



January 15, 1998

Mr. Alex Perez
Shell Oil Products Company
P.O. Box 8080
Martinez, California 94553

Re: **Quarterly Monitoring Report - Fourth Quarter 1997**
Former Shell Service Station
500 40th Avenue
Oakland, California
WIC #204-5508-4903

Dear Mr. Perez:

This Quarterly Monitoring Report describes the recently completed activities associated with ground water monitoring and sampling at the referenced site (Plates 1 and 2). This report was prepared to meet quarterly reporting guidelines issued by the Alameda County Health Care Services Agency and the Regional Water Quality Control Board, San Francisco Bay Region.

Monitoring & Sampling Summary

Ground water monitoring and sampling for the fourth quarter of 1997 are summarized below:

- Blaine Tech Services, Inc. (Blaine) of San Jose, California measured ground water levels and collected samples from Wells EW-1, MW-2, MW-3, MW-5, OMW-6, MW-8, OMW-10, and OMW-12 on November 4, 1997. The samples were transported to Sequoia Analytical of Redwood City, California for chemical analysis.
- Ground water level measurement data were evaluated and used to prepare a ground water contour map (Plate 2). Ground water flow is generally southwesterly at an approximate hydraulic gradient of 0.03.

CAMBRIA

ENVIRONMENTAL

TECHNOLOGY, INC.

270 PERKINS STREET,

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88 JAN 21 12 41P '98
CAMBRIA
TECHNOLOGY, INC.


Quarterly Sampling

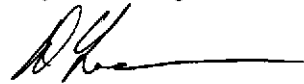
Wells EW-1, MW-2, MW-3, MW-5, OMW-6, MW-8, OMW-10, and OMW-12 were sampled and analyzed for Total Purgeable Petroleum Hydrocarbons quantitated as gasoline (TPPH) according to EPA Method 8015 (Modified), and benzene, toluene, ethylbenzene, and xylenes (BTEX), and methyl-tertiary-butyl-ether (MTBE) according to EPA Method 8020. An equipment blank and duplicate sample were also collected and analyzed for quality control purposes.

Field monitoring data and chemical analytical data are summarized in Table 1. A chemical concentration map is presented as Plate 2. Blaine's quarterly ground water monitoring report is presented in Appendix A.

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

Sincerely,
Cambria Environmental Technology, Inc.


Thomas Magney
Project Geologist


Diane M. Lundquist, P.E.
Senior Engineer
C46725



Attachments

Table 1. Well Concentrations

Plate 1. Vicinity Map

Plate 2. Ground Water Contour/Chemical Concentration Map

Appendix A

Blaine Tech Services Inc. - Quarterly Ground Water Monitoring Report

cc: Ms Susan L. Hugo, Alameda County Health Care Services Agency

TABLE 1
WELL CONCENTRATIONS
Shell Oil Products Company
500 40th Avenue
Oakland, California
WIC #204-5508-4903

Sample Date	Measured GW Depth (ft)	Corrected GW Elev (ft)	SP (ft)	TPPH (ug/L)	TEPH (ug/L)	B (ug/L)	T (ug/L)	E (ug/L)	X (ug/L)	MTBE (ug/L)	Comments
EW-1	Top casing elevation (ft):			78.26							
06-Aug-91	NA	NA	NA	180	<50	5.4	<0.5	0.9	0.7	NA	
30-Oct-91	12.72	65.54	0.00	70	<50	2.6	<0.5	<0.5	<0.5	NA	
15-Feb-92	NA	NA	NA	<50	NA	2.1	<0.5	<0.5	<0.5	NA	
18-Mar-92	11.71	66.55	0.00	NA	NA	NA	NA	NA	NA	NA	
22-May-92	12.84	65.42	0.00	99	NA	4.1	<0.5	<0.5	<0.5	NA	
19-Aug-92	13.04	65.22	0.00	140	NA	6.6	<0.5	<0.5	<0.5	NA	
18-Nov-92	12.90	65.36	0.00	56	NA	<0.5	<0.5	<0.5	<0.5	NA	
11-Feb-93	11.28	66.98	0.00	63	NA	<0.5	<0.5	<0.5	0.9	NA	
19-May-93	12.52	65.74	0.00	60 (b)	NA	<0.5	<0.5	<0.5	<0.5	NA	
18-Aug-93	12.48	65.78	0.00	NA	NA	NA	NA	NA	NA	NA	
17-Nov-93	12.63	65.63	0.00	170	NA	17	<0.5	<0.5	<0.5	NA	
18-Feb-94	11.38	66.88	0.00	NA	NA	NA	NA	NA	NA	NA	
26-May-94	12.02	66.24	0.00	<50	NA	3.5	<0.5	<0.5	0.51	NA	
29-Aug-94	12.76	65.50	0.00	NA	NA	NA	NA	NA	NA	NA	
11-Nov-94	11.08	67.18	0.00	200	NA	13	0.88	<0.5	<0.5	NA	
03-Feb-95	10.88	67.38	0.00	NA	NA	NA	NA	NA	NA	NA	
07-May-95	11.32	66.94	0.00	90	NA	8.6	<0.5	<0.5	<0.5	NA	
02-Aug-95	11.76	66.50	0.00	NA	NA	NA	NA	NA	NA	NA	
02-Nov-95	12.80	65.46	0.00	240	NA	12	1.5	0.6	1.9	NA	
24-Feb-96	10.15	68.11	0.00	NA	NA	NA	NA	NA	NA	NA	
04-May-96	12.26	66.00	0.00	<50	NA	1.4	<0.50	<0.50	<0.50	4.1	
07-Sep-96	13.43	64.83	0.00	NA	NA	NA	NA	NA	NA	NA	
24-Nov-96	12.24	66.02	0.00	<50	NA	<0.50	<0.50	<0.50	<0.50	<2.5	
23-Feb-97	12.20	66.06	0.00	NA	NA	NA	NA	NA	NA	NA	
01-May-97	12.97	65.29	0.00	<50	NA	<0.50	<0.50	<0.50	<0.50	<2.5	

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Sample Date	Measured GW Depth (ft)	Corrected GW Elev (ft)	SP (ft)	TPPH (ug/L)	TEPH (ug/L)	B (ug/L)	T (ug/L)	E (ug/L)	X (ug/L)	MTBE (ug/L)	Comments
22-Jul-97	13.43	64.83	0.00	NA	NA	NA	NA	NA	NA	NA	
04-Nov-97	13.20	65.06	0.00	<50	NA	<0.50	<0.50	<0.50	<0.50	<5.0	
EW-1 (DUP)											
11-Feb-93	NA	NA	NA	63	NA	<0.5	<0.5	<0.5	0.8	NA	
17-Nov-93	NA	NA	NA	190	NA	17	<0.5	<0.5	<0.5	NA	
MW-2											
	Top casing elevation (ft):			80.80							
06-Aug-91	12.12	68.68	0.00	1200	230	59	1.1	38	56	NA	
30-Oct-91	11.70	69.10	0.00	520	300	56	<0.5	56	100	NA	
15-Feb-92	NA	NA	NA	2300	2200 (a)	87	<2.5	88	150	NA	
18-Mar-92	11.10	69.70	0.00	NA	NA	NA	NA	NA	NA	NA	
22-May-92	12.12	68.68	0.00	700	NA	24	1.0	34	48	NA	
19-Aug-92	12.18	68.62	0.00	740	NA	21	<2.5	24	26	NA	
18-Nov-92	12.03	68.77	0.00	920	NA	19	<2.5	30	51	NA	
11-Feb-93	11.15	69.65	0.00	1000	NA	25	6.0	43	73	NA	
19-May-93	11.80	69.00	0.00	570	NA	19	<0.5	37	42	NA	
18-Aug-93	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	Well Inaccessible
17-Nov-93	12.00	68.80	0.00	250	NA	10	<1.0	26	20	NA	
18-Feb-94	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	Well Inaccessible
26-May-94	11.61	69.19	0.00	620	NA	17	1.4	25	31	NA	
29-Aug-94	11.96	68.84	0.00	NA	NA	NA	NA	NA	NA	NA	
11-Nov-94	10.74	70.06	0.00	1100	NA	28	3.1	39	65	NA	
03-Feb-95	11.58	69.22	0.00	NA	NA	NA	NA	NA	NA	NA	
07-May-95	10.98	69.82	0.00	700	NA	15	<0.5	35	39	NA	
02-Aug-95	11.90	68.90	0.00	NA	NA	NA	NA	NA	NA	NA	

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02-Nov-95	12.12	68.68	0.00	140	NA	2.3	<0.5	4.4	3.7	NA	
24-Feb-96	10.25	70.55	0.00	NA	NA	NA	NA	NA	NA	NA	
04-May-96	11.30	69.50	0.00	140	NA	2.1	<0.50	4.6	4.9	6.2	
07-Sep-96	15.10	65.70	0.00	NA	NA	NA	NA	NA	NA	NA	
24-Nov-96	12.13	68.67	0.00	620	NA	9.7	<0.50	2.0	46	<2.5	
23-Feb-97	12.01	68.79	0.00	NA	NA	NA	NA	NA	NA	NA	
01-May-97	12.94	67.86	0.00	<50	NA	<0.50	<0.50	<0.50	<0.50	<2.5	
22-Jul-97	13.22	67.58	0.00	NA	NA	NA	NA	NA	NA	NA	
04-Nov-97	13.00	67.80	0.00	<50	NA	<0.50	<0.50	<0.50	<0.50	<5.0	
MW-2 (DUP)											
19-Aug-92	NA	NA	NA	840	NA	31	<2.5	36	43	NA	
18-Nov-92	NA	NA	NA	870	NA	25	<2.5	34	52	NA	
26-May-94	NA	NA	NA	600	NA	16	1.2	24	29	NA	
MW-3											
	Top casing elevation (ft):			79.60							
06-Aug-91	11.12	68.48	0.00	1900	470	220	57	57	260	NA	
30-Oct-91	10.93	68.67	0.00	1900	480	160	28	63	180	NA	
15-Feb-92	NA	NA	NA	2300	780 (a)	170	31	59	180	NA	
18-Mar-92	10.54	69.06	0.00	NA	NA	NA	NA	NA	NA	NA	
22-May-92	10.79	68.81	0.00	1500	NA	160	20	44	140	NA	
19-Aug-92	11.23	68.37	0.00	4500	NA	210	64	89	310	NA	
18-Nov-92	11.20	68.40	0.00	2400	NA	81	14	39	140	NA	
11-Feb-93	11.00	68.60	0.00	3000	NA	200	47	90	260	NA	
19-May-93	11.16	68.44	0.00	2100	NA	240	44	100	330	NA	
18-Aug-93	11.35	68.25	0.00	NA	NA	NA	NA	NA	NA	NA	

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Sample Date	Measured GW Depth (ft)	Corrected GW Elev (ft)	SP (ft)	TPPH (ug/L)	TEPH (ug/L)	B (ug/L)	T (ug/L)	E (ug/L)	X (ug/L)	MTBE (ug/L)	Comments
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17-Nov-93	11.10	68.50	0.00	1000	NA	110	13	60	150	NA	
18-Feb-94	10.76	68.84	0.00	NA	NA	NA	NA	NA	NA	NA	
26-May-94	11.85	67.75	0.00	1100	NA	200	17	29	58	NA	
29-Aug-94	10.40	69.20	0.00	NA	NA	NA	NA	NA	NA	NA	
11-Nov-94	10.04	69.56	0.00	870	NA	130	10	38	87	NA	
03-Feb-95	10.06	69.54	0.00	NA	NA	NA	NA	NA	NA	NA	
07-May-95	10.11	69.49	0.00	1300	NA	180	7.5	54	110	NA	
02-Aug-95	11.02	68.58	0.00	NA	NA	NA	NA	NA	NA	NA	
02-Nov-95	10.97	68.63	0.00	370	NA	36	1.8	16	21	NA	
24-Feb-96	9.61	69.99	0.00	NA	NA	NA	NA	NA	NA	NA	
04-May-96	10.40	69.20	0.00	460	NA	54	1.9	18	28	20	
07-Sep-96	13.55	66.05	0.00	NA	NA	NA	NA	NA	NA	NA	
24-Nov-96	11.83	67.77	0.00	2800	NA	290	<10	29	39	<50	
23-Feb-97	11.81	67.79	0.00	NA	NA	NA	NA	NA	NA	NA	
01-May-97	12.34	67.26	0.00	2000	NA	120	<5.0	53	14	60	
22-Jul-97	12.86	66.74	0.00	NA	NA	NA	NA	NA	NA	NA	
04-Nov-97	12.62	66.98	0.00	470	NA	120	<2.5	<2.5	7.3	<25	

MW-3 (DUP)											
11-Nov-94	NA	NA	NA	1000	NA	120	10	42	92	NA	

MW-4	Top casing elevation (ft):		81.00								
06-Aug-91	12.36	68.64	0.00	<50	<50	<0.5	<0.5	<0.5	<0.5	NA	
30-Oct-91	12.02	68.98	0.00	50	<50	<0.5	<0.5	<0.5	<0.5	NA	
15-Feb-92	NA	NA	NA	90	NA	0.9	<0.5	<0.5	<0.5	NA	
18-Mar-92	11.34	69.66	0.00	NA	NA	NA	NA	NA	NA	NA	

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Sample Date	Measured GW Depth (ft)	Corrected GW Elev (ft)	SP (ft)	TPPH (ug/L)	TEPH (ug/L)	B (ug/L)	T (ug/L)	E (ug/L)	X (ug/L)	MTBE (ug/L)	Comments
22-May-92	12.35	68.65	0.00	<50	NA	<0.5	<0.5	<0.5	<0.5	NA	
19-Aug-92	12.41	68.59	0.00	82 (b)	NA	<0.5	<0.5	<0.5	<0.5	NA	
18-Nov-92	12.28	68.72	0.00	85 (b)	NA	<0.5	<0.5	<0.5	<0.5	NA	
11-Feb-93	11.65	69.35	0.00	62 (b)	NA	<0.5	<0.5	<0.5	<0.5	NA	
19-May-93	11.92	69.08	0.00	<50	NA	<0.5	<0.5	<0.5	<0.5	NA	
18-Aug-93	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	Well Inaccessible
17-Nov-93	12.24	68.76	0.00	<50	NA	<0.5	<0.5	<0.5	<0.5	NA	
18-Feb-94	11.69	69.31	0.00	NA	NA	NA	NA	NA	NA	NA	
26-May-94	12.00	69.00	0.00	<50	NA	<0.5	<0.5	<0.5	<0.5	NA	
11-Nov-94	11.30	69.70	0.00	<50	NA	<0.5	<0.5	<0.5	<0.5	NA	
03-Feb-95	10.99	70.01	0.00	NA	NA	NA	NA	NA	NA	NA	
07-May-95	11.69	69.31	0.00	<50	NA	<0.5	<0.5	<0.5	<0.5	NA	
02-Aug-95	11.72	69.28	0.00	NA	NA	NA	NA	NA	NA	NA	
02-Nov-95	12.23	68.77	0.00	<50	NA	<0.5	<0.5	<0.5	<0.5	NA	
24-Feb-96	11.13	69.87	0.00	NA	NA	NA	NA	NA	NA	NA	
04-May-96	11.80	69.20	0.00	<50	NA	<0.50	<0.50	<0.50	<0.50	<2.5	
07-Sep-96	13.27	67.73	0.00	NA	NA	NA	NA	NA	NA	NA	
24-Nov-96	12.42	68.58	0.00	<50	NA	<0.50	<0.50	<0.50	<0.50	<2.5	
23-Feb-97	12.38	68.62	0.00	NA	NA	NA	NA	NA	NA	NA	
01-May-97	13.08	67.92	0.00	<50	NA	<0.50	<0.50	<0.50	<0.50	<2.5	
22-Jul-97	13.73	67.27	0.00	NA	NA	NA	NA	NA	NA	NA	
04-Nov-97	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	Well Inaccessible
MW-5	Top casing elevation (ft):			81.50							
06-Aug-91	13.02	68.48	0.00	<50	<50	<0.5	<0.5	<0.5	<0.5	NA	
30-Oct-91	12.73	68.77	0.00	<50	<50	<0.5	<0.5	<0.5	<0.5	NA	

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15-Feb-92	NA	NA	NA	<50	NA	<0.5	<0.5	<0.5	<0.5	NA	
18-Mar-92	12.52	68.98	0.00	NA	NA	NA	NA	NA	NA	NA	
22-May-92	13.05	68.45	0.00	<50	NA	<0.5	<0.5	<0.5	<0.5	NA	
19-Aug-92	13.04	68.46	0.00	55 (b)	NA	<0.5	<0.5	<0.5	<0.5	NA	
18-Nov-92	12.91	68.59	0.00	<50	NA	<0.5	<0.5	<0.5	<0.5	NA	
11-Feb-93	12.44	69.06	0.00	59 (b)	NA	<0.5	<0.5	<0.5	<0.5	NA	
19-May-93	12.84	68.66	0.00	<50	NA	<0.5	<0.5	<0.5	<0.5	NA	
17-Nov-93	12.89	68.61	0.00	<50	NA	<0.5	<0.5	<0.5	<0.5	NA	
18-Feb-94	12.30	69.20	0.00	NA	NA	NA	NA	NA	NA	NA	
26-May-94	12.73	68.77	0.00	<50	NA	1.8	2.4	1.3	4.9	NA	
29-Aug-94	12.88	68.62	0.00	NA	NA	NA	NA	NA	NA	NA	
11-Nov-94	12.20	69.30	0.00	<50	NA	<0.5	<0.5	<0.5	<0.5	NA	
03-Feb-95	11.78	69.72	0.00	NA	NA	NA	NA	NA	NA	NA	
07-May-95	12.47	69.03	0.00	<50	NA	<0.5	<0.5	<0.5	<0.5	NA	
02-Aug-95	12.83	68.67	0.00	NA	NA	NA	NA	NA	NA	NA	
02-Nov-95	13.02	68.48	0.00	<50	NA	<0.5	<0.5	<0.5	<0.5	NA	
24-Feb-96	12.11	69.39	0.00	NA	NA	NA	NA	NA	NA	NA	
04-May-96	13.20	68.30	0.00	<50	NA	<0.50	<0.50	<0.50	<0.50	<2.5	
07-Sep-96	14.24	67.26	0.00	NA	NA	NA	NA	NA	NA	NA	
24-Nov-96	13.58	67.92	0.00	<50	NA	<0.50	<0.5	<0.50	<0.50	<2.5	
23-Feb-97	13.54	67.96	0.00	NA	NA	NA	NA	NA	NA	NA	
01-May-97	14.17	67.33	0.00	<50	NA	<0.50	<0.50	<0.50	<0.50	<2.5	
22-Jul-97	14.35	67.15	0.00	NA	NA	NA	NA	NA	NA	NA	
04-Nov-97	14.30	67.20	0.00	<50	NA	<0.50	<0.50	<0.50	<0.50	<2.5	

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MW-5 (DUP)											
19-May-93	NA	NA	NA	<50	NA	<0.5	<0.5	<0.5	<0.5	NA	
04-Nov-97	NA	NA	NA	<50	NA	<0.50	<0.50	<0.50	<0.50	<2.5	

OMW-6	Top casing elevation (ft):		77.90								
06-Aug-91	10.71	67.19	0.00	26000	3600	910	420	560	1900	NA	
30-Oct-91	10.50	67.40	0.00	20000	4600	710	240	410	1700	NA	
15-Feb-92	NA	NA	NA	35000	27000	690	420	650	3000	NA	
18-Mar-92	9.24	68.66	0.00	NA	NA	NA	NA	NA	NA	NA	
22-May-92	10.13	67.77	0.00	15000	NA	460	110	300	1600	NA	
19-Aug-92	10.16	67.74	0.00	24000	NA	600	300	460	2000	NA	
18-Nov-92	9.94	67.96	0.00	29000	NA	480	250	450	2300	NA	
11-Feb-93	9.20	68.70	0.00	24000	NA	1300	250	630	2400	NA	
19-May-93	10.64	67.86	0.00	18000	NA	750	180	520	2500	NA	
18-Aug-93	10.04	67.86	0.00	NA	NA	NA	NA	NA	NA	NA	
17-Nov-93	10.12	67.78	0.00	14000	NA	260	64	430	1900	NA	
18-Feb-94	9.65	68.25	0.00	NA	NA	NA	NA	NA	NA	NA	
26-May-94	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	Well Inaccessible
29-Aug-94	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
11-Nov-94	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	Well Inaccessible
03-Feb-95	8.96	68.94	0.00	NA	NA	NA	NA	NA	NA	NA	
07-May-95	8.64	69.26	0.00	11000	NA	460	82	280	540	NA	
02-Aug-95	12.09	65.81	0.00	NA	NA	NA	NA	NA	NA	NA	
24-Feb-96	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	Well Inaccessible
04-May-96	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	Well Inaccessible
07-Sep-96	14.45	63.45	0.00	NA	NA	NA	NA	NA	NA	NA	

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**WELL CONCENTRATIONS
Shell Oil Products Company
500 40th Avenue
Oakland, California
WIC #204-5508-4903**

Sample Date	Measured GW Depth (ft)	Corrected GW Elev (ft)	SP (ft)	TPPH (ug/L)	TEPH (ug/L)	B (ug/L)	T (ug/L)	E (ug/L)	X (ug/L)	MTBE (ug/L)	Comments
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24-Nov-96	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	Well Inaccessible
23-Feb-97	13.12	64.78	0.00	NA	NA	NA	NA	NA	NA	NA	
01-May-97	13.19	64.71	0.00	17000	NA	630	52	610	1300	380	
22-Jul-97	13.52	64.38	0.00	NA	NA	NA	NA	NA	NA	NA	
04-Nov-97	13.12	64.78	0.00	10000	NA	610	23	410	820	<100	

OMW-6 (DUP)											
07-May-95	NA	NA	NA	14000	NA	480	61	230	370	NA	
01-May-97	NA	NA	NA	20000	NA	630	54	630	1300	500	MTBE by 8260: <20 ppb

MW-8	Top casing elevation (ft):		79.91								
06-Aug-91	13.08	66.83	0.00	90	<50	<0.5	<0.5	<0.5	<0.5	NA	
30-Oct-91	12.87	67.04	0.00	<50	<50	<0.5	<0.5	<0.5	<0.5	NA	
15-Feb-92	NA	NA	NA	<50	NA	<0.5	<0.5	<0.5	<0.5	NA	
18-Mar-92	11.54	68.37	0.00	NA	NA	NA	NA	NA	NA	NA	
22-May-92	12.32	67.59	0.00	<50	NA	<0.5	<0.5	<0.5	<0.5	NA	
19-Aug-92	12.58	67.33	0.00	60	NA	<0.5	<0.5	<0.5	<0.5	NA	
18-Nov-92	12.47	67.44	0.00	<50	NA	<0.5	<0.5	<0.5	<0.5	NA	
11-Feb-93	11.02	68.89	0.00	76 (b)	NA	<0.5	<0.5	<0.5	<0.5	NA	
19-May-93	11.78	68.13	0.00	<50	NA	<0.5	<0.5	<0.5	<0.5	NA	
18-Aug-93	12.22	67.69	0.00	NA	NA	NA	NA	NA	NA	NA	
17-Nov-93	12.25	67.66	0.00	<50	NA	<0.5	<0.5	<0.5	<0.5	NA	
18-Feb-94	10.56	69.35	0.00	NA	NA	NA	NA	NA	NA	NA	
26-May-94	11.30	68.61	0.00	<50	NA	<0.5	<0.5	<0.5	<0.5	NA	
29-Aug-94	11.90	68.01	0.00	NA	NA	NA	NA	NA	NA	NA	
11-Nov-94	10.12	69.79	0.00	<50	NA	<0.5	<0.5	<0.5	<0.5	NA	

TABLE 1

**WELL CONCENTRATIONS
Shell Oil Products Company
500 40th Avenue
Oakland, California
WIC #204-5508-4903**

Sample Date	Measured GW Depth (ft)	Corrected GW Elev (ft)	SP (ft)	TPPH (ug/L)	TEPH (ug/L)	B (ug/L)	T (ug/L)	E (ug/L)	X (ug/L)	MTBE (ug/L)	Comments
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03-Feb-95	11.64	68.27	0.00	NA	NA	NA	NA	NA	NA	NA	
07-May-95	10.77	69.14	0.00	<50	NA	<0.5	<0.5	<0.5	<0.5	NA	
02-Aug-95	10.92	68.99	0.00	NA	NA	NA	NA	NA	NA	NA	
02-Nov-95	11.93	67.98	0.00	<50	NA	<0.5	<0.5	<0.5	<0.5	NA	
24-Feb-96	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	Well Inaccessible
04-May-96	11.66	68.25	0.00	<50	NA	<0.50	<0.50	<0.50	<0.50	<2.5	
07-Sep-96	9.84	70.07	0.00	NA	NA	NA	NA	NA	NA	NA	
24-Nov-96	11.53	68.38	0.00	<50	NA	<0.50	<0.50	<0.50	<0.50	<2.5	
23-Feb-97	11.54	68.37	0.00	NA	NA	NA	NA	NA	NA	NA	
01-May-97	12.37	67.54	0.00	<50	NA	<0.50	<0.50	<0.50	<0.50	<2.5	
22-Jul-97	12.73	67.18	0.00	NA	NA	NA	NA	NA	NA	NA	
04-Nov-97	12.60	67.31	0.00	50	NA	<0.50	<0.50	<0.50	<0.50	<5.0	

OMW-9	Top casing elevation (ft):			77.71							
06-Aug-91	10.38	67.33	0.00	3900	190	58	8.8	80	220	NA	
30-Oct-91	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	Well Inaccessible
18-Mar-92	8.76	68.95	0.00	1800 (c)	210	84	11	49	60	NA	
20-May-92	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	Well Inaccessible
19-Aug-92	9.98	67.73	0.00	4600	22 (a)	63	<25	48	70	NA	
18-Nov-92	9.81	67.90	0.00	1800	130 (a)	30	9.2	46	61	NA	
11-Feb-93	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	Well Inaccessible
19-May-93	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	Well Inaccessible
18-Aug-93	9.75	67.96	0.00	NA	NA	NA	NA	NA	NA	NA	
17-Nov-93	9.92	67.79	0.00	5900	2400 (d)	86	14	150	46	NA	
18-Feb-94	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	Well Inaccessible
26-May-94	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	Well Inaccessible

TABLE 1

**WELL CONCENTRATIONS
Shell Oil Products Company
500 40th Avenue
Oakland, California
WIC #204-5508-4903**

Sample Date	Measured GW Depth (ft)	Corrected GW Elev (ft)	SP (ft)	TPPH (ug/L)	TEPH (ug/L)	B (ug/L)	T (ug/L)	E (ug/L)	X (ug/L)	MTBE (ug/L)	Comments
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29-Aug-94	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
11-Nov-94	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	Well Inaccessible
03-Feb-95	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
07-May-95	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	Well Inaccessible
02-Aug-95	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	Well Inaccessible
24-Feb-96	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	Well Inaccessible
04-May-96	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	Well Inaccessible
07-Sep-96	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	Well inaccessible
24-Nov-96	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	Well Inaccessilbe
23-Feb-97	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	Well Inaccessible
01-May-97	12.10	65.61	0.00	4700	1100	150	14	97	52	330	
22-Jul-97	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	Well Inaccessible
04-Nov-97	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	Well Inaccessible

OMW-10	Top casing elevation (ft):		77.91								
07-Aug-91	10.00	67.91	0.00	460	<50	73	1.0	18	8.4	NA	
31-Oct-91	10.10	67.81	0.00	630	150	100	<0.5	33	26	NA	
15-Feb-92	NA	NA	NA	810	570 (a)	85	2.5	44	38	NA	
18-Mar-92	9.55	68.36	0.00	NA	NA	NA	NA	NA	NA	NA	
21-May-92	10.41	67.50	0.00	280	NA	47	0.7	4.0	3.1	NA	
19-Aug-92	10.46	67.45	0.00	330	NA	35	<1	6.0	4.1	NA	
18-Nov-93	10.31	67.60	0.00	300	NA	30	0.8	7.1	6.3	NA	
11-Feb-93	9.68	68.23	0.00	510 (b)	NA	49	3.8	18	18	NA	
19-May-93	10.19	67.72	0.00	<50	NA	96	<0.5	3.4	1.5	NA	
18-Aug-93	10.29	67.62	0.00	NA	NA	NA	NA	NA	NA	NA	
17-Nov-93	10.32	67.59	0.00	400	NA	24	<1.0	2.8	1.9	NA	

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Oakland, California
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Sample Date	Measured GW Depth (ft)	Corrected GW Elev (ft)	SP (ft)	TPPH (ug/L)	TEPH (ug/L)	B (ug/L)	T (ug/L)	E (ug/L)	X (ug/L)	MTBE (ug/L)	Comments
18-Feb-94	9.30	68.61	0.00	NA	NA	NA	NA	NA	NA	NA	
26-May-94	10.14	67.77	0.00	330	NA	32	13	7.5	26	NA	
09-Aug-94	10.38	67.53	0.00	NA	NA	NA	NA	NA	NA	NA	
11-Nov-94	9.34	68.57	0.00	110	NA	7.8	<0.5	2.3	1.5	NA	
03-Feb-95	10.17	67.74	0.00	NA	NA	NA	NA	NA	NA	NA	
07-May-95	9.63	68.28	0.00	1600	NA	110	3.1	17	12	NA	
02-Aug-95	10.07	67.84	0.00	NA	NA	NA	NA	NA	NA	NA	
02-Nov-95	9.74	68.17	0.00	1200	NA	47	0.8	1.4	2.4	NA	
24-Feb-96	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	Well Inaccessible
04-May-96	9.97	67.94	0.00	1100	NA	76	16	7.4	32	57	
07-Sep-96	13.00	64.91	0.00	NA	NA	NA	NA	NA	NA	NA	
24-Nov-96	12.56	65.35	0.00	540	NA	13	2.7	1.3	1.7	16	
23-Feb-97	12.52	65.39	0.00	NA	NA	NA	NA	NA	NA	NA	
01-May-97	13.13	64.78	0.00	910	NA	1.3	10	4.1	5.9	4.1	
22-Jul-97	13.46	64.45	0.00	NA	NA	NA	NA	NA	NA	NA	
04-Nov-97	12.08	65.83	0.00	460	NA	5.0	<0.50	1.3	2.2	<5.0	
OMW-10 (DUP)											
02-Nov-95	NA	NA	NA	1300	NA	50	0.8	1.5	2.5	NA	
04-May-96	NA	NA	NA	700	NA	63	13	6.4	25	21	
24-Nov-96	NA	NA	NA	490	NA	25	<2.0	<2.0	<2.0	66	
OMW-11											
Top casing elevation (ft):				75.76							
22-Nov-91	11.90	63.86	0.00	450	240	1.1	<0.5	<0.5	<0.5	NA	
15-Feb-92	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	Well Inaccessible
18-Mar-92	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	Well Inaccessible

TABLE 1

WELL CONCENTRATIONS
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500 40th Avenue
Oakland, California
WIC #204-5508-4903

Sample Date	Measured GW Depth (ft)	Corrected GW Elev (ft)	SP (ft)	TPPH (ug/L)	TEPH (ug/L)	B (ug/L)	T (ug/L)	E (ug/L)	X (ug/L)	MTBE (ug/L)	Comments
20-May-92	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	Well Inaccessible
19-Aug-92	12.06	63.70	0.00	270 (b)	<50	<0.5	<0.5	<0.5	<0.5	NA	
18-Nov-92	12.01	63.75	0.00	400 (b)	100	<0.5	<0.5	<0.5	<0.5	NA	
11-Feb-93	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	Well Inaccessible
20-May-93	11.90	63.86	0.00	200 (b)	<0.5	<0.5	<0.5	<0.5	<0.5	NA	
18-Aug-93	11.90	63.86	0.00	180 (b)	<50	<0.5	<0.5	<0.5	<0.5	NA	
17-Nov-93	11.94	63.82	0.00	150 (b)	<50 (d)	<0.5	3.6	<0.5	<0.5	NA	
18-Feb-94	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	Well Inaccessible
26-May-94	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	Well Inaccessible
29-Aug-94	11.98	63.78	0.00	NA	NA	NA	NA	NA	NA	NA	
11-Nov-94	10.88	64.88	0.00	160	NA	<0.5	<0.5	<0.5	<0.5	NA	
03-Feb-95	10.62	65.14	0.00	NA	NA	NA	NA	NA	NA	NA	
05-Mar-95	NA	NA	NA	220	100	0.7	<0.5	<0.5	<0.5	NA	
07-May-95	11.49	64.27	0.00	160	<50	<0.5	<0.5	<0.5	<0.5	NA	
02-Aug-95	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	Well Inaccessible
24-Feb-96	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	Well Inaccessible
04-May-96	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	Well Inaccessible
07-Sep-96	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	Well Inaccessible
24-Nov-96	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	Well Inaccessible
23-Feb-97	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	Well Inaccessible
01-May-97	13.76	62.00	0.00	130	71	<0.50	<0.50	<0.50	0.61	<2.5	
22-Jul-97	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	Well Inaccessible
04-Nov-97	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	Well Inaccessible
OMW-12	Top casing elevation (ft):			75.65							
02-Dec-91	10.31	65.34	0.00	<1000	<50	<0.5	<0.5	<0.5	<0.5	NA	

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Oakland, California
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Sample Date	Measured GW Depth (ft)	Corrected GW Elev (ft)	SP (ft)	TPPH (ug/L)	TEPH (ug/L)	B (ug/L)	T (ug/L)	E (ug/L)	X (ug/L)	MTBE (ug/L)	Comments
18-Mar-92	8.93	66.72	0.00	<50	<50	<0.5	<0.5	<0.5	<0.5	NA	
20-May-92	10.26	65.39	0.00	180 (b)	NA	<0.5	<0.5	<0.5	<0.5	NA	
19-Aug-92	10.53	65.12	0.00	230 (b)	NA	<0.5	<0.5	<0.5	<0.5	NA	
18-Nov-92	10.45	65.20	0.00	220 (b)	NA	<0.5	<0.5	<0.5	<0.5	NA	
11-Feb-93	8.90	66.75	0.00	240	NA	<0.5	<0.5	<0.5	<0.5	NA	
19-May-93	10.60	65.05	0.00	110 (b)	NA	<0.5	<0.5	<0.5	<0.5	NA	
18-Aug-93	10.28	65.37	0.00	140 (b)	NA	<0.5	<0.5	<0.5	<0.5	NA	
17-Nov-93	10.24	65.41	0.00	120 (b)	NA	<0.5	<0.5	<0.5	<0.5	NA	
18-Feb-94	8.97	66.68	0.00	180 (b)	NA	1.7	2.1	0.9	4.8	NA	
26-May-94	9.62	66.03	0.00	150	NA	<0.5	<0.5	<0.5	<0.5	NA	
29-Aug-94	10.20	65.45	0.00	110	NA	<0.5	<0.5	<0.5	<0.5	NA	
11-Nov-94	8.54	67.11	0.00	90	NA	<0.5	<0.5	<0.5	<0.5	NA	
03-Feb-95	8.28	67.37	0.00	80	NA	<0.5	<0.5	<0.5	<0.5	NA	
07-May-95	9.17	66.48	0.00	110	NA	<0.5	<0.5	<0.5	<0.5	NA	
02-Aug-95	10.06	65.59	0.00	90	NA	<0.5	<0.5	<0.5	<0.5	NA	
02-Nov-95	10.09	65.56	0.00	130	NA	<0.5	<0.5	<0.5	<0.5	NA	
24-Feb-96	7.81	67.84	0.00	80	NA	<0.5	<0.5	<0.5	<0.5	NA	
04-May-96	11.72	63.93	0.00	61	NA	<0.50	<0.50	<0.50	<0.50	<2.5	C7-C8 Chromatogram Pattern
07-Sep-96	12.65	63.00	0.00	66	NA	<0.50	<0.50	<0.50	<0.50	<2.5	
24-Nov-96	11.54	64.11	0.00	70	NA	<0.50	<0.50	<0.50	<0.50	<2.5	
23-Feb-97	11.53	64.12	0.00	<50	NA	<0.50	<0.50	<0.50	<0.50	<2.5	
01-May-97	12.17	63.48	0.00	79	NA	<0.50	<0.50	<0.50	<0.50	<2.5	
22-Jul-97	12.48	63.17	0.00	<50	NA	<0.50	<0.50	<0.50	<0.50	<2.5	
04-Nov-97	12.54	63.11	0.00	<50	NA	<0.50	<0.50	<0.50	<0.50	<5.0	

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OMW-12 (DUP)											
03-Feb-95	NA	NA	NA	100	NA	0.6	<0.5	0.7	1.1	NA	
02-Aug-95	NA	NA	NA	120	NA	<0.5	<0.5	<0.5	<0.5	NA	
22-Jul-97	NA	NA	NA	51	NA	<0.50	<0.50	<0.50	<0.50	<2.5	

OMW-13	Top casing elevation (ft):			76.36							
22-Nov-91	11.96	64.40	0.00	900	1000	37	9.5	74	130	NA	
18-Mar-92	10.84	65.52	0.00	900 (c)	590 (a)	24	28	320	320	NA	
20-May-92	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	Well Inaccessible
19-Aug-92	12.12	64.24	0.00	7000	470 (a)	180	36	150	150	NA	
18-Nov-92	12.00	64.36	0.00	NA	NA	NA	NA	NA	NA	NA	Well Inaccessible
11-Feb-93	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	Well Inaccessible
20-May-93	12.26	64.10	0.00	9200	NA	320	83	490	950	NA	
18-Aug-93	11.75	64.61	0.00	NA	NA	NA	NA	NA	NA	NA	
17-Nov-93	11.78	64.58	0.00	38000	3800	210	<130	1000	2500	NA	
18-Feb-94	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	Well Inaccessible
26-May-94	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	Well Inaccessible
29-Aug-94	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
11-Nov-94	10.28	66.08	0.00	NA	NA	NA	NA	NA	NA	NA	Well Inaccessible
03-Feb-95	10.01	66.35	0.00	1.0	NA	NA	NA	NA	NA	NA	
05-Mar-95	NA	NA	NA	9100	3900	200	9.7	200	130	NA	
07-May-95	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	Well Inaccessible
02-Aug-95	11.80	64.56	0.00	8000	2900	180	6.6	190	55	NA	
24-Feb-96	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	Well Inaccessible
04-May-96	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	Well Inaccessible
07-Sep-96	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	Well Inaccessible

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Sample Date	Measured GW Depth (ft)	Corrected GW Elev (ft)	SP (ft)	TPPH (ug/L)	TEPH (ug/L)	B (ug/L)	T (ug/L)	E (ug/L)	X (ug/L)	MTBE (ug/L)	Comments
24-Nov-96	12.35	64.01	0.00	15000	7700	50	<20	74	60	<100	
23-Feb-97	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	Well Inaccessible
01-May-97	13.83	62.53	0.00	2600	290	33	10	30	14	88	
22-Jul-97	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	Well Inaccessible
04-Nov-97	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	Well Inaccessible

Abbreviations:

TPPH = Total Purgeable Petroleum Hydrocarbons carbon range C6 to C12 by Modified EPA Method 8015
(Previously reported as Total Petroleum Hydrocarbons as Gasoline)

TPH-D = Total petroleum hydrocarbons as diesel by Modified EPA Method 8015

BTEX = benzene, toluene, methylbenzene, xylenes by EPA Method 8020

MTBE = methyl-tertiary-butyl ether by EPA Method 8020.

<x = Not detected at detection limit of x

NA = Not analyzed or not available

(DUP) = Duplicate sample

Notes:

(a) = Concentration reported as diesel is primary due to the presence of a lighter petroleum product, possible gasoline or kerosene.

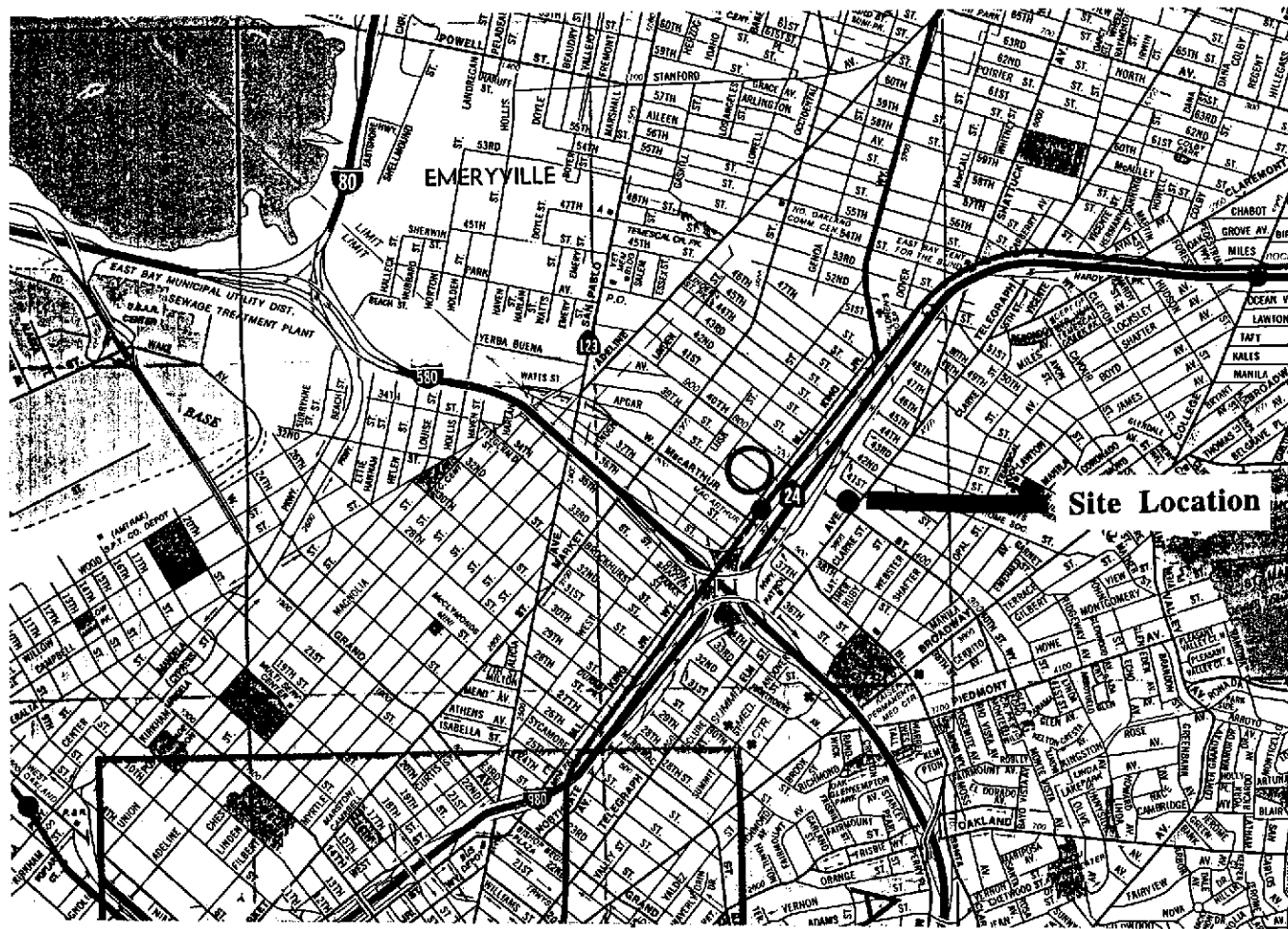
(b) = Concentration reported as gasoline is primarily due to the presence of discrete hydrocarbon peaks not indicative of gasoline.

(c) = Compounds detected and calculated as gasoline do not match the standard gasoline chromatographic pattern.

(d) = The concentrations reported as diesel are primarily due to the presence of a lighter petroleum product of hydrocarbon, range C6-C12, possibly gasoline.

Elevations referenced to Mean Sea Level

Depth to water measured from top of casing



Note: Vicinity Map taken from California State AAA map.

PLATE

1

SITE VICINITY MAP
 Former Shell Service Station
 500 40th Avenue
 Oakland, California

CAMBRIA
 289



Drawn By: JLP

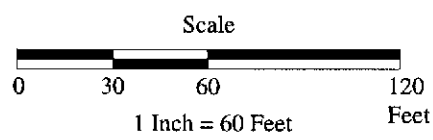
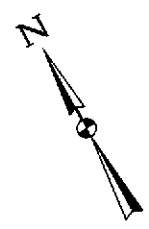
Date: 5-15-95

Approved By: *Jr*

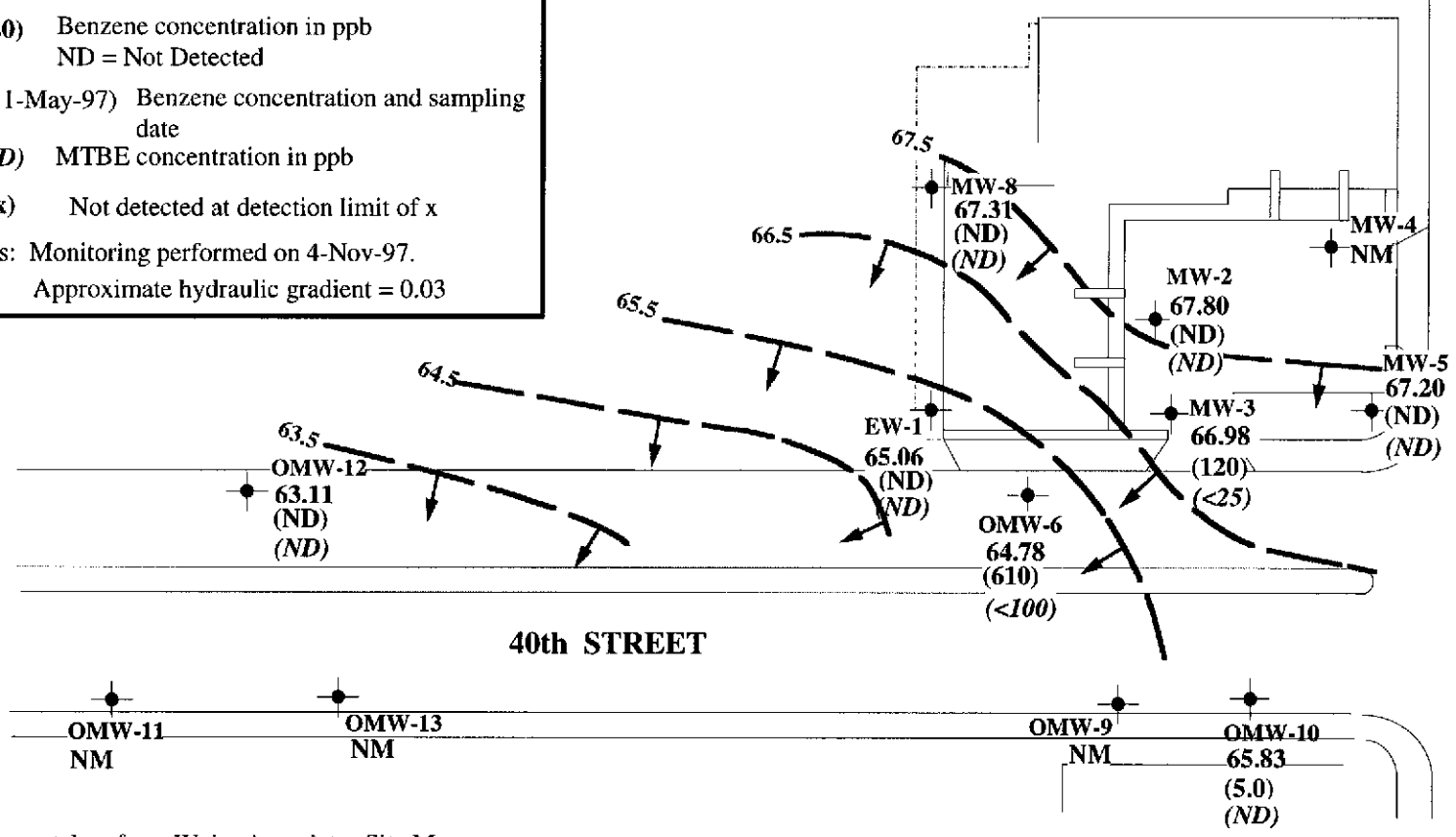
Date: *15-Jan-95*

EXPLANATION

-  Ground Water Monitoring Well
 -  Ground water elevation contour in feet referenced to mean sea level (MSL). Arrows indicate approximate ground water flow direction
 - 66.98** Ground water elevation in feet above MSL
 - NM** Elevation not measured
 - (120)** Benzene concentration in ppb
ND = Not Detected
 - (ND, 1-May-97)** Benzene concentration and sampling date
 - (ND)** MTBE concentration in ppb
 - (<x)** Not detected at detection limit of x
- Notes: Monitoring performed on 4-Nov-97.
Approximate hydraulic gradient = 0.03




TELEGRAPH AVENUE



Base map taken from Weiss Associates Site Map.

<p>PLATE</p> <p style="font-size: 2em; font-weight: bold;">2</p>	<p>GROUND WATER CONTOUR/CHEMICAL CONCENTRATION MAP</p> <p>Former Shell Service Station 500 40th Avenue Oakland, California</p>	<p style="font-size: 1.5em; font-weight: bold;">CAMBRIA</p> <p>289</p>
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Drawn By: TNM	Date: 7-Jan-98	Approved By: 
		Date: 13-Jan-98

Appendix A

**Blaine Tech Services Inc.
Quarterly Ground Water Monitoring Report**

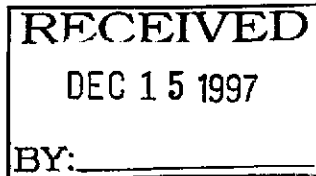
BLAINE
TECH SERVICES INC.

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



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

December 9, 1997



Attn: Alex Perez

Shell WIC #204-5508-4903
500 40th/Telegraph
Oakland, California

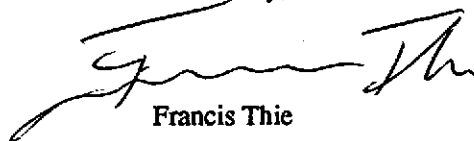
4th Quarter 1997

Groundwater Monitoring Report 971104-H-1

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.
P.O. Box 259
Sonoma, CA 95476-0259
Attn: Joe Neely

(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)
EW-1	11/04/97	TOC	-	NONE	-	-	13.20	38.41
MW-2	11/04/97	TOC	-	NONE	-	-	13.00	19.45
MW-3	11/04/97	TOC	-	NONE	-	-	12.62	18.63
MW-4	11/04/97	TOC	INACCESSIBLE	NONE	-	-	-	-
MW-5*	11/04/97	TOC	-	NONE	-	-	14.30	20.14
OMW-6	11/04/97	TOC	-	NONE	-	-	13.12	20.10
MW-8	11/04/97	TOC	-	NONE	-	-	12.60	38.65
OMW-9	11/04/97	TOC	INACCESSIBLE	-	-	-	-	-
OMW-10	11/04/97	TOC	ODOR	NONE	-	-	12.08	15.91
OMW-11	11/04/97	TOC	INACCESSIBLE	-	-	-	-	-
OMW-12	11/04/97	TOC	-	NONE	-	-	12.54	19.42
OMW-13	11/04/97	TOC	INACCESSIBLE	-	-	-	-	-

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



SHELL OIL COMPANY
RETAIL ENVIRONMENTAL ENGINEERING - WEST

CHAIN OF CUSTODY RECORD

Serial No: 971104-H1

Date: 11-4-97

Page 1 of 2

Site Address: 500 40th/ Telegraph, Oakland

WIC#: 204-5508-4903

Shell Engineer: R. Jeff Granberry Phone No.: (510) 675-6168
Fax #: 675-6172

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

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

Comments: 9711336

Sampled by: Morgan Hargrave
Printed Name: Morgan Hargrave

Sample ID	Date	Sludge	Soil	Water	Air	No. of conds.
<u>EW-1-</u>	<u>11/4</u>			<u>X</u>		<u>3</u>
<u>MW-2-</u>						
<u>MW-3-</u>						
<u>MW-5-</u>						
<u>OMW-6</u>						
<u>MW-8-</u>						
<u>OMW-10-</u>						
<u>OMW-12-</u>						

Analysis Required

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

LAB: Sequoia

CHECK ONE (1) BOX ONLY	CI/DI	TURN AROUND TIME
Quantity Monitoring <input checked="" type="checkbox"/>	6441	24 hours <input type="checkbox"/>
Site Investigation <input type="checkbox"/>	6441	48 hours <input type="checkbox"/>
Soil Classify/Disposal <input type="checkbox"/>	6442	16 days <input checked="" type="checkbox"/> (Normal)
Water Classify/Disposal <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"/>		

MATERIAL DESCRIPTION	SAMPLE CONDITION/ COMMENTS
	<u>NO 5 12 03</u>

Relinquished By (signature): <u>[Signature]</u>	Printed Name: <u>Morgan Hargrave</u>	Date: <u>11/3/97</u>	Time: <u>10:00</u>	Received (signature): <u>[Signature]</u>	Printed Name: <u>F. H. Chier</u>	Date: <u>11/3/97</u>	Time: <u>10:00</u>
Relinquished By (signature): <u>[Signature]</u>	Printed Name:	Date:	Time:	Received (signature): <u>[Signature]</u>	Printed Name:	Date:	Time:
Relinquished By (signature): <u>[Signature]</u>	Printed Name:	Date:	Time:	Received (signature): <u>T Parsley</u>	Printed Name: <u>T Parsley</u>	Date: <u>11/5/97</u>	Time: <u>1205</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: 971104-#1

Date: 11-4-97

Page 2 of 2

Silo Address: 500 40th/ Telegraph, Oakland

WIC#: 204-5508-4903

Shell Engineer: R. Jeff Granberg
Phone No.: (510) 575-6168
Fax #: 675-6172

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

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

Comments:

Sampled by: Margaret Hargrave
Printed Name: Margaret Hargrave

Analysis Required

LAB: Serona

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

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

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 + MTAC	Asbestos	Container Size	Preparation Used	Composite Y/N
					X				

MATERIAL DESCRIPTION	SAMPLE CONDITION/ COMMENTS
	NO 5 12 03

Sample ID	Date	Sludge	Soil	Water	Air	No. of conts.
DUP -	11/4			X		3

Relinquished By (signature): <u>[Signature]</u>	Printed Name: _____	Date: <u>11/5/97</u>	Received (signature): <u>[Signature]</u>	Printed Name: <u>Feltcher</u>	Date: <u>11/5/97</u>
Relinquished By (signature): <u>[Signature]</u>	Printed Name: _____	Date: <u>11/5/97</u>	Received (signature): <u>[Signature]</u>	Printed Name: _____	Date: _____
Relinquished By (signature): <u>[Signature]</u>	Printed Name: _____	Date: _____	Received (signature): <u>[Signature]</u>	Printed Name: <u>T Parsley</u>	Date: <u>11/5/97</u>

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



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 Oakland/971104-H1

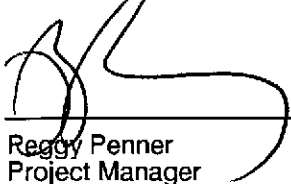
Enclosed are the results from samples received at Sequoia Analytical on November 5, 1997.
The requested analyses are listed below:

<u>SAMPLE #</u>	<u>SAMPLE DESCRIPTION</u>	<u>DATE COLLECTED</u>	<u>TEST METHOD</u>
9711336 -01	LIQUID, EW-1	11/04/97	TPGBMW Purgeable TPH/BTEX
9711336 -02	LIQUID, MW-2	11/04/97	TPGBMW Purgeable TPH/BTEX
9711336 -03	LIQUID, MW-3	11/04/97	TPGBMW Purgeable TPH/BTEX
9711336 -04	LIQUID, MW-5	11/04/97	TPGBMW Purgeable TPH/BTEX
9711336 -05	LIQUID, OMW-6	11/04/97	TPGBMW Purgeable TPH/BTEX
9711336 -06	LIQUID, MW-8	11/04/97	TPGBMW Purgeable TPH/BTEX
9711336 -07	LIQUID, OMW-10	11/04/97	TPGBMW Purgeable TPH/BTEX
9711336 -08	LIQUID, OMW-12	11/04/97	TPGBMW Purgeable TPH/BTEX
9711336 -09	LIQUID, DUP	11/04/97	TPGBMW Purgeable TPH/BTEX

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

Very truly yours,

SEQUOIA ANALYTICAL



Reggy Penner
Project Manager





Blaine Tech Services 1680 Rogers Avenue San Jose, CA 95112	Client Proj. ID: Shell Oakland/971104-H1 Sample Descript: EW-1 Matrix: LIQUID Analysis Method: 8015Mod/8020 Lab Number: 9711336-01	Sampled: 11/04/97 Received: 11/05/97 Analyzed: 11/18/97 Reported: 11/20/97
Attention: Fran Thie		

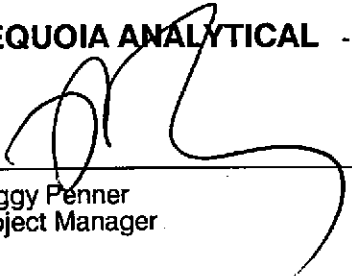
QC Batch Number: GC111897BTEX07A
Instrument ID: GCHP07

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	5.0	N.D.
Benzene	0.50	N.D.
Toluene	0.50	N.D.
Ethyl Benzene	0.50	N.D.
Xylenes (Total)	0.50	N.D.
Chromatogram Pattern:		
Surrogates	Control Limits %	% Recovery
Trifluorotoluene	70 130	92

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

SEQUOIA ANALYTICAL - ELAP #1624


Peggy Penner
Project Manager





Blaine Tech Services 1680 Rogers Avenue San Jose, CA 95112	Client Proj. ID: Shell Oakland/971104-H1 Sample Descript: MW-2 Matrix: LIQUID Analysis Method: 8015Mod/8020 Lab Number: 9711336-02	Sampled: 11/04/97 Received: 11/05/97 Analyzed: 11/18/97 Reported: 11/20/97
Attention: Fran Thie		

QC Batch Number: GC111897BTEX07A
 Instrument ID: GCHP7

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	5.0	N.D.
Benzene	0.50	N.D.
Toluene	0.50	N.D.
Ethyl Benzene	0.50	N.D.
Xylenes (Total)	0.50	N.D.
Chromatogram Pattern:		
Surrogates	Control Limits %	% Recovery
Trifluorotoluene	70 130	94

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

SEQUOIA ANALYTICAL - ELAP #1624



 Peggy Penner
 Project Manager





Blaine Tech Services 1680 Rogers Avenue San Jose, CA 95112	Client Proj. ID: Shell Oakland/971104-H1 Sample Descript: MW-3 Matrix: LIQUID Analysis Method: 8015Mod/8020 Lab Number: 9711336-03	Sampled: 11/04/97 Received: 11/05/97 Analyzed: 11/18/97 Reported: 11/20/97
Attention: Fran Thie		

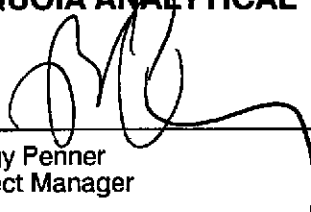
QC Batch Number: GC111897BTEX07A
Instrument ID: GCHP7

Total Purgeable Petroleum Hydrocarbons (TPPH) with BTEX and MTBE

Analyte	Detection Limit ug/L	Sample Results ug/L
TPPH as Gas	250	470
Methyl t-Butyl Ether	25	N.D.
Benzene	2.5	120
Toluene	2.5	N.D.
Ethyl Benzene	2.5	N.D.
Xylenes (Total)	2.5	7.3
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 #1624


Peggy Penner
Project Manager





Blaine Tech Services 1680 Rogers Avenue San Jose, CA 95112 Attention: Fran Thie	Client Proj. ID: Shell Oakland/971104-H1 Sample Descript: MW-5 Matrix: LIQUID Analysis Method: 8015Mod/8020 Lab Number: 9711336-04	Sampled: 11/04/97 Received: 11/05/97 Analyzed: 11/18/97 Reported: 11/20/97
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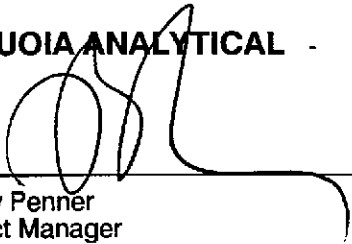
QC Batch Number: GC111897BTEX07A
Instrument ID: GCHP7

Total Purgeable Petroleum Hydrocarbons (TPPH) with BTEX and MTBE

Analyte	Detection Limit ug/L	Sample Results ug/L
TPPH as Gas	50	N.D.
Methyl t-Butyl Ether	2.5	N.D.
Benzene	0.50	N.D.
Toluene	0.50	N.D.
Ethyl Benzene	0.50	N.D.
Xylenes (Total)	0.50	N.D.
Chromatogram Pattern:		
Surrogates	Control Limits %	% Recovery
Trifluorotoluene	70 130	94

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

SEQUOIA ANALYTICAL - ELAP #1624


Peggy Penner
Project Manager





Blaine Tech Services 1680 Rogers Avenue San Jose, CA 95112	Client Proj. ID: Shell Oakland/971104-H1 Sample Descript: OMW-6 Matrix: LIQUID Analysis Method: 8015Mod/8020 Lab Number: 9711336-05	Sampled: 11/04/97 Received: 11/05/97 Analyzed: 11/18/97 Reported: 11/20/97
Attention: Fran Thie		

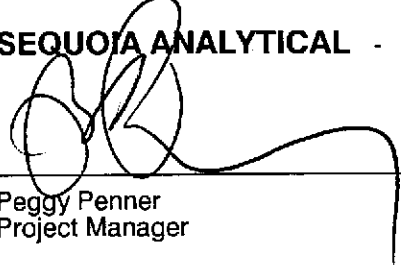
QC Batch Number: GC111897BTEX07A
Instrument ID: GCHP7

Total Purgeable Petroleum Hydrocarbons (TPPH) with BTEX and MTBE

Analyte	Detection Limit ug/L	Sample Results ug/L
TPPH as Gas	1000	10000
Methyl t-Butyl Ether	100	N.D.
Benzene	10	610
Toluene	10	23
Ethyl Benzene	10	410
Xylenes (Total)	10	820
Chromatogram Pattern:		C6-C12
Surrogates	Control Limits %	% Recovery
Trifluorotoluene	70 130	88

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

SEQUOIA ANALYTICAL - ELAP #1624


Peggy Penner
Project Manager





Blaine Tech Services 1680 Rogers Avenue San Jose, CA 95112	Client Proj. ID: Shell Oakland/971104-H1 Sample Descript: MW-8 Matrix: LIQUID Analysis Method: 8015Mod/8020 Lab Number: 9711336-06	Sampled: 11/04/97 Received: 11/05/97 Analyzed: 11/18/97 Reported: 11/20/97
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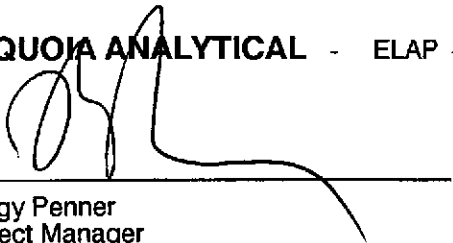
QC Batch Number: GC111897BTEX07A
Instrument ID: GCHP7

Total Purgeable Petroleum Hydrocarbons (TPPH) with BTEX and MTBE

Analyte	Detection Limit ug/L	Sample Results ug/L
TPPH as Gas	50	50
Methyl t-Butyl Ether	5.0	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:		C6-C12
Surrogates	Control Limits %	% Recovery
Trifluorotoluene	70 130	90

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

SEQUOIA ANALYTICAL - ELAP #1624



Peggy Penner
Project Manager





Blaine Tech Services 1680 Rogers Avenue San Jose, CA 95112	Client Proj. ID: Shell Oakland/971104-H1 Sample Descript: OMW-10 Matrix: LIQUID Analysis Method: 8015Mod/8020 Lab Number: 9711336-07	Sampled: 11/04/97 Received: 11/05/97 Analyzed: 11/18/97 Reported: 11/20/97
Attention: Fran Thie		


QC Batch Number: GC111897BTEX07A
Instrument ID: GCHP7

Total Purgeable Petroleum Hydrocarbons (TPPH) with BTEX and MTBE

Analyte	Detection Limit ug/L	Sample Results ug/L
TPPH as Gas	50	460
Methyl t-Butyl Ether	5.0	N.D.
Benzene	0.50	5.0
Toluene	0.50	N.D.
Ethyl Benzene	0.50	1.3
Xylenes (Total)	0.50	2.2
Chromatogram Pattern:		C6-C12
Surrogates	Control Limits %	% Recovery
Trifluorotoluene	70 130	111

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

SEQUOIA ANALYTICAL - ELAP #1624


Peggy Penner
Project Manager





Blaine Tech Services 1680 Rogers Avenue San Jose, CA 95112	Client Proj. ID: Shell Oakland/971104-H1 Sample Descript: OMW-12 Matrix: LIQUID Analysis Method: 8015Mod/8020 Lab Number: 9711336-08	Sampled: 11/04/97 Received: 11/05/97 Analyzed: 11/18/97 Reported: 11/20/97
Attention: Fran Thie		

QC Batch Number: GC111897BTEX07A
Instrument ID: GCHP7

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	5.0	N.D.
Benzene	0.50	N.D.
Toluene	0.50	N.D.
Ethyl Benzene	0.50	N.D.
Xylenes (Total)	0.50	N.D.
Chromatogram Pattern:		
Surrogates	Control Limits %	% Recovery
Trifluorotoluene	70 130	93

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

SEQUOIA ANALYTICAL - ELAP #1624


Peggy Penner
Project Manager





Blaine Tech Services 1680 Rogers Avenue San Jose, CA 95112	Client Proj. ID: Shell Oakland/971104-H1 Sample Descript: DUP Matrix: LIQUID Analysis Method: 8015Mod/8020 Lab Number: 9711336-09	Sampled: 11/04/97 Received: 11/05/97 Analyzed: 11/18/97 Reported: 11/20/97
Attention: Fran Thie		


QC Batch Number: GC111897BTEX07A
Instrument ID: GCHP7

Total Purgeable Petroleum Hydrocarbons (TPPH) with BTEX and MTBE

Analyte	Detection Limit ug/L	Sample Results ug/L
TPPH as Gas	50	N.D.
Methyl t-Butyl Ether	2.5	N.D.
Benzene	0.50	N.D.
Toluene	0.50	N.D.
Ethyl Benzene	0.50	N.D.
Xylenes (Total)	0.50	N.D.
Chromatogram Pattern:		
Surrogates	Control Limits %	% Recovery
Trifluorotoluene	70 130	93

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

SEQUOIA ANALYTICAL - ELAP #1624



Peggy Fenner
Project Manager





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

Client Project ID: Shell Oakland / 971104-H1
Matrix: Liquid

QC Sample Group 9711336 -01-07

Reported: Nov 25, 1997

QUALITY CONTROL DATA REPORT

ANALYTE	Benzene	Toluene	Ethyl-Benzene	Xylenes
Method:	EPA 8020	EPA 8020	EPA 8020	EPA 8020
Analyst:	S.P.	S.P.	S.P.	S.P.
Conc. Spiked:	10	10	10	30
Units:	µg/L	µg/L	µg/L	µg/L
LCS Batch#:	LCS111897	LCS111897	LCS111897	LCS111897
Date Prepared:	11/18/97	11/18/97	11/18/97	11/18/97
Date Analyzed:	11/18/97	11/18/97	11/18/97	11/18/97
Instrument I.D.#:	GCHP7	GCHP7	GCHP7	GCHP7
LCS % Recovery:	109	100	97	97
Control Limits:	70-130	70-130	70-130	70-130

MS/MSD Batch #:	7110928	7110928	7110928	7110928
Date Prepared:	11/18/97	11/18/97	11/18/97	11/18/97
Date Analyzed:	11/18/97	11/18/97	11/18/97	11/18/97
Instrument I.D.#:	GCHP7	GCHP7	GCHP7	GCHP7
Matrix Spike % Recovery:	110	103	99	98
Matrix Spike Duplicate % Recovery:	106	100	95	95
Relative % Difference:	3.7	3.0	4.1	3.1

SEQUOIA ANALYTICAL
EPA #1624

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 LCS % recovery data is used for validation of sample batch results. Due to matrix effects, the QC limits for MS/MSD's are advisory only and are not used to accept or reject batch results.





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Client Proj. ID: Shell Oakland/971104-H1
Lab Proj. ID: 9711336

Received: 11/05/97
Reported: 11/20/97

LABORATORY NARRATIVE

In order to properly interpret this report, it must be reproduced in its entirety. This report contains a total of 12 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

