

C A M B R I A

# 4254

January 9, 2001

Mr. Larry Seto  
Alameda County Health Care Services Agency  
1131 Harbor Bay Parkway, Suite 250  
Alameda, California 94502-6577

no fp but still elevated  
THg + B in MW 5 + 6  
no MTBE detected this quarter

Re: **Fourth Quarter 2000 Monitoring Report**  
Former Shell Service Station  
461 8th Street  
Oakland, California  
Incident #97093399  
Cambria Project #243-1501-002



Dear Mr. Seto:

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.

**FOURTH QUARTER 2000 ACTIVITIES**

**Groundwater Monitoring:** Blaine Tech Services, Inc. (Blaine) of San Jose, California checked for separate-phase hydrocarbon (SPH), gauged and sampled the site wells, calculated groundwater elevations, and compiled the analytical data. No SPH was detected this quarter. Cambria prepared a vicinity map (Figure 1) and groundwater elevation contour map (Figure 2). Blaine's report, presenting the laboratory report and supporting field documents, is presented as Attachment A.

**Monitoring Well Purging:** Blaine purged 100 gallons of groundwater from well S-6 this quarter and 45 gallons from well S-6 this quarter. Cumulative groundwater purge volume and estimated mass removal data are presented in Table 1. The cumulative estimated mass of total hydrocarbons as gasoline and methyl tert-butyl ether removed to date, is approximately 1.617 and 0.013 pounds, respectively.

**Agency Response:** On January 8, 2001, Cambria submitted a response to Alameda County Health Care Services Agency correspondence dated November 15, 2000.

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

91 JAN 11 11 00 AM '01

**ANTICIPATED FIRST QUARTER 2001 ACTIVITIES**

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

**Monitoring Well Purging:** Blaine will purge groundwater from wells S-5 and S-6. Cambria will calculate mass removal data.



**CLOSING**

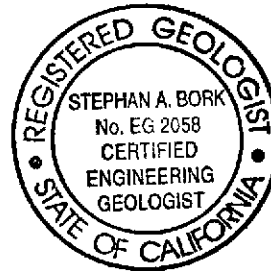
We appreciate the opportunity to work with you on this project. Please call Troy Buggle at (510) 420-3333 if you have any questions or comments.

Sincerely,  
**Cambria Environmental Technology, Inc**

*STEPHAN BORK*

for: Troy A. Buggle  
Senior Staff Scientist

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

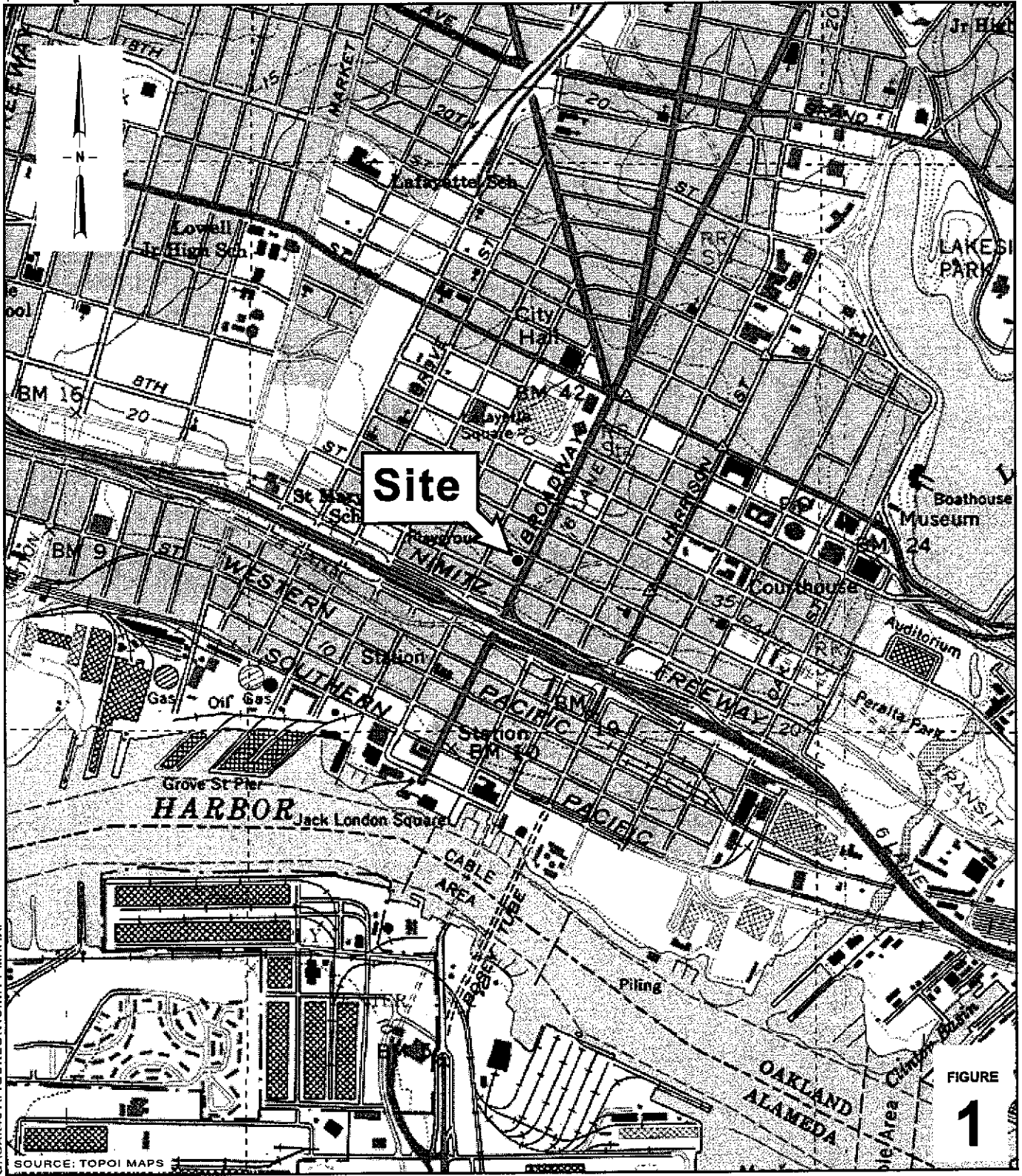


Figures: 1 - Vicinity Map  
2 - Groundwater Elevation Contour and Potential Offsite Sources

Table: 1 - Groundwater Extraction - Estimated Mass Removal Data

Attachment: A - Blaine Groundwater Monitoring Report and Field Notes

cc: ~~Karen Petruso, Equine Services, LLC, P.O. Box 7869, Burbank, California 91510-7869~~  
*Attney* Rory Campbell, Hanson, Bridgman, Knudsen, & Rudy, 555 Market Street, Suite 2300, San Francisco, California 94105-2173  
~~Wells Fargo Bank National Association, Tr. (Property Owners), c/o Pacific Property, 304 Bush Street, San Francisco, CA 94104-2805~~  
R. Casteel & Co., P.O. Box 6839, Moraga, California 94570  
Leroy Griffin, City of Oakland Fire Department, 1605 Martin Luther King, Jr. Way, Second Floor, Oakland, CA 94612



G:\0AK481\FIGURES\VICINITY-MAP.A1

SOURCE: TOPOI MAPS

0 1/8 1/4 1/2 1  
 SCALE 1:1/4 MILE

FIGURE  
1

**Former Shell Service Station**  
 461 Eighth Street  
 Oakland, California  
 Incident #97093399



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**Vicinity Map**

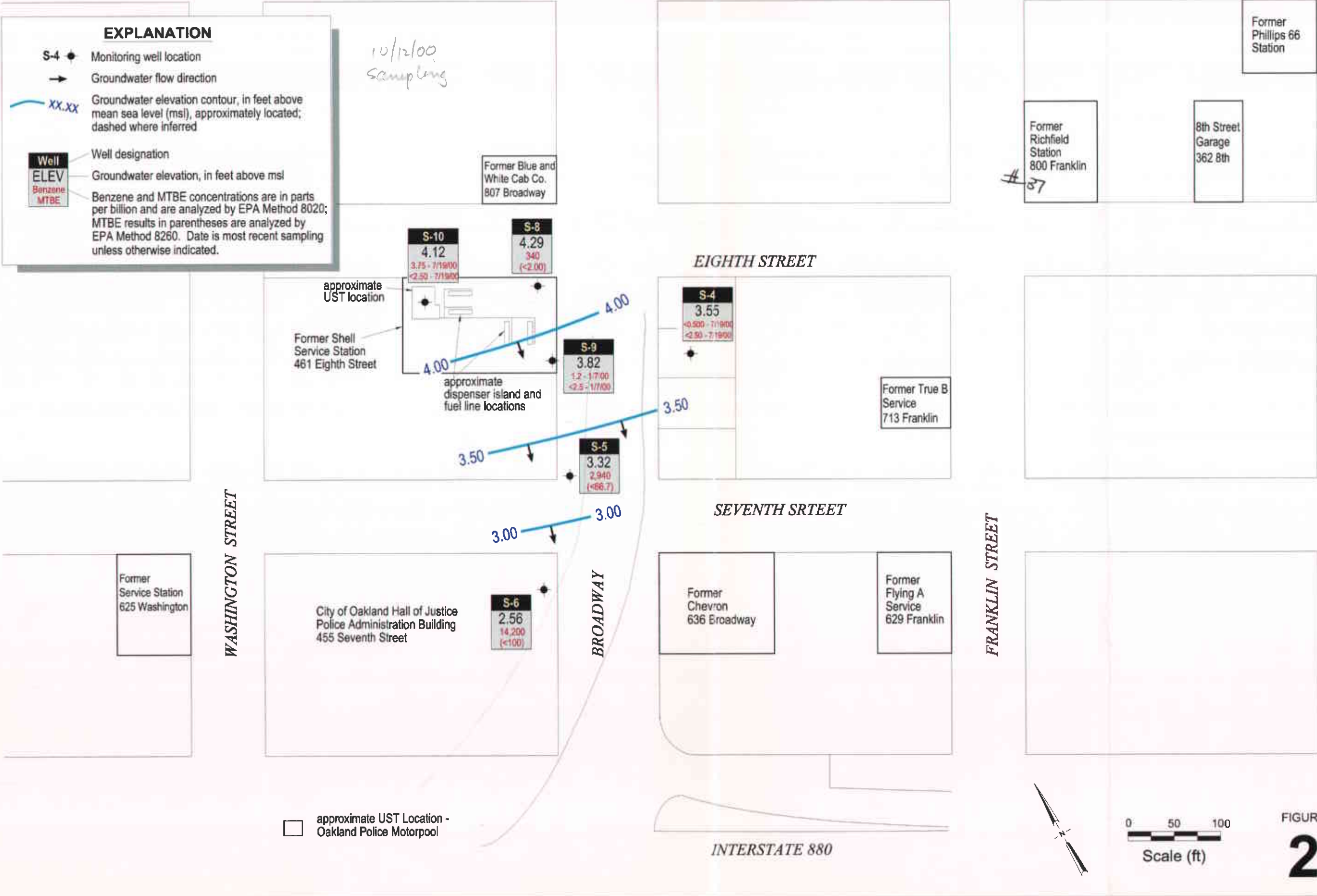
**EXPLANATION**

- S-4 Monitoring well location
- Groundwater flow direction
- XX.XX Groundwater elevation contour, in feet above mean sea level (msl), approximately located; dashed where inferred

Well	ELEV	Benzene	MTBE
S-10	4.12	3.75	7/19/00
S-8	4.29	340	(<2.00)
S-9	3.82	1.2	1/7/00
S-5	3.32	2.940	(<66.7)
S-6	2.56	14.200	(<100)

Benzene and MTBE concentrations are in parts per billion and are analyzed by EPA Method 8020; MTBE results in parentheses are analyzed by EPA Method 8260. Date is most recent sampling unless otherwise indicated.

10/12/00 sampling



Groundwater Elevation Contour Map

October 12, 2000



C A M B R I A

Former Shell Service Station

461 Eighth Street  
Oakland, California  
Incident #97093399

FIGURE 2

D:\CAL\AOC\BIB\BIB\FIGURE\G0103\_01P.DWG

**Table 1: Groundwater Extraction - Estimated Mass Removal Data - Former Shell Service Station, Incident #97093399, 461 Eighth Street, Oakland, California**

Date Purged	Well ID	Volume Pumped (gal)	Cumulative Volume Pumped (gal)	Date Sampled	TPPH			Benzene			MTBE		
					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)
05/13/93	S-5	0	0	07/31/90	53,000	0.00000	0.00000	14,000	0.00000	0.00000	NA	0.00000	0.00000
07/22/93	S-5	200	200	07/31/90	53,000	0.08845	0.08845	14,000	0.02336	0.02336	NA	0.00000	0.00000
10/20/93	S-5	200	400	07/31/90	53,000	0.08845	0.17690	14,000	0.02336	0.04673	NA	0.00000	0.00000
01/25/94	S-5	150	550	07/31/90	53,000	0.06634	0.24324	14,000	0.01752	0.06425	NA	0.00000	0.00000
04/25/94	S-5	36	586	07/31/90	53,000	0.01592	0.25916	14,000	0.00421	0.06846	NA	0.00000	0.00000
05/26/94	S-5	130	716	07/31/90	53,000	0.05749	0.31665	14,000	0.01519	0.08364	NA	0.00000	0.00000
06/16/94	S-5	50	766	07/31/90	53,000	0.02211	0.33876	14,000	0.00584	0.08948	NA	0.00000	0.00000
07/21/94	S-5	50	816	07/31/90	53,000	0.02211	0.36088	14,000	0.00584	0.09533	NA	0.00000	0.00000
08/25/94	S-5	80	896	07/31/90	53,000	0.03538	0.39626	14,000	0.00935	0.10467	NA	0.00000	0.00000
09/22/94	S-5	45	941	07/31/90	53,000	0.01990	0.41616	14,000	0.00526	0.10993	NA	0.00000	0.00000
10/24/94	S-5	40	981	07/31/90	53,000	0.01769	0.43385	14,000	0.00467	0.11460	NA	0.00000	0.00000
11/29/94	S-5	85	1,066	07/31/90	53,000	0.03759	0.47144	14,000	0.00993	0.12453	NA	0.00000	0.00000
12/22/94	S-5	0	1,066	07/31/90	53,000	0.00000	0.47144	14,000	0.00000	0.12453	NA	0.00000	0.00000
01/03/95	S-5	40	1,106	07/31/90	53,000	0.01769	0.48913	14,000	0.00467	0.12920	NA	0.00000	0.00000
02/22/95	S-5	60	1,166	07/31/90	53,000	0.02654	0.51566	14,000	0.00701	0.13621	NA	0.00000	0.00000
03/31/95	S-5	40	1,206	07/31/90	53,000	0.01769	0.53335	14,000	0.00467	0.14089	NA	0.00000	0.00000
04/20/95	S-5	60	1,266	07/31/90	53,000	0.02654	0.55989	14,000	0.00701	0.14790	NA	0.00000	0.00000
05/26/95	S-5	50	1,316	07/31/90	53,000	0.02211	0.58200	14,000	0.00584	0.15374	NA	0.00000	0.00000
06/30/95	S-5	60	1,376	07/31/90	53,000	0.02654	0.60854	14,000	0.00701	0.16075	NA	0.00000	0.00000
10/04/95	S-5	0	1,376	07/31/90	53,000	0.00000	0.60854	14,000	0.00000	0.16075	NA	0.00000	0.00000
01/03/96	S-5	0	1,376	07/31/90	53,000	0.00000	0.60854	14,000	0.00000	0.16075	NA	0.00000	0.00000
04/11/96	S-5	0	1,376	07/31/90	53,000	0.00000	0.60854	14,000	0.00000	0.16075	NA	0.00000	0.00000
07/11/96	S-5	0	1,376	07/31/90	53,000	0.00000	0.60854	14,000	0.00000	0.16075	NA	0.00000	0.00000
10/02/96	S-5	0	1,376	07/31/90	53,000	0.00000	0.60854	14,000	0.00000	0.16075	NA	0.00000	0.00000
01/22/97	S-5	0	1,376	07/31/90	53,000	0.00000	0.60854	14,000	0.00000	0.16075	NA	0.00000	0.00000
07/21/97	S-5	75	1,451	07/31/90	53,000	0.03317	0.64171	14,000	0.00876	0.16951	NA	0.00000	0.00000
10/29/97	S-5	60	1,511	07/31/90	53,000	0.02654	0.66824	14,000	0.00701	0.17652	NA	0.00000	0.00000
01/22/98	S-5	60	1,571	07/31/90	53,000	0.02654	0.69478	14,000	0.00701	0.18353	NA	0.00000	0.00000

**Table 1: Groundwater Extraction - Estimated Mass Removal Data - Former Shell Service Station, Incident #97093399, 461 Eighth Street, Oakland, California**

Date Purged	Well ID	Volume Pumped (gal)	Cumulative Volume Pumped (gal)	Date Sampled	TPPH			Benzene			MTBE		
					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)
05/01/98	S-5	50	1,621	07/31/90	53,000	0.02211	0.71689	14,000	0.00584	0.18937	NA	0.00000	0.00000
07/08/98	S-5	100	1,721	07/31/90	53,000	0.04423	0.76111	14,000	0.01168	0.20105	NA	0.00000	0.00000
10/26/98	S-5	100	1,821	07/31/90	53,000	0.04423	0.80534	14,000	0.01168	0.21273	NA	0.00000	0.00000
01/28/99	S-5	100	1,921	01/28/99	51,000	0.04256	0.84790	13,000	0.01085	0.22358	2,400	0.00200	0.00200
04/23/99	S-5	100	2,021	04/23/99	65,600	0.05474	0.90263	2,540	0.00212	0.22570	< 1,000	< 0.00083	< 0.00284
07/29/99	S-5	0	2,021	07/29/99	61,400	0.00000	0.90263	3,320	0.00000	0.22570	< 1,000	< 0.00000	< 0.00284
11/01/99	S-5	100	2,121	11/01/99	48,200	0.04022	0.94285	2,700	0.00225	0.22795	< 40.0	< 0.00003	< 0.00287
01/07/00	S-5	100	2,221	01/07/00	39,000	0.03254	0.97540	3,900	0.00325	0.23121	1,500	< 0.00125	< 0.00412
04/11/00	S-5	100	2,321	04/11/00	29,300	0.02445	0.99985	1,680	0.00140	0.23261	< 250	< 0.00021	< 0.00433
07/19/00	S-5	100	2,421	07/19/00	6,420	0.00536	1.00520	2,110	0.00176	0.23437	253	< 0.00021	< 0.00454
10/12/00	S-5	100	2,521	10/12/00	41,500	0.03463	1.03983	2,940	0.00245	0.23682	< 66.7	< 0.00006	< 0.00460
05/13/93	S-6	0	0	05/13/93	58,000	0.00000	0.00000	21,000	0.00000	0.00000	NA	NA	NA
07/22/93	S-6	0	0	07/22/93	70,000	0.00000	0.00000	31,000	0.00000	0.00000	NA	NA	NA
10/20/93	S-6	0	0	10/20/93	48,000	0.00000	0.00000	28,000	0.00000	0.00000	NA	NA	NA
01/25/94	S-6	0	0	01/25/94	70,000	0.00000	0.00000	23,000	0.00000	0.00000	NA	NA	NA
04/25/94	S-6	0	0	04/25/94	61,000	0.00000	0.00000	23,000	0.00000	0.00000	NA	NA	NA
05/26/94	S-6	NA	0	04/25/94	61,000	0.00000	0.00000	23,000	0.00000	0.00000	NA	NA	NA
06/16/94	S-6	NA	0	04/25/94	61,000	0.00000	0.00000	23,000	0.00000	0.00000	NA	NA	NA
07/21/94	S-6	NA	0	07/21/94	44,000	0.00000	0.00000	8,200	0.00000	0.00000	NA	NA	NA
08/25/94	S-6	NA	0	07/21/94	44,000	0.00000	0.00000	8,200	0.00000	0.00000	NA	NA	NA
09/22/94	S-6	NA	0	07/21/94	44,000	0.00000	0.00000	8,200	0.00000	0.00000	NA	NA	NA
10/24/94	S-6	0	0	10/24/94	2,936	0.00000	0.00000	1,184	0.00000	0.00000	NA	NA	NA
11/29/94	S-6	NA	0	10/24/94	2,936	0.00000	0.00000	1,184	0.00000	0.00000	NA	NA	NA
12/22/94	S-6	0	0	12/22/94	32,000	0.00000	0.00000	7,000	0.00000	0.00000	NA	NA	NA
01/03/95	S-6	NA	0	12/22/94	32,000	0.00000	0.00000	7,000	0.00000	0.00000	NA	NA	NA
02/22/95	S-6	NA	0	12/22/94	32,000	0.00000	0.00000	7,000	0.00000	0.00000	NA	NA	NA
03/31/95	S-6	NA	0	12/22/94	32,000	0.00000	0.00000	7,000	0.00000	0.00000	NA	NA	NA

**Table 1: Groundwater Extraction - Estimated Mass Removal Data - Former Shell Service Station, Incident #97093399, 461 Eighth Street, Oakland, California**

Date Purged	Well ID	Volume Pumped (gal)	Cumulative Volume Pumped (gal)	Date Sampled	TPPH			Benzene			MTBE		
					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)
04/20/95	S-6	0	0	04/20/95	56,000	0.00000	0.00000	15,000	0.00000	0.00000	NA	NA	NA
05/26/95	S-6	NA	0	04/20/95	56,000	0.00000	0.00000	15,000	0.00000	0.00000	NA	NA	NA
06/30/95	S-6	NA	0	04/20/95	56,000	0.00000	0.00000	15,000	0.00000	0.00000	NA	NA	NA
10/04/95	S-6	0	0	10/04/95	49,000	0.00000	0.00000	8,400	0.00000	0.00000	NA	NA	NA
01/03/96	S-6	0	0	01/03/96	52,000	0.00000	0.00000	9,100	0.00000	0.00000	NA	NA	NA
04/11/96	S-6	0	0	04/11/96	59,000	0.00000	0.00000	11,000	0.00000	0.00000	NA	NA	NA
07/11/96	S-6	0	0	07/11/96	72,000	0.00000	0.00000	18,000	0.00000	0.00000	NA	NA	NA
10/02/96	S-6	0	0	10/02/96	57,000	0.00000	0.00000	11,000	0.00000	0.00000	NA	NA	NA
01/22/97	S-6	0	0	01/22/97	67,000	0.00000	0.00000	15,000	0.00000	0.00000	NA	NA	NA
07/21/97	S-6	0	0	07/21/97	61,000	0.00000	0.00000	15,000	0.00000	0.00000	NA	NA	NA
10/29/97	S-6	40	40	07/21/97	61,000	0.02036	0.02036	15,000	0.00501	0.00501	NA	NA	NA
01/22/98	S-6	60	100	01/22/98	46,000	0.02303	0.04339	14,000	0.00701	0.01202	NA	NA	NA
05/01/98	S-6	200	300	01/22/98	46,000	0.07677	0.12016	14,000	0.02336	0.03538	NA	NA	NA
07/08/98	S-6	150	450	07/08/98	74,000	0.09262	0.21278	26,000	0.03254	0.06792	NA	NA	NA
10/26/98	S-6	100	550	07/08/98	74,000	0.06175	0.27453	26,000	0.02170	0.08962	NA	NA	NA
01/28/99	S-6	150	700	01/28/99	120,000	0.15020	0.42473	9,000	0.01126	0.10088	3,700	0.00463	0.00463
04/23/99	S-6	150	850	04/23/99	58,500	0.07322	0.49795	15,900	0.01990	0.12078	< 2,500	< 0.00313	< 0.00776
07/29/99	S-6	0	850	07/29/99	36,200	0.00000	0.49795	10,300	0.00000	0.12078	< 1,000	< 0.00000	< 0.00776
11/01/99	S-6	150	1,000	11/01/99	36,000	0.04506	0.54301	11,700	0.01464	0.13543	< 40.0	< 0.00005	< 0.00781
01/07/00	S-6	0	1,000	01/07/00	36,000	0.00000	0.54301	7,600	0.00000	0.13543	< 1,000	< 0.00000	< 0.00781
04/11/00	S-6	150	1,150	04/11/00	14,600	0.01827	0.56128	7,540	0.00944	0.14487	621	0.00078	< 0.00859
07/19/00	S-6	150	1,300	07/19/00	2,590	0.00324	0.56452	629	0.00079	0.14565	72.7	0.00009	< 0.00868
10/28/00	S-6	45	1,345	10/12/00	32,900	0.01235	0.57688	14,200	0.00533	0.15099	< 100	0.00004	< 0.00872
<b>Total Gallons Extracted:</b>		<b>3,866</b>		<b>Total Pounds Removed:</b>		<b>1.61671</b>		<b>0.38781</b>		<b>&lt; 0.01331</b>		<b>&lt; 0.00215</b>	
				<b>Total Gallons Removed:</b>		<b>0.26503</b>		<b>0.05312</b>					

**Table 1: Groundwater Extraction - Estimated Mass Removal Data - Former Shell Service Station, Incident #97093399, 461 Eighth Street, Oakland, California**

Date Purged	Well ID	Volume Pumped (gal)	Cumulative Volume Pumped (gal)	Date Sampled	TPPH			Benzene			MTBE			
					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 and 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

NA = Not available/not analyzed

Mass removed based on the formula: volume extracted (gal) x Concentration (µg/L) x (g/10<sup>6</sup>µg) 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

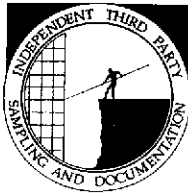
MTBE analyzed by EPA Method 8260 in bold font, all other MTBE analyzed by EPA Method 8020

Purging performed by Blaine Technologies of San Jose, California



**ATTACHMENT A**  
**Blaine Groundwater Monitoring Report**  
**and Field Notes**

**BLAINE**  
TECH SERVICES, INC.



1680 ROGERS AVENUE  
SAN JOSE, CA 95112-1105  
(408) 573-7771 FAX  
(408) 573-0555 PHONE  
CONTRACTOR'S LICENSE #746684  
www.blainetech.com

November 2, 2000

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

Fourth Quarter 2000 Groundwater Monitoring at  
Former Shell Service Station  
461 8<sup>th</sup> Street  
Oakland, CA

Monitoring performed on October 12, 2000

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Groundwater Monitoring Report **001012-R-3**

This report covers the routine monitoring of groundwater wells at this Former Shell 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, 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 Fourth 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/jt

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**  
**Former Shell Service Station**  
**461 8th Street**  
**Oakland, CA**  
**Wic #204-5508-6200**

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)	TOB (MSL)	Depth to Water (ft.)	GW Elevation (MSL)	SPH Thickness (ft.)
S-4	10/26/1988	130	3.8	13	4.0	30	NA	NA	93.51 (TOC)	NA	NA	NA
S-4	02/14/1989	<50	0.5	<1	<1	3.0	NA	NA	93.51 (TOC)	12.82	80.69	NA
S-4	05/01/1989	Well dry	NA	NA	NA	NA	NA	NA	93.51 (TOC)	16.48	77.03	NA
S-4	07/27/1989	Well dry	NA	NA	NA	NA	NA	NA	93.51 (TOC)	15.84	77.67	NA
S-4	10/05/1989	Well dry	NA	NA	NA	NA	NA	NA	93.51 (TOC)	15.98	77.53	NA
S-4	01/09/1990	Well dry	NA	NA	NA	NA	NA	NA	93.51 (TOC)	15.86	77.65	NA
S-4	04/30/1990	<50	<0.5	<0.5	<0.5	<1	NA	NA	93.51 (TOC)	14.48	79.03	NA
S-4	07/31/1990	Well dry	NA	NA	NA	NA	NA	NA	93.51 (TOC)	NA	NA	NA
S-4	10/30/1990	Well dry	NA	NA	NA	NA	NA	NA	93.51 (TOC)	NA	NA	NA
S-4	05/06/1991	Well dry	NA	NA	NA	NA	NA	NA	93.51 (TOC)	15.23	78.28	NA
S-4	06/27/1991	<50	<0.5	<0.5	<0.5	<0.5	NA	NA	93.51 (TOC)	13.54	79.97	NA
S-4	09/24/1991	Well dry	NA	NA	NA	NA	NA	NA	93.51 (TOC)	15.85	77.66	NA
S-4	11/07/1991	Well dry	NA	NA	NA	NA	NA	NA	93.51 (TOC)	15.60	77.91	NA
S-4	02/13/1992	<50	<0.5	<0.5	<0.5	3.0	NA	NA	93.51 (TOC)	14.27	79.24	NA
S-4	05/11/1992	Well dry	NA	NA	NA	NA	NA	NA	93.51 (TOC)	NA	NA	NA
S-4	12/03/1992	Well inaccessible		NA	NA	NA	NA	NA	93.51 (TOC)	NA	NA	NA
S-4	05/13/1993	Well inaccessible		NA	NA	NA	NA	NA	93.51 (TOC)	14.81	78.70	NA
S-4	07/22/1993	Well inaccessible		NA	NA	NA	NA	NA	93.51 (TOC)	14.42	79.09	NA
S-4	10/20/1993	Well inaccessible		NA	NA	NA	NA	NA	93.51 (TOC)	NA	NA	NA
S-4	01/25/1994	Well inaccessible		NA	NA	NA	NA	NA	93.51 (TOC)	14.60	78.91	NA
S-4	04/25/1994	Well inaccessible		NA	NA	NA	NA	NA	93.51 (TOC)	14.39	79.12	NA
S-4	07/21/1994	<50	<0.5	<0.5	<0.5	<0.5	NA	NA	93.51 (TOC)	22.29	71.22	NA
S-4	10/24/1994	<500	<0.3	<0.3	<0.3	<0.6	NA	NA	93.51 (TOC)	22.72	70.79	NA
S-4	12/22/1994	<50	<0.5	<0.5	<0.5	<0.5	NA	NA	25.77*	22.25	3.52	NA
S-4	04/20/1995	<50	<0.5	<0.5	<0.5	<0.5	NA	NA	25.77	21.16	4.61	NA
S-4	10/04/1995	<50	1.2	0.7	<0.5	<0.5	NA	NA	25.77	22.25	3.52	NA

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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)	TOB (MSL)	Depth to Water (ft.)	GW Elevation (MSL)	SPH Thickness (ft.)
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S-4	01/03/1996	<50	0.6	<0.5	<0.5	1.7	NA	NA	25.77	23.28	2.49	NA
S-4	04/11/1996	<50	<0.5	<0.5	<0.5	<0.5	<2.5	NA	25.77	21.58	4.19	NA
S-4	07/11/1996	<50	<0.50	<0.50	<0.50	<0.50	<2.5	NA	25.77	21.60	4.17	NA
S-4	10/02/1996	<50	<0.50	<0.50	<0.50	<0.50	2.6	NA	25.77	22.46	3.31	NA
S-4	01/22/1997	<50	0.73	<0.50	<0.50	0.63	<2.5	NA	25.77	20.06	5.71	NA
S-4	07/21/1997	<50	<0.50	<0.50	<0.50	<0.50	<2.5	NA	25.77	22.10	3.67	NA
S-4	01/22/1998	<50	<0.50	<0.50	<0.50	<0.50	<2.5	NA	25.77	20.50	5.27	NA
S-4	07/08/1998	<50	<0.50	<0.50	<0.50	<0.50	<2.5	NA	25.77	20.86	4.91	NA
S-4	10/26/1998	NA	NA	NA	NA	NA	NA	NA	25.77	21.41	4.36	NA
S-4	01/28/1999	<50	<0.50	<0.50	<0.50	<0.50	<2.5	NA	25.77	22.34	3.43	NA
S-4	04/23/1999	NA	NA	NA	NA	NA	NA	NA	25.77	21.43	4.34	NA
S-4	07/29/1999	<50.0	<0.500	<0.500	<0.500	<0.500	<5.00	NA	25.77	21.45	4.32	NA
S-4	11/01/1999	NA	NA	NA	NA	NA	NA	NA	25.77	22.08	3.69	NA
S-4	01/07/2000	<50	<0.50	<0.50	<0.50	<0.50	<2.5	NA	25.77	22.29	3.48	NA
S-4	04/11/2000	NA	NA	NA	NA	NA	NA	NA	25.77	21.11	4.66	NA
S-4	07/19/2000	<50.0	<0.500	<0.500	<0.500	<0.500	<2.50	NA	25.77	21.19	4.58	NA
S-4	10/12/2000	NA	NA	NA	NA	NA	NA	NA	25.77	22.22	3.55	NA

S-5	04/16/1987	130000	15000	16000	NA	14000a	NA	NA	99.36 (TOC)	NA	NA	NA
S-5	10/26/1988	110000	20000	25000	2300	10000	NA	NA	99.36 (TOC)	NA	NA	NA
S-5	02/14/1989	94000	16000	21000	1800	10000	NA	NA	99.36 (TOC)	19.87	79.49	NA
S-5	05/01/1989	120000	29000	35000	3100	15000	NA	NA	99.36 (TOC)	21.23	78.13	NA
S-5	07/27/1989	110000	20000	29000	2400	14000	NA	NA	99.36 (TOC)	20.41	78.95	NA
S-5	10/05/1989	NA	NA	NA	NA	NA	NA	NA	99.36 (TOC)	20.43	78.94	0.01
S-5	01/09/1990	NA	NA	NA	NA	NA	NA	NA	99.36 (TOC)	21.16	78.21	0.01
S-5	04/30/1990	100000	13000	22000	2100	11000	NA	NA	99.36 (TOC)	20.96	78.40	NA
S-5	07/31/1990	53000	8300	14000	1200	7400	NA	NA	99.36 (TOC)	20.88	78.48	NA

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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)	TOB (MSL)	Depth to Water (ft.)	GW Elevation (MSL)	SPH Thickness (ft.)
S-5	10/30/1990	NA	NA	NA	NA	NA	NA	NA	99.36 (TOC)	21.96	77.42	0.03
S-5	05/06/1991	NA	NA	NA	NA	NA	NA	NA	99.36 (TOC)	23.00	76.46	0.13
S-5	06/27/1991	NA	NA	NA	NA	NA	NA	NA	99.36 (TOC)	20.53	78.85	0.03
S-5	09/24/1991	NA	NA	NA	NA	NA	NA	NA	99.36 (TOC)	21.40	78.01	0.06
S-5	11/07/1991	NA	NA	NA	NA	NA	NA	NA	99.36 (TOC)	21.33	78.23	0.25
S-5	02/13/1992	NA	NA	NA	NA	NA	NA	NA	99.36 (TOC)	22.52	77.09	0.31
S-5	05/11/1992	NA	NA	NA	NA	NA	NA	NA	99.36 (TOC)	22.46	77.36	0.58
S-5	12/03/1992	Well inaccessible		NA	NA	NA	NA	NA	99.36 (TOC)	NA	NA	NA
S-5	05/13/1993	NA	NA	NA	NA	NA	NA	NA	99.36 (TOC)	22.22	77.36	0.27
S-5	07/22/1993	NA	NA	NA	NA	NA	NA	NA	99.36 (TOC)	21.68	77.88	0.25
S-5	10/20/1993	NA	NA	NA	NA	NA	NA	NA	99.36 (TOC)	20.51	79.03	0.23
S-5	01/25/1994	NA	NA	NA	NA	NA	NA	NA	99.36 (TOC)	21.93	77.57	0.18
S-5	04/25/1994	NA	NA	NA	NA	NA	NA	NA	99.36 (TOC)	21.97	77.67	0.35
S-5	05/26/1994	NA	NA	NA	NA	NA	NA	NA	99.36 (TOC)	20.84	78.80	0.35
S-5	06/10/1994	NA	NA	NA	NA	NA	NA	NA	99.36 (TOC)	21.01	78.61	0.32
S-5	07/21/1994	NA	NA	NA	NA	NA	NA	NA	99.36 (TOC)	22.18	77.56	0.47
S-5	08/25/1994	NA	NA	NA	NA	NA	NA	NA	99.36 (TOC)	22.01	77.70	0.44
S-5	09/22/1994	NA	NA	NA	NA	NA	NA	NA	99.36 (TOC)	22.00	77.48	0.15
S-5	10/24/1994	NA	NA	NA	NA	NA	NA	NA	99.36 (TOC)	22.28	77.53	0.56
S-5	12/22/1994	NA	NA	NA	NA	NA	NA	NA	22.94*	22.88	0.85	0.99
S-5	04/20/1995	NA	NA	NA	NA	NA	NA	NA	22.94	21.66	1.54	0.33
S-5	10/04/1995	NA	NA	NA	NA	NA	NA	NA	22.94	22.18	0.76	NA
S-5	01/03/1996	NA	NA	NA	NA	NA	NA	NA	22.94	22.80	0.80	0.83
S-5	04/11/1996	NA	NA	NA	NA	NA	NA	NA	22.94	21.15	2.33	0.67
S-5	07/11/1996	NA	NA	NA	NA	NA	NA	NA	22.94	22.62	1.04	0.90
S-5	10/02/1996	NA	NA	NA	NA	NA	NA	NA	22.94	23.07	0.38	0.64
S-5	01/22/1997	NA	NA	NA	NA	NA	NA	NA	22.94	20.83	2.24	0.16

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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)	TOB (MSL)	Depth to Water (ft.)	GW Elevation (MSL)	SPH Thickness (ft.)
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S-5	07/21/1997	NA	NA	NA	NA	NA	NA	NA	22.94	21.16	1.82	0.05
S-5	01/22/1998	NA	NA	NA	NA	NA	NA	NA	22.94	20.04	2.93	0.04
S-5	07/08/1998	220	14	40	5.8	34	3.3	NA	22.94	18.61	4.33	NA
S-5	10/26/1998	NA	NA	NA	NA	NA	NA	NA	22.94	17.31	5.63	NA
S-5	01/28/1999	51000	13000	1200	1200	2400	2400	NA	22.94	20.11	2.83	NA
S-5	04/23/1999	65600	2540	7300	1790	9840	<1000	NA	22.94	19.21	3.73	NA
S-5	07/29/1999	61400	3320	6980	1520	7700	<1000	NA	22.94	14.77	8.17	NA
S-5	11/01/1999	48200	2700	5740	1290	7850	<500	<40.0	22.94	15.56	7.38	NA
S-5	01/07/2000	39000	3900	8500	790	8300	1500	NA	22.94	15.82	7.12	NA
S-5	04/11/2000	29300	1680	5060	1130	6220	<250	NA	22.94	18.19	4.75	NA
S-5	07/19/2000	6420	2110	207	252	681	355	253b	22.94	19.01	3.93	NA
S-5	10/12/2000	41500	2940	4940	1520	7770	<250	<66.7	22.94	19.62	3.32	NA

S-6	04/16/1987	81000	16000	9000	NA	6400a	NA	NA	100.58 (TOC)	NA	NA	NA
S-6	10/26/1988	110000	29000	18000	2500	8200	NA	NA	100.58 (TOC)	NA	NA	NA
S-6	02/14/1989	54000	18000	4500	1400	4000	NA	NA	100.58 (TOC)	20.87	79.71	NA
S-6	05/01/1989	93000	43000	9900	3000	8000	NA	NA	100.58 (TOC)	20.49	80.09	NA
S-6	07/27/1989	52000	20000	3200	1700	5500	NA	NA	100.58 (TOC)	21.01	79.57	NA
S-6	10/05/1989	55000	20000	2900	1600	5500	NA	NA	100.58 (TOC)	21.24	79.34	NA
S-6	01/09/1990	76000	35000	9100	2300	8600	NA	NA	100.58 (TOC)	22.62	77.96	SHEEN
S-6	04/30/1990	39000	13000	2300	900	2800	NA	NA	100.58 (TOC)	22.10	78.48	NA
S-6	07/31/1990	48000	20000	4600	1500	4900	NA	NA	100.58 (TOC)	22.00	78.58	NA
S-6	10/30/1990	27000	7400	900	600	1400	NA	NA	100.58 (TOC)	22.14	78.44	NA
S-6	05/06/1991	35000	3900	2700	2300	3500	NA	NA	100.58 (TOC)	22.40	78.18	NA
S-6	06/27/1991	51000	19000	5600	1700	6300	NA	NA	100.58 (TOC)	21.21	79.37	NA
S-6	09/24/1991	42000	14000	4300	1200	4000	NA	NA	100.58 (TOC)	22.26	78.32	NA
S-6	11/07/1991	39000	11000	2000	800	2300	NA	NA	100.58 (TOC)	22.35	78.23	NA

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S-6	02/13/1992	64000	21000	6200	1600	5100	NA	NA	100.58 (TOC)	22.28	78.30	NA
S-6	05/11/1992	57000	22000	7600	2200	7700	NA	NA	100.58 (TOC)	22.10	78.48	NA
S-6	12/03/1992	110000	26000	9400	2100	8700	NA	NA	100.58 (TOC)	22.14	78.44	NA
S-6	05/13/1993	58000	21000	6800	2500	9800	NA	NA	100.58 (TOC)	22.16	78.42	NA
S-6	07/22/1993	70000	31000	14000	3000	13000	NA	NA	100.58 (TOC)	21.64	78.94	NA
S-6	10/20/1993	48000	28000	9800	3200	12000	NA	NA	100.58 (TOC)	21.62	78.96	NA
S-6	01/25/1994	70000	23000	7500	2500	8000	NA	NA	100.58 (TOC)	21.80	78.78	NA
S-6	04/25/1994	61000	16000	4000	1800	5100	NA	NA	100.58 (TOC)	21.68	78.90	NA
S-6	07/21/1994	44000	8200	3600	1400	3900	NA	NA	100.58 (TOC)	21.78	78.80	NA
S-6 (D)	07/21/1994	32000	7800	3400	1300	3700	NA	NA	22.08	NA	NA	NA
S-6	10/24/1994	2936	1184	440.6	163	648.4	NA	NA	100.58 (TOC)	22.06	78.52	NA
S-6 (D)	10/24/1994	2968	770.8	325.3	144	622	NA	NA	22.08	NA	NA	NA
S-6	12/22/1994	32000	7000	2900	790	2400	NA	NA	22.08*	21.91	0.17	NA
S-6 (D)	12/22/1994	32000	8000	3800	1100	3400	NA	NA	22.08	NA	NA	NA
S-6	04/20/1995	56000	15000	3800	1900	4900	NA	NA	22.08	21.38	0.70	NA
S-6 (D)	04/20/1995	49000	13000	3500	1800	4700	NA	NA	22.08	NA	NA	NA
S-6	10/04/1995	49000	8400	4700	1800	4800	NA	NA	22.08	21.80	0.28	NA
S-6 (D)	10/04/1995	41000	8400	4100	1400	4400	NA	NA	22.08	NA	NA	NA
S-6	01/03/1996	52000	9100	7100	1800	5800	NA	NA	22.08	21.70	0.38	NA
S-6	04/11/1996	59000	11000	7100	2100	6400	<500	NA	22.08	21.62	0.46	NA
S-6 (D)	04/11/1996	59000	11000	6800	1900	6400	<500	NA	22.08	NA	NA	NA
S-6	07/11/1996	72000	18000	6600	2500	8400	<1000	NA	22.08	21.65	2.78	NA
S-6	10/02/1996	57000	11000	6500	1500	5100	<500	NA	22.08	21.80	2.63	NA
S-6	01/22/1997	67000	15000	5000	1800	5400	<1000	NA	22.08	19.95	2.13	NA
S-6 (D)	01/22/1997	63000	15000	4800	1800	5200	<1000	NA	22.08	NA	NA	NA
S-6	07/21/1997	61000	15000	2100	1100	3500	1900	NA	22.08	20.61	1.47	NA
S-6	01/22/1998	46000	14000	3200	1300	3400	<500	NA	22.08	19.82	2.26	NA



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S-6	07/08/1998	74000	26000	7500	2200	6200	<1000	NA	22.08	18.20	3.88	NA
S-6	10/26/1998	NA	NA	NA	NA	NA	NA	NA	22.08	18.81	3.27	NA
S-6	01/28/1999	120000	9000	14000	2700	14000	3700	NA	22.08	19.73	2.35	NA
S-6	04/23/1999	58500	15900	1360	1640	3030	<2500	NA	22.08	17.58	4.50	NA
S-6	07/29/1999	36200	10300	760	930	1360	<1000	NA	22.08	21.35	0.73	NA
S-6	11/01/1999	36000	11700	767	865	1670	<1250	<40.0	22.08	19.23	2.85	NA
S-6	01/07/2000	36000	7600	4600	840	3600	<1000	NA	22.08	19.53	2.55	NA
S-6	04/11/2000	14600	7540	205	306	609	621	NA	22.08	18.16	3.92	NA
S-6	07/19/2000	2590	629	63.9	99.6	267	124	72.7b	22.08	18.40	3.68	NA
<b>S-6</b>	<b>10/12/2000</b>	<b>32900</b>	<b>14200</b>	<b>966</b>	<b>1060</b>	<b>1790</b>	<b>&lt;500</b>	<b>&lt;100</b>	<b>22.08</b>	<b>19.52</b>	<b>2.56</b>	<b>NA</b>

S-8	12/22/1994	600	120	32	5.2	34	NA	NA	27.21	24.87	2.34	NA
S-8	04/20/1995	460	180	23	5.2	21	NA	NA	27.21	23.90	3.31	NA
S-8	10/04/1995	830	210	38	11	42	NA	NA	27.21	24.48	2.73	NA
S-8	01/03/1996	350	61	12	2.5	12	NA	NA	27.21	24.62	2.59	NA
S-8 (D)	01/03/1996	340	54	12	2.4	12	NA	NA	27.21	NA	NA	NA
S-8	04/11/1996	570	140	37	12	47	<6.2	NA	27.21	24.32	2.89	NA
S-8	07/11/1996	980	98	32	9.1	160	<12	NA	27.21	24.10	3.11	NA
S-8	10/02/1996	280	62	13	3.3	25	15	NA	27.21	25.38	1.83	NA
S-8 (D)	10/02/1996	490	110	24	7.0	45	22	<2.0	27.21	NA	NA	NA
S-8	01/22/1997	400	90	13	4.9	25	12	NA	27.21	23.91	3.30	NA
S-8	07/21/1997	2900	380	110	26	260	85	NA	27.21	23.62	3.59	NA
S-8 (D)	07/21/1997	3200	420	120	32	300	130	NA	27.21	NA	NA	NA
S-8	01/22/1998	3800	790	140	42	330	160	NA	27.21	23.52	3.69	NA
S-8 (D)	01/22/1998	3500	780	120	33	300	160	NA	27.21	NA	NA	NA
S-8	07/08/1998	3600	1800	<25	<25	<25	<125	NA	27.21	21.52	5.69	NA
S-8 (D)	07/08/1998	4000	1800	<25	<25	31	<125	NA	27.21	NA	NA	NA

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**Oakland, CA**  
**Wic #204-5508-6200**

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)	TOB (MSL)	Depth to Water (ft.)	GW Elevation (MSL)	SPH Thickness (ft.)
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S-8	10/26/1998	NA	NA	NA	NA	NA	NA	NA	27.21	22.01	5.20	NA
S-8	01/28/1999	2000	630	6.2	24	51	43	NA	27.21	23.03	4.18	NA
S-8	04/23/1999	1050	408	<5.00	<5.00	6.65	<50.0	NA	27.21	22.15	5.06	NA
S-8	07/29/1999	955	344	<2.50	6.90	16.2	<25.0	NA	27.21	21.95	5.26	NA
S-8	11/01/1999	1800	550	6.45	15	40.4	<50.0	NA	27.21	22.55	4.66	NA
S-8	01/07/2000	1300	600	11	29	48	<13	NA	27.21	22.87	4.34	NA
S-8	04/11/2000	342	101	4.42	4.24	14.7	21.4	NA	27.21	21.86	5.35	NA
S-8	07/19/2000	579	228	6.37	6.45	25.0	<12.5	NA	27.21	21.93	5.28	NA
S-8	10/12/2000	947	340	8.64	3.26	38.3	<12.5	<2.00	27.21	22.92	4.29	NA

S-9	12/22/1994	2600	400	150	42	310	NA	NA	26.06	24.37	1.69	NA
S-9	04/20/1995	1900	400	130	51	200	NA	NA	26.06	23.49	2.57	NA
S-9	10/04/1995	3200	590	260	68	280	NA	NA	26.06	24.01	2.05	NA
S-9	01/03/1996	Well inaccessible		NA	NA	NA	NA	NA	26.06	NA	NA	NA
S-9	04/11/1996	2100	440	1500	42	210	<25	NA	26.06	23.61	2.45	NA
S-9	07/11/1996	5200	940	450	120	520	<50	NA	26.06	23.78	2.28	NA
S-9 (D)	07/11/1996	4800	890	430	110	500	<50	NA	26.06	NA	NA	NA
S-9	10/02/1996	3000	680	220	56	270	<62	NA	26.06	24.31	1.75	NA
S-9	01/22/1997	1500	230	71	36	130	<12	NA	26.06	23.08	2.98	NA
S-9	07/21/1997	3400	590	57	19	210	96	NA	26.06	22.83	3.23	NA
S-9	01/22/1998	2600	300	46	<10	270	62	NA	26.06	21.96	4.10	NA
S-9	07/08/1998	820	150	6.2	8	57	<10	NA	26.06	20.85	5.21	NA
S-9	10/26/1998	NA	NA	NA	NA	NA	NA	NA	26.06	21.39	4.67	NA
S-9	01/28/1999	<50	1.0	<0.50	<0.50	<0.50	<2.5	NA	26.06	22.32	3.74	NA
S-9	04/23/1999	NA	NA	NA	NA	NA	NA	NA	26.06	21.41	4.65	NA
S-9	07/29/1999	117	7.77	0.817	0.683	5.05	<5.00	NA	26.06	21.25	4.81	NA
S-9	11/01/1999	NA	NA	NA	NA	NA	NA	NA	26.06	21.92	4.14	NA

**WELL CONCENTRATIONS**  
**Former Shell Service Station**  
**461 8th Street**  
**Oakland, CA**  
**Wic #204-5508-6200**

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)	TOB (MSL)	Depth to Water (ft.)	GW Elevation (MSL)	SPH Thickness (ft.)
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S-9	01/07/2000	<50	1.2	<0.50	<0.50	<0.50	<2.5	NA	26.06	22.11	3.95	NA
S-9	04/11/2000	NA	NA	NA	NA	NA	NA	NA	26.06	21.14	4.92	NA
S-9	07/19/2000	Well inaccessible		NA	NA	NA	NA	NA	26.06	NA	NA	NA
<b>S-9</b>	<b>10/12/2000</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>26.06</b>	<b>22.24</b>	<b>3.82</b>	<b>NA</b>

S-10	12/22/1994	420	27	8.0	18	45	NA	NA	28.04	25.84	2.20	NA
S-10	04/20/1995	820	49	3.7	97	52	NA	NA	28.04	24.92	3.12	NA
S-10	10/04/1995	240	6.5	1.1	16	12	NA	NA	28.04	25.47	2.57	NA
S-10	01/03/1996	1100	27	4.9	110	70	NA	NA	28.04	25.60	2.44	NA
S-10	04/11/1996	530	19	1.6	82	52	<5.0	NA	28.04	25.27	2.77	NA
S-10	07/11/1996	570	16	3.2	53	53	<2.5	NA	28.04	25.46	2.58	NA
S-10	10/02/1996	270	8.2	0.77	24	23	3.3	NA	28.04	25.81	2.23	NA
S-10	01/22/1997	160	4.8	0.73	16	11	<2.5	NA	28.04	24.74	3.30	NA
S-10	07/21/1997	530	5.7	0.70	29	69	<2.5	NA	28.04	24.50	3.54	NA
S-10	01/22/1998	1500	15	<5.0	88	130	<25	NA	28.04	24.44	3.60	NA
S-10	07/08/1998	530	4.8	1.1	47	51	<2.5	NA	28.04	22.36	5.68	NA
S-10	10/26/1998	NA	NA	NA	NA	NA	NA	NA	28.04	22.81	5.23	NA
S-10	01/28/1999	630	4.6	0.98	<0.50	59	<2.5	NA	28.04	23.82	4.22	NA
S-10	04/23/1999	NA	NA	NA	NA	NA	NA	NA	28.04	22.96	5.08	NA
S-10	07/29/1999	728	3.40	<1.00	41.8	38.0	<10.0	NA	28.04	22.63	5.41	NA
S-10	11/01/1999	NA	NA	NA	NA	NA	NA	NA	28.04	23.02	5.02	NA
S-10	01/07/2000	870	8.5	1.3	110	110	<2.5	NA	28.04	23.33	4.71	NA
S-10	04/11/2000	NA	NA	NA	NA	NA	NA	NA	28.04	22.64	5.40	NA
S-10	07/19/2000	612	3.75	<0.500	41.6	43.6	<2.50	NA	28.04	23.04	5.00	NA
<b>S-10</b>	<b>10/12/2000</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>28.04</b>	<b>23.92</b>	<b>4.12</b>	<b>NA</b>

**WELL CONCENTRATIONS**  
**Former Shell Service Station**  
**461 8th Street**  
**Oakland, CA**  
**Wic #204-5508-6200**

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)	TOB (MSL)	Depth to Water (ft.)	GW Elevation (MSL)	SPH Thickness (ft.)
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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

TOB = Top of Wellbox Elevation

SPH = Separate-Phase Hydrocarbons

GW = Groundwater

ug/L = parts per billion

msl = Mean sea level

ft = Feet

<n = Below detection limit

D = Duplicate sample

NA = Not applicable

Notes:

\* = Prior to December 22, 1994, well elevations taken from Top of Casing.

a = Ethylbenzene and xylenes combined

b = This sample analyzed outside of EPA recommended holding time.



# Sequoia Analytical

885 Jarvis Drive  
Morgan Hill, CA 95037  
(408) 776-9600  
FAX (408) 782-6308  
[www.sequoialabs.com](http://www.sequoialabs.com)

27 October, 2000

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

RE: 461 8th St.  
Sequoia Report: MJJ0425

Enclosed are the results of analyses for samples received by the laboratory on 10/13/00 13:59. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

for Wayne Stevenson  
Client Services Manager

CA ELAP Certificate #1210





Blaine Tech Services (Shell) 1680 Rogers Avenue San Jose CA, 95112	Project: 461 8th St. Project Number: 461 8th St./ Oakland Project Manager: Nick Sudano	<b>Reported:</b> 10/27/00 16:01
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### ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
S-5	MJJ0425-01	Water	10/12/00 17:09	10/13/00 13:59
S-6	MJJ0425-02	Water	10/12/00 17:19	10/13/00 13:59
S-8	MJJ0425-03	Water	10/12/00 14:45	10/13/00 13:59

Sequoia Analytical - Morgan Hill

*The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.*

Wayne Stevenson, Client Services Manager





Blaine Tech Services (Shell) 1680 Rogers Avenue San Jose CA, 95112	Project: 461 8th St. Project Number: 461 8th St./ Oakland Project Manager: Nick Sudano	<b>Reported:</b> 10/27/00 16:01
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**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
<b>S-5 (MJJ0425-01) Water</b> Sampled: 10/12/00 17:09 Received: 10/13/00 13:59									
Purgeable Hydrocarbons	41500	5000	ug/l	100	0J23014	10/23/00	10/23/00	DHS LUFT	P-01
Benzene	2940	50.0	"	"	"	"	"	"	
Toluene	4940	50.0	"	"	"	"	"	"	
Ethylbenzene	1520	50.0	"	"	"	"	"	"	
Xylenes (total)	7770	50.0	"	"	"	"	"	"	
Methyl tert-butyl ether	ND	250	"	"	"	"	"	"	
<i>Surrogate: a,a,a-Trifluorotoluene</i>		90.7 %	70-130	"	"	"	"	"	
<b>S-6 (MJJ0425-02) Water</b> Sampled: 10/12/00 17:19 Received: 10/13/00 13:59									
Purgeable Hydrocarbons	32900	10000	ug/l	200	0J23014	10/23/00	10/23/00	DHS LUFT	P-01
Benzene	14200	100	"	"	"	"	"	"	
Toluene	966	100	"	"	"	"	"	"	
Ethylbenzene	1060	100	"	"	"	"	"	"	
Xylenes (total)	1790	100	"	"	"	"	"	"	
Methyl tert-butyl ether	ND	500	"	"	"	"	"	"	
<i>Surrogate: a,a,a-Trifluorotoluene</i>		91.3 %	70-130	"	"	"	"	"	
<b>S-8 (MJJ0425-03) Water</b> Sampled: 10/12/00 14:45 Received: 10/13/00 13:59									
Purgeable Hydrocarbons	947	250	ug/l	5	0J20005	10/20/00	10/20/00	DHS LUFT	P-01
Benzene	340	2.50	"	"	"	"	"	"	
Toluene	8.64	2.50	"	"	"	"	"	"	
Ethylbenzene	3.26	2.50	"	"	"	"	"	"	
Xylenes (total)	38.3	2.50	"	"	"	"	"	"	
Methyl tert-butyl ether	ND	12.5	"	"	"	"	"	"	
<i>Surrogate: a,a,a-Trifluorotoluene</i>		89.3 %	70-130	"	"	"	"	"	





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

Project: 461 8th St.  
Project Number: 461 8th St./ Oakland  
Project Manager: Nick Sudano

**Reported:**  
10/27/00 16:01

**MTBE by EPA Method 8260B  
Sequoia Analytical - San Carlos**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>S-5 (MJJ0425-01) Water</b> Sampled: 10/12/00 17:09 Received: 10/13/00 13:59									<b>O-04</b>
Methyl tert-butyl ether	ND	66.7	ug/l	33.33	0100100	10/24/00	10/24/00	EPA 8260A	
Surrogate: 1,2-Dichloroethane-d4		89.2 %	76.0-114		"	"	"	"	
<b>S-6 (MJJ0425-02) Water</b> Sampled: 10/12/00 17:19 Received: 10/13/00 13:59									<b>O-04</b>
Methyl tert-butyl ether	ND	100	ug/l	50	0100122	10/24/00	10/24/00	EPA 8260A	
Surrogate: 1,2-Dichloroethane-d4		90.8 %	76.0-114		"	"	"	"	
<b>S-8 (MJJ0425-03) Water</b> Sampled: 10/12/00 14:45 Received: 10/13/00 13:59									
Methyl tert-butyl ether	ND	2.00	ug/l	1	0100122	10/24/00	10/24/00	EPA 8260A	
Surrogate: 1,2-Dichloroethane-d4		96.8 %	76.0-114		"	"	"	"	







Blaine Tech Services (Shell) 1680 Rogers Avenue San Jose CA, 95112	Project: 461 8th St. Project Number: 461 8th St./ Oakland Project Manager: Nick Sudano	Reported: 10/27/00 16:01
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## 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
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### Batch 0J20005 - EPA 5030B [P/T]

Blank (0J20005-BLK1) Prepared & Analyzed: 10/20/00										
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	9.25		"	10.0		92.5	70-130			

LCS (0J20005-BS1) Prepared & Analyzed: 10/20/00										
Purgeable Hydrocarbons	234	50.0	ug/l	250		93.6	70-130			
Surrogate: a,a,a-Trifluorotoluene	10.0		"	10.0		100	70-130			

Matrix Spike (0J20005-MS1) Source: MJJ0478-01 Prepared & Analyzed: 10/20/00										
Purgeable Hydrocarbons	222	50.0	ug/l	250	ND	88.8	60-140			
Surrogate: a,a,a-Trifluorotoluene	9.65		"	10.0		96.5	70-130			

Matrix Spike Dup (0J20005-MSD1) Source: MJJ0478-01 Prepared & Analyzed: 10/20/00										
Purgeable Hydrocarbons	224	50.0	ug/l	250	ND	89.6	60-140	0.897	25	
Surrogate: a,a,a-Trifluorotoluene	9.59		"	10.0		95.9	70-130			

### Batch 0J23014 - EPA 5030B [P/T]

Blank (0J23014-BLK1) Prepared & Analyzed: 10/23/00										
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	9.20		"	10.0		92.0	70-130			





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

Project: 461 8th St.  
Project Number: 461 8th St./ Oakland  
Project Manager: Nick Sudano

**Reported:**  
10/27/00 16:01

## 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
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### Batch 0J23014 - EPA 5030B [P/T]

#### LCS (0J23014-BS1)

Prepared & Analyzed: 10/23/00

Benzene	9.13	0.500	ug/l	10.0		91.3	70-130			
Toluene	8.98	0.500	"	10.0		89.8	70-130			
Ethylbenzene	8.73	0.500	"	10.0		87.3	70-130			
Xylenes (total)	26.4	0.500	"	30.0		88.0	70-130			

Surrogate: *a,a,a*-Trifluorotoluene 9.20 " 10.0 92.0 70-130

#### Matrix Spike (0J23014-MS1)

Source: MJJ0449-04

Prepared & Analyzed: 10/23/00

Benzene	9.81	0.500	ug/l	10.0	ND	98.1	60-140			
Toluene	9.00	0.500	"	10.0	ND	90.0	60-140			
Ethylbenzene	8.42	0.500	"	10.0	ND	84.2	60-140			
Xylenes (total)	25.3	0.500	"	30.0	ND	84.3	60-140			

Surrogate: *a,a,a*-Trifluorotoluene 9.57 " 10.0 95.7 70-130

#### Matrix Spike Dup (0J23014-MSD1)

Source: MJJ0449-04

Prepared & Analyzed: 10/23/00

Benzene	9.99	0.500	ug/l	10.0	ND	99.9	60-140	1.82	25	
Toluene	8.90	0.500	"	10.0	ND	89.0	60-140	1.12	25	
Ethylbenzene	8.40	0.500	"	10.0	ND	84.0	60-140	0.238	25	
Xylenes (total)	25.6	0.500	"	30.0	ND	85.3	60-140	1.18	25	

Surrogate: *a,a,a*-Trifluorotoluene 10.0 " 10.0 100 70-130





Blaine Tech Services (Shell) 1680 Rogers Avenue San Jose CA, 95112	Project: 461 8th St. Project Number: 461 8th St./ Oakland Project Manager: Nick Sudano	<b>Reported:</b> 10/27/00 16:01
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**MTBE by EPA Method 8260B - Quality Control  
Sequoia Analytical - San Carlos**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch 0100100 - EPA 5030B [P/T]</b>										
<b>Blank (0100100-BLK1)</b>				Prepared & Analyzed: 10/19/00						
Methyl tert-butyl ether	ND	2.00	ug/l							
Surrogate: 1,2-Dichloroethane-d4	45.6		"	50.0		91.2	76.0-114			
<b>Blank (0100100-BLK2)</b>				Prepared & Analyzed: 10/23/00						
Methyl tert-butyl ether	ND	2.00	ug/l							
Surrogate: 1,2-Dichloroethane-d4	43.0		"	50.0		86.0	76.0-114			
<b>Blank (0100100-BLK3)</b>				Prepared & Analyzed: 10/24/00						
Methyl tert-butyl ether	ND	100	ug/l							
Surrogate: 1,2-Dichloroethane-d4	44.6		"	50.0		89.2	76.0-114			
<b>LCS (0100100-BS1)</b>				Prepared & Analyzed: 10/19/00						
Methyl tert-butyl ether	41.0	2.00	ug/l	50.0		82.0	70.0-130			
Surrogate: 1,2-Dichloroethane-d4	45.5		"	50.0		91.0	76.0-114			
<b>LCS (0100100-BS2)</b>				Prepared & Analyzed: 10/23/00						
Methyl tert-butyl ether	46.7	2.00	ug/l	50.0		93.4	70.0-130			
Surrogate: 1,2-Dichloroethane-d4	44.7		"	50.0		89.4	76.0-114			
<b>LCS (0100100-BS3)</b>				Prepared & Analyzed: 10/24/00						
Methyl tert-butyl ether	2180	100	ug/l	50.0		4360	70.0-130			
Surrogate: 1,2-Dichloroethane-d4	45.5		"	50.0		91.0	76.0-114			
<b>Matrix Spike (0100100-MS1)</b>				Source: L010141-05		Prepared & Analyzed: 10/19/00				
Methyl tert-butyl ether	132	2.00	ug/l	50.0	84.0	96.0	60.0-140			
Surrogate: 1,2-Dichloroethane-d4	49.1		"	50.0		98.2	76.0-114			
<b>Matrix Spike Dup (0100100-MSD1)</b>				Source: L010141-05		Prepared & Analyzed: 10/19/00				
Methyl tert-butyl ether	126	2.00	ug/l	50.0	84.0	84.0	60.0-140	13.3	25.0	
Surrogate: 1,2-Dichloroethane-d4	46.9		"	50.0		93.8	76.0-114			





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

Project: 461 8th St.  
Project Number: 461 8th St./ Oakland  
Project Manager: Nick Sudano

**Reported:**  
10/27/00 16:01

**MTBE by EPA Method 8260B - Quality Control  
Sequoia Analytical - San Carlos**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC %REC Limits	RPD	RPD Limit	Notes
<b>Batch 0100122 - EPA 5030B [P/T]</b>									
<b>Blank (0100122-BLK1)</b>					Prepared & Analyzed: 10/24/00				
Methyl tert-butyl ether	ND	2.00	ug/l						
Surrogate: 1,2-Dichloroethane-d4	44.6		"	50.0		89.2 76.0-114			
<b>LCS (0100122-BS1)</b>					Prepared & Analyzed: 10/24/00				
Methyl tert-butyl ether	43.6	2.00	ug/l	50.0		87.2 70.0-130			
Surrogate: 1,2-Dichloroethane-d4	45.5		"	50.0		91.0 76.0-114			
<b>Matrix Spike (0100122-MS1)</b>					Source: L010182-03 Prepared & Analyzed: 10/24/00				
Methyl tert-butyl ether	45.4	2.00	ug/l	50.0	ND	90.8 60.0-140			
Surrogate: 1,2-Dichloroethane-d4	45.7		"	50.0		91.4 76.0-114			
<b>Matrix Spike Dup (0100122-MSD1)</b>					Source: L010182-03 Prepared & Analyzed: 10/24/00				
Methyl tert-butyl ether	45.9	2.00	ug/l	50.0	ND	91.8 60.0-140	1.10	25.0	
Surrogate: 1,2-Dichloroethane-d4	47.0		"	50.0		94.0 76.0-114			





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

Project: 461 8th St.  
Project Number: 461 8th St./ Oakland  
Project Manager: Nick Sudano

**Reported:**  
10/27/00 16:01

### Notes and Definitions

O-04 This sample was diluted due to high non-target compounds.  
P-01 Chromatogram Pattern: Gasoline C6-C12  
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







# EQUIVA WELL MONITORING DATA SHEET

BIS #: 001012 R3	Site: 461 E <sup>th</sup> St. Catalina
Sampler: J-rod	Date: 10/12/00
Well ID: S-5	Well Diameter: <input checked="" type="radio"/> 3 <input checked="" type="radio"/> 4 <input type="radio"/> 6 <input type="radio"/> 8
Total Well Depth: 38.67	Depth to Water: 10.67
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: PVC <input checked="" type="radio"/> Grade	D.O. Meter (if req'd): YSI <input type="checkbox"/> IACH <input type="checkbox"/>

Purge Method:

- Bailer
- Disposable Bailer
- Middleburg
- Electric Submersible
- Watena
- Peristaltic
- Extraction Pump
- Other: \_\_\_\_\_

Sampling Method:

- Bailer
- Disposable Bailer
- Extraction Port
- Dedicated Tubing
- Other: \_\_\_\_\_

9.965 sample = \_\_\_\_\_ Gals.

1 Case Volume	Specified Volumes	Calculated Volume
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Well Diameter	Multiplier	Well Diameter	Multiplier
1"	0.01	<input checked="" type="radio"/> 4"	0.65
2"	0.16	6"	1.17
3"	0.37	Other	radius <sup>2</sup> * 0.163

Time	Temp (°F)	pH	Cond.	Turbidity	Gals. Removed	Observations
1708	68.1	6.6	890 <sub>us</sub>	10	—	clear / odor
1737	66.7	6.6	880	77	50	
1744	66.7	6.6	875	73	100	

Did well dewater? Yes  No  Gallons actually evacuated: 100

Sampling Time: ~~1509~~ 1709 Sampling Date: 10/12/00

Sample ID: S-5 Laboratory:  Sequoia  Columbia  Other

Analyzed for:  TDS  BTEX  ADRB  THM  Other

EB ID (if applicable): \_\_\_\_\_ Duplicate ID (if applicable): \_\_\_\_\_

Analyzed for:  TDS  BTEX  ADRB  THM  Other

Pre-purge:	mg/L	Post-purge:	mg/L
Post-purge:	mg/L	Post-purge:	mg/L



## EQUIVA WELL MONITORING DATA SHEET

BIS #: <u>001012 R3</u>	Site: <u>461 E<sup>th</sup> St. Columbia</u>
Sampler: <u>Joel</u>	Date: <u>10/12/00</u>
Well ID: <u>S-6</u>	Well Diameter: 2 3 <u>(4)</u> 6 8
Total Well Depth: <u>36.33</u>	Depth to Water: <u>19.52</u>
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: <u>PVC</u> <u>Grade</u>	D.O. Meter (if req'd): <u>YSI</u> <u>HACH</u>

Purge Method:

- Bailor
- Disposable Bailor
- Middleburg
- Electric Submersible
- Watera
- Peristaltic
- Extraction Pump
- Other: \_\_\_\_\_

Sampling Method:

- Bailor
- Disposable Bailor
- Extraction Port
- Dedicated Tubing
- Other: \_\_\_\_\_

(Gals.)	=	Gals.
Case Volume	Specified Volume	Calculated Volume

Well Diameter	Multiplier	Well Diameter	Multiplier
1"	0.01	<u>4"</u>	0.65
2"	0.16	6"	1.17
3"	0.37	Other	radius * 0.163

Time	Temp (°F)	pH	Cond.	Turbidity	Gals. Removed	Observations
1715	68.6	6.7	930 us	15	—	clear
					<del>80</del>	Depth to
					<del>160</del>	obstruction - 20'
					<del>150</del>	

Did well de-water?  Yes  No      Gallons actually evacuated: 3

Sampling Time: 1719      Sampling Date: 10/12/00

Sample ID: S-6      Laboratory: Sequia Columbia Other

Analyzed for:  TOC  STP  ACID  PH  Other

ED ID (if applicable):         Duplicate ID (if applicable):   

Anal. method:

