

April 20, 1995 Project 305-094.2D

Mr. Lynn Walker Shell Oil Company P.O. Box 4023 Concord, California 94524

Re: Quarterly Report - First Quarter 1995
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 1995 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, 1995. Groundwater elevation contours for the sampling date are shown on Figure 1. Table 1 presents groundwater elevation data.

Groundwater analytical data are presented in Table 2. Total petroleum hydrocarbons calculated as gasoline (TPH-g), benzene, and TPH calculated as diesel (TPH-d) concentrations for this sampling event are shown on Figure 2. None of the wells contained TPH-g, benzene, toluene, ethylbenzene, and xylenes (BTEX compounds). Wells MW-1 and MW-7 contained positive results of TPH-d at concentrations of 540 and 70 parts per billion (ppb), respectively. The laboratory noted the result for Well MW-1 to be an atypical pattern for diesel analysis. Blaine's groundwater sampling report, which includes field data and the certified analytical report, is presented as Attachment A.

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

ROSS W.N. TINLINE No. 5860

Hydrocarbons (TPH as Gasoline, BTEX Compounds,

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. Richard Hiett, Regional Water Quality Control Board

Dr. Mohsen Mehran, Owner Consultant

Mr. Michael Johnson, Larson and Burnham

Mr. Matthew Righetti, Righetti Law Firm

Mr. Richard A. Schoenberger, Esq., Walkup, Shelby, Bastian, Melodia, Kelly, Echeverria and Link

Ms. Anne Singley, Shell Oil Company

Mr. Jim Matthews, Shell Oil Company

Table 1 Groundwater Elevation Data

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

<u> </u>		Well	Depth to	Groundwater
Well	Date	Elevation	Water	Elevation
Number	Gauged	(feet, MSL)	(feet, TOC)	(feet, MSL)
MW-1	02/08/90	99.78	8.39	91.39
	04/20/90		9.21	90.57
1	07/30/90		9.21	90.57
	10/25/90		9.44	90.34
ļ	01/15/91		9.11	90.67
)	04/19/91		5.58	94.20
ļ	07/16/91		7.58	92.20
<u>}</u>	10/08/91		8.25	91.53
)	02/04/92		8.52	91.26
İ	04/06/92		6.75	93.03
ļ	08/26/92		9.89	89.89
Ì	11/06/92	400 54	9.01	90.77
1	02/18/93	160.54	4.33	156.21
1	06/04/93		8.26	152.28
	09/10/93		9.04	151.50
1	11/17/93		9.15	151.39
1	02/28/94		4.28	156.26
	05/26/94		7.56	152.98
{	08/04/94		8.74	151.80
1	11/11/94		4.56	155.98
	02/28/95		5.06	155.48
MW-2	02/08/90	100.83	7.33	93.50
}	04/20/90		8.63	92.20
ļ	07/30/90		8.78	92.05
	10/25/90		9.50	91.33
1	01/15/91		8.52	92.31
}	04/19/91		6.90	93.93
	07/16/91		9.01	91.82
1	10/08/91		8.82	92.01
1	02/04/92		7.46	93.37
ļ	04/06/92		6.91	93.92
†	08/26/92		9.28	91.55
	11/06/92		8.59	92.24
ļ	02/18/93		* * * CII III III COCOO	
	06/04/93		Well Inaccess	
}	09/10/93		Well Inaccess	
1	11/17/93		Well Inaccess	
1	02/28/94			ible
1	05/26/94		8.40	N/A
1	08/04/94		9.38	N/A
	11/11/94		5.60	N/A
	02/28/95		6.46	N/A

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Table 1 (continued) Groundwater Elevation Data

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

				
		Well	Depth to	Groundwater
Well	Date	Elevation	Water	Elevation
Number	Gauged	(feet, MSL)	(feet, TOC)	(feet, MSL)
MW-3	02/08/90	101.48	8.91	92.57
10.11	04/20/90	1011.10	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
	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
i	02/18/93	162.24	6.79	155.45
}	06/04/93	102.24	8.48	153.76
	09/10/93		9.84	152.40
]	11/17/93		9.78	152.46
			9.76 8.44	153.80
İ	02/28/94			153.50
	05/26/94		8.74	· · · · · ·
	08/04/94		9.62	152.62
	11/11/94		8.82	153.42
ļ	02/28/95		7.67	154.57
MW-5	02/08/90	99.90	8.80	91.10
10.44-0	04/20/90	55.55	9.35	90.55
	07/30/90		9.49	90.41
[10/25/90		10.12	89.78
İ	01/15/91		9.26	90,64
}	04/19/91		6.52	93.38
	07/16/91		9.12	90.78
ţ	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
1	11/06/92		9.25 9.02	90.88
ļ	02/18/93	160 60		157.08
· ·		160.68	3.60	157.00
	06/04/93		7.08	
İ	09/10/93		9.92	150.76
	11/17/93		9.86	150.82
<u> </u>	02/28/94		7.56	153,12
(05/26/94		8.38	152.30
]	08/04/94		9.22	151.46
]	11/11/94		7.86	152.82
L	02/28/95		5.88	154.80

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Table 1 (continued) Groundwater Elevation Data

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

10/-"		Well	Depth to	Groundwater
Well Number	Date Gauged	Elevation (feet, MSL)	Water (feet, TOC)	Elevation (feet, MSL)
OMW-6	07/16/91	101.48	8.60	92.88
	10/08/91	101.40	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	102.22	7.14	155.08
	09/10/93		8.78	153.44
	11/17/93		8.74	153.48
ı	02/28/94		5.16	157.06
	05/26/94		6.89	155.33
	08/04/94	•	8.56	153.66
	11/11/94		5.78	156.44
	12/18/94	V	Veli Properly Aba	
	12/10/94		veil i Topelly Aba	Hadried
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
	02/18/93		Well Inaccessi	ible
} 	06/04/93	######################################	Well Inaccessi	ible
	09/10/93	02	Well Inaccessi	ible
	11/17/93		Well Inaccessi	ible
	02/28/94		2.99	N/A
	05/26/94		6.05	N/A
	08/04/94		8.68	N/A
	11/11/94		3.70	N/A
	02/28/95		4.31	N/A
OMW-8	07/16/91	100.18	8.40	91.78
	10/08/91	100,10	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	100,02	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
	05/26/94		7.77	153.25
	08/04/94		8.72	152.20
	11/11/94		7.10	153.82
	12/18/94	<u></u> 1,	Vell Properly Aba	

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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)
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 Ove	er
	02/28/94		9.24	149.57
	05/26/94		9,68	149.13
	08/04/94	*	9.92	148.89
	11/11/94		8,68	150.13
	02/28/95		9.49	149.32

MSL = Mean sea level

TOC = Top of casing

N/A = Not available, survey required.

Elevations prior to February 18, 1993 are to a temporary bench mark. Elevations

after February 18, 1993 are to MSL.

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Table 2 Groundwater Analytical Data

Total Petroleum Hydrocarbons (TPH as Gasoline, BTEX Compounds, TPH as Diesel, and Motor Oil)

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

		TPH as				-	TPH as	Motor
Well	Date	Gasoline	Benzene	Toluene	Ethylbenzene	Xylenes	Diesel	Oil
Number	Sampled	(ppb)	(ppb)	(ppb)	(ppb)	(ppb)	(ppb)	(ppb)
MW-1	02/09/90	<1,000	0.58	0.63	<0.5	<0.5	NA	NA
	04/20/90	<50	<0.5	< 0.5	<0.5	<0.5	NA	NA
	07/31/90	<50	<0.5	<0.5	<0.5	<0.5	NA	NA
	10/25/90	100	<0.5	<0.5	<0.5	< 0.6	<50	NA
	01/15/91	60	<0.5	< 0.5	<0.5	<0.5	<50	NA
	01/15/91	<50	<0.5	<0.5	<0.5	<0.5	<50	NA
	04/19/91	<50	7.7	<0.5	<0.5	< 0.5	<50	NA
	04/19/91	<50	7.4	<0.5	<0.5	<0.5	<50	NA
	07/16/91	<50	<0.5	<0.5	<0.5	<0.5	<50	<50
	10/08/91	<50	<0.5	<0.5	<0.5	<0.5	<50	<50
	02/04/92	<50	<0.5	<0.5	<0.5	<0.5	<50	NA
	04/06/92	50	<0.5	<0.5	<0.5	<0.5	<50	NA
	08/26/92	<50 ·	<0.5	<0.5	<0.5	<0.5	51	NA
	11/12/92	<50	<0.5	<0.5	<0.5	<0.5	< 5 0	NA
	02/18/93	<50	<0.5	<0.5	<0.5	<0.5	57 ^a	NA
	06/04/93	<50	<0.5	<0.5	<0.5	<0.5	85	NA
	09/10/93	<50	<0.5	<0.5	<0.5	<0.5	< 50	NA
	11/17/93	< 50	<0.5	<0.5	<0.5	<0.5	<50 <50	NA
	02/28/94	<50	<0.5	<0.5	<0.5	<0.5	<50	NA
	05/26/94	<50 <50	<0.5 <0.5	<0.5 <0.5	<0.5	<0.5	<50 <50	NA NA
	08/04/94	<50 <50	<0.5 <0.5	<0.5	<0.5	<0.5	80 ^b	NA
	11/11/94				npled Semiannually			11/7
	02/28/95	<50	<0.5	<0.5	<0.5	<0.5	540°	NA
MW-2	02/09/90	8,600	360	410	6.5	670	4,100	NA
10.00	04/20/90	9,100	500	330	110	900	1,800	NA
	07/31/90	5,300	550	38	<0.5	280	60	NA
•	10/25/90	4,800	490	22	21	156	300	NA NA
	01/15/91	5,700	320	29	120	530	680	NA NA
	04/19/91	3,900	100	25 77	100	93	306	NA NA
	07/16/91	1,800	100	5.8	41	93 31	430	<50
	07/16/91	2,700	130	7.6	62			
	10/08/91	1,000	17			45 35	540 440	<50
		-		<0.5	25 18	25 440	110	<50
	02/04/92	1,700	190	5.8	18	110	870	NA
	04/06/92	3,800	930	50	110	190	1,000	NA
•	05/03/92	2,400	610	8.8	90	<0.5	570	NA
	08/26/92	520	36 33	2.0	12	7.9	63	NA
	08/26/92(D)	450	33	1.7	11	3.4	63	NA
	11/12/92	310	30	6.2	5.1	4.3	160	NA
	11/12/92(D)	360	31	6.5	5.1	4.4	180	NA
	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, BTEX Compounds, TPH as Diesel, Motor Oil)

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)	TPH as Diesel (ppb)	Motor Oil (ppb)
MW-2	05/26/94	480	14	<0.5	2.1	3.4	<50	NA
(cont.)	05/26/94(D)	460	14	<0.5	2.1	3.3	60	NA
(00111.)	08/04/94	<50	<0.5	<0.5	<0.5	<0.5	110 ^b	NA
)	08/04/94(D)	70	<0.5	<0.5	<0.5	<0.5	110 ^b	NA
į	11/11/94	<50	<0.5	<0.5	<0.5	<0.5	210 ^a	NA
Ī	11/11/94(D)	<50	<0.5	<0.5	<0.5	<0.5	170 ^a	NA
	02/28/95	<50	<0.5	<0.5	<0.5	<0.5	<50	NA
	02/28/95(D)	<50	<0.5	<0.5	<0.5	<0.5	<50	NA
MW-3	02/09/90	<1,000	<0.5	<0.5	<0.5	<0.5	NA	NA
1	04/20/90	<50	<0.5	<0.5	<0.5	<0.5	NA	NA
	07/31/90	<50	<0.5	<0.5	<0.5	<0.5	NA	NA
ţ	10/25/90	<50	<0.5	<0.5	<0,6	<0,6	<50	NA
<u> </u>	01/15/91	<50	<0.5	<0.5	<0.5	<0.5	<50	NA
<u> </u>	04/19/91	<50	<0.5	<0.5	<0.5	<0.5	<50	NA
ļ	07/16/91	<50	<0.5	<0.5	<0.5	<0.5	<50	1,400
	10/08/91	<50	<0.5	<0.5	<0.5	<0.5	<50	<50
}	02/04/92	<50	4	2	7	3.2	<50	NA
1	04/06/92	<50	<0.5	<0.5	<0.5	<0.5	<50	NA
ĺ	08/26/82	<50	<0.5	<0.5	· <0.5	<0.5	<50	NA
İ	11/12/92	<50	< 0.5	<0.5	<0.5	<0.5	<50	NA
	02/18/93	<50	<0.5	<0.5	<0.5	<0.5	<50	NA
[06/04/93	<50	<0.5	<0.5	<0.5	<0.5	200	NA
	06/04/93(D)	<50	<0.5	<0.5	<0.5	<0.5	<50	NA
}	09/10/93	<50	<0.5	<0.5	<0.5	<0.5	<50	NA
ŧ.	09/10/93(D)	<50	<0.5	<0.5	<0.5	< 0.5	<50	NA
	11/17/93	<50	<0.5	<0.5	<0.5	<0.5	<50	NA
	11/17/93(D)	<50	<0.5	<0.5	<0.5	<0.5	<50	NA
}	02/28/94	<50	<0.5	<0.5	<0.5	<0.5	<50	NA
ļ	05/26/94	<50	<0.5	<0.5	<0.5	<0.5	<50	NA
İ	08/04/94	<50	<0.5	<0.5	<0.5	<0.5	80 ⁵	NA
}	11/11/94				ed Semiannually			
<u> </u>	02/28/95	<50	<0.5	<0.5	<0.5	<0.5	<50	NA
MW-5	02/09/90	<1,000	<0.5	<0.5	<0.5	<0.5	NA	NA
1	04/20/90	<50	<0.5	<0.5	<0.5	<0.5	NA	NA
}	07/31/90	<50	<0.5	<0.5	<0.5	<0.5	NA	NA
ļ	10/25/90	<50	<0.5	<0.7	<0.6	<0.6	<50	NA
1	01/15/91	<50	<0.5	<0.5	<0.5	<0.5	<50	NA
}	04/19/91	<50	<0.5	<0.5	<0.5	<0.5	<50	NA
ţ	07/16/91	<50	<0.5	<0.5	<0.5	<0.5	<50	<50 ·
	10/08/91	<50	<0.5	<0.5	<0.5	<0.5	50	<50
]	02/04/92	<50	<0.5	<0.5	<0.5	<0.5	<50	NA
1	04/06/92	<50	<0.5	<0.5	<0.5	<0.5	<50	NA
<u></u>	08/26/92	<50	<0.5	<0.5	<0.5	<0.5	<50	NA_

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Table 2 (continued) Groundwater Analytical Data Total Petroleum Hydrocarbons

(TPH as Gasoline, BTEX Compounds, TPH as Diesel, and Motor Oil)

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

\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\	Data	TPH as	Ponyone	Taluana	Ethythogzana	Xylenes	TPH as Diesel	Motor
Well	Date	Gasoline	Benzene	Toluene	Ethylbenzene			liO
Number	Sampled	(ppb)	(ppb)	(ppb)	(ppb)	(ppb)	(ppb)	(ppb)
MW-5	11/12/92	<50	<0.5	<0.5	<0,5	<0.5	<50	NA
(cont.)	02/18/93	<50	<0.5	<0.5	<0.5	<0.5	. 80 ²	NA
	06/04/93	<50	<0.5	<0.5	<0.5	<0.5	170	NA
	09/10/93	<50	<0.5	<0.5	<0.5	<0.5	<50	NA
	11/17/93	<50	<0.5	<0.5	<0.5	<0.5	<50	NA
ļ	02/28/94	<50	<0.5	<0.5	<0.5	<0.5	<50	NA
1	02/28/94(D)	<50	<0.5	<0.5	<0.5	<0.5	<50	NA
	05/26/94	<50	<0.5	<0.5	<0.5	<0.5	<50	NA
	08/04/94	<50	<0.5	<0.5	<0.5	<0.5	80 ⁶	NA
	11/11/94			Sample	d Semiannually			
	02/28/95	<50	<0.5	<0.5	<0.5	<0.5	<50	NA
OMW-6	07/16/91	<50	<0.5	<0.5	<0.5	<0.5	<50	<50
	10/08/91	<50	<0.5	<0.5	<0.5	<0.5	<50	<50
	02/04/92	<50	<0.5	<0.5	<0.5	<0.5	<50	NA
	04/06/92	<50	<0.5	<0.5	<0.5	<0.5	<50	NA
	08/26/92	<50	<0.5	<0.5	<0.5	<0.5	<50	NA
	11/12/92	<50	<0.5	<0.5	<0.5	<0.5	<50	NA
	02/18/93	<50	<0.5	<0.5	<0.5	<0.5	< 50	· NA
	02/18/93(D)	<50	<0.5	<0.5	<0.5	<0.5	84ª	NA
	06/04/93	<50	<0.5	<0.5	<0.5	<0.5	<50	NA
	09/10/93	50 ^e	<0.5	<0.5	<0.5	<0.5	<50	NA
	11/17/93	<50	<0.5	<0.5	<0.5	<0.5	<50	NA
 	02/28/94	<50	<0.5	<0.5	<0.5	<0.5	<50	NA
	05/26/94	<50	<0.5	<0.5	<0.5	<0.5	<50	NA
	08/04/94	<50	<0.5	<0.5	<0.5	<0.5	<50	NA
	11/11/94				pled Semiannually			
	12/18/94			Well I	Properly Abandone	d		
MW-7	07/16/91	1,300	440	140	6.9	160	270	1,100
ĺ	10/08/91	520	230	36	26	54	<50 _.	<50
	02/04/92	640	130	51	26	79	140 ^f	NA
	04/06/92	80	32	1.7	2.3	4.4	<50	NA
	05/13/92	<50	3.1	1.7	0.9	3.8	<50	NA
·	08/26/92	63	1.0	<0.5	2.6	<0.5	<50	NA
	11/12/92	73	11	<0.5	3.7	<0.5	<50	NA
ļ	02/18/93				Well Inaccessible -			
	06/04/93				Well Inaccessible -			
	09/10/93				Well Inaccessible -			
l	11/17/93				Well Inaccessible -			
	02/28/94	.<50	<0.5	<0.5	<0.5	<0.5	64	NA
	05/26/94	<50	<0.5	<0.5	<0.5	<0.5	<50	NA
ł	08/04/94	<50	<0.5	<0.5	<0.5	<0.5	90 _p	NA
	11/11/94	<50	<0.5	<0.5	<0.5	<0.5	180°	NA
L	02/28/95	<50	<0.5	<0.5	<0.5	<0.5	70	NA

3050942D/1Q95

Table 2 (continued) Groundwater Analytical Data

Total Petroleum Hydrocarbons (TPH as Gasoline, BTEX Compounds, 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 Gasoline (ppb)	Benzene (ppb)	Toluene (ppb)	Ethylbenzene (ppb)	Xylenes (ppb)	TPH as Diesel (ppb)	Motor Oil (ppb)
OMW-8	07/16/91	<50	<0.5	8.0	<0.5	<0.5	<50	<50
	10/08/91	<50	<0.5	<0.5	<0.5	<0.5	<50	<50
	02/04/92	<50	0.9	1.9	0.6	3.6	<50	NA
	04/06/92	<50	<0.5	< 0.5	<0.5	<0.5	<50	NA
	08/26/92	<50	<0.5	<0.5	<0.5	<0.5	<50	NA
	11/12/92	<50	<0.5	<0.5	<0.5	<0.5	<50	NA
	02/18/93	180 [₫]	<0.5	<0.5	<0.5	<0.5	<50	NA
	06/04/93	<50	<0.5	<0.5	<0.5	<0.5	53	NA
	09/10/93	<50	<0.5	< 0.5	<0.5	<0.5	<50	NA
	11/17/93	<50	<0.5	<0.5	<0.5	<0.5	<50	NA
	02/28/94	<50	<0.5	< 0.5	<0.5	<0.5	<50	NA
	05/26/94	<50	<0.5	<0.5	<0.5	<0.5	<50	NA
	08/04/94	<50	<0.5	<0.5	<0.5	<0.5	50 ⁶	NA
	11/11/94		/	Sam	pled Semiannually	·		
	12/18/94				Properly Abandoned			
OMW-9	03/03/93	<50	<0.5	<0.5	<0.5	<0.5	71 ^a	NA
	06/04/93	<50	<0.5	<0.5	<0.5	<0.5	<50	NA
	09/10/93	<50	<0.5	<0.5	<0.5	<0.5	<50	NA
	11/17/93			V	Vell Paved Over			
	02/28/94	<50	<0.5	<0.5	<0.5	<0.5	<50	NA
	05/26/94	<50	<0.5	<0.5	<0.5	<0.5	<50	NA
	08/04/94	<50	<0.5	<0.5	<0.5	<0.5	<50	NA
	11/11/94			Sam	pled Semiannually			
	02/28/95	_<50	<0.5	<0.5	<0.5	<0.5	<50	NA_

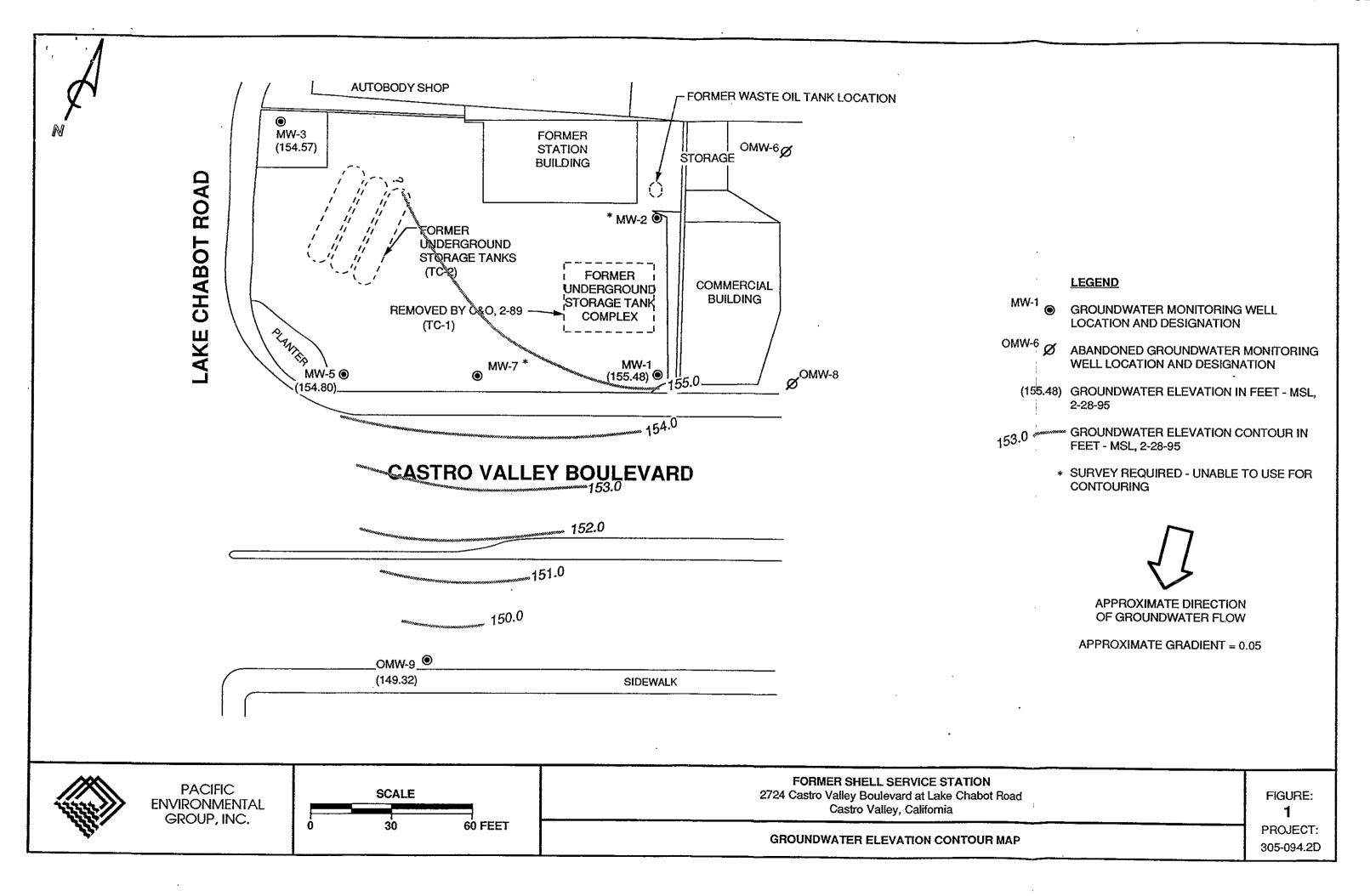
ppb = Parts per billion

= Denotes minimum laboratory detection limits.

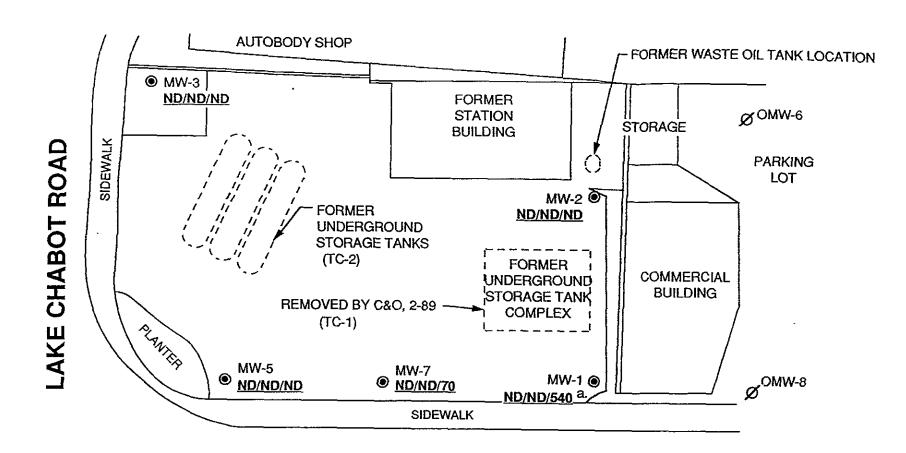
NA = Not analyzed

- (D) = Duplicate sample
- a. Concentration primarily due to the presence of a heavier petroleum hydrocarbon product.
- b. An unknown hydrocarbon consisting of several peaks.
- c. Laboratory notes result to have an atypical pattern for diesel analysis.
- d. Concentration due to the presence of a heavier petroleum hydrocarbon range.
- e. Concentration due to the presence of a discrete peak not indicative of gasoline.
- f. The positive result for TPH-d analysis on this sample appears to be a lighter hydrocarbon than diesel.

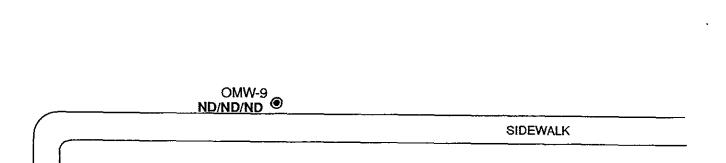
3050942D/1Q95 April 20, 1995







CASTRO VALLEY BOULEVARD



LEGEND

GROUNDWATER MONITORING WELL LOCATION AND DESIGNATION

OMW-6 Ø ABANDONED GROUNDWATER MONITORING WELL LOCATION AND DESIGNATION

ND/ND/70 TPH-g/BENZENE/TPH-d CONCENTRATION IN GROUNDWATER, IN PARTS PER BILLION, 2-28-95

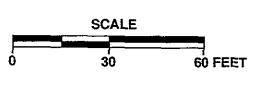
ND NOT DETECTED

a. LABORATORY NOTES RESULT TO HAVE AN ATYPICAL PATTERN FOR DIESEL ANALYSIS.



APPROXIMATE DIRECTION OF GROUNDWATER FLOW

PACIFIC ENVIRONMENTAL GROUP, INC.



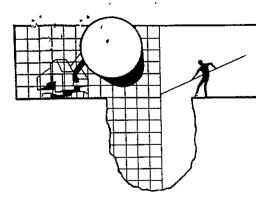
FORMER SHELL SERVICE STATION 2724 Castro Valley Boulevard at Lake Chabot Road Castro Valley, California

TPH-g/BENZENE/TPH-d CONCENTRATION MAP

FIGURE:

2 PROJECT: 305-094.2D

ATTACHMENT A GROUNDWATER SAMPLING REPORT

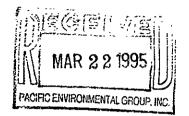


BLAINE TECH SERVICES INC.

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

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

Attn: Lynn Walker



March 20, 1995

SITE:

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

QUARTER: 1st quarter of 1995

QUARTERLY GROUNDWATER SAMPLING REPORT 950228-L-2

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 dewaters 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 National Environmental Testing, Inc. in Santa Rosa, California. NET is a California Department of Health Services certified Hazardous Materials Testing Laboratory and is listed as DOHS HMTL #178.

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	2/28/95	TOC		NONE	•••	-	5.06	14.72
MW-2 *	2/28/95	TOC	**	NONE			6.46	11.95
MW-3	2/28/95	TOC		NONE			7.67	25.51
MW-5	2/28/95	TOC		NONE	-		5.88	22.19
MW-7	2/28/95	TOC	,000	NONE	-		4.31	16.31
OMW-9	2/28/95	TOC	**	NONE	***		9.49	13.98

^{*} Sample DUP was a duplicate sample taken from well MW-2.

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MW-1 7/28	 		X		5		X			-	X								-		
MW-Z			X		5		χ				X								1		
MW-3		•	X		5		χ				X										
MW-5			X		5		X				X			 					-		
MW-7		,	X		5		X		·		Υ							·	 	,	
-MP4 - .			X											_	_				-		
2MW-9			X		5		X				X				-				 		
DUP. V			X		7		Y	_			V			-,	-		-		·		
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Santa Rosa Division 435 Tesconì Circle Santa Rosa, CA 95401

Tel: (707) 526-7200 Fax: (707) 526-9623

Jim Keller Blaine Tech Services 985 Timothy Dr. San Jose, CA 95133 Date: 03/16/1995

NET Client Acct. No: 1821 NET Pacific Job No: 95.00997

Received: 03/02/1995

Client Reference Information

Shell 2724 Castro Valley Blvd., Castro Valley/950228-L2

Sample analysis in support of the project referenced above has been completed and results are presented on following pages. Results apply only to the samples analyzed. Reproduction of this report is permitted only in its entirety. Please refer to the enclosed "Key to Abbreviations" for definition of terms. Should you have questions regarding procedures or results, please feel welcome to contact Client Services.

Approved by:

Thomas F. Cullen, Jr.

Division Manager

Jennifer L. Roseberry

Project Manager

Enclosure(s)





Client Name: Blaine Tech Services

Client Acct: 1821 ELAP Cert: 1386 NET Job No: 95.00997 Page: 2

Date: 03/16/1995

Ref: Shell 2724 Castro Valley Blvd., Castro Valley/950228-L2

SAMPLE DESCRIPTION: MW-1

Date Taken: 02/28/1995

Time Taken:

NET Sample No: 237343								Run
			Reporting			Date	Date	Batch
Parameter	Results	Flags	Limit	Units	Method	Extracted	Analyzed	No.
TPH (Gas/BTXE, Liquid)								
METHOD 5030/M8015							03/14/1995	2666
DILUTION FACTOR*	1						03/14/1995	2666
as Gasoline	ND		50	ug/L	5030		03/14/1995	2666
Carbon Range:							03/14/1995	2666
METHOD 8020 (GC, Liquid)							03/14/1995	2666
Benzene	ND		0.5	ug/L	8020		03/14/1995	2666
Toluene	ND		0.5	ug/L	8020		03/14/1995	2666
Ethylbenzene	ND		0.5	ug/L	8020		03/14/1995	2666
Xylenes (Total)	ND		0.5	ug/L	8020		03/14/1995	2666
SURROGATE RESULTS							03/14/1995	2666
Bromofluorobenzene (SURR)	108			% Rec.	5030		03/14/1995	2666
METHOD M8015 (EXT., Liquid)						03/04/1995	-	
DILUTION FACTOR*	1						03/06/1995	943
as Diesel	540	D-	50	ug/L	3510		03/06/1995	943
Carbon Range:	C10-C28			-			03/06/1995	943

D- : The positive result has an atypical pattern for Diesel analysis.



Client Name: Blaine Tech Services

Client Acct: 1821 NET Job No: 95.00997 Date: 03/16/1995

ELAP Cert: 1386

Page: 3

Ref: Shell 2724 Castro Valley Blvd., Castro Valley/950228-L2

SAMPLE DESCRIPTION: MW-2

Date Taken: 02/28/1995

Time Taken:

Time Taken:								Run
NET Sample No: 237344			.	_		Date	Date	Batch
			Reportin	-				
Parameter	Results	Flags	Limit	Units	Method	Extracted	Analyzed	No.
TPH (Gas/BTXE, Liquid)								
METHOD 5030/M8015							03/14/1995	
DILUTION FACTOR*	1						03/14/1995	
as Gasoline	ND		50	ug/L	5030		03/14/1995	
Carbon Range:							03/14/1995	
METHOD 8020 (GC, Liquid)							03/14/1995	2666
Benzene	ND		0.5	ug/L	8020		03/14/1995	2666
Toluene	ND		0.5	ug/L	8020		03/14/1995	2666
Ethylbenzene	ND		0.5	ug/L	8020		03/14/1995	2666
Xylenes (Total)	ND		0.5	ug/L	8020		03/14/1995	2666
•				•			03/14/1995	2666
SURROGATE RESULTS				% Rec.	5030		03/14/1995	2666
Bromofluorobenzene (SURR)	100							
ACCUSED MODEL (TVM Limited)						03/04/1995	•	
METHOD M8015 (EXT., Liquid)	-						03/06/1995	943
DILUTION FACTOR*	1		50	ug/L	3510		03/06/1999	943
as Diesel	ND		ÞΛ	αg/ 1	3320		03/06/1999	
Carbon Range:							00,00,200	



Client Name: Blaine Tech Services Date: 03/16
Client Acct: 1821 ELAP Cert: 1386 NET Job No: 95.00997 Page: 4

Date: 03/16/1995

Ref: Shell 2724 Castro Valley Blvd., Castro Valley/950228-L2

SAMPLE DESCRIPTION: MW-3

Date Taken: 02/28/1995

Time Taken:

NET Sample No: 237345								Run
NEI Sample NO: 237343			Reporting	•		Date	Date	Batch
Parameter	Results	Flags	Limit	Units	Method	Extracted	Analyzed	No.
TPH (Gas/BTXE, Liquid)								
METHOD 5030/M8015							03/14/1995	2666
DILUTION FACTOR*	1						03/14/1995	2666
as Gasoline	ND		50	ug/L	5030		03/14/1995	2666
Carbon Range:				-			03/14/1995	2666
METHOD 8020 (GC, Liquid)							03/14/1995	2666
Benzene	ND		0.5	ug/L	8020		03/14/1995	2666
Toluene	ND		0.5	ug/L	8020		03/14/1995	2666
Ethylbenzene	ND ·		0.5	ug/L	8020		03/14/1995	2666
Xylenes (Total)	ND		0.5	ug/L	8020		03/14/1995	2666
SURROGATE RESULTS				_			03/14/1995	2666
Bromofluorobenzene (SURR)	97			% Rec.	5030		03/14/1995	2666
representation are an experienced as a second control of the contr						03/04/1995	-	
METHOD M8015 (EXT., Liquid)						,,	03/06/1999	943
DILUTION FACTOR*	1		50	υ α/ Τ.	3510		03/06/1995	
as Diesel	ND		50	ug/L	2210		03/06/1995	
Carbon Range:							03/00/1990	, ,,,,,



Client Name: Blaine Tech Services Date: 03/16/1995
Client Acct: 1821 ELAP Cert: 1386 NET Job No: 95.00997

Page: 5

Ref: Shell 2724 Castro Valley Blvd., Castro Valley/950228-L2

SAMPLE DESCRIPTION: MW-5

Date Taken: 02/28/1995

Time Taken:

Time Taken:							Run
NET Sample No: 237346		Reporting			Date	Date	Batch
Parameter	Results Flags	Limit	Units	Method	Extracted	Analyzed	No.
TPH (Gas/BTXE,Liquid)							
METHOD 5030/M8015						03/14/1995	
pilution factor* .	1					03/14/1995	
as Gasoline	ND	50	ug/L	5030		03/14/1995	
Carbon Range:						03/14/1995	2666
METHOD 8020 (GC, Liquid)						03/14/1995	2666
Benzene	ND	0.5	ug/L	8020		03/14/1995	2666
Toluene	ND	0.5	ug/L	8020		03/14/1995	2666
Ethylbenzene	ND	0.5	ug/L	8020		03/14/1999	2666
•	ND	0.5	ug/L	8020		03/14/1995	2666
Xylenes (Total)		0.0	-37 -			03/14/1999	2666
SURROGATE RESULTS			% Rec.	5030		03/14/1999	2666
Bromofluorobenzene (SURR)	105		* Rec.	3030			
					03/04/1995	•	
METHOD M8015 (EXT., Liquid)	-					03/06/199	5 943
DILUTION FACTOR*	1	5 0	/T	3510		03/06/199	
as Diesel	ND	50	ug/L	JJ10		03/06/199	
Carbon Range:						00,00,133	



Client Name: Blaine Tech Services
Client Acct: 1821 ELAP Cert: 1386 Page: 6

Date: 03/16/1995

Ref: Shell 2724 Castro Valley Blvd., Castro Valley/950228-L2

SAMPLE DESCRIPTION: MW-7

Date Taken: 02/28/1995

Time Taken:

NET Sample No: 237347								Run
			Reporting	3		Date	Date	Batch
Parameter	Results	Flags	Limit	Units	Method	Extracted	Analyzed	No.
TPH (Gas/BTXE, Liquid)								
METHOD 5030/M8015							03/14/1995	2666
DILUTION FACTOR*	1						03/14/1995	2666
as Gasoline	ND		50	ug/L	5030		03/14/1995	2666
Carbon Range:							03/14/1995	2666
METHOD 8020 (GC, Liquid)							03/14/1995	2666
Benzene	ND		0.5	ug/L	8020		03/14/1995	2666
Toluene	ND		0.5	ug/L	8020		03/14/1995	2666
Ethylbenzene	ND		0.5	ug/L	8020		03/14/1995	2666
Xylenes (Total)	NĐ		0.5	ug/L	8020		03/14/1995	2666
SURROGATE RESULTS							03/14/1995	2666
Bromofluorobenzene (SURR)	101			% Rec.	5030		03/14/1995	2666
METHOD M8015 (EXT., Liquid)						03/04/1995	-	
DILUTION FACTOR*	1						03/06/1995	943
as Diesel	70		50	ug/L	3510		03/06/1995	943
Carbon Range:	C12-C18			_			03/06/1995	943



Client Name: Blaine Tech Services Client Acct: 1821 ELAP Cert: 1386 NET Job No: 95.00997 Page: 7

Date: 03/16/1995 -- -

Ref: Shell 2724 Castro Valley Blvd., Castro Valley/950228-L2

SAMPLE DESCRIPTION: OMW-9

Date Taken: 02/28/1995

Time Taken:

NET Sample No: 237348								Run
			Reportin	g		Date	Date	Batch
Parameter	Results	Flags	Limit	Units	Method	Extracted	Analyzed	No.
TPH (Gas/BTXE,Liquid)								
METHOD 5030/M8015							03/14/1995	2666
DILUTION FACTOR*	1						03/14/1995	2666
as Gasoline	ND		50	ug/L	5030		03/14/1995	2666
Carbon Range:							03/14/1995	2666
METHOD 8020 (GC, Liquid)							03/14/1995	2666
Benzene	ND		0.5	ug/L	8020		03/14/1995	2666
Toluene	ND		0.5	ug/L	8020		03/14/1995	2666
Ethylbenzene	ND		0.5	ug/L	8020		03/14/1995	2666
Xylenes (Total)	ND		0.5	ug/L	8020		03/14/1995	2666
SURROGATE RESULTS							03/14/1995	2666
Bromofluorobenzene (SURR)	103			% Rec.	5030		03/14/1995	2666
						03/04/1995	-	
METHOD M8015 (EXT., Liquid)						03/04/1993	02/06/1006	043
DILUTION FACTOR*	1						03/06/1995	
as Diesel	ND		50	ug/L	3510		03/06/1995	
Carbon Range:							03/06/1995	943



Client Name: Blaine Tech Services Date: 03/16/1995
Client Acct: 1821 ELAP Cert: 1386 NET Job No: 95.00997 Page: 8

Ref: Shell 2724 Castro Valley Blvd., Castro Valley/950228-L2

SAMPLE DESCRIPTION: DUP

Date Taken: 02/28/1995

Time Taken:

NET Sample No: 237349

NEI Sample No: 23/349								KUII
			Reportin	g		Date	Date	Batch
Parameter	Results	Flags	Limit	Units	Method	Extracted	Analyzed	No.
TPH (Gas/BTXE,Liquid)								
METHOD 5030/M8015							03/14/1995	2666
DILUTION FACTOR*	1						03/14/1995	2666
as Gasoline	ND		50	ug/L	5030		03/14/1995	2666
Carbon Range:							03/14/1995	2666
METHOD 8020 (GC, Liquid)							03/14/1995	2666
Benzene	ND		0.5	ug/L	8020		03/14/1995	2666
Toluene	ND		0.5	ug/L	8020		03/14/1995	2666
Ethylbenzene	ND		0.5	ug/L	8020		03/14/1995	2666
Xylenes (Total)	ND		0.5	ug/L	8020		03/14/1999	2666
SURROGATE RESULTS							03/14/1995	2666
Bromofluorobenzene (SURR)	103			% Rec.	5030		03/14/1995	2666
METHOD M8015 (EXT., Liquid)						03/04/1995	•	
DILUTION FACTOR*	1.						03/06/1995	943
as Diesel	ND		50	ug/L	3510		03/06/1995	943
Carbon Range:							03/06/1995	943

Run



Client Name: Blaine Tech Services Date: 03/16 Client Acct: 1821 ELAP Cert: 1386

Client Acct: 1821 NET Job No: 95.00997 Date: 03/16/1995

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Ref: Shell 2724 Castro Valley Blvd., Castro Valley/950228-L2

SAMPLE DESCRIPTION: EB

Date Taken: 02/28/1995

Time Taken:

NET Sample No: 237350							Run	
			Reportin	g		Date	Date	Batch
Parameter	Results	Flags	Limit	Units	Method	Extracted	Analyzed	No.
METHOD M8015 (EXT., Liquid)						03/04/1995		
DILUTION FACTOR*	1						03/06/1995	943
as Diesel	ND		50	ug/L	3510		03/06/1995	943
Carbon Range:							03/06/1995	943



Client Name: Blaine Tech Services . Date: 03/16/1995 Client Acct: 1821 ELAP Cert: 1386 Client Acct: 1821 Page: 10 NET Job No: 95.00997

Ref: Shell 2724 Castro Valley Blvd., Castro Valley/950228-L2

SAMPLE DESCRIPTION: TB

Date Taken: 02/28/1995

Time Taken:

NET Sample No: 237351

NET Sambre No: 521221							*****
		Reportir	ng		Date	Date	Batch
Parameter	Results Fla	ıqs Limit	Units	Method	Extracted	Analyzed	No.
TPH (Gas/BTXE, Liquid)							
METHOD 5030/M8015						03/14/1995	2666
DILUTION FACTOR*	1					03/14/1995	2666
as Gasoline	ND	50	ug/L	5030		03/14/1995	2666
Carbon Range:						03/14/1995	2666
METHOD 8020 (GC, Liquid)						03/14/1995	2666
Benzene	ND	0.5	ug/L	8020		03/14/1995	2666
Toluene	ND	0.5	ug/L	8020		03/14/1995	2666
Ethylbenzene	ND	0.5	ug/L	8020		03/14/1999	2666
Xylenes (Total)	ND	0.5	ug/L	8020		03/14/1995	2666
SURROGATE RESULTS						03/14/1999	2666
Bromofluorobenzene (SURR)	100		% Rec.	5030		03/14/1999	2666

Run



Client Name: Blaine Tech: Services

Client Acct: 1821 NET Job No: 95.00997 Date: 03/16/1995

ELAP Cert: 1386 Page: 11

Ref: Shell 2724 Castro Valley Blvd., Castro Valley/950228-L2

CONTINUING CALIBRATION VERIFICATION STANDARD REPORT

	ccv	CCV Standard	CCV Standard				Run
	Standard	Amount	Amount		Date	Analyst	Batch
Parameter	% Recovery	Found	Expected	Units	Analyzed	<u>Initials</u>	Number
TPH (Gas/BTXE, Liquid)							
as Gasoline	99.0	0.99	1.00	mg/L	03/14/1995	aal	2666
Benzene	100.8	5.04	5.00	ug/L	03/14/1995	aal	2666
Toluene	99.8	4.99	5.00	ug/L	03/14/1995	aal	2666
Ethylbenzene	101.0	5.05	5.00	ug/L	03/14/1995	aal	2666
Xylenes (Total)	104.0	15.6	15.0	ug/L	03/14/1995	aal	2666
Bromofluorobenzene (SURR)	109.0	109	100	% Rec.	03/14/1995	aal	2666
METHOD M8015 (EXT., Liquid)							
as Diesel	94.6	946	1000	mg/L	03/06/1995	tts	943



Client Name: Blaine Tech Services Client Acct: 1821

Client Acct: 1821 NET Job No: 95.00997 Date: 03/16/1995

ELAP Cert: 1386 Page: 12

Ref: Shell 2724 Castro Valley Blvd., Castro Valley/950228-L2

METHOD BLANK REPORT

	Method						
	Blank					Run	
	Amount	Reporting		Date	Analyst	Batch	
Parameter	Found	Limit	Units	Analyzed	Initials	Number	
TPH (Gas/BTXE, Liquid)							
as Gasoline	ND	0.05	mg/L	03/14/1995	aal	2666	
Benzene	ND	0.5	ug/L	03/14/1995	aal	2666	
Toluene	ND	0.5	ug/L	03/14/1995	aal	2666	
Ethylbenzene	ND	0.5	ug/L	03/14/1995	aal	2666	
Xylenes (Total)	ND	0.5	ug/L	03/14/1995	aal	2666	
Bromofluorobenzene (SURR)	92		% Rec.	03/14/1995	aal	2666	
METHOD M8015 (EXT., Liquid)							
as Diesel	ND	0.05	mg/L	03/06/1995	tts	943	



Client Name: Blaine Tech Services Date: 03/16
Client Acct: 1821 ELAP Cert: 1386
NET Job No: 95.00997 Page: 13

Date: 03/16/1995

Ref: Shell 2724 Castro Valley Blvd., Castro Valley/950228-L2

MATRIX SPIKE / MATRIX SPIKE DUPLICATE

	Matrıx Spike	Dup		Spike	Sample	Matrix Spike	Matrix Spike Dup.	***	Date	Run	Sample
Parameter	% Rec.	% Rec.	RPD	Amount	Conc.	Conc.	Conc.	Units	Analyzed	Batch	Spiked
TPH (Gas/BTXE, Liquid)											237343
as Gasoline	100.0	103.0	3.0	1.00	ND	1.00	1.03	mg/L	03/14/1995	2666	237343
Benzene	113.0	114.4	1.2	21.6	ND	24.4	24.7	ug/L	03/14/1995	2666	237343
Toluene	110.9	112.9	1.8	81.6	ND	90.5	92.1	ug/L	03/14/1995	2666	237343
METHOD M8015 (EXT., Liquid)											237350
as Diesel	64.0	61.6	3.8	2.11	ND	1.35	1.30	mg/L	03/06/1995	943	237350



Client Name: Blaine Tech Services

Client Acct: 1821 NET Job No: 95.00997 Date: 03/16/1995

ELAP Cert: 1386 Page: 14

Ref: Shell 2724 Castro Valley Blvd., Castro Valley/950228-L2

LABORATORY CONTROL SAMPLE REPORT

Duplicate

						F					
		Duplicate		LCS	LCS	LCS					
	LCS	LCS		Amount	Amount	Amount		Date	Analyst	Run	
Parameter	* Recovery	* Recovery	RPD	Found	Found	Expected	Units	Analyzed	Initials	Batch	
METHOD M8015 (EXT., Liquid)											
as Diesel	58.5	•		0.585		1.00	mg/L	03/06/1995	tts	943	
METHOD M8015 (EXT., Liquid)											
as Diesel	83.2			0.832		1.00	mg/L	03/06/1995	tts	943	



KEY TO ABBREVIATIONS and METHOD REFERENCES

<	:	Less than; When appearing in results	column indicates analyte
		not detected at the value following.	This datum supercedes
		the listed Reporting Limit.	

* : Reporting Limits are a function of the dilution factor for any given sample. To obtain the actual reporting limits for this sample, multiply the stated Reporting Limits by the dilution factor (but do not multiply reported values).

ICVS : Initial Calibration Verification Standard (External Standard).

mean : Average; sum of measurements divided by number of measurements.

mg/Kg (ppm): Concentration in units of milligrams of analyte per kilogram of sample,

wet-weight basis (parts per million).

mg/L : Concentration in units of milligrams of analyte per liter of sample.

mL/L/hr : Milliliters per liter per hour.

MPN/100 mL : Most probable number of bacteria per one hundred milliliters of sample.

N/A : Not applicable.

NA : Not analyzed.

ND : Not detected; the analyte concentration is less than applicable listed

reporting limit.

NTU : Nephelometric turbidity units.

RPD : Relative percent difference, 100 [Value 1 - Value 2]/mean value.

SNA : Standard not available.

ug/Kg (ppb) : Concentration in units of micrograms of analyte per kilogram of sample,

wet-weight basis (parts per billion).

ug/L : Concentration in units of micrograms of analyte per liter of sample.

umhos/cm : Micromhos per centimeter.

Method References

Methods 100 through 493: see "Methods for Chemical Analysis of Water & Wastes", U.S. EPA, 600/4-79-020, rev. 1983.

Methods 601 through 625: see "Guidelines Establishing Test Procedures for the Analysis of Pollutants" U.S. EPA, 40 CFR, Part 136, rev. 1988.

<u>Methods</u> 1000 through 9999: see "Test Methods for Evaluating Solid Waste", U.S. EPA SW-846, 3rd edition, 1986.

<u>SM</u>: see "Standard Methods for the Examination of Water & Wastewater, 17th Edition, APHA, 1989.

COOLER RECEIPT FORM :

roject: 960228-L2 cooler received on: 3295 ar	Log No: 5818 nd checked on 30 95 by
	(signature)
Here custody papers present?	YES) NO
Were custody papers properly fil	lled out?YES NO
Were the custody papers signed?.	
Nas sufficient ice used?	YES NOTEND! 0,100
oid all bottles arrive in good o	condition (unbroken)?YES NO
oid bottle labels match COC?	YES NO
Were proper bottles used for ana	alysis indicated?YES NO
Correct preservatives used?	YES NO
OA vials checked for headspace Note which voas (if any)	bubbles?YES NO had bubbles:*
Sample descriptor:	Number of vials:
	· · · · · · · · · · · · · · · · · · ·
*All VOAs with headspace bubbles used for analysis	s have been set aside so they will not be
List here all other jobs receive	ed in the same cooler:
Client Job #	NET log #
	<u> </u>
	

SHELL WELL MONITORING DAIA SHEET

Project #: 950228-LZ Wie # 204 1381 0407									
Sampler: LAD Date Sampled: 2-28-75									
Well I.D.: MW- Well Diameter: (circle one) 2 3 4 6									
Total We	ll Depth:		Dept	th to Water:					
Before /	4.72 A	fter	Befo	ore 5.06	After				
Depth to	Free Produ	ct:	Thic	ckness of Fre	e Product (feet):			
Measurem	Measurements referenced to: PVC Grade Other								
(22 # 	Values Conversion Factor (VCT):								
	6.3	x	3		18	.9			
•	Volume	- · ·	Specified Vo	olumes =	gallons	-			
Purging:	Purging: Bailer D Sampling: Bailer A Middleburg D Middleburg D Electric Submersible D Suction Pump D Suction Pump D Installed Pump D								
TIME	TEMP. (F)	PH	COND.	TURBIDITY:	VOLUME REMOVED:	OBSERVATIONS:			
1530	614	7.5	1000.	Zi,	7.				
1532	61.0	74	1010.	17.	13,				
1537	1537 61.6 7.3 1000. 37. 19.								
Did Well	Dewater?	I If yes	s, gals.	Gallons A	Actually Eva	acuated: 19			
Sampling	Time: /5	40							
Sample I.D.: MW-/ Laboratory: NET									
Analyzed for: TPH6, BVEX, TPHD									
Duplicate	⊇ I.D.:		Cles	uning Blank I	.D.:				
Analyzed	for:	<u> </u>							
Shipping Notations:									
Additional Notations:									

SHELL WELL MONITORING DATA SHEET

Project	#: 9502	28-L	-Z Wic	# 704	1381	0407			
Sampler: LAD Date Sampled: Z-28-95									
Well I.D	Well I.D.: MW-Z Well Diameter: (circle one) 2 3 4 6								
Total We	Total Well Depth: Depth to Water:								
Before	Before 11,95 After Before 6.46 After								
Depth to	Free Produ	ct:	Thi	ckness of Fre	e Product (feet):			
Measurem	Measurements referenced to: PVC Grade Other								
{22 + →24F4 2F + 4 N	Values Canversian Factor (VCT): (12 * (c ² /d) * *) /121								
3	.6	_ x _	3			0.8			
1 Case	Volume		Specified Vo	olumes =	gallons	-			
Purging:	Purging: Bailer D Sampling: Bailer Middleburg D Middleburg D Electric Submersible D Suction Pump D Suction Pump D Installed Pump D								
TIME	TEMP. (F)	рн	COND.	TURBIDITY:	VOLUME REMOVED:	OBSERVATIONS:			
1545	61.2	7.6	850.	148.	4.				
1547	61.8	7.5		>200.	8.				
1550	67.0	7.4		7700.	11.				
-									
Did Well	Dewater? N	7 If yes	, gals.	Gallons 2		acuated: 11.			
Sampling		55				/ (-			
Sample I.	Sample I.D.: MW-Z Laboratory: NET								
Analyzed	for: T	7+6,	BIEX.	TPHD					
Duplicate	I.D.:	YUK	Clea	ning Blank I.	D.:				
Analyzed	for: TP	146,	BTEX	TPHD					
Shipping	Shipping Notations:								
Additiona	l Notations	:	·						

SHELL WELL MONITORING DAIA SHEET

Project #: 950228-LZ Wic # 204 1381 0407									
Sampler: LAD Date Sampled: Z-28-95									
Well I.D.: MW-3 Well Diameter: (circle one) 2 3 @ 6									
	Total Well Depth: Depth to Water:								
Before Z	5,51 2	fter	Bef	ore 7.67	After				
Depth to	Free Produ	ct:	Thi	ckness of Fre	e Product (feet):			
Measureme	Measurements referenced to: Grade Other								
\(\frac{12}{2}\) \$\times \(\frac{1}{2}\) \$\times \(\f	Values Canvarsian Fariar (VCr): (12 * (4 ² /4) * n)/211								
11	,6	_ x	3	•	<i><</i> ,	34.8			
1 Case	Volume	-	Specified Vo	olumes =	gallons	-			
	Purging: Bailer D Sampling: Bailer Middleburg D Middleburg D Electric Submersible D Suction Pump D Suction Pump D Installed Pump D								
TIME	TEMP. (F)	рĦ	COND.	TURBIDITY:	VOLUME REMOVED:	OBSERVATIONS:			
1504	67.4	7,3	1050.	24,	17,				
1506	67.0	7,3	1040.	32.	24,				
1508	66.4	7.2	1040.	Z7 ,	35				
				·					
	· · · · · · · · · · · · · · · · · · ·								
Did Well	Did Well Dewater? NO If yes, gals. Gallons Actually Evacuated: 35								
Sampling	Time: [5]	5							
Sample I.D.: MW-3 Laboratory: NEV									
	Analyzed for: TPH6, BTEX, TPHD								
Duplicate	I.D.:		Cíea	ning Blank I.	D.: EB	Q 1500			
Analyzed	for: TP	14D			AFTA	ER MW-5			
Shipping :	Notations:	•							
Additional Notations:									

SHELL WELL MONITORING DATA SHEET

Project #: 950278-LZ Wic # 204-1381 (407							
Sampler: LAD Date Sampled: 2-28-95							
Well I.D.: MW-5 Well Diameter: (circle one) 2 3 6 6							
Total Well Depth: Depth to Water:							
Before 27.19 After	Before 5.88 A	fter					
Depth to Free Product:	Thickness of Free P	roduct (feet):					
Measurements referenced to: PVC	Grade 0	ther					
Valume Conversion Factor (VCF): (12 × (c ² /4) × n)/ill							
10.6 x	3	31.8					
1 Case Volume Specifie	i Volumes =	gallons					
Purging: Bailer Middleburg Electric Submersible Suction Pump Type of Installed Pump Sampling: Bailer Middleburg Electric Submersible Electric Submersible Suction Pump Installed Pump Installed Pump							
TIME TEMP. PH COND.		OLUME OBSERVATIONS:					
1445 66.2 7.4 100	0. 41.	il.					
1447 65,1 7,2 1000	. 68.	22.					
1449 64,9 7.0 1020		32,					
Did Well Dewater? \(\(\bar{O} \) If yes, gals.	Gallons Act	ually Evacuated: 32					
Sampling Time: 1455							
Sample I.D.: Mw-5 Laboratory: NFT							
Analyzed for: TPH6, BTE							
Duplicate I.D.:	Cleaning Blank I.D.	:					
Analyzed for:							
Shipping Notations:							
Additional Notations:							

SHELL WELL MONITORING DAIA SHEET

Project #: 950228-LZ Wic # 204 1381 0407								
Sampler:	Sampler: LAD Date Sampled: Z-28-95							
Well I.D.: MW-7 Well Diameter: (circle one) ② 3 4 6								
· ·	11 Depth:			th to Water:				
Before	16,312	fter	Bef	ore 4.31	After			
Depth to	Free Produ	ct:	Thi	ckness of Fre	e Product (feet):		
Measurem	ents refere	nced to:	EVC)	Grade	Other	·		
{22 * ₩247¢ 22 (6	Value Conversion Factor (VCT):							
	,9	_ x	3		5	7.7		
1 Case	Volume		Specified V	olumes =	gallons	-		
Purging:	Purging: Bailer Sampling: Bailer A Middleburg D Middleburg D Electric Submersible D Suction Pump D Suction Pump D Installed Pump D							
TIME	TEMP. (F)	рĦ	COND.	TURBIDITY:	VOLUME REMOVED:	OBSERVATIONS:		
1609	60.7	7.9	480.	7700,	7.			
1613	59.7	7.8	490,	>200,	4.			
1617	59,9	7.8	520.	7200.	6.			
Did Well	Dewater? N) If yes	, gals.	Gallons A	ctually Eva	cuated: ()		
Sampling	Time: 16	22						
Sample I.	D.: MW	-7	Labo	ratory: Nt	=7			
Analyzed for: TPHE BYEX, TPHD								
Duplicate				ning Blank I.	D.:			
Analyzed	for:							
Shipping	Shipping Notations:							
Additiona	Additional Notations:							

SHELL WELL MONITORING DATA SHEET

								
Project	#:950	228	ーレス Wic	# 204	1381 0	407		
Sampler:								
Well I.D	·· OMW	9	Wel	l Diameter: (circle one)	2 (3) 4 6		
E .	ll Depth:		_	th to Water:				
Before /	3.98 A	fter 	Bef	ore 9, 49	After			
Depth to	Free Produ	ct:	Thi	ckness of Fre	e Product (feet):		
Measurem	ents refere	nced to:	PVC	Građe	Other			
{12 ≠ >>>>=================================	Valuma Canversian Factor (VCT): {12 = (c ² /a) = n} /222 *** **Darra* 2* = 0.25 2* = 0.27 2* = 0.45 2* = 0.45 4* = 0.45 4* = 2.47 4* = 2.47 25* = 4.60 21* = 4.61 22* = 4.61 22* = 4.61 22* = 4.62 22* = 4.62							
	7 🔍	x	_ 3			5.1		
1 Case	Volume		Specified V	olumes =	gallons	*		
Purging:	Purging: Bailer X Sampling: Bailer A Middleburg D Middleburg D Electric Submersible D Suction Pump D Suction Pump D Installed Pump D							
TIME	TEMP. (F)	рн 	сомъ.	TURBIDITY:	VOLUME REMOVED:	OBSERVATIONS:		
1414	66.3	7.8	660,	111.	7,			
1418	65.6	7.5	770,	67.	4,			
1422	65,2	7.3	750.	67.	6.			
								
Did Well	Dewater?	If yes	, gals.	Gallons 2	ctually Eva	cuated: 6,		
	Sampling Time: 1430							
Sample I.D.: OMW-9 Laboratory: NET								
Analyzed	Analyzed for: TPHG, BTEX, TPHD.							
Duplicate	i.D.:	,	Clea	ming Blank I.	D.:			
Analyzed	Analyzed for:							
Shipping Notations:								
Additional Notations:								