



July 15, 1996

Scott O. Seery  
Alameda County Department  
of Environmental Health  
1131 Harbor Bay Parkway  
Alameda, California 94502-6577

STID  
988

Re: **Second Quarter 1996**  
Shell Service Station  
1285 Bancroft Avenue  
San Leandro, California  
WIC #204-6852-0703  
WA Job #81-0423-206

ENVIRONMENTAL  
PROTECTION  
96 JUL 19 PM 3:39

Dear Mr. Seery:

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

### Activities This Quarter

- Blaine Tech Services, Inc. (BTS) of San Jose, California measured ground water depths and collected ground water samples from the site wells (Figures 1 and 2). BTS' report describing these activities and the analytic report for the ground water samples are included as Attachment A.
- Weiss Associates (WA) calculated ground water elevations (Table 1), compiled the analytic data (Table 2), and prepared a ground water elevation contour (Figure 2).

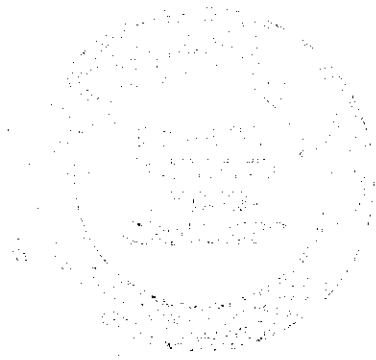
Scott O. Seery  
July 15, 1996

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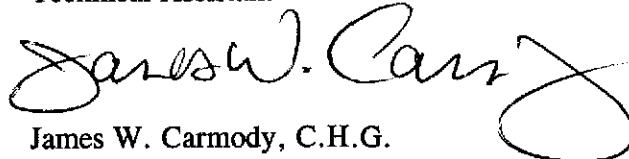
### Anticipated Activities Next Quarter

WA will submit a report presenting a summary of activities for the upcoming quarter. Please call if you have any questions or comments.

Sincerely,  
Weiss Associates



  
Grady S. Glasser  
Technical Assistant

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

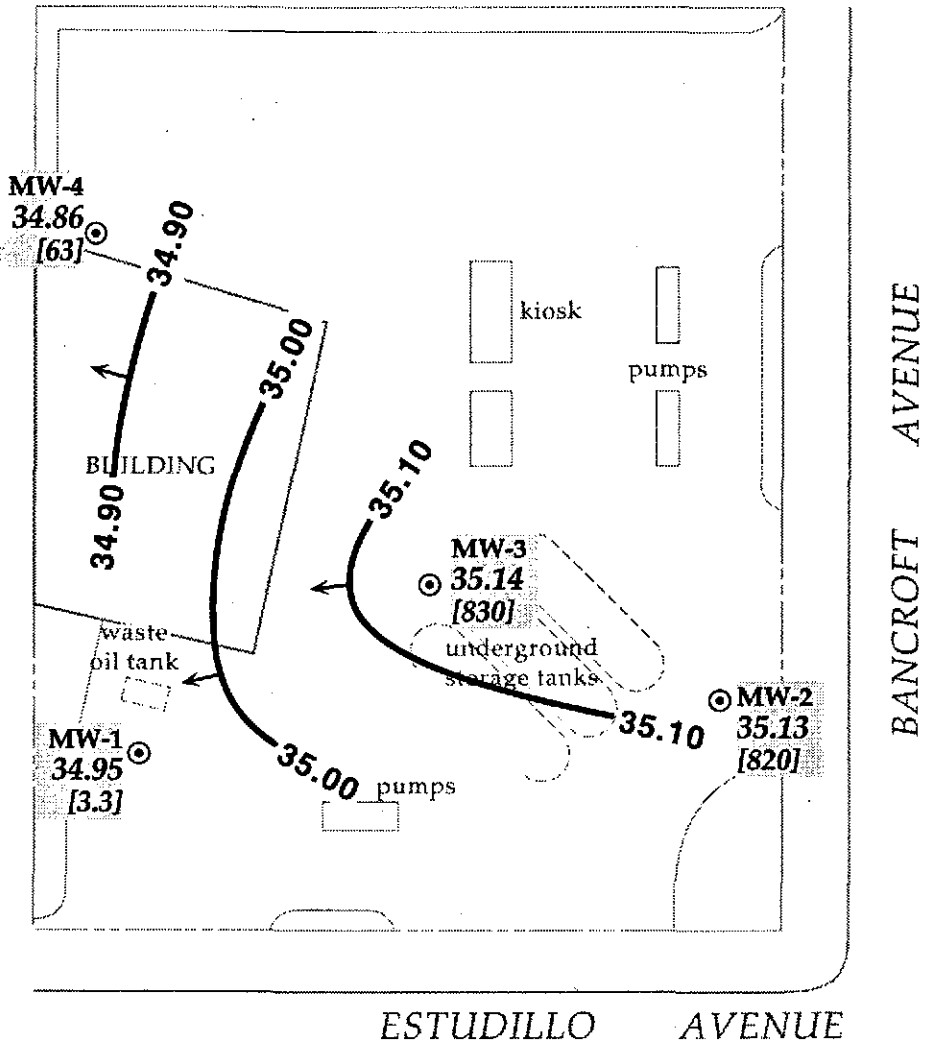
Attachments: A - Ground Water Monitoring Report and Analytic Report

cc: R. Jeff Granberry, Shell Oil Products Company, P.O. Box 4023, Concord, California 94524

GSG/JWC:all  
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Figure 1. Site Location Map - Shell Service Station WIC #204-6852-0703, 1285 Bancroft Avenue, San Leandro, California



EXPLANATION	
⊙ MW-1	Monitoring well
34.95	Ground water elevation, ft above mean sea level (msl)
[3.3]	Benzene concentration in parts per billion (ppb)
— 35.00	Ground water elevation contour, ft above msl, approximately located, dashed where inferred
→	Inferred ground water flow direction

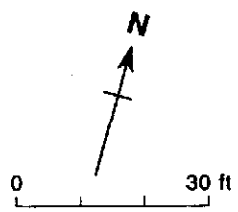


Figure 2. Monitoring Well Locations, Ground Water Elevation Contours and Benzene Concentrations in Ground Water - April 25, 1996 - Shell Service Station WIC #204-6852-0703, 1285 Bancroft Avenue, San Leandro, California

Table 1. Ground Water Elevations, Shell Service Station WIC #204-6852-0703, 1285 Bancroft Avenue, San Leandro, California

Well ID	Date	Top-of-Casing Elevation (ft above msl)	Depth to Water (ft)	Ground Water Elevation (ft above msl)	
MW-1	03/13/90	66.29	42.65	23.64	
	06/12/90		43.14	23.15	
	09/13/90		44.71	21.58	
	12/18/90		45.23	21.06	
	03/07/91		43.32	22.97	
	06/07/91		42.18	24.11	
	09/17/91		44.85	21.44	
	03/01/92		41.56	24.73	
	06/03/92		40.74	25.55	
	09/01/92		43.05	23.24	
	12/07/92		44.19	22.10	
	03/01/93		34.96	31.33	
	06/22/93		36.75	29.54	
	09/09/93		39.36	26.93	
	12/13/93		40.74	25.55	
	03/03/94		38.40	27.89	
	07/27/94		66.90 <sup>a</sup>	40.49	26.41
	08/09/94			40.84	26.06
	10/05/94			41.98	24.92
	11/11/94			41.34	25.56
	12/29/94	42.06		24.84	
	01/04/95	39.90		27.00	
	04/14/95	31.02		35.88	
	07/12/95	34.61		32.29	
	12/14/95	39.24	27.66		
	01/10/96	38.34	28.56		
	04/25/96		31.95	34.95	
MW-2	03/01/92	66.91	41.57	25.34	
	06/03/92		40.56	26.35	
	09/01/92		42.94	23.97	
	12/07/92		44.13	22.78	
	03/01/93		34.82	32.09	
	06/22/93		36.64	30.27	
	09/09/93		39.24	27.67	
	12/13/93		40.64	26.27	
	03/03/94		38.98	27.93	
	07/27/94		66.91 <sup>a</sup>	40.40	26.51
	08/09/94	40.71		26.20	
	10/05/94	41.89		25.02	
	11/11/94	41.22		25.69	
	12/29/94	41.99		24.92	
	01/04/95		39.81	27.10	

Table 1. Ground Water Elevations, Shell Service Station WIC #204-6852-0703, 1285 Bancroft Avenue, San Leandro, California (continued)

Well ID	Date	Top-of-Casing Elevation (ft above msl)	Depth to Water (ft)	Ground Water Elevation (ft above msl)
	04/14/95		30.83	36.08
	07/12/95		34.50	32.41
	12/14/95		39.22	27.69
	01/10/96		38.22	28.69
	04/25/96		31.78	35.13
MW-3	03/01/92	66.31	42.00	24.31
	06/03/92		44.30	22.01
	09/01/92		43.62	22.69
	12/07/92		44.77	21.54
	03/01/93		35.50	30.81
	06/22/93		37.30	29.01
	09/09/93		39.90	26.41
	12/13/93		41.30	25.01
	03/03/94		38.32	27.99
	07/27/94	67.52 <sup>a</sup>	41.07	26.45
	08/09/94		41.37	26.15
	10/05/94		42.55	24.97
	11/11/94		41.86	25.66
	12/29/94		42.59	24.93
	01/04/95		40.54	26.98
	04/14/95		31.50	36.02
	07/12/95		35.14	32.38
	12/14/95		39.86	27.66
	01/10/96		39.98	27.54
	04/25/96		32.38	35.14
MW-4	07/27/94	68.08	41.78	26.30
	08/09/94		42.09	25.99
	10/05/94		43.25	24.83
	11/11/94		42.54	25.54
	12/29/94		43.34	24.74
	01/04/95		41.57	26.51
	04/14/95		32.24	35.84
	07/12/95		35.88	32.20
	12/14/95		40.54	27.54
	01/10/96		39.59	28.49
	04/25/96		33.22	34.86

Notes:

a = Top-of-Casing Elevation resurveyed March 29, 1994

Table 2A. Analytic Results for Ground Water - Fuel Compounds - Shell Service Station WIC #204-6852-0703, 1285 Bancroft Avenue, San Leandro, California

Well ID	Date Sampled	Depth to Water (ft)	TPH-G	TPH-D	parts per billion ( $\mu\text{g/L}$ )			
					B	E	T	X
MW-1	09/17/91	44.85	50 <sup>a</sup>	160 <sup>b</sup>	<0.5	<0.5	<0.5	<0.5
	03/01/92	41.56	<50	<50	<0.5	<0.5	<0.5	<0.5
	06/03/92	40.74	<50	---	0.8	0.9	<0.5	<0.5
	09/01/92	43.05	<50	---	<0.5	5.3	5.8	7.2
	12/07/92	44.19	68	---	<0.5	<0.5	0.8	1.2
	03/01/93	34.96	<50	---	<0.5	<0.5	<0.5	<0.5
	03/01/93 <sup>dup</sup>	34.96	<50	---	<0.5	<0.5	<0.5	<0.5
	06/22/93	36.75	<50	---	<0.5	<0.5	<0.5	<0.5
	09/09/93	39.36	200 <sup>c</sup>	---	16	2.0	5.2	<0.5
	12/13/93	40.74	89 <sup>d</sup>	---	3.4	<0.5	<0.5	<0.5
	03/03/94	38.40	65 <sup>d</sup>	---	2.6	<0.5	<0.5	<0.5
	07/27/94	40.49	180	---	30	2.6	1.8	5.0
	07/27/94 <sup>dup</sup>	40.49	240	---	25	2.2	2.2	4.0
	10/05/94	41.98	<50	---	<0.3	<0.3	<0.3	<0.6
	01/04/95	39.90	<50	---	2.4	<0.5	<0.5	<0.5
	01/04/95 <sup>dup</sup>	39.90	<50	---	2.5	<0.5	<0.5	<0.5
	04/14/95	35.88	<50	---	<0.5	<0.5	0.5	<0.5
	04/14/95 <sup>dup</sup>	35.88	<50	---	<0.5	<0.5	<0.5	<0.5
	07/12/95	34.61	<50	---	1.2	<0.5	0.8	<0.5
	12/14/95	39.24	380	---	230	1.1	9.0	49
01/10/96	38.34	60	---	3.5	<0.5	<0.5	0.5	
04/25/96	31.95	<50	---	3.3	1.2	2.4	5.4	
MW-2	03/01/92	41.57	910	<50	11	50	5.2	140
	06/03/92	40.56	1,400	---	33	150	16	240
	09/01/92	42.94	230	---	5.2	15	4.1	19
	09/01/92 <sup>dup</sup>	42.94	320	---	5.6	18	5	220
	12/07/92	44.13	240	---	1.5	9.5	1.3	9.9
	12/07/92 <sup>dup</sup>	44.13	<50	---	1.7	13	1	12
	03/01/93	34.82	230	---	260	27	310	66

Table 2A. Analytic Results for Ground Water - Fuel Compounds - Shell Service Station WIC #204-6852-0703, 1285 Bancroft Avenue, San Leandro, California (continued)

Well ID	Date Sampled	Depth to Water (ft)	TPH-G	TPH-D	B	E	T	X
			←————— parts per billion (µg/L) —————→					
	06/22/93	36.64	220	---	18	3.6	3.4	5.2
	06/22/93 <sup>dup</sup>	36.64	320	---	29	4.2	4.8	6.1
	09/09/93	39.24	260	---	18	16	4.6	12
	09/09/93 <sup>dup</sup>	39.24	210	---	16	14	3.9	9.1
	12/13/93	40.64	1,300 <sup>e</sup>	---	82	73	34	15
	12/13/93 <sup>dup</sup>	40.64	1,400 <sup>e</sup>	---	110	72	45	19
	03/03/94	38.98	9,600	---	1,200	390	600	710
	03/03/94 <sup>dup</sup>	38.98	10,000	---	930	330	500	590
	07/27/94	40.40	190	---	<0.5	<0.5	1.0	<0.5
	08/09/94	40.71	1,500	---	53.5	46.2	12.4	44.0
	10/05/94	41.89	<485	---	<0.3	<0.3	<0.3	<0.6
	01/04/95	39.81	1,300	---	150	23	35	51
	04/14/95	30.83	5,000	---	1,000	400	340	810
	07/12/95	34.50	4,500	---	440	170	170	290
	07/12/95 <sup>dup</sup>	34.50	4,300	---	430	160	160	280
	12/14/95	39.22	37,000	---	1,800	1,000	7,600	6,700
	12/14/95 <sup>dup</sup>	39.22	34,000	---	1,800	1,000	6,600	6,500
	01/10/96	38.22	69,000	---	1,000	510	3,200	3,300
	01/10/96 <sup>dup</sup>	38.22	78,000	---	1,100	560	3,500	3,600
	04/25/96	31.78	11,000	---	820	210	880	1,400
	04/25/96 <sup>dup</sup>	31.78	9,300	---	690	160	710	1,200
MW-3	03/01/92	42.00	<50	<50	<0.5	<0.5	<0.5	<0.5
	06/03/92	44.30	<50	---	<0.5	<0.5	<0.5	<0.5
	09/01/92	43.62	<50	---	<0.5	1.1	<0.5	3.2
	12/07/92	44.77	52	---	<0.5	<0.5	<0.5	0.5
	03/01/93	35.50	<50	---	<0.5	<0.5	<0.5	<0.5
	06/22/93	37.30	<50	---	<0.5	<0.5	<0.5	<0.5
	09/09/93	39.90	50 <sup>e</sup>	---	5.0	<0.5	<0.5	<0.5
	12/13/93	41.30	120 <sup>d</sup>	---	7.5	1.6	<0.5	6.3





Table 2A. Analytic Results for Ground Water - Fuel Compounds - Shell Service Station WIC #204-6852-0703, 1285 Bancroft Avenue, San Leandro, California (continued)

Well ID	Date Sampled	Depth to Water (ft)	parts per billion ( $\mu\text{g/L}$ )					
			TPH-G	TPH-D	B	E	T	X
	03/03/94	38.32	<50	---	0.81	<0.5	<0.5	<0.5
	07/27/94	41.07	<50	---	3.5	<0.5	<0.5	<0.5
	10/05/94 <sup>c</sup>	42.55	<57	---	<0.3	<0.3	<0.3	<0.6
	01/04/95	40.54	<50	---	6.0	<0.5	<0.5	<0.5
	04/14/95	31.50	<50	---	<0.5	<0.5	<0.5	<0.5
	07/12/95	35.14	90	---	16	<0.5	<0.5	<0.5
	12/14/95	39.86	4,600	---	460	34	390	1,000
	01/10/96	39.98	11,000	---	470	68	460	670
	<b>04/25/96</b>	<b>32.38</b>	<b>5,500</b>	<b>---</b>	<b>830</b>	<b>&lt;50</b>	<b>910</b>	<b>460</b>
MW-4	07/27/94	41.78	120	---	3.4	0.6	3.9	4.9
	10/05/94 <sup>c</sup>	43.25	<50	---	<0.3	<0.3	<0.3	<0.6
	10/05/94 <sup>dup</sup>	43.25	<50	---	<0.3	<0.3	<0.3	<0.6
	01/04/95	41.57	<50	---	1.4	<0.5	<0.5	<0.5
	04/14/95	32.24	<50	---	<0.5	<0.5	<0.5	<0.5
	07/12/95	35.88	<50	---	<0.5	<0.5	<0.5	<0.5
	12/14/95	40.54	70	---	0.6	<0.5	<0.5	<0.5
	01/10/96	39.59	280	---	3.7	<0.5	1.0	0.8
	<b>04/25/96</b>	<b>33.22</b>	<b>&lt;500</b>	<b>---</b>	<b>63</b>	<b>&lt;5.0</b>	<b>&lt;5.0</b>	<b>&lt;5.0</b>
Bailer	09/01/92		<50	---	<0.5	<0.5	<0.5	1
Blank	12/07/92		<50	---	<0.5	<0.5	<0.5	<0.5
	01/04/95		<50	---	<0.5	<0.5	<0.5	<0.5
	07/12/95		<50	---	0.6	<0.5	0.7	<0.5
	12/14/95		<50	---	<0.5	<0.5	<0.5	<0.5
Trip	09/17/91		<50	---	<0.5	<0.5	<0.5	<0.5
Blank	03/01/92		<50	---	<0.5	<0.5	<0.5	<0.5
	06/03/92		<50	---	<0.5	<0.5	<0.5	<0.5
	09/01/92		<50	---	<0.5	<0.5	<0.5	<0.5

Table 2A. Analytic Results for Ground Water - Fuel Compounds - Shell Service Station WIC #204-6852-0703, 1285 Bancroft Avenue, San Leandro, California (continued)

Well ID	Date Sampled	Depth to Water (ft)	TPH-G	TPH-D	parts per billion ( $\mu\text{g/L}$ )			
					B	E	T	X
	12/07/92		< 50	---	< 0.5	< 0.5	< 0.5	< 0.5
	03/01/93		< 50	---	< 0.5	< 0.5	< 0.5	< 0.5
	06/22/93		< 50	---	< 0.5	< 0.5	< 0.5	< 0.5
	09/09/93		< 50	---	< 0.5	< 0.5	< 0.5	< 0.5
	12/13/93		< 50	---	< 0.5	< 0.5	< 0.5	< 0.5
	03/03/94		< 50	---	< 0.5	< 0.5	< 0.5	< 0.5
	07/27/94		< 50	---	< 0.5	< 0.5	< 0.5	< 0.5
	08/09/94		< 500	---	< 0.3	< 0.3	< 0.3	< 0.6
	10/05/94		< 50	---	< 0.3	< 0.3	< 0.3	< 0.6
	01/04/95		< 50	---	< 0.5	< 0.5	< 0.5	< 0.5
	04/14/95		< 50	---	< 0.5	< 0.5	< 0.5	< 0.5
	07/12/95		< 50	---	< 0.5	< 0.5	< 0.5	< 0.5
	12/14/95		< 50	---	< 0.5	< 0.5	< 0.5	< 0.5
DTSC MCLs			NE	NE	1	680	100 <sup>b</sup>	1,750

**Abbreviations:**

TPH-G = Total petroleum hydrocarbons as gasoline by Modified EPA Method 8015  
 TPH-D = Total petroleum hydrocarbons as diesel by Modified EPA Method 8015  
 B = Benzene by EPA Method 8020  
 E = Ethylbenzene by EPA Method 8020  
 T = Toluene by EPA Method 8020  
 X = Xylenes by EPA Method 8020  
 dup = Duplicate sample  
 NE = Not established  
 DTSC MCLs = California Department of Toxic Substances Control maximum contaminant levels for drinking water  
 --- = Not analyzed  
 < n = Not detected at detection limits of n ppb

**Notes:**

a = Result due to a non-gasoline hydrocarbon compound  
 b = Result due to a non-diesel hydrocarbon compound  
 c = The concentrations reported as gasoline are primarily due to the presence of a combination of gasoline and a discrete peak not indicative of gasoline.  
 d = The concentrations reported as gasoline are primarily due to the presence of a discrete peak not indicative of gasoline  
 e = DTSC recommended action level; MCL not established

Table 2B. Analytic Reports for Ground Water - Non-Fuel Compounds - Shell Service Station WIC #204-6852-0703, 1285 Bancroft Avenue, San Leandro, California

Well ID	Date Sampled	Depth to Water	TCE	TOG	PCE	Chloroform	cis-1,2-DCE	trans-1,2-DCE
			←————— parts per billion (mg/L) —————→					
MW-1	03/08/90	42.65	---	<10,000	35	6.3	---	---
	06/12/90	43.14	---	<10,000	1.9	63	---	---
	09/13/90	44.71	---	<10,000	26	9	---	---
	12/18/90	45.23	---	<10,000	<0.4	5.3	---	---
	03/07/91	43.32	---	---	23	3.7	---	---
	06/07/91	42.18	---	---	21	6.6	---	---
	09/17/91	44.85	---	---	23	7.4	---	---
	03/01/92	41.56	<0.4	---	21	6.3	---	<0.4
	06/03/92	40.74	17	---	<0.5	6.7	<0.5	<0.5
	09/01/92	43.05	12	---	<0.5	5.8	<0.5	<0.5
	12/07/92	44.19	<0.5	---	17	9	<0.5	<0.5
	03/01/93	34.96	<0.5	---	22	13	<0.5	<0.5
	03/01/93 <sup>dup</sup>	34.96	<0.5	---	22	13	<0.5	<0.5
	06/23/93	36.75	<0.5	---	18	8	<0.5	<0.5
	09/09/93	39.36	<0.5	---	17	6.5	<0.5	<0.5
	12/13/93	40.74	---	---	---	---	---	---
	04/14/95	31.02	---	---	---	---	---	---
MW-2	03/01/92	41.57	<0.4	---	11	8.9	---	<0.4
	06/03/92	40.56	7.4	---	<0.5	<0.5	0.76	6.3
	09/01/92	42.94	8.4	---	<0.5	9.1	<0.5	<0.5
	09/01/92 <sup>dup</sup>	42.94	8.4	---	<0.5	8.1	<0.5	<0.5
	12/07/92	44.13	<0.5	---	10	10	<0.5	<0.5
	12/07/92 <sup>dup</sup>	44.13	<0.5	---	10	9	<0.5	<0.5
	03/01/93	34.82	<0.5	---	<0.5	<0.5	<0.5	<0.5
	06/22/93	36.64	<0.5	---	13	7.9	<0.5	<0.5
	06/22/93 <sup>dup</sup>	36.64	<0.5	---	12	6.9	<0.5	<0.5
	09/09/93	39.24	<0.5	---	11	5.9	1.9	<0.5

Table 2B. Analytic Reports for Ground Water - Non-Fuel Compounds - Shell Service Station WIC #204-6852-0703, 1285 Bancroft Avenue, San Leandro, California (continued)

Well ID	Date Sampled	Depth to Water	TCE	TOG	PCE	Chloroform	cis-1,2-DCE	trans-1,2-DCE
			←————— parts per billion (mg/L) —————→					
	09/09/93	39.24	<0.5	---	12	7.3	1.1	<0.5
	12/13/93	40.64	---	---	---	---	---	---
	07/27/94	40.40	<0.4	---	<0.4	7.5	---	<0.4
	08/09/94	40.71	<0.1	---	10.1	5.8	<0.1	<0.3
	10/05/94 <sup>a</sup>	41.89	<5	---	9	5	<5	<5
	01/04/95	39.81	<0.4	---	12	3.8	---	<0.4
	04/14/95	30.83	<0.4	---	8.4	2.3	<0.4	---
MW-3	03/01/92	42.00	<0.4	---	8.8	2.4	---	<0.4
	06/03/92	44.30	3	---	<0.5	1.5	<0.5	<0.5
	09/01/92	43.62	8.8	---	<0.5	2.3	<0.5	<0.5
	12/07/92	44.77	<0.5	---	10	3	<0.5	<0.5
	03/01/93	35.50	<0.5	---	9.2	9.4	<0.5	<0.5
	06/22/93	37.30	<0.5	---	7.8	9.6	<0.5	<0.5
	09/09/93	39.90	<0.5	---	7.9	7.3	<0.5	<0.5
	12/13/93	41.30	---	---	---	---	---	---
Bailer	09/01/92		<0.5	---	<0.5	<0.5	<0.5	<0.5
Blank	12/07/92		<0.5	---	<0.5	<0.5	<0.5	<0.5
Trip	09/01/92		<0.5	---	<0.5	<0.5	<0.5	<0.5
Blank	12/07/92 <sup>b</sup>		<0.5	---	<0.5	<0.5	<0.5	<0.5
	03/01/93		<0.5	---	<0.5	<0.5	<0.5	<0.5
	06/22/93 <sup>c</sup>		<0.5	---	<0.5	<0.5	<0.5	<0.5
DTSC MCLs			5	NE	5	NE	6	10

---

Table 2B. Analytic Reports for Ground Water - Non-Fuel Compounds - Shell Service Station WIC #204-6852-0703, 1285 Bancroft Avenue, San Leandro, California (continued)

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Abbreviations:

TCE	= Trichloroethene by EPA Method 601
TOG	= Total non-polar oil and grease by American Public Health Association Standard Methods 503A&E
PCE	= Tetrachloroethene by EPA Method 601
Chloroform	= Chloroform by EPA Method 601
cis-1,2-DCE	= cis-1,2-Dichloroethene by EPA Method 601
trans-1,2-DCE	= trans-1,2-Dichloroethene by EPA Method 601
---	= Not analyzed
dup	= Duplicate sample
DTSC MCLs	= Department of Toxic Substances Control Maximum Contaminant Levels for drinking water
NE	= DTSC MCL not established

Notes:

- a = Results this date represent 3rd month of 3rd quarter 1994
- b = Sample contained 0.014 mg/L of 1,3-Dichlorobenzene
- c = Although 1.4 ppb methylene chloride was detected in one of the ground water samples from well MW-2, the laboratory indicated that this was within normal laboratory background concentrations.

**ATTACHMENT A**

**GROUND WATER MONITORING REPORT AND ANALYTIC REPORT**



# BLAINE TECH SERVICES INC.

985 TIMOTHY DRIVE  
SAN JOSE, CA 95133  
(408) 995-5535  
FAX (408) 293-8773

May 9, 1996

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

Attn: R. Jeff Granberry

Shell WIC #204-6852-0703  
1285 Bancroft Avenue  
San Leandro, California

2nd Quarter 1996

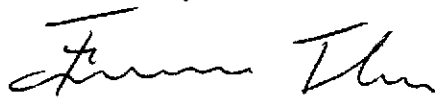
## Quarterly Groundwater Monitoring Report 960425-W-3

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

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

Yours truly,



Francis Thie

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

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

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

## TABLE OF WELL GAUGING DATA

WELL I.D.	DATA COLLECTION DATE	MEASUREMENT REFERENCED TO	QUALITATIVE OBSERVATIONS (sheet)	DEPTH TO FIRST IMMISCIBLE LIQUID (FPZ) (feet)	THICKNESS OF IMMISCIBLE LIQUID ZONE (feet)		VOLUME OF IMMISCIBLES REMOVED (mil)	DEPTH TO WATER (feet)	DEPTH TO WELL BOTTOM (feet)
					IMMISCIBLES	LIQUID ZONE			
MW-1	4/25/96	TOC	-	NONE	-	-	-	31.95	59.18
MW-2 *	4/25/96	TOC	ODOR	NONE	-	-	-	31.78	59.05
MW-3	4/25/96	TOC	ODOR	NONE	-	-	-	32.38	57.82
MW-4	4/25/96	TOC	-	NONE	-	-	-	33.22	54.65

\* Sample DUP was a duplicate sample taken from well MW-2.





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

**CHAIN OF CUSTODY RECORD**

Serial No: 960725 W3

Date: 4-25-96

Page 1 of 1

Site Address: 1285 Bancroft Avenue, San Leandro

WICH: 204-6852-0703

Shell Engineer: Don Kler R. Jeff Granberry  
Phone No.: (510) 575-6168  
Fax #: 675-6160

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

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

Comments:

Sampled by: [Signature]

Printed Name: William R. Jones

Sample ID	Date	Sludge	Soil	Water	Air	No. of conds.
MW-1	4/25/96			X		3
MW-2						
MW-3						
MW-4						
EB						
DUP						

**Analysis Required**

TPH (EPA 8015 Mod. Gas)	TPH (EPA 8015 Mod. Diesel)	BTEX (EPA 8020/602)	Volatile Organics (EPA 8240)	Test for Disposal	Combination TPH 8015 & BTEX 8020	MTBE	Asbestos	Container Size	Preparation Used	Composite Y/N
-------------------------	----------------------------	---------------------	------------------------------	-------------------	----------------------------------	------	----------	----------------	------------------	---------------

LAB: SEL

CHECK ONE (1) BOX ONLY	CI/DI	TURN AROUND TIME
Quality Monitoring <input checked="" type="checkbox"/>	6441	24 hours <input type="checkbox"/>
Site Investigation <input type="checkbox"/>	6441	48 hours <input type="checkbox"/>
Soil Classfy/Disposal <input type="checkbox"/>	6442	16 days <input checked="" type="checkbox"/> (Normal)
Water Classfy/Disposal <input type="checkbox"/>	6443	Other <input type="checkbox"/>
Soil/Air Rem. or Sys. O & M <input type="checkbox"/>	6442	
Water Rem. or Sys. O & M <input type="checkbox"/>	6443	
Other <input type="checkbox"/>		

MATERIAL DESCRIPTION	SAMPLE CONDITION/ COMMENTS
	01 k-c
	02
	03
	04
	05
	06

Relinquished By (signature): <u>[Signature]</u>	Printed Name: <u>William R. Jones</u>	Date: <u>4-26</u>	Received (signature): <u>[Signature]</u>	Printed Name: <u>John Howard</u>	Date: <u>4-26-96</u>
Relinquished By (signature): <u>[Signature]</u>	Printed Name: <u>John Howard</u>	Date: <u>4-26-96</u>	Received (signature): <u>[Signature]</u>	Printed Name: <u>[Signature]</u>	Date: <u>4-25</u>
Relinquished By (signature): <u>[Signature]</u>	Printed Name: <u>[Signature]</u>	Date: <u>4-26-96</u>	Received (signature): <u>[Signature]</u>	Printed Name: <u>Ukraine</u>	Date: <u>4/26/96</u>

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

9604 J 25



# Sequoia Analytical

680 Chesapeake Drive  
404 N. Wiget Lane  
819 Striker Avenue, Suite 8

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

(415) 364-9600  
(510) 988-9600  
(916) 921-9600

FAX (415) 364-9233  
FAX (510) 988-9673  
FAX (916) 921-0100

Blaine Technical Services  
985 Timothy Drive  
San Jose, CA 95133  
Attention: Jim Keller

Project: Shell, San Leandro, 960425 W3

Enclosed are the results from samples received at Sequoia Analytical on April 26, 1996.  
The requested analyses are listed below:

<u>SAMPLE #</u>	<u>SAMPLE DESCRIPTION</u>	<u>DATE COLLECTED</u>	<u>TEST METHOD</u>
9604J25 -01	LIQUID, MW-1	04/25/96	TPGBMW Purgeable TPH/BTEX
9604J25 -02	LIQUID, MW-2	04/25/96	TPGBMW Purgeable TPH/BTEX
9604J25 -03	LIQUID, MW-3	04/25/96	TPGBMW Purgeable TPH/BTEX
9604J25 -04	LIQUID, MW-4	04/25/96	TPGBMW Purgeable TPH/BTEX
9604J25 -05	LIQUID, EB	04/25/96	TPGBMW Purgeable TPH/BTEX
9604J25 -06	LIQUID, DUP	04/25/96	TPGBMW Purgeable TPH/BTEX

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

Very truly yours,

**SEQUOIA ANALYTICAL**

  
Peggy Penner  
Project Manager





Blaine Technical Services 985 Timothy Drive San Jose, CA 95133 Attention: Jim Keller	Client Proj. ID: Shell, San Leandro, 960425 W3 Sample Descript: MW-1 Matrix: LIQUID Analysis Method: 8015Mod/8020 Lab Number: 9604J25-01	Sampled: 04/25/96 Received: 04/26/96 Analyzed: 05/02/96 Reported: 05/06/96
---	--	---


QC Batch Number: GC050296BTEX20A  
Instrument ID: GCHP20

**Total Purgeable Petroleum Hydrocarbons (TPPH) with BTEX and MTBE**

Analyte	Detection Limit ug/L	Sample Results ug/L
TPPH as Gas	50	N.D.
Methyl t-Butyl Ether	2.5	370
Benzene	0.50	3.3
Toluene	0.50	2.4
Ethyl Benzene	0.50	1.2
Xylenes (Total)	0.50	5.4
Chromatogram Pattern:		
Surrogates	Control Limits %	% Recovery
Trifluorotoluene	70 130	100

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

**SEQUOIA ANALYTICAL** - ELAP #1210

  
Peggy Penner  
Project Manager





Blaine Technical Services 985 Timothy Drive San Jose, CA 95133 Attention: Jim Keller	Client Proj. ID: Shell, San Leandro, 960425 W3 Sample Descript: MW-2 Matrix: LIQUID Analysis Method: 8015Mod/8020 Lab Number: 9604J25-02	Sampled: 04/25/96 Received: 04/26/96 Analyzed: 05/02/96 Reported: 05/06/96
---	--	---

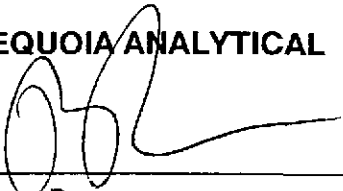
QC Batch Number: GC050296BTEX20A  
Instrument ID: GCHP20

**Total Purgeable Petroleum Hydrocarbons (TPPH) with BTEX and MTBE**

Analyte	Detection Limit ug/L	Sample Results ug/L
TPPH as Gas	2000	11000
Methyl t-Butyl Ether	100	22000
Benzene	20	820
Toluene	20	880
Ethyl Benzene	20	210
Xylenes (Total)	20	1400
Chromatogram Pattern:		C6-C12
<b>Surrogates</b>	<b>Control Limits %</b>	<b>% Recovery</b>
Trifluorotoluene	70                      130	112

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

**SEQUOIA ANALYTICAL** - ELAP #1210




---

Peggy Penner  
Project Manager





Blaine Technical Services  
985 Timothy Drive  
San Jose, CA 95133

Client Proj. ID: Shell, San Leandro, 960425 W3  
Sample Descript: MW-3  
Matrix: LIQUID  
Analysis Method: 8015Mod/8020  
Lab Number: 9604J25-03

Sampled: 04/25/96  
Received: 04/26/96  
Analyzed: 05/02/96  
Reported: 05/06/96

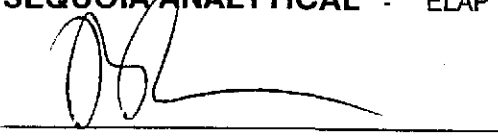
QC Batch Number: GC050296BTEX20A  
Instrument ID: GCHP10

**Total Purgeable Petroleum Hydrocarbons (TPPH) with BTEX and MTBE**

Analyte	Detection Limit ug/L	Sample Results ug/L
TPPH as Gas	5000	5500
Methyl t-Butyl Ether	250	13000
Benzene	50	830
Toluene	50	910
Ethyl Benzene	50	N.D.
Xylenes (Total)	50	460
Chromatogram Pattern:		C6-C12
<b>Surrogates</b>	<b>Control Limits %</b>	<b>% Recovery</b>
Trifluorotoluene	70 130	94

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

**SEQUOIA ANALYTICAL** - ELAP #1210



Peggy Penner  
Project Manager





Blaine Technical Services 985 Timothy Drive San Jose, CA 95133 Attention: Jim Keller	Client Proj. ID: Shell, San Leandro, 960425 W3 Sample Descript: MW-4 Matrix: LIQUID Analysis Method: 8015Mod/8020 Lab Number: 9604J25-04	Sampled: 04/25/96 Received: 04/26/96 Analyzed: 05/02/96 Reported: 05/06/96
---	--	---


QC Batch Number: GC050296BTEX03A  
Instrument ID: GCHP03

**Total Purgeable Petroleum Hydrocarbons (TPPH) with BTEX and MTBE**

Analyte	Detection Limit ug/L	Sample Results ug/L
TPPH as Gas	500	N.D.
<b>Methyl t-Butyl Ether</b>	<b>25</b>	<b>2900</b>
<b>Benzene</b>	<b>5.0</b>	<b>63</b>
Toluene	5.0	N.D.
Ethyl Benzene	5.0	N.D.
Xylenes (Total)	5.0	N.D.
Chromatogram Pattern:		
<b>Surrogates</b>	<b>Control Limits %</b>	<b>% Recovery</b>
Trifluorotoluene	70                      130	78

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

**SEQUOIA ANALYTICAL - ELAP #1210**

  
\_\_\_\_\_  
Peggy Penner  
Project Manager





Blaine Technical Services 985 Timothy Drive San Jose, CA 95133 Attention: Jim Keller	Client Proj. ID: Shell, San Leandro, 960425 W3 Sample Descript: EB Matrix: LIQUID Analysis Method: 8015Mod/8020 Lab Number: 9604J25-05	Sampled: 04/25/96 Received: 04/26/96 Analyzed: 05/02/96 Reported: 05/06/96
---	--	---

QC Batch Number: GC050296BTEX20A  
Instrument ID: GCHP20

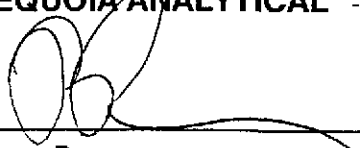
**Total Purgeable Petroleum Hydrocarbons (TPPH) with BTEX and MTBE**

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

Surrogates	Control Limits %	% Recovery
Trifluorotoluene	70 130	91

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

**SEQUOIA ANALYTICAL** - ELAP #1210



\_\_\_\_\_  
Peggy Penner  
Project Manager





Blaine Technical Services  
985 Timothy Drive  
San Jose, CA 95133

Client Proj. ID: Shell, San Leandro, 960425 W3  
Sample Descript: DUP  
Matrix: LIQUID  
Analysis Method: 8015Mod/8020  
Lab Number: 9604J25-06

Sampled: 04/25/96  
Received: 04/26/96  
Analyzed: 05/02/96  
Reported: 05/06/96

QC Batch Number: GC050296BTEX20A  
Instrument ID: GCHP20

**Total Purgeable Petroleum Hydrocarbons (TPPH) with BTEX and MTBE**

Analyte	Detection Limit ug/L	Sample Results ug/L
TPPH as Gas	5000	9300
Methyl t-Butyl Ether	250	20000
Benzene	50	690
Toluene	50	710
Ethyl Benzene	50	160
Xylenes (Total)	50	1200
Chromatogram Pattern:		C6-C12

Surrogates	Control Limits %	% Recovery
Trifluorotoluene	70	130
		102

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

SEQUOIA ANALYTICAL - ELAP #1210

Peggy Penner  
Project Manager







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

Client Project ID: Shell, San Leandro / 960425 W3  
Matrix: Liquid

Work Order #: 9604J25 -01-03, 05-06

Reported: May 8, 1996

**QUALITY CONTROL DATA REPORT**

Analyte:	Benzene	Toluene	Ethyl Benzene	Xylenes
QC Batch#:	GC050296BTEX20A	GC050296BTEX20A	GC050296BTEX20A	GC050296BTEX20A
Analy. Method:	EPA 8020	EPA 8020	EPA 8020	EPA 8020
Prep. Method:	EPA 5030	EPA 5030	EPA 5030	EPA 5030

Analyst:	J. Woo	J. Woo	J. Woo	J. Woo
MS/MSD #:	9604D6104	9604D6104	9604D6104	9604D6104
Sample Conc.:	N.D.	N.D.	N.D.	N.D.
Prepared Date:	5/2/96	5/2/96	5/2/96	5/2/96
Analyzed Date:	5/2/96	5/2/96	5/2/96	5/2/96
Instrument I.D.#:	GCHP20	GCHP20	GCHP20	GCHP20
Conc. Spiked:	10 µg/L	10 µg/L	10 µg/L	30 µg/L
Result:	12	12	11	32
MS % Recovery:	120	120	110	107
Dup. Result:	12	12	12	34
MSD % Recov.:	120	120	120	113
RPD:	0.0	0.0	8.7	6.1
RPD Limit:	0-50	0-50	0-50	0-50

LCS #:	BLK050296	BLK050296	BLK050296	BLK050296
Prepared Date:	5/2/96	5/2/96	5/2/96	5/2/96
Analyzed Date:	5/2/96	5/2/96	5/2/96	5/2/96
Instrument I.D.#:	GCHP20	GCHP20	GCHP20	GCHP20
Conc. Spiked:	10 µg/L	10 µg/L	10 µg/L	30 µg/L
LCS Result:	12	12	12	35
LCS % Recov.:	120	120	120	117

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

**SEQUOIA ANALYTICAL**  
  
Peggy Fenner  
Project Manager

**Please Note:**

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

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

9604J25.BLA <1>





<b>Blaine Tech Services, Inc.</b> 985 Timothy Drive San Jose, CA 95133 Attention: Jim Keller	<b>Client Project ID:</b> Shell, San Leandro / 960425 W3 <b>Matrix:</b> Liquid  <b>Work Order #:</b> 9604J25-04	<b>Reported:</b> May 8, 1996
---	--	------------------------------

**QUALITY CONTROL DATA REPORT**

Analyte:	Benzene	Toluene	Ethyl Benzene	Xylenes
<b>QC Batch#:</b>	GC050296BTEX03A	GC050296BTEX03A	GC050296BTEX03A	GC050296BTEX03A
<b>Analy. Method:</b>	EPA 8020	EPA 8020	EPA 8020	EPA 8020
<b>Prep. Method:</b>	EPA 5030	EPA 5030	EPA 5030	EPA 5030

<b>Analyst:</b>	J. Woo	J. Woo	J. Woo	J. Woo
<b>MS/MSD #:</b>	9604D6104	9604D6104	9604D6104	9604D6104
<b>Sample Conc.:</b>	N.D.	N.D.	N.D.	N.D.
<b>Prepared Date:</b>	5/2/96	5/2/96	5/2/96	5/2/96
<b>Analyzed Date:</b>	5/2/96	5/2/96	5/2/96	5/2/96
<b>Instrument I.D.#:</b>	GCHP3	GCHP3	GCHP3	GCHP3
<b>Conc. Spiked:</b>	10 µg/L	10 µg/L	10 µg/L	30 µg/L
<b>Result:</b>	10	9.9	9.8	30
<b>MS % Recovery:</b>	100	99	98	100
<b>Dup. Result:</b>	10	10	9.8	30
<b>MSD % Recov.:</b>	100	100	98	100
<b>RPD:</b>	0.0	1.0	0.0	0.0
<b>RPD Limit:</b>	0-50	0-50	0-50	0-50

<b>LCS #:</b>	BLK050296	BLK050296	BLK050296	BLK050296
<b>Prepared Date:</b>	5/2/96	5/2/96	5/2/96	5/2/96
<b>Analyzed Date:</b>	5/2/96	5/2/96	5/2/96	5/2/96
<b>Instrument I.D.#:</b>	GCHP3	GCHP3	GCHP3	GCHP3
<b>Conc. Spiked:</b>	10 µg/L	10 µg/L	10 µg/L	30 µg/L
<b>LCS Result:</b>	10	9.8	9.9	30
<b>LCS % Recov.:</b>	100	98	99	100

<b>MS/MSD</b>	60-140	60-140	60-140	60-140
<b>LCS</b>	70-130	70-130	70-130	70-130
<b>Control Limits</b>				

**SEQUOIA ANALYTICAL**

Peggy Penner  
Project Manager

**Please Note:**

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

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

9604J25.BLA <2>

