CAMBRIA

April 30, 2001

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

MAY 04 2001

Re: **First Quarter 2001 Monitoring Report**
Shell-branded Service Station
5755 Broadway
Oakland, California
Incident #98995756
Cambria Project #243-0483-002

R026

Dear Ms. Hugo:

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

FIRST QUARTER 2001 ACTIVITIES

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

Dual-Phase Vacuum Extraction (DVE): On February 7, 2001 Advanced Cleanup Technologies Inc. of Benicia, California conducted a one-time eight-hour mobile DVE event at the site using a vacuum truck. DVE is the process of applying high vacuum through an airtight well seal to simultaneously extract soil vapors from the vadose zone and enhance groundwater extraction from the saturated zone. Mobile DVE uses a vacuum truck to create the vacuum and contain extracted fluids.

The DVE was performed on well S-2. After extracting groundwater and vapors from S-2 for nearly eight hours, the truck extracted groundwater from well T-2 until the tank was filled.

Oakland, CA
San Ramon, CA
Sonoma, CA

Cambria Environmental Technology, Inc.

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

Groundwater extraction (GWE) had been previously conducted at the site from April to November 2000. Approximately 7,959 gallons of groundwater have been pumped from wells S-2 and the horizontal GWE well, and 0.22159 pounds of methyl tert-butyl ether (MTBE) have been removed by GWE (Table 1).

Monitoring data indicated a slight decrease in MTBE concentrations in well S-2 following the one-time DVE event. Mass removal data from this event are presented in Tables 1 and 2.

Site Conceptual Model : A site conceptual model including sensitive receptor survey results is presented as Attachment B.

ANTICIPATED SECOND QUARTER 2001 ACTIVITIES

Groundwater Monitoring: Blaine will gauge and sample all wells and tabulate the data. Cambria will prepare a monitoring report.

DVE: Cambria plans to perform monthly DVE from well S-2 and the horizontal groundwater extraction well for six months.

CLOSING

We appreciate the opportunity to work with you on this project. Please call James Loetterle at (510) 420-3136 if you have any questions or comments.

Sincerely,
Cambria Environmental Technology, Inc

James Loetterle
Staff Geologist

Stephan A. Bork, C.E.G., C.HG.
Associate Hydrogeologist

Figure: 1 - Groundwater Elevation Contour Map

Tables: 1 - Groundwater Extraction - Mass Removal Data
2 - Vapor Extraction - Mass Removal Data

Attachments: A - Blaine Groundwater Monitoring Report and Field Notes
B - Site Conceptual Model

cc: Karen Petryna, Equiva Services LLC, P.O. Box 7869, Burbank, California, 91510-7869
Zimskigutman Enterprises, 6046 Lawton, Oakland, CA 94618-1803

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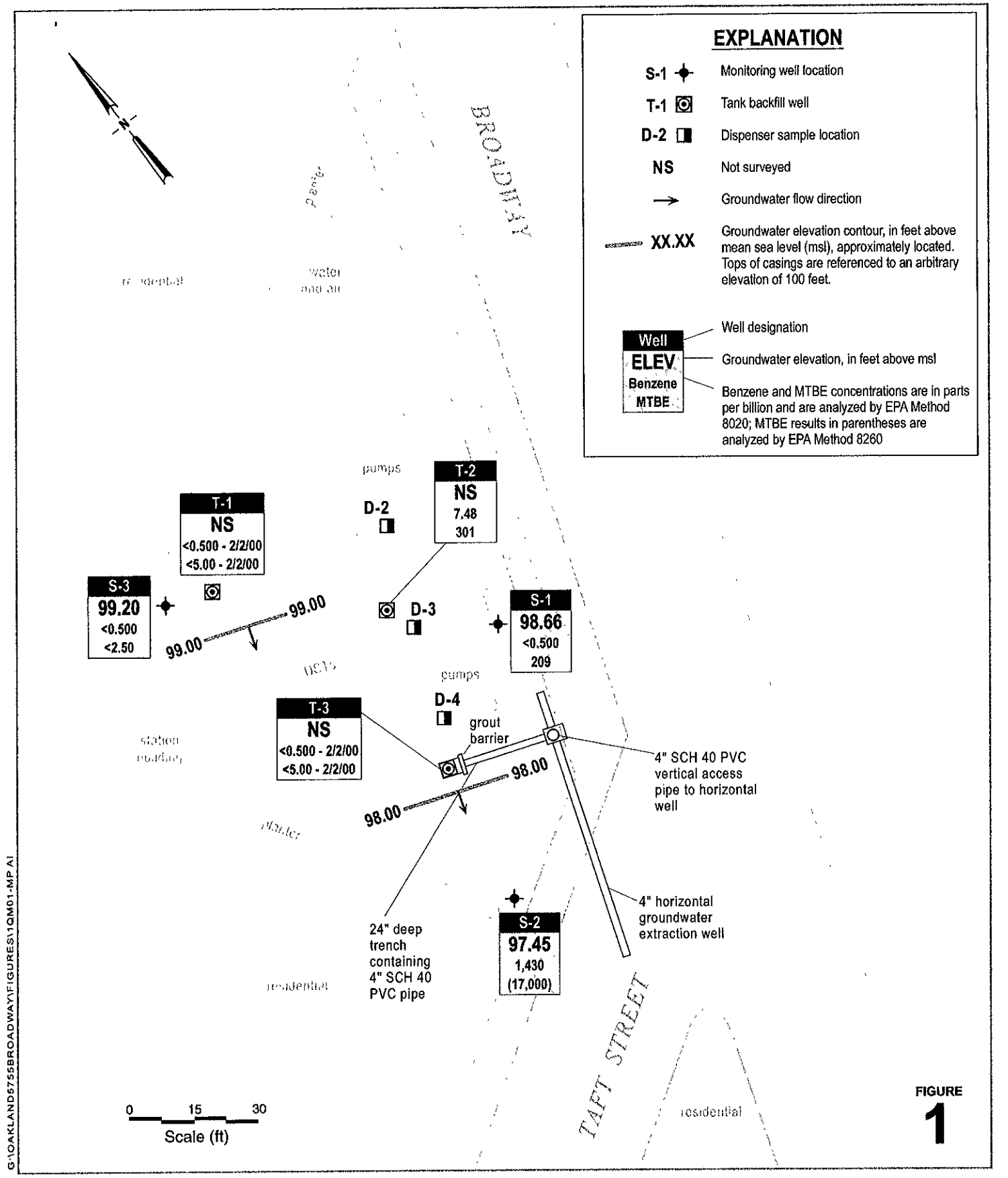

FIGURE
1

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Shell-branded Service Station
5755 Broadway
Oakland, California
Incident #98995756

CAMBRIA

Groundwater Elevation Contour Map
February 12, 2001

Table 1: Groundwater Extraction - Mass Removal Data - Shell-branded Service Station, Incident #98995756, 5755 Broadway, Oakland, California

Date Purged	Well ID	Volume Pumped (gal)	Cumulative Volume Pumped (gal)	Date Sampled	TPPH Concentration (ppb)	TPPH Removed (pounds)	TPPH Removed To Date (pounds)	Benzene Concentration (ppb)	Benzene Removed (pounds)	Benzene Removed To Date (pounds)	MTBE Concentration (ppb)	MTBE Removed (pounds)	MTBE Removed To Date (pounds)
					TPPH			Benzene			MTBE		
04/21/00	S-2	30	30	02/02/00	103	0.00003	0.00003	0.825	0.00000	0.00000	**10,500**	0.00263	0.00263
05/23/00	S-2	50	80	04/26/00	4,040	0.00169	0.00171	799	0.00033	0.00033	19,000	0.00793	0.01056
07/12/00	S-2	1,007	1,087	04/26/00	4,040	0.03395	0.03566	799	0.00671	0.00705	19,000	0.15965	0.17021
08/12/00	S-2	50	1,137	07/25/00	1,120	0.00047	0.03613	195	0.00008	0.00713	**21,100**	0.00880	0.17901
09/14/00	S-2	0	1,137	07/25/00	1,120	0.00000	0.03613	195	0.00000	0.00713	**21,100**	0.00000	0.17901
10/11/00	S-2	0	1,137	07/25/00	1,120	0.00000	0.03613	195	0.00000	0.00713	**21,100**	0.00000	0.17901
10/30/00	S-2	32	1,169	07/25/00	1,120	0.00030	0.03642	195	0.00005	0.00718	**21,100**	0.00563	0.18465
11/06/00	S-2	35	1,204	07/25/00	1,120	0.00033	0.03675	195	0.00006	0.00724	**21,100**	0.00616	0.19081
11/15/00	S-2	12	1,216	11/15/00	613	0.00006	0.03681	35.6	0.00000	0.00724	18,100	0.00181	0.19262
02/07/01	S-2	35	1,251	11/15/00	613	0.00018	0.03699	35.6	0.00001	0.00725	18,100	0.00529	0.19791
04/21/00	Horizontal	700	700	NA	NA	0.00000	0.00000	NA	0.00000	0.00000	NA	0.00000	0.00000
05/23/00	Horizontal	2,155	2,855	05/23/00	750	0.01349	0.01349	72.8	0.00131	0 00131	**406**	0.00730	0.00730
07/12/00	Horizontal	44	2,899	05/23/00	750	0.00028	0.01376	72.8	0.00003	0.00134	**406**	0.00015	0.00745
08/12/00*	Horizontal	2,000	4,899	05/23/00	750	0.01252	0.02628	72.8	0.00121	0.00255	**406**	0.00678	0.01423
09/14/00	Horizontal	1,044	5,943	05/23/00	750	0.00653	0.03281	72.8	0.00063	0.00318	**406**	0.00354	0.01776
10/11/00	Horizontal	800	6,743	05/23/00	750	0.00501	0.03782	72.8	0.00049	0.00367	**406**	0.00271	0.02047
02/07/01	T-2	2,890	2,890	07/25/00	815	0.01965	0.01965	17.6	0.00042	0.00042	133	0.00321	0.00321
Total Gallons Extracted:		**10,884**			**Total Pounds Removed:**		**0.09446**			**0.01135**			**0.22159**
					Total Gallons Removed:		**0.01549**			**0.00155**			**0.03574**

Table 1: Groundwater Extraction - Mass Removal Data - Shell-branded Service Station, Incident #98995756, 5755 Broadway, Oakland, California

					TPPH			Benzene			MTBE		
Date Purged	Well ID	Volume Pumped (gal)	Cumulative Volume Pumped (gal)	Date Sampled	TPPH Concentration (ppb)	TPPH Removed (pounds)	TPPH Removed To Date (pounds)	Benzene Concentration (ppb)	Benzene Removed (pounds)	Benzene Removed To Date (pounds)	MTBE Concentration (ppb)	MTBE Removed (pounds)	MTBE Removed To Date (pounds)

Abbreviations & Notes:

TPPH = Total purgeable hydrocarbons as gasoline
MtBE = Methyl tert-butyl ether
µg/L = Micrograms per liter
ppb = Parts per billion, equivalent to µg/L
L = Liter
gal = Gallon
g = Gram
* = Purge volume estimated
Mass removed based on the formula: volume extracted (gal) x Concentration (µg/L) x (g/10^6µg) x (pound/453.6g) x (3.785 L/gal)
Volume removal data based on the formula: density (in gms/cc) x 9.339 (ccxlbs/gmsxgals)
TPPH, benzene analyzed by EPA Method 8015/8020
MTBE analyzed by EPA Method 8260 in bold font, all other MTBE analyzed by EPA Method 8020
Concentrations based on most recent groundwater monitoring results
Groundwater extracted by vacuum trucks provided by ACTI. Water disposed of at a Martinez Refinery.

Table 2: Vapor Extraction - Mass Removal Data - Shell-branded Service Station, Incident #98995756, 5755 Broadway, Oakland, CA

Date	Well ID	Interval Hours of Operation (hours)	System Flow Rate (CFM)	Hydrocarbon Concentrations (Concentrations in ppmv) TPHg	Benzene	MTBE	TPHg Removal Rate (#/hour)	TPHg Cumulative TPHg Removed (#)	Benzene Removal Rate (#/hour)	Benzene Cumulative Benzene Removed (#)	MTBE Removal Rate (#/hour)	MTBE Cumulative MTBE Removed (#)
							TPHg		**Benzene**		**MTBE**	
02/07/01	S-2	8.00	4.3	136	2.82	8.56	0.008	0.063	0.000	0.001	0.001	0.004
Total Pounds Removed:							**TPHg =**	**0.063**	**Benzene =**	**0.001**	**MTBE =**	**0.004**

Abbreviations and Notes:

CFM = Cubic feet per minute

TPHg = Total petroleum hydrocarbons as gasoline (C6-C12) by modified EPA Method 8015 in 1 liter tedlar bag samples

ppmv = Parts per million by volume

= Pounds

TPHG, Benzene, and MTBE analyzed by EPA Method 8015/8020 in 1 liter tedlar bag samples

TPHg / Benzene / MTBE removal rate = Rate based on Bay Area Air Quality Management District's Manual of Procedures for Soil Vapor Extraction dated July 17, 1991.

(Rate = Concentration (ppmv) x system flow rate (cfm) x (1lb-mole/386ft3) x molecular weight (86 lb/lb-mole for TPHg, 78 lb/lb-mole for benzene, 88 lb/lb-mole for MTBE) x 60 min/hour x 1/1,000,000)

Cumulative TPHg / Benzene / MTBE removal = Previous removal rate multiplied by the hour-interval of operation plus the previous total

BLAINE
TECH SERVICES, INC.

1680 ROGERS AVENUE
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CONTRACTOR'S LICENSE #746684
www.blainetech.com

March 20, 2001

Karen Petryna
Equiva Services LLC
P.O. Box 7869
Burbank, CA 91510-7869

First Quarter 2001 Groundwater Monitoring at
Shell-branded Service Station
5755 Broadway
Oakland, CA

Monitoring performed on February 12, 2001

Groundwater Monitoring Report **010212-X-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, apprioriate 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,

Deidre Kerwin
Operations Manager

DK/jt

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

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

WELL CONCENTRATIONS
Shell-branded Service Station
5755 Broadway
Oakland, CA
Wic #204-5510-0303

Well ID	Date	TPPH (ug/L)	B (ug/L)	T (ug/L)	E (ug/L)	X (ug/L)	MTBE 8020 (ug/L)	MTBE 8260 (ug/L)	TOC (MSL)	Depth to Water (ft.)	GW Elevation (MSL)	DO Reading (ppm)
S-1	01/25/1991	<30	<0.3	<0.3	<0.3	<0.3	NA	NA	100.00	3.88	96.12	NA
S-1	06/03/1991	<30	<0.3	<0.3	<0.3	<0.3	NA	NA	100.00	3.51	96.49	NA
S-1	08/30/1991	<30	<0.3	<0.3	<0.3	<0.3	NA	NA	100.00	4.24	95.76	NA
S-1	11/22/1991	<30	2.3	<0.46	0.3	<0.65	NA	NA	100.00	4.29	95.71	NA
S-1	03/13/1992	<30	<0.52	<0.3	<0.3	<0.3	NA	NA	100.00	2.87	97.13	NA
S-1	05/28/1992	<50	<0.5	<0.5	<0.5	<0.5	NA	NA	100.00	3.79	96.21	NA
S-1	08/19/1992	<50	<0.5	<0.5	<0.5	<0.5	NA	NA	100.00	4.43	95.57	NA
S-1	11/18/1992	<50	<0.5	<0.5	<0.5	<0.5	NA	NA	100.00	4.34	95.66	NA
S-1	02/10/1993	51	1.4	<0.5	<0.5	<0.5	NA	NA	100.00	4.20	95.80	NA
S-1 (D)	02/10/1993	<50	1.2	<0.5	<0.5	<0.5	NA	NA	100.00	4.20	95.80	NA
S-1	06/11/1993	<50	<0.5	<0.5	<0.5	<0.5	NA	NA	100.00	3.39	96.61	NA
S-1	08/03/1993	<50	<0.5	<0.5	<0.5	<0.5	NA	NA	100.00	3.69	96.31	NA
S-1	11/02/1993	70a	<0.5	<0.5	<0.5	<0.5	NA	NA	100.00	4.26	95.74	NA
S-1	12/16/1993	NA	NA	NA	NA	NA	NA	NA	100.00	2.73	97.27	NA
S-1	02/01/1994	60a	<0.5	<0.5	<0.5	<0.5	NA	NA	100.00	3.38	96.62	NA
S-1	05/04/1994	<50	1.1	<0.5	<0.5	<0.5	NA	NA	100.00	3.00	97.00	NA
S-1	08/18/1994	<50	0.6	<0.5	<0.5	<0.5	NA	NA	100.00	3.70	96.30	NA
S-1 (D)	08/18/1994	60a	0.5	<0.5	<0.5	<0.5	NA	NA	100.00	3.70	96.30	NA
S-1	11/09/1994	<50	4	<0.5	<0.5	<0.5	NA	NA	100.00	2.52	97.48	NA
S-1	02/22/1995	50	0.8	0.7	<0.5	1.3	NA	NA	100.00	4.08	95.92	NA
S-1	05/02/1995	<50	<0.5	<0.5	<0.5	<0.5	NA	NA	100.00	2.58	97.42	NA
S-1	08/30/1995	<50	1.7	<0.5	<0.5	<0.5	NA	NA	100.00	3.48	96.52	NA
S-1	11/28/1995	<50	<0.5	<0.5	<0.5	<0.5	NA	NA	100.00	3.99	96.01	NA
S-1	02/02/1996	<50	11	<0.5	0.9	<0.5	NA	NA	100.00	2.00	98.00	NA
S-1	03/09/1996	<50	<0.5	<0.5	<0.5	<0.5	NA	NA	100.00	3.38	99.62	NA
S-1	08/22/1996	<50	1.5	<0.5	<0.5	<0.5	130	NA	100.00	3.43	96.57	NA

WELL CONCENTRATIONS
Shell-branded Service Station
5755 Broadway
Oakland, CA
Wic #204-5510-0303

Well ID	Date	TPPH (ug/L)	B (ug/L)	T (ug/L)	E (ug/L)	X (ug/L)	MTBE 8020 (ug/L)	MTBE 8260 (ug/L)	TOC (MSL)	Depth to Water (ft.)	GW Elevation (MSL)	DO Reading (ppm)
S-1	11/07/1996	<50	<0.5	<0.5	<0.5	<0.5	57	NA	100.00	3.70	96.30	4.33
S-1	02/20/1997	<50	0.64	<0.50	<0.50	1.6	6.5	NA	100.00	3.60	96.40	2
S-1	05/30/1997	<50	<0.50	<0.50	<0.50	<0.50	46	NA	100.00	3.47	96.53	7
S-1 (D)	05/30/1997	<50	<0.50	<0.50	<0.50	<0.50	47	NA	100.00	3.47	96.53	7
S-1	08/21/1997	<50	<0.50	<0.50	<0.50	0.84	26	NA	100.00	3.01	96.99	3.1
S-1	11/03/1997	<50	<0.50	1.1	<0.50	1.3	190	NA	100.00	3.66	96.34	2
S-1	01/20/1998	110	7.9	2.8	4.4	13	53	NA	100.00	1.84	98.16	4.6
S-1 (D)	01/20/1998	130	9.2	6.9	5.2	15	93	NA	100.00	1.84	98.16	4.6
S-1	02/16/1999	<50	<0.50	<0.50	<0.50	<0.50	8.6	NA	100.00	2.43	97.57	2.2
S-1	09/07/1999	NA	NA	NA	NA	NA	NA	NA	100.00	2.84	97.16	NA
S-1	02/02/2000	<50.0	<0.500	<0.500	<0.500	<0.500	202	NA	100.00	3.10	96.90	2.1
S-1	04/26/2000	NA	NA	NA	NA	NA	NA	NA	100.00	2.91	97.09	NA
S-1	07/25/2000	<50.0	<0.500	<0.500	<0.500	<0.500	811	NA	100.00	3.21	96.79	1.8
S-1	11/15/2000	NA	NA	NA	NA	NA	NA	NA	100.00	3.18	96.82	NA
S-1	**02/12/2001**	**<50.0**	**<0.500**	**<0.500**	**<0.500**	**<0.500**	**209**	**NA**	**100.00**	**1.34**	**98.66**	**2.2**
S-2	01/25/1991	450	140	1.8	6.2	15	NA	NA	98.92	4.52	94.40	NA
S-2	06/03/1991	490	150	2.7	8.2	7	NA	NA	98.92	4.02	94.90	NA
S-2	08/30/1991	70	0.37	<0.3	<0.3	<0.3	NA	NA	98.92	4.70	94.22	NA
S-2	11/22/1991	1,600	110	9.3	29	150	NA	NA	98.92	4.72	94.20	NA
S-2	03/13/1992	1,300	210	5.7	34	79	NA	NA	98.92	3.47	95.45	NA
S-2	05/28/1992	100	28	<0.5	<0.5	<0.5	NA	NA	98.92	4.45	94.45	NA
S-2	08/19/1992	470	42	<0.5	8.3	4	NA	NA	98.92	4.84	94.08	NA
S-2	11/18/1992	490	43	39	17	29	NA	NA	98.92	4.73	94.19	NA
S-2	02/10/1993	19,000	710	760	80	370	NA	NA	98.92	4.83	94.09	NA
S-2	06/11/1993	33,000	3,100	1,600	370	1,100	NA	NA	98.92	3.74	95.18	NA

WELL CONCENTRATIONS
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Well ID	Date	TPPH (ug/L)	B (ug/L)	T (ug/L)	E (ug/L)	X (ug/L)	MTBE 8020 (ug/L)	MTBE 8260 (ug/L)	TOC (MSL)	Depth to Water (ft.)	GW Elevation (MSL)	DO Reading (ppm)
S-2	08/03/1993	18,000	1,400	130	81	130	NA	NA	98.92	4.23	94.69	NA
S-2 (D)	08/03/1993	19,000	1,400	140	86	150	NA	NA	98.92	4.23	94.69	NA
S-2	11/02/1993	12,000a	470	47	31	92	NA	NA	98.92	4.72	94.20	NA
S-2 (D)	11/02/1993	13,000a	530	47	35	96	NA	NA	98.92	4.72	94.20	NA
S-2	12/16/1993	NA	NA	NA	NA	NA	NA	NA	98.92	3.00	95.92	NA
S-2	02/01/1994	31,000a	430	46	50	130	NA	NA	98.92	3.48	95.44	NA
S-2 (D)	02/01/1994	31,000a	300	33	30	100	NA	NA	98.92	3.48	95.44	NA
S-2	05/04/1994	3,900	1,200	31	53	71	NA	NA	98.92	3.26	95.66	NA
S-2 (D)	05/04/1994	4,500	1,200	37	57	110	NA	NA	98.92	3.26	95.66	NA
S-2	08/18/1994	24,000	600	8.3	15	27	NA	NA	98.92	3.98	94.94	NA
S-2	11/09/1994	1,400a	240	9.3	13	20	NA	NA	98.92	3.10	95.82	NA
S-2 (D)	11/09/1994	1,800	260	8.5	13	21	NA	NA	98.92	3.10	95.82	NA
S-2	02/22/1995	29,000	550	18	12	63	NA	NA	98.92	4.02	94.90	NA
S-2 (D)	02/22/1995	28,000	530	17	10	60	NA	NA	98.92	4.02	94.90	NA
S-2	05/02/1995	4,400	1,000	25	38	77	NA	NA	98.92	2.86	96.06	NA
S-2 (D)	05/02/1995	4,400	1,000	26	41	83	NA	NA	98.92	2.86	96.06	NA
S-2	08/30/1995	800	350	20	6.7	16	NA	NA	98.92	4.06	94.86	NA
S-2 (D)	08/30/1995	960	220	22	12	48	NA	NA	98.92	4.06	94.86	NA
S-2	11/28/1995	2,000	230	220	50	230	NA	NA	98.92	4.48	94.44	NA
S-2 (D)	11/28/1995	2,100	240	230	51	230	NA	NA	98.92	4.48	94.44	NA
S-2	02/02/1996	18,000	540	18	12	22	NA	NA	98.92	1.99	96.93	NA
S-2 (D)	02/02/1996	11,000	600	18	13	28	NA	NA	98.92	1.99	96.93	NA
S-2	03/09/1996	3,800	1,500	27	30	58	NA	NA	98.92	3.27	95.65	NA
S-2 (D)	03/09/1996	3,500	1,300	24	21	53	NA	NA	98.92	3.27	95.65	NA
S-2	08/22/1996	<20,000	490	<200	<200	<200	43,000	NA	98.92	3.85	95.07	NA
S-2 (D)	08/22/1996	<20,000	570	<200	<200	<200	59,000	51,000	98.92	3.85	95.07	NA

WELL CONCENTRATIONS
Shell-branded Service Station
5755 Broadway
Oakland, CA
Wic #204-5510-0303

Well ID	Date	TPPH (ug/L)	B (ug/L)	T (ug/L)	E (ug/L)	X (ug/L)	MTBE 8020 (ug/L)	MTBE 8260 (ug/L)	TOC (MSL)	Depth to Water (ft.)	GW Elevation (MSL)	DO Reading (ppm)
S-2	11/07/1996	<5,000	290	<50	<50	<50	32,000	NA	98.92	4.00	94.92	3.51
S-2 (D)	11/07/1996	<5,000	290	<50	<50	<50	32,000	NA	98.92	4.00	94.92	3.51
S-2	02/20/1997	<10,000	520	<100	<100	<100	28,000	NA	98.92	3.20	95.72	1
S-2 (D)	02/20/1997	<10,000	520	<100	<100	<100	35,000	NA	98.92	3.20	95.72	1
S-2	05/30/1997	150	15	11	3.5	15	11	NA	98.92	3.87	95.05	6
S-2	08/21/1997	1,600	220	<10	20	<10	18,000	NA	98.92	3.29	95.63	3.3
S-2 (D)	08/21/1997	1,500	180	<10	16	<10	21,000	NA	98.92	3.29	95.63	3.3
S-2	11/03/1997	1,000	94	<10	<10	<10	<50	NA	98.92	4.02	94.90	1.8
S-2	01/20/1998	590	110	8.3	18	23	7,800	NA	98.92	1.54	97.38	3.2
S-2	07/23/1998	2,600	840	<10	44	22	15,000	NA	98.92	2.89	96.03	NA
S-2	02/16/1999	680	140	6.1	10	18	19,000	NA	98.92	1.86	97.06	2.0
S-2	09/07/1999	<2,000	248	<20.0	<20.0	<20.0	22,800	NA	98.92	3.66	95.26	1.8
S-2	02/02/2000	103	0.825	<0.500	<0.500	<0.500	11,700	10,500	98.92	4.02	94.90	2.0
S-2	04/26/2000	4,040	799	<20.0	40.9	255	19,000	17,100b	98.92	2.63	96.29	2.3
S-2	07/25/2000	1,120	195	5.94	5.62	11.3	26,600	21,100	98.92	3.42	95.50	0.6
S-2b	11/15/2000	613	35.6	<5.00	<5.00	7.36	18,100	17,800	98.92	3.31	95.61	1.8
S-2	**02/12/2001**	**9,010**	**1,430**	**<20.0**	**219**	**848**	**28,300**	**17,000**	**98.92**	**1.47**	**97.45**	**2.0**
S-3	01/25/1991	<30	<0.3	<0.3	<0.3	<0.3	NA	NA	101.67	3.84	97.83	NA
S-3	06/03/1991	<30	<0.3	0.3	0.3	0.3	NA	NA	101.67	3.25	98.42	NA
S-3	08/03/1991	<30	<0.3	<0.3	<0.3	<0.3	NA	NA	101.67	4.73	96.94	NA
S-3	11/22/1991	<30	<0.3	<0.3	<0.3	<0.3	NA	NA	101.67	4.81	96.86	NA
S-3	03/13/1992	<30	<0.3	0.3	0.3	0.3	NA	NA	101.67	2.29	99.38	NA
S-3	05/28/1992	<50	<0.5	<0.5	<0.5	<0.5	NA	NA	101.67	3.62	98.05	NA
S-3	08/19/1992	<50	<0.5	<0.5	<0.5	0.5	NA	NA	101.67	4.66	97.01	NA
S-3	11/18/1992	<50	<0.5	<0.5	<0.5	<0.5	NA	NA	101.67	4.51	97.16	NA

WELL CONCENTRATIONS
Shell-branded Service Station
5755 Broadway
Oakland, CA
Wic #204-5510-0303

Well ID	Date	TPPH (ug/L)	B (ug/L)	T (ug/L)	E (ug/L)	X (ug/L)	MTBE 8020 (ug/L)	MTBE 8260 (ug/L)	TOC (MSL)	Depth to Water (ft.)	GW Elevation (MSL)	DO Reading (ppm)
S-3	02/10/1993	30	1.9	3.2	2.4	5.6	NA	NA	101.67	4.36	97.31	NA
S-3	06/11/1993	<50	<0.5	<0.5	<0.5	<0.5	NA	NA	101.67	2.91	98.76	NA
S-3 (D)	06/11/1993	<50	<0.5	<0.5	<0.5	<0.5	NA	NA	101.67	2.91	98.76	NA
S-3	08/03/1993	<50	<0.5	<0.5	<0.5	<0.5	NA	NA	101.67	3.70	97.97	NA
S-3	11/02/1993	Well inaccessible		NA	NA	NA	NA	NA	101.67	NA	NA	NA
S-3	12/16/1993	NA	NA	NA	NA	NA	NA	NA	101.67	2.12	99.55	NA
S-3	02/01/1994	<50	<0.5	<0.5	<0.5	<0.5	NA	NA	101.67	2.90	98.77	NA
S-3	05/04/1994	<50	<0.5	<0.5	<0.5	<0.5	NA	NA	101.67	2.54	99.13	NA
S-3	08/18/1994	<50	<0.5	<0.5	<0.5	<0.5	NA	NA	101.67	3.51	98.16	NA
S-3	11/09/1994	<50	<0.5	<0.5	<0.5	<0.5	NA	NA	101.67	2.44	99.23	NA
S-3	02/22/1995	80	<0.5	0.5	<0.5	0.5	NA	NA	101.67	4.12	97.55	NA
S-3	05/02/1995	<50	<0.5	<0.5	<0.5	<0.5	NA	NA	101.67	2.83	98.84	NA
S-3	08/30/1995	<50	0.5	<0.5	<0.5	<0.5	NA	NA	101.67	3.16	98.51	NA
S-3	11/28/1995	<50	<0.5	<0.5	<0.5	<0.5	NA	NA	101.67	3.87	97.80	NA
S-3	02/02/1996	<50	<0.5	<0.5	<0.5	<0.5	NA	NA	101.67	2.24	99.43	NA
S-3	03/09/1996	<50	<0.5	<0.5	<0.5	<0.5	NA	NA	101.67	3.05	98.62	NA
S-3	08/22/1996	<50	0.8	<0.5	<0.5	<0.5	<2.5	NA	101.67	2.85	98.82	4.6
S-3	11/07/1996	<50	<0.5	<0.5	<0.5	<0.5	<2.5	NA	101.67	3.35	98.32	4.6
S-3	02/20/1997	<50	<0.50	<0.50	<0.50	<0.50	<2.5	NA	101.67	3.00	98.67	1
S-3	05/30/1997	140	14	10	3.3	14	8.6	NA	101.67	3.00	98.67	8
S-3	08/21/1997	<50	<0.50	<0.50	<0.50	<0.50	<2.5	NA	101.67	2.94	98.73	3.3
S-3	11/03/1997	<50	<0.50	<0.50	<0.50	<0.50	<2.5	NA	101.67	3.36	98.31	2.4
S-3 (D)	11/03/1997	<50	<0.50	<0.50	<0.50	<0.50	<2.5	NA	101.67	3.36	98.31	2.4
S-3	01/20/1998	Well inaccessible		NA	NA	NA	NA	NA	101.67	NA	NA	NA
S-3	07/23/1998	NA	NA	NA	NA	NA	NA	NA	101.67	2.69	98.98	NA
S-3	02/16/1999	<50	<0.50	0.92	0.59	3.9	3.7	NA	101.67	2.20	99.47	2.8

WELL CONCENTRATIONS
Shell-branded Service Station
5755 Broadway
Oakland, CA
Wic #204-5510-0303

Well ID	Date	TPPH (ug/L)	B (ug/L)	T (ug/L)	E (ug/L)	X (ug/L)	MTBE 8020 (ug/L)	MTBE 8260 (ug/L)	TOC (MSL)	Depth to Water (ft.)	GW Elevation (MSL)	DO Reading (ppm)
S-3	09/07/1999	NA	NA	NA	NA	NA	NA	NA	101.67	2.81	98.86	NA
S-3	02/02/2000	<50.0	<0.500	<0.500	<0.500	<0.500	<5.00	NA	101.67	3.97	97.70	2.7
S-3	04/26/2000	NA	NA	NA	NA	NA	NA	NA	101.67	2.96	98.71	NA
S-3	07/25/2000	<50.0	<0.500	<0.500	<0.500	<0.500	<2.50	NA	101.67	3.00	98.67	0.8
S-3	11/15/2000	NA	NA	NA	NA	NA	NA	NA	101.67	2.86	98.81	NA
S-3	**02/12/2001**	**<50.0**	**<0.500**	**<0.500**	**<0.500**	**<0.500**	**<2.50**	**NA**	**101.67**	**2.47**	**99.20**	**2.3**
T-1	05/30/1997	NA	NA	NA	NA	NA	NA	NA	NA	2.65	NA	NA
T-1	08/21/1997	NA	NA	NA	NA	NA	NA	NA	NA	2.69	NA	NA
T-1	11/03/1997	NA	NA	NA	NA	NA	NA	NA	NA	3.09	NA	NA
T-1	01/20/1998	NA	NA	NA	NA	NA	NA	NA	NA	0.61	NA	NA
T-1	07/23/1998	NA	NA	NA	NA	NA	NA	NA	NA	2.32	NA	NA
T-1	02/16/1999	NA	NA	NA	NA	NA	NA	NA	NA	1.95	NA	NA
T-1	09/07/1999	NA	NA	NA	NA	NA	NA	NA	NA	2.48	NA	NA
T-1	02/02/2000	<50.0	<0.500	<0.500	<0.500	<0.500	<5.00	NA	NA	2.66	NA	2.5
T-1	04/26/2000	NA	NA	NA	NA	NA	NA	NA	NA	2.56	NA	NA
T-1	07/25/2000	NA	NA	NA	NA	NA	NA	NA	NA	2.60	NA	NA
T-1	11/15/2000	NA	NA	NA	NA	NA	NA	NA	NA	2.47	NA	NA
T-1	**02/12/2001**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**1.20**	**NA**	**NA**
T-2	05/30/1997	NA	NA	NA	NA	NA	NA	NA	NA	1.81	NA	NA
T-2	08/21/1997	NA	NA	NA	NA	NA	NA	NA	NA	1.89	NA	NA
T-2	11/03/1997	NA	NA	NA	NA	NA	NA	NA	NA	2.25	NA	NA
T-2	01/20/1998	NA	NA	NA	NA	NA	NA	NA	NA	0.55	NA	NA
T-2	07/23/1998	NA	NA	NA	NA	NA	NA	NA	NA	1.21	NA	NA
T-2	02/16/1999	NA	NA	NA	NA	NA	NA	NA	NA	1.08	NA	NA

WELL CONCENTRATIONS
Shell-branded Service Station
5755 Broadway
Oakland, CA
Wic #204-5510-0303

Well ID	Date	TPPH (ug/L)	B (ug/L)	T (ug/L)	E (ug/L)	X (ug/L)	MTBE 8020 (ug/L)	MTBE 8260 (ug/L)	TOC (MSL)	Depth to Water (ft.)	GW Elevation (MSL)	DO Reading (ppm)
T-2	09/07/1999	NA	NA	NA	NA	NA	NA	NA	NA	0.72	NA	NA
T-2	02/02/2000	1,540	53.4	20.8	11.4	21.8	1,330	NA	NA	0.98	NA	3.0
T-2	04/26/2000	NA	NA	NA	NA	NA	NA	NA	NA	1.02	NA	NA
T-2	07/25/2000	815	17.6	10.8	1.63	3.47	133	NA	NA	1.80	NA	0.8
T-2	11/15/2000	NA	NA	NA	NA	NA	NA	NA	NA	1.68	NA	NA
T-2	**02/12/2001**	**310**	**7.48**	**7.76**	**0.693**	**2.28**	**301**	**NA**	**NA**	**1.45**	**NA**	**1.6**
T-3	05/30/1997	NA	NA	NA	NA	NA	NA	NA	NA	2.31	NA	NA
T-3	08/21/1997	NA	NA	NA	NA	NA	NA	NA	NA	1.57	NA	NA
T-3	11/03/1997	NA	NA	NA	NA	NA	NA	NA	NA	3.50	NA	NA
T-3	01/20/1998	NA	NA	NA	NA	NA	NA	NA	NA	0.76	NA	NA
T-3	07/23/1998	NA	NA	NA	NA	NA	NA	NA	NA	0.82	NA	NA
T-3	02/16/1999	NA	NA	NA	NA	NA	NA	NA	NA	0.55	NA	NA
T-3	09/07/1999	NA	NA	NA	NA	NA	NA	NA	NA	2.89	NA	NA
T-3	02/02/2000	<50.0	<0.500	<0.500	<0.500	<0.500	<5.00	NA	NA	3.02	NA	2.9
T-3	04/26/2000	NA	NA	NA	NA	NA	NA	NA	NA	2.81	NA	NA
T-3	07/25/2000	NA	NA	NA	NA	NA	NA	NA	NA	3.00	NA	NA
T-3	11/15/2000	NA	NA	NA	NA	NA	NA	NA	NA	1.70	NA	NA
T-3	**02/12/2001**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**2.11**	**NA**	**NA**

WELL CONCENTRATIONS
Shell-branded Service Station
5755 Broadway
Oakland, CA
Wic #204-5510-0303

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

Abbreviations:
TPPH= Total petroleum hydrocarbons as gasoline by modified EPA Method 8015
BTEX = benzene, toluene, ethylbenzene, xylenes by EPA Method 8020
MTBE = methyl-tertiary-butyl ether
TOC = Top of Casing Elevation
SPH = Separate-Phase Hydrocarbons
GW = Groundwater
DO = Dissolved Oxygen
ug/L = parts per billion
ppm = parts per million
msl = Mean sea level
ft = Feet
<n = Below detection limit
D = Duplicate sample
NA = Not applicable

Notes:
a = Chromatogram pattern indicated an unidentified hydrocarbon.
b = This sample analyzed outside of EPA recommended hold time.
Top of casing elevations referenced to arbitrary elevation of 100 ft.

Sequoia Analytical

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9 March, 2001

Nick Sudano
Blaine Tech Services (Shell)
1680 Rogers Avenue
San Jose, CA 95112

RE: 5755 Broadway
Sequoia Report: MKB0497

Enclosed are the results of analyses for samples received by the laboratory on 02/13/01 11:11. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Wayne Stevenson
Client Services Manager

CA ELAP Certificate #1210

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Blaine Tech Services (Shell)	Project: 5755 Broadway	
1680 Rogers Avenue	Project Number: 5755 Broadway	**Reported:**
San Jose CA, 95112	Project Manager: Nick Sudano	03/09/01 09:08

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
S-1	MKB0497-01	Water	02/12/01 15:40	02/13/01 11:11
S-2	MKB0497-02	Water	02/12/01 16:03	02/13/01 11:11
S-3	MKB0497-03	Water	02/12/01 15:46	02/13/01 11:11
T-2	MKB0497-04	Water	02/12/01 15:29	02/13/01 11:11

Wayne Stevenson, Client Services Manager

Sequoia Analytical

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Blaine Tech Services (Shell)	Project: 5755 Broadway	
1680 Rogers Avenue	Project Number: 5755 Broadway	**Reported:**
San Jose CA, 95112	Project Manager: Nick Sudano	03/09/01 09:08

Total Purgeable Hydrocarbons (C6-C12), BTEX and MTBE by DHS LUFT

Sequoia Analytical - Morgan Hill

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
S-1 (MKB0497-01) Water Sampled: 02/12/01 15:40 Received: 02/13/01 11:11									
Purgeable Hydrocarbons	ND	50.0	ug/l	1	1B26004	02/26/01	02/26/01	DHS LUFT	
Benzene	ND	0.500	"	"	"	"	"	"	
Toluene	ND	0.500	"	"	"	"	"	"	
Ethylbenzene	ND	0.500	"	"	"	"	"	"	
Xylenes (total)	ND	0.500	"	"	"	"	"	"	
Methyl tert-butyl ether	**209**	2.50	"	"	"	"	"	"	
Surrogate: a,a,a-Trifluorotoluene		*97.3 %*	*70-130*		"	"	"	"	
S-2 (MKB0497-02) Water Sampled: 02/12/01 16:03 Received: 02/13/01 11:11									
Purgeable Hydrocarbons	**9010**	2000	ug/l	40	1B26004	02/26/01	02/26/01	DHS LUFT	P-01
Benzene	**1430**	20.0	"	"	"	"	"	"	
Toluene	ND	20.0	"	"	"	"	"	"	
Ethylbenzene	**219**	20.0	"	"	"	"	"	"	
Xylenes (total)	**848**	20.0	"	"	"	"	"	"	
Methyl tert-butyl ether	**28300**	500	"	200	"	"	02/27/01	"	M-03
Surrogate: a,a,a-Trifluorotoluene		*98.1 %*	*70-130*		"	"	*02/26/01*	"	
S-3 (MKB0497-03) Water Sampled: 02/12/01 15:46 Received: 02/13/01 11:11									
Purgeable Hydrocarbons	ND	50.0	ug/l	1	1B26004	02/26/01	02/26/01	DHS LUFT	
Benzene	ND	0.500	"	"	"	"	"	"	
Toluene	ND	0.500	"	"	"	"	"	"	
Ethylbenzene	ND	0.500	"	"	"	"	"	"	
Xylenes (total)	ND	0.500	"	"	"	"	"	"	
Methyl tert-butyl ether	ND	2.50	"	"	"	"	"	"	
Surrogate: a,a,a-Trifluorotoluene		*97.6 %*	*70-130*		"	"	"	"	

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Blaine Tech Services (Shell)	Project: 5755 Broadway	
1680 Rogers Avenue	Project Number: 5755 Broadway	**Reported:**
San Jose CA, 95112	Project Manager: Nick Sudano	03/09/01 09:08

Total Purgeable Hydrocarbons (C6-C12), BTEX and MTBE by DHS LUFT

Sequoia Analytical - Morgan Hill

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
T-2 (MKB0497-04) Water Sampled: 02/12/01 15:29 Received: 02/13/01 11:11									
Purgeable Hydrocarbons	**310**	50.0	ug/l	1	1B22004	02/22/01	02/22/01	DHS LUFT	P-03
Benzene	**7.48**	0.500	"	"	"	"	"	"	
Toluene	**7.76**	0.500	"	"	"	"	"	"	
Ethylbenzene	**0.693**	0.500	"	"	"	"	"	"	
Xylenes (total)	**2.28**	0.500	"	"	"	"	"	"	
Methyl tert-butyl ether	**301**	2.50	"	"	"	"	"	"	
Surrogate: a,a,a-Trifluorotoluene		*205 %*		*70-130*		"	"	"	*S-02*

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Blaine Tech Services (Shell) 1680 Rogers Avenue San Jose CA, 95112	Project: 5755 Broadway Project Number: 5755 Broadway Project Manager: Nick Sudano	**Reported:** 03/09/01 09:08

MTBE Confirmation by EPA Method 8260A

Sequoia Analytical - Morgan Hill

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
S-2 (MKB0497-02) Water Sampled: 02/12/01 16:03 Received: 02/13/01 11:11									
Methyl tert-butyl ether	**17000**	500	ug/l	1000	1C07032	03/06/01	03/06/01	EPA 8260A	
Surrogate: 1,2-Dichloroethane-d4		*73.3 %*		*70-130*		"	"	"	"

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Blaine Tech Services (Shell) 1680 Rogers Avenue San Jose CA, 95112	Project: 5755 Broadway Project Number: 5755 Broadway Project Manager: Nick Sudano	**Reported:** 03/09/01 09:08

Total Purgeable Hydrocarbons (C6-C12), BTEX and MTBE by DHS LUFT - Quality Control
Sequoia Analytical - Morgan Hill

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1B22004 - EPA 5030B [P/T]										
Blank (1B22004-BLK1)				Prepared & Analyzed: 02/22/01						
Purgeable Hydrocarbons	ND	50.0	ug/l							
Benzene	ND	0.500	"							
Toluene	ND	0.500	"							
Ethylbenzene	ND	0.500	"							
Xylenes (total)	ND	0.500	"							
Methyl tert-butyl ether	ND	2.50	"							
Surrogate: a,a,a-Trifluorotoluene	*9.87*		"	*10.0*		*98.7*	*70-130*			
LCS (1B22004-BS1)				Prepared & Analyzed: 02/22/01						
Benzene	8.72	0.500	ug/l	10.0		87.2	70-130			
Toluene	8.97	0.500	"	10.0		89.7	70-130			
Ethylbenzene	8.67	0.500	"	10.0		86.7	70-130			
Xylenes (total)	25.9	0.500	"	30.0		86.3	70-130			
Surrogate: a,a,a-Trifluorotoluene	*10.6*		"	*10.0*		*106*	*70-130*			
Matrix Spike (1B22004-MS1)		**Source: MKB0533-02**		Prepared & Analyzed: 02/22/01						
Benzene	9.89	0.500	ug/l	10.0	ND	98.9	60-140			
Toluene	9.14	0.500	"	10.0	ND	89.6	60-140			
Ethylbenzene	8.90	0.500	"	10.0	ND	89.0	60-140			
Xylenes (total)	27.6	0.500	"	30.0	ND	90.8	60-140			
Surrogate: a,a,a-Trifluorotoluene	*9.66*		"	*10.0*		*96.6*	*70-130*			
Matrix Spike Dup (1B22004-MSD1)		**Source: MKB0533-02**		Prepared & Analyzed: 02/22/01						
Benzene	9.84	0.500	ug/l	10.0	ND	98.4	60-140	0.507	25	
Toluene	8.92	0.500	"	10.0	ND	87.4	60-140	2.44	25	
Ethylbenzene	8.65	0.500	"	10.0	ND	86.5	60-140	2.85	25	
Xylenes (total)	26.3	0.500	"	30.0	ND	86.5	60-140	4.82	25	
Surrogate: a,a,a-Trifluorotoluene	*9.89*		"	*10.0*		*98.9*	*70-130*			

Sequoia Analytical

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Morgan Hill, CA 95037
(408) 776-9600
FAX (408) 782-6308
www.sequoialabs.com

Blaine Tech Services (Shell)	Project: 5755 Broadway	
1680 Rogers Avenue	Project Number: 5755 Broadway	**Reported:**
San Jose CA, 95112	Project Manager: Nick Sudano	03/09/01 09:08

Total Purgeable Hydrocarbons (C6-C12), BTEX and MTBE by DHS LUFT - Quality Control

Sequoia Analytical - Morgan Hill

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1B26004 - EPA 5030B [P/T]										
Blank (1B26004-BLK1)				Prepared & Analyzed: 02/26/01						
Purgeable Hydrocarbons	ND	50 0	ug/l							
Benzene	ND	0.500	"							
Toluene	ND	0.500	"							
Ethylbenzene	ND	0.500	"							
Xylenes (total)	ND	0.500	"							
Methyl tert-butyl ether	ND	2.50	"							
Surrogate: a,a,a-Trifluorotoluene	*10.2*		"	*10.0*		*102*	*70-130*			
LCS (1B26004-BS1)				Prepared & Analyzed: 02/26/01						
Benzene	9.68	0 500	ug/l	10.0		96.8	70-130			
Toluene	9.99	0.500	"	10.0		99.9	70-130			
Ethylbenzene	10.1	0.500	"	10 0		101	70-130			
Xylenes (total)	30.5	0.500	"	30.0		102	70-130			
Methyl tert-butyl ether	51 7	2.50	"				70-130			
Surrogate: a,a,a-Trifluorotoluene	*10.2*		"	*10.0*		*102*	*70-130*			
Matrix Spike (1B26004-MS1)		**Source: MKB0598-04**		Prepared & Analyzed: 02/26/01						
Benzene	9 87	0.500	ug/l	10.0	ND	98.7	60-140			
Toluene	10.1	0.500	"	10.0	ND	101	60-140			
Ethylbenzene	10.0	0.500	"	10.0	ND	100	60-140			
Xylenes (total)	29 9	0 500	"	30.0	ND	99.7	60-140			
Methyl tert-butyl ether	56 4	2.50	"		ND		60-140			
Surrogate: a,a,a-Trifluorotoluene	*10.2*		"	*10.0*		*102*	*70-130*			
Matrix Spike Dup (1B26004-MSD1)		**Source: MKB0598-04**		Prepared & Analyzed: 02/26/01						
Benzene	9.79	0.500	ug/l	10 0	ND	97.9	60-140	0.814	25	
Toluene	10.1	0.500	"	10.0	ND	101	60-140	0	25	
Ethylbenzene	10.0	0 500	"	10.0	ND	100	60-140	0	25	
Xylenes (total)	29.9	0.500	"	30.0	ND	99.7	60-140	0	25	
Methyl tert-butyl ether	52.5	2.50	"		ND		60-140	7 16	25	
Surrogate: a,a,a-Trifluorotoluene	*10.2*		"	*10.0*		*102*	*70-130*			

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Blaine Tech Services (Shell)	Project: 5755 Broadway	
1680 Rogers Avenue	Project Number: 5755 Broadway	**Reported:**
San Jose CA, 95112	Project Manager: Nick Sudano	03/09/01 09:08

MTBE Confirmation by EPA Method 8260A - Quality Control
Sequoia Analytical - Morgan Hill

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1B27025 - EPA 3520B										
Blank (1B27025-BLK1)				Prepared & Analyzed: 02/26/01						
Methyl tert-butyl ether	ND	1.00	ug/l							
Surrogate: 1,2-Dichloroethane-d4	*9.02*		"	*10.0*		*90.2*	*70-130*			
LCS (1B27025-BS1)				Prepared & Analyzed: 02/26/01						
Methyl tert-butyl ether	11.3	1.00	ug/l	10.0		113	70-130			
Surrogate: 1,2-Dichloroethane-d4	*9.48*		"	*10.0*		*94.8*	*70-130*			
Matrix Spike (1B27025-MS1)		**Source: MKB0497-04**		Prepared & Analyzed: 02/26/01						
Methyl tert-butyl ether	457	10.0	ug/l	100		457	70-130			Q-16
Surrogate. 1,2-Dichloroethane-d4	*8.88*		"	*10 0*		*88.8*	*70-130*			
Matrix Spike Dup (1B27025-MSD1)		**Source: MKB0497-04**		Prepared & Analyzed: 02/26/01						
Methyl tert-butyl ether	451	10.0	ug/l	100		451	70-130	1.32	25	Q-16
Surrogate: 1,2-Dichloroethane-d4	*8.94*		"	*10.0*		*89.4*	*70-130*			
Batch 1C07032 - EPA 5030B P/T										
Blank (1C07032-BLK1)				Prepared & Analyzed: 03/06/01						
Methyl tert-butyl ether	ND	0 500	ug/l							
Surrogate: 1,2-Dichloroethane-d4	*8.50*		"	*10.0*		*85.0*	*70-130*			
LCS (1C07032-BS1)				Prepared & Analyzed: 03/06/01						
Methyl tert-butyl ether	10.3	0.500	ug/l	10.0		103	70-130			
Surrogate: 1,2-Dichloroethane-d4	*8.98*		"	*10.0*		*89.8*	*70-130*			
Matrix Spike (1C07032-MS1)		**Source: MKB0814-11**		Prepared & Analyzed: 03/06/01						
Methyl tert-butyl ether	11.6	0 500	ug/l	10.0	ND	116	70-130			
Surrogate: 1,2-Dichloroethane-d4	*9 74*		"	*10 0*		*97 4*	*70-130*			

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Blaine Tech Services (Shell)	Project: 5755 Broadway	
1680 Rogers Avenue	Project Number: 5755 Broadway	**Reported:**
San Jose CA, 95112	Project Manager: Nick Sudano	03/09/01 09:08

MTBE Confirmation by EPA Method 8260A - Quality Control
Sequoia Analytical - Morgan Hill

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1C07032 - EPA 5030B P/T										
Matrix Spike Dup (1C07032-MSD1)		**Source: MKB0814-11**		Prepared & Analyzed: 03/06/01						
Methyl tert-butyl ether	11.8	0.500	ug/l	10.0	ND	118	70-130	1.71	25	
Surrogate. 1.2-Dichloroethane-d4	*9.56*		*"*	*10.0*		*95.6*	*70-130*			

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Blaine Tech Services (Shell)	Project: 5755 Broadway	
1680 Rogers Avenue	Project Number: 5755 Broadway	**Reported:**
San Jose CA, 95112	Project Manager: Nick Sudano	03/09/01 09:08

Notes and Definitions

M-03	Sample was analyzed at a second dilution.
P-01	Chromatogram Pattern: Gasoline C6-C12
P-03	Chromatogram Pattern: Unidentified Hydrocarbons C6-C12
Q-16	The RPD and/or percent recovery for this QC spike sample cannot be accurately calculated due to interference from coeluting organic compounds present in the sample.
S-02	The surrogate recovery for this sample cannot be accurately quantified due to interference from coeluting organic compounds present in the sample.
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
RPD	Relative Percent Difference

LAB: Sequoia

EQUIVA Services LLC Chain Of Custody Record

Lab Identification (if necessary):

Address:

City, State, Zip:

Equiva Project Manager to be invoiced:

☑ SCIENCE & ENGINEERING
☐ TECHNICAL SERVICES
☐ CRMT HOUSTON

Karen Petryna

INCIDENT NUMBER (S&E ONLY): 98995756

SAP or CRMT NUMBER (TS/CRMT):

PAGE: 1 of 1

CONSULTANT COMPANY: Blaine Tech Services

ADDRESS: 1680 Rogers Avenue

CITY: San Jose, CA 95112

TELEPHONE: 408-573-0555 FAX: 408-573-7771 E-MAIL: nsudano@blainetech.com

SITE ADDRESS (Street and City): 5755 Broadway, Oakland

PROJECT CONTACT (Report to): Nick Sudano

CONSULTANT PROJECT NO.: BTS # 010212-X3

SAMPLER NAME(S) (Print): HOYT RYACES

LAB USE ONLY

TURNAROUND TIME (BUSINESS DAYS):
☒ 10 DAYS ☐ 5 DAYS ☐ 72 HOURS ☐ 48 HOURS ☐ 24 HOURS ☐ LESS THAN 24 HOURS

☐ LA - RWQCB REPORT FORMAT ☐ UST AGENCY:

GC/MS MTBE CONFIRMATION: HIGHEST X HIGHEST per BORING ____ ALL ____

SPECIAL INSTRUCTIONS OR NOTES:

TEMPERATURE ON RECEIPT C°

REQUESTED ANALYSIS

MKB0497

LAB USE ONLY	Field Sample Identification	SAMPLING DATE	SAMPLING TIME	MATRIX	NO. OF CONT.	TPH - Gas, Purgeable (8015m)	BTEX (8021B)	MTBE (8021B)	MTBE (8260B)	TPH - Diesel, Extractable (8015m)	Oxygenates (5) by 8260	Ethanol, Methanol (8015B)		MTBE (8260B) Confirmation, See Note	FIELD NOTES: Container/Preservative or PID Readings or Laboratory Notes
	S-1	2/12/01	1540	W	3	X	X	X						X	01
	S-2		1603			X	X	X						X	02
	S-3		1546			X	X	X						X	03
	T-2		1529			X	X	X						X	04

Relinquished by: (Signature)	Received by: (Signature)	Date: 2/13/01	Time: 9:22
Relinquished by: (Signature)	Received by: (Signature)	Date: 2/13/01	Time: 11:11
Relinquished by: (Signature)	Received by: (Signature)	Date:	Time:

White with final report, Green to File, Yellow and Pink to Client.

10/16/00 Revision

Q&Q Graphic (714) 898-9702

WELL GAUGING DATA

Project # 010212-X3 Date 2/12/01 Client EQUIVA

Site 5755 Broadway/ OAK CAL

	Well ID	Well Size (in.)	Sheen / Odor	Depth to Immiscible Liquid (ft.)	Thickness of Immiscible Liquid (ft.)	Volume of Immiscibles Removed (ml)	Depth to water (ft.)	Depth to well bottom (ft.)	Survey Point: TOB or TOC	
	S-1	3					1.34	11.70		
	S-2	4					1.47	9.45		
	S-3	4					2.47	9.54		
FP	T-1	12	NO SPH DETECTED				1.20	13.37		
FP	T-2	12	NO SPH Detected				1.45	13.02		
FP	T-3	4	NO SPH Detected				2.11	8.75		

EQUIVA WELL MONITORING DATA SHEET

BTS #: 010212-X3	Site: 98995756
Sampler: HOYT	Date: 2/12/01
Well I.D.: S-1	Well Diameter: 2 (3) 4 6 8 ____
Total Well Depth: 11.70	Depth to Water: 1.34
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: (PVC) Grade	D.O. Meter (if req'd): (YSI) HACH

Purge Method:
- Bailer
- Disposable Bailer
- Middleburg
- (Electric Submersible)
- Waterra
- Peristaltic
- Extraction Pump
- Other_____

Sampling Method: (Bailer)
- Disposable Bailer
- Extraction Port
- Dedicated Tubing
- Other: _____

3.8 (Gals.) X 3 = 11.4 Gals.
1 Case Volume | Specified Volumes | Calculated Volume

Well Diameter	Multiplier	Well Diameter	Multiplier
1"	0.04	4"	0 65
2"	0.16	6"	1.47
3"	0 37	Other	radius² * 0.163

Time	Temp (°F)	pH	Cond.	Turbidity	Gals. Removed	Observations
1400	59.4	7.53	715	88.0	4	
1401	60.7	7.42	746	125.3	8	
well	Dewatered		DTW 9.24	@ 1401		
DTW	@ 3	.23	at Sampling			

Did well dewater? (Yes) No — Gallons actually evacuated: 8

Sampling Time: 1540 — Sampling Date: 2/12/01

Sample I.D.: S-1 — Laboratory: (Sequoia) Columbia Other_____

Analyzed for: (TPH-G BTEX MTBE) TPH-D — Other:

EB I.D. (if applicable): @ Time — Duplicate I.D. (if applicable):

Analyzed for: TPH-G BTEX MTBE TPH-D — Other:

D.O. (if req'd):	Pre-purge:	mg/L	(Post-purge:)	2.2 mg/L
O.R.P. (if req'd):	Pre-purge:	mV	Post-purge:	mV

EQUIVA WELL MONITORING DATA SHEET

BTS #: 010212-X3	Site: 9899 5756
Sampler: HOYT	Date: 2/21/01
Well I.D.: S-2	Well Diameter: 2 3 (4) 6 8 ____
Total Well Depth: 9.45	Depth to Water: 1.47
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: (PVC) Grade	D.O. Meter (if req'd): (YSI) HACH

Purge Method:
- Bailer
- Disposable Bailer
- Middleburg
- ~~Electric Submersible~~
- Waterra
- Peristaltic
- Extraction Pump
- Other_____

Sampling Method: (Bailer)
- Disposable Bailer
- Extraction Port
- Dedicated Tubing
- Other: _____

5.1 (Gals.) X 3 = 15.5 Gals.
1 Case Volume | Specified Volumes | Calculated Volume

Well Diameter	Multiplier	Well Diameter	Multiplier
1"	0.04	4"	0.65
2"	0.16	6"	1.47
3"	0.37	Other	radius² * 0.163

Time	Temp (°F)	pH	Cond.	Turbidity	Gals. Removed	Observations
1438	58.5	6.96	1020	17.5	5	
Well Dewatered			DTW 8.52	@ 1439	8	
DTW @ 2.67 at			Sampling			

Did well dewater? (Yes) No — Gallons actually evacuated: 8

Sampling Time: 1603 — Sampling Date: 2/21/01

Sample I.D.: S-2 — Laboratory: (Sequoia) Columbia Other_____

Analyzed for: (TPH-G BTEX MTBE) TPH-D Other:

EB I.D. (if applicable): @ Time — Duplicate I.D. (if applicable):

Analyzed for: TPH-G BTEX MTBE TPH-D Other:

D.O. (if req'd):	Pre-purge:	mg/L	Post-purge:	2.0 mg/L
O.R.P. (if req'd):	Pre-purge:	mV	Post-purge:	mV

EQUIVA WELL MONITORING DATA SHEET

BTS #: 010212-X3	Site: 9899 5756
Sampler: HOYT	Date: 2/12/01
Well I.D.: S-3	Well Diameter: 2 3 (4) 6 8 ____
Total Well Depth: 9.54	Depth to Water: 2.47
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: (PVC) Grade	D.O. Meter (if req'd): (YSI) HACH

Purge Method:
- Bailer
- Disposable Bailer
- Middleburg
- ~~Electric Submersible~~
- Waterra
- Peristaltic
- Extraction Pump
- Other_____

Sampling Method: (Bailer)
- Disposable Bailer
- Extraction Port
- Dedicated Tubing
- Other: _____

4.5 (Gals.) X 3 = 13.7 Gals.
1 Case Volume | Specified Volumes | Calculated Volume

Well Diameter	Multiplier	Well Diameter	Multiplier
1"	0.04	4"	0.65
2"	0.16	6"	1.47
3"	0.37	Other	radius² * 0.163

Time	Temp (°F)	pH	Cond.	Turbidity	Gals. Removed	Observations
1418	59.8	7.30	.023	34.8	5	
Well	Dewatered		DTW 8.21	@ 1419	8	
DTW @ 1.89 at sampling						

Did well dewater? (Yes) No — Gallons actually evacuated: 8

Sampling Time: 1546 — Sampling Date: 2/21/01

Sample I.D.: S-3 — Laboratory: (Sequoia) Columbia Other _____

Analyzed for: (TPH-G BTEX MTBE) TPH-D Other:

EB I.D. (if applicable): @ Time — Duplicate I.D. (if applicable):

Analyzed for: TPH-G BTEX MTBE TPH-D Other:

D.O. (if req'd):	Pre-purge:	mg/L	Post-purge:	2.3 mg/L
O.R.P. (if req'd):	Pre-purge:	mV	Post-purge:	mV

EQUIVA WELL MONITORING DATA SHEET

BTS #: 010212-X3	Site: 98995756
Sampler: HOYT	Date: 2/21/01
Well I.D.: T-2	Well Diameter: 2 3 4 6 8 (12)
Total Well Depth: 13.02	Depth to Water: 1.45
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: (PVC) Grade	D.O. Meter (if req'd): (YSI) HACH

Purge Method:
Bailer
Disposable Bailer
Middleburg
(Electric Submersible)
Waterra
Peristaltic
Extraction Pump
Other

Sampling Method: (Bailer)
Disposable Bailer
Extraction Port
Dedicated Tubing
Other:

68.2 (Gals.) X 3 = 204.7 Gals.
1 Case Volume | Specified Volumes | Calculated Volume

Well Diameter	Multiplier	Well Diameter	Multiplier
1"	0.04	4"	0.65
2"	0.16	6"	1.47
3"	0.37	Other	radius² * 0.163

5.9

Time	Temp (°F)	pH	Cond.	Turbidity	Gals. Removed	Observations
1506	56.1	7.13	917	17.6	68	
1515	56.7	7.19	942	12.4	136	
1525	56.6	7.17	929	13.8	205	

Did well dewater? Yes (No)
Gallons actually evacuated: 205

Sampling Time: 1529
Sampling Date: 2/12/01

Sample I.D.: T-2
Laboratory: (Sequoia) Columbia Other

Analyzed for: (TPH-G BTEX MTBE) TPH-D Other:

EB I.D. (if applicable): @ Time
Duplicate I.D. (if applicable):

Analyzed for: TPH-G BTEX MTBE TPH-D Other:

D.O. (if req'd):	Pre-purge:	mg/L	(Post-purge)	1.6	mg/L
O.R.P. (if req'd):	Pre-purge:	mV	Post-purge:		mV

ATTACHMENT B

Site Conceptual Model

SITE CONCEPTUAL MODEL
Date: April 2, 2001
Cambria Environmental Technology, Inc.

Site Address:	5755 Broadway	**Incident Number:**	98995756
City:	Oakland	**Regulator:**	Alameda County Health Care Services Agency

Item	Evaluation Criteria	Comments/Discussion
1	**Hydrocarbon Source**	
1.1	Identify/Describe Release Source and Volume (if known)	In December of 1992 gasoline vapors were detected in the storm drain and sanitary sewers south of the site. Although all tanks passed a subsequent precision tightness test, the regular unleaded piping failed. Based on tank inventory records, approximately 200 gallons of gasoline may have been released. SPH was also found in one of the tank backfill wells.
1.2	Discuss Steps Taken to Stop Release	Gettler-Ryan of Hayward, California, replaced a pipe fitting and the piping passed a subsequent test.
2	**Site Characterization**	
2.1	Current Site Use/Status	The site is an operating Shell-branded station. The area surrounding the site is commercial and residential.
2.2	Soil Definition Status	There has been significant TPHg and benzene detections below 10 fbg in the areas assessed. Lateral soil definition has been limited primarily to the sanitary sewer alignment and boring S-2, both downgradient of the known source area. Only low concentrations of hydrocarbons have been detected at the farthest downgradient sample points. The plume is defined by non-detection of analytes at S-3.
2.3	Separate-Phase Hydrocarbon (SPH) Definition Status	Floating hydrocarbons were detected in the tank backfill well and trench excavations prior to remediation.
2.4	Groundwater Definition Status (BTEX)	Benzene is defined onsite to the north, west and east by non-detection in wells T-3, S-3, T-1, T-2, and S-1. At the south end of the site, benzene is detected in well S-2 at a concentration of 1,430 ppb.
2.5	BTEX Plume Stability and Concentration Trends	Benzene concentrations in groundwater monitoring well S-2, at the south end of the site have fluctuated and increased slightly over the last year.
2.6	Groundwater Definition Status (MTBE)	MTBE is defined onsite to the west by non-detection in well S-3. To the east and south ends of the site, MTBE is detected in wells T-2, S-1 and S-2 at concentrations of 301, 209, and 17,000 ppb respectively.
2.7	MTBE Plume Stability and Concentration Trends	MTBE concentrations in groundwater have remained stable and are decreasing at the north and south ends of the plume at wells T-2 and S-2 respectively. MTBE concentrations in groundwater monitoring well S-1 in the center of the plume have fluctuated and increased slightly since 1996.
2.8	Groundwater Flow Direction, Depth Trends and Gradient Trends	Groundwater flow direction ranges from south-southwest to south-southeast. The depth to groundwater ranges from 0.5 to 4.9 fbg. Typical gradient at the site is approximately 0.025.
2.9	Stratigraphy and Hydrogeology	The site is underlain by alternating beds of clayey silt, sandy silt, and silty sand to the maximum explored depth of 22 fbg.

Item	Evaluation Criteria	Comments/Discussion
2.10	Preferential Pathways Analysis	Two sanitary sewer mains, and a sanitary sewer lateral were identified within Broadway and at the south end of the site , respectively. Another sewer main was identified within Taft Street. The sanitary sewer pipes are 8-21 inches in diameter, and are buried approximately 6.5 fbg. Storm drain conduits were identified within Broadway. The storm drain is 12-inches in diameter and is buried approximately 4 fbg. The sewer and storm drain conduits downgradient of the site flow northeast down Taft Street and southwest down Broadway (Figure 2). Groundwater typically intersects these utility trenches and natural groundwater flow may be altered.
2.11	Other Pertinent Issues	
3	**Remediation Status**	
3.1	Remedial Actions Taken	In December of 1992, a vacuum truck purged groundwater and floating hydrocarbons from the tank backfill wells. Concurrently, three trenches were excavated around sewer lines and former tank-pit dewatering piping near the south portion of the site. The former tank-pit dewatering piping and 126 yards of impacted soil were removed from the excavation. A grout barrier was installed in the former tank-pit dewatering piping trench to impede hydrocabon migration. Sections of sanitary sewer piping and mains were replaced with hydrocarbon resistant piping, and a horizontal groundwater extraction well was installed at 8 fbg below the sewer main piping. Between 1994 and 1998 SPH were removed from site wells by manual bailing, and aqueous phase hydrocarbons were removed from the tank pit area by vacuum truck. Between April 2000, and November 2000 approximately 7,959 gallons of groundwater were extracted from well S-2, and the horizontal groundwater extraction well. On February 7, 2001 approximately 0.068 pounds of hydrocarbons were extracted from well S-2 by means of dual vacuum operations.
3.2	Area Remediated	Area near the USTs, and the sanitary sewer lateral and main piping in the south (downgradient) end of the site.
3.3	Remediation Effectiveness	In December of 1992, about 40,000 gallons of mixed water and gasoline were purged from the tank backfill. Between 1994 and 1998 approximately 0.55 pounds of SPH and aproximately 422,338 gallons of groundwater with aqueous phase hydrocarbons were removed. In 2000 approximately 0.07463 pounds of TPHg, 0.01091 pounds of benzene, and 0.22159 pounds of MTBE were extracted from groundwater in well S-2 and the horizontal groundwater extraction well. In February 2001 approxiamtely 0.063 pounds of TPHg, 0.001 pounds of benzene, and 0.004 pounds of MTBE were extracted as soil vapor from well S-2.

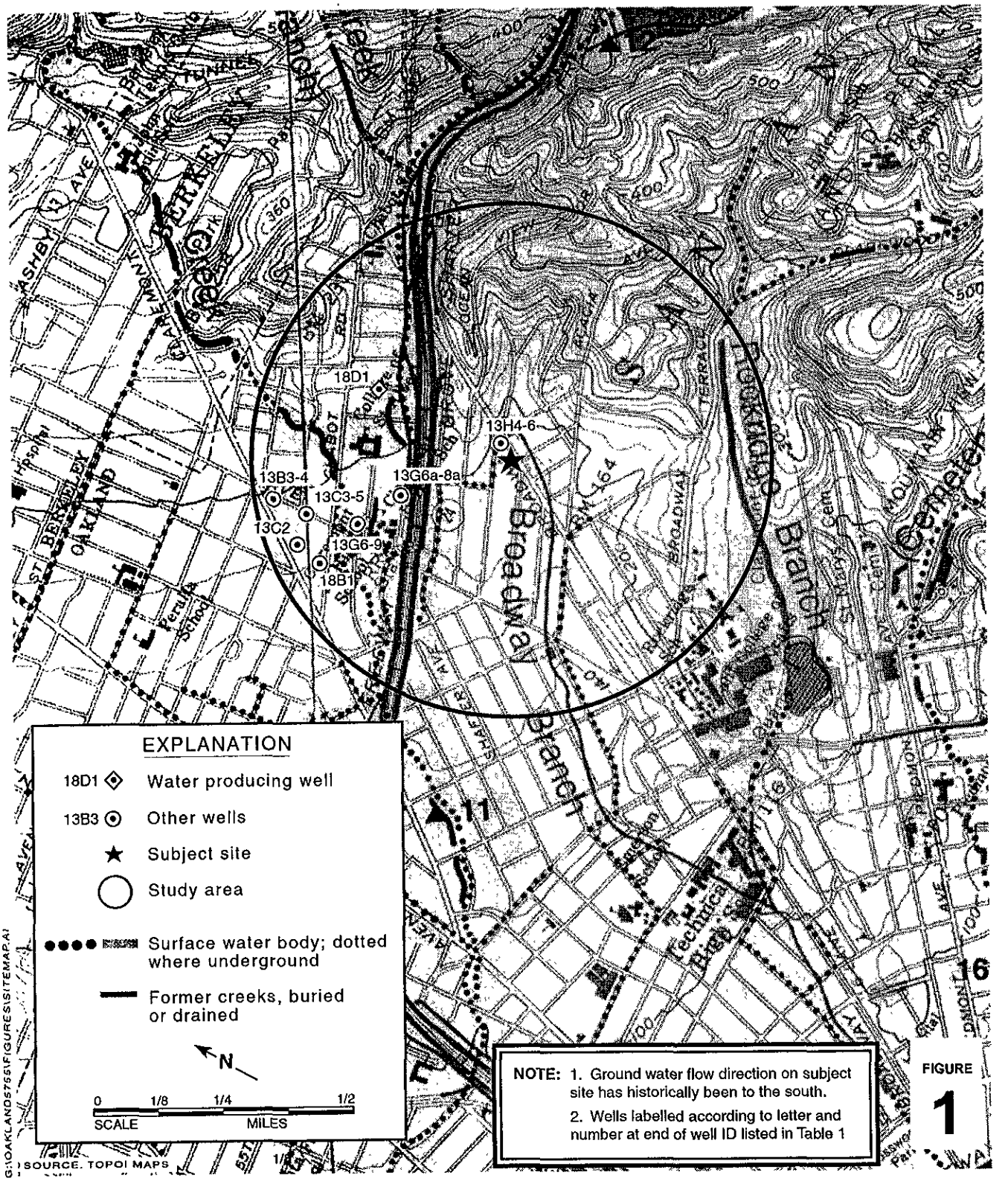
Item	Evaluation Criteria	Comments/Discussion
4	**Well and Sensitive Receptor Survey**	
4.1	Designated Beneficial Groundwater Use	Deeper groundwater from the East Bay Plain groundwater basin is used for municipal, industrial process, industrial service, and agricultural water supply.
4.2	Shallow Groundwater Use	No known use.
4.3	Deep Groundwater Use	No known use.
4.4	Well Survey Results	A well survey that was performed in April of 1998 identified one domestic well located approximately ¼ mile west (upgradient) of the site (Figure 1, Table 1).
4.5	Likelihood of Impact to Wells	Unlikely due to the distance and direction of the domestic well from the site.
4.6	Likelihood of Impact to Surface Water	Rockridge branch of Glen Echo Creek is located approximately ¼ mile southeast of the site (cross gradient). Clairmont Creek is located approximately ¼ mile west of the site (cross gradient). Impact to surface water is unlikely due to the long distance from the site, and the expected lateral attenuation of hydrocarbons (Figure 1).
5	**Risk Assessment**	
5.1	Site Conceptual Exposure Model (current and future uses)	The site is currently an active gasoline service station. Impacted soil and groundwater exists near the dispenser islands and at the southern portion of the site. The plume does not extend beneath enclosed structures onsite.
5.2	Potential Exposure Pathways	Exposure by dermal contact, ingestion, and particulate inhalation from surface soils near the dispensers or sewer piping. Inhalation of vapors from impacted soil and groundwater in outdoor air by commercial occupants.
5.3	Risk Assessment Status	No formal risk assessment has been performed.
5.4	Identified Human Exceedances	None identified or evaluated.
5.5	Identified Ecological Exceedances	None identified or evaluated.
6	**Additional Recommended Data or Tasks**	
6.1		

Attached:

Well Survey Map and Table
Underground Conduit Locations Map
Soil and Groundwater Analytical Summary Table and Figures
Soil boring logs
(Cambria has not located copies of soil boring logs for S-1, S-2, and T-3 internally but we will next check Equiva files and then Agency files in the next quarter.)

G:\Oakland 5755 Broadway\5755Broadwayoakland SCM March01.xls

01/18/00



FIGURE

1

Shell-branded Service Station

5755 Broadway

Oakland, California

Incident #98995756

CAMBRIA

Vicinity Map

Table 1. Well Survey - Shell-branded Service Station - Incident # 98995756, 5755 Broadway, Oakland, California

Well ID	Notes	Installation Date	Owner	Use	Depth (feet)
1S/4W-13H2	1	September 1989	Shell Oil Products Company	MON	10
1S/4W-13H3	1	September 1989	Shell Oil Products Company	MON	10
1S/4W-13G6	2	December 1989	Chevron, USA, Inc.	MON	17
1S/4W-13G7	2	December 1989	Chevron, USA, Inc.	MON	17
1S/4W-13G8	2	July 1990	Chevron, USA, Inc.	MON	48
1S/4W-13G9	2	August 1990	Chevron, USA, Inc.	MON	28
1S/4W-13B3	2	January 1990	Shell Oil Products Company	MON	25
1S/4W-13B4	2	January 1990	Shell Oil Products Company	MON	25
1S/3W-18B1	2	July 1981	EBMUD	CAT	27
1S/3W-18D1	2	UNK	H.L. Sorensen	DOM	80
1S/4W-13H1	3	December 1973	Pacific Gas and Electric	CAT	120
1S/4W-13L2	3	May 1975	EBMUD	CAT	50
1S/4W-13N2	3	May 1975	EBMUD	CAT	50
1S/4W-13G6a	2	April 1989	City of Oakland	PIE	28
1S/4W-13G7a	2	April 1989	City of Oakland	PIE	28
1S/4W-13G8a	2	April 1989	City of Oakland	MON	33
1S/4W-13C2	2	August 1991	Shell Oil Products Company	MON	32
1S/4W-13C3	2	July 1991	Dryer's Ice Cream	MON	30
1S/4W-13C4	2	July 1991	Dryer's Ice Cream	MON	28
1S/4W-13C5	2	July 1991	Dryer's Ice Cream	MON	27
1S/4W-13H4	2	August 1992	Chevron, USA, Inc	MON	43

Table 1. Well Survey - Shell-branded Service Station - Incident # 98995756, 5755 Broadway, Oakland, California

Well ID	Notes	Installation Date	Owner	Use	Depth (feet)
1S/4W-13H5	2	August 1992	Chevron, USA, Inc	MON	43
1S/4W-13H6	2	August 1992	Chevron, USA, Inc	MON	38

Abbreviations:
MON = Monitoring well
DOM = Domestic well
PIE = Piezometer
CAT = Cathodic protection well
UNK = Unknown

Notes
1 = Not shown on Figure 1, well located on subject site
2 = Wells labelled on Figure 1 by letters and numbers after hyphen in Well ID
3 = Not shown on Figure 1, unable to determine well location

Well locatoins provided by Department of Water Resources

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FIGURE 2

Underground Conduit Locations

Shell-branded Service Station
5755 Broadway
Oakland, California
Incident #98995756

CAMBRIA

Table 1. Analytic Results for Soil, Shell Service Station, WIC #204-2004-0204, 5755 Broadway, Oakland, California

Excavation/ Sample ID	Sample Depth	Date Sample	TPH-G	B	E	T	X
			<----------parts per million (mg/kg)---------->				
S-A[a]	5.5	06/12/85	3	---	---	---	---
	10.0	06/12/95	2	---	---	---	---
	11.5	06/12/85	ND	---	---	---	---
S-2-1[b]	3.0	09/18/89	92	0.12	0.58	0.80	4.2
S-3-1[b]	3.0	09/18/89	<10	<0.025	<0.025	0.062	0.120
S-C	1.5	02/02/93	7.9	0.094	0.12	0.0098	1.1
S-E	3.5	02/04/93	150	0.90	1.5	2.3	7.7
S-F	5.0	02/04/93	<1	0.021	<0.0025	<0.0025	<0.0025
S-G	2.5	02/04/93	<1	<0.0025	<0.0025	<0.0025	<0.0025
S-H	3.5	02/04/93	<1	0.024	<0.0025	<0.0025	<0.0025
	5.0	02/04/93	290	0.55	1.8	1.8	6.5
	8.0	02/12/93	2.1	0.074	0.0097	0.064	0.075
	10.0	02/12/93	<1	<0.0025	<0.0025	<0.0025	<0.0025
	11.5	02/12/93	<1	<0.0025	<0.0025	<0.0025	<0.0025
S-I	5.0	02/04/93	1.7	0.074	0.0038	0.095	0.10
	8.0	02/11/93	<1	0.011	<0.0025	0.0079	0.013
	10.0	02/11/93	<1	0.021	<0.0025	0.011	0.021
	12.0	02/11/93	<1	<0.0025	<0.0025	<0.0025	<0.0025
S-J	2.0	02/09/93	140	0.40	0.71	1.1	4.1
	4.0	02/09/93	1,300	1.1	8.1	9.5	44
S-K	6.5	02/09/93	1.0	0.35	0.31	0.23	0.64
S-L	2.0	02/10/93	<1	<0.0025	<0.0025	<0.0025	<0.0025
	4.0	02/10/93	<1	<0.0025	<0.0025	<0.0025	<0.0025
	6.0	02/10/93	320	0.99	1.5	2.0	5.2
	7.5	02/11/93	<1	0.039	0.0074	0.042	0.045
	10.0	02/11/93	<1	<0.0025	<0.0025	<0.0025	<0.0025

-- Table 1 continues on next page --

Excavation/ Sample ID	Sample Depth	Date Sample	TPH-G	B	E	T	X
			<----------parts per million (mg/kg)---------->				
	12.0	02/11/93	<1	<0.0025	<0.0025	<0.0025	<0.0025
S-M	2.0	02/10/93	<1	<0.0025	<0.0025	<0.0025	<0.0025
	4.0	02/10/93	<1	<0.0025	<0.0025	<0.0025	<0.0025
	7.5	02/10/93	<1	0.020	0.0072	0.028	0.053
	10.0	02/11/93	5.9	0.020	0.023	0.038	0.17
	12.0	02/11/93	<1	0.0026	0.0028	0.0069	0.027
S-N	2.0	02/10/93	<1	<0.0025	<0.0025	<0.0025	<0.0025
	4.0	02/10/93	<1	<0.0025	<0.0025	<0.0025	<0.0025
	7.5	02/10/93	11	0.067	0.18	0.51	1.1
	10.0	02/10/93	<1	0.0035	0.0033	0.0061	0.019
	12.0	02/10/93	1.2	<0.0025	<0.0025	<0.0025	0.025
S-O	7.5	02/12/93	<1	0.021	<0.0025	<0.0025	0.0043
	10.0	02/12/93	<1	<0.0025	<0.0025	<0.0025	<0.0025
	11.5	02/12/93	1.3	0.013	<0.0025	0.0046	0.032
	14.0	02/12/93	<1	<0.0025	<0.0025	<0.0025	<0.0025

Abbreviations:

TPH-G = Total petroleum hydrocarbons as gasoline by Modified EPA Method 8015
B = Benzene by EPA Method 8020
E = Ethylbenzene by EPA Method 8020
T = Toluene by EPA Method 8020
X = Xylenes by EPA Method 8020
--- = Not analyzed
ND = Not detected, detection limit not known

Analytical Laboratory:

National Environmental Testing, Inc., (NET), of Santa Rosa, California

Notes:

a = From August 1, 1985 Emcon Associates Report
b = From Harding Lawson Associates Report

Table 1. Dispenser Sample Analytical Data - Shell Service Station - WIC# 204-5510-0303, 5755 Broadway, Oakland, California

Sample ID	Depth (feet)	TPHg	MTBE	Benzene	Toluene	Ethylbenzene	Xylenes
		(Concentrations reported in milligrams per kilogram)					
March 12, 1998 Samples:							
D-2	2.0	260	<2.5	1.7	<0.50	3.3	5.4
D-3	2.0	750	9.8	<0.50	3.4	6.5	41
D-4	2.0	990	25	1.8	2.3	13	68

Abbreviations and Notes:

TPHg = Total petroleum hydrocarbons as gasoline by modified EPA Method 8015.

MTBE = Methyl tert-butyl ether by EPA Method 8020.

Benzene, ethylbenzene, toluene, xylenes by EPA Method 8020.

mg/kg = Milligrams per kilogram

<x = Below detection limit of x mg/kg

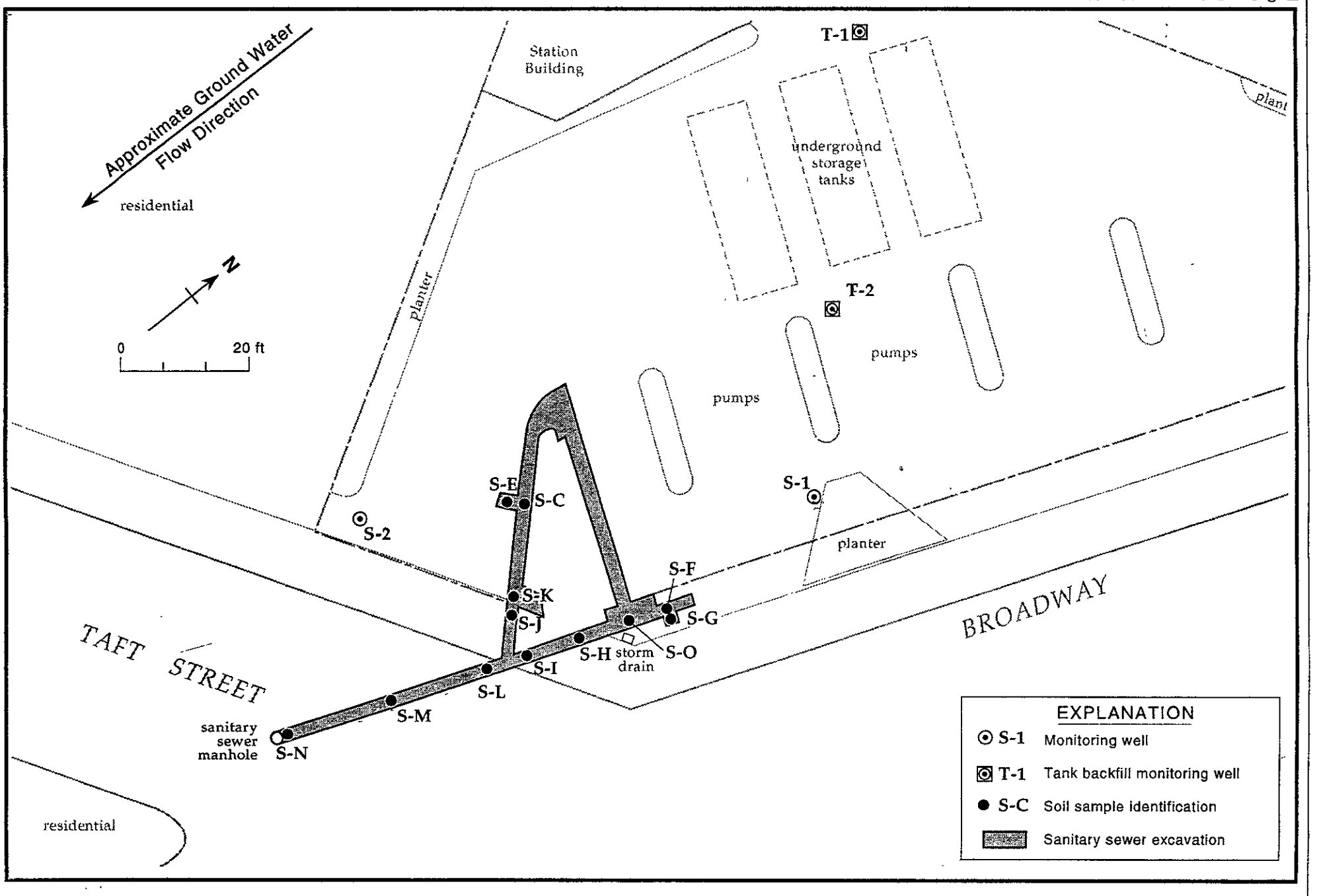


Figure 3. Sanitary Sewer Excavation and Soil Sample Locations - Shell Service Station WIC #204-2004-0204, 5755 Broadway, Oakland, California

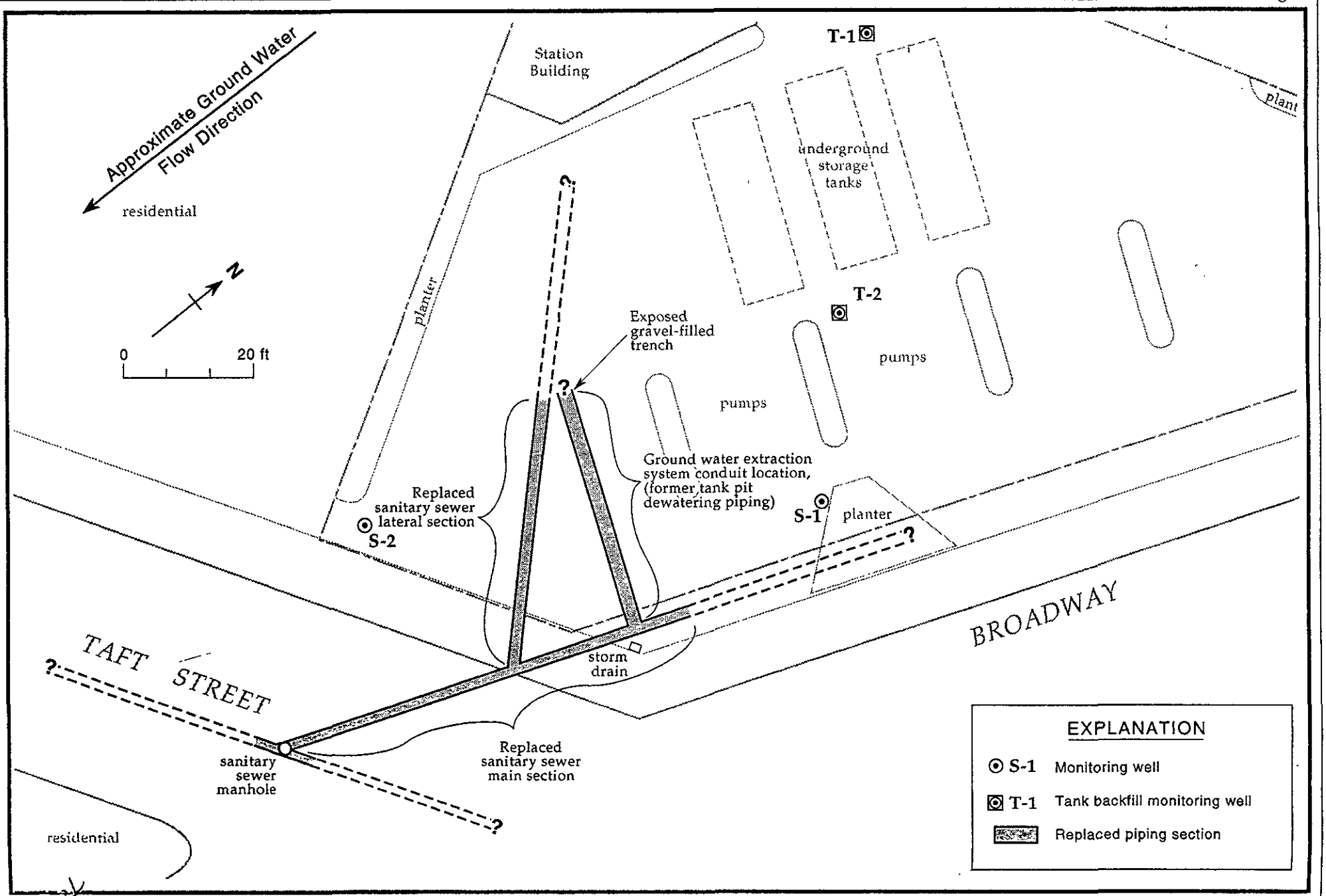


Figure 2. Sanitary Sewer Excavation and Piping Locations - Shell Service Station WIC #204-2004-0204, 5755 Broadway, Oakland, California

WELL CONCENTRATIONS
Shell-branded Service Station
5755 Broadway
Oakland, CA
Wic #204-5510-0303

Well ID	Date	TPPH (ug/L)	B (ug/L)	T (ug/L)	E (ug/L)	X (ug/L)	MTBE 8020 (ug/L)	MTBE 8260 (ug/L)	TOC (MSL)	Depth to Water (ft.)	GW Elevation (MSL)	DO Reading (ppm)
S-1	01/25/1991	<30	<0.3	<0.3	<0.3	<0.3	NA	NA	100.00	3.88	96.12	NA
S-1	06/03/1991	<30	<0.3	<0.3	<0.3	<0.3	NA	NA	100.00	3.51	96.49	NA
S-1	08/30/1991	<30	<0.3	<0.3	<0.3	<0.3	NA	NA	100.00	4.24	95.76	NA
S-1	11/22/1991	<30	2.3	<0.46	0.3	<0.65	NA	NA	100.00	4.29	95.71	NA
S-1	03/13/1992	<30	<0.52	<0.3	<0.3	<0.3	NA	NA	100.00	2.87	97.13	NA
S-1	05/28/1992	<50	<0.5	<0.5	<0.5	<0.5	NA	NA	100.00	3.79	96.21	NA
S-1	08/19/1992	<50	<0.5	<0.5	<0.5	<0.5	NA	NA	100.00	4.43	95.57	NA
S-1	11/18/1992	<50	<0.5	<0.5	<0.5	<0.5	NA	NA	100.00	4.34	95.66	NA
S-1	02/10/1993	51	1.4	<0.5	<0.5	<0.5	NA	NA	100.00	4.20	95.80	NA
S-1 (D)	02/10/1993	<50	1.2	<0.5	<0.5	<0.5	NA	NA	100.00	4.20	95.80	NA
S-1	06/11/1993	<50	<0.5	<0.5	<0.5	<0.5	NA	NA	100.00	3.39	96.61	NA
S-1	08/03/1993	<50	<0.5	<0.5	<0.5	<0.5	NA	NA	100.00	3.69	96.31	NA
S-1	11/02/1993	70a	<0.5	<0.5	<0.5	<0.5	NA	NA	100.00	4.26	95.74	NA
S-1	12/16/1993	NA	NA	NA	NA	NA	NA	NA	100.00	2.73	97.27	NA
S-1	02/01/1994	60a	<0.5	<0.5	<0.5	<0.5	NA	NA	100.00	3.38	96.62	NA
S-1	05/04/1994	<50	1.1	<0.5	<0.5	<0.5	NA	NA	100.00	3.00	97.00	NA
S-1	08/18/1994	<50	0.6	<0.5	<0.5	<0.5	NA	NA	100.00	3.70	96.30	NA
S-1 (D)	08/18/1994	60a	0.5	<0.5	<0.5	<0.5	NA	NA	100.00	3.70	96.30	NA
S-1	11/09/1994	<50	4	<0.5	<0.5	<0.5	NA	NA	100.00	2.52	97.48	NA
S-1	02/22/1995	50	0.8	0.7	<0.5	1.3	NA	NA	100.00	4.08	95.92	NA
S-1	05/02/1995	<50	<0.5	<0.5	<0.5	<0.5	NA	NA	100.00	2.58	97.42	NA
S-1	08/30/1995	<50	1.7	<0.5	<0.5	<0.5	NA	NA	100.00	3.48	96.52	NA
S-1	11/28/1995	<50	<0.5	<0.5	<0.5	<0.5	NA	NA	100.00	3.99	96.01	NA
S-1	02/02/1996	<50	11	<0.5	0.9	<0.5	NA	NA	100.00	2.00	98.00	NA
S-1	03/09/1996	<50	<0.5	<0.5	<0.5	<0.5	NA	NA	100.00	3.38	99.62	NA
S-1	08/22/1996	<50	1.5	<0.5	<0.5	<0.5	130	NA	100.00	3.43	96.57	NA

WELL CONCENTRATIONS
Shell-branded Service Station
5755 Broadway
Oakland, CA
Wic #204-5510-0303

Well ID	Date	TPPH (ug/L)	B (ug/L)	T (ug/L)	E (ug/L)	X (ug/L)	MTBE 8020 (ug/L)	MTBE 8260 (ug/L)	TOC (MSL)	Depth to Water (ft.)	GW Elevation (MSL)	DO Reading (ppm)
S-1	11/07/1996	<50	<0.5	<0.5	<0.5	<0.5	57	NA	100.00	3.70	96.30	4.33
S-1	02/20/1997	<50	0.64	<0.50	<0.50	1.6	6.5	NA	100.00	3.60	96.40	2
S-1	05/30/1997	<50	<0.50	<0.50	<0.50	<0.50	46	NA	100.00	3.47	96.53	7
S-1 (D)	05/30/1997	<50	<0.50	<0.50	<0.50	<0.50	47	NA	100.00	3.47	96.53	7
S-1	08/21/1997	<50	<0.50	<0.50	<0.50	0.84	26	NA	100.00	3.01	96.99	3.1
S-1	11/03/1997	<50	<0.50	1.1	<0.50	1.3	190	NA	100.00	3.66	96.34	2
S-1	01/20/1998	110	7.9	2.8	4.4	13	53	NA	100.00	1.84	98.16	4.6
S-1 (D)	01/20/1998	130	9.2	6.9	5.2	15	93	NA	100.00	1.84	98.16	4.6
S-1	02/16/1999	<50	<0.50	<0.50	<0.50	<0.50	8.6	NA	100.00	2.43	97.57	2.2
S-1	09/07/1999	NA	NA	NA	NA	NA	NA	NA	100.00	2.84	97.16	NA
S-1	02/02/2000	<50.0	<0.500	<0.500	<0.500	<0.500	202	NA	100.00	3.10	96.90	2.1
S-1	04/26/2000	NA	NA	NA	NA	NA	NA	NA	100.00	2.91	97.09	NA
S-1	07/25/2000	<50.0	<0.500	<0.500	<0.500	<0.500	811	NA	100.00	3.21	96.79	1.8
S-1	11/15/2000	NA	NA	NA	NA	NA	NA	NA	100.00	3.18	96.82	NA
S-1	**02/12/2001**	**<50.0**	**<0.500**	**<0.500**	**<0.500**	**<0.500**	**209**	**NA**	**100.00**	**1.34**	**98.66**	**2.2**
S-2	01/25/1991	450	140	1.8	6.2	15	NA	NA	98.92	4.52	94.40	NA
S-2	06/03/1991	490	150	2.7	8.2	7	NA	NA	98.92	4.02	94.90	NA
S-2	08/30/1991	70	0.37	<0.3	<0.3	<0.3	NA	NA	98.92	4.70	94.22	NA
S-2	11/22/1991	1,600	110	9.3	29	150	NA	NA	98.92	4.72	94.20	NA
S-2	03/13/1992	1,300	210	5.7	34	79	NA	NA	98.92	3.47	95.45	NA
S-2	05/28/1992	100	28	<0.5	<0.5	<0.5	NA	NA	98.92	4.45	94.45	NA
S-2	08/19/1992	470	42	<0.5	8.3	4	NA	NA	98.92	4.84	94.08	NA
S-2	11/18/1992	490	43	39	17	29	NA	NA	98.92	4.73	94.19	NA
S-2	02/10/1993	19,000	710	760	80	370	NA	NA	98.92	4.83	94.09	NA
S-2	06/11/1993	33,000	3,100	1,600	370	1,100	NA	NA	98.92	3.74	95.18	NA

WELL CONCENTRATIONS
Shell-branded Service Station
5755 Broadway
Oakland, CA
Wic #204-5510-0303

Well ID	Date	TPPH (ug/L)	B (ug/L)	T (ug/L)	E (ug/L)	X (ug/L)	MTBE 8020 (ug/L)	MTBE 8260 (ug/L)	TOC (MSL)	Depth to Water (ft.)	GW Elevation (MSL)	DO Reading (ppm)
S-2	08/03/1993	18,000	1,400	130	81	130	NA	NA	98.92	4.23	94.69	NA
S-2 (D)	08/03/1993	19,000	1,400	140	86	150	NA	NA	98.92	4.23	94.69	NA
S-2	11/02/1993	12,000a	470	47	31	92	NA	NA	98.92	4.72	94.20	NA
S-2 (D)	11/02/1993	13,000a	530	47	35	96	NA	NA	98.92	4.72	94.20	NA
S-2	12/16/1993	NA	NA	NA	NA	NA	NA	NA	98.92	3.00	95.92	NA
S-2	02/01/1994	31,000a	430	46	50	130	NA	NA	98.92	3.48	95.44	NA
S-2 (D)	02/01/1994	31,000a	300	33	30	100	NA	NA	98.92	3.48	95.44	NA
S-2	05/04/1994	3,900	1,200	31	53	71	NA	NA	98.92	3.26	95.66	NA
S-2 (D)	05/04/1994	4,500	1,200	37	57	110	NA	NA	98.92	3.26	95.66	NA
S-2	08/18/1994	24,000	600	8.3	15	27	NA	NA	98.92	3.98	94.94	NA
S-2	11/09/1994	1,400a	240	9.3	13	20	NA	NA	98.92	3.10	95.82	NA
S-2 (D)	11/09/1994	1,800	260	8.5	13	21	NA	NA	98.92	3.10	95.82	NA
S-2	02/22/1995	29,000	550	18	12	63	NA	NA	98.92	4.02	94.90	NA
S-2 (D)	02/22/1995	28,000	530	17	10	60	NA	NA	98.92	4.02	94.90	NA
S-2	05/02/1995	4,400	1,000	25	38	77	NA	NA	98.92	2.86	96.06	NA
S-2 (D)	05/02/1995	4,400	1,000	26	41	83	NA	NA	98.92	2.86	96.06	NA
S-2	08/30/1995	800	350	20	6.7	16	NA	NA	98.92	4.06	94.86	NA
S-2 (D)	08/30/1995	960	220	22	12	48	NA	NA	98.92	4.06	94.86	NA
S-2	11/28/1995	2,000	230	220	50	230	NA	NA	98.92	4.48	94.44	NA
S-2 (D)	11/28/1995	2,100	240	230	51	230	NA	NA	98.92	4.48	94.44	NA
S-2	02/02/1996	18,000	540	18	12	22	NA	NA	98.92	1.99	96.93	NA
S-2 (D)	02/02/1996	11,000	600	18	13	28	NA	NA	98.92	1.99	96.93	NA
S-2	03/09/1996	3,800	1,500	27	30	58	NA	NA	98.92	3.27	95.65	NA
S-2 (D)	03/09/1996	3,500	1,300	24	21	53	NA	NA	98.92	3.27	95.65	NA
S-2	08/22/1996	<20,000	490	<200	<200	<200	43,000	NA	98.92	3.85	95.07	NA
S-2 (D)	08/22/1996	<20,000	570	<200	<200	<200	59,000	51,000	98.92	3.85	95.07	NA

WELL CONCENTRATIONS
Shell-branded Service Station
5755 Broadway
Oakland, CA
Wic #204-5510-0303

Well ID	Date	TPPH (ug/L)	B (ug/L)	T (ug/L)	E (ug/L)	X (ug/L)	MTBE 8020 (ug/L)	MTBE 8260 (ug/L)	TOC (MSL)	Depth to Water (ft.)	GW Elevation (MSL)	DO Reading (ppm)
S-2	11/07/1996	<5,000	290	<50	<50	<50	32,000	NA	98.92	4.00	94.92	3.51
S-2 (D)	11/07/1996	<5,000	290	<50	<50	<50	32,000	NA	98.92	4.00	94.92	3.51
S-2	02/20/1997	<10,000	520	<100	<100	<100	28,000	NA	98.92	3.20	95.72	1
S-2 (D)	02/20/1997	<10,000	520	<100	<100	<100	35,000	NA	98.92	3.20	95.72	1
S-2	05/30/1997	150	15	11	3.5	15	11	NA	98.92	3.87	95.05	6
S-2	08/21/1997	1,600	220	<10	20	<10	18,000	NA	98.92	3.29	95.63	3.3
S-2 (D)	08/21/1997	1,500	180	<10	16	<10	21,000	NA	98.92	3.29	95.63	3.3
S-2	11/03/1997	1,000	94	<10	<10	<10	<50	NA	98.92	4.02	94.90	1.8
S-2	01/20/1998	590	110	8.3	18	23	7,800	NA	98.92	1.54	97.38	3.2
S-2	07/23/1998	2,600	840	<10	44	22	15,000	NA	98.92	2.89	96.03	NA
S-2	02/16/1999	680	140	6.1	10	18	19,000	NA	98.92	1.86	97.06	2.0
S-2	09/07/1999	<2,000	248	<20.0	<20.0	<20.0	22,800	NA	98.92	3.66	95.26	1.8
S-2	02/02/2000	103	0.825	<0.500	<0.500	<0.500	11,700	10,500	98.92	4.02	94.90	2.0
S-2	04/26/2000	4,040	799	<20.0	40.9	255	19,000	17,100b	98.92	2.63	96.29	2.3
S-2	07/25/2000	1,120	195	5.94	5.62	11.3	26,600	21,100	98.92	3.42	95.50	0.6
S-2b	11/15/2000	613	35.6	<5.00	<5.00	7.36	18,100	17,800	98.92	3.31	95.61	1.8
S-2	**02/12/2001**	**9,010**	**1,430**	**<20.0**	**219**	**848**	**28,300**	**17,000**	**98.92**	**1.47**	**97.45**	**2.0**
S-3	01/25/1991	<30	<0.3	<0.3	<0.3	<0.3	NA	NA	101.67	3.84	97.83	NA
S-3	06/03/1991	<30	<0.3	0.3	0.3	0.3	NA	NA	101.67	3.25	98.42	NA
S-3	08/03/1991	<30	<0.3	<0.3	<0.3	<0.3	NA	NA	101.67	4.73	96.94	NA
S-3	11/22/1991	<30	<0.3	<0.3	<0.3	<0.3	NA	NA	101.67	4.81	96.86	NA
S-3	03/13/1992	<30	<0.3	0.3	0.3	0.3	NA	NA	101.67	2.29	99.38	NA
S-3	05/28/1992	<50	<0.5	<0.5	<0.5	<0.5	NA	NA	101.67	3.62	98.05	NA
S-3	08/19/1992	<50	<0.5	<0.5	<0.5	0.5	NA	NA	101.67	4.66	97.01	NA
S-3	11/18/1992	<50	<0.5	<0.5	<0.5	<0.5	NA	NA	101.67	4.51	97.16	NA

WELL CONCENTRATIONS
Shell-branded Service Station
5755 Broadway
Oakland, CA
Wic #204-5510-0303

Well ID	Date	TPPH (ug/L)	B (ug/L)	T (ug/L)	E (ug/L)	X (ug/L)	MTBE 8020 (ug/L)	MTBE 8260 (ug/L)	TOC (MSL)	Depth to Water (ft.)	GW Elevation (MSL)	DO Reading (ppm)
S-3	02/10/1993	30	1.9	3.2	2.4	5.6	NA	NA	101.67	4.36	97.31	NA
S-3	06/11/1993	<50	<0.5	<0.5	<0.5	<0.5	NA	NA	101.67	2.91	98.76	NA
S-3 (D)	06/11/1993	<50	<0.5	<0.5	<0.5	<0.5	NA	NA	101.67	2.91	98.76	NA
S-3	08/03/1993	<50	<0.5	<0.5	<0.5	<0.5	NA	NA	101.67	3.70	97.97	NA
S-3	11/02/1993	Well inaccessible		NA	NA	NA	NA	NA	101.67	NA	NA	NA
S-3	12/16/1993	NA	NA	NA	NA	NA	NA	NA	101.67	2.12	99.55	NA
S-3	02/01/1994	<50	<0.5	<0.5	<0.5	<0.5	NA	NA	101.67	2.90	98.77	NA
S-3	05/04/1994	<50	<0.5	<0.5	<0.5	<0.5	NA	NA	101.67	2.54	99.13	NA
S-3	08/18/1994	<50	<0.5	<0.5	<0.5	<0.5	NA	NA	101.67	3.51	98.16	NA
S-3	11/09/1994	<50	<0.5	<0.5	<0.5	<0.5	NA	NA	101.67	2.44	99.23	NA
S-3	02/22/1995	80	<0.5	0.5	<0.5	0.5	NA	NA	101.67	4.12	97.55	NA
S-3	05/02/1995	<50	<0.5	<0.5	<0.5	<0.5	NA	NA	101.67	2.83	98.84	NA
S-3	08/30/1995	<50	0.5	<0.5	<0.5	<0.5	NA	NA	101.67	3.16	98.51	NA
S-3	11/28/1995	<50	<0.5	<0.5	<0.5	<0.5	NA	NA	101.67	3.87	97.80	NA
S-3	02/02/1996	<50	<0.5	<0.5	<0.5	<0.5	NA	NA	101.67	2.24	99.43	NA
S-3	03/09/1996	<50	<0.5	<0.5	<0.5	<0.5	NA	NA	101.67	3.05	98.62	NA
S-3	08/22/1996	<50	0.8	<0.5	<0.5	<0.5	<2.5	NA	101.67	2.85	98.82	4.6
S-3	11/07/1996	<50	<0.5	<0.5	<0.5	<0.5	<2.5	NA	101.67	3.35	98.32	4.6
S-3	02/20/1997	<50	<0.50	<0.50	<0.50	<0.50	<2.5	NA	101.67	3.00	98.67	1
S-3	05/30/1997	140	14	10	3.3	14	8.6	NA	101.67	3.00	98.67	8
S-3	08/21/1997	<50	<0.50	<0.50	<0.50	<0.50	<2.5	NA	101.67	2.94	98.73	3.3
S-3	11/03/1997	<50	<0.50	<0.50	<0.50	<0.50	<2.5	NA	101.67	3.36	98.31	2.4
S-3 (D)	11/03/1997	<50	<0.50	<0.50	<0.50	<0.50	<2.5	NA	101.67	3.36	98.31	2.4
S-3	01/20/1998	Well inaccessible		NA	NA	NA	NA	NA	101.67	NA	NA	NA
S-3	07/23/1998	NA	NA	NA	NA	NA	NA	NA	101.67	2.69	98.98	NA
S-3	02/16/1999	<50	<0.50	0.92	0.59	3.9	3.7	NA	101.67	2.20	99.47	2.8

WELL CONCENTRATIONS
Shell-branded Service Station
5755 Broadway
Oakland, CA
Wic #204-5510-0303

Well ID	Date	TPPH (ug/L)	B (ug/L)	T (ug/L)	E (ug/L)	X (ug/L)	MTBE 8020 (ug/L)	MTBE 8260 (ug/L)	TOC (MSL)	Depth to Water (ft.)	GW Elevation (MSL)	DO Reading (ppm)
S-3	09/07/1999	NA	NA	NA	NA	NA	NA	NA	101.67	2.81	98.86	NA
S-3	02/02/2000	<50.0	<0.500	<0.500	<0.500	<0.500	<5.00	NA	101.67	3.97	97.70	2.7
S-3	04/26/2000	NA	NA	NA	NA	NA	NA	NA	101.67	2.96	98.71	NA
S-3	07/25/2000	<50.0	<0.500	<0.500	<0.500	<0.500	<2.50	NA	101.67	3.00	98.67	0.8
S-3	11/15/2000	NA	NA	NA	NA	NA	NA	NA	101.67	2.86	98.81	NA
S-3	**02/12/2001**	**<50.0**	**<0.500**	**<0.500**	**<0.500**	**<0.500**	**<2.50**	**NA**	**101.67**	**2.47**	**99.20**	**2.3**
T-1	05/30/1997	NA	NA	NA	NA	NA	NA	NA	NA	2.65	NA	NA
T-1	08/21/1997	NA	NA	NA	NA	NA	NA	NA	NA	2.69	NA	NA
T-1	11/03/1997	NA	NA	NA	NA	NA	NA	NA	NA	3.09	NA	NA
T-1	01/20/1998	NA	NA	NA	NA	NA	NA	NA	NA	0.61	NA	NA
T-1	07/23/1998	NA	NA	NA	NA	NA	NA	NA	NA	2.32	NA	NA
T-1	02/16/1999	NA	NA	NA	NA	NA	NA	NA	NA	1.95	NA	NA
T-1	09/07/1999	NA	NA	NA	NA	NA	NA	NA	NA	2.48	NA	NA
T-1	02/02/2000	<50.0	<0.500	<0.500	<0.500	<0.500	<5.00	NA	NA	2.66	NA	2.5
T-1	04/26/2000	NA	NA	NA	NA	NA	NA	NA	NA	2.56	NA	NA
T-1	07/25/2000	NA	NA	NA	NA	NA	NA	NA	NA	2.60	NA	NA
T-1	11/15/2000	NA	NA	NA	NA	NA	NA	NA	NA	2.47	NA	NA
T-1	**02/12/2001**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**1.20**	**NA**	**NA**
T-2	05/30/1997	NA	NA	NA	NA	NA	NA	NA	NA	1.81	NA	NA
T-2	08/21/1997	NA	NA	NA	NA	NA	NA	NA	NA	1.89	NA	NA
T-2	11/03/1997	NA	NA	NA	NA	NA	NA	NA	NA	2.25	NA	NA
T-2	01/20/1998	NA	NA	NA	NA	NA	NA	NA	NA	0.55	NA	NA
T-2	07/23/1998	NA	NA	NA	NA	NA	NA	NA	NA	1.21	NA	NA
T-2	02/16/1999	NA	NA	NA	NA	NA	NA	NA	NA	1.08	NA	NA

WELL CONCENTRATIONS
Shell-branded Service Station
5755 Broadway
Oakland, CA
Wic #204-5510-0303

Well ID	Date	TPPH (ug/L)	B (ug/L)	T (ug/L)	E (ug/L)	X (ug/L)	MTBE 8020 (ug/L)	MTBE 8260 (ug/L)	TOC (MSL)	Depth to Water (ft.)	GW Elevation (MSL)	DO Reading (ppm)
T-2	09/07/1999	NA	NA	NA	NA	NA	NA	NA	NA	0.72	NA	NA
T-2	02/02/2000	1,540	53.4	20.8	11.4	21.8	1,330	NA	NA	0.98	NA	3.0
T-2	04/26/2000	NA	NA	NA	NA	NA	NA	NA	NA	1.02	NA	NA
T-2	07/25/2000	815	17.6	10.8	1.63	3.47	133	NA	NA	1.80	NA	0.8
T-2	11/15/2000	NA	NA	NA	NA	NA	NA	NA	NA	1.68	NA	NA
T-2	**02/12/2001**	**310**	**7.48**	**7.76**	**0.693**	**2.28**	**301**	**NA**	**NA**	**1.45**	**NA**	**1.6**
T-3	05/30/1997	NA	NA	NA	NA	NA	NA	NA	NA	2.31	NA	NA
T-3	08/21/1997	NA	NA	NA	NA	NA	NA	NA	NA	1.57	NA	NA
T-3	11/03/1997	NA	NA	NA	NA	NA	NA	NA	NA	3.50	NA	NA
T-3	01/20/1998	NA	NA	NA	NA	NA	NA	NA	NA	0.76	NA	NA
T-3	07/23/1998	NA	NA	NA	NA	NA	NA	NA	NA	0.82	NA	NA
T-3	02/16/1999	NA	NA	NA	NA	NA	NA	NA	NA	0.55	NA	NA
T-3	09/07/1999	NA	NA	NA	NA	NA	NA	NA	NA	2.89	NA	NA
T-3	02/02/2000	<50.0	<0.500	<0.500	<0.500	<0.500	<5.00	NA	NA	3.02	NA	2.9
T-3	04/26/2000	NA	NA	NA	NA	NA	NA	NA	NA	2.81	NA	NA
T-3	07/25/2000	NA	NA	NA	NA	NA	NA	NA	NA	3.00	NA	NA
T-3	11/15/2000	NA	NA	NA	NA	NA	NA	NA	NA	1.70	NA	NA
T-3	**02/12/2001**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**2.11**	**NA**	**NA**

WELL CONCENTRATIONS
Shell-branded Service Station
5755 Broadway
Oakland, CA
Wic #204-5510-0303

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

Abbreviations:
TPPH= Total petroleum hydrocarbons as gasoline by modified EPA Method 8015
BTEX = benzene, toluene, ethylbenzene, xylenes by EPA Method 8020
MTBE = methyl-tertiary-butyl ether
TOC = Top of Casing Elevation
SPH = Separate-Phase Hydrocarbons
GW = Groundwater
DO = Dissolved Oxygen
ug/L = parts per billion
ppm = parts per million
msl = Mean sea level
ft = Feet
<n = Below detection limit
D = Duplicate sample
NA = Not applicable

Notes:
a = Chromatogram pattern indicated an unidentified hydrocarbon.
b = This sample analyzed outside of EPA recommended hold time.
Top of casing elevations referenced to arbitrary elevation of 100 ft.

04/10/01

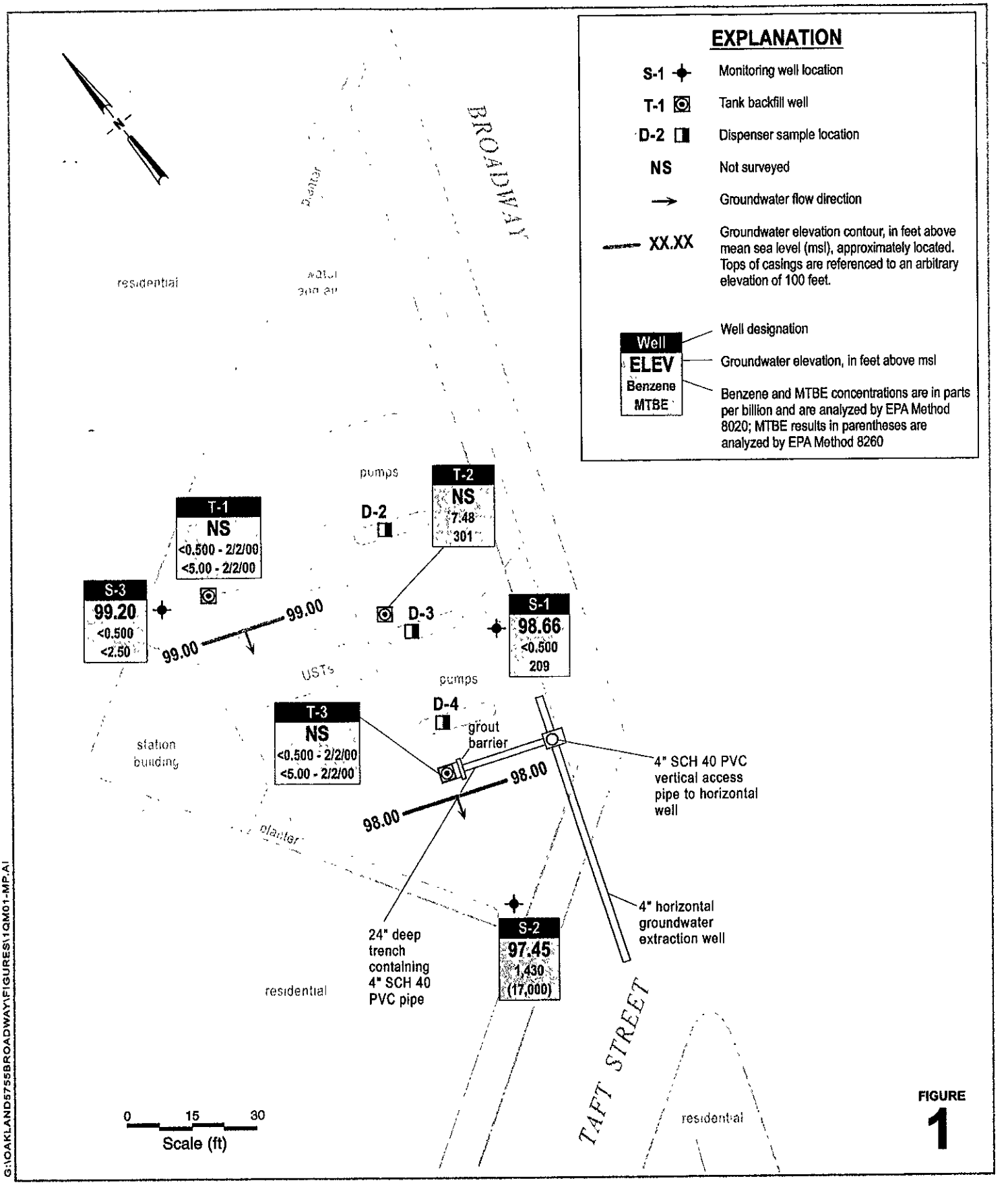


FIGURE
1

G:\OAKLAND\5755BROADWAY\FIGURES\1QM01-MP.AI

Shell-branded Service Station
5755 Broadway
Oakland, California
Incident #98995756

CAMBRIA

Groundwater Elevation Contour Map
February 12, 2001

Sample	Blows/foot **	Photo Ionization Detector (ppm) HNu	Petroleu... Hydrocarbon Odor
grab sample	–	0	none
	–	0	none
	–	0	none

Depth (ft.) | Sample

Equipment 8 inch Hollow Stem Auger

Elevation ~ 102.0 feet * Date 9/18/89

0 — Concrete
BLACK LEAN CLAY (CL), moist

GRAY GREEN WELL GRADED SAND WITH GRAVEL (SW), moist

5 — GRAY GREEN SILTY SHALE, intensely fractured, moderately hard, weak, deeply weathered

BLACK SHALE WITH SOME GREEN SAND, intensely fractured, hard, moderately weathered

10 — Bottom of boring at 11.5 feet

15

20

25

30

35

40

CHECK PRINT
date 12/9/91 drafter

CHECK
date
date

* Relative to assigned datum

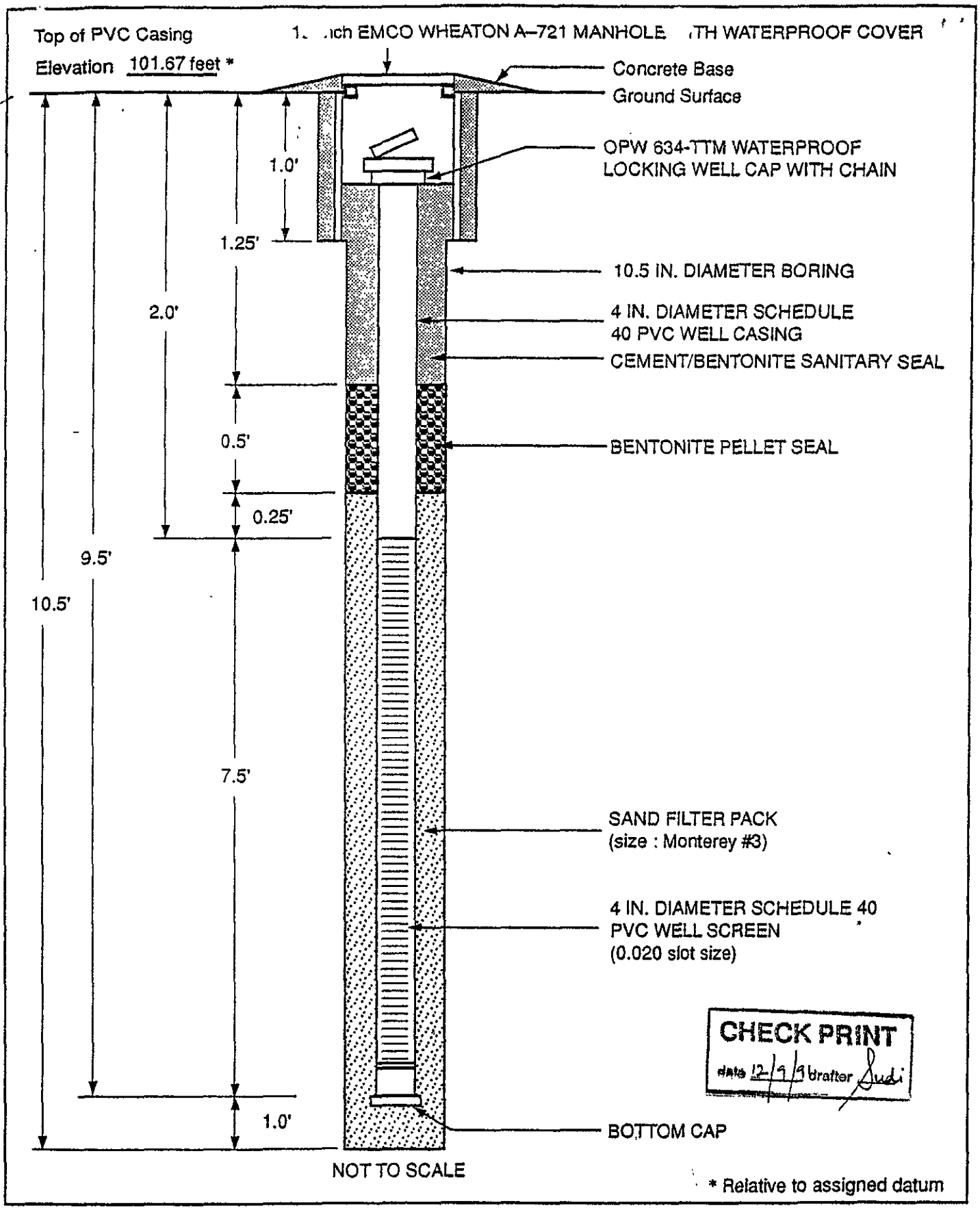
** Converted to SPT N-values

Harding Lawson Associates
Engineering and Environmental Services

Log of Boring S–3
Shell Service Station
5755 Broadway
Oakland, California

PLATE

DRAWN	JOB NUMBER	APPROVED	DATE	REVISED DATE
S. Patel	4022,218.03		12/09/91	



Harding Lawson Associates
Engineering and
Environmental Services

Well Completion Diagram S–3
Shell Service Station
5755 Broadway
Oakland, California

PLATE

DRAWN	JOB NUMBER	APPROVED	DATE	REVISED DATE
S. Patel	4022.218.03		12/09/91	