



PACIFIC  
ENVIRONMENTAL  
GROUP, INC.

ALCO  
HAZMAT

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April 22, 1994  
Project 305-094.2B

Mr. Lynn Walker  
Shell Oil Company  
P.O. Box 5278  
Concord, California 94520

Re: Quarterly Report - First Quarter 1994  
Former Shell Service Station  
2724 Castro Valley Boulevard at Lake Chabot Road  
Castro Valley, California  
WIC No 204-1381-0407

Dear Mr. Walker:

The following presents the results of the first quarter 1994 monitoring program for the site referenced above. This letter has been prepared for Shell Oil Company by Pacific Environmental Group, Inc. (PACIFIC).

## FINDINGS

Groundwater monitoring wells were gauged and sampled by Blaine Tech Services, Inc. (Blaine) at the direction of PACIFIC on February 28, 1994. Groundwater elevation contours for the sampling date are shown on Figure 1. Table 1 presents groundwater elevation data.

Groundwater analytical data are presented in Tables 2 and 3. Total petroleum hydrocarbons calculated as gasoline (TPH-g), benzene, and TPH calculated as diesel (TPH-d) concentrations for the February 1994 sampling event are shown on Figure 2. None of the wells contained TPH-g, benzene, toluene, ethylbenzene, xylenes (BTEX compounds), or TPH-d, with the exception of Well MW-7, with a detected concentration of 64 parts per billion (ppb) TPH-d in the C<sub>10</sub>-C<sub>19</sub> hydrocarbon range. Wells MW-2 and MW-7 were damaged during tank removal which was completed in July 1993. The wells were repaired and completed to grade on March 8, 1994. PACIFIC plans to redevelop Well MW-2 free of debris and resurvey both Wells MW-2 and MW-7 prior to the second quarter 1994 sampling

event. Blaine's groundwater sampling report is presented as Attachment A.

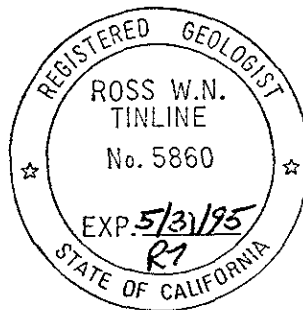
PACIFIC recommends sampling frequency reductions as follows:

(1) downgradient Monitoring Wells MW-1, MW-3, MW-5, and OMW-9 be monitored semiannually since, at a minimum, 4 quarters of non-detectable levels of TPH-g and BTEX compounds have been reported, and (2) upgradient Monitoring Wells OMW-6 and OMW-8 be monitored annually since TPH-g and BTEX compounds have not been above detection limits since February 1992, except for an anomalous result of 180 ppb TPH-g in Well OMW-8 in February 1993.

If you have any questions regarding the contents of this letter, please call.

Sincerely,

Pacific Environmental Group, Inc.



Ross W.N. Tinline  
Project Geologist  
RG 5860

Attachments: Table 1 - Groundwater Elevation Data  
Table 2 - Groundwater Analytical Data -  
Total Petroleum Hydrocarbons  
(TPH as Gasoline and BTEX Compounds)  
Table 3 - Groundwater Analytical Data -  
Total Petroleum Hydrocarbons  
(TPH as Diesel and Motor Oil)  
Figure 1- Groundwater Elevation Map  
Figure 2- TPH-g/Benzene/TPH-d Concentration Map  
Attachment A - Groundwater Sampling Report

cc: Mr. Scott Seery, Alameda County Department of Environmental Health  
Mr. Rich Hiatt, Regional Water Quality Control Board  
Dr. Mohsen Mehran, Owner Consultant  
Mr. Richard Finn, Larson and Burnham  
Mr. Matthew Righetti, Righetti Law Firm  
Mr. Richard A. Schoenberger, Esq., Walkup, Shelby, Bastian, Melodia, Kelly,  
Echeverria and Link  
Mr. David Swope, Shell Oil Company  
Mr. Jeff Holland, Shell Oil Company

Table 1  
Groundwater Elevation Data

Former Shell Service Station  
2724 Castro Valley Boulevard at Lake Chabot Road  
Castro Valley, California

Well Number	Date Gauged	Well Elevation (feet, MSL)	Depth to Water (feet, TOC)	Groundwater Elevation (feet, MSL)
MW-1	02/08/90	99.78	8.39	91.39
	04/20/90		9.21	90.57
	07/30/90		9.21	90.57
	10/25/90		9.44	90.34
	01/15/91		9.11	90.67
	04/19/91		5.58	94.20
	07/16/91		7.58	92.20
	10/08/91		8.25	91.53
	02/04/92		8.52	91.26
	04/06/92		6.75	93.03
	08/26/92		9.89	89.89
	11/06/92		9.01	90.77
	02/18/93		160.54	4.33
	06/04/93	8.26		152.28
	09/10/93	9.04		151.50
	11/17/93	9.15		151.39
	02/28/94	4.28		156.26
MW-2	02/08/90	100.83	7.33	93.50
	04/20/90		8.63	92.20
	07/30/90		8.78	92.05
	10/25/90		9.50	91.33
	01/15/91		8.52	92.31
	04/19/91		6.90	93.93
	07/16/91		9.01	91.82
	10/08/91		8.82	92.01
	02/04/92		7.46	93.37
	04/06/92		6.91	93.92
	08/26/92		9.28	91.55
	11/06/92		8.59	92.24
	02/18/93		----- Well Inaccessible -----	
	06/04/93		----- Well Inaccessible -----	
	09/10/93		----- Well Inaccessible -----	
	11/17/93		----- Well Inaccessible -----	
	02/28/94		----- Well Inaccessible <sup>a</sup> -----	
MW-3	02/08/90	101.48	8.91	92.57
	04/20/90		10.20	91.28
	07/30/90		10.61	90.87
	10/25/90		10.00	91.48
	01/15/91		9.74	91.74
	04/19/91		7.92	93.56
	07/16/91		9.40	92.08
	10/08/91		9.62	91.86

Table 1 (continued)  
Groundwater Elevation Data

Former Shell Service Station  
2724 Castro Valley Boulevard at Lake Chabot Road  
Castro Valley, California

Well Number	Date Gauged	Well Elevation (feet, MSL)	Depth to Water (feet, TOC)	Groundwater Elevation (feet, MSL)
MW-3 (cont.)	02/04/92		8.74	92.74
	04/06/92		7.12	94.36
	08/26/92		9.58	91.90
	11/06/92		8.95	92.53
	02/18/93	162.24	6.79	155.45
	06/04/93		8.48	153.76
	09/10/93		9.84	152.40
	11/17/93		9.78	152.46
	02/28/94		8.44	153.80
MW-5	02/08/90	99.90	8.80	91.10
	04/20/90		9.35	90.55
	07/30/90		9.49	90.41
	10/25/90		10.12	89.78
	01/15/91		9.26	90.64
	04/19/91		6.52	93.38
	07/16/91		9.12	90.78
	10/08/91		9.22	90.68
	02/04/92		8.13	91.77
	04/06/92		5.53	94.37
	08/26/92		9.25	90.65
	11/06/92		9.02	90.88
	02/18/93	160.68	3.60	157.08
	06/04/93		7.08	153.60
	09/10/93		9.92	150.76
11/17/93		9.86	150.82	
02/28/94		7.56	153.12	
OMW-6	07/16/91	101.48	8.60	92.88
	10/08/91		8.82	92.66
	02/04/92		7.47	94.01
	04/06/92		5.80	95.68
	08/26/92		9.18	92.30
	11/06/92		8.29	93.19
	02/18/93	162.22	5.83	156.39
	06/04/93		7.14	155.08
	09/10/93		8.78	153.44
	11/17/93		8.74	153.48
02/28/94		5.16	157.06	
MW-7	07/16/91	99.54	8.70	90.84
	10/08/91		8.74	90.80
	02/04/92		7.78	91.76
	04/06/92		5.87	93.67
	08/26/92		8.93	90.61
	11/06/92		8.51	91.03

Table 1 (continued)  
Groundwater Elevation Data

Former Shell Service Station  
2724 Castro Valley Boulevard at Lake Chabot Road  
Castro Valley, California

Well Number	Date Gauged	Well Elevation (feet, MSL)	Depth to Water (feet, TOC)	Groundwater Elevation (feet, MSL)
MW-7 (cont.)	02/18/93	-----	Well Inaccessible	-----
	06/04/93	-----	Well Inaccessible	-----
	09/10/93	-----	Well Inaccessible	-----
	11/17/93	-----	Well Inaccessible	-----
	02/28/94		2.99	NA
OMW-8	07/16/91	100.18	8.40	91.78
	10/08/91		8.74	91.44
	02/04/92		8.22	91.96
	04/06/92		6.82	93.36
	08/26/92		9.15	91.03
	11/06/92		8.69	91.49
	02/18/93	160.92	7.59	153.33
	06/04/93		7.88	153.04
	09/10/93		8.58	152.34
	11/17/93		8.72	152.20
02/28/94		7.64	153.28	
OMW-9	03/03/93	158.81	9.16	149.65
	06/04/93		9.52	149.29
	09/10/93		9.23	149.58
	11/17/93	-----	Well Paved Over	-----
	02/28/94		9.24	149.57
<p>MSL = Mean sea level            TOC = Top of casing            a. Intensive well development required due to previous damage.            NA Not available, survey required.            Elevations prior to February 18, 1993 are to a temporary bench mark.            Elevations after February 18, 1993 are to MSL.</p>				

Table 2  
**Groundwater Analytical Data**  
 Total Petroleum Hydrocarbons  
 (TPH as Gasoline and BTEX Compounds)

Former Shell Service Station  
 2724 Castro Valley Boulevard at Lake Chabot Road  
 Castro Valley, California

Well Number	Date Sampled	TPH as Gasoline (ppb)	Benzene (ppb)	Toluene (ppb)	Ethylbenzene (ppb)	Xylenes (ppb)	
MW-1	02/09/90	<1,000	0.58	0.63	<0.5	<0.5	
	04/20/90	<50	<0.5	<0.5	<0.5	<0.5	
	07/31/90	<50	<0.5	<0.5	<0.5	<0.5	
	10/25/90	100	<0.5	<0.5	<0.5	<0.6	
	01/15/91	60	<0.5	<0.5	<0.5	<0.5	
	01/15/91	<50	<0.5	<0.5	<0.5	<0.5	
	04/19/91	<50	7.7	<0.5	<0.5	<0.5	
	04/19/91	<50	7.4	<0.5	<0.5	<0.5	
	07/16/91	<50	<0.5	<0.5	<0.5	<0.5	
	10/08/91	<50	<0.5	<0.5	<0.5	<0.5	
	02/04/92	<50	<0.5	<0.5	<0.5	<0.5	
	04/06/92	50	<0.5	<0.5	<0.5	<0.5	
	08/26/92	<50	<0.5	<0.5	<0.5	<0.5	
	11/12/92	<50	<0.5	<0.5	<0.5	<0.5	
	02/18/93	<50	<0.5	<0.5	<0.5	<0.5	
	06/04/93	<50	<0.5	<0.5	<0.5	<0.5	
	09/10/93	<50	<0.5	<0.5	<0.5	<0.5	
	11/17/93	<50	<0.5	<0.5	<0.5	<0.5	
02/28/94	<50	<0.5	<0.5	<0.5	<0.5		
MW-2	02/09/90	8,600	360	410	6.5	670	
	04/20/90	9,100	500	330	110	900	
	07/31/90	5,300	550	38	<0.5	280	
	10/25/90	4,800	490	22	21	156	
	01/15/91	5,700	320	29	120	530	
	04/19/91	3,900	100	77	100	93	
	07/16/91	1,800	100	5.8	41	31	
	07/16/91	2,700	130	7.6	62	45	
	10/08/91	1,000	17	<0.5	25	25	
	02/04/92	1,700	190	5.8	18	110	
	04/06/92	3,800	930	50	110	190	
	05/03/92	2,400	610	8.8	90	<0.5	
	08/26/92	520	36	2.0	12	7.9	
	08/26/92(D)	450	33	1.7	11	3.4	
	11/12/92	310	30	6.2	5.1	4.3	
	11/12/92(D)	360	31	6.5	5.1	4.4	
	02/18/93	----- Well Inaccessible -----					
	06/04/93	----- Well Inaccessible -----					
09/10/93	----- Well Inaccessible -----						
11/17/93	----- Well Inaccessible -----						
02/28/94	----- Well Inaccessible -----						

Table 2 (continued)  
**Groundwater Analytical Data**  
 Total Petroleum Hydrocarbons  
 (TPH as Gasoline and BTEX Compounds)

Former Shell Service Station  
 2724 Castro Valley Boulevard at Lake Chabot Road  
 Castro Valley, California

Well Number	Date Sampled	TPH as Gasoline (ppb)	Benzene (ppb)	Toluene (ppb)	Ethylbenzene (ppb)	Xylenes (ppb)
MW-3	02/09/90	<1,000	<0.5	<0.5	<0.5	<0.5
	04/20/90	<50	<0.5	<0.5	<0.5	<0.5
	07/31/90	<50	<0.5	<0.5	<0.5	<0.5
	10/25/90	<50	<0.5	<0.5	<0.6	<0.6
	01/15/91	<50	<0.5	<0.5	<0.5	<0.5
	04/19/91	<50	<0.5	<0.5	<0.5	<0.5
	07/16/91	<50	<0.5	<0.5	<0.5	<0.5
	10/08/91	<50	<0.5	<0.5	<0.5	<0.5
	02/04/92	<50	4	2	7	3.2
	04/06/92	<50	<0.5	<0.5	<0.5	<0.5
	08/26/92	<50	<0.5	<0.5	<0.5	<0.5
	11/12/92	<50	<0.5	<0.5	<0.5	<0.5
	02/18/93	<50	<0.5	<0.5	<0.5	<0.5
	06/04/93	<50	<0.5	<0.5	<0.5	<0.5
	06/04/93(D)	<50	<0.5	<0.5	<0.5	<0.5
	09/10/93	<50	<0.5	<0.5	<0.5	<0.5
	09/10/93(D)	<50	<0.5	<0.5	<0.5	<0.5
	11/17/93	<50	<0.5	<0.5	<0.5	<0.5
	11/17/93(D)	<50	<0.5	<0.5	<0.5	<0.5
02/28/94	<50	<0.5	<0.5	<0.5	<0.5	
MW-5	02/09/90	<1,000	<0.5	<0.5	<0.5	<0.5
	04/20/90	<50	<0.5	<0.5	<0.5	<0.5
	07/31/90	<50	<0.5	<0.5	<0.5	<0.5
	10/25/90	<50	<0.5	<0.7	<0.6	<0.6
	01/15/91	<50	<0.5	<0.5	<0.5	<0.5
	04/19/91	<50	<0.5	<0.5	<0.5	<0.5
	07/16/91	<50	<0.5	<0.5	<0.5	<0.5
	10/08/91	<50	<0.5	<0.5	<0.5	<0.5
	02/04/92	<50	<0.5	<0.5	<0.5	<0.5
	04/06/92	<50	<0.5	<0.5	<0.5	<0.5
	08/26/92	<50	<0.5	<0.5	<0.5	<0.5
	11/12/92	<50	<0.5	<0.5	<0.5	<0.5
	02/18/93	<50	<0.5	<0.5	<0.5	<0.5
	06/04/93	<50	<0.5	<0.5	<0.5	<0.5
	09/10/93	<50	<0.5	<0.5	<0.5	<0.5
	11/17/93	<50	<0.5	<0.5	<0.5	<0.5
	02/28/94	<50	<0.5	<0.5	<0.5	<0.5
02/28/94(D)	<50	<0.5	<0.5	<0.5	<0.5	

Table 2 (continued)  
**Groundwater Analytical Data**  
 Total Petroleum Hydrocarbons  
 (TPH as Gasoline and BTEX Compounds)

Former Shell Service Station  
 2724 Castro Valley Boulevard at Lake Chabot Road  
 Castro Valley, California

Well Number	Date Sampled	TPH as Gasoline (ppb)	Benzene (ppb)	Toluene (ppb)	Ethylbenzene (ppb)	Xylenes (ppb)	
OMW-6	07/16/91	<50	<0.5	<0.5	<0.5	<0.5	
	10/08/91	<50	<0.5	<0.5	<0.5	<0.5	
	02/04/92	<50	<0.5	<0.5	<0.5	<0.5	
	04/06/92	<50	<0.5	<0.5	<0.5	<0.5	
	08/26/92	<50	<0.5	<0.5	<0.5	<0.5	
	11/12/92	<50	<0.5	<0.5	<0.5	<0.5	
	02/18/93	<50	<0.5	<0.5	<0.5	<0.5	
	02/18/93(D)	<50	<0.5	<0.5	<0.5	<0.5	
	06/04/93	<50	<0.5	<0.5	<0.5	<0.5	
	09/10/93	50**	<0.5	<0.5	<0.5	<0.5	
	11/17/93	<50	<0.5	<0.5	<0.5	<0.5	
	02/28/94	<50	<0.5	<0.5	<0.5	<0.5	
MW-7	07/16/91	1,300	440	140	6.9	160	
	10/08/91	520	230	36	26	54	
	02/04/92	640	130	51	26	79	
	04/06/92	80	32	1.7	2.3	4.4	
	05/13/92	<50	3.1	1.7	0.9	3.8	
	08/26/92	63	1.0	<0.5	2.6	<0.5	
	11/12/92	73	11	<0.5	3.7	<0.5	
	02/18/93	----- Well Inaccessible -----					
	06/04/93	----- Well Inaccessible -----					
	09/10/93	----- Well Inaccessible -----					
	11/17/93	----- Well Inaccessible -----					
	02/28/94	<50	<0.5	<0.5	<0.5	<0.5	
OMW-8	07/16/91	<50	<0.5	0.8	<0.5	<0.5	
	10/08/91	<50	<0.5	<0.5	<0.5	<0.5	
	02/04/92	<50	0.9	1.9	0.6	3.6	
	04/06/92	<50	<0.5	<0.5	<0.5	<0.5	
	08/26/92	<50	<0.5	<0.5	<0.5	<0.5	
	11/12/92	<50	<0.5	<0.5	<0.5	<0.5	
	02/18/93	180*	<0.5	<0.5	<0.5	<0.5	
	06/04/93	<50	<0.5	<0.5	<0.5	<0.5	
	09/10/93	<50	<0.5	<0.5	<0.5	<0.5	
	11/17/93	<50	<0.5	<0.5	<0.5	<0.5	
	02/28/94	<50	<0.5	<0.5	<0.5	<0.5	



Table 2 (continued)  
**Groundwater Analytical Data**  
**Total Petroleum Hydrocarbons**  
 (TPH as Gasoline and BTEX Compounds)

Former Shell Service Station  
 2724 Castro Valley Boulevard at Lake Chabot Road  
 Castro Valley, California

Well Number	Date Sampled	TPH as Gasoline (ppb)	Benzene (ppb)	Toluene (ppb)	Ethylbenzene (ppb)	Xylenes (ppb)
OMW-9	03/03/93	<50	<0.5	<0.5	<0.5	<0.5
	06/04/93	<50	<0.5	<0.5	<0.5	<0.5
	09/10/93	<50	<0.5	<0.5	<0.5	<0.5
	11/17/93	----- Well Paved Over -----				
	02/28/94	<50	<0.5	<0.5	<0.5	<0.5
<p>ppb = Parts per billion            &lt; = Denotes minimum laboratory detection limits.            (D) = Duplicate sample            * = Concentration due to the presence of a heavier petroleum hydrocarbon range.            ** = Concentration due to the presence of a discrete peak not indicative of gasoline.</p>						

Table 3  
**Groundwater Analytical Data**  
 Total Petroleum Hydrocarbons  
 (TPH as Diesel and Motor Oil)

Former Shell Service Station  
 2724 Castro Valley Boulevard at Lake Chabot Road  
 Castro Valley, California

Well Number	Date Sampled	TPH as Diesel (ppb)	Motor Oil (ppb)
MW-1	02/09/90	NA	NA
	04/20/90	NA	NA
	07/31/90	NA	NA
	10/25/90	<50	NA
	01/15/91	<50	NA
	01/15/91	<50	NA
	04/19/91	<50	NA
	04/19/91	<50	NA
	07/16/91	<50	<50
	10/08/91	<50	<50
	02/04/92	<50	NA
	04/06/92	<50	NA
	08/26/92	51	NA
	11/12/92	<50	NA
	02/18/93	57*	NA
	06/04/93	85	NA
	09/10/93	<50	NA
	11/17/93	<50	NA
	02/28/94	<50	NA
	MW-2	02/09/90	4,100
04/20/90		1,800	NA
07/31/90		60	NA
10/25/90		300	NA
01/15/91		680	NA
04/19/91		306	NA
07/16/91		430	<50
07/16/91		540	<50
10/08/91		110	<50
02/04/92		870	NA
04/06/92		1,000	NA
05/13/92		570	NA
08/26/92		63	NA
08/26/92(D)		63	NA
11/12/92		160	NA
11/12/92(D)		180	NA
02/18/93		----- Well Inaccessible -----	
06/04/93		----- Well Inaccessible -----	
09/10/93		----- Well Inaccessible -----	
11/17/93		----- Well Inaccessible -----	
11/17/93	----- Well Inaccessible -----		

Table 3 (continued)  
**Groundwater Analytical Data**  
 Total Petroleum Hydrocarbons  
 (TPH as Diesel and Motor Oil)

Former Shell Service Station  
 2724 Castro Valley Boulevard at Lake Chabot Road  
 Castro Valley, California

Well Number	Date Sampled	TPH as Diesel (ppb)	Motor Oil (ppb)
MW-3	02/09/90	NA	NA
	04/20/90	NA	NA
	07/31/90	NA	NA
	10/25/90	<50	NA
	01/15/91	<50	NA
	04/19/91	<50	NA
	07/16/91	<50	1,400
	10/08/91	<50	<50
	02/04/92	<50	NA
	04/06/92	<50	NA
	08/24/92	<50	NA
	11/12/92	<50	NA
	02/18/93	<50	NA
	06/04/93	200	NA
	06/04/93(D)	<50	NA
	09/10/93	<50	NA
	09/10/93(D)	<50	NA
	11/17/93	<50	NA
	11/17/93(D)	<50	NA
	02/28/94	<50	NA
MW-5	02/09/90	NA	NA
	04/20/90	NA	NA
	07/31/90	NA	NA
	10/25/90	<50	NA
	01/15/91	<50	NA
	04/19/91	<50	NA
	07/16/91	<50	<50
	10/08/91	<50	<50
	02/04/92	<50	NA
	04/06/92	<50	NA
	08/26/92	<50	NA
	11/12/92	<50	NA
	02/18/93	80*	NA
	06/04/93	170	NA
	09/10/93	<50	NA
	11/17/93	<50	NA
	02/28/94	<50	NA
02/28/94(D)	<50	NA	

Table 3 (continued)  
**Groundwater Analytical Data**  
 Total Petroleum Hydrocarbons  
 (TPH as Diesel and Motor Oil)

Former Shell Service Station  
 2724 Castro Valley Boulevard at Lake Chabot Road  
 Castro Valley, California

Well Number	Date Sampled	TPH as Diesel (ppb)	Motor Oil (ppb)
OMW-6	07/16/91	<50	<50
	10/08/91	<50	<50
	02/04/92	<50	NA
	04/06/92	<50	NA
	08/26/92	<50	NA
	11/12/92	<50	NA
	02/18/93	<50	NA
	02/18/93(D)	84*	NA
	06/04/93	<50	NA
	09/10/93	<50	NA
	11/17/93	<50	NA
	02/28/94	<50	NA
	MW-7	07/16/92	270
10/08/92		<50	<50
02/04/92		140**	NA
04/06/92		<50	NA
05/13/92		<50	NA
08/26/92		<50	NA
11/12/92		<50	NA
02/18/93		----- Well Inaccessible -----	
06/04/93		----- Well Inaccessible -----	
09/10/93		----- Well Inaccessible -----	
11/17/93		----- Well Inaccessible -----	
02/28/94		64	NA
OMW-8	07/16/91	<50	<50
	10/08/91	<50	<50
	02/04/92	<50	NA
	04/06/92	<50	NA
	08/26/92	<50	NA
	11/12/92	<50	NA
	02/18/93	<50	NA
	06/04/93	53	NA
	09/10/93	<50	NA
	11/17/93	<50	NA
	02/28/94	<50	NA

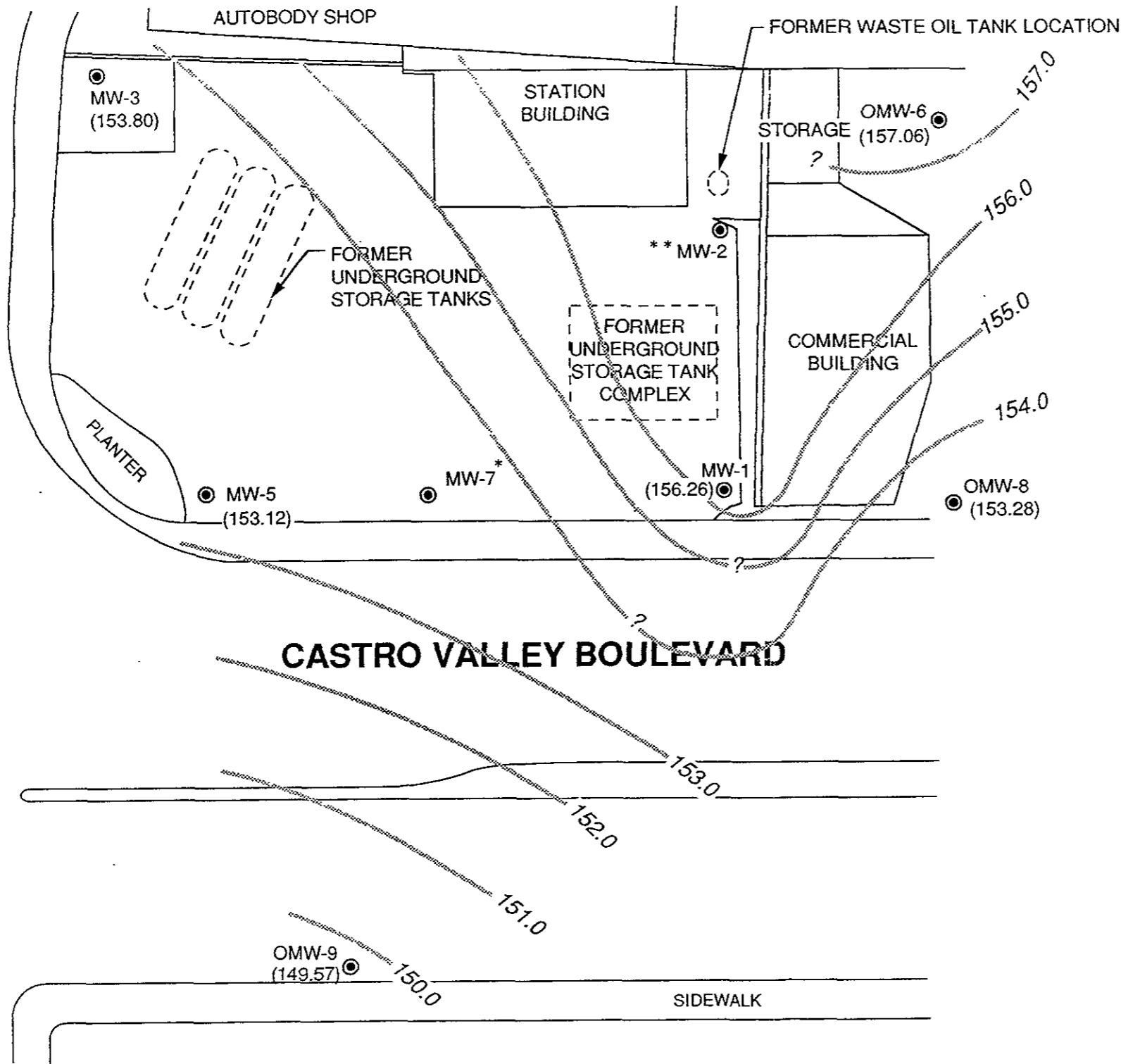
Table 3 (continued)  
**Groundwater Analytical Data**  
 Total Petroleum Hydrocarbons  
 (TPH as Diesel and Motor Oil)

Former Shell Service Station  
 2724 Castro Valley Boulevard at Lake Chabot Road  
 Castro Valley, California

Well Number	Date Sampled	TPH as Diesel (ppb)	Motor Oil (ppb)
OMW-9	03/03/93	71*	NA
	06/04/93	<50	NA
	09/10/93	<50	NA
	11/17/93	----- Well Paved Over -----	
	02/28/94	<50	NA
ppb = Parts per billion NA = Not analyzed < = Denotes minimum laboratory detection limits. (D) = Duplicate sample * = Concentration primarily due to the presence of a heavier petroleum hydrocarbon product. ** = The positive result for TPH-d analysis on this sample appears to be lighter hydrocarbon than diesel.			



LAKE CHABOT ROAD



**LEGEND**

- MW-1 GROUNDWATER MONITORING WELL LOCATION AND DESIGNATION
- (153.28) GROUNDWATER ELEVATION IN FEET - MSL, 2-28-94
- 154.0 GROUNDWATER ELEVATION CONTOUR IN FEET - MSL, 2-28-94
- \* SURVEY REQUIRED - UNABLE TO USE FOR CONTOURING
- \*\* WELL INACCESSIBLE - REQUIRES DEVELOPMENT

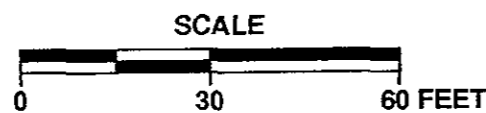


APPROXIMATE DIRECTION OF GROUNDWATER FLOW

APPROXIMATE GRADIENT = 0.02



PACIFIC ENVIRONMENTAL GROUP, INC.



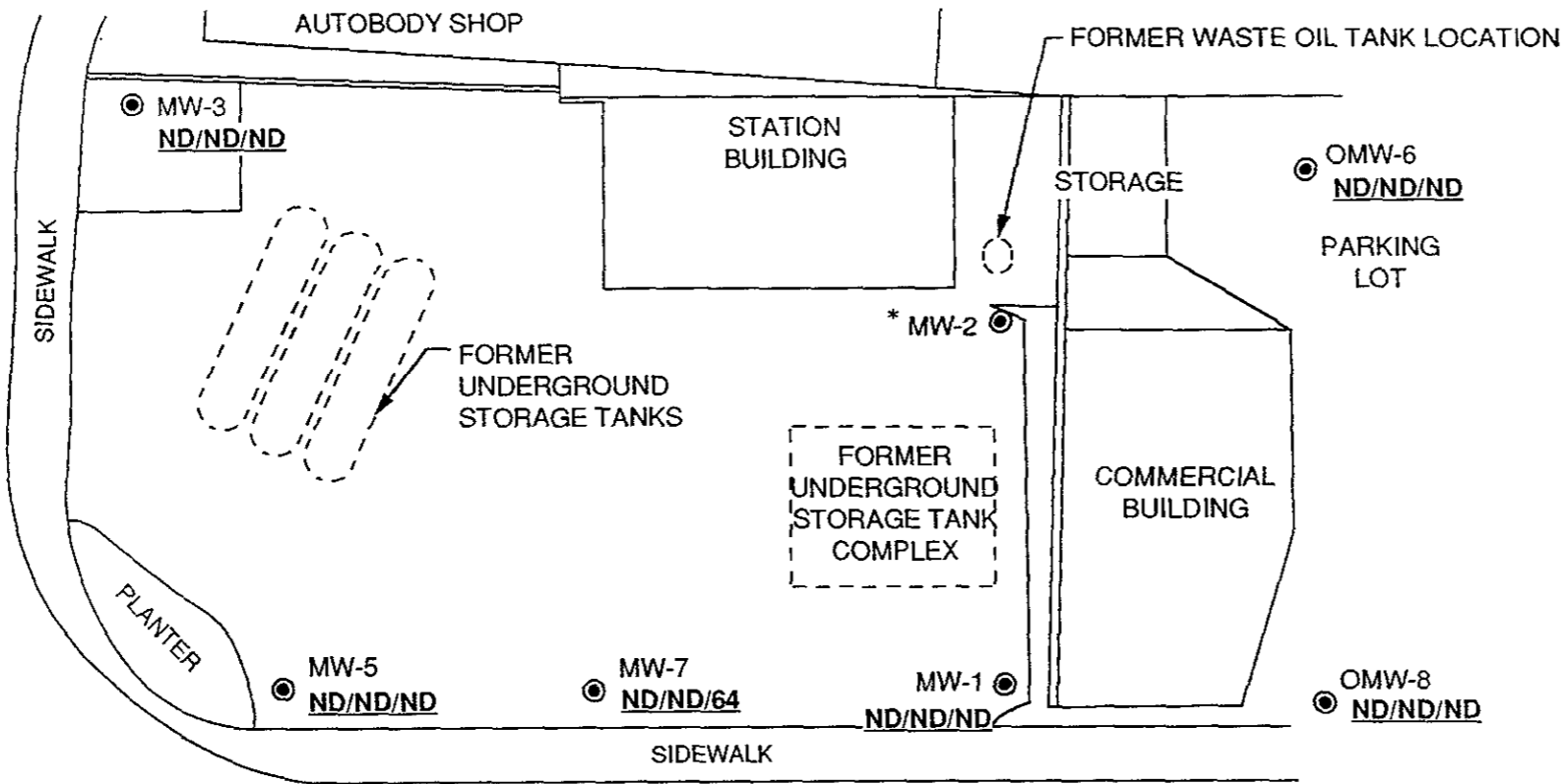
FORMER SHELL SERVICE STATION  
2724 Castro Valley Boulevard at Lake Chabot Road,  
Castro Valley, California

GROUNDWATER ELEVATION CONTOUR MAP

FIGURE:  
**1**  
PROJECT:  
305-094.2B



LAKE CHABOT ROAD



CASTRO VALLEY BOULEVARD

**LEGEND**

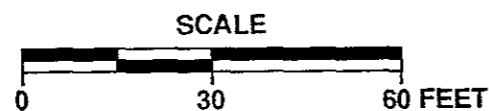
- MW-1 GROUNDWATER MONITORING WELL LOCATION AND DESIGNATION
- ND/ND/ND TPH-g/BENZENE/TPH-d CONCENTRATION IN GROUNDWATER, IN PARTS PER BILLION, 2-28-94
- ND NOT DETECTED
- \* WELL INACCESSIBLE - REQUIRES DEVELOPMENT



APPROXIMATE DIRECTION OF GROUNDWATER FLOW



PACIFIC ENVIRONMENTAL GROUP, INC.



FORMER SHELL SERVICE STATION  
2724 Castro Valley Boulevard at Lake Chabot Road,  
Castro Valley, California

TPH-g/BENZENE/TPH-g CONCENTRATION MAP

FIGURE:  
**2**  
PROJECT:  
305-094.2B

**ATTACHMENT A**  
**GROUNDWATER SAMPLING REPORT**



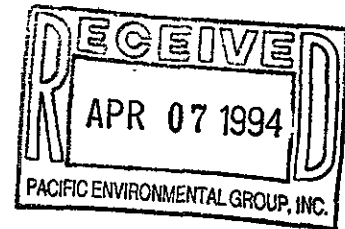
# BLAINE TECH SERVICES INC.

985 TIMOTHY DRIVE  
SAN JOSE, CA 95131  
(408) 995-5531  
FAX (408) 293-8773

March 14, 1994

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

Attn: Lynn Walker



SITE:  
Shell WIC #204-1381-0407  
2724 Castro Valley Blvd.  
Castro Valley, California

QUARTER:  
1st quarter of 1994

## QUARTERLY GROUNDWATER SAMPLING REPORT 940228-N-1

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This report contains data collected during routine inspection, gauging and sampling of groundwater monitoring wells performed by Blaine Tech Services, Inc. in response to the request of the consultant who is overseeing work at this site on behalf of our mutual client, Shell Oil Company. Data collected in the course of our field work is presented in a TABLE OF WELL GAUGING DATA. The field information was collected during our preliminary gauging and inspection of the wells, the subsequent evacuation of each well prior to sampling, and at the time of sampling.

Measurements taken include the total depth of the well and the depth to water. The surface of water was further inspected for the presence of immiscibles which may be present as a thin film (a sheen on the surface of the water) or as a measurable free product zone (FPZ). At intervals during the evacuation phase, the purge water was monitored with instruments that measure electrical conductivity (EC), potential hydrogen (pH), temperature (degrees Fahrenheit), and turbidity (NTU). In the interest of simplicity, fundamental information is tabulated here, while the bulk of the information is turned over directly to the consultant who is making professional interpretations and evaluations of the conditions at the site.

## **STANDARD PROCEDURES**

---

### **Evacuation**

Groundwater wells are thoroughly purged before sampling to insure that the sample is collected from water that has been newly drawn into the well from the surrounding geologic formation. The selection of equipment to evacuate each well is based on the physical characteristics of the well and what is known about the performance of the formation in which the well has been installed. There are several suitable devices which can be used for evacuation. The most commonly employed devices are air or gas actuated pumps, electric submersible pumps, and hand or mechanically actuated bailers. Our personnel frequently employ USGS/Middleburg positive displacement pumps or similar air actuated pumps which do not agitate the water standing in the well.

Normal evacuation removes three case volumes of water from the well. More than three case volumes of water are removed in cases where more evacuation is needed to achieve stabilization of water parameters and when requested by the local implementing agency. Less water may be obtained in cases where the well dewateres and does not recharge to 80% of its original volume within two hours and any additional time our personnel have reason to remain at the site. In such cases, our personnel return to the site within twenty four hours and collect sample material from the water which has recharged into the well case.

### **Decontamination**

All apparatus is brought to the site in clean and serviceable condition. The equipment is decontaminated after each use and before leaving the site. Effluent water from purging and on-site equipment cleaning is collected and transported to Shell's Martinez Manufacturing Complex in Martinez, California.

### **Free Product Skimmer**

The column headed, VOLUME OF IMMISCIBLES REMOVED (ml) is included in the TABLE OF WELL GAUGING DATA to cover situations where a free product skimming device must be removed from the well prior to gauging. Skimmers are installed in wells with a free product zone on the surface of the water. The skimmer is a free product recovery device which often prevents normal well gauging and free product zone measurements. The 2.0" and 3.0" PetroTraps fall into the category of devices that obstruct normal gauging. In cases where the consultant elects to have our personnel pull the skimmers out of the well and gauge the well, our personnel perform the additional task of draining the accumulated free product out of the PetroTrap before putting it back in the well. This

recovered free product is measured and logged in the VOLUME OF IMMISCIBLES REMOVED column. Gauging at such site is performed in accordance with specific directions from the professional consulting firm overseeing work at the site on Shell's behalf.

### **Sample Containers**

Sample material is collected in specially prepared containers which are provided by the laboratory that performs the analyses.

### **Sampling**

Sample material is collected in stainless steel bailer type devices normally fitted with both a top and a bottom check valve. Water is promptly decanted into new sample containers in a manner which reduces the loss of volatile constituents and follows the applicable EPA standard for handling volatile organic and semi-volatile compounds.

Following collection, samples are promptly placed in an ice chest containing prefrozen blocks of an inert ice substitute such as Blue Ice or Super Ice. The samples are maintained in either an ice chest or a refrigerator until delivered into the custody of the laboratory.

### **Sample Designations**

All sample containers are identified with a site designation and a discrete sample identification number specific to that particular groundwater well. Additional standard notations (e.g. time, date, sampler) are also made on the label.

### **Chain of Custody**

Samples are continuously maintained in an appropriate cooled container while in our custody and until delivered to the laboratory under a standard Shell Oil Company chain of custody. If the samples are taken charge of by a different party (such as another person from our office, a courier, etc.) prior to being delivered to the laboratory, appropriate release and acceptance records are made on the chain of custody (time, date, and signature of the person releasing the samples followed by the time, date and signature of the person accepting custody of the samples).

## Hazardous Materials Testing Laboratory

The samples obtained at this site were delivered to Sequoia Analytical Laboratory in Redwood City, California. Sequoia Analytical Laboratory is a California Department of Health Services certified Hazardous Materials Testing Laboratory and is listed as DOHS HMTL #1210.

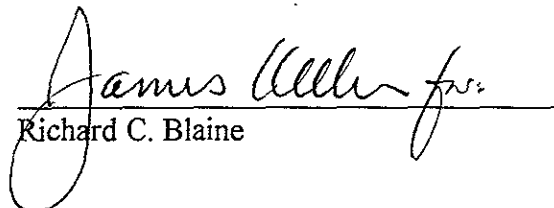
## Objective Information Collection

Blaine Tech Services, Inc. performs specialized environmental sampling and documentation as an independent third party. In order to avoid compromising the objectivity necessary for the proper and disinterested performance of this work, Blaine Tech Services, Inc. performs no consulting and does not become involved in the marketing or installation of remedial systems of any kind. Blaine Tech Services, Inc. is concerned only with the generation of objective information, not with the use of that information to support evaluations and recommendations concerning the environmental condition of the site. Even the straightforward interpretation of objective analytical data is better performed by interested regulatory agencies, and those engineers and geologists who are engaged in the work of providing professional opinions about the site and proposals to perform additional investigation or design remedial systems.

## Reportage

Submission of this report and the attached laboratory report to interested regulatory agencies is handled by the consultant in charge of the project. Any professional evaluations or recommendations will be made by the consultant under separate cover.

Please call if we can be of any further assistance.

  
Richard C. Blaine

RCB/lp

attachments: table of well gauging data  
chain of custody  
certified analytical report

cc: Pacific Environmental Group, Inc.  
2025 Gateway Place, Suite #440  
San Jose, CA 95110  
ATTN: Rhonda Barrick

## 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	2/28/94	TOC	--	NONE	--	--	4.28	14.73
MW-2	2/28/94	DESTROYED						
MW-3	2/28/94	TOC	--	NONE	--	--	8.44	25.56
MW-5 *	2/28/94	TOC	--	NONE	--	--	7.56	22.10
OMW-6	2/28/94	TOC	--	NONE	--	--	5.16	22.16
MW-7	2/28/94	TOC	--	NONE	--	--	2.99	15.90
OMW-8	2/28/94	TOC	--	NONE	--	--	7.64	20.16
OMW-9	2/28/94	TOC	--	NONE	--	--	9.24	13.96

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



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

**CHAIN OF CUSTODY RECORD**

Serial No: 940228.N.1

Date: 2/28/94

Page 1 of 2

Site Address: 2724 Castro Valley Blvd., Castro Valley

WIC#: 204-1381-0407

Shell Engineer: Lynn Walker  
Phone No.: (510) 675-6169  
Fax #: 675-6172

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: *Nate Overmeyer*

Printed Name: NATE OVERMEYER

**Analysis Required**

TPH (EPA 8015 Mod. Gas)	TPH (EPA 8015 Mod. Diesel)	BTEX (EPA 8020/802)	Volatile Organics (EPA 8240)	Test for Disposal	Combination TPH 8015 & BTEX 8020	Asbestos	Container Size	Preparation Used	Composite Y/N
X	X	X	X	X	X		10 mL	1	N
X	X	X	X	X	X		L	1	N
X	X	X	X	X	X				
X	X	X	X	X	X				
X	X	X	X	X	X				
X	X	X	X	X	X				
X	X	X	X	X	X				
X	X	X	X	X	X				
X	X	X	X	X	X				

LAB: SEQUOIA

CHECK ONE (1) BOX ONLY	CT/DI	TURN AROUND TIME
Quarterly Monitoring <input checked="" type="checkbox"/> 6441		24 hours <input type="checkbox"/>
Site Investigation <input type="checkbox"/> 6441		48 hours <input type="checkbox"/>
Soil Classify/Disposal <input type="checkbox"/> 6442		15 days <input checked="" type="checkbox"/> (Normal)
Water Classify/Disposal <input type="checkbox"/> 6443		Other <input type="checkbox"/>
Soil/Air Rem. of Sys. O & M <input type="checkbox"/> 6462		NOTE: Notify Lab as soon as Possible of 24/48 hrs. TAT.
Water Rem. of Sys. O & M <input type="checkbox"/> 6463		
Other <input type="checkbox"/>		

Sample ID	Date	Sludge	Soil	Water	Air	No. of conds.	TPH (EPA 8015 Mod. Gas)	TPH (EPA 8015 Mod. Diesel)	BTEX (EPA 8020/802)	Volatile Organics (EPA 8240)	Test for Disposal	Combination TPH 8015 & BTEX 8020	Asbestos	Container Size	Preparation Used	Composite Y/N	MATERIAL DESCRIPTION	SAMPLE CONDITION/ COMMENTS
MW. 1	2/28/94			X		5	X	X	X	X	X	X		10 mL	1	N	GW	9403086-01
MW. 3							X	X	X	X	X	X						-02
MW. 5							X	X	X	X	X	X						-03
MW. 7							X	X	X	X	X	X						-04
OMW. 6							X	X	X	X	X	X						-05
OMW. 8							X	X	X	X	X	X						-06
OMW. 9							X	X	X	X	X	X						-07
DUP.							X	X	X	X	X	X						-08

Relinquished by (signature): <i>Nate Overmeyer</i>	Printed Name: <u>NATE OVERMEYER</u>	Date: <u>3/1/94</u> Time: <u>10:30</u>	Received (signature): <i>Steve Ten</i>	Printed Name: <u>Steve Ten</u>	Date: <u>3/1/94</u> Time: <u>10:30</u>
Relinquished by (signature): <i>Steve Ten</i>	Printed Name: <u>Steve Ten</u>	Date: <u>3/1/94</u> Time: <u>11:02</u>	Received (signature):	Printed Name:	Date:
Relinquished by (signature):	Printed Name:	Date:	Received (signature): <i>Kurt A</i>	Printed Name: <u>KURT A. GROSS</u>	Date: <u>3/2/94</u> Time: <u>11:3</u>

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



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

**CHAIN OF CUSTODY RECORD**  
Serial No: 940228-N.1

Date: 2/28/94  
Page 2 of 2

Silo Address: 2724 Castro Valley Blvd., Castro Valley

WIC#: 204-1381-0407

Shell Engineer: Lynn Walker Phone No.: (510) 675-6169  
Fax #: 675-6172

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

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

Comments:

Sampled by: [Signature]

Printed Name: NATE OVERMEYER

Analysis Required

TPH (EPA 8015 Mod. Gas)	TPH (EPA 8015 Mod. Diesel)	BTEX (EPA 8020/802)	Volatile Organics (EPA 8240)	Test for Disposal	Combination TPH 8015 & BTEX 8020	Asbestos	Container Size	Preparation Used	Composite Y/N

LAB: SEQUOIA

CHECK ONE (1) BOX ONLY	CI/DI	TURN AROUND TIME
Quarterly Monitoring <input checked="" type="checkbox"/> 441		24 hours <input type="checkbox"/>
Site Investigation <input type="checkbox"/> 441		48 hours <input type="checkbox"/>
Soil Cleanup/Disposal <input type="checkbox"/> 442		16 days <input checked="" type="checkbox"/> (Normal)
Water Cleanup/Disposal <input type="checkbox"/> 443		Other <input type="checkbox"/>
Soil/Air Rem. of Sys. O & M <input type="checkbox"/> 442		NOTE: Notify Lab as soon as possible of 24/48 hrs. lat.
Water Rem. of Sys. O & M <input type="checkbox"/> 443		
Other <input type="checkbox"/>		

Sample ID	Date	Sludge	Soil	Water	Alt	No. of conts.	TPH (EPA 8015 Mod. Gas)	TPH (EPA 8015 Mod. Diesel)	BTEX (EPA 8020/802)	Volatile Organics (EPA 8240)	Test for Disposal	Combination TPH 8015 & BTEX 8020	Asbestos	Container Size	Preparation Used	Composite Y/N	MATERIAL DESCRIPTION	SAMPLE CONDITION/ COMMENTS	
EB-1	2/28/94			X		5		X				X		1L	11C	N	EQUIPMENT BLANK	9402086-09	
TB	"			X		2						X					TRIP BLANK	-10	

Relinquished by (signature): [Signature] Printed Name: NATE OVERMEYER  
 Relinquished by (signature): [Signature] Printed Name:    
 Relinquished by (signature): [Signature] Printed Name:  

Date: 3/1/94 Time: 10:30 Received (signature): [Signature] Printed Name: Steve Ten  
 Date: 3/1/94 Time: 11:03 Received (signature): [Signature] Printed Name:    
 Date:   Time:   Received (signature): [Signature] Printed Name: KEITH E. GROSS

Date: 3/1/94 Time: 10:30  
 Date:   Time:    
 Date: 05/01/94 Time: 11:3



# Sequoia Analytical

680 Chesapeake Drive  
1900 Bates Avenue, Suite L  
819 Striker Avenue, Suite 8

Redwood City, CA 94063  
Concord, CA 94520  
Sacramento, CA 95834

(415) 364-9600  
(510) 686-9600  
(916) 921-9600

FAX (415) 364-9233  
FAX (510) 686-9689  
FAX (916) 921-0100

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

Project: Shell, 2724 Castro Valley Blvd.

Enclosed are the results from 10 water samples received at Sequoia Analytical on March 1, 1994. The requested analyses are listed below:

SAMPLE #	SAMPLE DESCRIPTION	DATE OF COLLECTION	TEST METHOD
4C08601	Water, MW 1	2/28/94	EPA 3510/3520/8015 Mod. EPA 5030/8015 Mod./8020
4C08602	Water, MW 3	2/28/94	EPA 3510/3520/8015 Mod. EPA 5030/8015 Mod./8020
4C08603	Water, MW 5	2/28/94	EPA 3510/3520/8015 Mod. EPA 5030/8015 Mod./8020
4C08604	Water, MW 7	2/28/94	EPA 3510/3520/8015 Mod. EPA 5030/8015 Mod./8020
4C08605	Water, OMW 6	2/28/94	EPA 3510/3520/8015 Mod. EPA 5030/8015 Mod./8020
4C08606	Water, OMW 8	2/28/94	EPA 3510/3520/8015 Mod. EPA 5030/8015 Mod./8020
4C08607	Water, OMW 9	2/28/94	EPA 3510/3520/8015 Mod. EPA 5030/8015 Mod./8020
4C08608	Water, DUP	2/28/94	EPA 3510/3520/8015 Mod. EPA 5030/8015 Mod./8020
4C08609	Water, EB 1	2/28/94	EPA 3510/3520/8015 Mod. EPA 5030/8015 Mod./8020
4C08610	Water, TB	2/28/94	EPA 5030/8015 Mod./8020

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

  
Suzanne Chin  
Project Manager

Amended: Apr 8, 1994

4C08601.BLA <1>







Blaine Tech Services, Inc.	Client Project ID: Shell, 2724 Castro Valley Blvd.	Sampled: Feb 28, 1994
985 Timothy Drive	Sample Matrix: Water	Received: Mar 1, 1994
San Jose, CA 95133	Analysis Method: EPA 5030/8015 Mod./8020	Reported: Mar 9, 1994
Attention: Jim Keller	First Sample #: 4C08601	Amended: Apr 8, 1994

**TOTAL PURGEABLE PETROLEUM HYDROCARBONS with BTEX DISTINCTION**

Analyte	Reporting Limit µg/L	Sample I.D. 4C08601 MW 1	Sample I.D. 4C08602 MW 3	Sample I.D. 4C08603 MW 5	Sample I.D. 4C08604 MW 7	Sample I.D. 4C08605 OMW 6	Sample I.D. 4C08606 OMW 8
Purgeable Hydrocarbons	50	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
Benzene	0.50	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
Toluene	0.50	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
Ethyl Benzene	0.50	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
Total Xylenes	0.50	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
Chromatogram Pattern:		--	--	--	--	--	--

**Quality Control Data**

Report Limit Multiplication Factor:	1.0	1.0	1.0	1.0	1.0	1.0
Date Analyzed:	3/3/94	3/3/94	3/3/94	3/3/94	3/4/94	3/4/94
Instrument Identification:	GCHP-3	GCHP-3	GCHP-3	GCHP-3	GCHP-3	GCHP-3
Surrogate Recovery, %: (QC Limits = 70-130%)	125	119	118	121	123	124

Purgeable Hydrocarbons are quantitated against a fresh gasoline standard.  
 Analytes reported as N.D. were not detected above the stated reporting limit.

**SEQUOIA ANALYTICAL**

*Suzanne Chin*  
 Suzanne Chin  
 Project Manager





Blaine Tech Services, Inc. 985 Timothy Drive San Jose, CA 95133 Attention: Jim Keller	Client Project ID: Shell, 2724 Castro Valley Blvd. Sample Matrix: Water Analysis Method: EPA 5030/8015 Mod./8020 First Sample #: 4C08607	Sampled: Feb 28, 1994 Received: Mar 1, 1994 Reported: Mar 9, 1994 Amended: Apr 8, 1994
--	---	---

**TOTAL PURGEABLE PETROLEUM HYDROCARBONS with BTEX DISTINCTION**

Analyte	Reporting Limit µg/L	Sample I.D. 4C08607 OMW 9	Sample I.D. 4C08608 DUP	Sample I.D. 4C08609 EB 1	Sample I.D. 4C08610 TB
Purgeable Hydrocarbons	50	N.D.	N.D.	N.D.	N.D.
Benzene	0.50	N.D.	N.D.	N.D.	N.D.
Toluene	0.50	N.D.	N.D.	N.D.	N.D.
Ethyl Benzene	0.50	N.D.	N.D.	N.D.	N.D.
Total Xylenes	0.50	N.D.	N.D.	N.D.	N.D.
Chromatogram Pattern:		--	--	--	--

**Quality Control Data**

Report Limit Multiplication Factor:	1.0	1.0	1.0	1.0
Date Analyzed:	3/4/94	3/4/94	3/4/94	3/4/94
Instrument Identification:	GCHP-3	GCHP-3	GCHP-3	GCHP-3
Surrogate Recovery, %: (QC Limits = 70-130%)	121	121	116	123

Purgeable Hydrocarbons are quantitated against a fresh gasoline standard.  
Analytes reported as N.D. were not detected above the stated reporting limit.

**SEQUOIA ANALYTICAL**

Suzanne Chin  
Project Manager





Blaine Tech Services, Inc.	Client Project ID: Shell, 2724 Castro Valley Blvd.	Sampled: Feb 28, 1994
985 Timothy Drive	Sample Matrix: Water	Received: Mar 1, 1994
San Jose, CA 95133	Analysis Method: EPA 3510/3520/8015 Mod.	Reported: Mar 9, 1994
Attention: Jim Keller	First Sample #: 4C08601	Amended: Apr 8, 1994

**TOTAL EXTRACTABLE PETROLEUM HYDROCARBONS**

Analyte	Reporting Limit µg/L	Sample I.D. 4C08601 MW 1	Sample I.D. 4C08602 MW 3	Sample I.D. 4C08603 MW 5	Sample I.D. 4C08604 MW 7	Sample I.D. 4C08605 OMW 6	Sample I.D. 4C08606 OMW 8
Extractable Hydrocarbons	50	N.D.	N.D.	N.D.	64	N.D.	N.D.
Chromatogram Pattern:		--	--	--	C10 - C19	--	--

**Quality Control Data**

Report Limit							
Multiplication Factor:	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Date Extracted:	3/3/94	3/3/94	3/3/94	3/3/94	3/3/94	3/3/94	3/3/94
Date Analyzed:	3/5/94	3/5/94	3/5/94	3/5/94	3/5/94	3/5/94	3/5/94
Instrument Identification:	GCHP-5	GCHP-5	GCHP-5	GCHP-5	GCHP-5	GCHP-5	GCHP-5

Extractable Hydrocarbons are quantitated against a fresh diesel standard.  
 Analytes reported as N.D. were not detected above the stated reporting limit.

**SEQUOIA ANALYTICAL**

  
 Suzanne Chin  
 Project Manager





Blaine Tech Services, Inc. 985 Timothy Drive San Jose, CA 95133 Attention: Jim Keller	Client Project ID: Shell, 2724 Castro Valley Blvd. Sample Matrix: Water Analysis Method: EPA 3510/3520/8015 Mod. First Sample #: 4C08607	Sampled: Feb 28, 1994 Received: Mar 1, 1994 Reported: Mar 9, 1994 Amended: Apr 8, 1994
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**TOTAL EXTRACTABLE PETROLEUM HYDROCARBONS**

Analyte	Reporting Limit µg/L	Sample I.D. 4C08607 OMW 9	Sample I.D. 4C08608 DUP	Sample I.D. 4C08609 EB 1
Extractable Hydrocarbons	50	N.D.	N.D.	N.D.

Chromatogram Pattern:                    --                    --                    --

**Quality Control Data**

Report Limit			
Multiplication Factor:	1.0	1.0	1.0
Date Extracted:	3/3/94	3/3/94	3/3/94
Date Analyzed:	3/5/94	3/5/94	3/5/94
Instrument Identification:	GCHP-5	GCHP-5	GCHP-5

Extractable Hydrocarbons are quantitated against a fresh diesel standard.  
Analytes reported as N.D. were not detected above the stated reporting limit.

**SEQUOIA ANALYTICAL**

Suzanne Chin  
Project Manager





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

Client Project ID: Shell, 2724 Castro Valley Blvd.  
 Matrix: Water

QC Sample Group: 4C08601-10

Reported: Mar 9, 1994

**QUALITY CONTROL DATA REPORT**

ANALYTE	Benzene	Toluene	Ethyl Benzene	Xylenes
Method:	EPA 8020	EPA 8020	EPA 8020	EPA 8020
Analyst:	R. Vincent	R. Vincent	R. Vincent	R. Vincent

<b>MS/MSD</b>				
Batch#:	4BG0214	4BG0214	4BG0214	4BG0214
Date Prepared:	-	-	-	-
Date Analyzed:	3/3/94	3/3/94	3/3/94	3/3/94
Instrument I.D.#:	GCHP-3	GCHP-3	GCHP-3	GCHP-3
Conc. Spiked:	10 µg/L	10 µg/L	10 µg/L	30 µg/L
<b>Matrix Spike</b>				
% Recovery:	120	110	120	113
<b>Matrix Spike Duplicate %</b>				
Recovery:	120	110	120	113
<b>Relative %</b>				
Difference:	0.0	0.0	0.0	0.0

LCS Batch#:	-	-	-	-
Date Prepared:	-	-	-	-
Date Analyzed:	-	-	-	-
Instrument I.D.#:	-	-	-	-
<b>LCS %</b>				
Recovery:	-	-	-	-

% Recovery Control Limits:	71-133	72-128	72-130	71-120
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Please Note:  
 The LCS is a control sample of known, interferent free matrix that is analyzed using the same reagents, preparation, and analytical methods employed for the samples. The matrix spike is an aliquot of sample fortified with known quantities of specific compounds and subjected to the entire analytical procedure. If the recovery of analytes from the matrix spike does not fall within specified control limits due to matrix interference, the LCS recovery is to be used to validate the batch.

**SEQUOIA ANALYTICAL**

Suzanne Chin  
 Project Manager



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

Client Project ID: Shell, 2724 Castro Valley Blvd.  
 Matrix: Water

QC Sample Group: 4C08601-09

Reported: Mar 9, 1994

**QUALITY CONTROL DATA REPORT**

<b>ANALYTE</b>	Diesel
<b>Method:</b>	EPA 8015
<b>Analyst:</b>	D. Tran

**MS/MSD**  
**Batch#:** 4C08605

**Date Prepared:** 3/3/94  
**Date Analyzed:** 3/5/94  
**Instrument I.D.#:** GCHP-5  
**Conc. Spiked:** 600 µg/L

**Matrix Spike**  
**% Recovery:** 60

**Matrix Spike**  
**Duplicate %**  
**Recovery:** 59

**Relative %**  
**Difference:** 1.7

**LCS Batch#:** BLK030394

**Date Prepared:** 3/3/94  
**Date Analyzed:** 3/4/94  
**Instrument I.D.#:** GCHP-5

**LCS %**  
**Recovery:** 43

<b>% Recovery</b>	
<b>Control Limits:</b>	28-122

**SEQUOIA ANALYTICAL**

  
 Suzanne Chin  
 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.