

July 9, 1999

Scott Seery  
Alameda County Health Care Services Agency  
1131 Harbor Bay Parkway, Suite 250  
Alameda, California 94502-6577

Re: **First Quarter 1999 Monitoring Report**  
Shell-branded Service Station  
350 Grand Avenue  
Oakland, California  
Incident #98995755  
Cambria Project #24-314-199



Dear Mr. Seery:

On behalf of Equiva Services LLC (Equiva), Cambria Environmental Technology, Inc. (Cambria) is submitting this groundwater monitoring report in accordance with the reporting requirements of 23 CCR 2652d.

## FIRST QUARTER 1999 ACTIVITIES

**Groundwater Monitoring:** Blaine Tech Services, Inc. (Blaine) of San Jose, California gauged and sampled the site wells. Blaine calculated groundwater elevations and compiled the analytical data. Cambria prepared a groundwater elevation contour map (Figure 1). The Blaine report, presenting the laboratory report, is included as Attachment A.

**Work Plan Approval:** In a letter to Equiva dated January 26, 1999, the Alameda County Health Care Services Agency (ACHCSA) approved Cambria's *Work Plan Addendum* dated January 12, 1999. [REDACTED]  
1999.

Oakland, CA  
Sonoma, CA  
Portland, OR  
Seattle, WA

**Cambria  
Environmental  
Technology, Inc.**

1144 65th Street  
Suite B  
Oakland, CA 94608  
Tel (510) 420-0700  
Fax (510) 420-9170

99 JUL 15 PM 3:50  
ENVIRONMENTAL  
PROTECTION

**ANTICIPATED FUTURE ACTIVITIES**

*Groundwater Monitoring:* The next sampling event is scheduled for the third quarter of 1999. At that time, Blaine will gauge and sample all wells and tabulate the data. Cambria will prepare a monitoring report.

*Investigation Report:* Cambria will prepare an investigation report for the soil and groundwater investigation conducted on March 17, 1999.



**CLOSING**

We appreciate the opportunity to work with you on this project. Please call Darryk Ataide at (510) 420-3339 if you have any questions or comments.

Sincerely,  
**Cambria Environmental Technology, Inc**

Darryk Ataide, REA I  
Project Manager

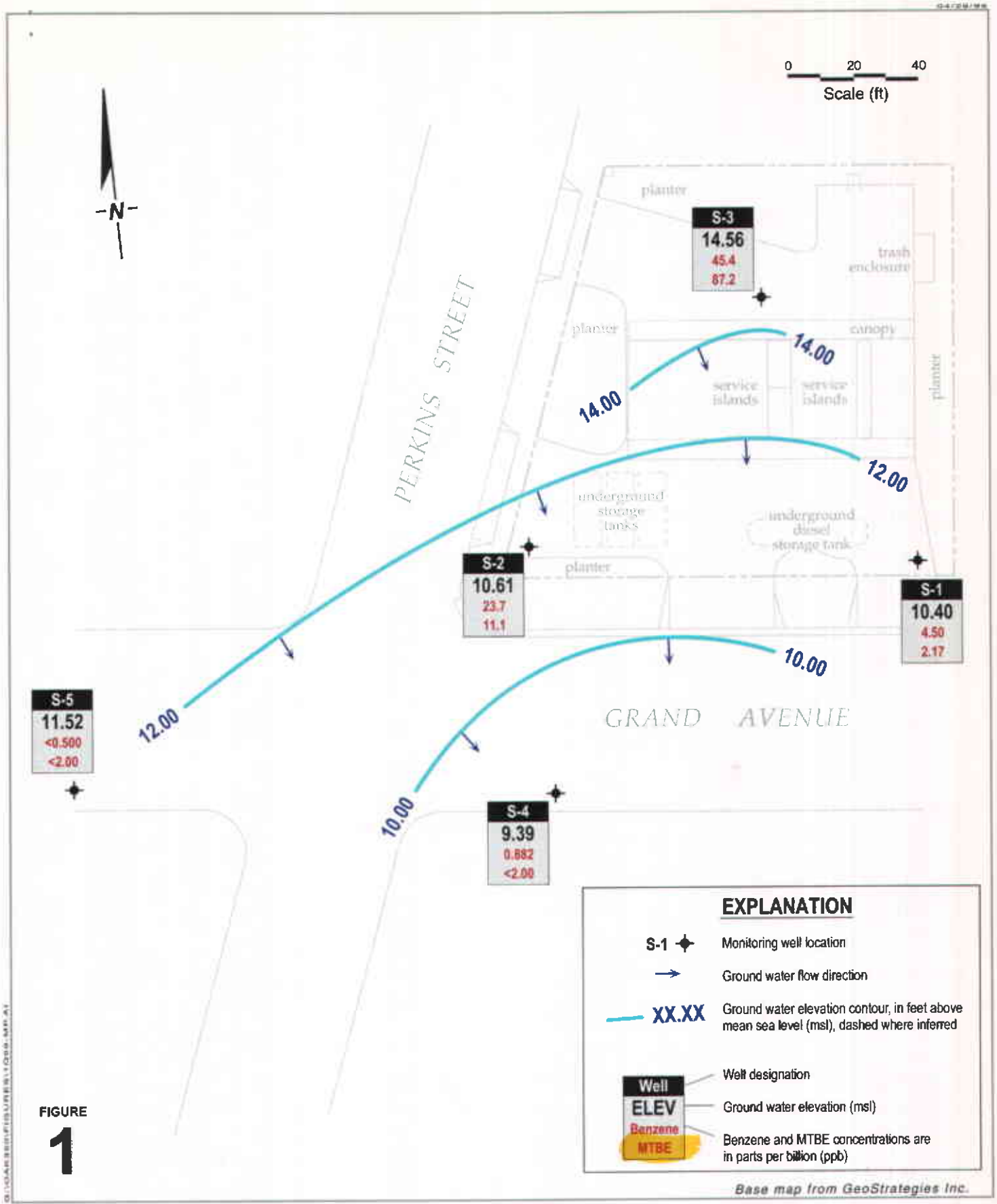
Ailsa S. Le May, R.G.  
Senior Geologist



Figure: 1 - Groundwater Elevation Contour Map  
Attachment: A - Blaine Groundwater Monitoring Report

cc: Karen Petryna, Equiva Services LLC, P.O. Box 6249, Carson, California 90749-6249

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**Shell-branded Service Station**  
 350 Grand Avenue  
 Oakland, California  
 Incident #98995755



**Ground Water Elevation Contour Map**  
 January 28, 1999

**ATTACHMENT A**

Blaine Groundwater Monitoring Report



1680 ROGERS AVENUE  
SAN JOSE, CALIFORNIA 95112-1105  
(408) 573-7771 FAX  
(408) 573-0555 PHONE

April 15, 1999

Karen Petryna  
Equiva Services LLC  
P.O. Box 6249  
Carson, CA 90749-6249

First Quarter 1999 Groundwater Monitoring at  
Shell-branded Service Station  
350 Grand Avenue  
Oakland, CA

Monitoring performed on January 28, 1999

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**Groundwater Monitoring Report 990128-P-3**

This report covers the routine monitoring of groundwater wells at this Shell-branded facility. In accordance with standard procedures that conform to Regional Water Quality Control Board requirements, routine field data collection includes depth to water, total well depth, thickness of any separate immiscible layer, water column volume, appropriate calculated purge volume (if applicable), elapsed evacuation time (if applicable), total volume of water removed (if applicable), and standard water parameter instrument readings. Sample material is collected, contained, stored, and transported to the laboratory in conformance with EPA standards. Purgewater (if applicable) is, likewise, collected and transported to the Martinez Refining Company.

Basic field information is presented alongside analytical values excerpted from the laboratory report in the cumulative table of **WELL CONCENTRATIONS**. The full analytical report for the most recent samples and the field data sheets are attached to this report.

At a minimum, Blaine Tech Services, Inc. field personnel are certified on completion of a forty hour Hazardous Materials and Emergency Response training course per 29 CFR 1910.120. Field personnel are also enrolled in annual eight hour refresher courses.

Blaine Tech Services, Inc. conducts sampling and documentation assignments of this type as an independent third party. In order to avoid compromising the objectivity necessary for the proper and disinterested performance of this work, Blaine Tech Services, Inc. concentrates on objective data collection and does not participate in the interpretation of analytical results, the definition of geological or hydrological conditions, the formulation of recommendations, or the marketing of remedial systems.

Please call if you have any questions.

Yours truly,

A handwritten signature in black ink, appearing to read "Deidre Kerwin", with a long horizontal flourish extending to the right.

Deidre Kerwin  
Operations Manager

DK/ew

attachments: Cumulative Table of WELL CONCENTRATIONS  
Certified Analytical Report  
Field Data Sheets

cc: Anni Kreml  
Cambria Environmental Technology, Inc.  
1144 65<sup>th</sup> Street, Suite C  
Oakland, CA 94608-2411

**WELL CONCENTRATIONS**  
**Shell-branded Service Station**  
**350 Grand Avenue**  
**Oakland, CA**  
**Wic #204-5510-0204**

Well ID	Date	TPPH (ug/L)	TEPH (ug/L)	B (ug/L)	T (ug/L)	E (ug/L)	X (ug/L)	MTBE 8020 (ug/L)	MTBE 8260 (ug/L)	TOB (MSL)	Depth to Water (ft.)	GW Elevation (MSL)	DO Reading (ppm)
S-1	01/23/1991	<50	<50	<0.5	<0.5	<0.5	<0.5	NA	NA	20.84	9.73	11.11	NA
S-1	04/25/1991	<50	<50	<0.5	<0.5	<0.5	<0.5	NA	NA	20.84	7.37	13.47	NA
S-1	07/19/1991	<50	<50	6.8	<0.5	<0.5	<0.5	NA	NA	20.84	8.92	11.92	NA
S-1	10/09/1991	120	260d	10	<0.5	<0.5	<0.5	NA	NA	20.84	9.62	11.22	NA
S-1	01/23/1992	<50	<50	<0.5	<0.5	<0.5	<0.5	NA	NA	20.84	8.94	11.90	NA
S-1	04/27/1992	<50	70b	1.2	<0.5	<0.5	<0.5	NA	NA	20.84	7.06	13.78	NA
S-1	07/10/1992	<50	930	13	<0.5	<0.5	<0.5	NA	NA	20.84	8.31	12.53	NA
S-1	10/08/1992	62	110	<0.5	<0.5	<0.5	<0.5	NA	NA	20.84	9.55	11.29	NA
S-1	01/06/1993	85	81	1.1	<0.5	<0.5	<0.5	NA	NA	20.84	9.86	10.98	NA
S-1	04/28/1993	<50	53c	<0.5	<0.5	<0.5	<0.5	NA	NA	20.84	6.30	14.54	NA
S-1 (D)	04/26/1993	<50	53c	<0.5	<0.5	<0.5	<0.5	NA	NA	20.84	6.30	14.54	NA
S-1	07/20/1993	<50	140	<0.5	<0.5	<0.5	<0.5	NA	NA	20.84	8.78	12.06	NA
S-1	10/18/1993	<50	210	<0.5	<0.5	<0.5	<0.5	NA	NA	20.84	9.20	11.64	NA
S-1	01/07/1994	<50	<50	1.4	1.5	0.55	2.8	NA	NA	20.84	9.53	11.31	NA
S-1 (D)	01/07/1994	<50	53	1.2	1.5	<0.5	2.7	NA	NA	20.84	9.53	11.31	NA
S-1	04/11/1994	<50	320	2.8	<0.5	<0.5	<0.5	NA	NA	20.84	8.50	12.34	NA
S-1 (D)	04/11/1994	<50	220	2.6	<0.5	<0.5	<0.5	NA	NA	20.84	8.50	12.34	NA
S-1	07/14/1994	NA	NA	NA	NA	NA	NA	NA	NA	20.84	8.45	12.39	NA
S-1	07/19/1994	<50	110	<0.5	<0.5	<0.5	<0.5	NA	NA	20.84	9.07	11.77	NA
S-1	10/06/1994	110	370	1.4	<0.5	<0.5	<0.5	NA	NA	20.84	11.68	9.16	NA
S-1	01/04/1995	120	1,000	2.5	<0.5	1.5	1.7	NA	NA	20.84	8.51	12.33	NA
S-1	04/12/1995	<50	290	2.1	<0.5	<0.5	<0.5	NA	NA	20.84	6.66	14.18	NA
S-1 (D)	04/12/1995	<50	480	<0.5	<0.5	<0.5	<0.5	NA	NA	20.84	6.66	14.18	NA
S-1	07/07/1995	<50	370	5.5	<0.5	<0.5	<0.5	NA	NA	20.84	6.95	13.89	NA
S-1 (D)	07/07/1995	<50	450	6.5	<0.5	<0.5	<0.5	NA	NA	20.84	6.95	13.89	NA

**WELL CONENTRATIONS**  
**Shell-branded Service Station**  
**350 Grand Avenue**  
**Oakland, CA**  
**Wic #204-5510-0204**

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S-1	10/05/1995	<50	200	3.9	1.2	<0.5	2.4	NA	NA	20.84	8.50	12.34	NA
S-1	01/12/1996	230	1,500	2.5	<0.5	0.9	0.6	NA	NA	20.84	8.02	12.82	NA
S-1	04/02/1996	95	2,000	0.91	<0.5	<0.5	<0.5	140	NA	20.84	4.98	15.86	NA
S-1	07/30/1996	<50	510	<0.5	<0.5	<0.5	<0.5	67	NA	20.84	6.40	14.44	NA
S-1 (D)	07/30/1996	<50	380	<0.5	<0.5	<0.5	<0.5	68	NA	20.84	6.40	14.44	NA
S-1	10/02/1996	<50	250	<0.5	<0.5	<0.5	<0.5	96	NA	20.84	7.53	13.31	NA
S-1	09/19/1997	<50	120	<0.50	<0.50	<0.50	<0.50	37	NA	20.84	8.54	12.30	0.8
S-1	01/08/1998	<50	210	<0.50	<0.50	<0.50	<0.50	74	NA	20.84	9.09	11.75	2.6
S-1	07/17/1998	<50	99	<0.50	<0.50	<0.50	<0.50	25	NA	20.86	6.48	14.38	2.6
S-1	01/28/1999	92.7	212	4.50	1.83	1.59	12.1	2.17	NA	20.86	10.46	10.40	2.2

S-2	01/23/1991	2,500	1,200	550	15	33	42	NA	NA	21.24	10.55	10.69	NA
S-2	04/25/1991	32,000	20,000b	2,900	480	1,400	2,300	NA	NA	21.24	8.24	13.00	NA
S-2	07/19/1991	21,000	30,000b	4,700	430	1,200	2,400	NA	NA	21.24	9.55	11.69	NA
S-2	10/09/1991	29,000	32,000b	6,300	510	1,700	2,400	NA	NA	21.24	10.26	10.98	NA
S-2	01/23/1992	31,000	36,000b	5,800	480	2,000	2,700	NA	NA	21.24	9.51	11.73	NA
S-2	04/27/1992	21,000d	12,000b	4,800	320	1,600	1,400	NA	NA	21.24	7.83	13.41	NA
S-2	07/10/1992	31,000	3,700e	7,500	940	3,400	3,500	NA	NA	21.24	8.57	12.67	NA
S-2	10/06/1992	57,000	4,500e	9,300	1,200	4,000	4,900	NA	NA	21.24	9.49	11.75	NA
S-2	01/06/1993	55,000	5,600	5,600	360	3,000	3,000	NA	NA	21.24	8.56	12.68	NA
S-2	04/26/1993	32,000	9,400e	10,000	500	4,400	3,600	NA	NA	21.24	6.84	14.40	NA
S-2	07/20/1993	25,000	8,400e	5,800	300	2,700	1,400	NA	NA	21.24	8.52	12.72	NA
S-2 (D)	07/20/1993	25,000	8,900e	5,900	310	2,800	1,400	NA	NA	21.24	8.52	12.72	NA
S-2	10/18/1993	23,000	18,000e	3,700	200	2,100	1,600	NA	NA	21.24	9.36	11.88	NA
S-2 (D)	10/18/1993	28,000	14,000e	3,700	210	2,100	1,600	NA	NA	21.24	9.36	11.88	NA
S-2	01/07/1994	120,000	22,000e	6,900	400	3,100	2,600	NA	NA	21.24	8.37	12.87	NA



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S-2	04/11/1994	34,000	17,000e	4,800	170	1,900	880	NA	NA	21.24	6.96	14.28	NA
S-2	07/14/1994	NA	NA	NA	NA	NA	NA	NA	NA	21.24	7.49	13.75	NA
S-2	07/19/1994	23,000	NA	4,300	210	1,100	1,000	NA	NA	21.24	8.02	13.22	NA
S-2 (D)	07/19/1994	29,000	NA	4,700	270	1,200	1,200	NA	NA	21.24	8.02	13.22	NA
S-2	10/06/1994	61,000	NA	4,600	290	1,900	1,900	NA	NA	21.24	11.00	10.24	NA
S-2 (D)	10/06/1994	52,000	NA	5,200	270	2,100	1,900	NA	NA	21.24	11.00	10.24	NA
S-2	01/04/1994	23,000	NA	4,500	49	1,300	500	NA	NA	21.24	8.07	13.17	NA
S-2 (D)	01/04/1995	18,000	NA	3,800	33	1,100	390	NA	NA	21.24	8.07	13.17	NA
S-2	04/12/1995	29,000	NA	4,300	210	990	700	NA	NA	21.24	6.12	15.12	NA
S-2	07/07/1995	26,000	NA	4,200	180	1,100	730	NA	NA	21.24	6.35	14.89	NA
S-2	10/05/1995	26,000	10,000	3,500	150	1,100	640	NA	NA	21.24	7.36	13.88	NA
S-2 (D)	10/05/1995	33,000	9,400	4,200	210	1,500	850	NA	NA	21.24	7.36	13.88	NA
S-2	01/12/1996	36,000	13,000	4,100	240	1,400	790	NA	NA	21.24	7.64	13.60	NA
S-2 (D)	01/12/1996	40,000	11,000	4,100	260	1,400	860	NA	NA	21.24	7.64	13.60	NA
S-2	04/02/1996	12,000	7,300	1,300	120	460	150	4,000	NA	21.24	6.18	15.06	NA
S-2 (D)	04/02/1996	17,000	5,800	1,800	29	590	140	7,600	NA	21.24	6.18	15.06	NA
S-2	07/30/1996	18,000	13,000	3,000	100	1,200	420	17,000	19,000	21.24	7.22	14.02	NA
S-2	10/02/1996	28,000	18,000	3,700	110	1,100	260	20,000	NA	21.24	7.60	13.64	NA
S-2 (D)	10/02/1996	25,000	31,000	3,500	100	1,100	260	19,000	NA	21.24	7.60	13.64	NA
S-2	09/19/1997	21,000	11,000	2,300	120	500	110	11,000	NA	21.24	7.45	13.79	2.1
S-2	01/08/1998	35,000	8,100	3,200	260	850	320	23,000	NA	21.24	6.96	14.28	2.3
S-2 (D)	01/08/1998	27,000	5,400	3,400	190	860	200	23,000	NA	21.24	6.96	14.28	2.3
S-2	07/17/1998	19,000	12,000	1,700	130	610	130	13,000	NA	21.24	6.67	14.57	2.3
S-2	01/28/1999	482	99.2	23.7	7.52	5.41	63.7	11.1	NA	21.24	10.63	10.61	2.4
S-3	01/23/1991	<50	NA	<0.5	<0.5	<0.5	<0.5	NA	NA	22.70	14.67	8.03	NA

**WELL CONENTRATIONS**  
**Shell-branded Service Station**  
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**Oakland, CA**  
**Wic #204-5510-0204**

Well ID	Date	TPPH (ug/L)	TEPH (ug/L)	B (ug/L)	T (ug/L)	E (ug/L)	X (ug/L)	MTBE 8020 (ug/L)	MTBE 8260 (ug/L)	TOB (MSL)	Depth to Water (ft.)	GW Elevation (MSL)	DO Reading (ppm)
S-3	04/25/1991	<50	NA	<0.5	<0.5	<0.5	<0.5	NA	NA	22.70	12.96	9.74	NA
S-3	07/19/1991	<50	NA	<0.5	<0.5	<0.5	<0.5	NA	NA	22.70	12.45	10.25	NA
S-3	10/09/1991	<50	NA	<0.5	<0.5	<0.5	<0.5	NA	NA	22.70	12.98	9.72	NA
S-3	01/23/1992	<50	NA	<0.5	<0.5	<0.5	<0.5	NA	NA	22.70	13.06	9.64	NA
S-3	04/27/1992	<50	100	<0.5	<0.5	<0.5	<0.5	NA	NA	22.70	7.25	15.45	NA
S-3	07/10/1992	<50	68	<0.5	<0.5	<0.5	<0.5	NA	NA	22.70	8.46	14.24	NA
S-3	10/06/1992	<50	<10	<0.5	<0.5	<0.5	<0.5	NA	NA	22.70	11.77	10.93	NA
S-3	01/06/1993	<50	<10	<0.5	<0.5	<0.5	<0.5	NA	NA	22.70	12.53	10.17	NA
S-3	04/26/1993	<50	69	<0.5	<0.5	<0.5	<0.5	NA	NA	22.70	4.28	18.42	NA
S-3	07/20/1993	<50	120	<0.5	0.6	<0.5	<0.5	NA	NA	22.70	5.70	17.00	NA
S-3	10/18/1993	<50	160	<0.5	<0.5	<0.5	<0.5	NA	NA	22.70	10.30	12.40	NA
S-3 a	01/07/1994	160	58	59	26	4.9	22	NA	NA	22.70	12.40	10.30	NA
S-3	04/11/1994	<50	<50	<0.52	<0.5	<0.5	<0.5	NA	NA	22.70	10.94	11.76	NA
S-3	07/14/1994	NA	NA	NA	NA	NA	NA	NA	NA	22.70	7.90	14.80	NA
S-3	07/19/1994	<50	110d	<0.5	<0.5	<0.5	<0.5	NA	NA	22.70	8.12	14.58	NA
S-3	10/06/1994	<50	<50	<0.5	<0.5	<0.5	<0.5	NA	NA	22.70	12.15	10.55	NA
S-3	01/04/1995	<50	<50	<0.5	<0.5	<0.5	<0.5	NA	NA	22.70	11.18	11.52	NA
S-3	04/12/1995	<50	110	<0.5	<0.5	<0.5	<0.5	NA	NA	22.70	3.76	18.94	NA
S-3	07/07/1995	<50	410	<0.5	<0.5	<0.5	<0.5	NA	NA	22.70	4.72	17.98	NA
S-3	10/05/1995	<50	160	<0.5	<0.5	<0.5	<0.5	NA	NA	22.70	5.80	16.90	NA
S-3	01/12/1996	100	<50	<0.5	<0.5	<0.5	<0.5	NA	NA	22.70	7.00	15.70	NA
S-3	04/02/1996	<50	170	<0.5	<0.5	<0.5	<0.5	3.4	NA	22.70	3.42	19.28	NA
S-3	07/30/1996	<50	92	<0.5	<0.5	<0.5	<0.5	4.3	NA	22.70	5.89	16.81	NA
S-3	10/02/1996	<50	160	<0.5	<0.5	<0.5	<0.5	4.1	NA	22.70	7.20	15.50	NA
S-3	09/19/1997	<50	260	<0.50	<0.50	<0.50	<0.50	4.3	NA	22.70	6.92	15.78	1.4
S-3 (D)	09/19/1997	<50	290	<0.50	<0.50	<0.50	<0.50	5.2	NA	22.70	6.92	15.78	1.4

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S-3	01/08/1998	<50	170	<0.50	<0.50	<0.50	0.92	120	NA	22.70	5.77	16.93	2.7
S-3	07/17/1998	<50	97	<0.50	<0.50	<0.50	<0.50	33	NA	22.71	4.17	18.54	2.7
S-3	01/28/1999	656	<50.0	45.4	10.2	4.98	83.2	87.2	NA	22.71	8.15	14.56	1.8
S-4	07/17/1998	<50	220	<0.50	<0.50	<0.50	<0.50	<2.5	NA	19.96	6.59	13.37	2.5
S-4 (D)	07/17/1998	<50	260	<0.50	<0.50	<0.50	<0.50	<2.5	NA	19.96	6.59	13.37	2.5
S-4	01/28/1999	<50.0	356	0.882	<0.500	<0.500	0.710	<2.00	NA	19.96	10.57	9.39	3.0
S-5	07/17/1998	<50	110	<0.50	<0.50	<0.50	<0.50	<2.5	NA	22.27	6.78	15.49	2.2
S-5	01/28/1999	<50.0	109	<0.500	<0.500	<0.500	<0.500	<2.00	NA	22.27	10.75	11.52	2.0
HP-1	01/27/1993	22,000	14,000	2,500	130	1,400	140	NA	NA	NA	NA	NA	NA
HP-2	01/27/1993	<50	NA	<0.5	4.4	<0.5	<0.5	NA	NA	NA	NA	NA	NA
HP-3	01/27/1993	<50	NA	<0.5	<0.5	<0.5	<0.5	NA	NA	NA	NA	NA	NA

**Abbreviations:**

TPPH= Total petroleum hydrocarbons as gasoline by modified EPA Method 8015

TEPH = Total petroleum hydrocarbons as diesel by modified EPA Method 8015

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

MTBE = methyl-tertiary-butyl ether

TOB = Top of Wellbox Elevation

SPH = Separate-Phase Hydrocarbons

GW = Groundwater

**WELL CONCENTRATIONS**  
**Shell-branded Service Station**  
**350 Grand Avenue**  
**Oakland, CA**  
**Wic #204-5510-0204**

Well ID	Date	TPPH (ug/L)	TEPH (ug/L)	B (ug/L)	T (ug/L)	E (ug/L)	X (ug/L)	MTBE 8020 (ug/L)	MTBE 8260 (ug/L)	TOB (MSL)	Depth to Water (ft.)	GW Elevation (MSL)	DO Reading (ppm)
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DO = Dissolved Oxygen

ug/L = parts per billion

msl = Mean sea level

ft = Feet

<n = Below detection limit

D = Duplicate sample

HP = Hydropunch ground water sample

**Notes:**

a = TPPH/BETX concentrations anomalous with historical data. Lab verified concentrations.

b = Compounds reported as TPH-D appear to be the less volatile constituents of gasoline.

c = Compounds reported as TPH-D are primarily due to the presence of a heavier petroleum product, possibly motor oil.

d = Chromatogram pattern indicated an unidentified hydrocarbon.

e = Compounds reported as TPH-D are primarily due to the presence of lighter petroleum product, possibly gasoline.

Wells S-1, S-3, S-4, and S-5 surveyed on May 4, 1998 by Virgil Chavez Land Surveying of Vallejo, California.



February 22, 1999

Fran Thie  
Blaine Technical Services, Inc.  
1680 Rogers Ave.  
San Jose, CA 95112

RE: Shell Oil Co./P902051

Dear Fran Thie

Enclosed are the results of analyses for sample(s) received by the laboratory on February 2, 1999. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Scott Forbes  
Project Manager

CA ELAP Certificate Number 2245





Blaine Technical Services, Inc.  
1680 Rogers Ave.  
San Jose, CA 95112

Project: Shell Oil Co.  
Project Number: 350 Grand Ave., Oakland/990128-P3  
Project Manager: Fran Thie

Sampled: 1/28/99  
Received: 2/2/99  
Reported: 2/22/99

**ANALYTICAL REPORT FOR P902051**

Sample Description	Laboratory Sample Number	Sample Matrix	Date Sampled
S-1	P902051-01	Water	1/28/99
S-2	P902051-02	Water	1/28/99
S-3	P902051-03	Water	1/28/99
S-4	P902051-04	Water	1/28/99
S-5	P902051-05	Water	1/28/99





Blaine Technical Services, Inc. 1680 Rogers Ave. San Jose, CA 95112	Project: Shell Oil Co. Project Number: 350 Grand Ave., Oakland/990128-P3 Project Manager: Fran Thie	Sampled: 1/28/99 Received: 2/2/99 Reported: 2/22/99
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**Total Petroleum Hydrocarbons as Gasoline and BTEX by EPA 8015M/8020M  
 Sequoia Analytical - Petaluma**

Analyte	Batch Number	Date Prepared	Date Analyzed	Surrogate Limits	Reporting Limit	Result	Units	Notes*
<b>S-1</b>				<b>P902051-01</b>		<u>Water</u>		
Gasoline	9020261	2/11/99	2/11/99		50.0	92.7	ug/l	
Benzene	"	"	"		0.500	4.50	"	
Toluene	"	"	"		0.500	1.83	"	
Ethylbenzene	"	"	"		0.500	1.59	"	
Xylenes (total)	"	"	"		0.500	12.1	"	
Methyl tert-butyl ether	"	"	"		2.00	2.17	"	
Surrogate: a,a,a-Trifluorotoluene	"	"	"	65.0-135		103	%	
Surrogate: 4-Bromofluorobenzene	"	"	"	65.0-135		100	"	
<b>S-2</b>				<b>P902051-02</b>		<u>Water</u>		
Gasoline	9020261	2/11/99	2/11/99		50.0	482	ug/l	
Benzene	"	"	"		0.500	23.7	"	
Toluene	"	"	"		0.500	7.52	"	
Ethylbenzene	"	"	"		0.500	5.41	"	
Xylenes (total)	"	"	"		0.500	63.7	"	
Methyl tert-butyl ether	"	"	"		2.00	11.1	"	
Surrogate: a,a,a-Trifluorotoluene	"	"	"	65.0-135		98.3	%	
Surrogate: 4-Bromofluorobenzene	"	"	"	65.0-135		93.7	"	
<b>S-3</b>				<b>P902051-03</b>		<u>Water</u>		
Gasoline	9020261	2/11/99	2/11/99		50.0	656	ug/l	
Benzene	"	"	"		0.500	45.4	"	
Toluene	"	"	"		0.500	10.2	"	
Ethylbenzene	"	"	"		0.500	4.98	"	
Xylenes (total)	"	"	"		0.500	83.2	"	
Methyl tert-butyl ether	"	"	"		2.00	87.2	"	
Surrogate: a,a,a-Trifluorotoluene	"	"	"	65.0-135		97.3	%	
Surrogate: 4-Bromofluorobenzene	"	"	"	65.0-135		94.3	"	
<b>S-4</b>				<b>P902051-04</b>		<u>Water</u>		
Gasoline	9020261	2/11/99	2/11/99		50.0	ND	ug/l	
Benzene	"	"	"		0.500	0.882	"	
Toluene	"	"	"		0.500	ND	"	
Ethylbenzene	"	"	"		0.500	ND	"	
Xylenes (total)	"	"	"		0.500	0.710	"	
Methyl tert-butyl ether	"	"	"		2.00	ND	"	
Surrogate: a,a,a-Trifluorotoluene	"	"	"	65.0-135		98.0	%	
Surrogate: 4-Bromofluorobenzene	"	"	"	65.0-135		91.7	"	
<b>S-5</b>				<b>P902051-05</b>		<u>Water</u>		
Gasoline	9020261	2/11/99	2/11/99		50.0	ND	ug/l	





Blaine Technical Services, Inc. 1680 Rogers Ave. San Jose, CA 95112	Project: Shell Oil Co. Project Number: 350 Grand Ave., Oakland/990128-P3 Project Manager: Fran Thie	Sampled: 1/28/99 Received: 2/2/99 Reported: 2/22/99
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**Total Petroleum Hydrocarbons as Gasoline and BTEX by EPA 8015M/8020M**  
**Sequoia Analytical - Petaluma**

Analyte	Batch Number	Date Prepared	Date Analyzed	Surrogate Limits	Reporting Limit	Result	Units	Notes*
<b>S-5 (continued)</b>				<b>P902051-05</b>			<b>Water</b>	
Benzene	9020261	2/11/99	2/11/99		0.500	ND	ug/l	
Toluene	"	"	"		0.500	ND	"	
Ethylbenzene	"	"	"		0.500	ND	"	
Xylenes (total)	"	"	"		0.500	ND	"	
Methyl tert-butyl ether	"	"	"		2.00	ND	"	
Surrogate: <i>a,a,a</i> -Trifluorotoluene	"	"	"	65.0-135		98.7	%	
Surrogate: 4-Bromofluorobenzene	"	"	"	65.0-135		90.7	"	







Blaine Technical Services, Inc. 1680 Rogers Ave. San Jose, CA 95112	Project: Shell Oil Co. Project Number: 350 Grand Ave., Oakland/990128-P3 Project Manager: Fran Thie	Sampled: 1/28/99 Received: 2/2/99 Reported: 2/22/99
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**Total Petroleum Hydrocarbon [REDACTED] & others by EPA 8015M**  
**Sequoia Analytical - Petaluma**

Analyte	Batch Number	Date Prepared	Date Analyzed	Surrogate Limits	Reporting Limit	Result	Units	Notes*
<u>S-1</u> Diesel	9020274	2/11/99	2/18/99	<u>P902051-01</u>	0.0500	<b>0.212</b>	<u>Water</u> mg/l	1
Surrogate: <i>o</i> -Terphenyl	"	"	"	-		91.7	%	
<u>S-2</u> Diesel	9020274	2/11/99	2/18/99	<u>P902051-02</u>	0.0500	<b>0.0992</b>	<u>Water</u> mg/l	1
Surrogate: <i>o</i> -Terphenyl	"	"	"	-		88.1	%	
<u>S-3</u> Diesel	9020274	2/11/99	2/18/99	<u>P902051-03</u>	0.0500	ND	<u>Water</u> mg/l	
Surrogate: <i>o</i> -Terphenyl	"	"	"	-		88.1	%	
<u>S-4</u> Diesel	9020274	2/11/99	2/18/99	<u>P902051-04</u>	0.0500	<b>0.356</b>	<u>Water</u> mg/l	1
Surrogate: <i>o</i> -Terphenyl	"	"	"	-		78.2	%	
<u>S-5</u> Diesel	9020274	2/11/99	2/18/99	<u>P902051-05</u>	0.0500	<b>0.109</b>	<u>Water</u> mg/l	1
Surrogate: <i>o</i> -Terphenyl	"	"	"	-		82.7	%	





Blaine Technical Services, Inc. 1680 Rogers Ave. San Jose, CA 95112	Project: Shell Oil Co. Project Number: 350 Grand Ave., Oakland/990128-P3 Project Manager: Fran Thie	Sampled: 1/28/99 Received: 2/2/99 Reported: 2/22/99
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**Total Petroleum Hydrocarbons as Gasoline and BTEX by EPA 8015M/8020M/Quality Control**  
**Sequoia Analytical - Petaluma**

Analyte	Date Analyzed	Spike Level	Sample Result	QC Result	Units	Reporting Limit Recov. Limits	Recov. %	RPD Limit	RPD %	Notes*
<b>Batch: 9020261</b>		<b>Date Prepared: 2/11/99</b>			<b>Extraction Method: EPA 5030 waters</b>					
<b>Blank</b>		<b>9020261-BLK1</b>								
JP-4	2/11/99			ND	ug/l	50.0				
Gasoline	"			ND	"	50.0				
Benzene	"			ND	"	0.500				
Toluene	"			ND	"	0.500				
Ethylbenzene	"			ND	"	0.500				
Xylenes (total)	"			ND	"	0.500				
Methyl tert-butyl ether	"			ND	"	2.00				
Surrogate: a,a,a-Trifluorotoluene	"	300		276	"	65.0-135	92.0			
Surrogate: 4-Bromofluorobenzene	"	300		261	"	65.0-135	87.0			
<b>LCS</b>		<b>9020261-BS1</b>								
Gasoline	2/11/99	1000		1300	ug/l	65.0-135	130			
Surrogate: 4-Bromofluorobenzene	"	300		316	"	65.0-135	105			
<b>Matrix Spike</b>		<b>9020261-MS1</b>		<b>P902017-01</b>						
Gasoline	2/11/99	1000	ND	1030	ug/l	65.0-135	103			
Surrogate: 4-Bromofluorobenzene	"	300		269	"	65.0-135	89.7			
<b>Matrix Spike Dup</b>		<b>9020261-MSD1</b>		<b>P902017-01</b>						
Gasoline	2/11/99	1000	ND	1040	ug/l	65.0-135	104	20.0	0.966	
Surrogate: 4-Bromofluorobenzene	"	300		257	"	65.0-135	85.7			





Blaine Technical Services, Inc. 1680 Rogers Ave. San Jose, CA 95112	Project: Shell Oil Co. Project Number: 350 Grand Ave., Oakland/990128-P3 Project Manager: Fran Thie	Sampled: 1/28/99 Received: 2/2/99 Reported: 2/22/99
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**Total Petroleum Hydrocarbons as Diesel & others by EPA 8015M/Quality Control  
Sequoia Analytical - Petaluma**

Analyte	Date Analyzed	Spike Level	Sample Result	QC Result	Units	Reporting Limit Recov. Limits	Recov. %	RPD Limit	RPD %	Notes*
<b>Batch: 9020274</b>		<b>Date Prepared: 2/11/99</b>			<b>Extraction Method: EPA 3520B</b>					
<b>Blank</b>		<b>9020274-BLK1</b>								
Diesel	2/18/99			ND	mg/l	0.0500				
Surrogate: o-Terphenyl	"	0.100		0.0893	"		89.3			
<b>LCS</b>		<b>9020274-BS1</b>								
Diesel	2/18/99	1.00		0.819	mg/l	28.0-138	81.9			
Surrogate: o-Terphenyl	"	0.100		0.111	"		111			
<b>LCS Dup</b>		<b>9020274-BSD1</b>								
Diesel	2/18/99	1.00		0.764	mg/l	28.0-138	76.4		6.95	
Surrogate: o-Terphenyl	"	0.100		0.106	"		106			





Blaine Technical Services, Inc. 1680 Rogers Ave. San Jose, CA 95112	Project: Shell Oil Co. Project Number: 350 Grand Ave., Oakland/990128-P3 Project Manager: Fran Thie	Sampled: 1/28/99 Received: 2/2/99 Reported: 2/22/99
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**Notes and Definitions**

#	Note
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- I Hydrocarbon pattern present in the requested fuel quantitation range but does not resemble the pattern of the requested fuel.
- DET Analyte DETECTED
- ND Analyte NOT DETECTED at or above the reporting limit
- NR Not Reported
- dry Sample results reported on a dry weight basis
- Recov. Recovery
- RPD Relative Percent Difference





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

**CHAIN OF CUSTODY RECORD**

Serial No: 990128-P3

Date: 1-28-99

Page 1 of 1

PG 02051

2

Silo Address: 350 Grand Ave., Oakland, CA

WIC#: 204-5510-0204

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: *[Signature]*

Printed Name: Paul Sanna

**Analysis Required**

TPH (EPA 8015 Mod. Gas)	TPH (EPA 8015 Mod. Diesel)	BTEX (EPA 8020/502)	Volatile Organics (EPA 8240)	Test for Disposal	Combination TPH 8015 & BTEX 8020 /MTBE	Asbestos	Container Size	Preparation Used	Composite Y/N

LAB: SG4015

CHECK ONE (1) BOX ONLY	CI/OI	TURN AROUND TIME
G.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	16 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: Notify lab as soon as possible of 24/48 hrs. LAT.

UST AGENCY:

Sample ID	Date	Sludge	Soil	Water	Air	No. of conts.
S-1 ✓	1/28			X		5
S-2 ✓						5
S-3 ✓						5
S-4 ✓						4
S-5 ✓						4

MATERIAL DESCRIPTION	SAMPLE CONDITION/ COMMENTS
PG 02051-01	
-02	
-03	
-04	
-05	

COOLER CUSTODY SEALS INTACT  NOT INTACT  N/A  
 COOLER TEMPERATURE 5°C

Relinquished By (signature): <i>[Signature]</i>	Printed Name: Paul Sanna	Date: 1-29-99	Received (signature): <i>[Signature]</i>	Printed Name: CAROL ANN JONES	Date: 1-29-99
Relinquished By (signature): <i>[Signature]</i>	Printed Name: CAROL ANN JONES	Date: 1-29-99	Received (signature): <i>[Signature]</i>	Printed Name: Phil Burton	Date: 2-1-99
Relinquished By (signature): <i>[Signature]</i>	Printed Name: [Blank]	Date: 2-2-99	Received (signature): <i>[Signature]</i>	Printed Name: Jones	Date: 2-2-99

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

*[Handwritten notes]*