



Shell Oil Products US

June 24, 2003

Alameda County

JUN 27 2003

Environmental Health

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

Subject: **Former Shell Service Station**
8930 Bancroft Avenue
Oakland, California

Dear Ms. chu:

Attached for your review and comment is a copy of the *First Quarter 2003 Monitoring Report* for the above referenced site. Upon information and belief, I declare, under penalty of perjury, that the information contained in the attached document is true and correct.

As always, please feel free to contact me directly at (559) 645-9306 with any questions or concerns.

Sincerely,

Shell Oil Products US

Karen Petryna
Sr. Environmental Engineer

C A M B R I A

Alameda County

JUN 27 2003

June 24, 2003

Environmental Health

eva chu
Alameda County Health Care Services Agency
1131 Harbor Bay Parkway, 2nd Floor
Alameda, California 94502

Re: **First Quarter 2003 Monitoring Report**
Former Shell Service Station/Current 24-7 Quick Mart Service Station
8930 Bancroft Avenue
Oakland, California
Incident #98995742
Cambria Project #245-1408-002



Dear Ms. chu:

On behalf of Equilon Enterprises LLC dba Shell Oil Products US (Shell), Cambria Environmental Technology, Inc. (Cambria) is submitting this groundwater monitoring report in accordance with the reporting requirements of 23 CCR 2652d. The site is located on the corner of Bancroft Avenue and 90th Avenue in Oakland, California (Figures 1 and 2). Shell ceased operations in July 1999, when three 10,000-gallon fiberglass USTs and associated piping and dispensers were removed and replaced at the site

REMEDIATION SUMMARY

2000 Mobile Groundwater Extraction (GWE): Weekly mobile GWE was performed on well MW-4 during March through May 2000. Mobile GWE is the process of extracting groundwater from wells using a vacuum truck. In this process, the vacuum created by the truck is applied to a dedicated extraction "stinger" installed in the extraction well. The extracted water is contained by the truck and removed from the site for disposal. The volume of extracted fluid is recorded and used to calculate the quantity of aqueous-phase constituents removed from the subsurface. Approximately 1,875 gallons of water were extracted from well MW-4, and an estimated total of 0.003 pounds of total petroleum hydrocarbons as gasoline (TPHg) and 0.1 pounds of methyl tertiary butyl ether (MTBE) were removed. GWE was discontinued due to low extraction volumes.

**Cambria
Environmental
Technology, Inc.**

5900 Hollis Street
Suite A
Emeryville, CA 94608
Tel (510) 420-0700
Fax (510) 420-9170

2002 Mobile GWE: Due to the presence of separate phase hydrocarbons (SPH) in well MW-5 beginning in February 2002, four additional weekly mobile GWE events were conducted at the site in August 2002 using well MW-5. An estimated total of 0.04 pounds of TPHg and 0.10 pounds of MTBE were removed from the subsurface. During the initial extraction event, approximately 0.02 feet of SPH were measured in well MW-5 prior to extraction. No SPH has been detected in well MW-5 since the extraction events. Based on this, the short-term mobile GWE appears to have successfully removed the SPH from well MW-5 and was therefore discontinued.



FIRST QUARTER 2003 ACTIVITIES

Groundwater Monitoring: Blaine Tech Services, Inc. (Blaine) of San Jose, California gauged and sampled selected site wells, measured dissolved oxygen (DO) concentrations in selected site wells, calculated groundwater elevations, and compiled the analytical data. Cambria prepared a vicinity map that includes previously submitted well survey information (Figure 1) and a groundwater elevation contour map (Figure 2). Blaine's report, presenting the laboratory report and supporting field documents, is included as Attachment A.

ANTICIPATED SECOND QUARTER 2003 ACTIVITIES

Groundwater Monitoring: Blaine will gauge all site wells, sample selected site wells, measure DO concentrations in selected site wells, and tabulate the data. Cambria will prepare a monitoring report.

Oxygen Releasing Compound (ORC) Removal: To enhance the biological degradation of residual chemicals in groundwater at the site, Blaine installed ORC in well MW-4 in the fourth quarter of 2001 and has replaced it every six months. Since chemical concentrations have been reduced to very low to non-detectable levels, Blaine will remove the ORC and discontinue dissolved oxygen monitoring at the site.

CLOSING

We appreciate the opportunity to work with you on this project. Please call Melody Munz at (510) 420-3324 if you have any questions or comments.

Sincerely,
Cambria Environmental Technology, Inc



Melody Munz
Project Engineer

Matthew W. Derby, P.E.
Senior Project Engineer



Figures: 1 - Vicinity/Area Well Survey Map
2 - Groundwater Elevation Contour Map

Attachment: A - Blaine Groundwater Monitoring Report and Field Notes

cc: Karen Petryna, Shell Oil Products US, P.O. Box 7869, Burbank, CA 91510-7869
Leroy Griffin, Fire Prevention Bureau, 250 Frank Ogawa Plaza, 3rd Floor, Suite 3341,
Oakland, CA 94612
Sidhu Associates, 8930 Bancroft Ave., Oakland, CA 94605

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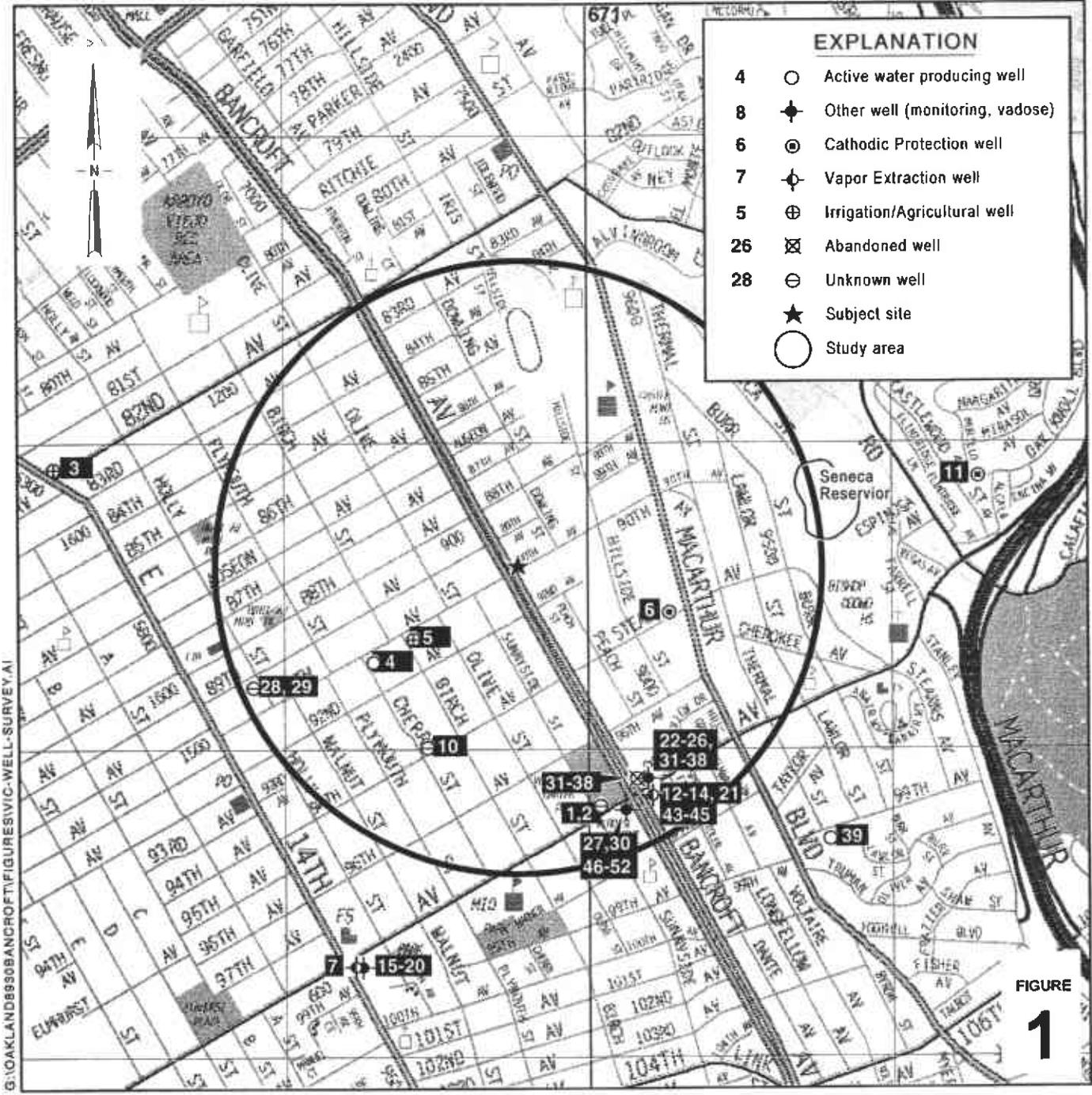


FIGURE 1

SCALE 1" = 1/4 MILE

**Former Shell-branded Station/
Current 24-7 Quick Mart
Service Station**

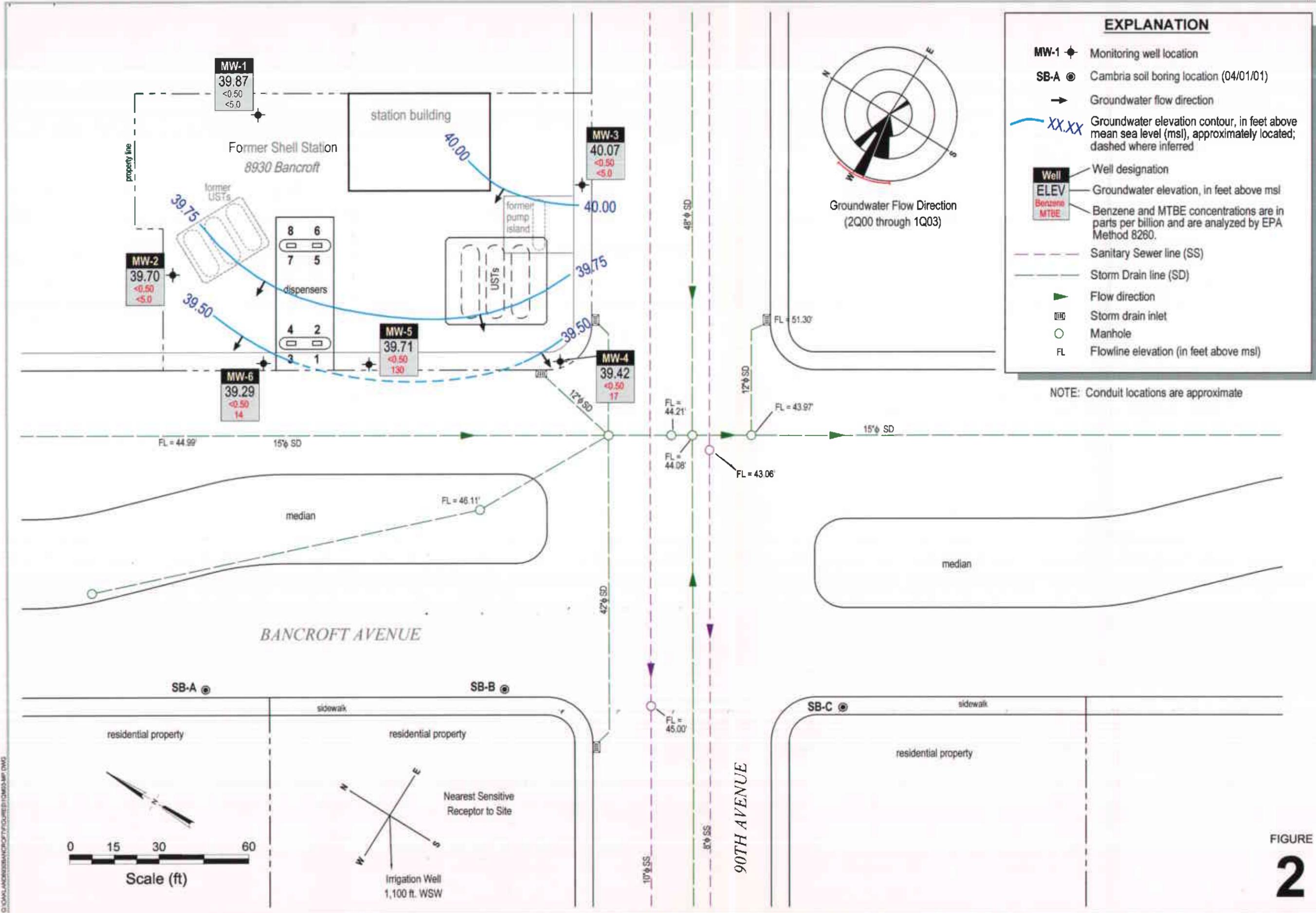
8930 Bancroft Avenue
Oakland, California
Incident #98995742



C A M B R I A

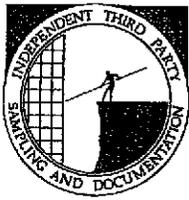
**Vicinity/Area Well
Survey Map**

(1/2 Mile Radius)



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

April 29, 2003

Karen Petryna
Shell Oil Products US
P.O. Box 7869
Burbank, CA 91510-7869

First Quarter 2003 Groundwater Monitoring at
Former Shell Service Station
8930 Bancroft Avenue
Oakland, CA

Monitoring performed on March 28, 2003

Groundwater Monitoring Report 030328-DA-2

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. Purge water (if applicable) is, likewise, collected and transported to the Shell Martinez Manufacturing Complex.

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. Our activities at this site consisted of objective data and sample collection only. No interpretation of analytical results, defining of hydrological conditions or formulation of recommendations was performed.

Please call if you have any questions.

Yours truly,

Leon Gearhart
Project Coordinator

LG/jt

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

cc: Anni Kreml
Cambria Environmental Technology, Inc.
5900 Hollis Street, Suite A
Oakland, CA 94608

WELL CONCENTRATIONS
Former Shell Service Station
8930 Bancroft Avenue
Oakland, CA

Well ID	Date	TPPH (ug/L)	TEPH (ug/L)	B (ug/L)	T (ug/L)	E (ug/L)	X (ug/L)	MTBE 8020 (ug/L)	MTBE 8260 (ug/L)	TOC (MSL)	Depth to Water (ft)	Depth to SPH (ft)	GW Elevation (MSL)	SPH Thickness (ft)	DO Reading (mg/L)
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MW-1	12/17/1998	<50	NA	<0.50	<0.50	<0.50	<0.50	<2.5	NA	53.19	11.87	NA	41.32	NA	NA
MW-1	03/09/1999	<50.0	NA	<0.500	<0.500	<0.500	<0.500	<5.00	NA	53.19	8.21	NA	44.98	NA	NA
MW-1	06/16/1999	<50.0	NA	<0.500	<0.500	<0.500	<0.500	<5.00	NA	53.19	15.04	NA	38.15	NA	NA
MW-1	09/30/1999	<50.0	NA	<0.500	<0.500	<0.500	<0.500	<5.00	NA	53.19	16.02	NA	37.17	NA	NA
MW-1	12/23/1999	<50.0	NA	<0.500	<0.500	<0.500	<0.500	<2.50	NA	53.19	14.78	NA	38.41	NA	NA
MW-1	03/22/2000	<50.0	NA	<0.500	<0.500	<0.500	<0.500	<5.00	NA	53.19	8.44	NA	44.75	NA	NA
MW-1	06/01/2000	<50.0	NA	<0.500	<0.500	<0.500	<0.500	<2.50	NA	53.19	13.71	NA	39.48	NA	NA
MW-1	09/08/2000	<50.0	NA	<0.500	<0.500	<0.500	<0.500	<2.50	NA	53.19	14.95	NA	38.24	NA	NA
MW-1	12/04/2000	<50.0	NA	<0.500	<0.500	<0.500	<0.500	5.82	NA	53.19	13.85	NA	39.34	NA	NA
MW-1	03/09/2001	<50.0	NA	<0.500	<0.500	<0.500	<0.500	<2.50	NA	53.19	9.07	NA	44.12	NA	NA
MW-1	06/27/2001	<50	NA	<0.50	<0.50	<0.50	<0.50	<2.5	NA	53.19	14.90	NA	38.29	NA	NA
MW-1	09/20/2001	NA	NA	NA	NA	NA	NA	NA	NA	53.19	15.53	NA	37.66	NA	NA
MW-1	12/05/2001	NA	NA	NA	NA	NA	NA	NA	NA	53.19	10.41	NA	42.78	NA	3.8
MW-1	02/26/2002	<50	NA	<0.50	<0.50	<0.50	<0.50	NA	<0.50	53.19	11.09	NA	42.10	NA	NA
MW-1	06/06/2002	NA	NA	NA	NA	NA	NA	NA	NA	53.19	14.13	NA	39.06	NA	NA
MW-1	09/09/2002	NA	NA	NA	NA	NA	NA	NA	NA	53.20	15.55	NA	37.65	NA	NA
MW-1	12/19/2002	NA	NA	NA	NA	NA	NA	NA	NA	53.20	8.67	NA	44.53	NA	NA
MW-1	03/28/2003	<50	NA	<0.50	<0.50	<0.50	<0.50	NA	<5.0	53.20	13.33	NA	39.87	NA	NA

MW-2	12/17/1998	9,900	NA	<5.0	37	22	47	48	<20	52.66	11.65	NA	41.01	NA	NA
MW-2	03/09/1999	2,760	NA	12.3	7.50	85.4	444	<50.0	NA	52.66	8.07	NA	44.59	NA	NA
MW-2	06/16/1999	2,570	NA	36.3	11.6	6.19	10.8	<50.0	NA	52.66	14.63	NA	38.03	NA	NA
MW-2	09/30/1999	1,960	NA	19.1	3.20	4.55	26.9	<25.0	NA	52.66	15.63	NA	37.03	NA	NA
MW-2	12/23/1999	145	NA	1.30	<0.500	<0.500	0.899	<2.50	NA	52.66	14.42	NA	38.24	NA	NA
MW-2	03/22/2000	6,060	NA	18.9	<10.0	210	651	<100	NA	52.66	8.19	NA	44.47	NA	NA
MW-2	06/01/2000	<50.0	NA	<0.500	<0.500	<0.500	<0.500	<2.50	NA	52.66	11.46	NA	41.20	NA	NA
MW-2	09/08/2000	<50.0	NA	<0.500	<0.500	<0.500	<0.500	<2.50	NA	52.66	14.63	NA	38.03	NA	NA

WELL CONCENTRATIONS
Former Shell Service Station
8930 Bancroft Avenue
Oakland, CA

Well ID	Date	TPPH (ug/L)	TEPH (ug/L)	B (ug/L)	T (ug/L)	E (ug/L)	X (ug/L)	MTBE 8020 (ug/L)	MTBE 8260 (ug/L)	TOC (MSL)	Depth to Water (ft)	Depth to SPH (ft)	GW Elevation (MSL)	SPH Thickness (ft)	DO Reading (mg/L)
MW-2	12/04/2000	201	NA	1.35	<0.500	3.39	8.58	<2.50	NA	52.66	13.45	NA	39.21	NA	NA
MW-2	03/09/2001	396	NA	2.82	<0.500	8.69	18.7	<2.50	NA	52.66	8.89	NA	43.77	NA	NA
MW-2	06/27/2001	<50	NA	<0.50	<0.50	<0.50	<0.50	<2.5	NA	52.66	14.88	NA	37.78	NA	NA
MW-2	09/20/2001	<50	NA	<0.50	<0.50	<0.50	<0.50	NA	<5.0	52.66	15.19	NA	37.47	NA	NA
MW-2	12/05/2001	NA	NA	NA	NA	NA	NA	NA	NA	52.66	10.02	NA	42.64	NA	2.8
MW-2	02/26/2002	180	NA	<0.50	<0.50	2.7	4.1	NA	<0.50	52.66	10.76	NA	41.90	NA	NA
MW-2	06/06/2002	NA	NA	NA	NA	NA	NA	NA	NA	52.66	13.83	NA	38.83	NA	NA
MW-2	09/09/2002	<50	NA	<0.50	<0.50	<0.50	<0.50	NA	<5.0	52.66	15.23	NA	37.43	NA	NA
MW-2	12/19/2002	NA	NA	NA	NA	NA	NA	NA	NA	52.66	8.46	NA	44.20	NA	NA
MW-2	03/28/2003	53	NA	<0.50	<0.50	0.51	1.4	NA	<5.0	52.66	12.96	NA	39.70	NA	NA

MW-3	12/17/1998	<50	NA	<0.50	<0.50	<0.50	<0.50	10	11	51.30	11.85	NA	39.45	NA	NA
MW-3	03/09/1999	<50.0	NA	<0.500	<0.500	<0.500	<0.500	<5.00	NA	51.30	6.53	NA	44.77	NA	NA
MW-3	06/16/1999	<50.0	NA	<0.500	<0.500	<0.500	<0.500	<5.00	NA	51.30	12.71	NA	38.59	NA	NA
MW-3	09/30/1999	<50.0	NA	<0.500	<0.500	<0.500	<0.500	5.14	NA	51.30	14.07	NA	37.23	NA	NA
MW-3	12/23/1999	<500	NA	<5.00	<5.00	<5.00	<5.00	<25.0	NA	51.30	12.82	NA	38.48	NA	NA
MW-3	03/22/2000	<50.0	NA	<0.500	1.48	<0.500	1.90	<5.00	NA	51.30	6.81	NA	44.49	NA	NA
MW-3	06/01/2000	<50.0	NA	<0.500	0.821	<0.500	<0.500	4.39	NA	51.30	11.85	NA	39.45	NA	NA
MW-3	09/08/2000	<50.0	NA	<0.500	<0.500	<0.500	<0.500	3.62	NA	51.30	12.55	NA	38.75	NA	NA
MW-3	12/04/2000	<50.0	NA	<0.500	<0.500	<0.500	0.588	4.74	NA	51.30	11.65	NA	39.65	NA	NA
MW-3	03/09/2001	<50.0	NA	<0.500	<0.500	<0.500	<0.500	<2.50	NA	51.30	7.28	NA	44.02	NA	NA
MW-3	06/27/2001	<50	NA	<0.50	<0.50	<0.50	<0.50	<2.5	NA	51.30	13.16	NA	38.14	NA	NA
MW-3	09/20/2001	NA	NA	NA	NA	NA	NA	NA	NA	51.30	13.35	NA	37.95	NA	NA
MW-3	12/05/2001	NA	NA	NA	NA	NA	NA	NA	NA	51.30	8.14	NA	43.16	NA	1.2
MW-3	02/26/2002	<50	NA	<0.50	7.2	<0.50	<0.50	NA	1.5	51.30	9.09	NA	42.21	NA	0.6
MW-3	06/06/2002	NA	NA	NA	NA	NA	NA	NA	NA	51.30	12.13	NA	39.17	NA	0.8
MW-3	09/09/2002	NA	NA	NA	NA	NA	NA	NA	NA	51.35	13.54	NA	37.81	NA	1.0
MW-3	12/19/2002	NA	NA	NA	NA	NA	NA	NA	NA	51.35	6.75	NA	44.60	NA	0.6

WELL CONCENTRATIONS
Former Shell Service Station
8930 Bancroft Avenue
Oakland, CA

Well ID	Date	TPPH (ug/L)	TEPH (ug/L)	B (ug/L)	T (ug/L)	E (ug/L)	X (ug/L)	MTBE 8020 (ug/L)	MTBE 8260 (ug/L)	TOC (MSL)	Depth to Water (ft)	Depth to SPH (ft)	GW Elevation (MSL)	SPH Thickness (ft)	DO Reading (mg/L)
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MW-3	03/28/2003	<50	NA	<0.50	<0.50	<0.50	<0.50	NA	<5.0	51.35	11.28	NA	40.07	NA	0.7
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MW-4	12/17/1998	700	NA	4.3	0.88	<0.50	<0.50	21,000	26,000	50.73	10.80	NA	39.93	NA	NA
MW-4	03/09/1999	83.9	NA	<0.500	<0.500	<0.500	<0.500	17,900	23,700	50.73	6.91	NA	43.82	NA	NA
MW-4	06/16/1999	<50.0	NA	<0.500	<0.500	<0.500	<0.500	10,600	19,200	50.73	12.84	NA	37.89	NA	NA
MW-4	09/30/1999	51.2	NA	<0.500	<0.500	<0.500	<0.500	12,200	12,300	50.73	13.74	NA	36.99	NA	NA
MW-4	12/23/1999	<100	NA	<1.00	<1.00	<1.00	<1.00	7,990	8,400	50.73	12.40	NA	38.33	NA	NA
MW-4	03/22/2000	<500	NA	<5.00	<5.00	<5.00	<5.00	4,970	5,020	50.73	7.32	NA	43.41	NA	NA
MW-4	06/01/2000	<100	NA	<1.00	<1.00	<1.00	<1.00	5,260	3,580	50.73	11.50	NA	39.23	NA	NA
MW-4	09/08/2000	<50.0	NA	<0.500	<0.500	<0.500	<0.500	3,610	3,300a	50.73	12.55	NA	38.18	NA	NA
MW-4	12/04/2000	<50.0	NA	<0.500	<0.500	<0.500	<0.500	2,960	3,520a	50.73	11.77	NA	38.96	NA	NA
MW-4	03/09/2001	<50.0	NA	<0.500	<0.500	<0.500	<0.500	1,930	2,500	50.73	7.48	NA	43.25	NA	NA
MW-4	06/27/2001	<50	NA	<0.50	<0.50	<0.50	<0.50	1,100	1,100	50.73	12.97	NA	37.76	NA	NA
MW-4	09/20/2001	<250	NA	3.8	14	2.6	7.8	NA	940	50.73	13.30	NA	37.43	NA	NA
MW-4	12/05/2001	<200	NA	<2.0	<2.0	<2.0	<2.0	NA	750	50.73	8.41	NA	42.32	NA	1.2
MW-4	02/26/2002	<50	NA	<0.50	<0.50	<0.50	<0.50	NA	320	50.73	9.40	NA	41.33	NA	0.7
MW-4	06/06/2002	<50	NA	<0.50	<0.50	<0.50	<0.50	NA	160	50.73	11.97	NA	38.76	NA	0.6
MW-4	09/09/2002	<50	NA	<0.50	<0.50	<0.50	<0.50	NA	50	50.72	13.23	NA	37.49	NA	3.6
MW-4	12/19/2002	Unable to sample		NA	NA	NA	NA	NA	NA	50.72	7.08	NA	43.64	NA	0.8
MW-4	12/26/2002	<50	NA	<0.50	<0.50	<0.50	<0.50	NA	47	50.72	7.23	NA	43.49	NA	1.8
MW-4	03/28/2003	<50	NA	<0.50	1.2	<0.50	<0.50	NA	17	50.72	11.30	NA	39.42	NA	1.7

MW-5	12/17/1998	750	NA	<0.50	17	1.8	3.5	33	32	51.43	11.51	NA	39.92	NA	NA
MW-5	03/09/1999	<50.0	NA	<0.500	<0.500	<0.500	<0.500	<5.00	NA	51.43	7.15	NA	44.28	NA	NA
MW-5	06/16/1999	646	NA	9.26	1.05	<1.00	<1.00	<10.0	NA	51.43	13.47	NA	37.96	NA	NA
MW-5	09/30/1999	484	NA	1.93	0.511	<0.500	<0.500	159	NA	51.43	14.41	NA	37.02	NA	NA
MW-5	12/23/1999	944	NA	4.59	17.7	3.79	16.7	214	NA	51.43	14.07	NA	37.36	NA	NA
MW-5	03/22/2000	8,770	NA	197	96.5	<50.0	188	2,450	NA	51.43	7.31	NA	44.12	NA	NA

WELL CONCENTRATIONS
Former Shell Service Station
8930 Bancroft Avenue
Oakland, CA

Well ID	Date	TPPH (ug/L)	TEPH (ug/L)	B (ug/L)	T (ug/L)	E (ug/L)	X (ug/L)	MTBE 8020 (ug/L)	MTBE 8260 (ug/L)	TOC (MSL)	Depth to Water (ft.)	Depth to SPH (ft.)	GW Elevation (MSL)	SPH Thickness (ft.)	DO Reading (mg/L)
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MW-5	06/01/2000	227	NA	0.565	<0.500	<0.500	<0.500	35.9	NA	51.43	12.15	NA	39.28	NA	NA
MW-5	09/08/2000	159	NA	0.606	<0.500	<0.500	1.74	1,000	NA	51.43	13.30	NA	38.13	NA	NA
MW-5	12/04/2000	1,510	NA	19.2	<10.0	<10.0	134	1,360	NA	51.43	12.19	NA	39.24	NA	NA
MW-5	03/09/2001	3,460	NA	37.9	121	40.6	208	235	NA	51.43	7.79	NA	43.64	NA	NA
MW-5	06/27/2001	310	NA	0.97	<0.50	<0.50	<0.50	14	NA	51.43	13.89	NA	37.54	NA	NA
MW-5	09/20/2001	310	NA	<0.50	<0.50	<0.50	<0.50	NA	21	51.43	13.95	NA	37.48	NA	NA
MW-5	12/05/2001	8,800	NA	14	2.9	33	410	NA	2,300	51.43	8.89	NA	42.54	NA	0.6
MW-5	02/26/2002	NA	NA	NA	NA	NA	NA	NA	NA	51.43	9.87	NA	NA	b	NA
MW-5	03/12/2002	NA	NA	NA	NA	NA	NA	NA	NA	51.43	8.84	8.64	42.75	0.20	NA
MW-5	06/06/2002	NA	NA	NA	NA	NA	NA	NA	NA	51.43	12.59	12.54	38.88	0.05	NA
MW-5	09/09/2002	210	NA	<0.50	<0.50	<0.50	0.90	NA	200	51.44	13.94	NA	37.50	NA	NA
MW-5	12/19/2002	Unable to sample		NA	NA	NA	NA	NA	NA	51.44	7.35	NA	44.09	NA	NA
MW-5	12/26/2002	1,400	NA	<0.50	21	6.9	60	NA	180	51.44	7.13	NA	44.31	NA	NA
MW-5	03/28/2003	240	NA	<0.50	<0.50	<0.50	2.1	NA	130	51.44	11.73	NA	39.71	NA	NA

MW-6	12/17/1998	940	NA	27	0.32	2.4	2.3	3.0	3.2	51.88	11.37	NA	40.51	NA	NA
MW-6	03/09/1999	336	NA	7.78	1.60	2.40	6.36	<10.0	NA	51.88	8.10	NA	43.78	NA	NA
MW-6	06/16/1999	308	NA	2.45	<0.500	<0.500	<0.500	7.39	NA	51.88	14.49	NA	37.39	NA	NA
MW-6	09/30/1999	80.2	NA	<0.500	<0.500	<0.500	<0.500	24.8	NA	51.88	15.30	NA	36.58	NA	NA
MW-6	12/23/1999	149	NA	0.518	<0.500	<0.500	<0.500	6.43	NA	51.88	13.19	NA	38.69	NA	NA
MW-6	03/22/2000	382	NA	3.31	2.18	0.619	2.35	5.61	NA	51.88	8.27	NA	43.61	NA	NA
MW-6	06/01/2000	158	NA	0.830	<0.500	<0.500	1.10	10.9	NA	51.88	11.13	NA	40.75	NA	NA
MW-6	09/08/2000	<50.0	NA	<0.500	<0.500	<0.500	<0.500	<2.50	NA	51.88	14.28	NA	37.60	NA	NA
MW-6	12/04/2000	231	NA	4.93	<0.500	<0.500	<0.500	4.57	NA	51.88	12.62	NA	39.26	NA	NA
MW-6	03/09/2001	789	NA	11.6	2.72	<2.00	<2.00	28.0	NA	51.88	8.65	NA	43.23	NA	NA
MW-6	06/27/2001	140	NA	<0.50	1.1	<0.50	<0.50	<2.5	NA	51.88	14.95	NA	36.93	NA	NA
MW-6	09/20/2001	<50	NA	<0.50	<0.50	<0.50	<0.50	NA	<5.0	51.88	14.70	NA	37.18	NA	NA
MW-6	12/05/2001	NA	NA	NA	NA	NA	NA	NA	NA	51.88	9.62	NA	42.26	NA	1.8

WELL CONCENTRATIONS
Former Shell Service Station
8930 Bancroft Avenue
Oakland, CA

Well ID	Date	TPPH (ug/L)	TEPH (ug/L)	B (ug/L)	T (ug/L)	E (ug/L)	X (ug/L)	MTBE 8020 (ug/L)	MTBE 8260 (ug/L)	TOC (MSL)	Depth to Water (ft)	Depth to SPH (ft)	GW Elevation (MSL)	SPH Thickness (ft)	DO Reading (mg/L)
MW-6	02/26/2002	130	NA	<0.50	2.6	0.69	4.1	NA	6.4	51.88	10.14	NA	41.74	NA	NA
MW-6	06/06/2002	NA	NA	NA	NA	NA	NA	NA	NA	51.88	13.52	NA	38.36	NA	NA
MW-6	09/09/2002	<50	NA	<0.50	<0.50	<0.50	<0.50	NA	<5.0	51.86	14.92	NA	36.94	NA	NA
MW-6	12/19/2002	NA	NA	NA	NA	NA	NA	NA	NA	51.86	8.22	NA	43.64	NA	NA
MW-6	03/28/2003	740	NA	<0.50	<0.50	<0.50	<0.50	NA	14	51.86	12.57	NA	39.29	NA	NA

Abbreviations:

TPPH = Total petroleum hydrocarbons as gasoline by EPA Method 8260B; prior to September 20, 2001, analyzed by EPA Method 8015.

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

BTEX = Benzene, toluene, ethylbenzene, xylenes by EPA Method 8260B; prior to September 20, 2001, analyzed by EPA Method 8020.

MTBE = Methyl-tertiary-butyl ether

TOC = Top of Casing Elevation

SPH = Separate-phase hydrocarbons

GW = Groundwater

ug/L = Parts per billion

MSL = Mean sea level

ft = Feet

<n = Below detection limit

NA = Not applicable

DO = Dissolved oxygen

mg/L = Parts per million

Notes:

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

b = SPH detected in well, but exact thickness could not be measured.

When separate-phase hydrocarbons are present, groundwater elevation is adjusted using the relation:

$$\text{Groundwater Elevation} = \text{Top-of-Casing Elevation} - \text{Depth to Water} + (0.8 \times \text{Hydrocarbon Thickness}).$$

Site surveyed February 12 and May 16, 2002, by Virgil Chavez Land Surveying of Vallejo, California.

Blaine Tech Services, Inc.

April 13, 2003

1680 Rogers Avenue
San Jose, CA 95112-1105
Attn.: Leon Gearhart
Project#: 030328-DA1
Project: 98995742
Site: 8930 Bancroft Avenue
Oakland

Dear Mr. Gearhart,

Attached is our report for your samples received on 03/31/2003 16:14

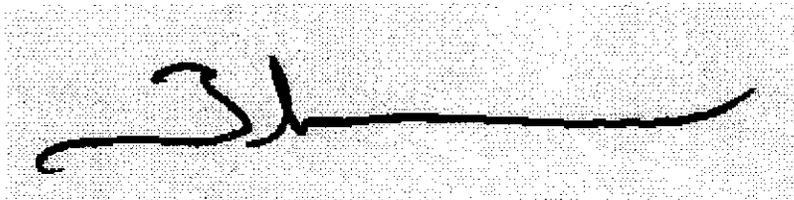
This report has been reviewed and approved for release. Reproduction of this report is permitted only in its entirety.

Please note that any unused portion of the samples will be discarded after 05/15/2003 unless you have requested otherwise.

We appreciate the opportunity to be of service to you. If you have any questions, please call me at (925) 484-1919.

You can also contact me via email. My email address is: tgranicher@stl-inc.com

Sincerely,

A handwritten signature in black ink, appearing to read 'T. Granicher', is written over a light gray, textured background.

Tod Granicher
Project Manager

Gas/BTEX Compounds by 8015M/8021

Blaine Tech Services, Inc.

Attn.: Leon Gearhart

1680 Rogers Avenue

San Jose, CA 95112-1105

Phone: (408) 573-0555 Fax: (408) 573-7771

Project: 030328-DA1

98995742

Received: 03/31/2003 16:14

Site: 8930 Bancroft Avenue, Oakland

Samples Reported

Sample Name	Date Sampled	Matrix	Lab #
MW-1	03/28/2003 08:24	Water	1
MW-2	03/28/2003 09:13	Water	2
MW-3	03/28/2003 08:01	Water	3
MW-4	03/28/2003 09:40	Water	4
MW-5	03/28/2003 10:05	Water	5
MW-6	03/28/2003 08:54	Water	6

Gas/BTEX Compounds by 8015M/8021

Blaine Tech Services, Inc.

Attn.: Leon Gearhart

1680 Rogers Avenue

San Jose, CA 95112-1105

Phone: (408) 573-0555 Fax: (408) 573-7771

Project: 030328-DA1

98995742

Received: 03/31/2003 16:14

Site: 8930 Bancroft Avenue, Oakland

Prep(s):	5030	Test(s):	8015M
	5030		8021B
Sample ID:	MW-1	Lab ID:	2003-03-0708 - 1
Sampled:	03/28/2003 08:24	Extracted:	4/8/2003 11:50
Matrix:	Water	QC Batch#:	2003/04/08-01 02

Compound	Conc.	RL	Unit	Dilution	Analyzed	Flag
Gasoline	ND	50	ug/L	1.00	04/08/2003 11:50	
Benzene	ND	0.50	ug/L	1.00	04/08/2003 11:50	
Toluene	ND	0.50	ug/L	1.00	04/08/2003 11:50	
Ethyl benzene	ND	0.50	ug/L	1.00	04/08/2003 11:50	
Xylene(s)	ND	0.50	ug/L	1.00	04/08/2003 11:50	
MTBE	ND	5.0	ug/L	1.00	04/08/2003 11:50	
Surrogates(s)						
Trifluorotoluene	85.7	58-124	%	1.00	04/08/2003 11:50	
4-Bromofluorobenzene-FID	91.0	50-150	%	1.00	04/08/2003 11:50	

Gas/BTEX Compounds by 8015M/8021

Blaine Tech Services, Inc.

Attn.: Leon Gearhart

1680 Rogers Avenue
San Jose, CA 95112-1105
Phone: (408) 573-0555 Fax: (408) 573-7771

Project: 030328-DA1
98995742

Received: 03/31/2003 16:14

Site: 8930 Bancroft Avenue, Oakland

Prep(s): 5030	Test(s): 8015M
5030	8021B
Sample ID: MW-2	Lab ID: 2003-03-0708 - 2
Sampled: 03/28/2003 09:13	Extracted: 4/8/2003 13:29
Matrix: Water	QC Batch#: 2003/04/08-01.02

Compound	Conc.	RL	Unit	Dilution	Analyzed	Flag
Gasoline	53	50	ug/L	1.00	04/08/2003 13:29	g
Benzene	ND	0.50	ug/L	1.00	04/08/2003 13:29	
Toluene	ND	0.50	ug/L	1.00	04/08/2003 13:29	
Ethyl benzene	0.51	0.50	ug/L	1.00	04/08/2003 13:29	
Xylene(s)	1.4	0.50	ug/L	1.00	04/08/2003 13:29	
MTBE	ND	5.0	ug/L	1.00	04/08/2003 13:29	
Surrogates(s)						
Trifluorotoluene	91.3	58-124	%	1.00	04/08/2003 13:29	
4-Bromofluorobenzene-FID	90.1	50-150	%	1.00	04/08/2003 13:29	

Gas/BTEX Compounds by 8015M/8021

Blaine Tech Services, Inc.

Attn.: Leon Gearhart

1680 Rogers Avenue
San Jose, CA 95112-1105
Phone: (408) 573-0555 Fax: (408) 573-7771

Project: 030328-DA1
98995742

Received: 03/31/2003 16:14

Site: 8930 Bancroft Avenue, Oakland

Prep(s):	5030 5030	Test(s):	8015M 8021B
Sample ID:	MW-3	Lab ID:	2003-03-0708-3
Sampled:	03/28/2003 08:01	Extracted:	4/8/2003 13:58
Matrix:	Water	QC Batch#:	2003/04/08-01-02

Compound	Conc.	RL	Unit	Dilution	Analyzed	Flag
Gasoline	ND	50	ug/L	1.00	04/08/2003 13:58	
Benzene	ND	0.50	ug/L	1.00	04/08/2003 13:58	
Toluene	ND	0.50	ug/L	1.00	04/08/2003 13:58	
Ethyl benzene	ND	0.50	ug/L	1.00	04/08/2003 13:58	
Xylene(s)	ND	0.50	ug/L	1.00	04/08/2003 13:58	
MTBE	ND	5.0	ug/L	1.00	04/08/2003 13:58	
Surrogates(s)						
Trifluorotoluene	81.5	58-124	%	1.00	04/08/2003 13:58	
4-Bromofluorobenzene-FID	85.8	50-150	%	1.00	04/08/2003 13:58	

Gas/BTEX Compounds by 8015M/8021

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Project: 030328-DA1
98995742

Received: 03/31/2003 16:14

Site: 8930 Bancroft Avenue, Oakland

Prep(s):	5030	Test(s):	8015M
	5030		8021B
Sample ID:	MW-4	Lab ID:	2003-03-0708 - 4
Sampled:	03/28/2003 09:40	Extracted:	4/8/2003 14:28
Matrix:	Water	QC Batch#:	2003/04/08-01.02

Compound	Conc.	RL	Unit	Dilution	Analyzed	Flag
Gasoline	ND	50	ug/L	1.00	04/08/2003 14:28	
Benzene	ND	0.50	ug/L	1.00	04/08/2003 14:28	
Toluene	1.2	0.50	ug/L	1.00	04/08/2003 14:28	
Ethyl benzene	ND	0.50	ug/L	1.00	04/08/2003 14:28	
Xylene(s)	ND	0.50	ug/L	1.00	04/08/2003 14:28	
MTBE	17	5.0	ug/L	1.00	04/08/2003 14:28	
Surrogates(s)						
Trifluorotoluene	86.1	58-124	%	1.00	04/08/2003 14:28	
4-Bromofluorobenzene-FID	89.3	50-150	%	1.00	04/08/2003 14:28	

Gas/BTEX Compounds by 8015M/8021

Blaine Tech Services, Inc.

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San Jose, CA 95112-1105

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Project: 030328-DA1

98995742

Received: 03/31/2003 16:14

Site: 8930 Bancroft Avenue, Oakland

Prep(s):	5030	Test(s):	8015M
	5030		8021B
Sample ID:	MW-5	Lab ID:	2003-03-0708 - 5
Sampled:	03/28/2003 10:05	Extracted:	4/10/2003 12:03
Matrix:	Water	QC Batch#:	2003/04/10-01.05

Compound	Conc.	RL	Unit	Dilution	Analyzed	Flag
Gasoline	240	50	ug/L	1.00	04/10/2003 12:03	g
Benzene	ND	0.50	ug/L	1.00	04/10/2003 12:03	
Toluene	ND	0.50	ug/L	1.00	04/10/2003 12:03	
Ethyl benzene	ND	0.50	ug/L	1.00	04/10/2003 12:03	
Xylene(s)	2.1	0.50	ug/L	1.00	04/10/2003 12:03	
MTBE	130	5.0	ug/L	1.00	04/10/2003 12:03	
Surrogates(s)						
Trifluorotoluene	88.4	58-124	%	1.00	04/10/2003 12:03	
4-Bromofluorobenzene-FID	83.1	50-150	%	1.00	04/10/2003 12:03	

Gas/BTEX Compounds by 8015M/8021

Blaine Tech Services, Inc.

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1680 Rogers Avenue

San Jose, CA 95112-1105

Phone: (408) 573-0555 Fax: (408) 573-7771

Project: 030328-DA1

98995742

Received: 03/31/2003 16:14

Site: 8930 Bancroft Avenue, Oakland

Prep(s): 5030	Test(s): 8015M
5030	8021B
Sample ID: MW-6	Lab ID: 2003-03-0708 - 6
Sampled: 03/28/2003 08:54	Extracted: 4/8/2003 15:27
Matrix: Water	QC Batch#: 2003/04/08-01.02

Compound	Conc.	RL	Unit	Dilution	Analyzed	Flag
Gasoline	740	50	ug/L	1.00	04/08/2003 15:27	g
Benzene	ND	0.50	ug/L	1.00	04/08/2003 15:27	
Toluene	ND	0.50	ug/L	1.00	04/08/2003 15:27	
Ethyl benzene	ND	0.50	ug/L	1.00	04/08/2003 15:27	
Xylene(s)	ND	0.50	ug/L	1.00	04/08/2003 15:27	
MTBE	14	5.0	ug/L	1.00	04/08/2003 15:27	
Surrogates(s)						
Trifluorotoluene	106.0	58-124	%	1.00	04/08/2003 15:27	
Trifluorotoluene-FID	110.4	58-124	%	1.00	04/08/2003 15:27	

Gas/BTEX Compounds by 8015M/8021

Blaine Tech Services, Inc.

Attn.: Leon Gearhart

1680 Rogers Avenue

San Jose, CA 95112-1105

Phone: (408) 573-0555 Fax: (408) 573-7771

Project: 030328-DA1

98995742

Received: 03/31/2003 16:14

Site: 8930 Bancroft Avenue, Oakland

Batch QC Report					
Prep(s): 5030				Test(s): 8015M	
Method Blank		Water		QC Batch # 2003/04/08-01.02	
MB: 2003/04/08-01.02-003				Date Extracted: 04/08/2003 07:12	

Compound	Conc.	RL	Unit	Analyzed	Flag
Gasoline	ND	50	ug/L	04/08/2003 07:12	
Benzene	ND	0.5	ug/L	04/08/2003 07:12	
Toluene	ND	0.5	ug/L	04/08/2003 07:12	
Ethyl benzene	ND	0.5	ug/L	04/08/2003 07:12	
Xylene(s)	ND	0.5	ug/L	04/08/2003 07:12	
MTBE	ND	5.0	ug/L	04/08/2003 07:12	
Surrogates(s)					
Trifluorotoluene	87.7	58-124	%	04/08/2003 07:12	
4-Bromofluorobenzene-FID	94.9	50-150	%	04/08/2003 07:12	

Gas/BTEX Compounds by 8015M/8021

Blaine Tech Services, Inc.

Attn.: Leon Gearhart

1680 Rogers Avenue

San Jose, CA 95112-1105

Phone: (408) 573-0555 Fax: (408) 573-7771

Project: 030328-DA1

98995742

Received: 03/31/2003 16:14

Site: 8930 Bancroft Avenue, Oakland

Batch QC Report					
Prep(s): 5030				Test(s): 8015M	
Method Blank		Water		QC Batch # 2003/04/10-01.05	
MB: 2003/04/10-01.05-008				Date Extracted: 04/10/2003 10:41	

Compound	Conc.	RL	Unit	Analyzed	Flag
Gasoline	ND	50	ug/L	04/10/2003 10:41	
Benzene	ND	0.5	ug/L	04/10/2003 10:41	
Toluene	ND	0.5	ug/L	04/10/2003 10:41	
Ethyl benzene	ND	0.5	ug/L	04/10/2003 10:41	
Xylene(s)	ND	0.5	ug/L	04/10/2003 10:41	
MTBE	ND	5.0	ug/L	04/10/2003 10:41	
Surrogates(s)					
Trifluorotoluene	103.4	58-124	%	04/10/2003 10:41	
4-Bromofluorobenzene-FID	93.2	50-150	%	04/10/2003 10:41	

Gas/BTEX Compounds by 8015M/8021

Blaine Tech Services, Inc.

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Phone: (408) 573-0555 Fax: (408) 573-7771

Project: 030328-DA1

98995742

Received: 03/31/2003 16:14

Site: 8930 Bancroft Avenue, Oakland

Batch QC Report									
Prep(s): 5030					Test(s): 8021B				
Laboratory Control Spike			Water			QC Batch # 2003/04/08-01.02			
LCS	2003/04/08-01.02-004		Extracted: 04/08/2003			Analyzed: 04/08/2003 07:41			
LCSD	2003/04/08-01.02-005		Extracted: 04/08/2003			Analyzed: 04/08/2003 08:11			

Compound	Conc. ug/L		Exp.Conc.	Recovery		RPD	Ctrl.Limits %		Flags	
	LCS	LCSD		LCS	LCSD		%	Rec.	RPD	LCS
Benzene	92.6	93.2	100.0	92.6	93.2	0.6	77-123	20		
Toluene	93.4	93.4	100.0	93.4	93.4	0.0	78-122	20		
Ethyl benzene	94.6	94.9	100.0	94.6	94.9	0.3	70-130	20		
Xylene(s)	277	277	300	92.3	92.3	0.0	75-125	20		
Surrogates(s)										
Trifluorotoluene	424	420	500	84.8	84.0		58-124			

Gas/BTEX Compounds by 8015M/8021

Blaine Tech Services, Inc.

Attn.: Leon Gearhart

1680 Rogers Avenue

San Jose, CA 95112-1105

Phone: (408) 573-0555 Fax: (408) 573-7771

Project: 030328-DA1

98995742

Received: 03/31/2003 16:14

Site: 8930 Bancroft Avenue, Oakland

Batch QC Report			
Prep(s): 5030		Test(s): 8015M	
Laboratory Control Spike		Water	QC Batch # 2003/04/08-01.02
LCS	2003/04/08-01.02-006	Extracted: 04/08/2003	Analyzed: 04/08/2003 08:40
LCSD	2003/04/08-01.02-007	Extracted: 04/08/2003	Analyzed: 04/08/2003 09:10

Compound	Conc. ug/L		Exp.Conc.	Recovery		RPD %	Ctrl.Limits %		Flags	
	LCS	LCSD		LCS	LCSD		Rec.	RPD	LCS	LCSD
Gasoline	482	465	500	96.4	93.0	3.6	75-125	20		
Surrogates(s)										
4-Bromofluorobenzene-FID	506	499	500	101.2	99.8		50-150			

Gas/BTEX Compounds by 8015M/8021

Blaine Tech Services, Inc.

Attn.: Leon Gearhart

1680 Rogers Avenue
San Jose, CA 95112-1105
Phone: (408) 573-0555 Fax: (408) 573-7771

Project: 030328-DA1
98995742

Received: 03/31/2003 16:14

Site: 8930 Bancroft Avenue, Oakland

Batch QC Report					
Prep(s): 5030			Test(s): 8021B		
Laboratory Control Spike		Water		QC Batch # 2003/04/10-01.05	
LCS	2003/04/10-01.05-004	Extracted: 04/10/2003		Analyzed: 04/10/2003 08:15	
LCSD	2003/04/10-01.05-009	Extracted: 04/10/2003		Analyzed: 04/10/2003 11:21	

Compound	Conc. ug/L		Exp.Conc.	Recovery		RPD	Ctrl.Limits %		Flags	
	LCS	LCSD		LCS	LCSD		%	Rec.	RPD	LCS
Benzene	89.6	94.3	100.0	89.6	94.3	5.1	77-123	20		
Toluene	94.2	97.2	100.0	94.2	97.2	3.1	78-122	20		
Ethyl benzene	94.0	95.2	100.0	94.0	95.2	1.3	70-130	20		
Xylene(s)	277	280	300	92.3	93.3	1.1	75-125	20		
Surrogates(s)										
Trifluorotoluene	475	521	500	95.0	104.2		58-124			

Gas/BTEX Compounds by 8015M/8021

Blaine Tech Services, Inc.

Attn.: Leon Gearhart

1680 Rogers Avenue
San Jose, CA 95112-1105
Phone: (408) 573-0555 Fax: (408) 573-7771

Project: 030328-DA1
98995742

Received: 03/31/2003 16:14

Site: 8930 Bancroft Avenue, Oakland

Batch QC Report

Prep(s): 5030

Test(s): 8015M

Laboratory Control Spike

Water

QC Batch # 2003/04/10-01.05

LCS 2003/04/10-01.05-006

Extracted: 04/10/2003

Analyzed: 04/10/2003 09:20

LCSD 2003/04/10-01.05-007

Extracted: 04/10/2003

Analyzed: 04/10/2003 09:53

Compound	Conc. ug/L		Exp.Conc.	Recovery		RPD	Ctrl.Limits %		Flags	
	LCS	LCSD		LCS	LCSD		%	Rec.	RPD	LCS
Gasoline	487	484	500	97.4	96.8	0.6	75-125	20		
Surrogates(s)										
4-Bromofluorobenzene-FID	518	501	500	103.6	100.2		50-150			

Gas/BTEX Compounds by 8015M/8021

Blaine Tech Services, Inc.

Attn.: Leon Gearhart

1680 Rogers Avenue

San Jose, CA 95112-1105

Phone: (408) 573-0555 Fax: (408) 573-7771

Project: 030328-DA1

98995742

Received: 03/31/2003 16:14

Site: 8930 Bancroft Avenue, Oakland

Legend and Notes

Result Flag

g

Hydrocarbon reported in the gasoline range does not match our gasoline standard.

Lab Identification (if necessary):

Address:
City, State, Zip:

Shell Project Manager to be Invoiced:

- SCIENCE & ENGINEERING
- TECHNICAL SERVICES
- CONTRACTING

Karen Petryna

INCIDENT NUMBER (S&E ONLY)							
9	8	9	9	5	7	4	2
S&E CRIME NUMBER (ITS/CRIME)							

DATE: 3/28/03

PAGE: 1 of 1

SUBMITTER COMPANY: Blaine Tech Services ADDRESS: 1680 Rogers Avenue, San Jose, CA 95112 PROJECT CONTACT (Name/Title of S&E Rep/ID#): Leon Gearhart TELEPHONE: 408-573-0555 FAX: 408-573-7771 E-MAIL: lgearhart@blainetech.com	LOG CODE: BTSS	SITE ADDRESS (Street and City): 8930 Bancroft Avenue, Oakland ESP (DELIVERABLE TO / Responsible Party or Designation): Ann Krenl PHONE NO.: 510-420-3335 SAMPLE NAME(S) (If any): David Allbut	GLOBAL ID NO.: PENDING CONSULTANT PROJECT NO.: 050328-DA2 LAB USE ONLY
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TURNAROUND TIME (BUSINESS DAYS):
 30 DAYS 5 DAYS 72 HOURS 48 HOURS 24 HOURS LESS THAN 24 HOURS

LA - RWQCB REPORT FORMAT LIST AGENCY

GOING MTBE CONFIRMATION: HIGHEST _____ **HIGHEST per BORING** _____ **ALL** _____

SPECIAL INSTRUCTIONS OR NOTES: CHECK BOX IF EDD IS NOT NEEDED:

REQUESTED ANALYSIS

Field Sample Identification	SAMPLING DATE	SAMPLING TIME	MATRIX	NO. OF CONT.	TPH - Gas, Purgeable	BTEX	MTBE (0.219 - 5ppb RL)	MTBE (0.260B - 0.5ppb RL)	Oxygenates (S) by (0.260B)	Ethanol (0.260B)	Methanol	1,2-DCA (0.260B)	EDB (0.260B)	TPH - Diesel, Extractable (0.015m)
MW-1	3/28/03	824	w	3	X	X	X							
MW-2		913			X	X	X							
MW-3		801			X	X	X							
MW-4		940			X	X	X							
MW-5		1005			X	X	X							
MW-6		854			X	X	X							

FIELD NOTES:
Container/Preservative or PID Readings or Laboratory Notes

2.6

TEMPERATURE ON RECEIPT C°

Released by (Signature): David Allbut Released by (Signature): Released by (Signature): 3/31/03 1736	Received by (Signature): Received by (Signature): Norma K. STL-JF	Date: 3/31/03 Date: 3.31.03	Time: 0604 Time: 1736
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STL San Francisco

Sample Receipt Checklist

Submission #: 2003- 03 - 0708

Checklist completed by: (initials) NK Date: 03/30/03

Courier name: STL San Francisco Client _____

- | | |
|---|---|
| Custody seals intact on shipping container/samples | Yes _____ No _____ Not Present <input checked="" type="checkbox"/> |
| Chain of custody present? | Yes <input checked="" type="checkbox"/> No _____ |
| Chain of custody signed when relinquished and received? | Yes <input checked="" type="checkbox"/> No _____ |
| Chain of custody agrees with sample labels? | Yes <input checked="" type="checkbox"/> No _____ |
| Samples in proper container/bottle? | Yes <input checked="" type="checkbox"/> No _____ |
| Sample containers intact? | Yes <input checked="" type="checkbox"/> No _____ |
| Sufficient sample volume for indicated test? | Yes <input checked="" type="checkbox"/> No _____ |
| All samples received within holding time? | Yes <input checked="" type="checkbox"/> No _____ |
| Container/Temp Blank temperature in compliance ($4^{\circ}\text{C} \pm 2$)? | Temp. <u>26</u> °C Yes <input checked="" type="checkbox"/> No _____ |
| Water - VOA vials have zero headspace? | No VOA vials submitted Yes <input checked="" type="checkbox"/> No _____ |

(if bubble is present, refer to approximate bubble size and itemize in comments as S (small - ○), M (medium - ○) or L (large - ○)

- Water - pH acceptable upon receipt? Yes No
- pH adjusted- Preservative used: HNO₃ HCl H₂SO₄ NaOH ZnOAc

For any item check-listed "No", provided detail of discrepancy in comment section below:

Comments: _____

Project Management [Routing for instruction of indicated discrepancy(ies)]

Project Manager: (initials) _____ Date: _____ / _____ /03

Client contacted: Yes No

Summary of discussion: _____

Corrective Action (per PM/Client): _____

WELL GAUGING DATA

Project # 020328-DA2 Date 3/28/03 Client Shell

Site 8930 Bancroft Ave. Oakland, CA

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
MW-1	3					13.33	16.88	TOC
MW-2	3					12.96	19.20	↓
MW-3	3					11.28	19.66	
MW-4	3					11.30	19.57	
MW-5	3					11.73	19.65	
MW-6	3					12.57	19.70	
* Gauged w/ orc's in well								
+ Gauged w/ stinger in well								

SHELL WELL MONITORING DATA SHEET

BTS #: 030328-DA2	Site: 8930 Bancroft Oakland, CA
Sampler: DA	Date: 3/28/03
Well I.D.: Mw-1	Well Diameter: 2 <u>3</u> 4 6 8
Total Well Depth (TD): 16.88	Depth to Water (DTW): 13.33
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: <u>XVC</u> Grade	D.O. Meter (if req'd): YSI HACH
DTW with 80% Recharge [(Height of Water Column x 0.20) + DTW]: 14.04	

Purge Method: Bailer Water: Peristaltic Sampling Method: Bailer
 Disposable Bailer Extraction Pump Disposable Bailer
 Middleburg Other _____ Extraction Port
 Electric Submersible Other _____ Dedicated Tubing

$\underline{1.3} \text{ (Gals.)} \times \underline{3} = \underline{3.9} \text{ Gals.}$ <p style="font-size: small; margin: 0;">1 Case Volume Specified Volumes Calculated Volume</p>	<table border="1" style="width: 100%; border-collapse: collapse; font-size: x-small;"> <thead> <tr> <th>Well Diameter</th> <th>Multplier</th> <th>Well Diameter</th> <th>Multplier</th> </tr> </thead> <tbody> <tr> <td>1"</td> <td>0.04</td> <td>4"</td> <td>0.65</td> </tr> <tr> <td>2"</td> <td>0.16</td> <td>6"</td> <td>1.47</td> </tr> <tr> <td><u>3"</u></td> <td>0.37</td> <td>Other</td> <td>radius² * 0.163</td> </tr> </tbody> </table>	Well Diameter	Multplier	Well Diameter	Multplier	1"	0.04	4"	0.65	2"	0.16	6"	1.47	<u>3"</u>	0.37	Other	radius ² * 0.163
Well Diameter	Multplier	Well Diameter	Multplier														
1"	0.04	4"	0.65														
2"	0.16	6"	1.47														
<u>3"</u>	0.37	Other	radius ² * 0.163														

Time	Temp (°F)	pH	Cond. (mS or <u>µS</u>)	Turbidity (NTUs)	Gals. Removed	Observations
814	64.8	7.1	400	7200	1.5	tan, turbid
817	64.8	6.7	389	7200	3	"
820	64.5	6.6	390	7200	4	"

Did well dewater? Yes No Gallons actually evacuated: 4

Sampling Date: 3/28/03 Sampling Time: 824 Depth to Water: 13.32

Sample I.D.: Mw-1 Laboratory: Kiff SPL Other: STL

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

3B 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:	mg/L
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D.R.P. (if req'd):	Pre-purge:	mV	Post-purge:	mV
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SHELL WELL MONITORING DATA SHEET

BTS #: 030328-DAZ	Site: 8930 Bancroft Oakland, CA
Sampler: DA	Date: 3/28/03
Well I.D.: MW-2	Well Diameter: 2 <u>3</u> 4 6 8
Total Well Depth (TD): 19.20	Depth to Water (DTW): 12.96
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: <u>PVC</u> Gmde	D.O. Meter (if req'd): YSI HACH
DTW with 80% Recharge [(Height of Water Column x 0.20) + DTW]: 14.21	

Purge Method: Bailor Disposable Bailor Middleburg Electric Submersible

Water: Peristaltic Extraction Pump Other _____

Sampling Method: Bailor Disposable Bailor Extraction Port Dedicated Tubing

Other: _____

2.3 (Gals.) X 3 = 6.9 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
<u>3"</u>	0.37	Other	radius ² * 0.163

Time	Temp (°F)	pH	Cond. (mS or <u>µS</u>)	Turbidity (NTUs)	Gals. Removed	Observations
903	62.5	7.4	424	7200	2.5	tan, cloudy
907	65.1	7.2	392	7200	5	"
910	65.4	7.0	388	7200	7	"

Did well dewater? Yes **NO** Gallons actually evacuated: 7

Sampling Date: 3/28/03 Sampling Time: 913 Depth to Water: 13.11

Sample I.D.: MW-2 Laboratory: Kiff SPL Other STL

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

3B 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:	mg/L
D.R.P. (if req'd):	Pre-purge:	mV	Post-purge:	mV

SHELL WELL MONITORING DATA SHEET

BTS #: 030328-DAZ	Site: 8930 Bancroft Oakland, CA
Sampler: DA	Date: 3/28/03
Well I.D.: Mw-3	Well Diameter: 2 <input checked="" type="radio"/> 4 <input type="radio"/> 6 <input type="radio"/> 8 <input type="radio"/>
Total Well Depth (TD): 19.66	Depth to Water (DTW): 11.28
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: <input checked="" type="radio"/> PVC <input type="radio"/> Grade	D.O. Meter (if req'd): <input checked="" type="radio"/> YSI <input type="radio"/> HACH
DTW with 80% Recharge [(Height of Water Column x 0.20) + DTW]: 12.96	

Purge Method: <input type="checkbox"/> Bailor <input type="checkbox"/> Disposable Bailor <input checked="" type="checkbox"/> Middleburg <input type="checkbox"/> Electric Submersible	Waterra <input type="checkbox"/> Peristaltic <input type="checkbox"/> Extraction Pump Other: _____	Sampling Method: <input checked="" type="checkbox"/> Bailor <input type="checkbox"/> Disposable Bailor <input type="checkbox"/> Extraction Port <input type="checkbox"/> Dedicated Tubing Other: _____
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$3.1 \text{ (Gals.)} \times 3 = 9.3 \text{ Gals.}$ Case Volume Specified Volumes Calculated Volume	<table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="text-align: left;">Well Diameter</th> <th style="text-align: left;">Multiplier</th> <th style="text-align: left;">Well Diameter</th> <th style="text-align: left;">Multiplier</th> </tr> </thead> <tbody> <tr> <td>1"</td> <td>0.04</td> <td>4"</td> <td>0.65</td> </tr> <tr> <td>2"</td> <td>0.16</td> <td>6"</td> <td>1.47</td> </tr> <tr> <td><input checked="" type="radio"/> 3"</td> <td>0.37</td> <td>Other</td> <td>radius² * 0.163</td> </tr> </tbody> </table>	Well Diameter	Multiplier	Well Diameter	Multiplier	1"	0.04	4"	0.65	2"	0.16	6"	1.47	<input checked="" type="radio"/> 3"	0.37	Other	radius ² * 0.163
Well Diameter	Multiplier	Well Diameter	Multiplier														
1"	0.04	4"	0.65														
2"	0.16	6"	1.47														
<input checked="" type="radio"/> 3"	0.37	Other	radius ² * 0.163														

Time	Temp (°F)	pH	Cond. (mS or <input checked="" type="radio"/> µS)	Turbidity (NTUs)	Gals. Removed	Observations
749	68.3	7.6	790	>200	3.5	grey, odor, sheen
753	67.7	6.7	596	7200	7	"
0757	67.4	6.7	552	7200	9.5	"

Did well dewater? Yes No Gallons actually evacuated: 9.5

Sampling Date: 3/28/03 Sampling Time: 0801 Depth to Water: 12.12

Sample I.D.: Mw-3 Laboratory: Kiff SPL Other: STL

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

1.B 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:	0.7 ^{mg/L}	Post-purge:	_____ ^{mg/L}
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D.R.P. (if req'd):	Pre-purge:	_____ mV	Post-purge:	_____ mV
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SHELL WELL MONITORING DATA SHEET

BTS #: 030328-DA2	Site: 8930 Bancroft Oakland, CA
Sampler: DA	Date: 3/28/03
Well I.D.: MW-4	Well Diameter: 2 <input checked="" type="radio"/> 4 <input type="radio"/> 6 <input type="radio"/> 8 <input type="radio"/>
Total Well Depth (TD): 19.57	Depth to Water (DTW): 11.30
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: <input checked="" type="radio"/> PVC Grade	D.O. Meter (if req'd): <input checked="" type="radio"/> YSI HACH
DTW with 80% Recharge [(Height of Water Column x 0.20) + DTW]: 12.95	

Purge Method: <input type="checkbox"/> Bailor <input type="checkbox"/> Disposable Bailor <input checked="" type="checkbox"/> Middleburg <input type="checkbox"/> Electric Submersible	Water: <input type="checkbox"/> Peristaltic <input type="checkbox"/> Extraction Pump Other: _____	Sampling Method: <input checked="" type="checkbox"/> Bailor <input type="checkbox"/> Disposable Bailor <input type="checkbox"/> Extraction Port <input type="checkbox"/> Dedicated Tubing Other: _____
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3.0 (Gals.) X 3 = 9.0 Gals. Case Volume Specified Volumes Calculated Volume	<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th>Well Diameter</th> <th>Multplier</th> <th>Well Diameter</th> <th>Multplier</th> </tr> </thead> <tbody> <tr> <td>1"</td> <td>0.04</td> <td>4"</td> <td>0.65</td> </tr> <tr> <td>2"</td> <td>0.16</td> <td>6"</td> <td>1.47</td> </tr> <tr> <td><input checked="" type="radio"/> 3"</td> <td>0.37</td> <td>Other</td> <td>radius² * 0.163</td> </tr> </tbody> </table>	Well Diameter	Multplier	Well Diameter	Multplier	1"	0.04	4"	0.65	2"	0.16	6"	1.47	<input checked="" type="radio"/> 3"	0.37	Other	radius ² * 0.163
Well Diameter	Multplier	Well Diameter	Multplier														
1"	0.04	4"	0.65														
2"	0.16	6"	1.47														
<input checked="" type="radio"/> 3"	0.37	Other	radius ² * 0.163														

Time	Temp (°F)	pH	Cond. (mS or <input checked="" type="radio"/> µS)	Turbidity (NTUs)	Gals. Removed	Observations
928	66.1	6.9	420	7200	3	tan, turbid
931	66.2	6.7	415	7200	6	"
934	66.2	6.7	426	7200	9	tan, shen

Did well dewater? Yes No Gallons actually evacuated: 9

Sampling Date: 3/28/03 Sampling Time: 940 Depth to Water: 11.83

Sample I.D.: MW-4 Laboratory: Kiff SPL Other: STL

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): <input checked="" type="checkbox"/> Pre-purge:	1.7 mg/L	Post-purge:	mg/L
D.R.P. (if req'd): Pre-purge:	mV	Post-purge:	mV

SHELL WELL MONITORING DATA SHEET

BTS #: 030328-DA2	Site: 8930 Bancroft Oakland, CA
Sampler: DA	Date: 3/28/03
Well I.D.: MW-5	Well Diameter: 2 <input checked="" type="radio"/> 4 6 8
Total Well Depth (TD): 19.63	Depth to Water (DTW): 11.73
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: <input checked="" type="radio"/> PVC <input type="radio"/> Grade	D.O. Meter (if req'd): YSI HACH
DTW with 80% Recharge [(Height of Water Column x 0.20) + DTW]: 13.31	

Purge Method: Bailor Disposable Bailor Middleburg Electric Submersible

Water: Peristaltic Extraction Pump Other _____

Sampling Method: Bailor Disposable Bailor Extraction Port Dedicated Tubing

Other: _____

$2.9 \text{ (Gals.)} \times 3 = 8.7 \text{ Gals.}$ <p>I Case Volume Specified Volumes Calculated Volume</p>	<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th>Well Diameter</th> <th>Multiplier</th> <th>Well Diameter</th> <th>Multiplier</th> </tr> </thead> <tbody> <tr> <td>1"</td> <td>0.04</td> <td>4"</td> <td>0.65</td> </tr> <tr> <td>2"</td> <td>0.16</td> <td>6"</td> <td>1.47</td> </tr> <tr> <td><input checked="" type="radio"/> 3"</td> <td>0.37</td> <td>Other</td> <td>radius² * 0.163</td> </tr> </tbody> </table>	Well Diameter	Multiplier	Well Diameter	Multiplier	1"	0.04	4"	0.65	2"	0.16	6"	1.47	<input checked="" type="radio"/> 3"	0.37	Other	radius ² * 0.163
Well Diameter	Multiplier	Well Diameter	Multiplier														
1"	0.04	4"	0.65														
2"	0.16	6"	1.47														
<input checked="" type="radio"/> 3"	0.37	Other	radius ² * 0.163														

Time	Temp (°F)	pH	Cond. (mS or <input checked="" type="radio"/> µS)	Turbidity (NTUs)	Gals. Removed	Observations
955	64.4	6.7	397	7200	3	grey, turbid
958	66.0	6.4	388	7200	6	il, sheen
1002	66.6	6.5	373	7200	9	"

Did well dewater? Yes No Gallons actually evacuated: 9

Sampling Date: 3/28/03 Sampling Time: 1005 Depth to Water: 11.92

Sample I.D.: MW-5 Laboratory: Kiff SPL Other: STL

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

SHELL WELL MONITORING DATA SHEET

BTS #: 030328-DA2	Site: 8930 Bancroft Oakland, CA
Sampler: DA	Date: 3/28/03
Well I.D.: Mw-10	Well Diameter: 2 <input checked="" type="radio"/> 4 <input type="radio"/> 6 <input type="radio"/> 8 <input type="radio"/>
Total Well Depth (TD): 19.70	Depth to Water (DTW): 12.57
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: <input checked="" type="checkbox"/> Grade	D.O. Meter (if req'd): YSI HACH
DTW with 80% Recharge [(Height of Water Column x 0.20) + DTW]: 14.00	

Purge Method: Bailor Water: Peristaltic Sampling Method: Bailor
 Disposable Bailor Extraction Pump Disposable Bailor
 Middleburg Other _____ Extraction Port
 Electric Submersible Other _____ Dedicated Tubing

2.6 (Gals.) X	3	= 7.8 Gals.
I Case Volume	Specified Volume	Calculated Volume

Well Diameter	Multiplier	Well Diameter	Multiplier
1"	0.04	4"	0.65
2"	0.16	6"	1.47
<input checked="" type="radio"/> 3"	0.37	Other	radius ² * 0.163

Time	Temp (°F)	pH	Cond. (mS or <input checked="" type="radio"/> µS)	Turbidity (NTUs)	Gals. Removed	Observations
840	65.7	6.6	441	7200	2.6	grey, turbid
843	64.3	6.8	466	186	5.2	"
847	63.4	7.1	477	139	0	"

Did well dewater? Yes No Gallons actually evacuated: 8

Sampling Date: 3/28/03 Sampling Time: 854 Depth to Water: 14.00

Sample I.D.: Mw-6 Laboratory: Kiff SPL Other: STL

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