



ENVIRONMENTAL PROTECTION  
95 MAR 24 PM 12:52

March 13, 1995

Britt Johnson  
Alameda County Department of  
Environmental Health  
80 Swan Way, Room 200  
Oakland, CA 94621

Re: Shell Service Station  
WIC #204-0079-0109  
999 San Pablo Avenue  
Albany, California  
WA Job #81-0699-105

Dear Mr. Johnson:

This letter describes recently completed and anticipated activities at the Shell service station referenced above (Figure 1). This status report satisfies the quarterly reporting requirements prescribed by California Administrative Code Title 23 Waters, Chapter 3, Subchapter 16, Article 5, Section 2652.d. Included below are descriptions and results of activities performed in the first quarter 1995 and proposed work for the second quarter 1995.

**First Quarter 1995 Activities:**

- Blaine Tech Services, Inc. (BTS) of San Jose, California measured ground water depths and collected ground water samples from the site wells scheduled to be sampled this quarter. Well S-5 located immediately adjacent to the ARCO station across Marin Avenue contained 1.72 ft of separate-phase hydrocarbons, probably originating from the ARCO station, and was not sampled. BTS' report describing these activities and the analytic report for the ground water samples are included as Attachment A. Wells S-2 and S-7 were also sampled for dissolved oxygen (DO) and hydrocarbon degrading microbes (HDM). Ground water samples from wells S-3 and S-7 contained 5.5 mg/L and 4.6 mg/L DO respectively, and  $10^3$  to  $10^4$  and  $10^4$  to  $10^5$  units/L HDM respectively.
- Weiss Associates (WA) calculated ground water elevations and compiled the analytic data (Tables 1 and 2) and prepared a ground water elevation contour, and benzene concentrations in ground water map (Figure 2).

### Anticipated Second Quarter 1995 Activities:

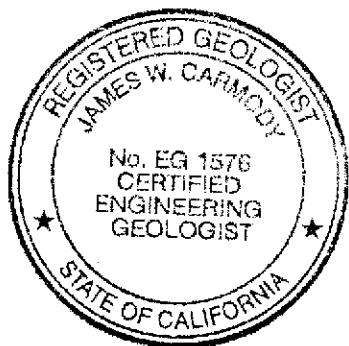
WA will submit a report presenting the results of the second quarter 1995 ground water sampling and ground water depth measurements. The report will include tabulated chemical analytic results, ground water elevations and a ground water elevation contour map.

### Conclusions and Recommendations:

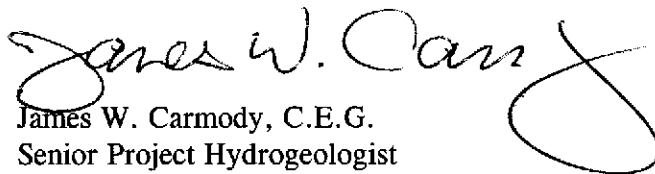
- Since the separate-phase hydrocarbons measured in monitoring well S-5 appear to originate from the ARCO Station across Marin Avenue south of the Shell site, WA does not intend to install a hydrocarbon skimmer or bail separate-phase hydrocarbons from this well.
- HDM are present and likely to be active in the subsurface at the site. These microbes will continue to metabolize hydrocarbons in soil and ground water, regardless of additional action taken at the site.
- WA recommends continued monitoring at this time in accordance to the sampling frequency schedule originally proposed in our first quarter 1994 quarterly monitoring report.

Please call if you have any questions.

Sincerely,  
Weiss Associates



Grady S. Glasser  
Technical Assistant



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

GSG/JWC:kam  
J:\SHELL\0699\QM\9501R.DOC

Attachments: A - Blaine Tech's Ground Water Monitoring Report

cc: Dan Kirk, Shell Oil Company, P.O. Box 4023, Concord, California 94524  
Kevin Graves, Regional Water Quality Control Board - San Francisco Bay Region, 2101  
Webster Street, Suite 500, Oakland, California 94612

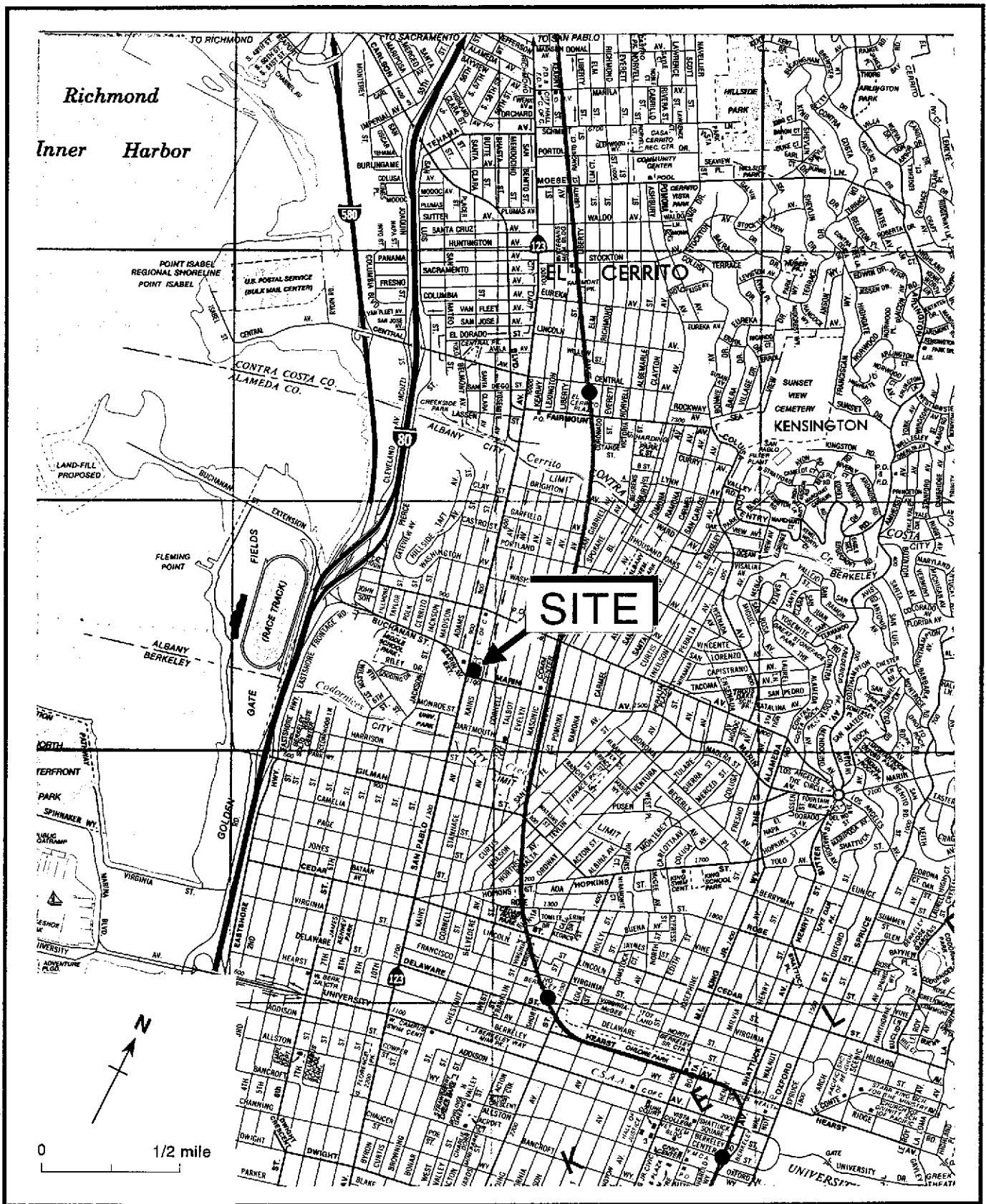
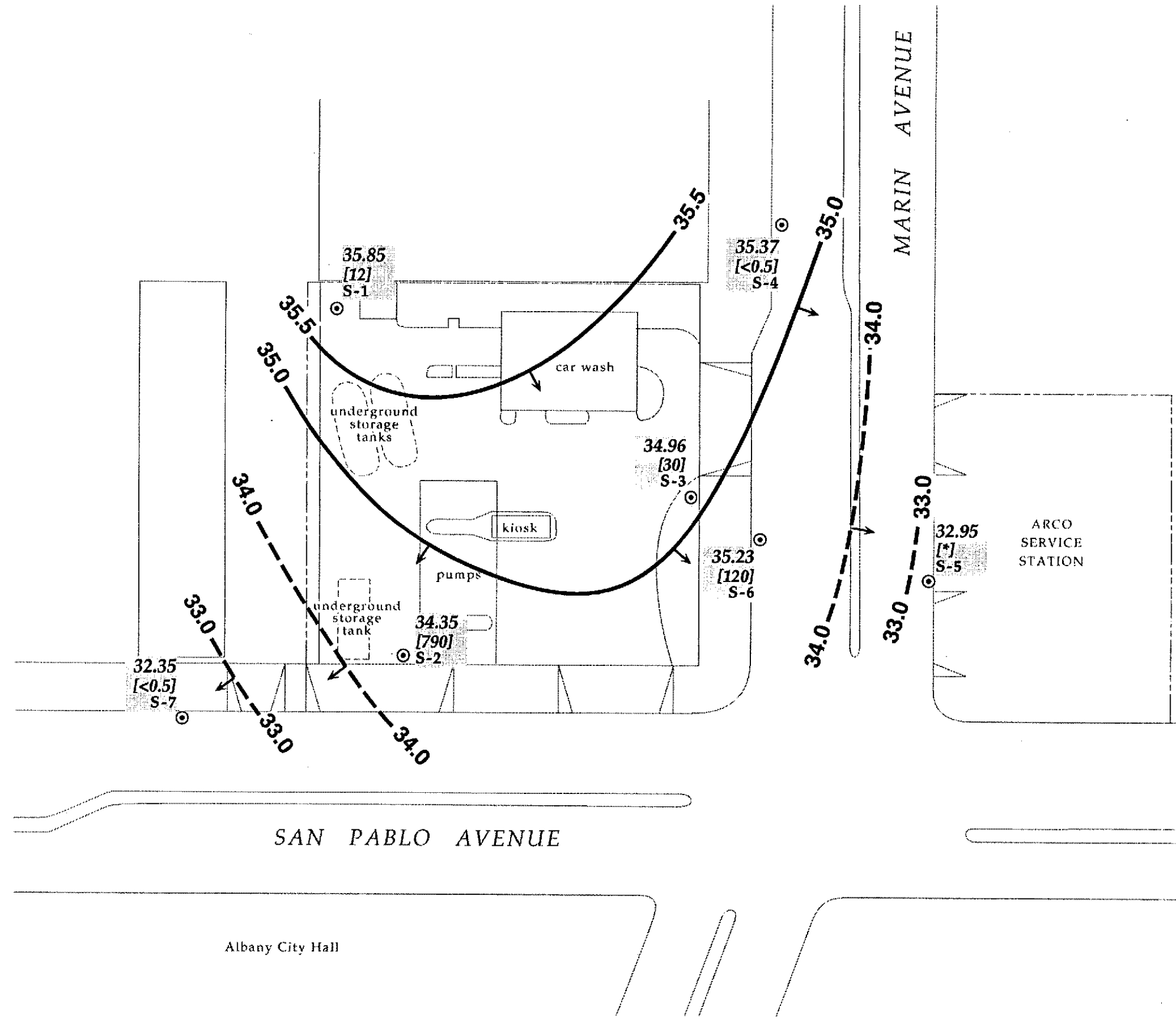
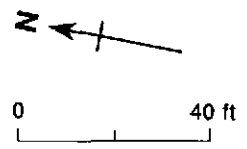


Figure 1. Site Location Map - Shell Service Station WIC #204-0079-0109, 999 San Pablo Avenue, Albany, California



EXPLANATION	
⊙ S-1	Monitoring well
35.85	Ground water elevation, ft above mean sea level
*	Corrected for presence of separate-phase hydrocarbons
[12]	Benzene concentration in parts per billion (ppb)
- - - 33.0	Ground water elevation contour, approximately located, dashed where inferred
→	Inferred ground water flow direction



Base map from GeoStrategies Inc.

Figure 2. Monitoring Well Locations, Ground Water Elevation Contours, and Benzene Concentrations in Ground Water - January 26, 1995- Shell Service Station WIC #204-0079-0109, 999 San Pablo Avenue, Albany, California

Table 1. Ground Water Elevations - Shell Service Station WIC #204-0079-0109, 999 San Pablo Avenue, Albany, California

Well ID	Date	Top-of-Vault Elevation	Depth to Water (ft)	Separate-Phase Hydrocarbon Thickness (ft) <sup>a</sup>	Ground Water Elevation (ft above msl)
S-1	05/13/91	42.73	8.24	---	34.49
	08/23/91		8.37	---	34.36
	11/07/91		8.30	---	34.43
	01/28/92		7.84	---	34.89
	05/06/92		7.95	---	34.78
	08/26/92		8.24	---	34.49
	10/28/92		8.52	---	34.21
	01/19/93		6.54	---	36.19
	04/29/93		7.93	---	34.80
	07/22/93		8.09	---	34.64
	10/21/93		9.43	---	33.30
	01/04/94		8.25	---	34.48
	04/13/94		8.02	---	34.71
	07/25/94		8.22	---	34.51
	10/10/94		8.29	---	34.44
	<b>01/26/95</b>		<b>6.88</b>	---	<b>35.85</b>
S-2	05/13/91	40.73	8.50	---	32.23
	08/23/91		8.80	---	31.93
	11/07/91		8.61	---	32.12
	01/28/92		7.80	---	32.93
	05/06/92		8.10	---	32.63
	08/26/92		8.37	---	32.36
	10/28/92		8.64	---	32.09
	01/19/93		5.82	---	34.91
	04/29/93		7.70	---	33.03
	07/22/93		8.38	---	32.35
	10/21/93		8.58	---	32.15
	01/04/94		7.70	---	33.03
	04/13/94		7.62	---	33.11
	07/25/94		7.86	---	32.87
	10/10/94		8.12	---	32.61
	<b>01/26/95</b>		<b>6.38</b>	---	<b>34.35</b>
S-3	05/13/91	41.46	7.90	---	33.56
	08/23/91		8.14	---	33.32
	11/07/91		7.91	---	33.55
	01/28/92		7.53	---	33.93
	05/06/92		7.55	---	33.91
	08/26/92		7.53	---	33.93
	10/28/92		7.95	---	33.51
	01/19/93		6.12	---	35.34
	04/29/93		7.27	---	34.19

Table 1. Ground Water Elevations - Shell Service Station WIC #204-0079-0109, 999 San Pablo Avenue, Albany, California (continued)

Well ID	Date	Top-of-Vault Elevation	Depth to Water (ft)	Separate-Phase Hydrocarbon Thickness (ft) <sup>a</sup>	Ground Water Elevation (ft above msl)
	07/22/93		7.62	---	33.84
	10/21/93		7.81	---	33.65
	01/04/94		7.49	---	33.97
	04/13/94		7.32	---	34.14
	07/25/94		7.66	---	33.80
	10/10/94		7.49	---	33.97
	<b>01/26/95</b>		<b>6.50</b>	<b>---</b>	<b>34.96</b>
S-4	05/13/91	41.10	7.44	---	33.66
	08/23/91		8.32	---	32.78
	11/07/91		8.32	---	32.78
	01/28/92		7.40	---	33.70
	05/06/92		7.21	---	33.89
	08/26/92		8.13	---	32.97
	10/28/92		8.73	---	32.37
	01/19/93		5.86	---	35.24
	04/29/93		7.02	---	34.08
	07/22/93		7.76	---	33.34
	10/21/93		8.53	---	32.57
	01/04/94		7.92	---	33.18
	04/13/94		7.71	---	33.39
	07/25/94		7.82	---	33.28
	10/10/94		8.15	---	32.95
	<b>01/26/95</b>		<b>5.73</b>	<b>---</b>	<b>35.37</b>
S-5	05/13/91	39.99	14.60	6.48	30.57
	08/23/91		15.14	5.50	29.25
	11/07/91		15.10	5.35	29.17
	01/28/92		14.05	4.90	29.86
	05/06/92		14.31	5.66	30.21
	08/26/92		14.26	3.80	28.77
	10/28/92		14.22	3.81	28.82
	01/19/93		12.36	3.96	30.80
	04/29/93		9.64	0.90	31.07
	07/22/93		9.55	0.90	31.16
	10/21/93		11.23	0.73	29.34
	01/04/94		11.69	1.90	29.82
	04/13/94		11.42	1.62	29.87
	07/25/94		12.01	1.79	29.41
	10/10/94		12.05	1.8	29.38
	<b>01/26/95</b>		<b>8.42</b>	<b>1.72</b>	<b>32.95</b>

Table 1. Ground Water Elevations - Shell Service Station WIC #204-0079-0109, 999 San Pablo Avenue, Albany, California (continued)

Well ID	Date	Top-of-Vault Elevation	Depth to Water (ft)	Separate-Phase Hydrocarbon Thickness (ft) <sup>a</sup>	Ground Water Elevation (ft above msl)
S-6	05/13/91	40.12	7.82	---	32.30
	08/23/91		9.58	---	30.54
	11/07/91		10.86	---	29.26
	01/28/92		8.97	---	31.15
	05/06/92		8.27	---	31.85
	08/26/92		9.57	---	31.55
	10/28/92		8.90	---	32.22
	01/19/93		4.84	---	35.28
	04/29/93		5.61	---	34.51
	07/22/93		6.56	---	33.56
	10/21/93		8.73	---	31.39
	01/04/94		7.14	---	32.98
	04/13/94		7.21	---	32.91
	07/25/94		6.85	---	33.27
	10/10/94		6.20	---	33.92
	<b>01/26/95</b>		<b>4.89</b>	<b>---</b>	<b>35.23</b>
S-7	05/13/91	40.10	10.56	---	29.54
	08/23/91		11.16	---	28.94
	11/07/91		11.48	---	28.62
	01/28/92		10.72	---	29.38
	05/06/92		10.34	---	29.76
	08/26/92		11.13	---	28.97
	10/28/92		11.52	---	28.58
	01/19/93		8.68	---	31.42
	04/29/93		9.90	---	30.20
	07/22/93		---	---	---
	10/21/93		11.10	---	29.00
	01/04/94		10.40	---	29.70
	04/13/94		10.20	---	29.90
	07/25/94		10.48	---	29.62
	10/10/94		10.64	---	29.46
	<b>01/26/95</b>		<b>7.75</b>	<b>---</b>	<b>32.35</b>

Notes:

a = When separate-phase hydrocarbons are present, ground water elevation corrected by the relation: corrected ground water elevation = (top-of-box elevation) - (depth to water) + (0.8 x separate-phase hydrocarbon thickness)

Table 2. Analytic Results for Ground Water, Former Shell Service Station, WIC #204-0079-0109, 999 San Pablo Avenue, Albany, California

Well ID & Sampling Frequency	Date	Depth to Water (ft)	TPH-G ←	B parts per billion (µg/L)	T →	E →	X →	Dissolved Oxygen ←parts per million (mg/L)→	HDM Units
S-1 (Bi-annually, 1st & 3rd Qtrs)	05/13/91	8.24	1,500	20	2.6	86	74	---	---
	08/23/91	8.37	2,900	27	<2.5	75	18	---	---
	11/07/91	8.30	2,900	8	2.5	46	26	---	---
	01/28/92	7.84	2,000	11	<2.5	60	20	---	---
	05/06/92	7.95	1,200	5.5	<2.5	80	36	---	---
	07/29/93	8.24	2,000	9.4	<2.5	130	<2.5	---	---
	10/28/92	8.52	1,300	27	3.2	72	13	---	---
	01/19/93	6.54	1,500	13	3	29	31	---	---
	04/29/93	7.93	2,000	15	<2.5	82	<65	---	---
	07/22/93	8.09	620	1.1	4.2	3.5	13	---	---
	10/21/93	9.43	1,200	34	25	15	9.5	---	---
	01/04/94	8.25	860	<2.5	<2.5	5.7	5.3	---	---
	07/25/94	8.22	1,200	8.3	7.4	15	20	---	---
	<b>01/26/95</b>	<b>6.88</b>	<b>1,000</b>	<b>12</b>	<b>0.6</b>	<b>12</b>	<b>420</b>	---	---
S-2 (Bi-annually, 1st & 3rd Qtrs)	05/13/91	8.50	23,000	3,900	230	1,100	3,200	---	---
	08/23/91	8.80	23,000	4,400	260	1,900	2,400	---	---
	11/07/91	8.61	40,000	4,000	160	1,020	3,400	---	---
	01/28/92	7.80	22,000	1,600	70	420	1,700	---	---
	05/06/92	8.10	20,000	2,600	110	860	1,900	---	---
	07/29/92	8.37	42,000	5,000	160	1,100	3,500	---	---
	10/28/92	8.64	34,000	4,800	330	1,600	2,900	---	---
	01/19/93	5.82	20,000	2,300	370	660	1,300	---	---
	04/29/93	7.70	40,000	2,000	67	900	1,900	---	---
	07/22/93	8.38	22,000	3,000	120	1,000	1,600	---	---
	07/22/93 <sup>dup</sup>	8.38	17,000	3,000	110	1,000	1,500	---	---
	10/21/93	8.58	14,000	2,800	74	870	1,100	---	---
10/21/93 <sup>dup</sup>	8.58	13,000	3,200	53	960	820	---	---	
01/04/94	7.70	21,000	2,100	67	990	770	---	---	

— Table 2 continues on next page —



Table 2. Analytic Results for Ground Water, Former Shell Service Station, WIC #204-0079-0109, 999 San Pablo Avenue, Albany, California (continued)

Well ID & Sampling Frequency	Date	Depth to Water (ft)	TPH-G	B	T	E	X	Dissolved Oxygen ←parts per million (mg/L)→	HDM Units
			←parts per billion (µg/L)→						
	01/04/94 <sup>dup</sup>	7.70	22,000	2,000	64	910	750	---	---
	07/25/94	7.86	43,000	2,600	490	990	1,300	---	---
	01/26/95	6.38	21,000	790	12	290	570	5.5	10 <sup>4</sup> to 10 <sup>5</sup> ab
S-3 (Bi-annually, 1st & 3rd Qtrs)	05/13/91	7.90	3,300	30	3.6	26	13	---	---
	08/23/91	8.14	2,000	25	4	9.3	4.5	---	---
	11/07/91	7.91	4,000	20	3.9	5	4.9	---	---
	01/28/92	7.53	2,100	21	7.6	6.7	15	---	---
	01/28/92 <sup>dup</sup>	7.53	2,100	18	6.1	7.1	14	---	---
	05/06/92	7.55	6,600	38	51	45	65	---	---
	07/29/92	7.53	5,800	18	12	29	60	---	---
	10/28/92	7.95	3,000	55	11	16	32	---	---
	01/19/93	6.12	3,100	<5	5.1	11	16	---	---
	04/29/93	7.27	3,000	31	22	<5	14	---	---
	07/22/93	7.62	2,600	3.1	43	23	53	---	---
	10/21/93	7.81	2,500	73	14	16	32	---	---
	01/04/94	7.49	4,800	13	21	<12.5	33	---	---
	07/25/94	7.66	2,600	6.1	4.0	3.8	12	---	---
	01/26/95	6.50	3,600	30	6.8	5.6	19	---	---
	01/26/95 <sup>dup</sup>	6.50	2,200	9.9	15	14	22	---	---
S-4 (Annually 1st Qtr)	05/13/91	7.44	<50	<0.5	<0.5	<0.5	<0.5	---	---
	08/23/91	8.32	<50	<0.5	<0.5	<0.5	<0.5	---	---
	11/07/91	8.32	260	<0.5	<0.5	<0.5	<0.5	---	---
	01/28/92	7.40	110 <sup>c</sup>	<0.5	<0.5	<0.5	<0.5	---	---
	05/06/92	7.21	54	<0.5	<0.5	<0.5	<0.5	---	---
	07/29/92	8.13	67	<0.5	<0.5	<0.5	<0.5	---	---
	10/28/92	8.73	<50	<0.5	<0.5	<0.5	<0.5	---	---
	01/19/93	5.86	86	1.2	0.7	2.7	15	---	---

— Table 2 continues on next page —

Table 2. Analytic Results for Ground Water, Former Shell Service Station, WIC #204-0079-0109, 999 San Pablo Avenue, Albany, California (continued)

Well ID & Sampling Frequency	Date	Depth to Water (ft)	TPH-G	B	T	E	X	Dissolved Oxygen	HDM Units
	04/29/93	7.02	<50	<0.5	<0.5	<0.5	<0.5	---	---
	04/29/93 <sup>dup</sup>	7.02	<50	<0.5	<0.5	<0.5	<0.5	---	---
	07/22/93	7.76	<50	<0.5	<0.5	<0.5	<0.5	---	---
	10/21/93	8.53	<50	<0.5	<0.5	<0.5	<0.5	---	---
	01/04/94	7.92	<50	<0.5	<0.5	<0.5	<0.5	---	---
	<b>01/26/95</b>	<b>5.73</b>	<b>&lt;50</b>	<b>&lt;0.5</b>	<b>&lt;0.5</b>	<b>&lt;0.5</b>	<b>&lt;0.5</b>	---	---
S-5 (Quarterly)	05/13/91 <sup>SPH</sup>	14.60	---	---	---	---	---	---	---
	08/23/91 <sup>SPH</sup>	15.14	---	---	---	---	---	---	---
	11/07/91 <sup>SPH</sup>	15.10	---	---	---	---	---	---	---
	01/28/92 <sup>SPH</sup>	14.05	---	---	---	---	---	---	---
	05/06/92 <sup>SPH</sup>	14.31	---	---	---	---	---	---	---
	07/29/92 <sup>SPH</sup>	14.26	---	---	---	---	---	---	---
	10/28/92 <sup>SPH</sup>	14.22	---	---	---	---	---	---	---
	01/19/93 <sup>SPH</sup>	12.36	---	---	---	---	---	---	---
	04/29/93 <sup>SPH</sup>	9.64	---	---	---	---	---	---	---
	07/22/93 <sup>SPH</sup>	9.55	---	---	---	---	---	---	---
	10/21/93 <sup>SPH</sup>	11.23	---	---	---	---	---	---	---
	01/04/94 <sup>SPH</sup>	11.69	---	---	---	---	---	---	---
	07/25/94 <sup>SPH</sup>	12.01	---	---	---	---	---	---	---
	10/10/94 <sup>SPH</sup>	12.05	---	---	---	---	---	---	---
	<b>01/26/95<sup>SPH</sup></b>	<b>9.80</b>	---	---	---	---	---	---	---
S-6 (Bi-annually, 1st & 3rd Qtrs)	05/13/91	7.82	13,000	600	140	210	310	---	---
	08/23/91	9.58	9,800	480	80	120	150	---	---
	11/07/91	10.86	6,200	240	23	25	27	---	---
	01/28/92	8.97	5,600	250	15	41	36	---	---
	05/06/92	8.27	7,100	330	29	110	210	---	---
	07/29/92	9.57	13,000	240	<50	56	780	---	---

— Table 2 continues on next page —

Table 2. Analytic Results for Ground Water, Former Shell Service Station, WIC #204-0079-0109, 999 San Pablo Avenue, Albany, California (continued)

Well ID & Sampling Frequency	Date	Depth to Water (ft)	TPH-G	B	T	E	X	Dissolved Oxygen ←parts per million (mg/L)→	HDM Units
	10/28/92	8.90	10,000	470	210	67	170	---	---
	01/19/93	4.84	4,800	100	26	27	45	---	---
	04/29/93	5.61	7,000	430	20	<12.5	42	---	---
	07/22/93	6.56	5,800	260	120	65	150	---	---
	10/21/93	8.73	5,500	270	69	120	140	---	---
	01/04/94	7.14	7,100	180	58	63	62	---	---
	07/25/94	6.85	12,000	190	52	30	39	---	---
	07/25/94 <sup>dup</sup>	6.85	7,200	170	32	31	34	---	---
	<b>01/26/95</b>	<b>4.89</b>	<b>5,800</b>	<b>120</b>	<b>23</b>	<b>24</b>	<b>44</b>	---	---
S-7 (Quarterly)	05/13/91	10.56	<50	<0.5	<0.5	<0.5	<0.5	---	---
	08/23/91	11.16	<50	<0.5	<0.5	<0.5	<0.5	---	---
	11/07/91	11.48	<50	<0.5	<0.5	<0.5	<0.5	---	---
	01/28/92	10.72	<50	<0.5	<0.5	<0.5	<0.5	---	---
	05/06/92	10.34	<50	<0.5	<0.5	<0.5	<0.5	---	---
	07/29/92	11.13	160	<0.5	<0.5	<0.5	<0.5	---	---
	10/28/92	11.52	<50	<0.5	<0.5	<0.5	<0.5	---	---
	01/19/93	8.68	50	1.1	0.6	1.9	9.2	---	---
	04/29/93	9.90	<50	<0.5	<0.5	<0.5	<0.5	---	---
	07/22/93 <sup>d</sup>	---	---	---	---	---	---	---	---
	10/21/93	11.10	<50	<0.5	<0.5	<0.5	<0.5	---	---
	01/04/94	10.40	<50	<0.5	<0.5	<0.5	<0.5	---	---
	04/13/94	10.20	<50	1.4	0.61	<0.5	0.64	---	---
	04/13/94 <sup>dup</sup>	10.20	<50	1.4	0.61	<0.5	0.66	---	---
	07/25/94	10.48	<50	<0.5	<0.5	<0.5	<0.5	---	---
	10/10/94 <sup>e</sup>	10.64	<50	<0.5	<0.5	<0.5	<0.5	---	---
	<b>01/26/95</b>	<b>7.75</b>	<b>&lt;50</b>	<b>&lt;0.5</b>	<b>&lt;0.5</b>	<b>&lt;0.5</b>	<b>&lt;0.5</b>	<b>4.6</b>	<b>10<sup>3</sup> to 10<sup>5</sup> ab</b>

— Table 2 continues on next page —

Table 2. Analytic Results for Ground Water, Former Shell Service Station, WIC #204-0079-0109, 999 San Pablo Avenue, Albany, California (continued)

Well ID & Sampling Frequency	Date	Depth to Water (ft)	TPH-G	B	T	E	X	Dissolved Oxygen	HDM Units
Trip Blank	01/28/92		<50	<0.5	<0.5	<0.5	<0.5	---	---
	04/29/93		<50	<0.5	<0.5	<0.5	<0.5	---	---
	07/22/93		<50	<0.5	<0.5	<0.5	<0.5	---	---
	10/21/93		<50	<0.5	<0.5	<0.5	<0.5	---	---
	01/04/94		<50	<0.5	<0.5	<0.5	<0.5	---	---
	04/13/94		<50	<0.5	<0.5	<0.5	<0.5	---	---
	07/25/94		<50	<0.5	<0.5	<0.5	<0.5	---	---
	10/10/94		<50	<0.5	<0.5	<0.5	<0.5	---	---
	01/26/95		<50	<0.5	0.7	<0.5	<0.5	---	---
DTSC MCLs			NE	1	10 <sup>f</sup>	680	1,750	---	---

**Abbreviations:**

TPH-G = Total petroleum hydrocarbons as gasoline by Modified EPA Method 8015  
 B = Benzene by EPA Method 8020  
 T = Toluene by EPA Method 8020  
 E = Ethylbenzene by EPA Method 8020  
 X = Xylenes by EPA Method 602 or 8020  
 --- = Not analyzed  
 DTSC MCLs = California Department of Toxic Substances Control maximum  
 contaminant levels for drinking water  
 NE = Not established  
 <n = Not detected at detection limits of n ppb  
 dup = Duplicate sample  
 SPH = Separate-phase hydrocarbons detected, no sample collected

**Notes:**

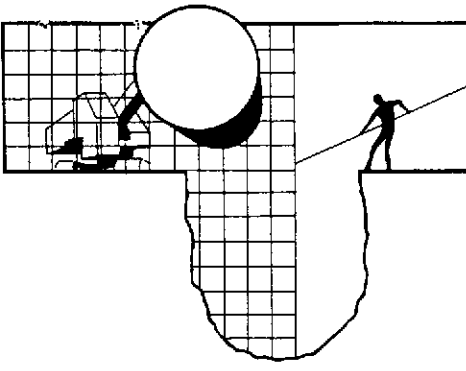
a = Simple method  
 b = Estimated number  
 c = Compounds detected and calculated as gasoline are not characteristic of the  
 standard gasoline chromatographic pattern  
 d = Well inaccessible  
 e = Sample analyzed for Total Dissolved Solids (450,000 ppb)  
 f = DTSC recommended action level for drinking water; MCL not established

**ATTACHMENT A**

**GROUND WATER MONITORING REPORT AND ANALYTIC REPORT**

**ATTACHMENT B**

**SAMPLING FREQUENCY CRITERIA**



February 13, 1995

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

Attn: Daniel T. Kirk

SITE:  
Shell WIC #204-0079-0109  
999 San Pablo Avenue  
Albany, California

QUARTER:  
1st quarter of 1995

## **QUARTERLY GROUNDWATER SAMPLING REPORT 950126-L-1**

---

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 removed 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 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.

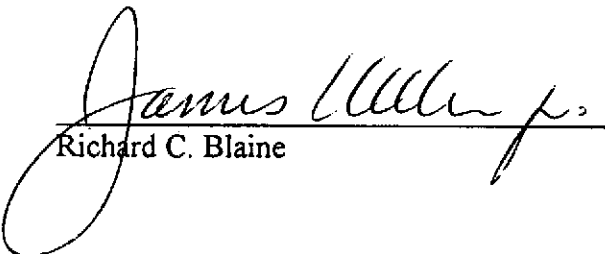
### Objective Information Collection

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

RCBlp

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

cc: Weiss Associates  
5500 Shellmound Street  
Emeryville, CA 94608-2411  
ATTN: Michael Asport

## 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)
S-1	1/26/95	TOB	--	NONE	--	--	6.88	11.95
S-2	1/26/95	TOB	SHEEN/ODOR	--	--	--	6.38	12.08
S-3 *	1/26/95	TOB	SHEEN/ODOR	--	--	--	6.50	12.15
S-4	1/26/95	TOB	--	NONE	--	--	5.73	14.14
S-5	1/26/95	TOB	FREE PRODUCT	8.08	1.72	0.00	9.80	--
S-6	1/26/95	TOB	SHEEN/ODOR	--	--	--	4.89	15.15
S-7	1/26/95	TOB	--	NONE	--	--	7.75	15.01

\* Sample DUP was a duplicate sample taken from well S-3.



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

**CHAIN OF CUSTODY RECORD**

Serial No: 950126-L1

5253

Date: 1-26-95

Page 1 of 2

Silo Address: 999 San Pablo Ave., Albany

WIC#: 204-0079-0109

Shell Engineer: Dan Kirk  
Phone No.: (510) 675-6168  
Fax #: 675-6160

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

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

Comments:

Sampled by: LAD B OLVER

Printed Name: LAD B OLVER

**Analysis Required**

LAB: NET

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/Dkposal <input type="checkbox"/>	6442	16 days <input checked="" type="checkbox"/> (Normal)
Water Classfy/Dkposal <input type="checkbox"/>	6443	Other <input type="checkbox"/>
Soil/Air Rem. or Sys. O & M <input type="checkbox"/>	6462	
Water Rem. or Sys. O & M <input type="checkbox"/>	6463	
Other <input type="checkbox"/>		

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

Sample ID	Date	Sludge	Soil	Water	Air	No. of Confs.	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			Asbestos	Container Size	Preparation Used	Composite Y/N	MATERIAL DESCRIPTION	SAMPLE CONDITION/COMMENTS		
																					S-1	1/26
S-2	↓			X		3						X										
S-3	↓			X		3						X										
S-4	↓			X		3						X										
S-6	↓			X		3						X										
S-7	↓			X		3						X										
DUP.	↓			X		3						X										
EB.	↓			X		3						X										

Relinquished By (signature): <u>[Signature]</u>	Printed Name: <u>LAD B OLVER</u>	Date: <u>1/26/95</u> Time: <u>10:00</u>	Received (signature): <u>[Signature]</u>	Printed Name: <u>GT LUMBER</u>	Date: <u>1/27/95</u> Time: <u>10:25</u>
Relinquished By (signature): <u>[Signature]</u>	Printed Name: <u>GT LUMBER</u>	Date: <u>1/27/95</u> Time: <u>11:20</u>	Received (signature): <u>[Signature]</u>	Printed Name: <u>Mike Daniels</u>	Date: <u>1/27/95</u> Time: <u>1400</u>
Relinquished By (signature): <u>[Signature]</u>	Printed Name: <u>Mike Daniels</u>	Date: <u>1/27/95</u> Time: <u>1508</u>	Received (signature): <u>[Signature]</u>	Printed Name: <u>PAM GREENS</u>	Date: <u>1/27/95</u> Time: <u>1508</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: 950126-41

Date: 1-26-95

Page 2 of 2

Site Address: 999 San Pablo Ave., Albany

WIC#: 204-0079-0109

Shell Engineer: Dan Kirk  
Phone No.: (510) 675-6168  
Fax #: 675-6160

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

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

Comments:

Sampled by: *LAD Bolver*

Printed Name: LAD BOLVER

**Analysis Required**

LAB: NET

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 Clarity/Disposal <input type="checkbox"/>	6442	16 days <input checked="" type="checkbox"/> (Normal)
Water Clarity/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"/>		

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

Sample ID	Date	Sludge	Soil	Water	Air	No. of conts.	TPH (EPA 8015 Mod. Gas)	TPH (EPA 8015 Mod. Diesel)	BTEX (EPA 8020/602)	Volatile Organics (EPA 8240)	Test for Disposal	Combination TPH 8015 & BTEX 8020	Asbestos	Container Size	Preparation Used	Composite Y/N	MATERIAL DESCRIPTION	SAMPLE CONDITION/ COMMENTS
T.B.	1/26			X		2						X						

Relinquished By (signature): *LAD Bolver*  
Printed Name: LAD BOLVER  
Date: 1/27/95  
Time: 10:00

Received (signature): *[Signature]*  
Printed Name: [Name]  
Date: 1/27  
Time: 14:00

Relinquished By (signature): *[Signature]*  
Printed Name: [Name]  
Date: 1/27/95  
Time: 15:08

Relinquished By (signature): *[Signature]*  
Printed Name: [Name]  
Date: 1/27/95  
Time: 14:00

Received (signature): *[Signature]*  
Printed Name: [Name]  
Date: 1/27/95  
Time: 15:08

Relinquished By (signature): *[Signature]*  
Printed Name: [Name]  
Date: 1/27/95  
Time: 15:08

Relinquished By (signature): *[Signature]*  
Printed Name: [Name]  
Date: 1/27/95  
Time: 15:08

Received (signature): *[Signature]*  
Printed Name: [Name]  
Date: 1/27/95  
Time: 15:08

Relinquished By (signature): *[Signature]*  
Printed Name: [Name]  
Date: 1/27/95  
Time: 15:08

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



NATIONAL  
ENVIRONMENTAL  
TESTING, INC.®

Santa Rosa Division  
435 Tesconi 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: 02/07/1995  
NET Client Acct. No: 1821  
NET Pacific Job No: 95.00426  
Received: 01/27/1995

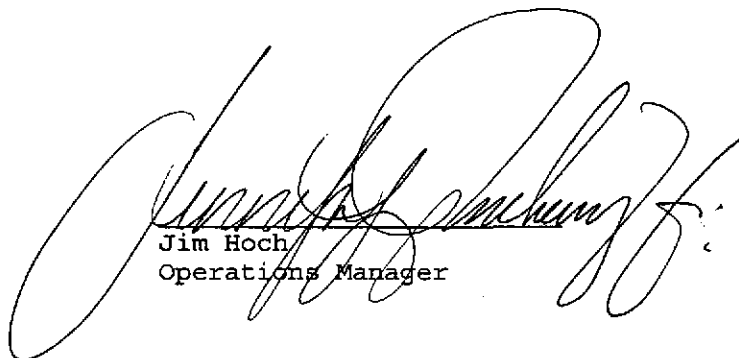
Client Reference Information

Shell 999 San Pablo Avenue, Albany/950126-L1

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:

  
Judy Ridley  
Project Coordinator

  
Jim Hoch  
Operations Manager

Enclosure(s)





Client Name: Blaine Tech Services  
Client Acct: 1821  
NET Job No: 95.00426

Date: 02/07/1995  
ELAP Cert: 1386  
Page: 2

Ref: Shell 999 San Pablo Avenue, Albany/950126-L1

SAMPLE DESCRIPTION: S-1

Date Taken: 01/26/1995

Time Taken:

NET Sample No: 234796

Parameter	Results	Flags	Reporting			Date	Date	Run
			Limit	Units	Method	Extracted	Analyzed	Batch
TPH (Gas/BTXE,Liquid)								
METHOD 5030/M8015	--						01/31/1995	2550
DILUTION FACTOR*	1						01/31/1995	2550
as Gasoline	1,000		50	ug/L	5030		01/31/1995	2550
Carbon Range:	C5-C12						01/31/1995	2550
METHOD 8020 (GC,Liquid)	--						01/31/1995	2550
Benzene	12		0.5	ug/L	8020		01/31/1995	2550
Toluene	0.6		0.5	ug/L	8020		01/31/1995	2550
Ethylbenzene	12		0.5	ug/L	8020		01/31/1995	2550
Xylenes (Total)	420	FC	0.5	ug/L	8020		02/01/1995	2553
SURROGATE RESULTS	--						01/31/1995	2550
Bromofluorobenzene (SURR)	104			% Rec.	5030		01/31/1995	2550

FC : Compound quantitated at a 10X dilution factor.

NOTE: Results apply only to the samples analyzed. Reproduction of this report is permitted only in its entirety.



Client Name: Blaine Tech Services  
Client Acct: 1821  
NET Job No: 95.00426

Date: 02/07/1995  
ELAP Cert: 1386  
Page: 3

Ref: Shell 999 San Pablo Avenue, Albany/950126-L1

SAMPLE DESCRIPTION: S-2

Date Taken: 01/26/1995

Time Taken:

NET Sample No: 234797

Parameter	Results	Flags	Reporting		Method	Date	Date	Run
			Limit	Units		Extracted	Analyzed	Batch No.
TPH (Gas/BTXE, Liquid)								
METHOD 5030/M8015	--						01/31/1995	2550
DILUTION FACTOR*	10						02/01/1995	2553
as Gasoline	21,000		500	ug/L	5030		02/01/1995	2553
Carbon Range:	C5-C14						02/01/1995	2553
METHOD 8020 (GC, Liquid)	--						01/31/1995	2550
Benzene	790	FF	5	ug/L	8020		01/31/1995	2550
Toluene	12		5	ug/L	8020		02/01/1995	2553
Ethylbenzene	290	FF	5	ug/L	8020		01/31/1995	2550
Xylenes (Total)	570	FF	5	ug/L	8020		01/31/1995	2550
SURROGATE RESULTS	--						01/31/1995	2550
Bromofluorobenzene (SURR)	97			% Rec.	5030		01/31/1995	2550

FF : Compound quantitated at a 100X dilution factor.

NOTE: Results apply only to the samples analyzed. Reproduction of this report is permitted only in its entirety.





Client Name: Blaine Tech Services  
Client Acct: 1821  
NET Job No: 95.00426

Date: 02/07/1995  
ELAP Cert: 1386  
Page: 4

Ref: Shell 999 San Pablo Avenue, Albany/950126-L1

SAMPLE DESCRIPTION: S-3

Date Taken: 01/26/1995

Time Taken:

NET Sample No: 234798

Parameter	Results	Flags	Reporting		Method	Date	Date	Run
			Limit	Units		Extracted	Analyzed	Batch No.
TPH (Gas/BTXE,Liquid)								
METHOD 5030/M8015	--						02/01/1995	2553
DILUTION FACTOR*	5						02/01/1995	2553
as Gasoline	3,600		250	ug/L	5030		02/01/1995	2553
Carbon Range:	C5-C14						02/01/1995	2553
METHOD 8020 (GC,Liquid)	--						02/01/1995	2553
Benzene	30		2.5	ug/L	8020		02/01/1995	2553
Toluene	6.8		2.5	ug/L	8020		02/01/1995	2553
Ethylbenzene	5.6		2.5	ug/L	8020		02/01/1995	2553
Xylenes (Total)	19		2.5	ug/L	8020		02/02/1995	2554
SURROGATE RESULTS	--						02/01/1995	2553
Bromofluorobenzene (SURR)	79			‡ Rec.	5030		02/01/1995	2553

NOTE: Results apply only to the samples analyzed. Reproduction of this report is permitted only in its entirety.



Client Name: Blaine Tech Services  
Client Acct: 1821  
NET Job No: 95.00426

Date: 02/07/1995  
ELAP Cert: 1386  
Page: 5

Ref: Shell 999 San Pablo Avenue, Albany/950126-L1

SAMPLE DESCRIPTION: S-4

Date Taken: 01/26/1995

Time Taken:

NET Sample No: 234799

Parameter	Results	Flags	Reporting		Method	Date	Date	Run
			Limit	Units		Extracted	Analyzed	Batch No.
TPH (Gas/BTXE, Liquid)	--						01/31/1995	2550
METHOD 5030/M8015	--						01/31/1995	2550
DILUTION FACTOR*	1						01/31/1995	2550
as Gasoline	ND		50	ug/L	5030		01/31/1995	2550
Carbon Range:	--						01/31/1995	2550
METHOD 8020 (GC, Liquid)	--						01/31/1995	2550
Benzene	ND		0.5	ug/L	8020		01/31/1995	2550
Toluene	ND		0.5	ug/L	8020		01/31/1995	2550
Ethylbenzene	ND		0.5	ug/L	8020		01/31/1995	2550
Xylenes (Total)	ND		0.5	ug/L	8020		01/31/1995	2550
SURROGATE RESULTS	--						01/31/1995	2550
Bromofluorobenzene (SURR)	90			% Rec.	5030		01/31/1995	2550

NOTE: Results apply only to the samples analyzed. Reproduction of this report is permitted only in its entirety.



Client Name: Blaine Tech Services  
Client Acct: 1821  
NET Job No: 95.00426

Date: 02/07/1995  
ELAP Cert: 1386  
Page: 6

Ref: Shell 999 San Pablo Avenue, Albany/950126-L1

SAMPLE DESCRIPTION: S-6

Date Taken: 01/26/1995

Time Taken:

NET Sample No: 234800

Parameter	Results	Flags	Reporting		Method	Date	Date	Run
			Limit	Units		Extracted	Analyzed	Batch No.
TPH (Gas/BTXE,Liquid)								
METHOD 5030/M8015	--						02/01/1995	2553
DILUTION FACTOR*	10						02/01/1995	2553
as Gasoline	5,800		500	ug/L	5030		02/01/1995	2553
Carbon Range:	C5-C14						02/01/1995	2553
METHOD 8020 (GC,Liquid)	--						02/01/1995	2553
Benzene	120		5	ug/L	8020		02/01/1995	2553
Toluene	23		5	ug/L	8020		02/01/1995	2553
Ethylbenzene	24		5	ug/L	8020		02/01/1995	2553
Xylenes (Total)	44		5	ug/L	8020		02/01/1995	2553
SURROGATE RESULTS	--						02/01/1995	2553
Bromofluorobenzene (SURR)	94			% Rec.	5030		02/01/1995	2553

NOTE: Results apply only to the samples analyzed. Reproduction of this report is permitted only in its entirety.



Client Name: Blaine Tech Services  
Client Acct: 1821  
NET Job No: 95.00426

Date: 02/07/1995  
ELAP Cert: 1386  
Page: 7

Ref: Shell 999 San Pablo Avenue, Albany/950126-L1

SAMPLE DESCRIPTION: S-7

Date Taken: 01/26/1995

Time Taken:

NET Sample No: 234801

Parameter	Results	Flags	Reporting		Method	Date	Date	Run
			Limit	Units		Extracted	Analyzed	Batch No.
TPH (Gas/BTXE,Liquid)								
METHOD 5030/M8015	--						01/31/1995	2550
DILUTION FACTOR*	1						01/31/1995	2550
as Gasoline	ND		50	ug/L	5030		01/31/1995	2550
Carbon Range:	--						01/31/1995	2550
METHOD 8020 (GC,Liquid)	--						01/31/1995	2550
Benzene	ND		0.5	ug/L	8020		01/31/1995	2550
Toluene	ND		0.5	ug/L	8020		01/31/1995	2550
Ethylbenzene	ND		0.5	ug/L	8020		01/31/1995	2550
Xylenes (Total)	ND		0.5	ug/L	8020		01/31/1995	2550
SURROGATE RESULTS	--						01/31/1995	2550
Bromofluorobenzene (SURR)	88			% Rec.	5030		01/31/1995	2550

NOTE: Results apply only to the samples analyzed. Reproduction of this report is permitted only in its entirety.



Client Name: Blaine Tech Services  
Client Acct: 1821  
NET Job No: 95.00426

Date: 02/07/1995  
ELAP Cert: 1386  
Page: 8

Ref: Shell 999 San Pablo Avenue, Albany/950126-L1

SAMPLE DESCRIPTION: DUP

Date Taken: 01/26/1995

Time Taken:

NET Sample No: 234802

Parameter	Results	Flags	Reporting		Method	Date	Date	Run
			Limit	Units		Extracted	Analyzed	Batch No.
TPH (Gas/BTXE,Liquid)								
METHOD 5030/M8015	--						02/01/1995	2553
DILUTION FACTOR*	10						02/01/1995	2553
as Gasoline	2,200		500	ug/L	5030		02/01/1995	2553
Carbon Range:	C5-C14						02/01/1995	2553
METHOD 8020 (GC,Liquid)	--						02/01/1995	2553
Benzene	9.9		5	ug/L	8020		02/01/1995	2553
Toluene	15		5	ug/L	8020		02/01/1995	2553
Ethylbenzene	14		5	ug/L	8020		02/01/1995	2553
Xylenes (Total)	22		5	ug/L	8020		02/01/1995	2553
SURROGATE RESULTS	--						02/01/1995	2553
Bromofluorobenzene (SURR)	92			% Rec.	5030		02/01/1995	2553

NOTE: Results apply only to the samples analyzed. Reproduction of this report is permitted only in its entirety.



Client Name: Blaine Tech Services  
Client Acct: 1821  
NET Job No: 95.00426

Date: 02/07/1995  
ELAP Cert: 1386  
Page: 9

Ref: Shell 999 San Pablo Avenue, Albany/950126-L1

SAMPLE DESCRIPTION: EB

Date Taken: 01/26/1995

Time Taken:

NET Sample No: 234803

Parameter	Results	Flags	Reporting		Method	Date	Date	Run
			Limit	Units		Extracted	Analyzed	Batch No.
TPH (Gas/BTXE,Liquid)								
METHOD 5030/MB015	--						01/31/1995	2550
DILUTION FACTOR*	1						01/31/1995	2550
as Gasoline	ND		50	ug/L	5030		01/31/1995	2550
Carbon Range:	--						01/31/1995	2550
METHOD 8020 (GC,Liquid)	--						01/31/1995	2550
Benzene	ND		0.5	ug/L	8020		01/31/1995	2550
Toluene	ND		0.5	ug/L	8020		01/31/1995	2550
Ethylbenzene	ND		0.5	ug/L	8020		01/31/1995	2550
Xylenes (Total)	ND		0.5	ug/L	8020		01/31/1995	2550
SURROGATE RESULTS	--						01/31/1995	2550
Bromofluorobenzene (SURR)	87			% Rec.	5030		01/31/1995	2550

NOTE: Results apply only to the samples analyzed. Reproduction of this report is permitted only in its entirety.



Client Name: Blaine Tech Services  
Client Acct: 1821  
NET Job No: 95.00426

Date: 02/07/1995  
ELAP Cert: 1386  
Page: 10

Ref: Shell 999 San Pablo Avenue, Albany/950126-L1

SAMPLE DESCRIPTION: TB

Date Taken: 01/26/1995

Time Taken:

NET Sample No: 234804

Parameter	Results	Flags	Reporting		Method	Date	Date	Run
			Limit	Units		Extracted	Analyzed	Batch No.
TPH (Gas/BTXE,Liquid)								
METHOD 5030/M8015	--						01/31/1995	2550
DILUTION FACTOR*	1						01/31/1995	2550
as Gasoline	ND		50	ug/L	5030		01/31/1995	2550
Carbon Range:	--						01/31/1995	2550
METHOD 8020 (GC,Liquid)	--						01/31/1995	2550
Benzene	ND		0.5	ug/L	8020		01/31/1995	2550
Toluene	0.7	C	0.5	ug/L	8020		01/31/1995	2550
Ethylbenzene	ND		0.5	ug/L	8020		01/31/1995	2550
Xylenes (Total)	ND		0.5	ug/L	8020		01/31/1995	2550
SURROGATE RESULTS	--						01/31/1995	2550
Bromofluorobenzene (SURR)	92			% Rec.	5030		01/31/1995	2550

C : Positive result confirmed by secondary column or GC/MS analysis.

NOTE: Results apply only to the samples analyzed. Reproduction of this report is permitted only in its entirety.



Client Name: Blaine Tech Services  
Client Acct: 1821  
NET Job No: 95.00426

Date: 02/07/1995  
ELAP Cert: 1386  
Page: 11

Ref: Shell 999 San Pablo Avenue, Albany/950126-L1

## CONTINUING CALIBRATION VERIFICATION STANDARD REPORT

Parameter	CCV	CCV	CCV	Units	Date Analyzed	Analyst Initials	Run Batch Number
	Standard % Recovery	Standard Amount Found	Standard Amount Expected				
TPH (Gas/BTXE, Liquid)							
as Gasoline	105.0	1.05	1.00	mg/L	01/31/1995	dfw	2550
Benzene	88.8	4.44	5.00	ug/L	01/31/1995	dfw	2550
Toluene	88.6	4.43	5.00	ug/L	01/31/1995	dfw	2550
Ethylbenzene	85.0	4.25	5.00	ug/L	01/31/1995	dfw	2550
Xylenes (Total)	88.7	13.3	15.0	ug/L	01/31/1995	dfw	2550
Bromofluorobenzene (SURR)	97.0	97	100	% Rec.	01/31/1995	dfw	2550
TPH (Gas/BTXE, Liquid)							
as Gasoline	99.0	0.99	1.00	mg/L	02/01/1995	aal	2553
Benzene	100.2	5.01	5.00	ug/L	02/01/1995	aal	2553
Toluene	97.6	4.88	5.00	ug/L	02/01/1995	aal	2553
Ethylbenzene	87.4	4.37	5.00	ug/L	02/01/1995	aal	2553
Xylenes (Total)	98.7	14.8	15.0	ug/L	02/01/1995	aal	2553
Bromofluorobenzene (SURR)	92.0	92	100	% Rec.	02/01/1995	aal	2553
TPH (Gas/BTXE, Liquid)							
as Gasoline	115.0	1.15	1.00	mg/L	02/02/1995	dfw	2554
Benzene	95.6	4.78	5.00	ug/L	02/02/1995	dfw	2554
Toluene	96.0	4.80	5.00	ug/L	02/02/1995	dfw	2554
Ethylbenzene	94.8	4.74	5.00	ug/L	02/02/1995	dfw	2554
Xylenes (Total)	94.7	14.2	15.0	ug/L	02/02/1995	dfw	2554
Bromofluorobenzene (SURR)	111.0	111	100	% Rec.	02/02/1995	dfw	2554

NOTE: Results apply only to the samples analyzed. Reproduction of this report is permitted only in its entirety.





Client Name: Blaine Tech Services

Client Acct: 1821

NET Job No: 95.00426

Date: 02/07/1995

ELAP Cert: 1386

Page: 12

Ref: Shell 999 San Pablo Avenue, Albany/950126-L1

## METHOD BLANK REPORT

Parameter	Method			Date Analyzed	Analyst Initials	Run Batch Number
	Blank Amount Found	Reporting Limit	Units			
TPH (Gas/BTXE,Liquid)						
as Gasoline	ND	0.05	mg/L	01/31/1995	dfw	2550
Benzene	ND	0.5	ug/L	01/31/1995	dfw	2550
Toluene	ND	0.5	ug/L	01/31/1995	dfw	2550
Ethylbenzene	ND	0.5	ug/L	01/31/1995	dfw	2550
Xylenes (Total)	ND	0.5	ug/L	01/31/1995	dfw	2550
Bromofluorobenzene (SURR)	82		% Rec.	01/31/1995	dfw	2550
TPH (Gas/BTXE,Liquid)						
as Gasoline	ND	0.05	mg/L	02/01/1995	aal	2553
Benzene	ND	0.5	ug/L	02/01/1995	aal	2553
Toluene	ND	0.5	ug/L	02/01/1995	aal	2553
Ethylbenzene	ND	0.5	ug/L	02/01/1995	aal	2553
Xylenes (Total)	ND	0.5	ug/L	02/01/1995	aal	2553
Bromofluorobenzene (SURR)	89		% Rec.	02/01/1995	aal	2553
TPH (Gas/BTXE,Liquid)						
as Gasoline	ND	0.05	mg/L	02/02/1995	dfw	2554
Benzene	ND	0.5	ug/L	02/02/1995	dfw	2554
Toluene	ND	0.5	ug/L	02/02/1995	dfw	2554
Ethylbenzene	ND	0.5	ug/L	02/02/1995	dfw	2554
Xylenes (Total)	ND	0.5	ug/L	02/02/1995	dfw	2554
Bromofluorobenzene (SURR)	102		% Rec.	02/02/1995	dfw	2554

NOTE: Results apply only to the samples analyzed. Reproduction of this report is permitted only in its entirety.



Client Name: Blaine Tech Services  
 Client Acct: 1821  
 NET Job No: 95.00426

Date: 02/07/1995  
 ELAP Cert: 1386  
 Page: 13

Ref: Shell 999 San Pablo Avenue, Albany/950126-L1

## MATRIX SPIKE / MATRIX SPIKE DUPLICATE

Parameter	Matrix Spike				Sample Conc.	Matrix Spike Duplicate			Date Analyzed	Run Batch	Sample Spiked
	Matrix Spike % Rec.	Dup % Rec.	RPD	Spike Amount		Matrix Spike Conc.	Dup. Conc.	Units			
TPH (Gas/BTXE,Liquid)											234803
as Gasoline	93.0	89.0	4.4	1.00	ND	0.93	0.89	mg/L	01/31/1995	2550	234803
Benzene	92.8	90.3	2.7	27.9	ND	25.9	25.2	ug/L	01/31/1995	2550	234803
Toluene	94.0	89.9	4.5	88.2	ND	82.9	79.3	ug/L	01/31/1995	2550	234803
TPH (Gas/BTXE,Liquid)											234882
as Gasoline	86.0	89.0	3.4	1.00	ND	0.86	0.89	mg/L	02/01/1995	2553	234882
Benzene	92.1	91.4	0.8	27.8	ND	25.6	25.4	ug/L	02/01/1995	2553	234882
Toluene	90.1	86.2	4.4	82.0	ND	73.9	70.7	ug/L	02/01/1995	2553	234882
TPH (Gas/BTXE,Liquid)											234878
as Gasoline	122.0	121.0	0.8	1.00	ND	1.22	1.21	mg/L	02/02/1995	2554	234878
Benzene	108.9	107.9	0.9	20.3	ND	22.1	21.9	ug/L	02/02/1995	2554	234878
Toluene	108.9	109.2	0.3	83.6	ND	91.0	91.3	ug/L	02/02/1995	2554	234878

NOTE: Results apply only to the samples analyzed. Reproduction of this report is permitted only in its entirety.

COOLER RECEIPT FORM

Project: 950126-L1 Log No: 5253  
Cooler received on: 1/27/95 and checked on 01/28/95 by Sam Greene  
Sam Greene  
(signature)

- Were custody papers present?.....  YES NO
- Were custody papers properly filled out?.....  YES NO
- Were the custody papers signed?.....  YES NO
- Was sufficient ice used?.....  YES NO
- Did all bottles arrive in good condition (unbroken)?.....  YES NO
- Did bottle labels match COC?.....  YES NO
- Were proper bottles used for analysis indicated?.....  YES NO
- Correct preservatives used?.....  YES NO
- VOA vials checked for headspace bubbles?.....  YES NO

Temp 0.9°  
OK

Sample descriptor:  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Number of vials:  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

\*All VOAs with headspace bubbles have been set aside so they will not be used for analysis..... YES NO

List here all other jobs received in the same cooler:

Client Job #	NET log #
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____

(coolerrec)