



April 17, 1998

Scott Seery  
Alameda County Department of  
Environmental Health  
Hazardous Materials Division  
1131 Harbor Bay Parkway, 2nd Floor  
Alameda, California 94502-6577

Re: **First Quarter 1998 Monitoring Report**  
Shell Service Station  
1784 150th Avenue  
San Leandro, California  
WIC #204-6852-1404  
Cambria #24-314-198

Dear Mr. Seery:

On behalf of Shell Oil Products Company, Cambria Environmental Technology, Inc. (Cambria) is submitting this monitoring report to satisfy the quarterly reporting requirements prescribed by California Administrative Code Title 23 Waters, Division 3, Chapter 16, Article 5, Section 2652.d.

#### **FIRST QUARTER 1998 ACTIVITIES**

**Ground Water Monitoring:** Due to a laboratory oversight, the samples collected during the fourth quarter of 1997 were not analyzed within hold time. After the laboratory oversight was discovered, Blaine Tech Services, Inc. (Blaine) of San Jose, California scheduled the soonest possible date to sample the site. On February 2, 1998, Blaine measured ground water depths, checked for accumulated separate-phase hydrocarbons (SPH), and collected ground water samples from the site wells. As approved on March 5, 1998 by Scott Seery of the Alameda County Department of Environmental Health (ACDEH), Cambria is submitting this first quarter monitoring report based on the samples collected by Blaine on February 2, 1998.

**Corrective Action Plan (CAP):** Cambria submitted a CAP dated January 9, 1998 for the site that proposed installation of additional monitoring wells and continued ground water monitoring.

**Dispenser Upgrade Sampling:** Cambria submitted a *Dispenser Soil Sampling Report* dated March 23, 1998 presenting the soil sample analytical results for the December 1997 dispenser upgrade.

CAMBRIA  
ENVIRONMENTAL  
TECHNOLOGY, INC.  
1144 65TH STREET,  
SUITE B  
OAKLAND,  
CA 94608  
PH: (510) 420-0700  
FAX: (510) 420-9170

Scott Seery  
April 17, 1998

CAMBRIA

**ANTICIPATED SECOND QUARTER 1998 ACTIVITIES**


**Ground Water Monitoring:** Blaine will measure ground water depths, collect water samples, and check for accumulated SPH. Cambria will submit a report presenting a summary of activities for second quarter 1998.

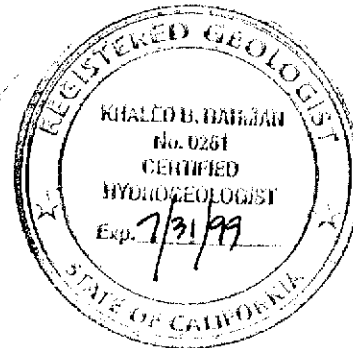
**CAP:** Cambria understands that the ACDEH plans to meet with Shell to discuss the CAP during the second quarter. Upon written approval of the CAP by the ACDEH, Cambria will obtain the necessary permits and schedule field activities.

**CLOSING**

We appreciate your assistance with this project. Please call if you have any questions.

Sincerely,  
Cambria Environmental Technology, Inc.

  
Khaled B. Rahman, R.G., C.H.G.  
Senior Geologist



Attachments: A - Blaine Ground Water Monitoring Report

cc: A. E. (Alex) Perez, Shell Oil Products Company, P.O. Box 8080, Martinez, California 94553

G:ASNLI784QMIQ98QM.WPD

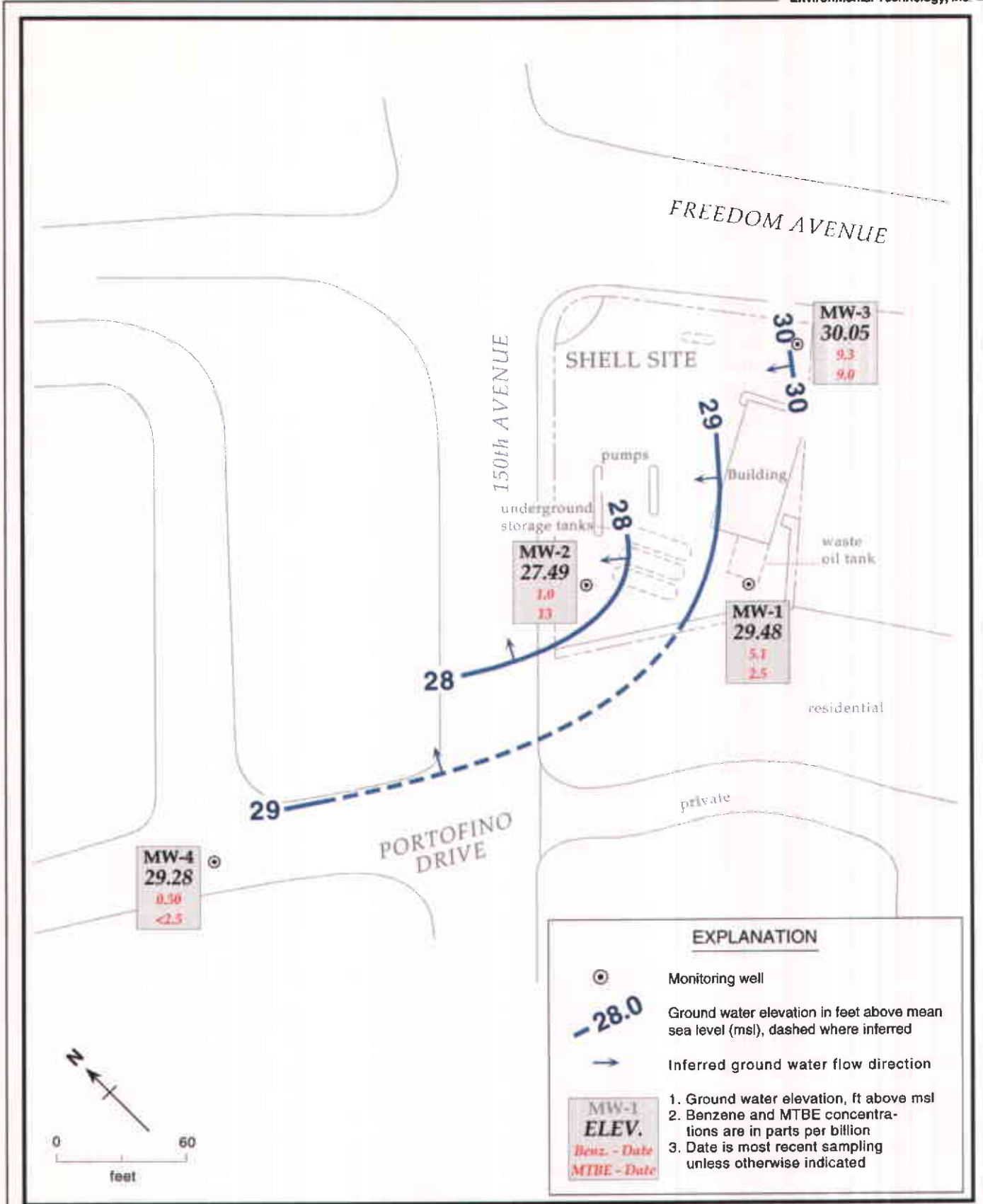


Figure 1 . Ground Water Elevation Contours - February 2, 1998 - Shell Service Station, WIC #204-6852-1404, 1784 150th Avenue, San Leandro, California

**Table 1. Ground Water Elevations - Shell Service Station WIC #204-6852-1404, 1784  
150th Avenue, San Leandro, California**

Well ID	Date	Top-of-Casing Elevation (ft above msl)	Depth to Water (ft below TOC)	Separate-Phase Hydrocarbon Thickness (ft)	Ground Water Elevation <sup>1</sup> (ft above msl)
MW-1	03/08/90	49.13	25.29	---	23.84
	06/12/90		25.85	---	23.28
	09/13/90		27.49	---	21.64
	12/18/90		27.41	---	21.72
	03/07/91		25.79	---	23.34
	06/07/91		25.64	---	23.49
	09/17/91		27.54	---	21.59
	12/09/91		27.81	---	21.32
	02/13/92		25.57	---	23.56
	02/24/92		22.83	---	26.30
	02/27/92		23.09	---	26.04
	03/01/92		23.26	---	25.87
	06/03/92		24.64	---	24.49
	09/01/92		26.74	---	22.39
	10/06/92		27.18	---	21.95
	11/11/92		27.99	---	21.14
	12/04/92		27.14	---	21.99
	01/22/93		20.09	---	29.04
	02/10/93		24.26	---	24.87
	03/03/93		20.50	---	28.63
	05/11/93		21.70	---	27.43
	06/17/93		22.42	---	26.71
	09/10/93		24.11	---	25.02
	12/13/93		23.73	---	25.40
	03/03/94		22.08	---	27.05
	06/06/94		23.10	---	26.03
	09/12/94		25.19	---	23.94
	12/19/94		23.06	---	26.07
	02/28/95		20.90	---	28.23
	03/24/95		18.28	---	30.85
	06/26/95		20.40	---	28.73
	09/13/95		22.62	---	26.51
12/19/95	22.10	---	27.03		
03/07/96	18.83	0.05	30.34		
06/28/96	21.46	---	27.67		
09/26/96	23.57	0.01	25.57		
12/10/96	21.43	---	27.70		
03/10/97	20.08	---	29.05		
06/30/97	21.68	---	27.45		
09/12/97	21.78	---	27.35		
12/18/97	20.78	---	28.35		
	<b>02/02/98</b>		<b>19.65</b>	<b>---</b>	<b>29.48</b>
MW-2	02/13/92	45.63	22.22	---	23.61
	02/24/92		19.61	---	26.22
	02/27/92		19.92	---	25.91

**Table 1. Ground Water Elevations - Shell Service Station WIC #204-6852-1404, 1784  
150th Avenue, San Leandro, California (continued)**

Well ID	Date	Top-of-Casing Elevation (ft above msl)	Depth to Water (ft below TOC)	Separate-Phase Hydrocarbon Thickness (ft)	Ground Water Elevation <sup>a</sup> (ft above msl)
	03/01/92		21.11	---	24.72
	06/03/92		21.58	---	24.25
	09/01/92		23.46	---	22.37
	10/06/92		23.99	---	21.84
	11/11/92		24.25	---	21.58
	12/04/92		23.89	---	21.94
	01/22/93		17.03	---	28.80
	02/10/93		18.08	---	27.75
	03/03/93		17.28	---	28.55
	05/11/93		18.41	---	27.42
	06/17/93		19.06	---	26.77
	09/10/93		20.88	---	24.95
	12/13/93		20.42	---	25.41
	03/03/94		18.48	---	27.35
	06/06/94		20.26	---	25.57
	09/12/94		21.80	---	24.03
	12/19/94		19.66	---	26.17
	02/28/95		17.51	---	28.32
	03/24/95		14.88	---	30.95
	06/26/95		17.58	---	28.25
	09/13/95		19.28	---	26.55
	12/19/95		18.61	---	27.22
	03/06/96		15.41	---	30.42
	06/28/96		17.84	---	27.99
	09/26/96		19.60	---	26.23
	12/10/96		18.15	0.25	27.48
	03/10/97		17.02	0.20	28.77
	06/30/97		19.42	---	26.21
	09/12/97		19.40	---	26.23
	12/18/97		17.56	---	28.07
	<b>02/02/98</b>		<b>18.14</b>	<b>---</b>	<b>27.49</b>
MW-3	02/13/92	51.97	27.97	---	24.00
	02/24/92		25.60	---	26.37
	02/27/92		25.88	---	26.09
	03/01/92		26.00	---	25.97
	06/03/92		27.70	---	24.27
	09/01/92		29.46	---	22.51
	10/06/92		30.01	---	21.96
	11/11/92		30.26	---	21.71
	12/04/92		29.93	---	22.04
	01/22/93		22.76	---	29.21
	02/10/93		21.40	---	30.57
	03/03/93		23.08	---	28.89

**Table 1. Ground Water Elevations - Shell Service Station WIC #204-6852-1404, 1784  
150th Avenue, San Leandro, California (continued)**

Well ID	Date	Top-of-Casing Elevation (ft above msl)	Depth to Water (ft below TOC)	Separate-Phase Hydrocarbon Thickness (ft)	Ground Water Elevation <sup>a</sup> (ft above msl)
	05/11/93		24.51	---	27.46
	06/17/93		25.21	---	26.76
	09/10/93		26.95	---	25.02
	12/13/93		26.52	---	25.45
	03/03/94		24.50	---	27.47
	06/06/94		26.33	---	25.64
	09/12/94		27.98	---	23.99
	12/19/94		25.63	---	26.34
	02/28/95		23.45	---	28.52
	03/24/95		21.07	---	30.90
	06/26/95		23.64	---	28.33
	09/13/95		25.40	---	26.57
	12/19/95		24.53	---	27.44
	03/07/96		21.59	0.04	30.41
	06/28/96		23.95	---	28.02
	09/26/96		25.89	---	26.08
	12/10/96		24.22	---	27.75
	03/10/97		23.05	---	28.92
	06/30/97		24.34	---	27.63
	09/12/97		24.47	---	27.50
	12/18/97		23.54	---	28.43
	<b>02/02/98</b>		<b>21.92</b>	<b>---</b>	<b>30.05</b>
MW-4	03/24/95	40.51	9.16	---	31.35
	06/26/95		12.06	---	28.45
	09/13/95		13.90	---	26.61
	12/19/95		12.90	---	27.61
	03/06/96		9.63	---	30.88
	06/28/96		12.30	---	28.21
	09/26/96		14.12	---	26.39
	12/10/96		12.31	---	28.20
	03/10/97		11.34	---	29.17
	06/30/97		13.80	---	26.71
	09/12/97		13.99	---	26.52
	12/18/97		12.02	---	28.49
	<b>02/02/98</b>		<b>11.23</b>	<b>---</b>	<b>29.28</b>

**Notes and Abbreviations:**

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

ft = Feet

msl = Mean sea level

TOC = Top of casing

**Table 2. Analytical Results for Ground Water - Shell Service Station WIC #204-6852-1404, 1784 150th Avenue, San Leandro, California**

Well ID	Date Sampled	Depth to Water (ft)	TPH-G	TPH-D	POG	parts per billion (µg/L)					DO (mg/L)	
						B	E	T	X	1,2-DCA		MTBE
MW-1	03/08/90	25.29	510	120 <sup>a</sup>	<10,000	1.5	<0.5	0.8	5.4	12	---	---
	06/12/90	25.85	390	100 <sup>a</sup>	<10,000	86	0.7	1.3	6.2	<0.4	---	---
	09/13/90	27.49	100	130 <sup>a</sup>	<10,000	56	2.4	0.75	2.8	<0.4 <sup>b</sup>	---	---
	12/18/90	27.41	480	<50 <sup>a</sup>	<10,000	54	3.3	1.7	3.7	5.3	---	---
	03/07/91	25.79	80	<50 <sup>a</sup>	---	266	1.2	<0.5	<1.5	6.7	---	---
	06/07/91	25.64	510	<50 <sup>a</sup>	---	130	6.1	3.8	11	7.9	---	---
	09/17/91	27.54	330	120 <sup>a,c</sup>	---	67	3	<0.5	2.2	6	---	---
	12/09/91	27.81	140 <sup>d</sup>	80	---	<0.5	1.7	<0.5	4.7	5.4	---	---
	03/01/92	23.36	<50	<50	---	<0.5	<0.5	<0.5	<0.5	3	---	---
	06/03/92	24.64	1,500	---	---	520	72	180	230	3	---	---
	09/01/92	26.74	130	---	---	16	1.8	1.4	3.4	1.3 <sup>e</sup>	---	---
	12/04/92	27.14	150	---	---	360	1.8	0.7	2.1	3.3	---	---
	03/03/93	20.50	<50	---	---	1.5	<0.5	<0.5	<0.5	0.76	---	---
	06/17/93	22.42	1,600	---	---	340	120	120	440	3	---	---
	09/10/93	24.11	2,600	---	---	670	310	340	730	2.3	---	---
	12/13/93	23.73	11,000	---	---	470	380	320	2,300	6.3	---	---
	03/03/94	22.08	16,000	---	---	700	480	690	3,200	---	---	---
	06/06/94	23.10	7,500	---	---	420	200	280	1,000	3.1	---	---
	09/12/94	25.19	1,200	---	---	110	3.3	21	420	2.6	---	---
	12/19/94	23.06	4,600	---	---	470	230	330	1,300	3.7	---	---
	02/28/95	20.90	500	---	---	59	6.8	32	68	5.0	---	---
	06/26/95	20.40	5,500	---	---	740	300	420	1,800	8.6	---	---
	09/13/95	22.62	84,000	---	---	1,900	3,000	2,600	14,000	12	---	---
	12/19/95	22.10	80,000	---	---	660	170	350	18,000	<0.4	---	---
	03/06/96 <sup>SPH</sup>	---	---	---	---	---	---	---	---	---	---	---
	06/28/96	21.46	270,000	---	---	2,800	1,000	820	16,000	---	<0.5	---
	06/28/96 <sup>dnp</sup>	21.46	790,000	---	---	2,200	1,000	780	13,000	---	15,000	---
	09/26/96	23.57	29,000	---	---	1,100	270	260	1,900	9.8	<1,000	---
	09/26/96 <sup>dnp</sup>	23.57	25,000	---	---	1,200	240	320	1,900	11	<1,000	---
	12/10/96	21.43	13,000	---	---	510	230	240	1,200	16	100	1.0

**Table 2. Analytical Results for Ground Water - Shell Service Station WIC #204-6852-1404, 1784 150th Avenue, San Leandro, California (continued)**

Well ID	Date Sampled	Depth to Water (ft)	TPH-G	TPH-D	POG	parts per billion (µg/L)						DO (mg/L)
						B	E	T	X	1,2-DCA	MTBE	
	12/10/96 <sup>dup</sup>	21.43	8,400	---	---	420	140	130	680	17	81	1.0
	03/10/97	20.08	4,200	---	---	13	16	8.8	74	12	<12	2.0
	03/10/97 <sup>dup</sup>	20.08	5,100	---	---	12	17	8.9	79	11	<25	2.0
	06/30/97	21.68	5,700	---	---	320	140	120	700	21	47	1.6
	06/30/97 <sup>dup</sup>	21.68	5,300	---	---	300	120	95	580	22	45	1.6
	09/12/97	21.78	6,300	---	---	120	82	26	260	12	30	2.1
	12/18/97 <sup>l</sup>	20.78	---	---	---	---	---	---	---	---	---	1.3
	<b>02/02/98</b>	<b>19.65</b>	<b>84</b>	<b>---</b>	<b>---</b>	<b>5.1</b>	<b>&lt;0.50</b>	<b>&lt;0.50</b>	<b>2.1</b>	<b>20</b>	<b>2.5</b>	<b>2.0</b>
MW-2	02/24/92	19.61	17,000	2,700 <sup>e</sup>	---	6,200	550	1,600	1,900	200	---	---
	03/01/92	21.11	86,000	1,000 <sup>e</sup>	---	30,000	2,300	34,000	16,000	82	---	---
	06/03/92	21.58	87,000	---	---	28,000	2,000	18,000	10,000	<50	---	---
	09/01/92	23.46	110,000	---	---	21,000	1,900	13,000	7,800	83	---	---
	12/04/92	23.89	42,000	---	---	15,000	960	2,400	2,900	100	---	---
	03/03/93	17.28	160,000	---	---	36,000	32,000	3,800	21,000	7.7	---	---
	03/03/93	17.28	150,000	---	---	31,000	20,000	3,100	14,000	16	---	---
	06/17/93	19.06	65,000	---	---	34,000	3,200	15,000	11,000	37	---	---
	06/17/93	19.06	62,000	---	---	28,000	2,700	14,000	10,000	36	---	---
	09/10/93 <sup>f</sup>	20.88	72,000	---	---	24,000	2,300	16,000	11,000	28.0	---	---
	09/10/93 <sup>dup,f</sup>	20.88	71,000	---	---	23,000	2,300	15,000	10,000	27.0	---	---
	12/13/93	20.42	19,000	---	---	5,400	680	4,900	3,100	<0.5	---	---
	12/13/93 <sup>dup</sup>	20.42	17,000	---	---	6,200	720	5,500	3,500	3.4	---	---
	03/03/94	18.48	110,000	---	---	21,000	2,000	24,000	13,000	---	---	---
	03/03/94 <sup>dup</sup>	18.48	93,000	---	---	19,000	1,800	22,000	12,000	---	---	---
	06/06/94	20.26	10,000	---	---	1,900	2,500	3,300	13,000	5.8	---	---
	06/06/94 <sup>dup</sup>	20.26	99,000	---	---	9,900	2,400	12,000	12,000	5.7	---	---
	09/12/94	21.80	160,000	---	---	22,000	3,400	33,000	23,000	<0.4	---	---
	09/12/94 <sup>dup</sup>	21.80	150,000	---	---	23,000	3,500	34,000	23,000	<0.4	---	---
	12/19/94	19.66	80,000	---	---	17,000	2,300	16,000	14,000	<0.4	---	---



**Table 2. Analytical Results for Ground Water - Shell Service Station WIC #204-6852-1404, 1784 150th Avenue, San Leandro, California (continued)**

Well ID	Date Sampled	Depth to Water (ft)	TPH-G	TPH-D	POG	B	E	T	X	1,2-DCA	MTBE	DO (mg/L)
			←————— parts per billion (µg/L) —————→									
	12/19/94 <sup>dnp</sup>	19.66	100,000	---	---	28,000	3,400	26,000	20,000	<0.4	---	---
	02/28/95	17.51	100,000	---	---	24,000	2,300	18,000	17,000	<0.4	---	---
	02/28/95 <sup>dnp</sup>	17.51	100,000	---	---	31,000	3,200	21,000	18,000	<0.4	---	---
	06/26/95	17.58	45,000	---	---	14,000	1,500	12,000	7,500	3.4	---	---
	06/26/95 <sup>dnp</sup>	17.58	68,000	---	---	13,000	1,800	11,000	7,700	---	---	---
	09/13/95	19.28	110,000	---	---	19,000	2,800	19,000	15,000	7.2	---	---
	09/13/95 <sup>dnp</sup>	19.28	120,000	---	---	20,000	2,900	20,000	15,000	<0.4	---	---
	12/19/95	18.61	180,000	---	---	18,000	4,100	29,000	24,000	<0.4	---	---
	12/19/95 <sup>dnp</sup>	18.61	160,000	---	---	18,000	3,800	28,000	24,000	<0.4	---	---
	03/06/96	15.41	120,000	---	---	28,000	3,900	15,000	17,000	<20	---	---
	06/28/96	17.84	96,000	---	---	20,000	4,100	20,000	22,000	---	2,400	---
	09/26/96	19.60	87,000	---	---	7,600	2,500	11,000	15,000	56**	990*	---
	12/10/96 <sup>SPH</sup>	18.15	---	---	---	---	---	---	---	---	---	---
	03/10/97 <sup>SPH</sup>	17.02	---	---	---	---	---	---	---	---	---	---
	06/30/97	19.42	57,000	---	---	3,600	1,300	4,600	9,700	<50	2,300	2.4
	09/12/97	19.40	88,000	---	---	7,800	2,600	8,800	16,000	<25	3,200	1.7
	09/12/97 <sup>dnp</sup>	19.40	90,000	---	---	8,300	2,700	9,400	17,000	<25	3,400	1.7
	12/18/97 <sup>l</sup>	17.56	---	---	---	---	---	---	---	---	---	1.3
	02/02/98	18.14	<50	---	---	0.60	0.35	1.9	6.0	<0.50	9.3	2.0
	02/02/98 <sup>dnp</sup>	18.14	56	---	---	1.0	0.35	2.8	9.3	<0.50	13	2.0
MW-3	02/24/92	25.60	4,500	1,300 <sup>e</sup>	---	97	78	<5	18	9.1	---	---
	03/01/92	26.00	2,200	440	---	69	<0.5	<0.5	<0.5	13	---	---
	06/03/92	27.70	4,100	---	---	13	44	72	65	16	---	---
	09/01/92	29.46	1,900	---	---	20	5.5	6.8	<5	19	---	---
	09/01/92 <sup>dnp</sup>	29.46	1,900	---	---	21	3.4	6.6	<5	21	---	---
	12/04/92	29.93	2,400	---	---	8.2	<5	<5	<5	16	---	---
	12/04/92 <sup>dnp</sup>	29.93	2,100	---	---	11	5.7	<0.5	<0.5	18	---	---
	03/03/93	23.08	5,100	---	---	63	75	61	150	3.3	---	---

*When did HC go?*



**Table 2. Analytical Results for Ground Water - Shell Service Station WIC #204-6852-1404, 1784 150th Avenue, San Leandro, California (continued)**

Well ID	Date Sampled	Depth to Water (ft)	TPH-G	TPH-D	POG	parts per billion (µg/L)					1,2-DCA	MTBE	DO (mg/L)
						B	E	T	X				
	06/17/93	25.21	4,000	---	---	94	82	140	150	23	---	---	
	09/10/93	26.95	3,200	---	---	140	12.5	12.5	12.5	20.0	---	---	
	12/13/93	26.52	6,200	---	---	<12.5	<12.5	<12.5	<12.5	13	---	---	
	03/03/94	24.50	4,500	---	---	73	<5	<5	<5	---	---	---	
	06/06/94	26.33	3,200	---	---	<0.5	3.1	<0.5	<0.5	16	---	---	
	09/12/94	27.98	3,900	---	---	<0.5	9.6	<0.5	4.1	7.8	---	---	
	12/19/94	25.63	2,400	---	---	21	4.2	22	2.6	25	---	---	
	02/28/95	23.45	4,000	---	---	58	7.1	<0.5	3.5	18	---	---	
	06/26/95	23.64	3,900	---	---	8.1	12	<0.5	2.4	15	---	---	
	09/13/95	25.40	4,100	---	---	58	5.5	5.5	<0.5	6.7	---	---	
	12/19/95	24.53	3,600	---	---	<0.5	2.1	4.3	1.1	6.6	---	---	
	03/06/96 <sup>SPH</sup>	---	---	---	---	---	---	---	---	---	---	---	
	06/28/96	23.95	2,400	---	---	55	<0.5	<0.5	11	---	120	---	
	09/26/96	25.89	2,500	---	---	<5.0	<5.0	<5.0	<5.0	25	160	---	
	12/10/96	24.22	1,600	---	---	28	<2.0	4.2	3.9	34	110	0.8	
	03/10/97	23.05	130	---	---	<0.50	<0.50	<0.50	1.4	3.5	4.2	2.8	
	06/30/97	24.34	1,200	---	---	21	<2.0	2.3	<2.0	97	69	2.3	
	09/12/97	24.47	440	---	---	8.3	<0.50	0.82	1.9	5.0	3.4	1.9	
	12/18/97 <sup>1</sup>	23.54	---	---	---	---	---	---	---	---	---	0.8	
	<b>02/02/98</b>	<b>21.92</b>	<b>400</b>	<b>---</b>	<b>---</b>	<b>9.3</b>	<b>&lt;0.50</b>	<b>0.68</b>	<b>&lt;0.50</b>	<b>0.85</b>	<b>9.0</b>	<b>1.5</b>	
MW-4	03/24/95	9.16	<50	---	---	<0.5	<0.5	<0.5	<0.5	<0.4	---	---	
	06/26/95	12.06	<50	---	---	<0.5	<0.5	<0.5	<0.5	<0.4	---	---	
	09/13/95	13.90	<50	---	---	<0.5	<0.5	<0.5	<0.5	<0.4	---	---	
	12/19/95	12.90	<50	---	---	<0.5	<0.5	<0.5	<0.5	<0.4	---	---	
	03/06/96	9.63	<50	---	---	<0.5	<0.5	<0.5	<0.5	<0.4	---	---	
	06/28/96	12.30	40	---	---	<0.5	0.97	0.59	3.8	---	26	---	
	09/26/96	14.12	<50	---	---	<0.5	<0.5	<0.5	<0.5	<0.5	<2.5	---	
	12/10/96 <sup>i</sup>	12.31	<50	---	---	<0.5	<0.5	<0.5	<0.5	---	<2.5	1.2	

**Table 2. Analytical Results for Ground Water - Shell Service Station WIC #204-6852-1404, 1784 150th Avenue, San Leandro, California (continued)**

Well ID	Date Sampled	Depth to Water (ft)	TPH-G	TPH-D	POG	B	E	T	X	1,2-DCA	MTBE	DO (mg/L)
			←————— parts per billion (µg/L) —————→									
	03/10/97 <sup>j</sup>	11.34	<50	---	---	<0.50	<0.50	<0.50	<0.50	---	<2.5	---
	06/30/97 <sup>k</sup>	13.80	<50	---	---	<0.50	<0.50	<0.50	<0.50	<0.50	<2.5	1.9
	09/12/97	13.99	<50	---	---	<0.50	<0.50	<0.50	<0.50	<0.50	<2.5	1.7
	12/18/97 <sup>l</sup>	12.02	---	---	---	---	---	---	---	---	---	1.8
	<b>02/02/98</b>	<b>11.23</b>	<b>&lt;50</b>	<b>---</b>	<b>---</b>	<b>&lt;0.50</b>	<b>&lt;0.50</b>	<b>&lt;0.50</b>	<b>&lt;0.50</b>	<b>&lt;0.50</b>	<b>&lt;2.5</b>	<b>1.0</b>
Trip	03/08/90		<50	---	---	<0.5	<0.5	<0.5	<0.5	---	---	---
Blank	06/12/90		<50	---	---	<0.5	<0.5	<0.5	<0.5	---	---	---
	12/18/90		<50	---	---	<0.5	<0.5	<0.5	<0.5	---	---	---
	03/07/91		<50	---	---	<0.5	<0.5	<0.5	<0.5	---	---	---
	06/07/91		<50	---	---	<0.5	<0.5	<0.5	<0.5	---	---	---
	09/17/91		<50	---	---	<0.5	<0.5	<0.5	<0.5	---	---	---
	12/09/91		<50	---	---	<0.5	<0.5	<0.5	<0.5	---	---	---
	02/24/92		<50	---	---	<0.5	0.6	2.5	2.2	---	---	---
	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	<0.5	---	---
	12/04/92		<50	---	---	<0.5	<0.5	<0.5	<0.5	<0.5 <sup>e</sup>	---	---
	03/03/93		<50	---	---	<0.5	<0.5	<0.5	<0.5	<0.5	---	---
	06/17/93		<50	---	---	<0.5	<0.5	<0.5	<0.5	<0.5	---	---
	09/10/93		<50	---	---	<0.5	<0.5	<0.5	<0.5	---	---	---
	12/13/93		<50	---	---	<0.5	<0.5	<0.5	<0.5	<0.5 <sup>h</sup>	---	---
	03/03/94		<50	---	---	<0.5	<0.5	<0.5	<0.5	---	---	---
	06/06/94		<50	---	---	<0.5	<0.5	<0.5	<0.5	---	---	---
	09/12/94		<50	---	---	<0.5	<0.5	<0.5	<0.5	---	---	---
	12/19/94		<50	---	---	<0.5	<0.5	<0.5	<0.5	---	---	---
	02/28/95		<50	---	---	<0.5	<0.5	<0.5	<0.5	---	---	---
	03/24/95		<50	---	---	<0.5	<0.5	<0.5	<0.5	---	---	---
	06/26/95		<50	---	---	4.1	<0.5	3.0	1.5	---	---	---

**Table 2. Analytical Results for Ground Water - Shell Service Station WIC #204-6852-1404, 1784 150th Avenue, San Leandro, California (continued)**

Well ID	Date Sampled	Depth to Water (ft)	TPH-G	TPH-D	POG	parts per billion (µg/L)						DO (mg/L)
						B	E	T	X	1,2-DCA	MTBE	
	09/13/95		<50	---	---	<0.5	<0.5	<0.5	<0.5	---	---	---
	12/19/95		<50	---	---	<0.5	<0.5	<0.5	<0.5	---	---	---
Bailer	03/08/90		<50	---	---	<0.5	<0.5	<0.5	<0.5	---	---	---
Blank	09/01/92		<50	---		<0.5	<0.5	0.7	<0.5	<0.5	---	---
	12/04/92 <sup>b</sup>		60	---		<0.5	<0.5	<0.5	<0.5	<0.5	---	---
MCLs			NE	NE	NE	1	700	150	1,750	0.5	NE	

**Table 2. Analytical Results for Ground Water - Shell Service Station WIC #204-6852-1404, 1784 150th Avenue, San Leandro, California (continued)**

**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  
 POG = Petroleum oil and grease by American Public Health Association Standard Method 503E or 5520F  
 MTBE = Methyl tert-butyl ether by EPA Method 8020  
 B = Benzene by EPA Method 8020  
 E = Ethylbenzene by EPA Method 8020  
 T = Toluene by EPA Method 8020  
 X = Xylenes by EPA Method 8020  
 1,2-DCA = 1,2-Dichloroethane by EPA Method 8010. No other halogenated hydrocarbons detected unless otherwise noted.  
 DO = Dissolved oxygen  
 --- = Not analyzed  
 <n = Not detected above method detection limit of n µg/L  
 MCLs = California Primary maximum contaminant levels for drinking water (22 CCR 64444)  
 NE = Not established  
 SPH = Separate-phase hydrocarbons present in well; not sampled  
 µg/L = Micrograms per liter  
 mg/L = Milligrams per liter  
 ft = Feet  
 dup = Duplicate sample

**Notes:**

a = No total petroleum hydrocarbons as motor oil detected above modified EPA Method 8015 detection limit of 500 µg/L  
 b = Tetrachloroethene (PCE) detected at 24 µg/L by EPA Method 8010; MCL for PCE is 5 µg/L  
 c = Result is due to hydrocarbon compounds lighter than diesel  
 d = Result due to a non-gasoline hydrocarbon  
 e = In the matrix spike/matrix spike duplicate of sample MW-1, the RPD for Freon 113 and 1,3-dichlorobenzene was greater than 25%  
 f = The MW-2 and duplicate samples each contained 1.6 µg/L of methylene chloride which is within normal laboratory background levels  
 g = The trip and bailer blank samples contained 14 and 10 mg/L 1,3-dichlorobenzene, respectively  
 h = 1.4 mg/L Chloroethene detected in equipment blank; trip blank not analyzed  
 i = Tetrachloroethene (PCE) detected at 0.50 µg/L by EPA Method 8010  
 Trichloroethene (TCE) detected at 0.57 µg/L by EPA Method 8010; MCL for TCE is 5 µg/L  
 j = Trichloroethene detected at 0.52 µg/L by EPA Method 8010  
 k = Trichloroethene detected at 0.55 µg/L by EPA Method 8010  
 l = Samples not analyzed due to laboratory oversight  
 \* = MTBE confirmed by EPA Method 8260  
 \*\* = Result should be considered estimated due to being reported under the detection limit of 125 µg/L

CAMBRIA

**ATTACHMENT A**

Blaine Ground Water Monitoring Report

**BLAINE**  
TECH SERVICES INC.



1680 ROGERS AVENUE  
SAN JOSE, CALIFORNIA 95112  
(408) 573-7771 FAX  
(408) 573-0555 PHONE

February 13, 1998

Shell Oil Company  
P.O. Box 8080  
Martinez, CA 94553

Attn: Alex Perez

Shell WIC #204-6852-1404  
1784 150th Avenue  
San Leandro, California

4th Quarter 1997

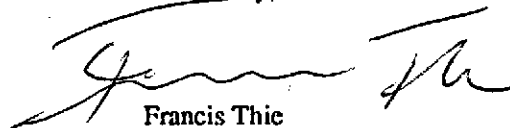
## Groundwater Monitoring Report 971218-M-3

---

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) 573-0555 ext. 201.

Yours truly,



Francis Thie

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

cc: Cambria Environmental Technology, Inc.  
1144 65th Street, Suite C  
Oakland, CA 94608  
Attn: Josh Bergstrom

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

## TABLE OF WELL GAUGING DATA

WELL I.D.	DATA COLLECTION DATE	MEASUREMENT REFERENCED TO	QUALITATIVE OBSERVATIONS (sheen)	DEPTH TO FIRST IMMISCIBLES LIQUID (FPZ) (feet)	THICKNESS OF IMMISCIBLES LIQUID ZONE (feet)	VOLUME OF IMMISCIBLES REMOVED (ml)	DEPTH TO WATER (feet)	DEPTH TO WELL BOTTOM (feet)
MW-1	12/18/97	TOC	--	NONE	--	--	20.78	44.67
MW-1	02/02/98	TOC	--	NONE	--	--	19.65	44.66
MW-2*	12/18/97	TOC	ODOR	NONE	--	--	17.56	44.40
MW-2*	02/02/98	TOC	ODOR/SHEEN	NONE	--	--	18.14	44.37
MW-3	12/18/97	TOC	ODOR	NONE	--	--	23.54	41.70
MW-3	02/02/98	TOC	--	NONE	--	--	21.92	41.69
MW-4	12/18/97	TOC	--	NONE	--	--	12.02	24.85
MW-4	02/02/98	TOC	--	NONE	--	--	11.23	24.86

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



9802084



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

**CHAIN OF CUSTODY RECORD**

Serial No: 980202-A2

Date: 02-02-98

Page 1 of 1

Silo Address: 1784 150th Ave., San Leandro, CA

WIC#: 204-6852-1404

Shell Engineer: Alex Perez Phone No.: (510) 675-6168  
 Fax #: 675-6172

Consultant Name & Address: Blaine Tech Services, Inc.  
1680 Rogers Ave., San Jose, CA 95112

Consultant Contact: Fran Thie Phone No.: (408) 573-0555  
 Fax #: 573-7771

Comments:

Sampled by: AL GENTRY  
 Printed Name: AL GENTRY

**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	MTR	BOTO	Asbestos	Container Size	Preparation Used	Composite Y/N
X	X					X	X				
X	X					X	X				
X	X					X	X				
X	X					X	X				
X	X					X	X				
X	X					X	X				

LAB: SEQUOIA

CHECK ONE (1) BOX ONLY	CI/DI	TURN AROUND TIME
C.W. Monitoring <input checked="" type="checkbox"/>	4461	24 hours <input type="checkbox"/>
Site Investigation <input type="checkbox"/>	4441	48 hours <input type="checkbox"/>
Soil Classify/Disposal <input type="checkbox"/>	4442	15 days <input checked="" type="checkbox"/> (Normal)
Water Classify/Disposal <input type="checkbox"/>	4443	Other <input type="checkbox"/>
Soil/Air Rem. or Sys. O & M <input type="checkbox"/>	4452	
Water Rem. or Sys. O & M <input type="checkbox"/>	4453	
Other <input type="checkbox"/>		

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

UST AGENCY:

Sample ID	Date	Sludge	Soil	Water	Air	No. of conls.	MATERIAL DESCRIPTION	SAMPLE CONDITION/ COMMENTS
MW-1	<u>02/02/98</u>			<u>W</u>		<u>6</u>		<u>W 3 12 52</u>
MW-2						<u>6</u>		
MW-3						<u>6</u>		
MW-4						<u>6</u>		
DUP						<u>6</u>		
EB						<u>3</u>		

Released By (signature): <u>[Signature]</u>	Printed Name: <u>AL GENTRY</u>	Date: <u>2/3/98</u>	Time: <u>11:50</u>	Received (signature): <u>[Signature]</u>	Printed Name: <u>[Signature]</u>	Date: <u>2/3/98</u>	Time: <u>11:50</u>
Checked By (signature): <u>[Signature]</u>	Printed Name: <u>[Signature]</u>	Date: <u>2/3/98</u>	Time: <u>[Signature]</u>	Received (signature): <u>[Signature]</u>	Printed Name: <u>[Signature]</u>	Date: <u>[Signature]</u>	Time: <u>[Signature]</u>
By (signature): <u>[Signature]</u>	Printed Name: <u>[Signature]</u>	Date: <u>[Signature]</u>	Time: <u>[Signature]</u>	Received (signature): <u>[Signature]</u>	Printed Name: <u>[Signature]</u>	Date: <u>2/3/98</u>	Time: <u>12:51</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: 980202-A2

Date: 02-02-98

Page 1 of 1

Site Address: 1784. 150th Ave., San Leandro, CA

WIC#: 204-6852-1404

Shell Engineer: Alex Perez Phone No.: (510) 675-6168  
Fax #: 675-6172

Consultant Name & Address: Blaine Tech Services, Inc.  
1680 Rogers Ave., San Jose, CA 95112

Consultant Contact: Fran Thie Phone No.: (408) 573-0555  
Fax #: 573-7771

Comments:

Sampled by: AL Henry

Printed Name: AL GENTRY

**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	BOTO	Asbestos	Container Size	Preparation Used	Composite Y/N
MW-1	X	X	X			X	X					
MW-2	X	X	X			X	X					
MW-3	X	X	X			X	X					
MW-4	X	X	X			X	X					
DUP	X	X	X			X	X					
EB	X	X	X			X	X					

LAB: SEQUOIA

CHECK ONE (1) BOX ONLY	CI/DI	TURN AROUND TIME
C.W. Monitoring <input checked="" type="checkbox"/>	4461	24 hours <input type="checkbox"/>
Site Investigation <input type="checkbox"/>	4443	48 hours <input type="checkbox"/>
Soil Classify/Disposal <input type="checkbox"/>	4442	16 days <input checked="" type="checkbox"/> (Normal)
Water Classify/Disposal <input type="checkbox"/>	4443	Other <input type="checkbox"/>
Soil/Air Exam. or Sys. O & M <input type="checkbox"/>	4452	
Water Exam. or Sys. O & M <input type="checkbox"/>	4463	
Other <input type="checkbox"/>		

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

UST AGENCY:

Sample ID	Date	Sludge	Soil	Water	Air	No. of conds.	MATERIAL DESCRIPTION	SAMPLE CONDITION/ COMMENTS
MW-1	2/1/98			W		6		SOL PEGGY
MW-2						6		PENNER FOR TAT.
MW-3						6		
MW-4						6		
DUP						6		
EB						3		

Relinquished by (signature): <u>AL Henry</u>	Printed Name: <u>AL GENTRY</u>	Date: <u>2/1/98</u>	Received (signature): <u>[Signature]</u>	Printed Name: <u>FO Heber</u>	Date: <u>2/1/98</u>
Relinquished by (signature):	Printed Name:	Date: <u>11:30</u>	Received (signature):	Printed Name:	Date: <u>11:30</u>
Relinquished by (signature):	Printed Name:	Date:	Received (signature):	Printed Name:	Date:
		Date:			Date:
		Date:			Date:

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

PAGE 2/2

408 573 7771

BLAINE TECH SERVICES

1:15



# 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

(650) 364-9600  
(510) 988-9600  
(916) 921-9600

FAX (650) 364-9233  
FAX (510) 988-9673  
FAX (916) 921-0100

Blaine Tech Services  
1680 Rogers Avenue  
San Jose, CA 95112  
Attention: Fran Thie

Project: Shell San Leandro/980202-A2

Enclosed are the results from samples received at Sequoia Analytical on February 3, 1998.  
The requested analyses are listed below:

<u>SAMPLE #</u>	<u>SAMPLE DESCRIPTION</u>	<u>DATE COLLECTED</u>	<u>TEST METHOD</u>
9802084 -01	LIQUID, MW-1	02/02/98	8010 Halogenated Volatil
9802084 -01	LIQUID, MW-1	02/02/98	TPGM2W Purgeable TPH/BTEX
9802084 -02	LIQUID, MW-2	02/02/98	8010 Halogenated Volatil
9802084 -02	LIQUID, MW-2	02/02/98	TPGM2W Purgeable TPH/BTEX
9802084 -03	LIQUID, MW-3	02/02/98	8010 Halogenated Volatil
9802084 -03	LIQUID, MW-3	02/02/98	TPGM2W Purgeable TPH/BTEX
9802084 -04	LIQUID, MW-4	02/02/98	8010 Halogenated Volatil
9802084 -04	LIQUID, MW-4	02/02/98	TPGM2W Purgeable TPH/BTEX
9802084 -05	LIQUID, Dup	02/02/98	8010 Halogenated Volatil
9802084 -05	LIQUID, Dup	02/02/98	TPGM2W Purgeable TPH/BTEX
9802084 -06	LIQUID, EB	02/02/98	TPGM2W 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 Tech Services 1680 Rogers Avenue San Jose, CA 95112 Attention: Fran Thie	Client Proj. ID: Shell San Leandro/980202-A2 Sample Descript: MW-1 Matrix: LIQUID Analysis Method: EPA 8010 Lab Number: 9802084-01	Sampled: 02/02/98 Received: 02/03/98 Analyzed: 02/06/98 Reported: 02/10/98
--	--	---

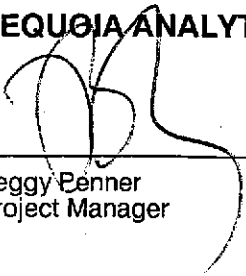
QC Batch Number: GC020698801024A  
Instrument ID: GCHP24\_2

**Halogenated Volatile Organics (EPA 8010)**

Analyte	Detection Limit ug/L	Sample Results ug/L
Bromodichloromethane	0.50	N.D.
Bromoform	0.50	N.D.
Bromomethane	1.0	N.D.
Carbon Tetrachloride	0.50	N.D.
Chlorobenzene	0.50	N.D.
Chloroethane	1.0	N.D.
2-Chloroethylvinyl ether	1.0	N.D.
Chloroform	0.50	N.D.
Chloromethane	1.0	N.D.
Dibromochloromethane	0.50	N.D.
1,2-Dichlorobenzene	0.50	N.D.
1,3-Dichlorobenzene	0.50	N.D.
1,4-Dichlorobenzene	0.50	N.D.
1,1-Dichloroethane	0.50	N.D.
<b>1,2-Dichloroethane</b>	<b>0.50</b>	<b>20</b>
1,1-Dichloroethene	0.50	N.D.
cis-1,2-Dichloroethene	0.50	N.D.
trans-1,2-Dichloroethene	0.50	N.D.
1,2-Dichloropropane	0.50	N.D.
cis-1,3-Dichloropropene	0.50	N.D.
trans-1,3-Dichloropropene	0.50	N.D.
Methylene chloride	5.0	N.D.
1,1,2,2-Tetrachloroethane	0.50	N.D.
Tetrachloroethene	0.50	N.D.
1,1,1-Trichloroethane	0.50	N.D.
1,1,2-Trichloroethane	0.50	N.D.
Trichloroethene	0.50	N.D.
Trichlorofluoromethane	0.50	N.D.
Vinyl chloride	1.0	N.D.
<b>Surrogates</b>	<b>Control Limits %</b>	<b>% Recovery</b>
1-Chloro-2-fluorobenzene	70 130	120

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

**SEQUOIA ANALYTICAL** - ELAP #1210

  
Peggy Fenner  
Project Manager





Blaine Tech Services 1680 Rogers Avenue San Jose, CA 95112	Client Proj. ID: Shell San Leandro/980202-A2 Sample Descript: MW-1 Matrix: LIQUID Analysis Method: 8015Mod/8020 Lab Number: 9802084-01	Sampled: 02/02/98 Received: 02/03/98 Analyzed: 02/06/98 Reported: 02/10/98
Attention: Fran Thie		

QC Batch Number: GC020698BTEX21A  
Instrument ID: GCHP21

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

Analyte	Detection Limit ug/L	Sample Results ug/L
TPPH as Gas	50	84
Methyl t-Butyl Ether	2.5	2.5
Benzene	0.50	5.1
Toluene	0.50	N.D.
Ethyl Benzene	0.50	N.D.
Xylenes (Total)	0.50	2.1
Chromatogram Pattern:		C6-C12
<b>Surrogates</b>	<b>Control Limits %</b>	<b>% Recovery</b>
Trifluorotoluene	70 130	80

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 1680 Rogers Avenue San Jose, CA 95112	Client Proj. ID: Shell San Leandro/980202-A2 Sample Descript: MW-2 Matrix: LIQUID Analysis Method: EPA 8010 Lab Number: 9802084-02	Sampled: 02/02/98 Received: 02/03/98 Analyzed: 02/06/98 Reported: 02/10/98
--	--	---

QC Batch Number: GC020698801024A  
Instrument ID: GCHP24\_2

**Halogenated Volatile Organics (EPA 8010)**

Analyte	Detection Limit ug/L	Sample Results ug/L
Bromodichloromethane	0.50	N.D.
Bromoform	0.50	N.D.
Bromomethane	1.0	N.D.
Carbon Tetrachloride	0.50	N.D.
Chlorobenzene	0.50	N.D.
Chloroethane	1.0	N.D.
2-Chloroethylvinyl ether	1.0	N.D.
Chloroform	0.50	N.D.
Chloromethane	1.0	N.D.
Dibromochloromethane	0.50	N.D.
1,2-Dichlorobenzene	0.50	N.D.
1,3-Dichlorobenzene	0.50	N.D.
1,4-Dichlorobenzene	0.50	N.D.
1,1-Dichloroethane	0.50	N.D.
1,2-Dichloroethane	0.50	N.D.
1,1-Dichloroethene	0.50	N.D.
cis-1,2-Dichloroethene	0.50	N.D.
trans-1,2-Dichloroethene	0.50	N.D.
1,2-Dichloropropane	0.50	N.D.
cis-1,3-Dichloropropene	0.50	N.D.
trans-1,3-Dichloropropene	0.50	N.D.
Methylene chloride	5.0	N.D.
1,1,2,2-Tetrachloroethane	0.50	N.D.
Tetrachloroethene	0.50	N.D.
1,1,1-Trichloroethane	0.50	N.D.
1,1,2-Trichloroethane	0.50	N.D.
Trichloroethene	0.50	N.D.
Trichlorofluoromethane	0.50	N.D.
Vinyl chloride	1.0	N.D.
<b>Surrogates</b>	<b>Control Limits %</b>	<b>% Recovery</b>
1-Chloro-2-fluorobenzene	70 130	111

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 1680 Rogers Avenue San Jose, CA 95112	Client Proj. ID: Shell San Leandro/980202-A2 Sample Descript: MW-2 Matrix: LIQUID Analysis Method: 8015Mod/8020 Lab Number: 9802084-02	Sampled: 02/02/98 Received: 02/03/98 Analyzed: 02/06/98 Reported: 02/10/98
Attention: Fran Thle		

QC Batch Number: GC020698BTEX21A  
Instrument ID: GCHP21

**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	9.3
Benzene	0.50	0.60
Toluene	0.50	1.9
Ethyl Benzene	0.50	0.93
Xylenes (Total)	0.50	6.0
Chromatogram Pattern:		

Surrogates	Control Limits %	% Recovery
Trifluorotoluene	70 130	79

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 1680 Rogers Avenue San Jose, CA 95112 Attention: Fran Thie	Client Proj. ID: Shell San Leandro/980202-A2 Sample Descript: MW-3 Matrix: LIQUID Analysis Method: EPA 8010 Lab Number: 9802084-03	Sampled: 02/02/98 Received: 02/03/98 Analyzed: 02/06/98 Reported: 02/10/98
--	--	---

QC Batch Number: GC020698801024A  
Instrument ID: GCHP24\_2

**Halogenated Volatile Organics (EPA 8010)**

Analyte	Detection Limit ug/L	Sample Results ug/L
Bromodichloromethane	0.50	N.D.
Bromoform	0.50	N.D.
Bromomethane	1.0	N.D.
Carbon Tetrachloride	0.50	N.D.
Chlorobenzene	0.50	N.D.
Chloroethane	1.0	N.D.
2-Chloroethylvinyl ether	1.0	N.D.
Chloroform	0.50	N.D.
Chloromethane	1.0	N.D.
Dibromochloromethane	0.50	N.D.
1,2-Dichlorobenzene	0.50	N.D.
1,3-Dichlorobenzene	0.50	N.D.
1,4-Dichlorobenzene	0.50	N.D.
1,1-Dichloroethane	0.50	N.D.
<b>1,2-Dichloroethane</b>	<b>0.50</b>	<b>0.85</b>
1,1-Dichloroethene	0.50	N.D.
cis-1,2-Dichloroethene	0.50	N.D.
trans-1,2-Dichloroethene	0.50	N.D.
1,2-Dichloropropane	0.50	N.D.
cis-1,3-Dichloropropene	0.50	N.D.
trans-1,3-Dichloropropene	0.50	N.D.
Methylene chloride	5.0	N.D.
1,1,2,2-Tetrachloroethane	0.50	N.D.
Tetrachloroethene	0.50	N.D.
1,1,1-Trichloroethane	0.50	N.D.
1,1,2-Trichloroethane	0.50	N.D.
Trichloroethene	0.50	N.D.
Trichlorofluoromethane	0.50	N.D.
Vinyl chloride	1.0	N.D.
<b>Surrogates</b>	<b>Control Limits %</b>	<b>% Recovery</b>
1-Chloro-2-fluorobenzene	70 130	115

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 1680 Rogers Avenue San Jose, CA 95112	Client Proj. ID: Shell San Leandro/980202-A2 Sample Descript: MW-3 Matrix: LIQUID Analysis Method: 8015Mod/8020 Lab Number: 9802084-03	Sampled: 02/02/98 Received: 02/03/98 Analyzed: 02/06/98 Reported: 02/10/98
--	--	---

QC Batch Number: GC020698BTEX21A  
Instrument ID: GCHP21

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

Analyte	Detection Limit ug/L	Sample Results ug/L
TPPH as Gas	50	400
Methyl t-Butyl Ether	2.5	9.0
Benzene	0.50	9.3
Toluene	0.50	0.68
Ethyl Benzene	0.50	N.D.
Xylenes (Total)	0.50	N.D.
Chromatogram Pattern:		C6-C12
<b>Surrogates</b>	<b>Control Limits %</b>	<b>% Recovery</b>
Trifluorotoluene	70 130	110

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 1680 Rogers Avenue San Jose, CA 95112	Client Proj. ID: Shell San Leandro/980202-A2 Sample Descript: MW-4 Matrix: LIQUID Analysis Method: EPA 8010 Lab Number: 9802084-04	Sampled: 02/02/98 Received: 02/03/98  Analyzed: 02/06/98 Reported: 02/10/98
--	--	---

QC Batch Number: GC020698801009A  
Instrument ID: GCHP09

**Halogenated Volatile Organics (EPA 8010)**

Analyte	Detection Limit ug/L	Sample Results ug/L
Bromodichloromethane	0.50	N.D.
Bromoform	0.50	N.D.
Bromomethane	1.0	N.D.
Carbon Tetrachloride	0.50	N.D.
Chlorobenzene	0.50	N.D.
Chloroethane	1.0	N.D.
2-Chloroethylvinyl ether	1.0	N.D.
Chloroform	0.50	N.D.
Chloromethane	1.0	N.D.
Dibromochloromethane	0.50	N.D.
1,2-Dichlorobenzene	0.50	N.D.
1,3-Dichlorobenzene	0.50	N.D.
1,4-Dichlorobenzene	0.50	N.D.
1,1-Dichloroethane	0.50	N.D.
1,2-Dichloroethane	0.50	N.D.
1,1-Dichloroethene	0.50	N.D.
cis-1,2-Dichloroethene	0.50	N.D.
trans-1,2-Dichloroethene	0.50	N.D.
1,2-Dichloropropane	0.50	N.D.
cis-1,3-Dichloropropene	0.50	N.D.
trans-1,3-Dichloropropene	0.50	N.D.
Methylene chloride	5.0	N.D.
1,1,2,2-Tetrachloroethane	0.50	N.D.
Tetrachloroethene	0.50	N.D.
1,1,1-Trichloroethane	0.50	N.D.
1,1,2-Trichloroethane	0.50	N.D.
Trichloroethene	0.50	N.D.
Trichlorofluoromethane	0.50	N.D.
Vinyl chloride	1.0	N.D.
<b>Surrogates</b>	<b>Control Limits %</b>	<b>% Recovery</b>
1-Chloro-2-fluorobenzene	70 130	96

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

**SEQUOIA ANALYTICAL** - ELAP #1210

  
Peggy Penner  
Project Manager





# Sequoia Analytical

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

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

(650) 364-9600  
(510) 988-9600  
(916) 921-9600

FAX (650) 364-9233  
FAX (510) 988-9673  
FAX (916) 921-0100

Blaine Tech Services 1680 Rogers Avenue San Jose, CA 95112	Client Proj. ID: Shell San Leandro/980202-A2 Sample Descript: MW-4 Matrix: LIQUID Analysis Method: 8015Mod/8020 Lab Number: 9802084-04	Sampled: 02/02/98 Received: 02/03/98 Analyzed: 02/06/98 Reported: 02/10/98
Attention: Fran Thie		

QC Batch Number: GC020698BTEX21A  
Instrument ID: GCHP21

## 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:		
<b>Surrogates</b>	<b>Control Limits %</b>	<b>% Recovery</b>
Trifluorotoluene	70 130	86

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 1680 Rogers Avenue San Jose, CA 95112	Client Proj. ID: Shell San Leandro/980202-A2 Sample Descript: Dup Matrix: LIQUID Analysis Method: EPA 8010 Lab Number: 9802084-05	Sampled: 02/02/98 Received: 02/03/98  Analyzed: 02/06/98 Reported: 02/10/98
--	---	---

QC Batch Number: GC020698801009A  
Instrument ID: GCHP09

**Halogenated Volatile Organics (EPA 8010)**

Analyte	Detection Limit ug/L	Sample Results ug/L
Bromodichloromethane	0.50	N.D.
Bromoform	0.50	N.D.
Bromomethane	1.0	N.D.
Carbon Tetrachloride	0.50	N.D.
Chlorobenzene	0.50	N.D.
Chloroethane	1.0	N.D.
2-Chloroethylvinyl ether	1.0	N.D.
Chloroform	0.50	N.D.
Chloromethane	1.0	N.D.
Dibromochloromethane	0.50	N.D.
1,2-Dichlorobenzene	0.50	N.D.
1,3-Dichlorobenzene	0.50	N.D.
1,4-Dichlorobenzene	0.50	N.D.
1,1-Dichloroethane	0.50	N.D.
1,2-Dichloroethane	0.50	N.D.
1,1-Dichloroethene	0.50	N.D.
cis-1,2-Dichloroethene	0.50	N.D.
trans-1,2-Dichloroethene	0.50	N.D.
1,2-Dichloropropane	0.50	N.D.
cis-1,3-Dichloropropene	0.50	N.D.
trans-1,3-Dichloropropene	0.50	N.D.
Methylene chloride	5.0	N.D.
1,1,2,2-Tetrachloroethane	0.50	N.D.
Tetrachloroethene	0.50	N.D.
1,1,1-Trichloroethane	0.50	N.D.
1,1,2-Trichloroethane	0.50	N.D.
Trichloroethene	0.50	N.D.
Trichlorofluoromethane	0.50	N.D.
Vinyl chloride	1.0	N.D.
<b>Surrogates</b>	<b>Control Limits %</b>	<b>% Recovery</b>
1-Chloro-2-fluorobenzene	70 130	99

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 1680 Rogers Avenue San Jose, CA 95112 Attention: Fran Thie	Client Proj. ID: Shell San Leandro/980202-A2 Sample Descript: Dup Matrix: LIQUID Analysis Method: 8015Mod/8020 Lab Number: 9802084-05	Sampled: 02/02/98 Received: 02/03/98 Analyzed: 02/06/98 Reported: 02/10/98
--	---	---

QC Batch Number: GC020698BTEX21A  
Instrument ID: GCHP21

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

Analyte	Detection Limit ug/L	Sample Results ug/L
TPPH as Gas	50	56
Methyl t-Butyl Ether	2.5	13
Benzene	0.50	1.0
Toluene	0.50	2.8
Ethyl Benzene	0.50	1.4
Xylenes (Total)	0.50	9.3
Chromatogram Pattern:		C6-C12

Surrogates	Control Limits %	% Recovery
Trifluorotoluene	70 130	80

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 1680 Rogers Avenue San Jose, CA 95112 Attention: Fran Thie	Client Proj. ID: Shell San Leandro/980202-A2 Sample Descript: EB Matrix: LIQUID Analysis Method: 8015Mod/8020 Lab Number: 9802084-06	Sampled: 02/02/98 Received: 02/03/98 Analyzed: 02/06/98 Reported: 02/10/98
--	--	---

QC Batch Number: GC020698BTEX21A  
Instrument ID: GCHP21

**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:		
<b>Surrogates</b>	<b>Control Limits %</b>	<b>% Recovery</b>
Trifluorotoluene	70                      130	79

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

**SEQUOIA ANALYTICAL** - ELAP #1210

  
Peggy Penner  
Project Manager





# Sequoia Analytical

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

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

(650) 364-9600  
(510) 988-9600  
(916) 921-9600

FAX (650) 364-9233  
FAX (510) 988-9673  
FAX (916) 921-0100

Blaine Tech Services, Inc.  
1680 Rogers Ave.  
San Jose, CA 95112  
Attention: Fran Thie

Client Project ID: Shell San Leandro / 980202-A2  
Matrix: Liquid

Work Order #: 9802084 -01-06

Reported: Feb 13, 1998

## QUALITY CONTROL DATA REPORT

Analyte:	Benzene	Toluene	Ethyl Benzene	Xylenes	Gas
QC Batch#:	GC020698BTEX21A	GC020698BTEX21A	GC020698BTEX21A	GC020698BTEX21A	GC020698BTEX21A
Analy. Method:	EPA 8020	EPA 8020	EPA 8020	EPA 8020	EPA 8015M
Prep. Method:	EPA 5030	EPA 5030	EPA 5030	EPA 5030	EPA 5030

Analyst:	A. Miraftab	A. Miraftab	A. Miraftab	A. Miraftab	A. Miraftab
MS/MSD #:	9801D0802	9801D0802	9801D0802	9801D0802	9801D0802
Sample Conc.:	N.D.	N.D.	N.D.	N.D.	N.D.
Prepared Date:	2/6/98	2/6/98	2/6/98	2/6/98	2/6/98
Analyzed Date:	2/6/98	2/6/98	2/6/98	2/6/98	2/6/98
Instrument I.D.#:	GCHP21	GCHP21	GCHP21	GCHP21	GCHP21
Conc. Spiked:	10 µg/L	10 µg/L	10 µg/L	30 µg/L	60 µg/L
Result:	10	10	10	29	57
MS % Recovery:	100	100	100	97	95
Dup. Result:	11	10	10	31	67
MSD % Recov.:	110	100	100	103	112
RPD:	9.5	0.0	0.0	6.7	16
RPD Limit:	0-25	0-25	0-25	0-25	0-25

LCS #:	BLK020698	BLK020698	BLK020698	BLK020698	BLK020698
Prepared Date:	2/6/98	2/6/98	2/6/98	2/6/98	2/6/98
Analyzed Date:	2/6/98	2/6/98	2/6/98	2/6/98	2/6/98
Instrument I.D.#:	GCHP21	GCHP21	GCHP21	GCHP21	GCHP21
Conc. Spiked:	10 µg/L	10 µg/L	10 µg/L	30 µg/L	60 µg/L
LCS Result:	10	9.9	9.9	29	56
LCS % Recov.:	100	99	99	97	93

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

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

9802084.BLA <1>





# 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

(650) 364-9600  
(510) 988-9600  
(916) 921-9600

FAX (650) 364-9233  
FAX (510) 988-9673  
FAX (916) 921-0100

Blaine Tech Services, Inc.  
1680 Rogers Ave.  
San Jose, CA 95112  
Attention: Fran Thie

Client Project ID: Shell San Leandro / 980202-A2  
Matrix: Liquid

Work Order #: 9802084-01-03

Reported: Feb 13, 1998

## QUALITY CONTROL DATA REPORT

Analyte:	1,1-Dichloro-ethene	Trichloro-ethene	Chloro-Benzene
QC Batch#:	GC020698801024A	GC020698801024A	GC020698801024A
Analy. Method:	EPA 8010	EPA 8010	EPA 8010
Prep. Method:	EPA 5030	EPA 5030	EPA 5030

Analyst:	E. Cunanan	E. Cunanan	E. Cunanan
MS/MSD #:	980217501	980217501	980217501
Sample Conc.:	N.D.	N.D.	N.D.
Prepared Date:	2/5/98	2/5/98	2/5/98
Analyzed Date:	2/5/98	2/5/98	2/5/98
Instrument I.D.#:	GCHP24	GCHP24	GCHP24
Conc. Spiked:	25 µg/L	25 µg/L	25 µg/L

Result:	26	23	22
MS % Recovery:	104	92	88

Dup. Result:	27	24	24
MSD % Recov.:	108	96	96

RPD:	3.8	4.3	8.7
RPD Limit:	0-25	0-25	0-25

LCS #:	BLK020698	BLK020698	BLK020698
Prepared Date:	2/6/98	2/6/98	2/6/98
Analyzed Date:	2/6/98	2/6/98	2/6/98
Instrument I.D.#:	GCHP24	GCHP24	GCHP24
Conc. Spiked:	25 µg/L	25 µg/L	25 µg/L
LCS Result:	29	27	25
LCS % Recov.:	116	108	100

MS/MSD	60-140	60-140	60-140
LCS	65-135	70-130	70-130
Control Limits			

SEQUOIA ANALYTICAL

Reggy 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







Blaine Tech Services, Inc. 1680 Rogers Ave. San Jose, CA 95112 Attention: Fran Thie	Client Project ID: Shell San Leandro / 980202-A2 Matrix: Liquid	Work Order #: 9802084-04, 05	Reported: Feb 13, 1998
--	--	------------------------------	------------------------

**QUALITY CONTROL DATA REPORT**

Analyte:	1,1-Dichloro-ethene	Trichloro-ethene	Chloro-Benzene
QC Batch#:	GC020698801009A	GC020698801009A	GC020698801009A
Analy. Method:	EPA 8010	EPA 8010	EPA 8010
Prep. Method:	EPA 5030	EPA 5030	EPA 5030

Analyst:	M. McLachlan	M. McLachlan	M. McLachlan
MS/MSD #:	9801H8601	9801H8601	9801H8601
Sample Conc.:	24	110	N.D.
Prepared Date:	2/5/98	2/5/98	2/5/98
Analyzed Date:	2/6/98	2/6/98	2/6/98
Instrument I.D.#:	GCHP9	GCHP9	GCHP9
Conc. Spiked:	25 µg/L	25 µg/L	25 µg/L
Dilution Factor:	5	5	5
Result:	150	180	120
MS % Recovery:	101	56	96
Dup. Result:	140	180	110
MSD % Recov.:	93	56	88
RPD:	6.9	0.0	8.7
RPD Limit:	0-25	0-25	0-25

LCS #:	BLK020698	BLK020698	BLK020698
Prepared Date:	2/6/98	2/6/98	2/6/98
Analyzed Date:	2/6/98	2/6/98	2/6/98
Instrument I.D.#:	GCHP9	GCHP9	GCHP9
Conc. Spiked:	25 µg/L	25 µg/L	25 µg/L
LCS Result:	26	24	25
LCS % Recov.:	104	96	100

MS/MSD	60-140	60-140	60-140
LCS	65-135	70-130	70-130
Control Limits			

**SEQUOIA ANALYTICAL**  
  
Peggy Penner  
Project Manager

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





**Sequoia  
Analytical**

680 Chesapeake Drive Redwood City, CA 94063 (650) 364-9600 FAX (650) 364-9233  
 404 N. Wiget Lane Walnut Creek, CA 94598 (510) 988-9600 FAX (510) 988-9673  
 819 Striker Avenue, Suite 8 Sacramento, CA 95834 (916) 921-9600 FAX (916) 921-0100

ENVIRONMENTAL  
PROTECTION

98 APR 22 PM 2:02

Blaine Tech Services	Client Proj. ID: Shell San Leandro/980202-A2	Received: 02/03/98
1680 Rogers Avenue	Lab Proj. ID: 9802084	Reported: 02/10/98
San Jose, CA 95112		
Attention: Fran Thie		

**LABORATORY NARRATIVE**

In order to properly interpret this report, it must be reproduced in its entirety. This report contains a total of 16 pages including the laboratory narrative, sample results, quality control, and related documents as required (cover page, COC, raw data, etc.).

**SEQUOIA ANALYTICAL**

Peggy Penner  
Project Manager

