/94		7.15	2.41
	04/12/94		6.68	2.88
	07/25/94		6.83	2.73
	10/25/94		7.34	2.22
	01/09/95		5.02	4.54
	04/11/95		7.38	2.18
	07/18/95		8.50	1.06
	10/18/95		6.63	2.93
	01/09/96		6.32	3.24
	04/02/96		5.60	3.96
	10/03/96		3.30	6.26
	04/03/97		**6.13**	**3.43**
MW-13	07/20/93	10.10	8.32	1.78
	10/18/93		8.66	1.44
	01/06/94		8.70	1.40
	04/12/94		8.20	1.90
	07/25/94		8.39	1.71
	10/25/94		8.70	1.40
	01/09/95		7.35	2.75
	04/11/95		5.50	4.60
	07/18/95		6.63	3.47

Table 1. **Ground Water Elevations** - Shell Service Station WIC #204-5508-5504, 285 Hegenberger Road, Oakland, California

Well Number	Date Sampled	Well Elevation (ft, MSL)	Depth to Water (ft, TOC)	Ground Water Elevation (ft, MSL)
	10/18/95		8.12	1.98
	01/09/96		7.74	2.36
	04/02/96		6.30	3.80
	10/03/96		6.50	3.60
	04/03/97		7.58	2.52

Abbreviations

MSL = Mean sea level
TOC = Top of casing
TOB = Top of box elevation
N/A = Not available

Table 2. Ground Water Analytic Data - Shell Service Station, WIC# 204-5508-5504, 285 Hegenbergerger Rd., Oakland, CA

Well	Date Sampled	TPPH	Benzene	Toluene	Ethylbenzene	Xylenes	TEPH	TPHmo	MTBE	DO (ppm)
		← (concentrations in ppb) →								
MW-1	02/16/92	99,000	20,000	23,000	5,700	2,300	—	—	---	---
	05/23/92	48,000	4,200	5,200	1,200	7,700	11,000	---	---	—
	08/04/89	63,000	5,500	5,500	3,200	9,500	11,000	---	---	—
	12/15/89	30,000	ND	ND	ND	ND	11,000	---	---	---
	02/07/90	93,000	13,000	9,600	2,400	14,000	10,000	---	---	---
	04/18/90	55,000	14,000	8,400	3,200	13,000	8,700	---	---	---
	07/24/90	73,000	16,000	7,400	2,800	15,000	3,600	—	---	---
	10/01/90	45,000	8,000	4,300	2,000	11,000	1,700	---	---	—
	01/02/91	43,000	10,000	3,400	1,900	11,000	3,100	—	—	---
	04/09/91	67,000	20,000	9,600	3,500	16,000	1,800	---	---	---
	07/11/91	—	—	—	—	---	---	---	---	---
	10/08/91	55,000	18,000	3,500	2,300	8,600	7,400	---	---	---
	02/06/92	48,000	12,000	2,800	1,900	7,400	15 [a]	---	---	---
	05/05/92	71,000	16,000	6,000	3,100	14,000	10 [a]	---	---	---
	07/28/92	68,000	21,000	5,500	3,400	15,000	18 [a]	ND	---	---
	07/28/92	70,000	17,000	5,000	2,700	13,000	19 [a]	ND	---	---
	10/27/92	53,000	18,000	3,700	3,400	11,000	1,300	---	---	---
	10/27/92	48,000	17,000	3,600	3,100	9,900	2.5 [a]	---	---	---
	01/15/93	84,000	17,000	5,400	3,000	13,000	22 [a]	ND	---	—
	04/23/93	100,000	18,000	7,800	4,700	20,000	23 [a]	ND	---	---
	07/20/93	41 [d]	12,000 [d]	870 [d]	1,500 [d]	4,400 [d]	3.1 [a]	---	---	---
	10/18/93	33,000	14,000	1,200	2,000	4,900	8.1 [a]	960	---	---
	10/18/93	44,000	14,000	1,200	2,000	4,900	3.7 [a]	670	---	—
	01/06/94	71,000	9,000	870	1,600	5,100	9 [a]	ND	---	---
	04/12/94	42,000	6,600	170	2,300	4,700	5,900	2,500	---	---
	04/12/94	40,000	6,300	180	2,000	4,400	4,700	2,200	---	---
	07/25/94	13,000	4,400	110	460	1,400	7.0 [a]	ND	---	---
	10/26/94	19,000	5,500	210	880	2,000	3,900	ND	---	---
	01/11/95	37,000	6,700	800	2,800	8,900	8.6 [a]	ND	—	---
	04/11/95	26,000	4,700	270	1,800	3,400	5,500	ND	---	---
	07/19/95	57,000	7,500	880	4,100	11,000	7,000	NC	---	—
	07/19/95	46,000	6,000	670	3,200	7,500	6,600	NC	---	---
	01/09/96	37,000	5,400	450	2,600	7,400	3,200	ND	10,000	—
	04/02/96	32,000	3,000	240	1,900	3,500	—	<500	6,100	---
	04/02/96	30,000	3,100	260	2.0	3,900	---	<500	8.0	—
	10/03/96	18,000	3,000	120	1,200	1,700	2,800	520	7,500	2.2
	04/03/97	29,000	2,300	170	2,300	2,900	3,000	<500	4,300	2.2
MW-2	02/16/89	20,000	200	900	2700	9600	—	—	---	---
	05/23/89	1,500	4.3	2.9	11	150	1,600	---	---	---
	08/04/89	15,000	75	120	850	2200	7,400	—	—	---
	12/15/89	5,000	52	13	4.1	290	2,600	---	---	---
	02/07/90	13,000	32	34	230	640	4,800	—	—	---
	04/18/90	9,800	33	19	460	1,700	3,200	---	---	---
	07/24/90	9,600	41	27	540	940	2,700	---	---	---

Table 2. Ground Water Analytic Data - Shell Service Station, WIC# 204-5508-5504, 285 Hegenbergerger Rd., Oakland, CA

Well	Date Sampled		TPPH	Benzene	Toluene	Ethylbenzene	Xylenes	TEPH	TPHmo	MTBE	DO (ppm)
			← (concentrations in ppb) →								
	10/01/90		390	3.4	15	8.5	25	1,600	---	---	---
	01/02/91		1,800	56	4.4	4.8	92	830	---	---	---
	04/09/91		1,900	ND	28	140	490	280	---	---	---
	07/11/91		8,100	89	66	350	930	1,100	---	---	---
	10/08/91		1,400	5.1	1.5	36	270	2,600	---	---	---
	02/06/92		2,000	7.8	2.5	130	210	5.4 [a]	---	---	---
	05/05/92		21 [b]	ND [b]	ND [b]	300 [b]	960 [b]	1,000	---	---	---
	07/28/92		2,100	7.7	3.3	130	310	0.83 [a]	320	---	---
	10/27/92		1,100	16	3.1	4.5	25	530	---	---	---
	01/15/93	+	290	5.2	3.1	8.4	21	0.17 [b]	---	---	---
	04/23/93		2,400	ND	ND	210	610	1.2 [a]	ND	---	---
	07/21/93		440	1.7	1.7	15	38	130	---	---	---
	10/18/93		2,100	ND	ND	90	110	1.6 [a]	510	---	---
	01/06/94		1.9 [f]	ND [f]	6.7 [f]	7.1 [f]	12 [f]	130	ND	---	---
	04/12/94		120	ND	ND	3.4	4.3	130	170	---	---
	07/25/94		0.18 [f]	5.3 [f]	ND [f]	6.2 [f]	8.2 [f]	0.28 [a]	ND	---	---
	10/26/94		170	ND	ND	ND	ND	400	ND	---	---
	01/11/95		ND	ND	ND	ND	ND	ND	ND	---	---
	04/11/95		ND	ND	ND	ND	ND	ND	ND	---	---
	07/19/95		250	2.8	0.5	12	13	160	NC	---	---
	01/09/96		790	5.1	1.5	2.4	4.6	130	ND	1,400	---
	04/02/96		260	<2	<2	13	6.9	---	<500	540	---
	10/03/96		<2000	<20	<20	<20	<20	620	<500	13,000	2.3
	04/03/97		<1,000	<10	<10	<10	<10	190	<500	2,300	2.2
MW-3	02/16/89		60,000	5,500	0	3,200	5,200	---	---	---	---
	05/23/89		ND	ND	200	ND	ND	1,500	---	---	---
	08/04/89		2,000	120	ND	ND	86	1,200	---	---	---
	12/15/89		5,200	380	12	17	410	1,700	---	---	---
	03/08/90		260	17	47	5.4	2.5	230	---	---	---
	04/19/90		260	ND	ND	ND	9.4	ND	---	---	---
	07/24/90		510	46	ND	ND	9.3	210	---	---	---
	09/28/90		460	6.3	1.2	ND	15	350	---	---	---
	01/02/91		4,800	920	1.7	ND	190	630	---	---	---
	04/09/91		120	1.2	8.8	3.5	21	60	---	---	---
	07/11/91		430	12	0.8	ND	7.7	ND	---	---	---
	10/08/91		770	140	ND	ND	53	560	---	---	---
	02/06/91		500	74	0.7	5.2	5.3	0.34 [a]	---	---	---
	05/04/92		310	47	0.9	17	16	0.29 [a]	---	---	---
	07/28/92	**	780	130	ND	13	4.2	0.1 [a]	120	---	---
	10/27/92	**	740	92	ND	7.8	9.6	0.069 [a]	100	---	---
	01/15/93		ND	2.4	2.8	ND	ND	ND	120	---	---
	04/23/93		---------- Well Inaccessible ----------								
	07/20/93		---------- Well Inaccessible ----------								
	10/18/93		---------- Well Inaccessible ----------								

Table 2. Ground Water Analytic Data - Shell Service Station, WIC# 204-5508-5504, 285 Hegenbergerger Rd., Oakland, CA

Well	Date Sampled	TPPH	Benzene	Toluene	Ethylbenzene	Xylenes	TEPH	TPHmo	MTBE	DO (ppm)
		← (concentrations in ppb) →								
	01/06/94	130	1.7	0	ND	0.93	64	ND	—	—
	04/12/94	ND	0.82	ND	ND	0.7	75	86	---	---
	07/25/94	0.06 [f]	2.8 [f]	ND [f]	ND [f]	0.7 [f]	ND	ND	---	---
	10/26/94	70	ND	ND	ND	ND	100	ND	—	—
	01/11/95	ND	ND	ND	ND	ND	ND	ND	---	---
	04/11/95	ND	ND	ND	ND	ND	ND	ND	---	---
	07/19/95	ND	2.8	ND	ND	ND	90	NC	—	---
	01/09/96	90	1.7	ND	<0.5	<0.5	90	ND	61	---
	04/02/96	<50	<0.5	<0.5	<0.5	<0.5	---	<500	24	---
	10/03/96	<500	<5	<5	<5	<5	180	<500	1,200	2.4
	04/03/97	150	3.2	<0.50	<0.50	0.81	83	<500	280	2.0
MW-4	05/23/89	ND	ND	0	ND	ND	ND	---	---	---
	08/04/89	ND	ND	ND	ND	ND	ND	---	---	---
	12/15/89	ND	ND	ND	ND	ND	ND	---	—	---
	03/08/90	ND	ND	ND	ND	ND	ND	---	---	---
	07/25/90	ND	ND	ND	ND	ND	ND	—	---	---
	09/28/90	ND	ND	ND	ND	ND	ND	---	---	---
	04/09/91	ND	ND	ND	ND	ND	ND	—	—	---
	07/11/91	ND	ND	ND	ND	ND	ND	---	---	---
	10/08/91	ND	ND	ND	ND	ND	ND	—	---	---
	02/06/92	120	ND	ND	ND	ND	2.5 [a]	---	---	---
	05/04/92	ND	ND	ND	ND	ND	53	---	---	---
	07/28/92	ND	ND	ND	ND	ND	60	ND	—	---
	10/27/92	ND	ND	ND	ND	ND	ND	---	---	---
	01/14/93	ND	ND	ND	ND	ND	ND	120	---	---
	04/23/93	ND	ND	ND	ND	ND	ND	170	---	---
	07/21/93	ND	2.2	ND	1.1	7.7	ND	—	---	---
	10/18/93	ND	ND	1.2	ND	ND	ND	200	---	—
	01/06/94	ND	ND	ND	ND	ND	ND	ND	—	---
	04/13/94	ND	ND	ND	ND	ND	76	390	---	---
	07/26/94	ND	ND	ND	ND	ND	ND	ND	—	---
	10/26/94	ND	ND	ND	ND	ND	ND	ND	---	---
	01/11/95	ND	ND	ND	ND	ND	0.07 [b,g]	ND	—	—
	04/11/95	ND	1.5	ND	0.6	3.4	140	ND	---	---
	07/19/95	ND	13	3.4	ND	ND	160	NC	---	---
	01/09/96	<50	<0.5	ND	<0.5	<0.5	ND	ND	ND	—
	04/02/96	<50	<0.5	<0.5	<0.5	<0.5	---	<500	<2.5	—
	10/08/96	<50	<0.5	<0.5	<0.5	<0.5	81	<500	<2.5	—
	04/03/97	<50	<0.50	<0.50	<0.50	<0.50	69	<500	<2.5	1.8
MW-5	05/23/89	26,000	1,500	280	ND	8,100	7,000	---	---	---
	08/05/89	12,000	860	94	ND	2,600	8,700	---	---	---
	12/15/89	1,000	22	35	18	44	710	—	—	—
	02/08/90	ND	0.8	ND	ND	ND	620	---	---	---

Table 2. Ground Water Analytic Data - Shell Service Station, WIC# 204-5508-5504, 285 Hegenbergerger Rd., Oakland, CA

Well	Date Sampled	TPPH	Benzene	Toluene	Ethylbenzene	Xylenes	TEPH	TPHmo	MTBE	DO (ppm)
		← (concentrations in ppb) →								
	04/19/90	19,000	4,500	850	97	8,000	5,000	---	---	---
	07/24/90	23,000	3,600	400	160	6,500	2,700	---	---	---
	09/28/90	5,400	1,400	26	13	1,300	550	---	---	---
	01/02/91	860	280	2.8	0.8	45	560	---	---	---
	04/09/91	12,000	710	130	500	2,400	1,800	---	---	---
	07/11/91	24,000	2,200	280	430	5,700	1,700	---	---	---
	10/08/91	2,800	860	13	ND	580	1,400	---	---	---
	02/06/92	1,000	300	ND	14	62	1,200	---	---	---
	05/05/92	10,000	1,500	350	710	2,300	4.1 [a]	---	---	---
	07/28/92	12,000	2,200	63	1,400	3,500	3.8 [a]	1,200	---	---
	10/27/92	7,500	1,100	59	230	900	0.48 [a]	---	---	---
	01/15/93	7,700	420	49	570	840	1.1 [c]	430	---	---
	04/23/93	110,000	2,900	2,500	3,400	12,000	16 [a]	ND	---	---
	07/21/93	18 [d]	1,400 [d]	84 [d]	1,500 [d]	3,200 [d]	1.2 [a]	---	---	---
	10/18/93	14,000	2,000	100	2,300	5,100	5.8 [a]	860	---	---
	01/06/94	81,000	11,000	9,300	3,600	12,000	11 [a]	ND	---	---
	04/12/94	17,000	2,900	380	430	1,300	4,100	2,200	---	---
	07/25/94	5,900	1,500	42	34	170	5.4 [a]	ND	---	---
	10/26/94	2,300	35	3	ND	8	1.9 [a]	720,000	---	---
	01/11/95	8,300	1,500	95	330	1,900	3.7 [c]	ND	---	---
	04/11/95	7,300	1,200	230	600	550	9,800	ND	---	---
	07/19/95	17,000	2,300	730	770	2,500	5,100	NC	---	---
	10/08/96 [#]	---	---	---	---	---	---	---	---	---
	04/03/97 [#]	---	---	---	---	---	---	---	---	---
MW-6	05/23/89	22,000	16	6.5	7	3,400	7,000	---	---	---
	08/04/89	28,000	1,200	130	2,100	2,800	8,800	---	---	---
	12/15/89	16,000	370	92	200	180	5,500	---	---	---
	02/07/90	22,000	520	85	630	770	2,600	---	---	---
	04/18/90	21,000	900	77	2,700	2,700	5,700	---	---	---
	07/24/90	24,000	1,000	94	3,400	2,700	3,000	---	---	---
	10/01/90	22,000	700	93	2,500	2,400	ND	---	---	---
	01/02/91	25,000	1,000	88	2,600	3,700	960	---	---	---
	04/09/91	18,000	560	190	480	830	920	---	---	---
	07/11/91	9,500	670	51	1,100	920	1,900	---	---	---
	10/08/91	11,000	1,000	43	ND	ND	5,100	---	---	---
	02/06/92	7,200	560	8	720	160	15 [a]	---	---	---
	05/05/92	7,900	610	ND	1,500	240	2.9 [a]	---	---	---
	07/28/92	17,000	1,200	ND	3,000	610	3.2 [a]	ND	---	---
	10/27/92	15,000	1,300	130	1,700	490	1.3 [a]	---	---	---
	01/14/93	4,900	80	31	330	37	1.6 [a]	ND	---	---
	04/23/93	4,800	120	ND	780	73	1.8 [a]	ND	---	---
	07/20/93	19 [d]	570 [d]	18 [d]	1,100 [d]	130 [d]	0.91 [a]	---	---	---
	10/18/93	24,000	770	440	1,600	830	2.5 [a]	830	---	---
	01/06/94	20 [d]	450 [d]	30 [d]	530 [d]	52 [d]	2.3a [a]	ND	---	---

Table 2. Ground Water Analytic Data - Shell Service Station, WIC# 204-5508-5504, 285 Hegenberger Rd., Oakland, CA

Well	Date Sampled		TPPH	Benzene	Toluene	Ethylbenzene	Xylenes	TEPH	TPHmo	MTBE	DO (ppm)
			← (concentrations in ppb) →							→	
	04/12/94		3,600	150	ND	340	21	1,600	580	---	---
	07/25/94		1,600	160	ND	ND	10	2.2 [a*]	ND	---	---
	07/25/94	dup	1,000	160	ND	ND	18	2.4 [a]	ND	---	---
	10/26/94		9,800	390	22	300	57	3.0 [a]	ND	---	---
	01/09/95		2,200	74	12	400	39	0.8 [a]	ND	---	---
	04/11/95		5,000	330	15	760	85	7,700	ND	---	---
	07/19/95		4,200	320	11	490	22	1,700	NC	---	---
	01/09/96		5,600	59	<5	180	12	790	ND	14,000	---
	04/02/96		1,500	12	<5	170	9	---	<500	1,900	---
	10/03/96		2,600	110	<25	<25	<25	1,800	690	11,000	2.2
	04/03/97		<2,500	30	<25	32	<25	650	<500	10,000	2.0
MW-7	05/23/89		47,000	3,500	5,000	1,500	7,800	11,000	---	---	---
	08/04/89		68,000	6,200	6,600	3,600	8,800	22,000	---	---	---
	12/15/89		100,000	4,500	5,300	1,300	5,300	12,000	---	---	---
	02/08/90		96,000	15,000	15,000	2,500	14,000	8,100	---	---	---
	04/19/90		94,000	25,000	13,000	3,300	13,000	10,000	---	---	---
	07/24/90		84,000	3,800	26,000	13,000	3,000	12,000	---	---	---
	09/28/90		43,000	25,000	6,100	2,400	9,000	ND	---	---	---
	01/02/91		78,000	26,000	16,000	3,000	14,000	3,100	---	---	---
	04/09/91		140,000	26,000	16,000	2,200	14,000	1,800	---	---	---
	07/11/91		79,000	7,700	7,200	2,300	10,000	1,100	---	---	---
	10/08/91		55,000	29,000	7,500	1,800	9,300	0.39 [a]	---	---	---
	02/06/92		63,000	16,000	8,700	1,600	7,400	9.6 [a]	---	---	---
	05/05/92		67,000	22,000	13,000	1,800	9,400	9.8 [a]	---	---	---
	07/28/92		85,000	26,000	17,000	2,900	15,000	13 [a]	ND	---	---
	10/27/92		63,000	21,000	11,000	3,000	11,000	1.9 [a]	---	---	---
	01/14/93		120,000	28,000	21,000	1,600	15,000	2.3 [a]	---	---	---
	04/23/93		60,000	17,000	3,700	2,200	11,000	12 [a]	ND	---	---
	04/23/93	dup	50,000	17,000	4,200	2,200	11,000	14 [a]	ND	---	---
	07/21/93		47,000	23,000	9,900	2,200	12,000	13,000	---	---	---
	10/18/93		44,000	22,000	3,800	2,600	10,000	10 [a]	1,000	---	---
	01/06/94		65,000	16,000	4,900	1,900	8,500	5.2 [a]	ND	---	---
	04/12/94		68,000	12,000	2,000	580	6,400	3,400	750	---	---
	07/25/94		63,000	16,000	5,800	300	8,300	4.2 [a]	ND	---	---
	10/26/94		46,000	16,000	3,700	1,200	7,300	3.8 [a]	ND	---	---
	01/11/95		62,000	24,000	8,500	1,100	9,400	3.3 [c]	ND	---	---
	01/11/95	dup	57,000	9,500	7,900	620	8,000	3.2 [c]	ND	---	---
	04/12/95		53,000	13,000	4,200	1,500	7,700	7,000	ND	---	---
	04/12/95	dup	55,000	11,000	3,700	1,300	6,400	7,600	ND	---	---
	07/19/95		95,000	24,000	8,000	2,100	12,000	2,700	NC	---	---
	10/03/96	#	---	---	---	---	---	---	---	---	---
	04/03/97	#	---	---	---	---	---	---	---	---	---
MW-8	05/23/89		ND	ND	ND	ND	ND	100	---	---	---

Table 2. Ground Water Analytic Data - Shell Service Station, WIC# 204-5508-5504, 285 Hegenbergerger Rd., Oakland, CA

Well	Date Sampled	TPPH	Benzene	Toluene	Ethylbenzene	Xylenes	TEPH	TPHmo	MTBE	DO (ppm)
		◄ (concentrations in ppb) ►								
	08/04/89	ND	ND	ND	ND	ND	75	---	---	---
	12/15/89	ND	ND	ND	ND	ND	ND	---	---	---
	03/08/90	ND	ND	ND	ND	ND	ND	---	---	---
	07/25/90	ND	ND	ND	ND	ND	ND	---	---	---
	09/28/90	ND	ND	ND	ND	ND	1100	---	---	---
	01/02/91	ND	1.3	ND	ND	ND	ND	---	---	---
	04/09/91	50	0.7	1.1	0.8	1	ND	---	---	---
	07/11/91	ND	ND	ND	ND	ND	ND	---	---	---
	10/08/91	ND	1.4	ND	ND	ND	ND	---	---	---
	02/06/92	ND	ND	0.7	ND	ND	0.06 [a]	---	---	---
	05/04/92	ND	ND	ND	ND	ND	0.21 [b]	---	---	---
	07/28/92	51	ND	ND	1	0.6	ND	150	---	---
	10/27/92	ND	ND	6.6	ND	ND	ND	---	---	---
	01/14/93	ND	ND	ND	ND	ND	0.064 [b]	---	---	---
	01/14/93 [dup]	ND	ND	ND	ND	ND	---	---	---	---
	04/23/93	ND	ND	ND	ND	ND	ND	150	---	---
	07/21/93	ND	0.7	0.7	0.8	4.1	ND	---	---	---
	10/18/93	ND	ND	800	ND	ND	ND	170	---	---
	01/06/94	ND	ND	ND	ND	ND	ND	ND	---	---
	04/13/94	ND	ND	ND	ND	ND	ND	220	---	---
	07/26/94	ND	ND	ND	ND	ND	ND	ND	---	---
	10/26/94	ND	ND	1	ND	ND	ND	ND	---	---
	01/11/95	ND	ND	ND	ND	ND	0.07 [b,g]	ND	---	---
	04/11/95	ND	0.63	1.3	ND	0.75	78	ND	---	---
	07/19/95	ND	ND	ND	ND	ND	130	NC	---	---
	01/09/96	<50	<0.5	<0.5	<0.5	<0.5	ND	ND	ND	---
	04/02/96	<50	<0.5	<0.5	<0.5	<0.5	---	<500	<2.5	---
	10/03/96	<50	<0.5	<0.5	<0.5	<0.5	<69	<500	<2.5	---
	04/03/97	<50	<0.50	<0.50	<0.50	0.91	62	<500	<2.5	2.0
MW-9	08/04/89	47,000	5,600	6,600	1,500	8,500	12,000	---	---	---
	12/15/89	88,000	4,300	5,400	140	5,600	9,200	---	---	---
	02/08/90	50,000	1,800	1,400	3,200	1,800	7,400	---	---	---
	04/19/90	50,000	14,000	11,000	730	10,000	7,500	---	---	---
	07/24/90	62,000	19,000	16,000	950	15,000	3,200	---	---	---
	09/28/90	30,000	16,000	6,500	980	11,000	2,700	---	---	---
	01/02/91	34,000	9,200	3,200	770	7,000	2,500	---	---	---
	04/09/91	66,000	17,000	13,000	1,400	14,000	2,200	---	---	---
	07/11/91	40,000	7,700	3,200	1,100	9,400	2,000	---	---	---
	10/08/91	20,000	11,000	640	240	6,000	4.7 [a]	---	---	---
	02/06/92	36,000	11,000	490	1,100	6,700	6.6 [a]	---	---	---
	05/05/92	31,000	11,000	1,700	1,200	8,700	5.8 [a]	---	---	---
	07/28/92	50,000	17,000	1,200	1,500	12,000	14,000	ND	---	---
	10/27/92	43,000	15,000	680	1,700	8,100	0.88 [a]	---	---	---
	01/15/93	52,000	9,600	1,100	1,100	7,000	0.73 [a]	---	---	---

Table 2. Ground Water Analytic Data - Shell Service Station, WIC# 204-5508-5504, 285 Hegenbergerger Rd., Oakland, CA

Well	Date Sampled		TPPH	Benzene	Toluene	Ethylbenzene	Xylenes	TEPH	TPHmo	MTBE	DO
			← (concentrations in ppb) →								(ppm)
	04/23/93		45,000	11,000	1,400	1,500	10,000	8 [a]	150	---	---
	07/21/93		25,000	10,000	320	1,100	7,100	5,100	---	---	---
	10/18/93		32,000	14,000	530	2,000	10,000	4.9 [a]	---	---	---
	01/06/94		41,000	15,000	810	1,400	9,000	7.7 [a]	---	---	---
	01/06/94	dup	43,000	15,000	920	1,300	8,000	8.3 [a]	---	---	---
	04/13/94		39,000	8,300	ND	ND	4,000	2,000	220	---	---
	07/26/94		22,000	7,500	150	ND	4,100	3.6 [a]	ND	---	---
	10/26/94		31,000	13,000	240	1,000	8,500	3.2 [a]	ND	---	---
	10/26/94	dup	31,000	13,000	220	1,100	8,300	3.5 [a]	---	---	---
	01/11/95		4,800	1,200	510	42	1,400	2.3 [c]	ND	---	---
	04/12/95		20,000	5,100	460	400	3,400	3,400	ND	---	---
	07/19/95		43,000	12,000	1,800	960	9,100	2,900	NC	---	---
	01/09/96		64,000	12,000	5,400	1,800	10,000	2,800	ND	2100	---
	04/02/96		39,000	10,000	100	520	4,100	---	<500	<500	---
	10/03/96		46,000	12,000	180	1,400	6,700	3,100	570	2,300	1.4
	04/03/97		36,000	9,700	140	580	5,900	2,300	<500	<500	0.8
MW-10	12/15/89		ND	1,500	ND	ND	ND	3,100	---	---	---
	03/08/90		25,000	17,000	330	2,100	1,400	1,800	---	---	---
	04/19/90		23,000	15,000	1,200	190	3,300	3,600	---	---	---
	07/25/90		18,000	12,000	380	ND	1,400	1,900	---	---	---
	09/28/90		9,500	13,000	100	1,800	230	430	---	---	---
	01/02/91		4,300	3,700	10	ND	110	630	---	---	---
	04/09/91		45,000	16,000	4,600	3,000	6,900	1,400	---	---	---
	07/11/91		ND	ND	ND	ND	ND	ND	---	---	---
	10/08/91		3,800	13,000	82	9	500	1.5 [a]	---	---	---
	02/06/92		22,000	12,000	ND	600	170	1.6 [a]	---	---	---
	05/05/92		39,000	14,000	5,000	1,800	5,000	8 [a]	---	---	---
	07/28/92		38,000	17,000	2,800	1,500	4,000	8.7 [a]	ND	---	---
	10/27/92		----------								
	01/14/93		26,000	10,000	ND	ND	160	0.95 [c]	200	---	---
	04/23/93		80,000	21,000	13,000	3,400	12,000	19 [a]	ND	---	---
	07/21/93		31,000	14,000	4,200	1,700	5,500	4,800	---	---	---
	10/18/93		13,000	8,600	220	ND	450	1.2 [a]	610	---	---
	01/06/94		16,000	9,700	ND(<125)	ND(<125)	210	0.67 [a]	620	---	---
	04/13/94		16,000	5,600	ND	ND	ND	860	270	---	---
	07/25/94		2,300	1,400	26	25	51	2.1 [a]	ND	---	---
	10/26/94		1,400	290	5	2	38	1.0 [a]	ND	---	---
	01/11/95		16,000	7,500	1,400	230	1,500	2.3 [c]	ND	---	---
	04/11/95		54,000	13,000	4,500	1,500	4,500	5,000	ND	---	---
	07/19/95		72,000	20,000	7,200	2,800	9,000	2,600	NC	---	---
	01/09/96		32,000	8,000	1,600	880	3,200	2,100	ND	12,000	---
	04/02/96		68,000	9,100	2,300	1,100	3,700	---	<500	3,300	---
	10/03/96		33,000	11,000	1,300	830	2,400	2,900	<2.5	7,300	1.7
	10/03/96	dup	40,000	12,000	1,700	1,100	3,100	3,300	<2.5	6,500	1.7

Table 2. Ground Water Analytic Data - Shell Service Station, WIC# 204-5508-5504, 285 Hegenbergerger Rd., Oakland, CA

Well	Date Sampled	TPPH	Benzene	Toluene	Ethylbenzene	Xylenes	TEPH	TPHmo	MTBE	DO (ppm)
		← (concentrations in ppb) →								
	04/03/97	36,000	12,000	2,300	1,400	4,500	3,400	<1,000	2,300	1.8
	04/03/97 dup	52,000	12,000	2,300	1,400	4,500	3,000	<500	2,100	1.8
MW-11	07/20/93	50	2.5	1.9	3.9	18	ND	---	---	---
	10/18/93	ND	ND	ND	ND	ND	65	260	---	---
	01/06/94	ND	ND	ND	ND	ND	ND	ND	---	---
	04/13/94	ND	1.1	0.87	ND	1.5	ND	ND	---	---
	07/25/94	ND	ND	ND	ND	ND	ND	ND	---	---
	10/26/94	ND	ND	ND	ND	ND	100	ND	---	---
	01/11/95	ND	ND	ND	ND	ND	ND	ND	---	---
	04/11/95	ND	ND	0.7	ND	0.5	140	ND	---	---
	07/19/95	ND	ND	ND	ND	ND	50	NC	---	---
	01/09/96	<50	<0.5	<0.5	<0.5	<0.5	ND	ND	ND	---
	04/02/96	<50	<0.5	<0.5	<0.5	<0.5	---	<500	<2.5	---
	10/03/96	<50	<0.5	<0.5	<0.5	<0.5	<50	<500	<2.5	3.6
	04/03/97	<50	<0.50	<0.50	<0.50	<0.50	<50	<500	<2.5	2.2
MW-12	07/20/93	ND	2.8	1.9	3.2	ND	15	---	---	---
	10/18/93	ND	ND	ND	ND	ND	ND	120	---	---
	01/06/94	ND	ND	ND	ND	ND	ND	ND	---	---
	04/13/94	ND	0.61	ND	ND	1.1	ND	ND	---	---
	07/25/94	ND	ND	ND	ND	ND	ND	ND	---	---
	10/26/94	ND	ND	ND	ND	ND	ND	ND	---	---
	01/09/95	ND	ND	ND	ND	ND	0.080 [b]	ND	---	---
	04/11/95	ND	ND	ND	ND	ND	200	ND	---	---
	07/19/95	ND	ND	ND	ND	ND	90	NC	---	---
	01/09/96	<50	<0.5	<0.5	<0.5	<0.5	ND	ND	ND	---
	04/02/96	<50	<0.5	<0.5	<0.5	<0.5	---	<500	<2.5	---
	10/03/96	<50	<0.5	<0.5	<0.5	<0.5	72	<500	<2.5	2.5
	04/03/97	<50	<0.50	<0.50	<0.50	<0.50	74	<500	<2.5	2.2
MW-13	07/21/93	ND	ND	ND	ND	ND	1.5	---	---	---
	07/21/93 dup	ND	ND	ND	ND	ND	1	---	---	---
	10/18/93	ND	ND	ND	ND	ND	ND	100	---	---
	01/06/94	ND	ND	ND	ND	ND	ND	ND	---	---
	04/13/94	ND	1.7	1.2	0.59	2.4	100	72	---	---
	07/25/94	ND	ND	ND	ND	ND	ND	ND	---	---
	10/26/94	ND	ND	ND	ND	ND	ND	ND	---	---
	01/09/95	ND	ND	ND	ND	ND	ND	ND	---	---
	04/11/95	ND	ND	ND	ND	ND	320	ND	---	---
	07/19/95	ND	ND	ND	ND	ND	ND	NC	---	---
	01/09/96	<50	<0.5	<0.5	<0.5	<0.5	ND	ND	ND	---
	04/02/96	<50	<0.5	<0.5	<0.5	<0.5	---	<500	<2.5	---
	10/03/96	<50	<0.5	<0.5	<0.5	<0.5	<50	<500	<2.5	3.0
	04/03/97	<50	<0.50	<0.50	<0.50	<0.50	<50	<500	<2.5	2.0

Table 2. Ground Water Analytic Data - Shell Service Station, WIC# 204-5508-5504, 285 Hegenbergerger Rd., Oakland, CA

Well	Date Sampled	TPPH	Benzene	Toluene	Ethylbenzene	Xylenes	TEPH	TPHmo	MTBE	DO (ppm)
		← (concentrations in ppb) →								
MCLs		NE	1	150	700	1,750	NE	NE	NE	NE

Notes and Abbreviations:

TPPH = Total purgeable petroleum hydrocarbons
TEPH = Total extractable petroleum hydrocarbons
TPHmo = Total petroleum hydrocarbons as motor oil
MTBE = Methyl tert-Butyl Ether by EPA Method 8020. Result in parentheses indicates MTBE by EPA Method 8260.
DO = Dissolved Oxygen
ppb = Parts per billion
ppm = Parts per million
ND = Not detected
--- = Not analyzed
NC = Analyses included in TEPH (C10-C28).
dup = Duplicate sample
# = Well not located by sample team.
+ = TPH as diesel analysis from April 8, 1993.
* = Sampled August 4, 1994.
** = Also analyzed for oil and grease; results ND
MCLs = California Primary Maximum Contaminant Levels for drinking water (22 CCR 64444)
NE = MCL not established

a. Compound detected and calculated as TPH as diesel primarily appears to be due to a lighter petroleum product.
b. Compound detected and calculated as diesel appears to be a heavier hydrocarbon compound.
c. Compound detected as TPH as diesel is due to the presence of a combination of a heavier petroleum product and a lighter petroleum product.
d. Compound detected as gasoline is due to the presence of a combination of gasoline and a discrete peak not indicative of gasoline.
f. Result has an atypical gasoline pattern.
g. Result is an unknown hydrocarbon that consists of a single peak.

Benzene, Toluene, Ethylbenzene, and Total Xylenes by EPA Method 8020.

Prior to June 1995, TPPH was calculated as gasoline and TEPH was calculated as diesel and motor oil.

See individual certified analytical reports for detection limits.

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

April 24, 1997

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

Attn: Alex Perez

Shell WIC #204-5508-5504
285 Hegenberger Road
Oakland, California

2nd Quarter 1997

Quarterly Groundwater Monitoring Report 970403-X-1

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

Groundwater monitoring at this site was performed in accordance with Standard Operating Procedures provided to the interested regulatory agencies. If you have any questions about the work performed at this site please call me at (408) 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	04/03/97	TOC	ODOR	NONE	--	--	2.84	9.39
MW-2	04/03/97	TOC	--	NONE	--	--	3.99	9.60
MW-3	04/03/97	TOC	--	NONE	--	--	4.20	9.67
MW-4	04/03/97	TOC	--	NONE	--	--	3.74	10.04
MW-5	04/03/97	INACCESSIBLE						
MW-6	04/03/97	TOC	ODOR	NONE	--	--	4.42	10.95
MW-7	04/03/97	INACCESSIBLE						
MW-8	04/03/97	TOC	--	NONE	--	--	4.58	9.89
MW-9	04/03/97	TOC	ODOR	NONE	--	--	3.98	10.80
MW-10 *	04/03/97	TOC	ODOR	NONE	--	--	3.45	10.00
MW-11	04/03/97	TOC	--	NONE	--	--	8.31	14.00
MW-12	04/03/97	TOC	--	NONE	--	--	6.13	14.58
MW-13	04/03/97	TOC	--	NONE	--	--	7.58	14.30

* Sample DUP was a duplicate sample taken from well MW-10.

9704360/9704361

SHELL OIL COMPANY
RETAIL ENVIRONMENTAL ENGINEERING - WEST

CHAIN OF CUSTODY RECORD
Serial No: 9704038x1

Date:
Page 1 of 2

Site Address: 285 Hegenberger Rd., Oakland, CA

WIC#: 204-5508-5504

Shell Engineer: R. Jeff Granberry — Phone No.: (510) 675-6168 Fax #: 675-6172

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

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

Comments:

Sampled by: K. Wellborn

Printed Name: Ken Werkelingfeld

LAB: Sequoia

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 MTBE	motor oil		Asbestos	Container Size	Preparation Used	Composite Y/N	MATERIAL DESCRIPTION	SAMPLE CONDITION/ COMMENTS
mw-1	4/3			X		5		X				X	X							
mw-2																				
mw-3																				
mw-4																				
mw-6																				
mw-8																				
mw-9																				
mw-10	↓			↓		↓		↓				↓	↓							

CHECK ONE (1) BOX ONLY

		CT/DT
G.W. Monitoring	X	4461
Site Investigation		4441
Soil Classify/Disposal		4442
Water Classify/Disposal		4443
Soil/Air Rem. or Sys. O & M		4452
Water Rem. or Sys. O & M		4453
Other		

TURN AROUND TIME

- 24 hours ☐
- 48 hours ☐
- 15 days ☒ (Normal)
- Other ☐ ____

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

UST AGENCY: ____

	Printed Name	Date	Time	Received (signature)	Printed Name	Date	Time
Relinquished By (signature): K. Wellborn	Ken Werkelingfeld	4/4/97	1010	S. Kemnitz	S. Kemnitz	4/4/97	1010
Relinquished By (signature): S. Kemnitz	S. Kemnitz	4/4/97	1147				
Relinquished By (signature):				Received (signature): Abad	Abad	4/4/97	1147

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

AP 4 11 47

SHELL OIL COMPANY
RETAIL ENVIRONMENTAL ENGINEERING - WEST

CHAIN OF CUSTODY RECORD
Serial No: 970403x1

Date:
Page 2 of 2

Site Address: 285 Hegenberger Rd., Oakland, CA

WIC#: 204-5508-5504

Shell Engineer: R. Jeff Granberry
Phone No.: (510) 675-6168
Fax #: 675-6172

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

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

Comments:

Sampled by: K. Weddingfeld

Printed Name: Ken Weddingfeld

LAB: SEQUOIA

CHECK ONE (1) BOX ONLY	CT/DT	TURN AROUND TIME
G.W. Monitoring [X]	4461	24 hours [ ]
Site Investigation [ ]	4441	48 hours [ ]
Soil Classify/Disposal [ ]	4442	16 days [X] (Normal)
Water Classify/Disposal [ ]	4443	Other [ ] ______
Soil/Air Rem. or Sys. O & M [ ]	4452	NOTE: Notify Lab as soon as Possible of 24/48 hrs. TAT.
Water Rem. or Sys. O & M [ ]	4453	
Other [ ]		

UST AGENCY: ______

Analysis Required

Sample ID	Date	Sludge	Soil	Water	Air	No. of conts.	TPH (EPA 8015 Mod. Gas)	TPH (EPA 8015 Mod. Diesel)	BTEX (EPA 8020/602)	Volatile Organics (EPA 8240)	Test for Disposal	Combination TPH 8015 & BTEX 8020 MTBE	Motor Oil		Asbestos	Container Size	Preparation Used	Composite Y/N	MATERIAL DESCRIPTION	SAMPLE CONDITION/ COMMENTS
mw-11	4/3			X		5		X	X			X	X							AP 4 11 47
mw-12																				
mw-13																				
EB																				
Dup																				

Relinquished By (signature)	Printed Name	Date/Time	Received (signature)	Printed Name	Date/Time
K. Weddingfeld	Ken Weddingfeld	Date: 4/4/97 Time: 1020	S. Kemnitz	S. Kemnitz	Date: 4/4/97 Time: 1020
S. Kemnitz	S. Kemnitz	Date: 4/4/97 Time: 1147			Date: Time:
		Date: Time:	Abad	Abad	Date: 4/4/97 Time: 11:47

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

Sequoia Analytical

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

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

Project: Shell Oakland/970403X1

Enclosed are the results from samples received at Sequoia Analytical on April 3, 1997. The requested analyses are listed below:

SAMPLE #	SAMPLE DESCRIPTION	DATE COLLECTED	TEST METHOD
9704360 -01	LIQUID, MW-1	04/03/97	TPHD_W Extractable TPH
9704360 -01	LIQUID, MW-1	04/03/97	TPHMOW Fuel Fingerprint/Mo
9704360 -01	LIQUID, MW-1	04/03/97	TPGBMW Purgeable TPH/BTEX
9704360 -02	LIQUID, MW-2	04/03/97	TPHD_W Extractable TPH
9704360 -02	LIQUID, MW-2	04/03/97	TPHMOW Fuel Fingerprint/Mo
9704360 -02	LIQUID, MW-2	04/03/97	TPGBMW Purgeable TPH/BTEX
9704360 -03	LIQUID, MW-3	04/03/97	TPHD_W Extractable TPH
9704360 -03	LIQUID, MW-3	04/03/97	TPHMOW Fuel Fingerprint/Mo
9704360 -03	LIQUID, MW-3	04/03/97	TPGBMW Purgeable TPH/BTEX
9704360 -04	LIQUID, MW-4	04/03/97	TPHD_W Extractable TPH
9704360 -04	LIQUID, MW-4	04/03/97	TPHMOW Fuel Fingerprint/Mo
9704360 -04	LIQUID, MW-4	04/03/97	TPGBMW Purgeable TPH/BTEX
9704360 -05	LIQUID, MW-6	04/03/97	TPHD_W Extractable TPH
9704360 -05	LIQUID, MW-6	04/03/97	TPHMOW Fuel Fingerprint/Mo
9704360 -05	LIQUID, MW-6	04/03/97	TPGBMW Purgeable TPH/BTEX
9704360 -06	LIQUID, MW-8	04/03/97	TPHD_W Extractable TPH
9704360 -06	LIQUID, MW-8	04/03/97	TPHMOW Fuel Fingerprint/Mo
9704360 -06	LIQUID, MW-8	04/03/97	TPGBMW Purgeable TPH/BTEX
9704360 -07	LIQUID, MW-9	04/03/97	TPHD_W Extractable TPH
9704360 -07	LIQUID, MW-9	04/03/97	TPHMOW Fuel Fingerprint/Mo
9704360 -07	LIQUID, MW-9	04/03/97	TPGBMW Purgeable TPH/BTEX

SEQUOIA ANALYTICAL

Sequoia Analytical

680 Chesapeake Drive, Redwood City, CA 94063, (415) 364-9600, FAX (415) 364-9233
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819 Striker Avenue, Suite 8, Sacramento, CA 95834, (916) 921-9600, FAX (916) 921-0100

SAMPLE #	SAMPLE DESCRIPTION	DATE COLLECTED	TEST METHOD
9704360 -08	LIQUID, MW-10	04/03/97	TPHD_W Extractable TPH
9704360 -08	LIQUID, MW-10	04/03/97	TPHMOW Fuel Fingerprint/Mo
9704360 -08	LIQUID, MW-10	04/03/97	TPGBMW Purgeable TPH/BTEX
9704360 -09	LIQUID, MW-11	04/03/97	TPHD_W Extractable TPH
9704360 -09	LIQUID, MW-11	04/03/97	TPHMOW Fuel Fingerprint/Mo
9704360 -09	LIQUID, MW-11	04/03/97	TPGBMW Purgeable TPH/BTEX
9704360 -10	LIQUID, MW-12	04/03/97	TPHD_W Extractable TPH
9704360 -10	LIQUID, MW-12	04/03/97	TPHMOW Fuel Fingerprint/Mo
9704360 -10	LIQUID, MW-12	04/03/97	TPGBMW Purgeable TPH/BTEX
9704360 -11	LIQUID, MW-13	04/03/97	TPHD_W Extractable TPH
9704360 -11	LIQUID, MW-13	04/03/97	TPHMOW Fuel Fingerprint/Mo
9704360 -11	LIQUID, MW-13	04/03/97	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

Sequoia Analytical

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

Project: Shell Oakland/970403X1

Enclosed are the results from samples received at Sequoia Analytical on April 3, 1997. The requested analyses are listed below:

SAMPLE #	SAMPLE DESCRIPTION	DATE COLLECTED	TEST METHOD
9704361 -12	LIQUID, EB	04/03/97	TPHD_W Extractable TPH
9704361 -12	LIQUID, EB	04/03/97	TPHMOW Fuel Fingerprint/Mo
9704361 -12	LIQUID, EB	04/03/97	TPGBMW Purgeable TPH/BTEX
9704361 -13	LIQUID, DUP	04/03/97	TPHD_W Extractable TPH
9704361 -13	LIQUID, DUP	04/03/97	TPHMOW Fuel Fingerprint/Mo
9704361 -13	LIQUID, DUP	04/03/97	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

Sequoia Analytical

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Blaine Tech Services	Client Proj. ID: Shell Oakland/970403X1	Sampled: 04/03/97
1680 Rogers Avenue	Sample Descript: MW-1	Received: 04/03/97
San Jose, CA 95112	Matrix: LIQUID	Extracted: 04/09/97
	Analysis Method: EPA 8015 Mod	Analyzed: 04/10/97
Attention: Fran Thie	Lab Number: 9704360-01	Reported: 04/17/97

QC Batch Number: GC0409970HBPEXB
nstrument ID: GCHP4B

Total Extractable Petroleum Hydrocarbons (TEPH)

Analyte	Detection Limit ug/L	Sample Results ug/L
TEPH as Diesel	50	3000
Chromatogram Pattern:		C9-C24

Surrogates	Control Limits %		% Recovery
n-Pentacosane (C25)	50	150	92

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

SEQUOIA ANALYTICAL - ELAP #1210

Peggy Renner
Project Manager

Sequoia Analytical

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819 Striker Avenue, Suite 8, Sacramento, CA 95834, (916) 921-9600, FAX (916) 921-0100

Blaine Tech Services	Client Proj. ID: Shell Oakland/970403X1	Sampled: 04/03/97
1680 Rogers Avenue	Sample Descript: MW-1	Received: 04/03/97
San Jose, CA 95112	Matrix: LIQUID	Extracted: 04/09/97
	Analysis Method: EPA 8015 Mod	Analyzed: 04/10/97
Attention: Fran Thle	Lab Number: 9704360-01	Reported: 04/17/97

QC Batch Number: GC0409970HBPEXB
Instrument ID: GCHP4B

Fuel Fingerprint : Motor Oil

Analyte	Detection Limit ug/L	Sample Results ug/L
Extractable HC as Motor Oil	500	N.D.
Chromatogram Pattern:		

Surrogates	Control Limits %		% Recovery
n-Pentacosane (C25)	50	150	92

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

SEQUOIA ANALYTICAL - ELAP #1210

Peggy Penner
Project Manager

Sequoia Analytical

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Blaine Tech Services	Client Proj. ID: Shell Oakland/970403X1	Sampled: 04/03/97
1680 Rogers Avenue	Sample Descript: MW-1	Received: 04/03/97
San Jose, CA 95112	Matrix: LIQUID	
	Analysis Method: 8015Mod/8020	Analyzed: 04/12/97
Attention: Fran Thie	Lab Number: 9704360-01	Reported: 04/17/97

QC Batch Number: GC041297BTEX01A
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**	**29000**
Methyl t-Butyl Ether	**250**	**4300**
Benzene	**50**	**2300**
Toluene	**50**	**170**
Ethyl Benzene	**50**	**2300**
Xylenes (Total)	**50**	**2900**
Chromatogram Pattern:		**C6-C12**

Surrogates	Control Limits %		% Recovery
Trifluorotoluene	70	130	150 Q

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

SEQUOIA ANALYTICAL - ELAP #1210

Peggy Penner
Project Manager

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Blaine Tech Services	Client Proj. ID: Shell Oakland/970403X1	Sampled: 04/03/97
1680 Rogers Avenue	Sample Descript: MW-2	Received: 04/03/97
San Jose, CA 95112	Matrix: LIQUID	Extracted: 04/10/97
	Analysis Method: EPA 8015 Mod	Analyzed: 04/11/97
Attention: Fran Thie	Lab Number: 9704360-02	Reported: 04/17/97

QC Batch Number: GC0410970HBPEXA
Instrument ID: GCHP4B

Total Extractable Petroleum Hydrocarbons (TEPH)

Analyte	Detection Limit ug/L	Sample Results ug/L
TEPH as Diesel	**50**	**190**
Chromatogram Pattern:		**C9-C24**

Surrogates	Control Limits %		% Recovery
n-Pentacosane (C25)	50	150	90

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

SEQUOIA ANALYTICAL - ELAP #1210

Peggy Penner
Project Manager

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Blaine Tech Services	Client Proj. ID: Shell Oakland/970403X1	Sampled: 04/03/97
1680 Rogers Avenue	Sample Descript: MW-2	Received: 04/03/97
San Jose, CA 95112	Matrix: LIQUID	Extracted: 04/10/97
	Analysis Method: EPA 8015 Mod	Analyzed: 04/11/97
Attention: Fran Thie	Lab Number: 9704360-02	Reported: 04/17/97

QC Batch Number: GC0410970HBPEXA
Instrument ID: GCHP4B

Fuel Fingerprint : Motor Oil

Analyte	Detection Limit ug/L	Sample Results ug/L
Extractable HC as Motor Oil	500	N.D.
Chromatogram Pattern:		

Surrogates	Control Limits %		% Recovery
n-Pentacosane (C25)	50	150	90

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

SEQUOIA ANALYTICAL - ELAP #1210

Peggy Penner
Project Manager

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Blaine Tech Services	Client Proj. ID: Shell Oakland/970403X1	Sampled: 04/03/97
1680 Rogers Avenue	Sample Descript: MW-2	Received: 04/03/97
San Jose, CA 95112	Matrix: LIQUID	
	Analysis Method: 8015Mod/8020	Analyzed: 04/14/97
Attention: Fran Thie	Lab Number: 9704360-02	Reported: 04/17/97

QC Batch Number: GC041497BTEX18A
Instrument ID: GCHP18

Total Purgeable Petroleum Hydrocarbons (TPPH) with BTEX and MTBE

Analyte	Detection Limit ug/L	Sample Results ug/L
TPPH as Gas	1000	N.D.
Methyl t-Butyl Ether	**50**	**2800**
Benzene	10	N.D.
Toluene	10	N.D.
Ethyl Benzene	10	N.D.
Xylenes (Total)	10	N.D.
Chromatogram Pattern:		

Surrogates	Control Limits %		% Recovery
Trifluorotoluene	70	130	103

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

SEQUOIA ANALYTICAL - ELAP #1210

Peggy Penner
Project Manager

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Blaine Tech Services	Client Proj. ID: Shell Oakland/970403X1	Sampled: 04/03/97
1680 Rogers Avenue	Sample Descript: MW-3	Received: 04/03/97
San Jose, CA 95112	Matrix: LIQUID	Extracted: 04/09/97
	Analysis Method: EPA 8015 Mod	Analyzed: 04/10/97
Attention: Fran Thle	Lab Number: 9704360-03	Reported: 04/17/97

QC Batch Number: GC0409970HBPEXB
Instrument ID: GCHP4B

Total Extractable Petroleum Hydrocarbons (TEPH)

Analyte	Detection Limit ug/L	Sample Results ug/L
TEPH as Diesel	50	83
Chromatogram Pattern:		C9-C24

Surrogates	Control Limits %		% Recovery
n-Pentacosane (C25)	50	150	89

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

SEQUOIA ANALYTICAL - ELAP #1210

Peggy Penner
Project Manager

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Blaine Tech Services	Client Proj. ID: Shell Oakland/970403X1	Sampled: 04/03/97
1680 Rogers Avenue	Sample Descript: MW-3	Received: 04/03/97
San Jose, CA 95112	Matrix: LIQUID	Extracted: 04/09/97
	Analysis Method: EPA 8015 Mod	Analyzed: 04/10/97
Attention: Fran Thie	Lab Number: 9704360-03	Reported: 04/17/97

QC Batch Number: GC0409970HBPEXB
Instrument ID: GCHP4B

Fuel Fingerprint : Motor Oil

Analyte	Detection Limit ug/L	Sample Results ug/L
Extractable HC as Motor Oil Chromatogram Pattern:	500	N.D.

Surrogates	Control Limits %		% Recovery
n-Pentacosane (C25)	50	150	89

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

SEQUOIA ANALYTICAL - ELAP #1210

Peggy Penner
Project Manager

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Blaine Tech Services
1680 Rogers Avenue
San Jose, CA 95112

Attention: Fran Thie

Client Proj. ID: Shell Oakland/970403X1
Sample Descript: MW-3
Matrix: LIQUID
Analysis Method: 8015Mod/8020
Lab Number: 9704360-03

Sampled: 04/03/97
Received: 04/03/97

Analyzed: 04/12/97
Reported: 04/17/97

C Batch Number: GC041297BTEX01A
strument ID: GCHP01

Total Purgeable Petroleum Hydrocarbons (TPPH) with BTEX and MTBE

Analyte	Detection Limit ug/L	Sample Results ug/L
TPPH as Gas	**50**	**150**
Methyl t-Butyl Ether	**2.5**	**280**
Benzene	**0.50**	**3.2**
Toluene	0.50	N.D.
Ethyl Benzene	0.50	N.D.
Xylenes (Total)	**0.50**	**0.81**
Chromatogram Pattern:		**C6-C12**

Surrogates	Control Limits %		% Recovery
Trifluorotoluene	70	130	121

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

SEQUOIA ANALYTICAL - ELAP #1210

eggy Penner
roject Manager

Sequoia Analytical

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Blaine Tech Services
1680 Rogers Avenue
San Jose, CA 95112

Attention: Fran Thie

Client Proj. ID: Shell Oakland/970403X1
Sample Descript: MW-4
Matrix: LIQUID
Analysis Method: EPA 8015 Mod
Lab Number: 9704360-04

Sampled: 04/03/97
Received: 04/03/97
Extracted: 04/09/97
Analyzed: 04/10/97
Reported: 04/17/97

QC Batch Number: GC0409970HBPEXB
Instrument ID: GCHP4B

Total Extractable Petroleum Hydrocarbons (TEPH)

Analyte	Detection Limit ug/L	Sample Results ug/L
TEPH as Diesel	50	69
Chromatogram Pattern:		C9-C24

Surrogates	Control Limits %		% Recovery
n-Pentacosane (C25)	50	150	90

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

SEQUOIA ANALYTICAL - ELAP #1210

Peggy Perner
Project Manager

Sequoia Analytical

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819 Striker Avenue, Suite 8, Sacramento, CA 95834, (916) 921-9600, FAX (916) 921-0100

Blaine Tech Services	Client Proj. ID: Shell Oakland/970403X1	Sampled: 04/03/97
1680 Rogers Avenue	Sample Descript: MW-4	Received: 04/03/97
San Jose, CA 95112	Matrix: LIQUID	Extracted: 04/09/97
	Analysis Method: EPA 8015 Mod	Analyzed: 04/10/97
Attention: Fran Thie	Lab Number: 9704360-04	Reported: 04/17/97

C Batch Number: GC0409970HBPEXB
strument ID: GCHP4B

Fuel Fingerprint : Motor Oil

Analyte	Detection Limit ug/L	Sample Results ug/L
Extractable HC as Motor Oil	500	N.D.
Chromatogram Pattern:		

Surrogates	Control Limits %		% Recovery
n-Pentacosane (C25)	50	150	90

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

SEQUOIA ANALYTICAL - ELAP #1210

eggy Penner
roject Manager

Sequoia Analytical

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Blaine Tech Services	Client Proj. ID: Shell Oakland/970403X1	Sampled: 04/03/97
1680 Rogers Avenue	Sample Descript: MW-4	Received: 04/03/97
San Jose, CA 95112	Matrix: LIQUID	
	Analysis Method: 8015Mod/8020	Analyzed: 04/12/97
Attention: Fran Thle	Lab Number: 9704360-04	Reported: 04/17/97

QC Batch Number: GC041297BTEX01A
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:		

Surrogates	Control Limits %		% Recovery
Trifluorotoluene	70	130	110

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

SEQUOIA ANALYTICAL - ELAP #1210

Peggy Penner
Project Manager

Sequoia Analytical

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Blaine Tech Services	Client Proj. ID: Shell Oakland/970403X1	Sampled: 04/03/97
1680 Rogers Avenue	Sample Descript: MW-6	Received: 04/03/97
San Jose, CA 95112	Matrix: LIQUID	Extracted: 04/09/97
	Analysis Method: EPA 8015 Mod	Analyzed: 04/10/97
Attention: Fran Thie	Lab Number: 9704360-05	Reported: 04/17/97

QC Batch Number: GC0409970HBPEXB
nstrument ID: GCHP4B

Total Extractable Petroleum Hydrocarbons (TEPH)

Analyte	Detection Limit ug/L	Sample Results ug/L
TEPH as Diesel	**50**	**650**
Chromatogram Pattern:		**C9-C24**

Surrogates	Control Limits %		% Recovery
n-Pentacosane (C25)	50	150	91

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

SEQUOIA ANALYTICAL - ELAP #1210

Peggy Penner
Project Manager

Sequoia Analytical

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Blaine Tech Services
1680 Rogers Avenue
San Jose, CA 95112

Attention: Fran Thie

Client Proj. ID: Shell Oakland/970403X1
Sample Descript: MW-6
Matrix: LIQUID
Analysis Method: EPA 8015 Mod
Lab Number: 9704360-05

Sampled: 04/03/97
Received: 04/03/97
Extracted: 04/09/97
Analyzed: 04/10/97
Reported: 04/17/97

QC Batch Number: GC0409970HBPEXB
Instrument ID: GCHP4B

Fuel Fingerprint : Motor Oil

Analyte	Detection Limit ug/L	Sample Results ug/L
Extractable HC as Motor Oil Chromatogram Pattern:	500	N.D.
Surrogates	**Control Limits %**	**% Recovery**
n-Pentacosane (C25)	50 150	91

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

SEQUOIA ANALYTICAL - ELAP #1210

Peggy Penner
Project Manager

Sequoia Analytical

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Blaine Tech Services
1680 Rogers Avenue
San Jose, CA 95112

Attention: Fran Thie

Client Proj. ID: Shell Oakland/970403X1
Sample Descript: MW-6
Matrix: LIQUID
Analysis Method: 8015Mod/8020
Lab Number: 9704360-05

Sampled: 04/03/97
Received: 04/03/97

Analyzed: 04/14/97
Reported: 04/17/97

QC Batch Number: GC041497BTEX18A
Instrument ID: GCHP18

Total Purgeable Petroleum Hydrocarbons (TPPH) with BTEX and MTBE

Analyte	Detection Limit ug/L	Sample Results ug/L
TPPH as Gas	2500	N.D.
Methyl t-Butyl Ether	**125**	**10000**
Benzene	**25**	**30**
Toluene	25	N.D.
Ethyl Benzene	**25**	**32**
Xylenes (Total)	25	N.D.
Chromatogram Pattern:		

Surrogates	Control Limits %		% Recovery
Trifluorotoluene	70	130	101

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

EQUOIA ANALYTICAL - ELAP #1210

ggy Penner
oject Manager

Sequoia Analytical

680 Chesapeake Drive, Redwood City, CA 94063, (415) 364-9600, FAX (415) 364-9233
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819 Striker Avenue, Suite 8, Sacramento, CA 95834, (916) 921-9600, FAX (916) 921-0100

Blaine Tech Services	Client Proj. ID: Shell Oakland/970403X1	Sampled: 04/03/97
1680 Rogers Avenue	Sample Descript: MW-8	Received: 04/03/97
San Jose, CA 95112	Matrix: LIQUID	Extracted: 04/09/97
	Analysis Method: EPA 8015 Mod	Analyzed: 04/10/97
Attention: Fran Thie	Lab Number: 9704360-06	Reported: 04/17/97

QC Batch Number: GC0409970HBPEXB
Instrument ID: GCHP4B

Total Extractable Petroleum Hydrocarbons (TEPH)

Analyte	Detection Limit ug/L	Sample Results ug/L
TEPH as Diesel	**50**	**62**
Chromatogram Pattern:		**C9-C24**

Surrogates	Control Limits %		% Recovery
n-Pentacosane (C25)	50	150	91

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

SEQUOIA ANALYTICAL - ELAP #1210

Peggy Penner
Project Manager

Sequoia Analytical

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Blaine Tech Services	Client Proj. ID: Shell Oakland/970403X1	Sampled: 04/03/97
1680 Rogers Avenue	Sample Descript: MW-8	Received: 04/03/97
San Jose, CA 95112	Matrix: LIQUID	Extracted: 04/09/97
	Analysis Method: EPA 8015 Mod	Analyzed: 04/10/97
Attention: Fran Thie	Lab Number: 9704360-06	Reported: 04/17/97

C Batch Number: GC0409970HBPEXB
strument ID: GCHP4B

Fuel Fingerprint : Motor Oil

Analyte	Detection Limit ug/L	Sample Results ug/L
Extractable HC as Motor Oil	500	N.D.
Chromatogram Pattern:		

Surrogates	Control Limits %		% Recovery
n-Pentacosane (C25)	50	150	91

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

EQUOIA ANALYTICAL - ELAP #1210

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roject Manager

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Blaine Tech Services	Client Proj. ID: Shell Oakland/970403X1	Sampled: 04/03/97
1680 Rogers Avenue	Sample Descript: MW-8	Received: 04/03/97
San Jose, CA 95112	Matrix: LIQUID	
	Analysis Method: 8015Mod/8020	Analyzed: 04/14/97
Attention: Fran Thie	Lab Number: 9704360-06	Reported: 04/17/97

QC Batch Number: GC041497BTEX18A
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**	**0.91**
Chromatogram Pattern:		

Surrogates	Control Limits %		% Recovery
Trifluorotoluene	70	130	99

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

SEQUOIA ANALYTICAL - ELAP #1210

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Blaine Tech Services	Client Proj. ID: Shell Oakland/970403X1	Sampled: 04/03/97
1680 Rogers Avenue	Sample Descript: MW-9	Received: 04/03/97
San Jose, CA 95112	Matrix: LIQUID	Extracted: 04/09/97
	Analysis Method: EPA 8015 Mod	Analyzed: 04/10/97
Attention: Fran Thie	Lab Number: 9704360-07	Reported: 04/17/97

C Batch Number: GC0409970HBPEXB
strument ID: GCHP4B

Total Extractable Petroleum Hydrocarbons (TEPH)

Analyte	Detection Limit ug/L	Sample Results ug/L
TEPH as Diesel	50	**2300**
Chromatogram Pattern:		**C9-C24**

Surrogates	Control Limits %		% Recovery
n-Pentacosane (C25)	50	150	95

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

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Blaine Tech Services	Client Proj. ID: Shell Oakland/970403X1	Sampled: 04/03/97
1680 Rogers Avenue	Sample Descript: MW-9	Received: 04/03/97
San Jose, CA 95112	Matrix: LIQUID	Extracted: 04/09/97
	Analysis Method: EPA 8015 Mod	Analyzed: 04/10/97
Attention: Fran Thie	Lab Number: 9704360-07	Reported: 04/17/97

QC Batch Number: GC0409970HBPEXB
Instrument ID: GCHP4B

Fuel Fingerprint : Motor Oil

Analyte	Detection Limit ug/L	Sample Results ug/L
Extractable HC as Motor Oil Chromatogram Pattern:	500	N.D.

Surrogates	Control Limits %		% Recovery
n-Pentacosane (C25)	50	150	95

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

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Blaine Tech Services	Client Proj. ID: Shell Oakland/970403X1	Sampled: 04/03/97
1680 Rogers Avenue	Sample Descript: MW-9	Received: 04/03/97
San Jose, CA 95112	Matrix: LIQUID	
	Analysis Method: 8015Mod/8020	Analyzed: 04/14/97
Attention: Fran Thie	Lab Number: 9704360-07	Reported: 04/17/97

QC Batch Number: GC041497BTEX01A
Instrument ID: GCHP01

Total Purgeable Petroleum Hydrocarbons (TPPH) with BTEX and MTBE

Analyte	Detection Limit ug/L	Sample Results ug/L
TPPH as Gas	**10000**	**36000**
Methyl t-Butyl Ether	500	N.D.
Benzene	**100**	**9700**
Toluene	**100**	**140**
Ethyl Benzene	**100**	**580**
Xylenes (Total)	**100**	**3900**
Chromatogram Pattern:		**C6-C12**

Surrogates	Control Limits %		% Recovery
Trifluorotoluene	70	130	107

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

SEQUOIA ANALYTICAL - ELAP #1210

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Blaine Tech Services	Client Proj. ID: Shell Oakland/970403X1	Sampled: 04/03/97
1680 Rogers Avenue	Sample Descript: MW-10	Received: 04/03/97
San Jose, CA 95112	Matrix: LIQUID	Extracted: 04/14/97
	Analysis Method: EPA 8015 Mod	Analyzed: 04/15/97
Attention: Fran Thie	Lab Number: 9704360-08	Reported: 04/17/97

QC Batch Number: GC0411970HBPEXC
Instrument ID: GCHP4A

Total Extractable Petroleum Hydrocarbons (TEPH)

Analyte	Detection Limit ug/L	Sample Results ug/L
TEPH as Diesel	**100**	**3400**
Chromatogram Pattern:		**C9-C24**

Surrogates	Control Limits %		% Recovery
n-Pentacosane (C25)	50	150	101

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

SEQUOIA ANALYTICAL - ELAP #1210

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Blaine Tech Services	Client Proj. ID: Shell Oakland/970403X1	Sampled: 04/03/97
1680 Rogers Avenue	Sample Descript: MW-10	Received: 04/03/97
San Jose, CA 95112	Matrix: LIQUID	Extracted: 04/14/97
	Analysis Method: EPA 8015 Mod	Analyzed: 04/15/97
Attention: Fran Thie	Lab Number: 9704360-08	Reported: 04/17/97

C Batch Number: GC0411970HBPEXC
strument ID: GCHP4A

Fuel Fingerprint : Motor Oil

Analyte	Detection Limit ug/L	Sample Results ug/L
Extractable HC as Motor Oil	1000	N.D.
Chromatogram Pattern:		

Surrogates	Control Limits %		% Recovery
n-Pentacosane (C25)	50	150	101

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

EQUOIA ANALYTICAL - ELAP #1210

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roject Manager

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Blaine Tech Services	Client Proj. ID: Shell Oakland/970403X1	Sampled: 04/03/97
1680 Rogers Avenue	Sample Descript: MW-10	Received: 04/03/97
San Jose, CA 95112	Matrix: LIQUID	
	Analysis Method: 8015Mod/8020	Analyzed: 04/14/97
Attention: Fran Thie	Lab Number: 9704360-08	Reported: 04/17/97

QC Batch Number: GC041497BTEX18A
Instrument ID: GCHP18

Total Purgeable Petroleum Hydrocarbons (TPPH) with BTEX and MTBE

Analyte	Detection Limit ug/L	Sample Results ug/L
TPPH as Gas	**10000**	**36000**
Methyl t-Butyl Ether	**500**	**2300**
Benzene	**100**	**12000**
Toluene	**100**	**2300**
Ethyl Benzene	**100**	**1400**
Xylenes (Total)	**100**	**4500**
Chromatogram Pattern:		**C6-C12**

Surrogates	Control Limits %		% Recovery
Trifluorotoluene	70	130	102

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

SEQUOIA ANALYTICAL - ELAP #1210

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Blaine Tech Services	Client Proj. ID: Shell Oakland/970403X1	Sampled: 04/03/97
1680 Rogers Avenue	Sample Descript: MW-11	Received: 04/03/97
San Jose, CA 95112	Matrix: LIQUID	Extracted: 04/09/97
	Analysis Method: EPA 8015 Mod	Analyzed: 04/12/97
Attention: Fran Thie	Lab Number: 9704360-09	Reported: 04/17/97

QC Batch Number: GC0409970HBPEXB
Instrument ID: GCHP4B

Total Extractable Petroleum Hydrocarbons (TEPH)

Analyte	Detection Limit ug/L	Sample Results ug/L
TEPH as Diesel	50	N.D.
Chromatogram Pattern:		

Surrogates	Control Limits %		% Recovery
n-Pentacosane (C25)	50	150	91

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

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Blaine Tech Services	Client Proj. ID: Shell Oakland/970403X1	Sampled: 04/03/97
1680 Rogers Avenue	Sample Descript: MW-11	Received: 04/03/97
San Jose, CA 95112	Matrix: LIQUID	Extracted: 04/09/97
	Analysis Method: EPA 8015 Mod	Analyzed: 04/12/97
Attention: Fran Thie	Lab Number: 9704360-09	Reported: 04/17/97

QC Batch Number: GC0409970HBPEXB
Instrument ID: GCHP4B

Fuel Fingerprint : Motor Oil

Analyte	Detection Limit ug/L	Sample Results ug/L
Extractable HC as Motor Oil Chromatogram Pattern:	500	N.D.

Surrogates	Control Limits %		% Recovery
n-Pentacosane (C25)	50	150	91

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

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Blaine Tech Services	Client Proj. ID: Shell Oakland/970403X1	Sampled: 04/03/97
1680 Rogers Avenue	Sample Descript: MW-11	Received: 04/03/97
San Jose, CA 95112	Matrix: LIQUID	
	Analysis Method: 8015Mod/8020	Analyzed: 04/14/97
Attention: Fran Thie	Lab Number: 9704360-09	Reported: 04/17/97

QC Batch Number: GC041497BTEX18A
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	104

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

SEQUOIA ANALYTICAL - ELAP #1210

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Project Manager

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Blaine Tech Services	Client Proj. ID: Shell Oakland/970403X1	Sampled: 04/03/97
1680 Rogers Avenue	Sample Descript: MW-12	Received: 04/03/97
San Jose, CA 95112	Matrix: LIQUID	Extracted: 04/09/97
	Analysis Method: EPA 8015 Mod	Analyzed: 04/12/97
Attention: Fran Thie	Lab Number: 9704360-10	Reported: 04/17/97

QC Batch Number: GC0409970HBPEXB
Instrument ID: GCHP4B

Total Extractable Petroleum Hydrocarbons (TEPH)

Analyte	Detection Limit ug/L	Sample Results ug/L
TEPH as Diesel	**50**	**74**
Chromatogram Pattern:		**C9-C24**

Surrogates	Control Limits %		% Recovery
n-Pentacosane (C25)	50	150	95

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

SEQUOIA ANALYTICAL - ELAP #1210

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Blaine Tech Services	Client Proj. ID: Shell Oakland/970403X1	Sampled: 04/03/97
1680 Rogers Avenue	Sample Descript: MW-12	Received: 04/03/97
San Jose, CA 95112	Matrix: LIQUID	Extracted: 04/09/97
	Analysis Method: EPA 8015 Mod	Analyzed: 04/12/97
Attention: Fran Thie	Lab Number: 9704360-10	Reported: 04/17/97

C Batch Number: GC0409970HBPEXB
strument ID: GCHP4B

Fuel Fingerprint : Motor Oil

Analyte	Detection Limit ug/L	Sample Results ug/L
Extractable HC as Motor Oil	500	N.D.
Chromatogram Pattern:		

Surrogates	Control Limits %		% Recovery
n-Pentacosane (C25)	50	150	95

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

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Blaine Tech Services	Client Proj. ID: Shell Oakland/970403X1	Sampled: 04/03/97
1680 Rogers Avenue	Sample Descript: MW-12	Received: 04/03/97
San Jose, CA 95112	Matrix: LIQUID	
	Analysis Method: 8015Mod/8020	Analyzed: 04/12/97
Attention: Fran Thie	Lab Number: 9704360-10	Reported: 04/17/97

QC Batch Number: GC041297BTEX01A
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:		

Surrogates	Control Limits %		% Recovery
Trifluorotoluene	70	130	108

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

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Blaine Tech Services	Client Proj. ID: Shell Oakland/970403X1	Sampled: 04/03/97
1680 Rogers Avenue	Sample Descript: MW-13	Received: 04/03/97
San Jose, CA 95112	Matrix: LIQUID	Extracted: 04/09/97
	Analysis Method: EPA 8015 Mod	Analyzed: 04/12/97
Attention: Fran Thie	Lab Number: 9704360-11	Reported: 04/17/97

QC Batch Number: GC0409970HBPEXB
Instrument ID: GCHP4B

Total Extractable Petroleum Hydrocarbons (TEPH)

Analyte	Detection Limit ug/L	Sample Results ug/L
TEPH as Diesel	50	N.D.
Chromatogram Pattern:		

Surrogates	Control Limits %		% Recovery
n-Pentacosane (C25)	50	150	98

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

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Blaine Tech Services	Client Proj. ID: Shell Oakland/970403X1	Sampled: 04/03/97
1680 Rogers Avenue	Sample Descript: MW-13	Received: 04/03/97
San Jose, CA 95112	Matrix: LIQUID	Extracted: 04/09/97
	Analysis Method: EPA 8015 Mod	Analyzed: 04/12/97
Attention: Fran Thie	Lab Number: 9704360-11	Reported: 04/17/97

QC Batch Number: GC0409970HBPEXB
Instrument ID: GCHP4B

Fuel Fingerprint : Motor Oil

Analyte	Detection Limit ug/L	Sample Results ug/L
Extractable HC as Motor Oil Chromatogram Pattern:	500	N.D.

Surrogates	Control Limits %		% Recovery
n-Pentacosane (C25)	50	150	98

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

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Blaine Tech Services	Client Proj. ID: Shell Oakland/970403X1	Sampled: 04/03/97
1680 Rogers Avenue	Sample Descript: MW-13	Received: 04/03/97
San Jose, CA 95112	Matrix: LIQUID	
	Analysis Method: 8015Mod/8020	Analyzed: 04/12/97
Attention: Fran Thie	Lab Number: 9704360-11	Reported: 04/17/97

QC Batch Number: GC041297BTEX01A
nstrument 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:		

Surrogates	Control Limits %		% Recovery
Trifluorotoluene	70	130	99

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

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Blaine Tech Services
1680 Rogers Avenue
San Jose, CA 95112

Attention: Fran Thie

Client Proj. ID: Shell Oakland/970403X1
Sample Descript: EB
Matrix: LIQUID
Analysis Method: EPA 8015 Mod
Lab Number: 9704361-12

Sampled: 04/03/97
Received: 04/03/97
Extracted: 04/09/97
Analyzed: 04/11/97
Reported: 04/17/97

QC Batch Number: GC0409970HBPEXB
Instrument ID: GCHP4B

Total Extractable Petroleum Hydrocarbons (TEPH)

Analyte	Detection Limit ug/L	Sample Results ug/L
TEPH as Diesel	50	N.D.
Chromatogram Pattern:		

Surrogates	Control Limits %		% Recovery
n-Pentacosane (C25)	50	150	87

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

SEQUOIA ANALYTICAL - ELAP #1210

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Blaine Tech Services
1680 Rogers Avenue
San Jose, CA 95112

Attention: Fran Thie

Client Proj. ID: Shell Oakland/970403X1
Sample Descript: EB
Matrix: LIQUID
Analysis Method: EPA 8015 Mod
Lab Number: 9704361-12

Sampled: 04/03/97
Received: 04/03/97
Extracted: 04/09/97
Analyzed: 04/11/97
Reported: 04/17/97

QC Batch Number: GC0409970HBPEXB
Instrument ID: GCHP4B

Fuel Fingerprint : Motor Oil

Analyte	Detection Limit ug/L	Sample Results ug/L
Extractable HC as Motor Oil	500	N.D.
Chromatogram Pattern:		

Surrogates	Control Limits %		% Recovery
n-Pentacosane (C25)	50	150	87

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

SEQUOIA ANALYTICAL - ELAP #1210

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819 Striker Avenue, Suite 8, Sacramento, CA 95834, (916) 921-9600, FAX (916) 921-0100

Blaine Tech Services	Client Proj. ID: Shell Oakland/970403X1	Sampled: 04/03/97
1680 Rogers Avenue	Sample Descript: EB	Received: 04/03/97
San Jose, CA 95112	Matrix: LIQUID	
	Analysis Method: 8015Mod/8020	Analyzed: 04/12/97
Attention: Fran Thie	Lab Number: 9704361-12	Reported: 04/17/97

QC Batch Number: GC041297BTEX06A
Instrument ID: GCHP06

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	88

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

SEQUOIA ANALYTICAL - ELAP #1210

Peggy Penner
Project Manager

Sequoia Analytical

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819 Striker Avenue, Suite 8, Sacramento, CA 95834, (916) 921-9600, FAX (916) 921-0100

Blaine Tech Services	Client Proj. ID: Shell Oakland/970403X1	Sampled: 04/03/97
1680 Rogers Avenue	Sample Descript: EB	Received: 04/03/97
San Jose, CA 95112	Matrix: LIQUID	Extracted: 04/09/97
	Analysis Method: EPA 8015 Mod	Analyzed: 04/11/97
Attention: Fran Thie	Lab Number: 9704361-12	Reported: 04/17/97

QC Batch Number: GC0409970HBPEXB
Instrument ID: GCHP4B

Fuel Fingerprint : Motor Oil

Analyte	Detection Limit ug/L	Sample Results ug/L
Extractable HC as Motor Oil Chromatogram Pattern:	500	N.D.

Surrogates	Control Limits %		% Recovery
n-Pentacosane (C25)	50	150	87

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

SEQUOIA ANALYTICAL - ELAP #1210

Peggy Penner
Project Manager

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Blaine Tech Services	Client Proj. ID: Shell Oakland/970403X1	Sampled: 04/03/97
1680 Rogers Avenue	Sample Descript: EB	Received: 04/03/97
San Jose, CA 95112	Matrix: LIQUID	
	Analysis Method: 8015Mod/8020	Analyzed: 04/12/97
Attention: Fran Thie	Lab Number: 9704361-12	Reported: 04/17/97

QC Batch Number: GC041297BTEX06A
Instrument ID: GCHP06

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	88

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

SEQUOIA ANALYTICAL - ELAP #1210

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Blaine Tech Services	Client Proj. ID: Shell Oakland/970403X1	Sampled: 04/03/97
1680 Rogers Avenue	Sample Descript: DUP	Received: 04/03/97
San Jose, CA 95112	Matrix: LIQUID	Extracted: 04/09/97
	Analysis Method: EPA 8015 Mod	Analyzed: 04/11/97
Attention: Fran Thie	Lab Number: 9704361-13	Reported: 04/17/97

QC Batch Number: GC0409970HBPEXB
Instrument ID: GCHP4B

Total Extractable Petroleum Hydrocarbons (TEPH)

Analyte	Detection Limit ug/L	Sample Results ug/L
TEPH as Diesel	**50**	**3000**
Chromatogram Pattern:		**C9-C24**

Surrogates	Control Limits %		% Recovery
n-Pentacosane (C25)	50	150	104

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

SEQUOIA ANALYTICAL - ELAP #1210

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Blaine Tech Services	Client Proj. ID: Shell Oakland/970403X1	Sampled: 04/03/97
1680 Rogers Avenue	Sample Descript: DUP	Received: 04/03/97
San Jose, CA 95112	Matrix: LIQUID	Extracted: 04/09/97
	Analysis Method: EPA 8015 Mod	Analyzed: 04/11/97
Attention: Fran Thie	Lab Number: 9704361-13	Reported: 04/17/97

QC Batch Number: GC0409970HBPEXB
Instrument ID: GCHP4B

Fuel Fingerprint : Motor Oil

Analyte	Detection Limit ug/L	Sample Results ug/L
Extractable HC as Motor Oil	500	N.D.
Chromatogram Pattern:		

Surrogates	Control Limits %		% Recovery
n-Pentacosane (C25)	50	150	104

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

SEQUOIA ANALYTICAL - ELAP #1210

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Blaine Tech Services
1680 Rogers Avenue
San Jose, CA 95112

Attention: Fran Thie

Client Proj. ID: Shell Oakland/970403X1
Sample Descript: DUP
Matrix: LIQUID
Analysis Method: 8015Mod/8020
Lab Number: 9704361-13

Sampled: 04/03/97
Received: 04/03/97

Analyzed: 04/14/97
Reported: 04/17/97

QC Batch Number: GC041497BTEX01A
Instrument ID: GCHP01

Total Purgeable Petroleum Hydrocarbons (TPPH) with BTEX and MTBE

Analyte	Detection Limit ug/L	Sample Results ug/L
TPPH as Gas	**10000**	**52000**
Methyl t-Butyl Ether	**500**	**2100**
Benzene	**100**	**12000**
Toluene	**100**	**2300**
Ethyl Benzene	**100**	**1400**
Xylenes (Total)	**100**	**4500**
Chromatogram Pattern:		**C6-C12**

Surrogates	Control Limits %		% Recovery
Trifluorotoluene	70	130	115

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

SEQUOIA ANALYTICAL - ELAP #1210

Peggy Penner
Project Manager

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Blaine Tech Services	Client Proj. ID: Shell Oakland/970403X1	Received: 04/03/97
1680 Rogers Avenue		
San Jose, CA 95112	Lab Proj. ID: 9704361	Reported: 04/17/97
Attention: Fran Thie		

LABORATORY NARRATIVE

In order to properly interpret this report, it must be reproduced in its entirety. This report contains a total of 43 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

Sequoia Analytical

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

Client Project ID: Shell Oakland / 970403X1
Matrix: Liquid
Work Order #: 9704360 -01, 02 -04, 10 -11
Reported: Apr 21, 1997

QUALITY CONTROL DATA REPORT

Analyte:	Benzene	Toluene	Ethyl Benzene	Xylenes	Gas
QC Batch#:	GC041297BTEX01A	GC041297BTEX01A	GC041297BTEX01A	GC041297BTEX01A	GC041297BTEX01A
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. Heider	J. Heider	J. Heider	J. Heider	J. Heider
MS/MSD #:	970437004	970437004	970437004	970437004	970437004
Sample Conc.:	N.D.	N.D.	N.D.	N.D.	N.D.
Prepared Date:	4/12/97	4/12/97	4/12/97	4/12/97	4/12/97
Analyzed Date:	4/12/97	4/12/97	4/12/97	4/12/97	4/12/97
Instrument I.D.#:	GCHP01	GCHP01	GCHP01	GCHP01	GCHP01
Conc. Spiked:	10 µg/L	10 µg/L	10 µg/L	30 µg/L	60 µg/L
Result:	11	11	11	31	61
MS % Recovery:	110	110	110	103	102
Dup. Result:	9.7	9.3	9.3	27	54
MSD % Recov.:	97	93	93	90	90
RPD:	13	17	17	14	12
RPD Limit:	0-50	0-50	0-50	0-50	0-50
LCS #:	BLK041297BSA	BLK041297BSA	LK041297BSA	BLK041297BSA	BLK041297BSA
Prepared Date:	4/12/97	4/12/97	4/12/97	4/12/97	4/12/97
Analyzed Date:	4/12/97	4/12/97	4/12/97	4/12/97	4/12/97
Instrument I.D.#:	GCHP01	GCHP01	GCHP01	GCHP01	GCHP01
Conc. Spiked:	10 µg/L	10 µg/L	10 µg/L	30 µg/L	60 µg/L
LCS Result:	9.4	9.1	9.0	26	52
LCS % Recov.:	94	91	90	97	87
MS/MSD Control Limits	60-140	60-140	60-140	60-140	60-140
LCS Control Limits	70-130	70-130	70-130	70-130	70-130

SEQUOIA ANALYTICAL

Peggy Penner
Project Manager

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

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

Client Project ID: Shell Oakland / 970403X1
Matrix: Liquid
Work Order #: 9704360 -02, 05 -06, 08 -09
Reported: Apr 21, 1997

QUALITY CONTROL DATA REPORT

Analyte:	Benzene	Toluene	Ethyl Benzene	Xylenes	Gas
QC Batch#:	GC041297BTEX18A	GC041297BTEX18A	GC041297BTEX18A	GC041297BTEX18A	GC041297BTEX18A
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 #:	970407903	970407903	970407903	970407903	970407903
Sample Conc.:	N.D.	N.D.	N.D.	N.D.	N.D.
Prepared Date:	4/14/97	4/14/97	4/14/97	4/14/97	4/14/97
Analyzed Date:	4/14/97	4/14/97	4/14/97	4/14/97	4/14/97
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:	9.9	10	10	30	63
MS % Recovery:	99	100	100	100	105
Dup. Result:	9.3	9.3	9.3	27	63
MSD % Recov.:	93	93	93	90	105
RPD:	6.2	7.3	7.3	11	0.0
RPD Limit:	0-50	0-50	0-50	0-50	0-50
LCS #:	BLK041497BSA	BLK041497BSA	LK041497BSA	BLK041497BSA	BLK041497BSA
Prepared Date:	4/14/97	4/14/97	4/14/97	4/14/97	4/14/97
Analyzed Date:	4/14/97	4/14/97	4/14/97	4/14/97	4/14/97
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:	9.4	9.4	9.4	27	61
LCS % Recov.:	94	94	94	90	102
MS/MSD Control Limits	60-140	60-140	60-140	60-140	60-140
LCS Control Limits	70-130	70-130	70-130	70-130	70-130

SEQUOIA ANALYTICAL

Peggy Penner
Project Manager

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

Client Project ID: Shell Oakland / 970403X1
Matrix: Liquid
Work Order #: 9704360 -07 9704361 -13
Reported: Apr 21, 1997

QUALITY CONTROL DATA REPORT

Analyte:	Benzene	Toluene	Ethyl Benzene	Xylenes	Gas
QC Batch#:	GC041497BTEX01A	GC041497BTEX01A	GC041497BTEX01A	GC041497BTEX01A	GC041497BTEX01A
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 #:	970407903	970407903	970407903	970407903	970407903
Sample Conc.:	N.D.	N.D.	N.D.	N.D.	N.D.
Prepared Date:	4/14/97	4/14/97	4/14/97	4/14/97	4/14/97
Analyzed Date:	4/14/97	4/14/97	4/14/97	4/14/97	4/14/97
Instrument I.D.#:	GCHP01	GCHP01	GCHP01	GCHP01	GCHP01
Conc. Spiked:	10 µg/L	10 µg/L	10 µg/L	30 µg/L	60 µg/L
Result:	11	11	11	33	63
MS % Recovery:	110	110	110	110	105
Dup. Result:	13	12	12	35	69
MSD % Recov.:	130	120	120	117	115
RPD:	17	8.7	8.7	5.9	9.1
RPD Limit:	0-50	0-50	0-50	0-50	0-50
LCS #:	BLK041497BSA	BLK041497BSA	LK041497BSA	BLK041497BSA	BLK041497BSA
Prepared Date:	4/14/97	4/14/97	4/14/97	4/14/97	4/14/97
Analyzed Date:	4/14/97	4/14/97	4/14/97	4/14/97	4/14/97
Instrument I.D.#:	GCHP01	GCHP01	GCHP01	GCHP01	GCHP01
Conc. Spiked:	10 µg/L	10 µg/L	10 µg/L	30 µg/L	60 µg/L
LCS Result:	11	11	11	32	62
LCS % Recov.:	110	110	110	107	103
MS/MSD Control Limits	60-140	60-140	60-140	60-140	60-140
LCS Control Limits	70-130	70-130	70-130	70-130	70-130

SEQUOIA ANALYTICAL

Peggy Penner
Project Manager

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Blaine Tech Services, Inc.	Client Project ID:	Shell Oakland / 970403X1	
1680 Rogers Avenue	Matrix:	Liquid	
San Jose, CA 95112			
Attention: Fran Thle	Work Order #:	9704361 -12	Reported: Apr 21, 1997

QUALITY CONTROL DATA REPORT

Analyte:	Benzene	Toluene	Ethyl Benzene	Xylenes	Gas
QC Batch#:	GC041297BTEX06A	GC041297BTEX06A	GC041297BTEX06A	GC041297BTEX06A	GC041297BTEX06A
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. Heider	J. Heider	J. Heider	J. Heider	J. Heider
MS/MSD #:	970434005	970434005	970434005	970434005	970434005
Sample Conc.:	N.D.	N.D.	N.D.	N.D.	N.D.
Prepared Date:	4/12/97	4/12/97	4/12/97	4/12/97	4/12/97
Analyzed Date:	4/12/97	4/12/97	4/12/97	4/12/97	4/12/97
Instrument I.D.#:	GCHP06	GCHP06	GCHP06	GCHP06	GCHP06
Conc. Spiked:	10 µg/L	10 µg/L	10 µg/L	30 µg/L	60 µg/L
Result:	9.3	9.3	9.3	28	76
MS % Recovery:	93	93	93	93	127
Dup. Result:	9.7	9.6	9.7	29	78
MSD % Recov.:	97	96	97	97	130
RPD:	4.2	3.2	4.2	3.5	2.6
RPD Limit:	0-50	0-50	0-50	0-50	0-50
LCS #:	BLK041297BSA	BLK041297BSA	LK041297BSA	BLK041297BSA	BLK041297BSA
Prepared Date:	4/12/97	4/12/97	4/12/97	4/12/97	4/12/97
Analyzed Date:	4/12/97	4/12/97	4/12/97	4/12/97	4/12/97
Instrument I.D.#:	GCHP06	GCHP06	GCHP06	GCHP06	GCHP06
Conc. Spiked:	10 µg/L	10 µg/L	10 µg/L	30 µg/L	60 µg/L
LCS Result:	8.0	7.9	7.9	23	63
LCS % Recov.:	80	79	79	77	105
MS/MSD Control Limits	60-140	60-140	60-140	60-140	60-140
LCS Control Limits	70-130	70-130	70-130	70-130	70-130

SEQUOIA ANALYTICAL

Peggy Penner
Project Manager

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

Client Project ID: Shell Oakland / 970403X1
Matrix: Liquid
Work Order #: 9704360 -01, 03 -07, 09 -11 9704361 -12 -13
Reported: Apr 21, 1997

QUALITY CONTROL DATA REPORT

Analyte:	Diesel
QC Batch#:	GC0409970HBPEXB
Analy. Method:	EPA 8015M
Prep. Method:	EPA 3510
Analyst:	B. Sullivan
MS/MSD #:	970417210
Sample Conc.:	3900
Prepared Date:	4/9/97
Analyzed Date:	4/11/97
Instrument I.D.#:	GCHP4B
Conc. Spiked:	1000 µg/L
Result:	8600
MS % Recovery:	470
Dup. Result:	8500
MSD % Recov.:	460
RPD:	1.2
RPD Limit:	0-50

LCS #:	BLK040997BS
Prepared Date:	4/9/97
Analyzed Date:	4/10/97
Instrument I.D.#:	GCHP4B
Conc. Spiked:	1000 µg/L
LCS Result:	1100
LCS % Recov.:	110

MS/MSD	60-140
LCS	50-150
Control Limits	

SEQUOIA ANALYTICAL

Peggy Penner
Project Manager

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819 Striker Avenue, Suite 8, Sacramento, CA 95834, (916) 921-9600, FAX (916) 921-0100

Blaine Tech Services, Inc.	Client Project ID:	Shell Oakland / 970403X1	
1680 Rogers Avenue	Matrix:	Liquid	
San Jose, CA 95112			
Attention: Fran Thie	Work Order #:	9704360 -02	Reported: Apr 21, 1997

QUALITY CONTROL DATA REPORT

Analyte:	Diesel
QC Batch#:	GC0410970HBPEXA
Analy. Method:	EPA 8015M
Prep. Method:	EPA 3510
Analyst:	B. Sullivan
MS/MSD #:	970432204
Sample Conc.:	1900
Prepared Date:	4/10/97
Analyzed Date:	4/12/97
Instrument I.D.#:	GCHP4A
Conc. Spiked:	1000 µg/L
Result:	3100
MS % Recovery:	120
Dup. Result:	3100
MSD % Recov.:	120
RPD:	0.0
RPD Limit:	0-50

LCS #:	BLK041097S
Prepared Date:	4/10/97
Analyzed Date:	4/12/97
Instrument I.D.#:	GCHP4A
Conc. Spiked:	1000 µg/L
LCS Result:	1200
LCS % Recov.:	120

MS/MSD	60-140
LCS	50-150
Control Limits	

SEQUOIA ANALYTICAL

Peggy Penner
Project Manager

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Sequoia Analytical

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Blaine Tech Services, Inc.
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Attention: Fran Thie

Client Project ID: Shell Oakland / 970403X1
Matrix: Liquid
Work Order #: 9704360 -08

Reported: Apr 21, 1997

QUALITY CONTROL DATA REPORT

Analyte:	Diesel
QC Batch#:	GC0411970HBPEXC
Analy. Method:	EPA 8015M
Prep. Method:	EPA 3510
Analyst:	G. Fish
MS/MSD #:	970439605
Sample Conc.:	N.D.
Prepared Date:	4/11/97
Analyzed Date:	4/14/97
Instrument I.D.#:	GCHP4A
Conc. Spiked:	1000 µg/L
Result:	1300
MS % Recovery:	130
Dup. Result:	1300
MSD % Recov.:	130
RPD:	0.0
RPD Limit:	0-50

LCS #:	BLK041197CS	BLK041497S
Prepared Date:	4/11/97	4/14/97
Analyzed Date:	4/14/97	4/15/97
Instrument I.D.#:	GCHP4A	GCHP4A
Conc. Spiked:	1000 µg/L	1000 µg/L
LCS Result:	1200	1200
LCS % Recov.:	120	120
MS/MSD Control Limits	60-140	60-140
LCS Control Limits	50-150	50-150

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.

SEQUOIA ANALYTICAL

Peggy Penner
Project Manager

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

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