Weiss Associates Environmental and Geologic Services

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

R0120

June 30, 1996

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

Re: **Second Quarter 1996**
Shell Service Station
WIC #204-5508-5504
285 Hegenberger Road
Oakland, California
WA Job #81-1162-206

Dear Mr. Chan:

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

Second Quarter 1996 Activities

HYDROCARBON REMOVAL SUMMARY	
Pounds of Hydrocarbons Removed During this Period	***Cumulative Pounds Removed***
0	707

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

- Weiss Associates (WA) calculated ground water elevations, compiled the analytic data (Tables 1 and 2), prepared a ground water elevation contour map and plotted benzene concentrations in ground water (Figure 2).

Anticipated Third Quarter 1996 Activities

- WA will submit a report presenting the results of the third quarter 1996 ground water monitoring results. The report will include tabulated chemical analytic results, ground water elevations, a ground water elevation contour map and plotted benzene concentrations in ground water.

- In the third quarter of 1996, WA will initiate semi-annual sampling in all wells unless otherwise notified by Alameda County Department of Environmental Health.

We trust that this submittal meets your needs. Please call Tim Utterback at (510) 450-6000 if you have any questions or comments.

Sincerely,
Weiss Associates

Grady S. Glasser
Technical Assistant

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

Attachments: A - BTS Ground Water Monitoring Report

cc: R. Jeff Granberry, Shell Oil Products Company, P.O. Box 4023, Concord, California 94524
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
Joseph J. Armayo, Heller, Ehrman, White and McAuliffe, 333 Bush Street, Suite 3100, San Francisco, California 94104

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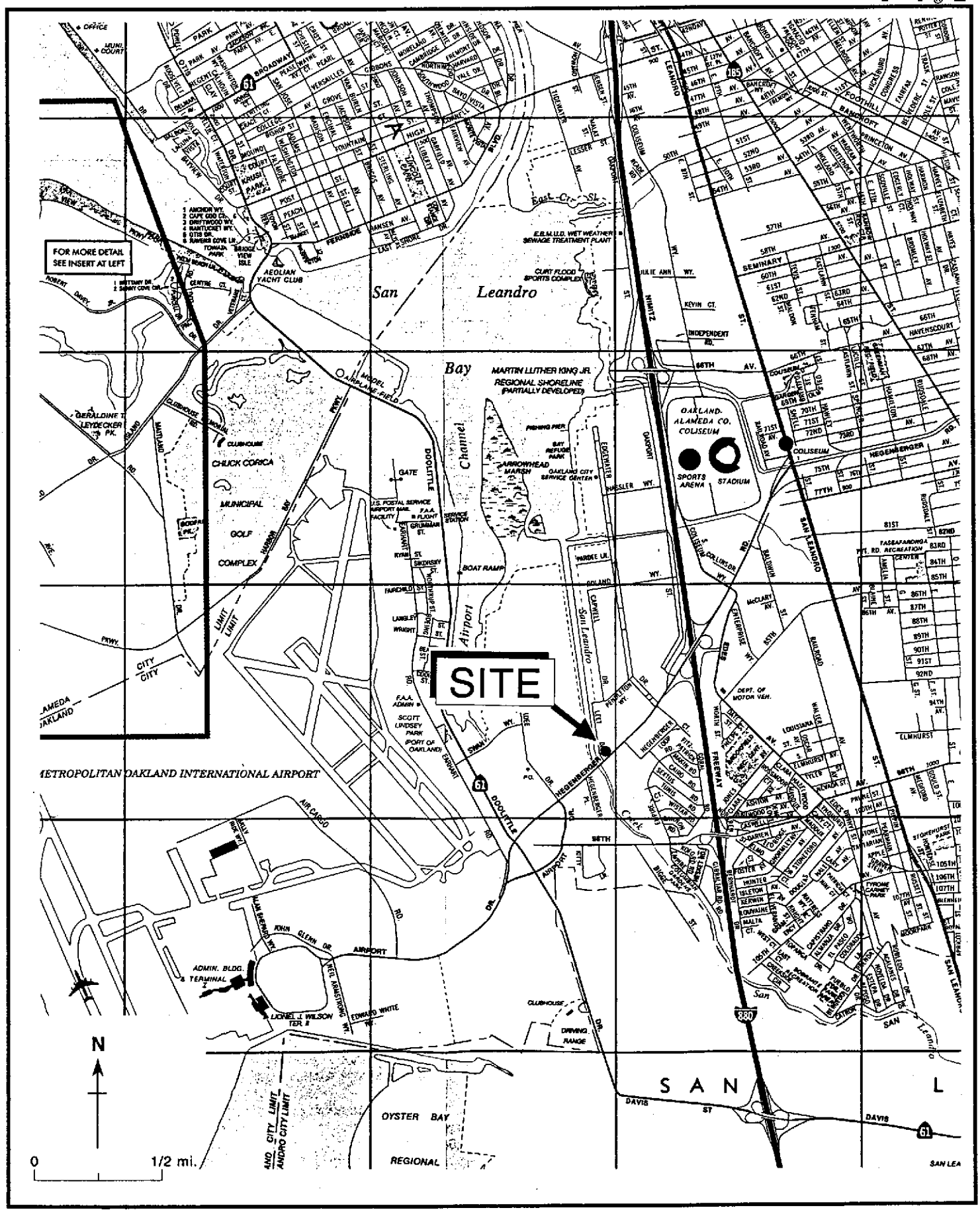

Figure 1. Site Location Map - Shell Service Station - WIC# 204-5508-5504, 258 Hegenberger Road, Oakland, California

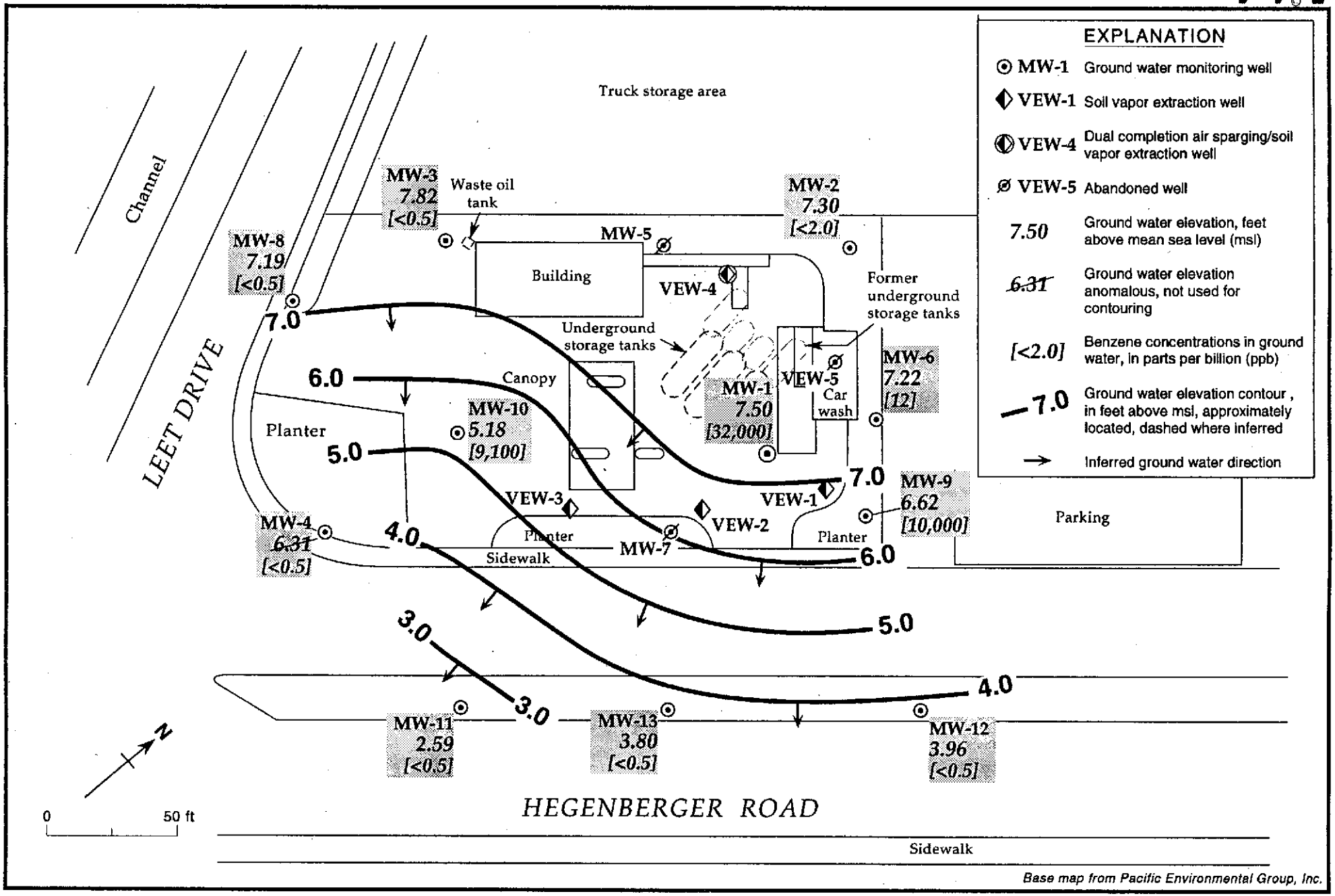

Figure 2. Monitoring Well Locations, Ground Water Elevation Contours, and Benzene Concentrations in Ground Water - April 2, 1996 - Shell Service Station - WIC# 204-5508-5504, 258 Hegenberger Road, Oakland, California

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**
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
	05/04/92		4.68	3.00

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)
	07/28/92		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**
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
	04/11/95		4.22 (TOB)	7.03
	07/18/95		5.44 (TOB)	5.81

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		5.72	N/A
	01/09/96		4.96	6.29
	04/02/96		**3.43**	**7.82**
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**
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
	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

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)
	07/12/91		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		—	—
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
	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

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)
	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
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		---	---
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

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)
	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**
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
	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

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)
	10/25/94		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**
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
	10/18/95		5.31	5.30
	01/09/96		5.92	4.69
	04/02/96		**5.43**	**5.18**
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

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)
	07/18/95		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**
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**
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
	10/18/95		8.12	1.98
	01/09/96		7.74	2.36
	04/02/96		**6.30**	**3.80**

Abbreviations:

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

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Table 2
Groundwater Analytical Data
Total Petroleum Hydrocarbons
(TPPH, BTEX Compounds, TEPH, and TPH as Motor Oil)

Shell Service Station
285 Hegenberger Road at Leet Drive
Oakland, California

Well Number	Date Sampled	TPPH (ppm)	Benzene (ppm)	Toluene (ppm)	Ethylbenzene (ppm)	Xylenes (ppm)	TEPH (ppm)	TPH as Motor Oil (ppm)	MTBE (ppm)
MW-1	02/16/92	99	20	23	5.7	23	NA	NA	—
	05/23/92	48	4.2	5.2	1.2	7.7	11	NA	—
	08/04/89	63	5.5	5.5	3.2	9.5	11	NA	—
	12/15/89	30	ND	ND	ND	ND	11	NA	—
	02/07/90	93	13	9.6	2.4	14	10	NA	—
	04/18/90	55	14	8.4	3.2	13	8.7	NA	—
	07/24/90	73	16	7.4	2.8	15	3.6	NA	—
	10/01/90	45	8	4.3	2	11	1.7	NA	—
	01/02/91	43	10	3.4	1.9	11	3.1	NA	—
	04/09/91	67	20	9.6	3.5	16	1.8	NA	—
	07/11/91	NR	NR	NR	NR	NR	NR	NA	—
	10/08/91	55	18	3.5	2.3	6.6	7.4	NA	—
	02/06/92	48	12	2.8	1.9	7.4	15 [a]	NA	—
	05/05/92	71	16	6	3.1	14	10 [a]	NA	—
	07/28/92	68	21	5.5	3.4	15	18 [a]	ND	—
	07/28/92 [dup]	70	17	5	2.7	13	19 [a]	ND	—
	10/27/92	53	18	3.7	3.4	11	1.3	NA	—
	10/27/92 [dup]	48	17	3.6	3.1	9.9	2.5 [a]	NA	—
	01/15/93	84	17	5.4	3	13	22 [a]	ND	—
	04/23/93	100	18	7.8	4.7	20	23 [a]	ND	—
	07/20/93	41 [d]	12 [d]	0.87 [d]	1.5 [d]	4.4 [d]	3.1 [a]	NA	—
	10/18/93	33	14	1.2	2	4.9	8.1 [a]	0.96	—
	10/18/93 [dup]	44	14	1.2	2	4.9	3.7 [a]	0.67	—
	01/06/94	71	9	0.87	1.6	5.1	9 [a]	ND	—
	04/12/94	42	6.6	0.17	2.3	4.7	5.9	2.5	—
	04/12/94 [dup]	40	6.3	0.18	2	4.4	4.7	2.2	—
	07/25/94	13	4.4	0.11	0.46	1.4	7.0 [a]	ND	—
	10/26/94	19	5.5	0.21	0.88	2	3.9	ND	—
	01/11/95	37	6.7	0.8	2.8	8.9	8.6 [a]	ND	—
	04/11/95	26	4.7	0.27	1.8	3.4	5.5	ND	—
	07/19/95	57	7.5	0.88	4.1	11	7.0	NC	—
	07/19/95 [dup]	46	6.0	0.67	3.2	7.5	6.6	NC	—
	01/09/96	37	5.4	0.45	2.6	7.4	3.2	ND	10
	04/02/96	32	3.0	0.24	1.9	3.5	—	<0.5	6.1
	04/02/96 [dup]	30	3.1	0.26	2.0	3.9	—	<0.5	8.0
MW-2	02/16/89	20	0.2	0.9	2.7	9.6	NA	NA	—
	05/23/89	1.5	0.0043	0.0029	0.011	0.15	1.6	NA	—
	08/04/89	15	0.075	0.12	0.85	2.2	7.4	NA	—
	12/15/89	5	0.052	0.013	0.0041	0.29	2.6	NA	—
	02/07/90	13	0.032	0.034	0.23	0.64	4.8	NA	—
	04/18/90	9.8	0.033	0.019	0.46	1.7	3.2	NA	—
	07/24/90	9.6	0.041	0.027	0.54	0.94	2.7	NA	—
	10/01/90	0.39	0.0034	0.015	0.0065	0.025	1.6	NA	—
	01/02/91	1.8	0.056	0.0044	0.0048	0.092	0.83	NA	—
	04/09/91	1.9	ND	0.028	0.14	0.49	0.28	NA	—
	07/11/91	8.1	0.089	0.066	0.35	0.93	1.1	NA	—
	10/08/91	1.4	0.0051	0.0015	0.036	0.27	2.6	NA	—
	02/06/92	2	0.0078	0.0025	0.13	0.21	5.4 [a]	NA	—
	05/05/92	21 [b]	ND [b]	ND [b]	0.3 [b]	0.96 [b]	1	NA	—
	07/28/92	2.1	0.0077	0.0033	0.13	0.31	0.83 [a]	0.32	—
	10/27/92	1.1	0.016	0.0031	0.0045	0.025	0.53	NA	—
	01/15/93 +	0.29	0.0052	0.0031	0.0084	0.021	0.17 [b]	NA	—
	04/23/93	2.4	ND	ND	0.21	0.61	1.2 [a]	ND	—
	07/21/93	0.44	0.0017	0.0017	0.015	0.038	0.13	NA	—
	10/18/93	2.1	ND	ND	0.09	0.11	1.6 [a]	0.51	—
	01/06/94	1.9 [e]	ND [e]	0.0067 [e]	0.0071 [e]	0.012 [e]	0.13	ND	—
	04/12/94	0.12	ND	ND	0.0034	0.0043	0.13	0.17	—
	07/25/94	0.18 [f]	0.0053 [f]	ND [f]	0.0062 [f]	0.0082 [f]	0.28 [a]	ND	—
	10/26/94	0.17	ND	ND	ND	ND	0.4	ND	—
	01/11/95	ND	ND	ND	ND	ND	ND	ND	—

Table 2
Groundwater Analytical Data
Total Petroleum Hydrocarbons
(TPPH, BTEX Compounds, TEPH, and TPH as Motor Oil)

Shell Service Station
285 Hegenberger Road at Leet Drive
Oakland, California

Well Number	Date Sampled	TPPH (ppm)	Benzene (ppm)	Toluene (ppm)	Ethylbenzene (ppm)	Xylenes (ppm)	TEPH (ppm)	TPH as Motor Oil (ppm)	MTBE (ppm)
	04/11/95	ND	ND	ND	ND	ND	ND	ND	—
	07/19/95	0.25	0.0028	0.0005	0.012	0.013	0.16	NC	—
	01/09/96	0.79	0.0051	0.0015	0.0024	0.0046	0.13	ND	1.4
	04/02/96	0.26	<0.002	<0.002	0.013	0.0069	—	<0.5	0.54
MW-3	02/16/89	60	5.5		3.2	5.2	NA	NA	—
	05/23/89	ND	ND	0.2	ND	ND	1.5	NA	—
	08/04/89	2	0.12	ND	ND	0.086	1.2	NA	—
	12/15/89	5.2	0.38	0.012	0.017	0.41	1.7	NA	—
	03/08/90	0.26	0.017	0.047	0.0054	0.0025	0.23	NA	—
	04/19/90	0.28	ND	ND	ND	0.0094	ND	NA	—
	07/24/90	0.51	0.046	ND	ND	0.0093	0.21	NA	—
	09/28/90	0.46	0.0063	0.0012	ND	0.015	0.35	NA	—
	01/02/91	4.8	0.92	0.0017	ND	0.19	0.63	NA	—
	04/09/91	0.12	0.0012	0.0088	0.0035	0.021	0.06	NA	—
	07/11/91	0.43	0.012	0.0008	ND	0.0077	ND	NA	—
	10/08/91	0.77	0.14	ND	ND	0.053	0.56	NA	—
	02/06/91	0.5	0.074	0.0007	0.0052	0.0053	0.34 [a]	NA	—
	05/04/92	0.31	0.047	0.0009	0.017	0.016	0.29 [a]	NA	—
	07/28/92 **	0.78	0.13	ND	0.013	0.0042	0.1 [a]	0.12	—
	10/27/92 **	0.74	0.092	ND	0.0078	0.0096	0.069 [a]	0.1	—
	01/15/93	ND	0.0024	0.0028	ND	ND	ND	0.12	—
	04/23/93	Well Inaccessible		ND					
	07/20/93	Well Inaccessible							
	10/18/93	Well Inaccessible							
	01/06/94	0.13	0.0017		ND	0.00093	0.064	ND	—
	04/12/94	ND	0.00082	ND	ND	0.0007	0.075	0.086	—
	07/25/94	0.06 [f]	0.0028 [f]	ND [f]	ND [f]	0.0007 [f]	ND	ND	—
	10/26/94	0.07	ND	ND	ND	ND	0.1	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	0.0028	ND	ND	ND	0.09	NC	—
	01/09/96	0.09	0.0017	ND	<0.0005	<0.0005	0.09	ND	0.061
	04/02/96	<0.05	<0.0005	<0.0005	<0.0005	<0.0005	—	<0.5	0.024
									—
MW-4	05/23/89	ND	ND		ND	ND	ND	NA	—
	08/04/89	ND	ND	ND	ND	ND	ND	NA	—
	12/15/89	ND	ND	ND	ND	ND	ND	NA	—
	03/08/90	ND	ND	ND	ND	ND	ND	NA	—
	07/25/90	ND	ND	ND	ND	ND	ND	NA	—
	09/28/90	ND	ND	ND	ND	ND	ND	NA	—
	04/09/91	ND	ND	ND	ND	ND	ND	NA	—
	07/11/91	ND	ND	ND	ND	ND	ND	NA	—
	10/08/91	ND	ND	ND	ND	ND	ND	NA	—
	02/06/92	0.12	ND	ND	ND	ND	2.5 [a]	NA	—
	05/04/92	ND	ND	ND	ND	ND	0.053	NA	—
	07/28/92	ND	ND	ND	ND	ND	0.06	ND	—
	10/27/92	ND	ND	ND	ND	ND	ND	NA	—
	01/14/93	ND	ND	ND	ND	ND	ND	0.12	—
	04/23/93	ND	ND	ND	ND	ND	ND	0.17	—
	07/21/93	ND	0.0022	ND	0.0011	0.0077	ND	NA	—
	10/18/93	ND	ND	0.0012	ND	ND	ND	0.2	—
	01/06/94	ND	ND	ND	ND	ND	ND	ND	—
	04/13/94	ND	ND	ND	ND	ND	0.076	0.39	—
	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	0.0015	ND	0.0006	0.0034	0.14	ND	—
	07/19/95	ND	0.013	0.0034	ND	ND	0.16	NC	—
	01/09/96	<0.05	<0.0005	ND	<0.0005	<0.0005	ND	ND	ND
	04/02/96	<0.05	<0.0005	<0.0005	<0.0005	<0.0005	—	<0.5	<0.0025

Table 2
Groundwater Analytical Data
Total Petroleum Hydrocarbons
(TPPH, BTEX Compounds, TEPH, and TPH as Motor Oil)

Shell Service Station
285 Hegenberger Road at Leet Drive
Oakland, California

Well Number	Date Sampled	TPPH (ppm)	Benzene (ppm)	Toluene (ppm)	Ethylbenzene (ppm)	Xylenes (ppm)	TEPH (ppm)	TPH as Motor Oil (ppm)	MTBE (ppm)
MW-5	05/23/89	26	1.5	0.28	ND	8.1	7	NA	—
	08/05/89	12	0.86	0.094	ND	2.6	8.7	NA	—
	12/15/89	1	0.022	0.035	0.018	0.044	0.71	NA	—
	02/08/90	ND	0.0008	ND	ND	ND	0.62	NA	—
	04/19/90	19	4.5	0.85	0.097	8	5	NA	—
	07/24/90	23	3.6	0.4	0.16	6.5	2.7	NA	—
	09/28/90	5.4	1.4	0.026	0.013	1.3	0.55	NA	—
	01/02/91	0.86	0.28	0.0028	0.0008	0.045	0.56	NA	—
	04/09/91	12	0.71	0.13	0.5	2.4	1.8	NA	—
	07/11/91	24	2.2	0.28	0.43	5.7	1.7	NA	—
	10/08/91	2.8	0.86	0.013	ND	0.58	1.4	NA	—
	02/06/92	1	0.3	ND	0.014	0.062	1.2	NA	—
	05/05/92	10	1.5	0.35	0.71	2.3	4.1 [a]	NA	—
	07/28/92	12	2.2	0.063	1.4	3.5	3.8 [b]	1.2	—
	10/27/92	7.5	1.1	0.059	0.23	0.9	0.48 [a]	NA	—
	01/15/93	7.7	0.42	0.049	0.57	0.84	1.1 [c]	0.43	—
	04/23/93	110	2.9	2.5	3.4	12	16 [a]	ND	—
	07/21/93	18 [d]	1.4 [d]	0.064 [d]	1.5 [d]	3.2 [d]	1.2 [a]	NA	—
	10/18/93	14	2	0.1	2.3	5.1	5.8 [b]	0.86	—
	01/06/94	81	11	9.3	3.6	12	11 [a]	ND	—
	04/12/94	17	2.9	0.38	0.43	1.3	4.1	2.2	—
	07/25/94	5.9	1.5	0.042	0.034	0.17	5.4 [a]	ND	—
	10/26/94	2.3	0.035	0.0028	ND	0.0081	1.9 [a]	720	—
	01/11/95	8.3	1.5	0.095	0.33	1.9	3.7 [c]	ND	—
	04/11/95	7.3	1.2	0.23	0.6	0.55	9.8	ND	—
	07/19/95	17	2.3	0.73	0.77	2.5	5.1	NC	—
MW-6	05/23/89	22	0.016	0.0065	0.0066	3.4	7	NA	—
	08/04/89	28	1.2	0.13	2.1	2.8	8.8	NA	—
	12/15/89	16	0.37	0.092	0.2	0.18	5.5	NA	—
	02/07/90	22	0.52	0.085	0.63	0.77	2.6	NA	—
	04/18/90	21	0.9	0.077	2.7	2.7	5.7	NA	—
	07/24/90	24	1	0.094	3.4	2.7	3	NA	—
	10/01/90	22	0.7	0.093	2.5	2.4	ND	NA	—
	01/02/91	25	1	0.088	2.6	3.7	0.96	NA	—
	04/09/91	18	0.56	0.19	0.48	0.83	0.92	NA	—
	07/11/91	9.5	0.67	0.051	1.1	0.92	1.9	NA	—
	10/08/91	11	1	0.043	ND	ND	5.1	NA	—
	02/06/92	7.2	0.56	0.008	0.72	0.16	15 [a]	NA	—
	05/05/92	7.9	0.61	ND	1.5	0.24	2.9 [a]	NA	—
	07/28/92	17	1.2	ND	3	0.61	3.2 [a]	ND	—
	10/27/92	15	1.3	0.13	1.7	0.49	1.3 [a]	NA	—
	01/14/93	4.9	0.08	0.031	0.33	0.037	1.6 [a]	ND	—
	04/23/93	4.8	0.12	ND	0.78	0.073	1.8 [a]	ND	—
	07/20/93	19 [d]	0.57 [d]	0.018 [d]	1.1 [d]	0.13 [d]	0.91 [a]	NA	—
	10/18/93	24	0.77	0.44	1.6	0.83	2.5 [a]	0.83	—
	01/06/94	20 [d]	0.45 [d]	0.03 [d]	0.53 [d]	0.052 [d]	2.3a [a]	ND	—
	04/12/94	3.6	0.15	ND	0.34	0.021	1.6	0.58	—
	07/25/94	1.6	0.16	ND	ND	0.01	2.2 [a,e]	ND	—
	07/25/94 [dup]	1	0.16	ND	ND	0.018	2.4 [a]	ND	—
	10/26/94	9.8	0.39	0.022	0.3	0.057	3.0 [a]	ND	—
	01/09/95	2.2	0.074	0.012	0.4	0.039	0.8 [a]	ND	—
	04/11/95	5	0.33	0.015	0.76	0.085	7.7	ND	—
	07/19/95	4.2	0.32	0.011	0.49	0.022	1.7	NC	—
	01/09/96	5.6	0.059	<0.005	0.18	0.012	0.79	ND	14
	04/02/96	1.5	0.012	<0.005	0.17	0.0086	---	<0.5	1.9
MW-7	05/23/89	47	3.5	5	1.5	7.8	11	NA	—
	08/04/89	68	6.2	6.6	3.6	8.8	22	NA	—
	12/15/89	100	4.5	5.3	1.3	5.3	12	NA	—
	02/08/90	96	15	15	2.5	14	8.1	NA	—
	04/19/90	94	25	13	3.3	13	10	NA	—

Table 2
Groundwater Analytical Data
Total Petroleum Hydrocarbons
(TPPH, BTEX Compounds, TEPH, and TPH as Motor Oil)

Shell Service Station
285 Hegenberger Road at Leet Drive
Oakland, California

Well Number	Date Sampled	TPPH (ppm)	Benzene (ppm)	Toluene (ppm)	Ethylbenzene (ppm)	Xylenes (ppm)	TEPH (ppm)	TPH as Motor Oil (ppm)	MTBE (ppm)
	07/24/90	84	3.8	26	13	3	12	NA	—
	09/28/90	43	25	6.1	2.4	9	ND	NA	—
	01/02/91	78	26	16	3	14	3.1	NA	—
	04/09/91	140	26	16	2.2	14	1.8	NA	—
	07/11/91	79	7.7	7.2	2.3	10	1.1	NA	—
	10/08/91	55	29	7.5	1.8	9.3	0.39 [a]	NA	—
	02/06/92	63	16	8.7	1.6	7.4	9.6 [a]	NA	—
	05/05/92	67	22	13	1.8	9.4	8.8 [a]	NA	—
	07/28/92	85	26	17	2.9	15	13 [a]	ND	—
	10/27/92	63	21	11	3	11	1.9 [a]	NA	—
	01/14/93	120	28	21	1.6	15	2.3 [a]	NA	—
	04/23/93	60	17	3.7	2.2	11	12 [a]	ND	—
	04/23/93 [dup]	50	17	4.2	2.2	11	14 [a]	ND	—
	07/21/93	47	23	9.9	2.2	12	13	NA	—
	10/18/93	44	22	3.8	2.6	10	10 [a]	1	—
	01/06/94	65	16	4.9	1.9	8.5	5.2 [a]	ND	—
	04/12/94	68	12	2	0.58	6.4	3.4	0.75	—
	07/25/94	63	16	5.8	0.3	8.3	4.2 [a]	ND	—
	10/26/94	46	16	3.7	1.2	7.3	3.8 [a]	ND	—
	01/11/95	62	24	8.5	1.1	9.4	3.3 [c]	ND	—
	01/11/95 [dup]	57	9.5	7.9	0.62	8	3.2 [c]	ND	—
	04/12/95	53	13	4.2	1.5	7.7	7	ND	—
	04/12/95 [dup]	55	11	3.7	1.3	6.4	7.6	ND	—
	07/19/95	95	24	8.0	2.1	12	2.7	NC	—
MW-8	05/23/89	ND	ND	ND	ND	ND	0.1	NA	—
	08/04/89	ND	ND	ND	ND	ND	0.075	NA	—
	12/15/89	ND	ND	ND	ND	ND	ND	NA	—
	03/08/90	ND	ND	ND	ND	ND	ND	NA	—
	07/25/90	ND	ND	ND	ND	ND	ND	NA	—
	09/28/90	ND	ND	ND	ND	ND	1.1	NA	—
	01/02/91	ND	0.0013	ND	ND	ND	ND	NA	—
	04/09/91	0.05	0.0007	0.0011	0.0008	0.001	ND	NA	—
	07/11/91	ND	ND	ND	ND	ND	ND	NA	—
	10/08/91	ND	0.0014	ND	ND	ND	ND	NA	—
	02/06/92	ND	ND	0.0007	ND	ND	0.06 [a]	NA	—
	05/04/92	ND	ND	ND	ND	ND	0.21 [b]	NA	—
	07/28/92	0.051	ND	ND	0.001	0.0006	ND	0.15	—
	10/27/92	ND	ND	0.0066	ND	ND	ND	NA	—
	01/14/93	ND	ND	ND	ND	ND	0.064 [b]	NA	—
	01/14/93 [dup]	ND	ND	ND	ND	ND	NA	NA	—
	04/23/93	ND	ND	ND	ND	ND	ND	0.15	—
	07/21/93	ND	0.0007	0.0007	0.0008	0.0041	ND	NA	—
	10/18/93	ND	ND	0.8	ND	ND	ND	0.17	—
	01/06/94	ND	ND	ND	ND	ND	ND	ND	—
	04/13/94	ND	ND	ND	ND	ND	ND	0.22	—
	07/26/94	ND	ND	ND	ND	ND	ND	ND	—
	10/26/94	ND	ND	0.001	ND	ND	ND	ND	—
	01/11/95	ND	ND	ND	ND	ND	0.07 [b,g]	ND	—
	04/11/95	ND	0.00063	0.0013	ND	0.00075	0.078	ND	—
	07/19/95	ND	ND	ND	ND	ND	0.13	NC	—
	01/09/96	<0.05	<0.0005	<0.0005	<0.0005	<0.0005	ND	ND	ND
	04/02/96	<0.05	<0.0005	<0.0005	<0.0005	<0.0005	—	<0.5	<0.0025
MW-9	08/04/89	47	5.6	6.6	1.5	8.5	12	NA	—
	12/15/89	88	4.3	5.4	0.14	5.6	9.2	NA	—
	02/06/90	50	1.8	1.4	3.2	1.8	7.4	NA	—
	04/19/90	50	14	11	0.73	10	7.5	NA	—
	07/24/90	62	19	16	0.95	15	3.2	NA	—
	09/28/90	30	16	6.5	0.98	11	2.7	NA	—
	01/02/91	34	9.2	3.2	0.77	7	2.5	NA	—
	04/09/91	66	17	13	1.4	14	2.2	NA	—

Table 2
Groundwater Analytical Data
Total Petroleum Hydrocarbons
(TPPH, BTEX Compounds, TEPH, and TPH as Motor Oil)

Shell Service Station
285 Hegenberger Road at Leet Drive
Oakland, California

Well Number	Date Sampled	TPPH (ppm)	Benzene (ppm)	Toluene (ppm)	Ethylbenzene (ppm)	Xylenes (ppm)	TEPH (ppm)	TPH as Motor Oil (ppm)	MTBE (ppm)
	07/11/91	40	7.7	3.2	1.1	9.4	2	NA	—
	10/08/91	20	11	0.64	0.24	6	4.7 [b]	NA	—
	02/06/92	36	11	0.49	1.1	6.7	6.6 [b]	NA	—
	05/05/92	31	11	1.7	1.2	6.7	5.8 [b]	NA	—
	07/28/92	50	17	1.2	1.5	12	14	ND	—
	10/27/92	43	15	0.68	1.7	8.1	0.88 [b]	NA	—
	01/15/93	52	9.6	1.1	1.1	7	0.73 [b]	NA	—
	04/23/93	45	11	1.4	1.5	10	8 [b]	0.15	—
	07/21/93	25	10	0.32	1.1	7.1	5.1	NA	—
	10/18/93	32	14	0.53	2	10	4.9 [b]	NA	—
	01/06/94	41	15	0.81	1.4	9	7.7 [b]	NA	—
	01/06/94 [dup]	43	15	0.92	1.3	8	8.3 [b]	NA	—
	04/13/94	39	8.3	ND	ND	4	2	0.22	—
	07/26/94	22	7.5	0.15	ND	4.1	3.6 [b]	ND	—
	10/26/94	31	13	0.24	1	8.5	3.2 [b]	ND	—
	10/26/94 [dup]	31	13	0.22	1.1	8.3	3.5 [b]	NA	—
	01/11/95	4.8	1.2	0.51	0.042	1.4	2.3 [c]	ND	—
	04/12/95	20	5.1	0.46	0.4	3.4	3.4	ND	—
	07/19/95	43	12	1.8	0.96	9.1	2.9	NC	—
	01/09/96	64	12	5.4	1.8	10	2.8	ND	2.1
	04/02/96	39	10	0.1	0.52	4.1	—	<0.5	<0.5
MW-10	12/15/89	ND	1.5	ND	ND	ND	3.1	NA	—
	03/08/90	25	17	0.33	2.1	1.4	1.8	NA	—
	04/19/90	23	15	1.2	0.19	3.3	3.6	NA	—
	07/25/90	18	12	0.38	ND	1.4	1.9	NA	—
	09/28/90	9.5	13	0.1	1.8	0.23	0.43	NA	—
	01/02/91	4.3	3.7	0.0097	ND	0.11	0.63	NA	—
	04/09/91	45	16	4.6	3	6.9	1.4	NA	—
	07/11/91	ND	ND	ND	ND	ND	ND	NA	—
	10/08/91	3.8	13	0.082	0.0091	0.5	1.5 [b]	NA	—
	02/06/92	22	12	ND	0.6	0.17	1.6 [b]	NA	—
	05/05/92	39	14	5	1.8	5	8 [b]	NA	—
	07/28/92	38	17	2.8	1.5	4	8.7 [b]	ND	—
	10/27/92	Well Inaccessible							
	01/14/93	26	10	ND	ND	0.16	0.95 [c]	0.2	—
	04/23/93	80	21	13	3.4	12	19 [b]	ND	—
	07/21/93	31	14	4.2	1.7	5.5	4.8	NA	—
	10/18/93	13	8.6	0.22	ND	0.45	1.2 [b]	0.61	—
	01/06/94	16	9.7	<0.125	<0.125	0.21	0.67 [b]	0.62	—
	04/13/94	16	5.6	ND	ND	ND	0.86	0.27	—
	07/25/94	2.3	1.4	0.026	0.025	0.051	2.1 [b]	ND	—
	10/26/94	1.4	0.29	0.005	0.0017	0.038	1.0 [b]	ND	—
	01/11/95	16	7.5	1.4	0.23	1.5	2.3 [c]	ND	—
	04/11/95	54	13	4.5	1.5	4.5	5	ND	—
	07/19/95	72	20	7.2	2.8	9	2.6	NC	—
	01/09/96	32	8	1.6	0.88	3.2	2.1	ND	12
	04/02/96	68	9.1	2.3	1.1	3.7	—	<0.5	3.3
MW-11	07/20/93	0.05	0.0025	0.0019	0.0039	0.018	ND	NA	—
	10/18/93	ND	ND	ND	ND	ND	0.065	0.26	—
	01/06/94	ND	ND	ND	ND	ND	ND	ND	—
	04/13/94	ND	0.0011	0.00087	ND	0.0015	ND	ND	—
	07/25/94	ND	ND	ND	ND	ND	ND	ND	—
	10/26/94	ND	ND	ND	ND	ND	0.1	ND	—
	01/11/95	ND	ND	ND	ND	ND	ND	ND	—
	04/11/95	ND	ND	0.0007	ND	0.0005	0.14	ND	—
	07/19/95	ND	ND	ND	ND	ND	0.050	NC	—
	01/09/96	<0.05	<0.0005	<0.0005	<0.0005	<0.0005	ND	ND	ND
	04/02/96	<0.05	<0.0005	<0.0005	<0.0005	<0.0005	—	<0.5	<0.0025

Table 2
Groundwater Analytical Data
Total Petroleum Hydrocarbons
(TPPH, BTEX Compounds, TEPH, and TPH as Motor Oil)

Shell Service Station
285 Hegenberger Road at Leet Drive
Oakland, California

Well Number	Date Sampled	TPPH (ppm)	Benzene (ppm)	Toluene (ppm)	Ethylbenzene (ppm)	Xylenes (ppm)	TEPH (ppm)	TPH as Motor Oil (ppm)	MTBE (ppm)
MW-12	07/20/93	ND	0.0028	0.0019	0.0032	ND	0.015	NA	—
	10/18/93	ND	ND	ND	ND	ND	ND	0.12	—
	01/06/94	ND	ND	ND	ND	ND	ND	ND	—
	04/13/94	ND	0.00061	ND	ND	0.0011	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	0.2	ND	—
	07/19/95	ND	ND	ND	ND	ND	0.090	NC	—
	01/09/96	<0.05	<0.0005	<0.0005	<0.0005	<0.0005	ND	ND	ND
	04/02/96	<0.05	<0.0005	<0.0005	<0.0005	<0.0005	—	<0.5	<0.0025
									—
MW-13	07/21/93	ND	ND	ND	ND	ND	0.0015	NA	—
	07/21/93 [dup]	ND	ND	ND	ND	ND	0.001	NA	—
	10/18/93	ND	ND	ND	ND	ND	ND	0.1	—
	01/06/94	ND	ND	ND	ND	ND	ND	ND	—
	04/13/94	ND	0.0017	0.0012	0.00059	0.0024	0.1	0.072	—
	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	0.32	ND	—
	07/19/95	ND	ND	ND	ND	ND	ND	NC	—
	01/09/96	<0.05	<0.0005	<0.0005	<0.0005	<0.0005	ND	ND	ND
	04/02/96	<0.05	<0.0005	<0.0005	<0.0005	<0.0005	—	<0.5	<0.0025

Abbreviations:

TPPH = Total purgeable petroleum hydrocarbons
TEPH = Total extractable petroleum hydrocarbons
ppm = Parts per million
ND = Not detected
NA = Not analyzed
NR = Not reported
NC = Analyses included in TEPH (C10-C28).
dup = Duplicate sample
\+ = TPH as diesel analysis from April 8, 1993.
* = Sampled August 4, 1994.
** = Also analyzed for oil and grease; results ND

Laboratory noted the following:

a. Compound detected and calculated as TPH as diesel primarily appears to be due to 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.
e. Compound detected as gasoline is due to the presence of 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.

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.

ATTACHMENT A

BTS GROUND WATER MONITORING REPORT

BLAINE
TECH SERVICES INC.

985 TIMOTHY DRIVE
SAN JOSE, CA 9513
(408) 995-553
FAX (408) 293-877

April 24, 1996

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

Attn: R. Jeff Granberry

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

2nd Quarter 1996

Quarterly Groundwater Monitoring Report 960402-W-1

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

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

Yours truly,

Francis Thie

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

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

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

TABLE OF WELL GAUGING DATA

WELL I.D.	DATA COLLECTION DATE	MEASUREMENT REFERENCED TO	QUALITATIVE OBSERVATIONS (sheen)	DEPTH TO FIRST IMMISCIBLES LIQUID (FPZ) (feet)	THICKNESS OF IMMISCIBLES LIQUID ZONE (feet)	VOLUME OF IMMISCIBLES REMOVED (ml)	DEPTH TO WATER (feet)	DEPTH TO WELL BOTTOM (feet)
MW-1 *	4/2/96	TOC	ODOR	NONE	--	--	2.00	9.30
MW-2	4/2/96	TOC	--	NONE	--	--	3.25	9.55
MW-3	4/2/96	TOC	ODOR	NONE	--	--	3.43	9.40
MW-4	4/2/96	TOC	--	NONE	--	--	3.97	10.06
MW-5	4/2/96	INACCESSIBLE						
MW-6	4/2/96	TOC	ODOR	NONE	--	--	3.82	10.97
MW-7	4/2/96	INACCESSIBLE						
MW-8	4/2/96	TOC	--	NONE	--	--	3.42	9.90
MW-9	4/2/96	TOC	--	NONE	--	--	3.86	10.70
MW-10	4/2/96	TOC	ODOR	NONE	--	--	5.43	9.95
MW-11	4/2/96	TOC	--	NONE	--	--	7.97	13.82
MW-12	4/2/96	TOC	--	NONE	--	--	5.60	14.57
MW-13	4/2/96	TOC	--	NONE	--	--	6.30	14.30

* Sample DUP was a duplicate sample taken from well MW-1.

SHELL OIL COMPANY
RETAIL ENVIRONMENTAL ENGINEERING - WEST

CHAIN OF CUSTODY RECORD

Serial No: 9160402W1

Date:

Page 1 of 2

Site Address: 285 Hegenberger Road, Oakland

WIC#: 204-5508-5504

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

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

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

Comments:

Sampled by: William Richardson

Printed Name: William R. Richardson

LAB: SEQ

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	4/2/96			X		5						X	X	X					01	
MW-2	↓			↓		↓						↓	↓	↓					02	
MW-3																			03	
MW-4															1				04	
MW-6																			05	
MW-8																			06	
MW-9																			07	
MW-10	↓			↓		↓						↓	↓	↓					08	

CHECK ONE (1) BOX ONLY — C1/01 — TURN AROUND TIME

- Quarterly Monitoring [X] 6441 — 24 hours [ ]
- Site Investigation [ ] 6441 — 48 hours [ ]
- Soil Classify/Disposal [ ] 6442 — 15 days [X] (Normal)
- Water Classify/Disposal [ ] 6443 — Other [ ]
- Soil/Air Rem. or Sys. O & M [ ] 6452
- Water Rem. or Sys. O & M [ ] 6453
- Other [ ]

NOTE: Notify Lab as soon as possible of 24/48 hr. TAT.

Relinquished By (signature):	Printed Name:	Date: 4-3-96 Time: 1040	Received (signature):	Printed Name:	Date: 4-3-96 Time: 1040
Relinquished By (signature): Michael Jacobs	Printed Name:	Date: 4-3-96 Time: 1125	Received (signature):	Printed Name:	Date: Time:
Relinquished By (signature):	Printed Name:	Date: Time:	Received (signature): C. Thom	Printed Name:	Date: 4/3/96 Time: 1127

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

1127

760321 & 760323

SHELL OIL COMPANY
RETAIL ENVIRONMENTAL ENGINEERING - WEST

CHAIN OF CUSTODY RECORD
Serial No: 960402-w1

Date:
Page 2 of 2

Site Address: 285 Hegenberger Road, Oakland

WIC#: 204-5508-5504

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

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

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

Comments:

Sampled by: MB

Printed Name: William R. Jones

LAB: SEQ

CHECK ONE (1) BOX ONLY — CT/DT

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

TURN AROUND TIME

- 24 hours [ ]
- 48 hours [ ]
- 10 days [X] (Normal)
- Other [ ] ____

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

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	4/2/96			X		5						X	X	X					09	
MW-12	"			"		"						X	X	X					10	
MW-13	"			"		"						X	X	X					11	
DUP	"			"		"						X	X	X	1				12	
EB	"			"		"						X		X					13	

Relinquished By (signature):	Printed Name: WILLIAM R JONES	Date: 4-3-96 Time: 1040	Received (signature):	Printed Name: M. Head	Date: 4-3-96 Time: 1040
Relinquished By (signature):	Printed Name:	Date: 4-3-96 Time: 1125	Received (signature):	Printed Name:	Date: Time:
Relinquished By (signature):	Printed Name:	Date: Time:	Received (signature):	Printed Name: C. Thom	Date: 4/3/96 Time: 1127

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

Shell Oil Chain of Custody

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

ne Technical Services
Timothy Drive
Jose, CA 95133
ntion: Jim Keller

ject: Shell Oakland, 960402-W1

Enclosed are the results from samples received at Sequoia Analytical on April 3, 1996.
requested analyses are listed below:

MPLE #	SAMPLE DESCRIPTION	DATE COLLECTED	TEST METHOD
4321 -01	LIQUID, MW-1	04/02/96	TPHMOW Fuel Fingerprint/Mo
4321 -01	LIQUID, MW-1	04/02/96	TPGBMW Purgeable TPH/BTEX
4321 -02	LIQUID, MW-2	04/02/96	TPHMOW Fuel Fingerprint/Mo
4321 -02	LIQUID, MW-2	04/02/96	TPGBMW Purgeable TPH/BTEX
4321 -03	LIQUID, MW-3	04/02/96	TPHMOW Fuel Fingerprint/Mo
4321 -03	LIQUID, MW-3	04/02/96	TPGBMW Purgeable TPH/BTEX
4321 -04	LIQUID, MW-4	04/02/96	TPHMOW Fuel Fingerprint/Mo
4321 -04	LIQUID, MW-4	04/02/96	TPGBMW Purgeable TPH/BTEX
4321 -05	LIQUID, MW-6	04/02/96	TPHMOW Fuel Fingerprint/Mo
4321 -05	LIQUID, MW-6	04/02/96	TPGBMW Purgeable TPH/BTEX
4321 -06	LIQUID, MW-8	04/02/96	TPHMOW Fuel Fingerprint/Mo
4321 -06	LIQUID, MW-8	04/02/96	TPGBMW Purgeable TPH/BTEX
4321 -07	LIQUID, MW-9	04/02/96	TPHMOW Fuel Fingerprint/Mo
4321 -07	LIQUID, MW-9	04/02/96	TPGBMW Purgeable TPH/BTEX
4321 -08	LIQUID, MW-10	04/02/96	TPHMOW Fuel Fingerprint/Mo
4321 -08	LIQUID, MW-10	04/02/96	TPGBMW Purgeable TPH/BTEX
4321 -09	LIQUID, MW-11	04/02/96	TPHMOW Fuel Fingerprint/Mo
4321 -09	LIQUID, MW-11	04/02/96	TPGBMW Purgeable TPH/BTEX
4321 -10	LIQUID, MW-12	04/02/96	TPHMOW Fuel Fingerprint/Mo
4321 -10	LIQUID, MW-12	04/02/96	TPGBMW Purgeable TPH/BTEX
4321 -11	LIQUID, MW-13	04/02/96	TPHMOW Fuel Fingerprint/Mo

QUOIA ANALYTICAL

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

SAMPLE #	SAMPLE DESCRIPTION	DATE COLLECTED	TEST METHOD
9604321 -11	LIQUID, MW-13	04/02/96	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

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

ne Technical Services
Timothy Drive
Jose, CA 95133
ntion: Jim Keller

ject: Shell Oakland, 960402-W1

Enclosed are the results from samples received at Sequoia Analytical on April 3, 1996.
requested analyses are listed below:

MPLE #	SAMPLE DESCRIPTION	DATE COLLECTED	TEST METHOD
4323 -12	LIQUID, Dup	04/02/96	TPHMOW Fuel Fingerprint/Mo
4323 -12	LIQUID, Dup	04/02/96	TPGBMW Purgeable TPH/BTEX
4323 -13	LIQUID, EB	04/02/96	TPHMOW Fuel Fingerprint/Mo
4323 -13	LIQUID, EB	04/02/96	TPHGBW Purgeable TPH/BTEX

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

truly yours,

QUOIA ANALYTICAL

gy Penner
ect Manager

Sequoia Analytical

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

Blaine Technical Services	Client Proj. ID: Shell Oakland, 960402-W1	Sampled: 04/02/96
985 Timothy Drive	Sample Descript: MW-1	Received: 04/03/96
San Jose, CA 95133	Matrix: LIQUID	Extracted: 04/09/96
	Analysis Method: EPA 8015 Mod	Analyzed: 04/11/96
Attention: Jim Keller	Lab Number: 9604321-01	Reported: 04/17/96

QC Batch Number: GC0408960HBPEXA
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	95

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

SEQUOIA ANALYTICAL - ELAP #1210

Peggy Penner
Project Manager

Sequoia Analytical

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

laine Technical Services
35 Timothy Drive
an Jose, CA 95133

ttention: Jim Keller

Client Proj. ID: Shell Oakland, 960402-W1
Sample Descript: MW-1
Matrix: LIQUID
Analysis Method: 8015Mod/8020
Lab Number: 9604321-01

Sampled: 04/02/96
Received: 04/03/96

Analyzed: 04/09/96
Reported: 04/17/96

: Batch Number: GC040996BTEX02A
trument ID: GCHP02

Total Purgeable Petroleum Hydrocarbons (TPPH) with BTEX and MTBE

nalyte	Detection Limit ug/L	Sample Results ug/L
PH as Gas	2500	32000
ethyl t-Butyl Ether	125	6100
enzene	25	3000
oluene	25	240
thyl Benzene	25	1900
ylenes (Total)	25	3500
hromatogram Pattern:		C6-C12

urrogates	Control Limits %		% Recovery
ifluorotoluene	70	130	93

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

QUOIA ANALYTICAL - ELAP #1210

gy Penner
ject Manager

Sequoia Analytical

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

Blaine Technical Services	Client Proj. ID: Shell Oakland, 960402-W1	Sampled: 04/02/96
985 Timothy Drive	Sample Descript: MW-2	Received: 04/03/96
San Jose, CA 95133	Matrix: LIQUID	Extracted: 04/09/96
	Analysis Method: EPA 8015 Mod	Analyzed: 04/15/96
Attention: Jim Keller	Lab Number: 9604321-02	Reported: 04/17/96

QC Batch Number: GC0408960HBPEXA
Instrument ID: GCHP4A

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	101

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

SEQUOIA ANALYTICAL - ELAP #1210

Peggy Penner
Project Manager

Sequoia Analytical

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

'aine Technical Services
35 Timothy Drive
an Jose, CA 95133

:tention: Jim Keller

Client Proj. ID: Shell Oakland, 960402-W1
Sample Descript: MW-2
Matrix: LIQUID
Analysis Method: 8015Mod/8020
Lab Number: 9604321-02

Sampled: 04/02/96
Received: 04/03/96

Analyzed: 04/10/96
Reported: 04/17/96

Batch Number: GC041096BTEX03A
trument ID: GCHP03

Total Purgeable Petroleum Hydrocarbons (TPPH) with BTEX and MTBE

nalyte	Detection Limit ug/L	Sample Results ug/L
PH as Gas	**200**	**260**
ethyl t-Butyl Ether	**10**	**540**
enzene	2.0	N.D.
oluene	2.0	N.D.
thyl Benzene	**2.0**	**13**
ylenes (Total)	**2.0**	**6.9**
hromatogram Pattern:		**C6-C12**

urrogates	Control Limits %		% Recovery
ifluorotoluene	70	130	112

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

QUOIA ANALYTICAL - ELAP #1210

gy Penner
ject Manager

Sequoia Analytical

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

Blaine Technical Services	Client Proj. ID: Shell Oakland, 960402-W1	Sampled: 04/02/96
985 Timothy Drive	Sample Descript: MW-3	Received: 04/03/96
San Jose, CA 95133	Matrix: LIQUID	Extracted: 04/09/96
	Analysis Method: EPA 8015 Mod	Analyzed: 04/09/96
Attention: Jim Keller	Lab Number: 9604321-03	Reported: 04/17/96

QC Batch Number: GC0408960HBPEXA
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	96

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

SEQUOIA ANALYTICAL - ELAP #1210

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laine Technical Services
35 Timothy Drive
an Jose, CA 95133

ttention: Jim Keller

Client Proj. ID: Shell Oakland, 960402-W1
Sample Descript: MW-3
Matrix: LIQUID
Analysis Method: 8015Mod/8020
Lab Number: 9604321-03

Sampled: 04/02/96
Received: 04/03/96
Analyzed: 04/09/96
Reported: 04/17/96

: Batch Number: GC040996BTEX02A
trument ID: GCHP02

Total Purgeable Petroleum Hydrocarbons (TPPH) with BTEX and MTBE

nalyte	Detection Limit ug/L	Sample Results ug/L
PH as Gas	50	N.D.
ethyl t-Butyl Ether	**2.5**	**24**
enzene	0.50	N.D.
oluene	0.50	N.D.
hyl Benzene	0.50	N.D.
ylenes (Total)	0.50	N.D.
hromatogram Pattern:		

urrogates	Control Limits %		% Recovery
ifluorotoluene	70	130	102

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

QUOIA ANALYTICAL - ELAP #1210

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ject Manager

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Blaine Technical Services	Client Proj. ID: Shell Oakland, 960402-W1	Sampled: 04/02/96
985 Timothy Drive	Sample Descript: MW-4	Received: 04/03/96
San Jose, CA 95133	Matrix: LIQUID	Extracted: 04/09/96
	Analysis Method: EPA 8015 Mod	Analyzed: 04/09/96
Attention: Jim Keller	Lab Number: 9604321-04	Reported: 04/17/96

QC Batch Number: GC0408960HBPEXA
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	93

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

SEQUOIA ANALYTICAL - ELAP #1210

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laine Technical Services
35 Timothy Drive
an Jose, CA 95133

ttention: Jim Keller

Client Proj. ID: Shell Oakland, 960402-W1
Sample Descript: MW-4
Matrix: LIQUID
Analysis Method: 8015Mod/8020
Lab Number: 9604321-04

Sampled: 04/02/96
Received: 04/03/96

Analyzed: 04/09/96
Reported: 04/17/96

Batch Number: GC040996BTEX02A
trument ID: GCHP02

Total Purgeable Petroleum Hydrocarbons (TPPH) with BTEX and MTBE

nalyte	Detection Limit ug/L	Sample Results ug/L
PH as Gas	50	N.D.
ethyl t-Butyl Ether	2.5	N.D.
enzene	0.50	N.D.
oluene	0.50	N.D.
hyl Benzene	0.50	N.D.
ylenes (Total)	0.50	N.D.
hromatogram Pattern:		

urrogates	Control Limits %		% Recovery
ifluorotoluene	70	130	101

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

QUOIA ANALYTICAL - ELAP #1210

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Blaine Technical Services	Client Proj. ID: Shell Oakland, 960402-W1	Sampled: 04/02/96
985 Timothy Drive	Sample Descript: MW-6	Received: 04/03/96
San Jose, CA 95133	Matrix: LIQUID	Extracted: 04/09/96
	Analysis Method: EPA 8015 Mod	Analyzed: 04/11/96
Attention: Jim Keller	Lab Number: 9604321-05	Reported: 04/17/96

QC Batch Number: GC0408960HBPEXA
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	105

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

SEQUOIA ANALYTICAL - ELAP #1210

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laine Technical Services
35 Timothy Drive
an Jose, CA 95133

ttention: Jim Keller

Client Proj. ID: Shell Oakland, 960402-W1
Sample Descript: MW-6
Matrix: LIQUID
Analysis Method: 8015Mod/8020
Lab Number: 9604321-05

Sampled: 04/02/96
Received: 04/03/96

Analyzed: 04/09/96
Reported: 04/17/96

Batch Number: GC040996BTEX02A
trument ID: GCHP02

Total Purgeable Petroleum Hydrocarbons (TPPH) with BTEX and MTBE

nalyte	Detection Limit ug/L	Sample Results ug/L
PPH as Gas	**500**	**1500**
ethyl t-Butyl Ether	**25**	**1900**
enzene	**5.0**	**12**
oluene	5.0	N.D.
thyl Benzene	**5.0**	**170**
ylenes (Total)	**5.0**	**8.6**
hromatogram Pattern:		**C6-C12**

urrogates	Control Limits %		% Recovery
ifluorotoluene	70	130	94

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

EQUOIA ANALYTICAL - ELAP #1210

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Blaine Technical Services	Client Proj. ID: Shell Oakland, 960402-W1	Sampled: 04/02/96
985 Timothy Drive	Sample Descript: MW-8	Received: 04/03/96
San Jose, CA 95133	Matrix: LIQUID	Extracted: 04/09/96
	Analysis Method: EPA 8015 Mod	Analyzed: 04/09/96
Attention: Jim Keller	Lab Number: 9604321-06	Reported: 04/17/96

QC Batch Number: GC0408960HBPEXA
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	93

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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laine Technical Services	Client Proj. ID: Shell Oakland, 960402-W1	Sampled: 04/02/96
85 Timothy Drive	Sample Descript: MW-8	Received: 04/03/96
an Jose, CA 95133	Matrix: LIQUID	
	Analysis Method: 8015Mod/8020	Analyzed: 04/09/96
ttention: Jim Keller	Lab Number: 9604321-06	Reported: 04/17/96

Batch Number: GC040996BTEX02A
trument ID: GCHP02

Total Purgeable Petroleum Hydrocarbons (TPPH) with BTEX and MTBE

nalyte	Detection Limit ug/L	Sample Results ug/L
PPH as Gas	50	N.D.
lethyl t-Butyl Ether	2.5	N.D.
enzene	0.50	N.D.
oluene	0.50	N.D.
thyl Benzene	0.50	N.D.
ylenes (Total)	0.50	N.D.
hromatogram Pattern:		

urrogates	Control Limits %		% Recovery
rifluorotoluene	70	130	100

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

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Blaine Technical Services	Client Proj. ID: Shell Oakland, 960402-W1	Sampled: 04/02/96
985 Timothy Drive	Sample Descript: MW-9	Received: 04/03/96
San Jose, CA 95133	Matrix: LIQUID	Extracted: 04/09/96
	Analysis Method: EPA 8015 Mod	Analyzed: 04/09/96
Attention: Jim Keller	Lab Number: 9604321-07	Reported: 04/17/96

QC Batch Number: GC0408960HBPEXA
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	96

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

SEQUOIA ANALYTICAL - ELAP #1210

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laine Technical Services
35 Timothy Drive
an Jose, CA 95133

ttention: Jim Keller

Client Proj. ID: Shell Oakland, 960402-W1
Sample Descript: MW-9
Matrix: LIQUID
Analysis Method: 8015Mod/8020
Lab Number: 9604321-07

Sampled: 04/02/96
Received: 04/03/96

Analyzed: 04/09/96
Reported: 04/17/96

Batch Number: GC040996BTEX03B
trument ID: GCHP3

Total Purgeable Petroleum Hydrocarbons (TPPH) with BTEX and MTBE

nalyte	Detection Limit ug/L	Sample Results ug/L
PPH as Gas	**10000**	**39000**
ethyl t-Butyl Ether	500	N.D.
enzene	**100**	**10000**
oluene	**100**	**100**
thyl Benzene	**100**	**520**
ylenes (Total)	**100**	**4100**
hromatogram Pattern:		**C6-C12**

urrogates	Control Limits %		% Recovery
ifluorotoluene	70	130	103

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

EQUOIA ANALYTICAL - ELAP #1210

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Blaine Technical Services	Client Proj. ID: Shell Oakland, 960402-W1	Sampled: 04/02/96
985 Timothy Drive	Sample Descript: MW-10	Received: 04/03/96
San Jose, CA 95133	Matrix: LIQUID	Extracted: 04/09/96
	Analysis Method: EPA 8015 Mod	Analyzed: 04/09/96
Attention: Jim Keller	Lab Number: 9604321-08	Reported: 04/17/96

QC Batch Number: GC0408960HBPEXA
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	94

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

SEQUOIA ANALYTICAL - ELAP #1210

Peggy Penner
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laine Technical Services
85 Timothy Drive
an Jose, CA 95133

ttention: Jim Keller

Client Proj. ID: Shell Oakland, 960402-W1
Sample Descript: MW-10
Matrix: LIQUID
Analysis Method: 8015Mod/8020
Lab Number: 9604321-08

Sampled: 04/02/96
Received: 04/03/96

Analyzed: 04/09/96
Reported: 04/17/96

Batch Number: GC040996BTEX17B
trument ID: GCHP17

Total Purgeable Petroleum Hydrocarbons (TPPH) with BTEX and MTBE

nalyte	Detection Limit ug/L	Sample Results ug/L
PPH as Gas	10000	68000
lethyl t-Butyl Ether	500	3300
enzene	100	9100
oluene	100	2300
thyl Benzene	100	1100
ylenes (Total)	100	3700
hromatogram Pattern:		C6-C12

urrogates	Control Limits %		% Recovery
rifluorotoluene	70	130	90

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

QUOIA ANALYTICAL - ELAP #1210

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Blaine Technical Services
985 Timothy Drive
San Jose, CA 95133

Attention: Jim Keller

Client Proj. ID: Shell Oakland, 960402-W1
Sample Descript: MW-11
Matrix: LIQUID
Analysis Method: EPA 8015 Mod
Lab Number: 9604321-09

Sampled: 04/02/96
Received: 04/03/96
Extracted: 04/09/96
Analyzed: 04/09/96
Reported: 04/17/96

QC Batch Number: GC0408960HBPEXA
Instrument ID: GCHP4A

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	93

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

SEQUOIA ANALYTICAL - ELAP #1210

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laine Technical Services
85 Timothy Drive
an Jose, CA 95133

ttention: Jim Keller

Client Proj. ID: Shell Oakland, 960402-W1
Sample Descript: MW-11
Matrix: LIQUID
Analysis Method: 8015Mod/8020
Lab Number: 9604321-09

Sampled: 04/02/96
Received: 04/03/96

Analyzed: 04/09/96
Reported: 04/17/96

Batch Number: GC040996BTEX02A
trument ID: GCHP02

Total Purgeable Petroleum Hydrocarbons (TPPH) with BTEX and MTBE

nalyte	Detection Limit ug/L	Sample Results ug/L
PPH as Gas	50	N.D.
lethyl t-Butyl Ether	2.5	N.D.
enzene	0.50	N.D.
oluene	0.50	N.D.
thyl Benzene	0.50	N.D.
ylenes (Total)	0.50	N.D.
hromatogram Pattern:		

urrogates	Control Limits %		% Recovery
rifluorotoluene	70	130	98

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

EQUOIA ANALYTICAL - ELAP #1210

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Blaine Technical Services	Client Proj. ID: Shell Oakland, 960402-W1	Sampled: 04/02/96
985 Timothy Drive	Sample Descript: MW-12	Received: 04/03/96
San Jose, CA 95133	Matrix: LIQUID	Extracted: 04/09/96
	Analysis Method: EPA 8015 Mod	Analyzed: 04/09/96
Attention: Jim Keller	Lab Number: 9604321-10	Reported: 04/17/96

QC Batch Number: GC0408960HBPEXA
Instrument ID: GCHP4A

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	88

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

SEQUOIA ANALYTICAL - ELAP #1210

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laine Technical Services
85 Timothy Drive
an Jose, CA 95133

ttention: Jim Keller

Client Proj. ID: Shell Oakland, 960402-W1
Sample Descript: MW-12
Matrix: LIQUID
Analysis Method: 8015Mod/8020
Lab Number: 9604321-10

Sampled: 04/02/96
Received: 04/03/96

Analyzed: 04/09/96
Reported: 04/17/96

Batch Number: GC040996BTEX02A
trument ID: GCHP02

Total Purgeable Petroleum Hydrocarbons (TPPH) with BTEX and MTBE

nalyte	Detection Limit ug/L	Sample Results ug/L
PPH as Gas	50	N.D.
lethyl t-Butyl Ether	2.5	N.D.
enzene	0.50	N.D.
oluene	0.50	N.D.
thyl Benzene	0.50	N.D.
ylenes (Total)	0.50	N.D.
hromatogram Pattern:		

urrogates	Control Limits %		% Recovery
rifluorotoluene	70	130	99

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

EQUOIA ANALYTICAL - ELAP #1210

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Blaine Technical Services	Client Proj. ID: Shell Oakland, 960402-W1	Sampled: 04/02/96
985 Timothy Drive	Sample Descript: MW-13	Received: 04/03/96
San Jose, CA 95133	Matrix: LIQUID	Extracted: 04/09/96
	Analysis Method: EPA 8015 Mod	Analyzed: 04/09/96
Attention: Jim Keller	Lab Number: 9604321-11	Reported: 04/17/96

QC Batch Number: GC0408960HBPEXA
Instrument ID: GCHP4A

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.

SEQUOIA ANALYTICAL - ELAP #1210

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

aine Technical Services	Client Proj. ID: Shell Oakland, 960402-W1	Sampled: 04/02/96
35 Timothy Drive	Sample Descript: MW-13	Received: 04/03/96
an Jose, CA 95133	Matrix: LIQUID	
	Analysis Method: 8015Mod/8020	Analyzed: 04/09/96
ttention: Jim Keller	Lab Number: 9604321-11	Reported: 04/17/96

Batch Number: GC040996BTEX03A
trument ID: GCHP3

Total Purgeable Petroleum Hydrocarbons (TPPH) with BTEX and MTBE

nalyte	Detection Limit ug/L	Sample Results ug/L
PH as Gas	50	N.D.
ethyl t-Butyl Ether	2.5	N.D.
enzene	0.50	N.D.
oluene	0.50	N.D.
hyl Benzene	0.50	N.D.
ylenes (Total)	0.50	N.D.
hromatogram Pattern:		

urrogates	Control Limits %		% Recovery
ifluorotoluene	70	130	98

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

QUOIA ANALYTICAL - ELAP #1210

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Blaine Technical Services	Client Proj. ID: Shell Oakland, 960402-W1	Sampled: 04/02/96
985 Timothy Drive	Sample Descript: Dup	Received: 04/03/96
San Jose, CA 95133	Matrix: LIQUID	Extracted: 04/09/96
	Analysis Method: EPA 8015 Mod	Analyzed: 04/10/96
Attention: Jim Keller	Lab Number: 9604323-12	Reported: 04/17/96

QC Batch Number: GC0409960HBPEXB
Instrument ID: GCHP5B

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	103

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

SEQUOIA ANALYTICAL - ELAP #1210

Peggy Penner
Project Manager

Sequoia Analytical

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

laine Technical Services
85 Timothy Drive
an Jose, CA 95133

ttention: Jim Keller

Client Proj. ID: Shell Oakland, 960402-W1
Sample Descript: Dup
Matrix: LIQUID
Analysis Method: 8015Mod/8020
Lab Number: 9604323-12

Sampled: 04/02/96
Received: 04/03/96

Analyzed: 04/10/96
Reported: 04/17/96

Batch Number: GC041096BTEX02A
strument ID: GCHP02

Total Purgeable Petroleum Hydrocarbons (TPPH) with BTEX and MTBE

nalyte	Detection Limit ug/L	Sample Results ug/L
PPH as Gas	5000	30000
lethyl t-Butyl Ether	250	8000
enzene	50	3100
oluene	50	260
thyl Benzene	50	2000
ylenes (Total)	50	3900
hromatogram Pattern:		C6-C12

urrogates	Control Limits %		% Recovery
rifluorotoluene	70	130	89

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

QUOIA ANALYTICAL - ELAP #1210

ggy Penner
oject Manager

Sequoia Analytical

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

Blaine Technical Services	Client Proj. ID: Shell Oakland, 960402-W1	Sampled: 04/02/96
985 Timothy Drive	Sample Descript: EB	Received: 04/03/96
San Jose, CA 95133	Matrix: LIQUID	Extracted: 04/09/96
	Analysis Method: EPA 8015 Mod	Analyzed: 04/10/96
Attention: Jim Keller	Lab Number: 9604323-13	Reported: 04/17/96

QC Batch Number: GC0409960HBPEXB
Instrument ID: GCHP5B

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	104

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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laine Technical Services	Client Proj. ID: Shell Oakland, 960402-W1	Sampled: 04/02/96
85 Timothy Drive	Sample Descript: EB	Received: 04/03/96
an Jose, CA 95133	Matrix: LIQUID	
	Analysis Method: 8015Mod/8020	Analyzed: 04/10/96
ttention: Jim Keller	Lab Number: 9604323-13	Reported: 04/17/96

Batch Number: GC041096BTEX02A
strument ID: GCHP02

Total Purgeable Petroleum Hydrocarbons (TPPH) with BTEX

nalyte	Detection Limit ug/L	Sample Results ug/L
PPH as Gas	50	N.D.
enzene	0.50	N.D.
oluene	0.50	N.D.
thyl Benzene	0.50	N.D.
ylenes (Total)	0.50	N.D.
hromatogram Pattern:		

urrogates	Control Limits %		% Recovery
rifluorotoluene	70	130	99

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

EQUOIA ANALYTICAL - ELAP #1210

ggy Penner
oject Manager

Sequoia Analytical

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Blaine Tech Services, Inc.	Client Project ID:	Shell/Oakland / 960402-W1	
985 Timothy Drive	Matrix:	Liquid	
San Jose, CA 95133			
Attention: Jim Keller	Work Order #:	9604321 -01, 03-06, 09-10	Reported: Apr 17, 1996

QUALITY CONTROL DATA REPORT

Analyte:	Benzene	Toluene	Ethyl Benzene	Xylenes
QC Batch#:	GC040996BTEX02A	GC040996BTEX02A	GC040996BTEX02A	GC040996BTEX02A
Analy. Method:	EPA 8020	EPA 8020	EPA 8020	EPA 8020
Prep. Method:	EPA 5030	EPA 5030	EPA 5030	EPA 5030
Analyst:	J. Woo	J. Woo	J. Woo	J. Woo
MS/MSD #:	9603J3401	9603J3401	9603J3401	9603J3401
Sample Conc.:	N.D.	N.D.	N.D.	N.D.
Prepared Date:	4/9/96	4/9/96	4/9/96	4/9/96
Analyzed Date:	4/9/96	4/9/96	4/9/96	4/9/96
Instrument I.D.#:	GCHP2	GCHP2	GCHP2	GCHP2
Conc. Spiked:	10 µg/L	10 µg/L	10 µg/L	30 µg/L
Result:	9.7	8.9	9.1	26
MS % Recovery:	97	89	91	87
Dup. Result:	10	9.1	9.0	28
MSD % Recov.:	100	91	90	93
RPD:	3.0	2.2	1.1	7.4
RPD Limit:	0-50	0-50	0-50	0-50

LCS #:	BLK040996	BLK040996	BLK040996	BLK040996
Prepared Date:	4/9/96	4/9/96	4/9/96	4/9/96
Analyzed Date:	4/9/96	4/9/96	4/9/96	4/9/96
Instrument I.D.#:	GCHP2	GCHP2	GCHP2	GCHP2
Conc. Spiked:	10 µg/L	10 µg/L	10 µg/L	30 µg/L
LCS Result:	10	9.1	9.3	28
LCS % Recov.:	100	91	93	93
MS/MSD LCS Control Limits	70-130	70-130	70-130	70-130

SEQUOIA ANALYTICAL

Peggy Penner
Project Manager

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

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

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Blaine Tech Services, Inc.
985 Timothy Drive
San Jose, CA 95133
Attention: Jim Keller

Client Project ID: Shell/Oakland / 960402-W1
Matrix: Liquid
Work Order #: 9604321-02

Reported: Apr 17, 1996

QUALITY CONTROL DATA REPORT

Analyte:	Benzene	Toluene	Ethyl Benzene	Xylenes
QC Batch#:	GC041096BTEX03A	GC041096BTEX03A	GC041096BTEX03A	GC041096BTEX03A
Analy. Method:	EPA 8020	EPA 8020	EPA 8020	EPA 8020
Prep. Method:	EPA 5030	EPA 5030	EPA 5030	EPA 5030
Analyst:	J. Woo	J. Woo	J. Woo	J. Woo
MS/MSD #:	9603J2105	9603J2105	9603J2105	9603J2105
Sample Conc.:	N.D.	N.D.	N.D.	N.D.
Prepared Date:	4/10/96	4/10/96	4/10/96	4/10/96
Analyzed Date:	4/10/96	4/10/96	4/10/96	4/10/96
Instrument I.D.#:	GCHP3	GCHP3	GCHP3	GCHP3
Conc. Spiked:	10 µg/L	10 µg/L	10 µg/L	30 µg/L
Result:	11	11	11	33
MS % Recovery:	110	110	110	110
Dup. Result:	11	10	10	32
MSD % Recov.:	110	100	100	107
RPD:	0.0	9.5	9.5	3.1
RPD Limit:	0-50	0-50	0-50	0-50
LCS #:	BLK041096	BLK041096	BLK041096	BLK041096
Prepared Date:	4/10/96	4/10/96	4/10/96	4/10/96
Analyzed Date:	4/10/96	4/10/96	4/10/96	4/10/96
Instrument I.D.#:	GCHP3	GCHP3	GCHP3	GCHP3
Conc. Spiked:	10 µg/L	10 µg/L	10 µg/L	30 µg/L
LCS Result:	10	10	10	31
LCS % Recov.:	100	100	100	103
MS/MSD LCS Control Limits	70-130	70-130	70-130	70-130

SEQUOIA ANALYTICAL

Peggy Penner
Project Manager

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

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

Sequoia Analytical

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Blaine Tech Services, Inc.	Client Project ID:	Shell/Oakland / 960402-W1	
985 Timothy Drive	Matrix:	Liquid	
San Jose, CA 95133			
Attention: Jim Keller	Work Order #:	9604321-07	Reported: Apr 17, 1996

QUALITY CONTROL DATA REPORT

Analyte:	Benzene	Toluene	Ethyl Benzene	Xylenes
QC Batch#:	GC040996BTEX03B	GC040996BTEX03B	GC040996BTEX03B	GC040996BTEX03B
Analy. Method:	EPA 8020	EPA 8020	EPA 8020	EPA 8020
Prep. Method:	EPA 5030	EPA 5030	EPA 5030	EPA 5030
Analyst:	J. Woo	J. Woo	J. Woo	J. Woo
MS/MSD #:	9603J3402	9603J3402	9603J3402	9603J3402
Sample Conc.:	N.D.	N.D.	N.D.	N.D.
Prepared Date:	4/9/96	4/9/96	4/9/96	4/9/96
Analyzed Date:	4/9/96	4/9/96	4/9/96	4/9/96
Instrument I.D.#:	GCHP3	GCHP3	GCHP3	GCHP3
Conc. Spiked:	10 µg/L	10 µg/L	10 µg/L	30 µg/L
Result:	10	10	10	31
MS % Recovery:	100	100	100	103
Dup. Result:	10	10	10	31
MSD % Recov.:	100	100	100	103
RPD:	0.0	0.0	0.0	0.0
RPD Limit:	0-50	0-50	0-50	0-50

LCS #:	BLK040996	BLK040996	BLK040996	BLK040996
Prepared Date:	4/9/96	4/9/96	4/9/96	4/9/96
Analyzed Date:	4/9/96	4/9/96	4/9/96	4/9/96
Instrument I.D.#:	GCHP3	GCHP3	GCHP3	GCHP3
Conc. Spiked:	10 µg/L	10 µg/L	10 µg/L	30 µg/L
LCS Result:	9.6	9.5	9.5	29
LCS % Recov.:	96	95	95	97
MS/MSD LCS Control Limits	70-130	70-130	70-130	70-130

SEQUOIA ANALYTICAL

Peggy Penner
Project Manager

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

Sequoia Analytical

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

Blaine Tech Services, Inc.
985 Timothy Drive
San Jose, CA 95133
Attention: Jim Keller

Client Project ID: Shell/Oakland / 960402-W1
Matrix: Liquid
Work Order #: 9604321-08

Reported: Apr 17, 1996

QUALITY CONTROL DATA REPORT

Analyte:	Benzene	Toluene	Ethyl Benzene	Xylenes
QC Batch#:	GC040996BTEX17B	GC040996BTEX17B	GC040996BTEX17B	GC040996BTEX17B
Analy. Method:	EPA 8020	EPA 8020	EPA 8020	EPA 8020
Prep. Method:	EPA 5030	EPA 5030	EPA 5030	EPA 5030
Analyst:	J. Woo	J. Woo	J. Woo	J. Woo
MS/MSD #:	9603J3402	9603J3402	9603J3402	9603J3402
Sample Conc.:	N.D.	N.D.	N.D.	N.D.
Prepared Date:	4/9/96	4/9/96	4/9/96	4/9/96
Analyzed Date:	4/9/96	4/9/96	4/9/96	4/9/96
Instrument I.D.#:	GCHP17	GCHP17	GCHP17	GCHP17
Conc. Spiked:	10 µg/L	10 µg/L	10 µg/L	30 µg/L
Result:	10	10	10	31
MS % Recovery:	100	100	100	103
Dup. Result:	10	10	10	30
MSD % Recov.:	100	100	100	100
RPD:	0.0	0.0	0.0	3.3
RPD Limit:	0-50	0-50	0-50	0-50
LCS #:	BLK040996	BLK040996	BLK040996	BLK040996
Prepared Date:	4/9/96	4/9/96	4/9/96	4/9/96
Analyzed Date:	4/9/96	4/9/96	4/9/96	4/9/96
Instrument I.D.#:	GCHP17	GCHP17	GCHP17	GCHP17
Conc. Spiked:	10 µg/L	10 µg/L	10 µg/L	30 µg/L
LCS Result:	10	10	10	31
LCS % Recov.:	100	100	100	103
MS/MSD LCS Control Limits	70-130	70-130	70-130	70-130

SEQUOIA ANALYTICAL

Peggy Penner
Project Manager

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

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Sequoia Analytical

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Blaine Tech Services, Inc.	Client Project ID:	Shell/Oakland / 960402-W1	
985 Timothy Drive	Matrix:	Liquid	
San Jose, CA 95133			
Attention: Jim Keller	Work Order #:	9604321-11	Reported: Apr 17, 1996

QUALITY CONTROL DATA REPORT

Analyte:	Benzene	Toluene	Ethyl Benzene	Xylenes
QC Batch#:	GC040996BTEX03A	GC040996BTEX03A	GC040996BTEX03A	GC040996BTEX03A
Analy. Method:	EPA 8020	EPA 8020	EPA 8020	EPA 8020
Prep. Method:	EPA 5030	EPA 5030	EPA 5030	EPA 5030
Analyst:	J. Woo	J. Woo	J. Woo	J. Woo
MS/MSD #:	9603J3401	9603J3401	9603J3401	9603J3401
Sample Conc.:	N.D.	N.D.	N.D.	N.D.
Prepared Date:	4/9/96	4/9/96	4/9/96	4/9/96
Analyzed Date:	4/9/96	4/9/96	4/9/96	4/9/96
Instrument I.D.#:	GCHP3	GCHP3	GCHP3	GCHP3
Conc. Spiked:	10 µg/L	10 µg/L	10 µg/L	30 µg/L
Result:	10	10	10	31
MS % Recovery:	100	100	100	103
Dup. Result:	10	9.7	9.7	29
MSD % Recov.:	100	97	97	97
RPD:	0.0	3.0	3.0	6.7
RPD Limit:	0-50	0-50	0-50	0-50
LCS #:	BLK040996	BLK040996	BLK040996	BLK040996
Prepared Date:	4/9/96	4/9/96	4/9/96	4/9/96
Analyzed Date:	4/9/96	4/9/96	4/9/96	4/9/96
Instrument I.D.#:	GCHP3	GCHP3	GCHP3	GCHP3
Conc. Spiked:	10 µg/L	10 µg/L	10 µg/L	30 µg/L
LCS Result:	10	10	10	30
LCS % Recov.:	100	100	100	100
MS/MSD LCS Control Limits	70-130	70-130	70-130	70-130

SEQUOIA ANALYTICAL

gy Penner
ct 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.

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Sequoia Analytical

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Blaine Tech Services, Inc.	Client Project ID:	Shell/Oakland / 960402-W1	
985 Timothy Drive	Matrix:	Liquid	
San Jose, CA 95133			
Attention: Jim Keller	Work Order #:	9604323-12-13	Reported: Apr 17, 1996

QUALITY CONTROL DATA REPORT

Analyte:	Benzene	Toluene	Ethyl Benzene	Xylenes
QC Batch#:	GC041096BTEX02A	GC041096BTEX02A	GC041096BTEX02A	GC041096BTEX02A
Analy. Method:	EPA 8020	EPA 8020	EPA 8020	EPA 8020
Prep. Method:	EPA 5030	EPA 5030	EPA 5030	EPA 5030
Analyst:	J. Woo	J. Woo	J. Woo	J. Woo
MS/MSD #:	9603J2105	9603J2105	9603J2105	9603J2105
Sample Conc.:	N.D.	N.D.	N.D.	N.D.
Prepared Date:	4/10/96	4/10/96	4/10/96	4/10/96
Analyzed Date:	4/10/96	4/10/96	4/10/96	4/10/96
Instrument I.D.#:	GCHP2	GCHP2	GCHP2	GCHP2
Conc. Spiked:	10 µg/L	10 µg/L	10 µg/L	30 µg/L
Result:	10	9.9	9.8	30
MS % Recovery:	100	99	98	100
Dup. Result:	11	9.6	9.0	30
MSD % Recov.:	110	96	90	100
RPD:	9.5	3.1	8.5	0.0
RPD Limit:	0-50	0-50	0-50	0-50
LCS #:	BLK041096	BLK041096	BLK041096	BLK041096
Prepared Date:	4/10/96	4/10/96	4/10/96	4/10/96
Analyzed Date:	4/10/96	4/10/96	4/10/96	4/10/96
Instrument I.D.#:	GCHP2	GCHP2	GCHP2	GCHP2
Conc. Spiked:	10 µg/L	10 µg/L	10 µg/L	30 µg/L
LCS Result:	10	10	9.8	30
LCS % Recov.:	100	100	98	100
MS/MSD LCS Control Limits	70-130	70-130	70-130	70-130

SEQUOIA ANALYTICAL

Peggy Penner
Project Manager

Please Note:
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Sequoia Analytical

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Blaine Tech Services, Inc.	Client Project ID:	Shell/Oakland / 960402-W1	
985 Timothy Drive	Matrix:	Liquid	
San Jose, CA 95133			
Attention: Jim Keller	Work Order #:	9604321-01-11	Reported: Apr 17, 1996

QUALITY CONTROL DATA REPORT

Analyte:	Diesel
QC Batch#:	GC0408960HBPEXA
Analy. Method:	EPA 8015M
Prep. Method:	EPA 3510
Analyst:	B. Ali
MS/MSD #:	960423210
Sample Conc.:	N.D.
Prepared Date:	4/8/96
Analyzed Date:	4/9/96
Instrument I.D.#:	GCHP4
Conc. Spiked:	1000 µg/L
Result:	930
MS % Recovery:	93
Dup. Result:	1000
MSD % Recov.:	100
RPD:	7.3
RPD Limit:	0-50

LCS #:	BLK040896
Prepared Date:	4/8/96
Analyzed Date:	4/9/96
Instrument I.D.#:	GCHP4
Conc. Spiked:	1000 µg/L
LCS Result:	890
LCS % Recov.:	89

MS/MSD LCS Control Limits	38-122

SEQUOIA ANALYTICAL

Peggy Penner
Project Manager

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Sequoia Analytical

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Blaine Tech Services, Inc.	Client Project ID:	Shell/Oakland / 960402-W1	
985 Timothy Drive	Matrix:	Liquid	
San Jose, CA 95133			
Attention: Jim Keller	Work Order #:	9604323-12-13	Reported: Apr 17, 1996

QUALITY CONTROL DATA REPORT

Analyte:	Diesel	Diesel
QC Batch#:	GC0409960HBPEXB	GC0409960HBPEXB
Analy. Method:	EPA 8015M	EPA 8015M
Prep. Method:	EPA 3510	EPA 3510
Analyst:	B. Ali	B. Ali
MS/MSD #:	960434101	-
Sample Conc.:	550	-
Prepared Date:	4/9/96	-
Analyzed Date:	4/10/96	-
Instrument I.D.#:	GCHP5	-
Conc. Spiked:	1000 µg/L	-
Result:	1500	-
MS % Recovery:	95	-
Dup. Result:	1600	-
MSD % Recov.:	105	-
RPD:	6.5	-
RPD Limit:	0-50	-
LCS #:	BLK040996	BLK041196
Prepared Date:	4/9/96	4/11/96
Analyzed Date:	4/10/96	4/11/96
Instrument I.D.#:	GCHP4	GCHP5
Conc. Spiked:	1000 µg/L	1000 µg/L
LCS Result:	860	1100
LCS % Recov.:	86	110
MS/MSD LCS Control Limits	38-122	38-122

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