Shell Oil Products US

RO 493

August 15, 2003

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

Subject: **Shell-branded Service Station**
610 Market Street
Oakland, California

Dear Mr. Chan:

Attached for your review and comment is a copy of the *Second 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

Karen Petryna
Sr. Environmental Engineer

P.O. Box 7869 Burbank, CA 91510-7869 Phone (559) 645-9306 Facsimile (559) 645-5643

CAMBRIA

August 15, 2003

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

Re: **Second Quarter 2003 Monitoring Report**
Shell-branded Service Station
610 Market Street
Oakland, California
Incident #99895750
Cambria Project #245-0594-002

Dear Mr. Chan:

On behalf of Equilon Enterprises LLC dba Shell Oil Products US, 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 Market Street between Sixth and Seventh Streets in Oakland, California (Figures 1 and 2).

REMEDIATION SUMMARY

Mobile Dual-Phase Vacuum Extraction Treatment (DVE): From March to October 2000, Cambria coordinated mobile DVE from wells MW-2 and MW-3. Mobile DVE utilized a vacuum truck for extraction and off-hauling of groundwater. Carbon absorption vessels were used to abate extracted vapors. DVE was discontinued in October 2000 due to low groundwater-extraction volumes.

DVE and Soil Vapor Extraction (SVE) Pilot Test: On March 22, 2001, Cambria performed a short-term (1-day) DVE test on well MW-3 and a short-term (1-day) SVE test on tank backfill well T-1. The tests were conducted using an internal combustion engine as the extraction and abatement device.

SVE Pilot Test: Between October 8 and 12, 2001, Cambria conducted a long-term (5-day) SVE pilot test on tank backfill well T-1. The test was conducted using an internal combustion engine as the extraction and abatement device.

Cambria Environmental Technology, Inc.

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

Mobile Groundwater Extraction (GWE): As recommended in the August 29, 2001 *Site Conceptual Model and Pilot Test Report*, Cambria began coordinating weekly GWE from well MW-3 using a vacuum truck in August 2001. Well MW-2 was added to the weekly GWE schedule at the site beginning in January 2002. Mobile GWE was discontinued on January 8, 2003 in anticipation of starting the GWE system.

GWE System: As recommended in the August 19, 2002 *Interim Remedial Action Plan*, a GWE system was installed to address the elevated methyl tertiary butyl ether (MTBE) concentrations detected in groundwater beneath the site. The GWE system was started on February 18, 2003.

The following table summarizes the estimated total petroleum hydrocarbon as gasoline (TPHg), benzene, and MTBE mass removed by application of the remedial methods discussed:

Table A - Mass Removal Summary

		TPHg (pounds)		Benzene (pounds)		MTBE (pounds)	
Method	Period	Vapor-phase	Dissolved-phase	Vapor-phase	Dissolved-phase	Vapor-phase	Dissolved-phase
Mobile DVE	03/15/00 – 10/27/00	35.1	0.537	1.49	0.024	5.03	10.6
DVE/SVE Test	03/22/01	1.96	0.032	0.009	0	2.08	1.25
SVE Test	10/08/01 – 10/12/01	15.8	NA	1.33	NA	35.9	NA
Mobile GWE	03/22/01 – 01/28/03	NA	2.84	NA	0.063	NA	60.0
GWE System	02/18/03 – 07/28/03	NA	40.2	NA	0.297	NA	112.9
Subtotal (per phase)		52.9	43.6	2.83	0.384	43.0	184.8
Total Mass Removed		**96.5 pounds**		**3.21 pounds**		**227.8 pounds**	

SECOND QUARTER 2003 ACTIVITIES

Groundwater Monitoring: Blaine Tech Services, Inc. (Blaine) of San Jose, gauged and sampled the site wells, calculated groundwater elevations, and compiled the analytical data. Cambria prepared a vicinity map which 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.

Remedial Activities: Cambria started operation of the fixed GWE system on February 18, 2003. Wells MW-2, MW-3, MW-6, MW-7, and MW-8 are used as extraction wells. System analytical data are summarized in Table 1. Groundwater level measurements and flow meter readings have been recorded at various times of operation to assess system production. Table 2 summarizes the field data and system operation and calculates mass removal. Based on the field data, the GWE system operated at an average flow rate of approximately 2.81 gallons per minute.

As of July 28, 2003, a total of 514,726 gallons of groundwater have been extracted. A total of 40.2 pounds of TPHg, 0.297 pounds of benzene, and 112.9 pounds of MTBE have been recovered. Mass removal data are presented in Table 2.

ANTICIPATED THIRD QUARTER 2003 ACTIVITIES

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

Remedial Activities: Per Cambria's standard operating procedures and East Bay Municipal Utilities District (EBMUD) treatment system monitoring requirements, Cambria will perform routine operation and maintenance of the GWE system. Cambria will monitor concentration trends and GWE system effectiveness. Cambria will prepare a quarterly discharge compliance report in accordance with the EBMUD wastewater discharge permit.

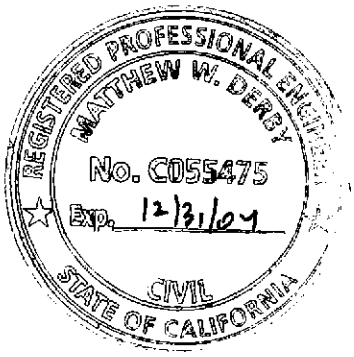
CLOSING

We appreciate the opportunity to work with you on this project. Please call Dan Lescure at (510) 420-3306 if you have any questions or comments.

Sincerely,
Cambria Environmental Technology, Inc

Dan Lescure
Senior Project Engineer

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



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

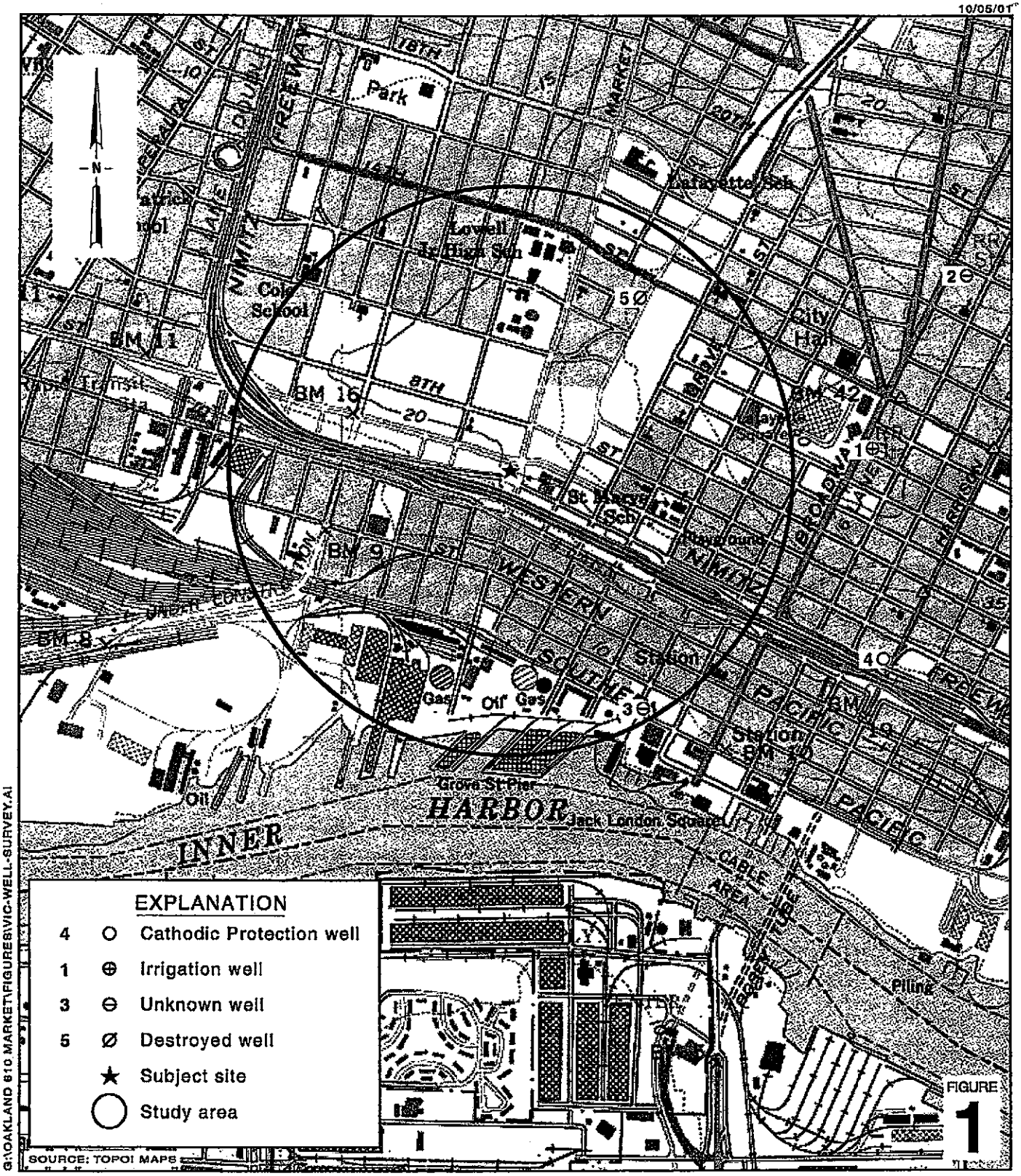
Tables: 1 - Groundwater Extraction – System Analytical Data
2 - Groundwater Extraction – Operation and Mass Removal Data

Attachment: A - Blaine Groundwater Monitoring Report and Field Notes

cc: Karen Petryna, Shell Oil Products US, P.O. Box 7869, Burbank, CA 91510-7869
Virginia R. Rawson, Tr., 1860 Tice Creek Drive #1353, Walnut Creek, CA 94595
Roger Schmidt, 1224 Contra Costa Dr., El Cerrito, CA 94530

G:\Oakland 610 Market\QM\2q03\2q03qm.doc

10/05/01



0 1/8 1/4 1/2 1

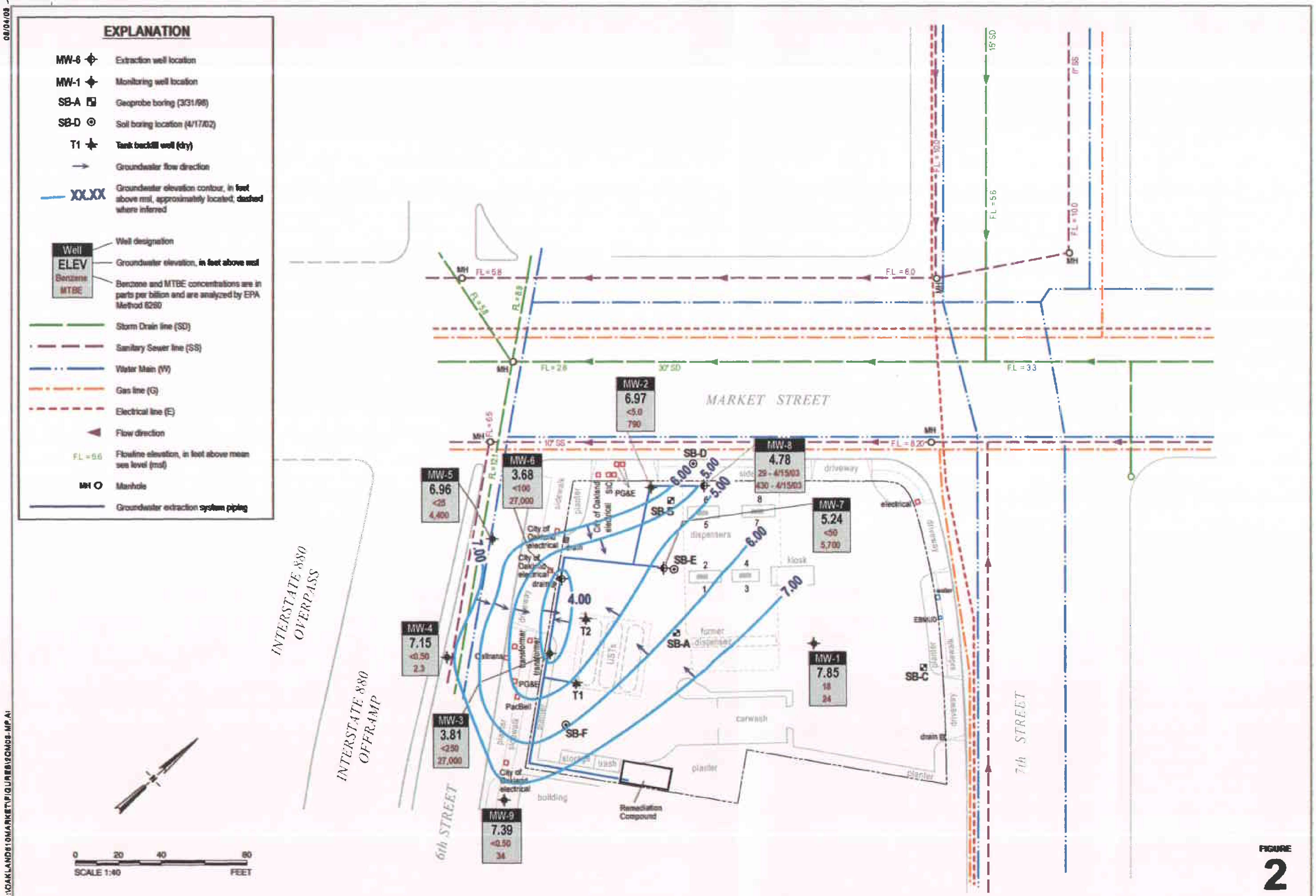
SCALE : 1" = 1/4 MILE

Shell-branded Service Station
610 Market Street
Oakland, California
Incident #98995750

CAMBRIA

Vicinity / Area Well Survey Map

1/2 Mile Radius


EXPLANATION
MW-6 Extraction well location
MW-1 Monitoring well location
SB-A Geoprobe boring (3/31/98)
SB-D Soil boring location (4/17/02)
T1 Tank backfill well (dry)
Groundwater flow direction
XX.XX Groundwater elevation contour, in feet above msl, approximately located; dashed where inferred
Well
ELEV
Benzene
MTBE
Well designation
Groundwater elevation, in feet above msl
Benzene and MTBE concentrations are in parts per billion and are analyzed by EPA Method 8260
Storm Drain line (SD)
Sanitary Sewer line (SS)
Water Main (W)
Gas line (G)
Electrical line (E)
Flow direction
FL = 5.6 Flowline elevation, in feet above mean sea level (msl)
MH Manhole
Groundwater extraction system piping
MARKET STREET
7th STREET
6th STREET
INTERSTATE 880 OVERPASS
INTERSTATE 880 OFFRAMP
MW-2 6.97 <5.0 790
MW-8 4.78 29 - 4/15/03 430 - 4/15/03
MW-7 5.24 <50 5,700
MW-6 3.68 <100 27,000
MW-5 6.96 <25 4,400
MW-4 7.15 <0.50 2.3
MW-3 3.81 <250 27,000
MW-9 7.39 <0.50 34
MW-1 7.85 18 24
SB-D
SB-E
SB-A
SB-B
SB-C
SB-F
T1
T2
4.00
5.00
6.00
7.00
dispensers
kiosk
former dispenser
carwash
planter
driveway
building
Remediation Compound
USTs
PG&E
PacBell
Caltrans
electrical
drain
FL = 5.8
FL = 6.0
FL = 2.8
FL = 3.3
FL = 6.5
FL = 8.20
30" SD
10" SS
15" SD
SCALE 1:40
FEET
0 20 40 80

FIGURE

2

Groundwater Elevation Contour Map

June 13, 2003

CAMBRIA

Shell-branded Service Station

610 Market Street
Oakland, California
Incident #98995750

Table 1: Groundwater Extraction - System Analytical Data - Shell-branded Service Station, Incident #98995750, 610 Market St, Oakland, California

	Influent			Midfluent 1			Midfluent 2			Effluent		
Sample Date (mm/dd/yy)	TPHg Conc. (ppb)	Benzene Conc. (ppb)	MTBE Conc (ppb)	TPHg Conc. (ppb)	Benzene Conc (ppb)	MTBE Conc. (ppb)	TPHg Conc. (ppb)	Benzene Conc (ppb)	MTBE Conc. (ppb)	TPHg Conc. (ppb)	Benzene Conc. (ppb)	MTBE Conc (ppb)
02/18/2003	<20,000	270	93,000	<50	<0.50	<0.50	<50	<0.50	<0.50	<50	<0.50	<0.50
02/25/2003	<20,000	<200	74,000	<50	<0.50	<0.50	<50	<0.50	<0.50	<50	<0.50	<0.50
03/11/2003	<10,000	<100	47,000	<50	<0.50	<0.50	<50	<0.50	<0.50	<50	<0.50	<0.50
03/25/2003	<10,000	<100	38,000	<250	<2.5	<25	<50	<0.50	<5.0	<50	<0.50	<5.0
04/07/2003	30,000	<250	33,000	<50	<0.50	<5.0	<50	<0.50	<5.0	<50	<0.50	<5.0
04/22/2003	<25,000	<250	26,000	<50	<0.50	2.6	<50	<0.50	<0.50	<50	<0.50	<0.50
05/01/2003	<10,000	<100	25,000	<50	<0.50	<5.0	<50	<0.50	<5.0	<50	<0.50	<5.0
05/20/2003	<10,000	<100	17,000	<500	<5.0	610	640	<0.50	<0.5	<50	<0.50	<0.5
06/03/2003	<10,000	<100	15,000	<5,000	<50	4000	<50	<0.50	<0.5	<50	<0.50	<0.5
06/17/2003	<10,000	<100	17,000	<25,000	<250	16,000	<50	<0.50	<5.0	<50	<0.50	<5.0
07/28/2003	<5,000	<50	7,100	<250	<2.5	420	<50	<0.50	<0.5	<50	<0.50	<0.5

Abbreviations & Notes:

TPHg = Total purgeable hydrocarbons as gasoline
MTBE = Methyl tert-butyl ether
Conc. = Concentration
ppb = parts per billion, equivalent to µg/l
TPHg, benzene, and MTBE analyzed by EPA Method 8260B

Table 2: Groundwater Extraction - Operation and Mass Removal Data, Shell-branded Service Station, Incident #98995750, 610 Market Street, Oakland, California

Site Visit (mm/dd/yy)	Hour Meter (hours	Flow Meter Reading (gal)	Period Volume (gal)	Period Operational Flow Rate (gpm)	Cumulative Volume (gal)	TPHg Conc. (ppb)	TPHg Period Removal (pounds)	TPHg Cumulative Removal (pounds)	Benzene Conc. (ppb)	Benzene Period Removal (pounds)	Benzene Cumulative Removal (pounds)	MTBE Conc. (ppb)	MTBE Period Removal (pounds)	MTBE Cumulative Removal (pounds)
02/18/2003	0.0	100	0	0.00	0	<20,000	0.000	0.000	270	0.000	0.000	93,000	0.000	0.000
02/18/2003	3.5	1,024	924	4.40	924		0.077	0.077		0.002	0.002		0.717	0.717
02/25/2003	140.2	30,312	29,288	3.57	30,212	<20,000	2.44	2.521	<200	0.024	0.027	74,000	18.1	18.8
03/11/2003	475.8	84,666	54,354	2.70	84,566	<10,000	2.27	4.789	<100	0.023	0.049	47,000	21.3	40.1
03/13/2003	524.0	92,030	7,364	2.55	91,930		0.307	5.096		0.003	0.052		2.89	43.0
03/25/2003	527.0	92,840	810	4.50	92,740	<10,000	0.034	5.130	<100	0.000	0.053	38,000	0.257	43.3
04/07/2003	838.6	142,754	49,914	2.67	142,654	30,000	12.5	17.6	<250	0.052	0.105	33,000	13.7	57.0
04/14/2003	985.4	165,205	22,451	2.55	165,105		5.62	23.2		0.023	0.128		6.18	63.2
04/22/2003	1,184.1	197,360	32,155	2.70	197,260	<25,000	3.35	26.6	<250	0.034	0.162	26,000	6.98	70.2
04/29/2003	1,305.4	216,450	19,090	2.62	216,350		1.99	28.6		0.020	0.182		4.14	74.3
05/01/2003	1,351.3	223,850	7,400	2.69	223,750	<10,000	0.31	28.9	<100	0.003	0.185	25,000	1.54	75.9
05/20/2003	1,783.0	291,620	67,770	2.62	291,520	<10,000	2.83	31.7	<100	0.028	0.213	17,000	9.6	85.5
06/03/2003	2,122.1	341,643	50,023	2.46	341,543	<10,000	2.09	33.8	<100	0.021	0.234	15,000	6.3	91.7
06/17/2003	2,456.1	388,001	46,358	2.31	387,901	<10,000	1.93	35.7	<100	0.019	0.253	17,000	6.6	98.3
06/30/2003	2,766.0	429,880	41,879	2.25	429,780		1.75	37.5		0.017	0.271		5.9	104.2
07/14/2003	3,095.9	473,549	43,669	2.21	473,449		1.82	39.3		0.018	0.289		6.2	110.4
07/28/2003	3,423.7	514,826	41,277	2.10	514,726	<5,000	0.86	40.2	<50	0.009	0.297	7,100	2.4	112.9
		Total Extracted Volume:	**514,726**			**Total Pounds Removed:**		**40.2**	**Total Pounds Removed:**		**0.297**	**Total Pounds Removed:**		**112.9**
		Average Period Operational Flow Rate:	**2.81**			**Total Gallons Removed:**		**6.60**	**Total Gallons Removed:**		**0.041**	**Total Gallons Removed:**		**18.3**

Abbreviations & Notes:

TPHg = Total purgeable hydrocarbons as gasoline
MTBE = Methyl tert-butyl ether
Conc. = Concentration
ppb = Parts per billion, equivalent to µg/L
µg/L = Micrograms per liter
L = Liter
gal = Gallon
g = Gram
Mass removed based on the formula: volume extracted (gal) x Concentration (µg/L) x ($g/10^6 \mu g$) x (pound/453.6g) x (3.785 L/gal)
When constituents are not detected, the concentration is assumed to be equal to half the detection limit in subsequent calculations.
Volume removal data based on the formula: mass (pounds) x $(density)^{-1}$ (cc/g) x 453.6 (g/pound) x (L/1000 cc) * (gal/3.785 L)
Density inputs: TPHg = 0.73 g/cc, TPHd = 0.87 g/cc, MTBE = 0.74 g/cc
TPHg, BTEX, and MTBE analyzed by EPA Method 8260B

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

July 9, 2003

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

Second Quarter 2003 Groundwater Monitoring at
Shell-branded Service Station
610 Market Street
Oakland, CA

Monitoring performed on June 13, 2003

Groundwater Monitoring Report **030613-MN-1**

This report covers the routine monitoring of groundwater wells at this Shell-branded facility. In accordance with standard procedures that conform to Regional Water Quality Control Board requirements, routine field data collection includes depth to water, total well depth, thickness of any separate immiscible layer, water column volume, 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 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/Ppc

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
Shell-branded Service Station
610 Market Street
Oakland, CA

Well ID	Date	TPPH (ug/L)	B (ug/L)	T (ug/L)	E (ug/L)	X (ug/L)	MTBE 8020 (ug/L)	MTBE 8260 (ug/L)	TOC (MSL)	Depth to Water (ft)	GW Elevation (MSL)
MW-1	12/17/1998	2,200	20	<10	110	420	<50	NA	21.70	13.71	7.99
MW-1	03/09/1999	4,320	25.8	<10.0	338	474	<100	NA	21.70	13.03	8.67
MW-1	06/16/1999	6,150	107	84.0	615	1,050	<250	NA	21.70	13.82	7.88
MW-1	09/29/1999	3,440	97.3	58.7	433	578	89.1	NA	21.70	14.45	7.25
MW-1	12/22/1999	1,370	34.5	4.38	196	49.1	29.3	NA	21.70	15.39	6.31
MW-1	03/21/2000	2,550	10.3	3.36	164	312	65.6	NA	21.70	11.94	9.76
MW-1	06/20/2000	4,770	64.3	18.6	387	732	51.3	NA	21.70	13.15	8.55
MW-1	09/21/2000	7,490	350	229	690	1,490	160	NA	21.70	13.65	8.05
MW-1	11/30/2000	5,410	420	168	494	1,170	167	NA	21.70	14.20	7.50
MW-1	03/06/2001	965	25.7	9.14	13.3	9.12	<25.0	NA	21.70	12.99	8.71
MW-1	06/28/2001	5,900	190	71	360	910	NA	110	21.70	13.98	7.72
MW-1	09/12/2001	7,400	240	110	460	1,300	NA	130	21.70	14.15	7.55
MW-1	12/12/2001	1,700	100	30	120	300	NA	98	21.70	13.75	7.95
MW-1	03/08/2002	1,100	63	12	74	83	NA	50	21.70	13.22	8.48
MW-1	06/06/2002	2,300	95	31	130	290	NA	49	21.70	13.57	8.13
MW-1	09/09/2002	3,600	150	44	200	590	NA	54	21.70	14.05	7.65
MW-1	12/12/2002	2,200	130	14	120	310	NA	46	21.70	14.20	7.50
MW-1	02/26/2003	580	30	2.9	25	48	NA	27	21.70	13.57	8.13
MW-1	04/15/2003	NA	NA	NA	NA	NA	NA	NA	21.70	13.67	8.03
MW-1	**06/13/2003**	**440**	**18**	**6.1**	**33**	**88**	**NA**	**24**	**21.70**	**13.85**	**7.85**
MW-2	12/17/1998	<5,000	<50	<50	<50	<50	11,000	NA	19.61	12.07	7.54
MW-2	03/09/1999	<250	5.20	<2.50	<2.50	<2.50	9,870	NA	19.61	11.46	8.15
MW-2	06/16/1999	<50.0	0.569	<0.500	<0.500	<0.500	3,440	NA	19.61	12.26	7.35
MW-2	09/29/1999	58.6	2.51	0.978	<0.500	<0.500	3,930	NA	19.61	12.51	7.10
MW-2	12/22/1999	<2,000	50.4	<20.0	<20.0	<20.0	15,000	NA	19.61	13.40	6.21

WELL CONCENTRATIONS
Shell-branded Service Station
610 Market Street
Oakland, CA

Well ID	Date	TPPH (ug/L)	B (ug/L)	T (ug/L)	E (ug/L)	X (ug/L)	MTBE 8020 (ug/L)	MTBE 8260 (ug/L)	TOC (MSL)	Depth to Water (ft.)	GW Elevation (MSL)
MW-2	03/21/2000	<5,000	94.7	<50.0	<50.0	<50.0	13,900	NA	19.61	10.36	9.25
MW-2	06/20/2000	101	5.95	<0.500	<0.500	0.552	7,670	NA	19.61	11.12	8.49
MW-2	09/21/2000	<2,000	<20.0	<20.0	<20.0	<20.0	4,460	NA	19.61	11.95	7.66
MW-2	11/30/2000	81.1	4.46	0.924	0.841	3.23	3,450	NA	19.61	12.48	7.13
MW-2	03/06/2001	<500	183	<5.00	<5.00	<5.00	14,000	NA	19.61	11.10	8.51
MW-2	06/28/2001	<1,000	<10	<10	<10	<10	NA	4,200	19.61	12.40	7.21
MW-2	09/12/2001	<2,000	120	<20	<20	<20	NA	17,000	19.61	12.45	7.16
MW-2	12/12/2001	<1,000	<10	<10	<10	<10	NA	3,000	19.61	12.14	7.47
MW-2	03/08/2002	<250	<2.5	<2.5	<2.5	<2.5	NA	1,100	19.61	11.68	7.93
MW-2	06/06/2002	<500	<5.0	<5.0	<5.0	<5.0	NA	2,000	19.61	11.95	7.66
MW-2	09/09/2002	<200	<2.0	<2.0	<2.0	<2.0	NA	740	19.62	12.38	7.24
MW-2	12/12/2002	<200	<2.0	<2.0	<2.0	<2.0	NA	1,000	19.62	12.40	7.22
MW-2	02/26/2003	<500	<5.0	<5.0	<5.0	<5.0	NA	1,600	19.62	12.69	6.93
MW-2	04/15/2003	NA	NA	NA	NA	NA	NA	NA	19.62	12.81	6.81
MW-2	**06/13/2003**	**<500**	**<5.0**	**<5.0**	**<5.0**	**<10**	**NA**	**790**	**19.62**	**12.65**	**6.97**
MW-3	12/17/1998	30,000	890	110	2,100	4,300	42,000	43,000	19.05	11.65	7.40
MW-3	03/09/1999	22,700	536	<200	1,030	1,510	35,400	38,500	19.05	11.03	8.02
MW-3	06/16/1999	19,300	625	129	805	1,210	42,400	51,600	19.05	11.89	7.16
MW-3	09/29/1999	20,200	727	155	1,000	1,180	84,100	136,000a	19.05	12.35	6.70
MW-3	12/22/1999	44,500	767	64.4	1,810	2,090	191,000	186,000a	19.05	13.45	5.60
MW-3	03/21/2000	<25,000	466	<250	727	2,280	126,000	155,000	19.05	10.00	9.05
MW-3	06/20/2000	16,200	1,140	98.8	1,140	1,410	579,000	376,000a	19.05	11.15	7.90
MW-3	09/21/2000	<50,000	712	<500	520	795	293,000	298,000	19.05	11.58	7.47
MW-3	11/30/2000	18,000	1,050	124	1,120	2,010	543,000a	403,000a	19.05	12.10	6.95
MW-3	03/06/2001	19,900	1,290	115	1,450	1,760	706,000	149,000	19.05	11.00	8.05

WELL CONCENTRATIONS
Shell-branded Service Station
610 Market Street
Oakland, CA

Well ID	Date	TPPH (ug/L)	B (ug/L)	T (ug/L)	E (ug/L)	X (ug/L)	MTBE 8020 (ug/L)	MTBE 8260 (ug/L)	TOC (MSL)	Depth to Water (ft.)	GW Elevation (MSL)
MW-3	06/28/2001	<50,000	1,200	<250	1,100	1,300	NA	610,000	19.05	11.96	7.09
MW-3	09/12/2001	<20,000	430	<200	230	480	NA	390,000	19.05	12.05	7.00
MW-3	10/23/2001	11,000	350	<100	210	440	NA	290,000	19.05	12.62	6.43
MW-3	12/12/2001	<20,000	280	<200	<200	<200	NA	160,000	19.05	11.83	7.22
MW-3	03/08/2002	<20,000	270	<200	<200	<200	NA	340,000	19.05	11.26	7.79
MW-3	06/06/2002	<50,000	290	<250	<250	<250	NA	290,000	19.05	11.50	7.55
MW-3	09/09/2002	<20,000	<200	<200	<200	<200	NA	230,000	19.06	11.92	7.14
MW-3	12/12/2002	<50,000	<200	<200	<200	<500	NA	190,000	19.06	10.95	8.11
MW-3	02/26/2003	<25,000	<250	<250	<250	<250	NA	210,000	19.06	15.01	4.05
MW-3	04/15/2003	NA	NA	NA	NA	NA	NA	NA	19.06	15.12	3.94
MW-3	**06/13/2003**	**<25,000**	**<250**	**<250**	**<250**	**<500**	**NA**	**27000**	**19.06**	**15.25**	**3.81**
MW-4	05/13/2002	NA	NA	NA	NA	NA	NA	NA	NA	10.64	NA
MW-4	05/20/2002	<1,000	<10	<10	<10	<10	NA	4,600	NA	10.64	NA
MW-4	06/06/2002	<1,000	<10	<10	<10	<10	NA	4,800	NA	10.61	NA
MW-4	09/09/2002	Unable to sample		NA	NA	NA	NA	NA	18.03	11.07	6.96
MW-4	09/18/2002	<250	<2.5	<2.5	<2.5	<2.5	NA	1,000	18.03	11.15	6.88
MW-4	12/12/2002	<100	<1.0	<1.0	<1.0	<1.0	NA	370	18.03	11.13	6.90
MW-4	02/26/2003	<50	<0.50	<0.50	<0.50	<0.50	NA	<5.0	18.03	10.61	7.42
MW-4	04/15/2003	NA	NA	NA	NA	NA	NA	NA	18.03	10.73	7.30
MW-4	**06/13/2003**	**180 b**	**<0.50**	**110**	**<0.50**	**<1.0**	**NA**	**2.3**	**18.03**	**10.88**	**7.15**
MW-5	05/13/2002	NA	NA	NA	NA	NA	NA	NA	NA	10.40	NA
MW-5	05/20/2002	<2,500	<25	<25	<25	<25	NA	17,000	NA	10.41	NA
MW-5	06/06/2002	<5,000	<50	<50	<50	<50	NA	15,000	NA	10.36	NA
MW-5	09/09/2002	Unable to sample		NA	NA	NA	NA	NA	17.78	10.82	6.96

WELL CONCENTRATIONS
Shell-branded Service Station
610 Market Street
Oakland, CA

Well ID	Date	TPPH (ug/L)	B (ug/L)	T (ug/L)	E (ug/L)	X (ug/L)	MTBE 8020 (ug/L)	MTBE 8260 (ug/L)	TOC (MSL)	Depth to Water (ft.)	GW Elevation (MSL)
MW-5	09/18/2002	<2,500	<25	<25	<25	<25	NA	16,000	17.78	10.81	6.97
MW-5	12/12/2002	<2,500	<25	<25	<25	<25	NA	13,000	17.78	10.83	6.95
MW-5	02/26/2003	<2,000	<20	<20	<20	<20	NA	7,500	17.78	10.57	7.21
MW-5	04/15/2003	NA	NA	NA	NA	NA	NA	NA	17.78	10.69	7.09
MW-5	**06/13/2003**	**<2,500**	**<25**	**<25**	**<25**	**<50**	**NA**	**4400**	**17.78**	**10.82**	**6.96**
MW-6	03/28/2003	Well inaccessible		NA	NA	NA	NA	NA	18.10	NA	NA
MW-6	04/07/2003	NA	NA	NA	NA	NA	NA	NA	18.10	13.80	4.30
MW-6	04/15/2003	14,000	<250	<250	<250	<500	NA	41,000	18.10	15.05	3.05
MW-6	**06/13/2003**	**<10,000**	**<100**	**<100**	**<100**	**<200**	**NA**	**27,000**	**18.10**	**14.42**	**3.68**
MW-7	03/28/2003	Well inaccessible		NA	NA	NA	NA	NA	19.16	NA	NA
MW-7	04/07/2003	NA	NA	NA	NA	NA	NA	NA	19.16	13.85	5.31
MW-7	04/15/2003	6,000	<100	<100	<100	<200	NA	19,000	19.16	13.95	5.21
MW-7	**06/13/2003**	**<5,000**	**<50**	**<50**	**<50**	**<100**	**NA**	**5,700**	**19.16**	**13.92**	**5.24**
MW-8	03/28/2003	Well inaccessible		NA	NA	NA	NA	NA	18.72	NA	NA
MW-8	04/07/2003	NA	NA	NA	NA	NA	NA	NA	18.72	14.13	4.59
MW-8	04/15/2003	890	29	22	15	71	NA	430	18.72	14.10	4.62
MW-8	**06/13/2003**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**18.72**	**13.94**	**4.78**
MW-9	03/28/2003	NA	NA	NA	NA	NA	NA	NA	18.78	11.19	7.59
MW-9	04/15/2003	420	<2.5	<2.5	<2.5	6.3	NA	37	18.78	11.24	7.54
MW-9	**06/13/2003**	**290 b**	**<0.50**	**<0.50**	**<0.50**	**2.6**	**NA**	**34**	**18.78**	**11.39**	**7.39**

WELL CONCENTRATIONS
Shell-branded Service Station
610 Market Street
Oakland, CA

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

Abbreviations:
TPPH = Total petroleum hydrocarbons as gasoline by EPA Method 8260B; prior to June 28, 2001, analyzed by EPA Method 8015.
BTEX = Benzene, toluene, ethylbenzene, xylenes by EPA Method 8260B; prior to June 28, 2001, analyzed by EPA Method 8020.
MTBE = Methyl-tertiary-butyl ether
TOC = Top of Casing Elevation
GW = Groundwater
ug/L = Parts per billion
MSL = Mean sea level
ft = Feet
<n = Below detection limit
NA = Not applicable

Notes:
a = Sample was analyzed outside the EPA recommended holding time.
b= Hydrocarbon reported does not match the labaratory standard.
Wells MW-1, MW-2, and MW-3 surveyed December 9, 1998, by Virgil Chavez Land Surveying of Vallejo, California.
Wells MW-6 through MW-9 surveyed April 10, 2003, by Virgil Chavez Land Surveying of Vallejo, California.

SEVERN TRENT STL

Submission#: 2003-06-0465

Blaine Tech Services, Inc.

June 27, 2003

1680 Rogers Avenue
San Jose, CA 95112-1105

Attn.: Leon Gearhart

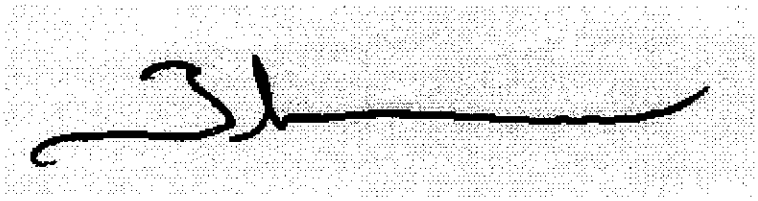
Project#: 030613-MM1
Project: 98995750
Site: 610 Market Street, Oakland

Dear Mr.Gearhart,

Attached is our report for your samples received on 06/13/2003 15:01
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 07/28/2003 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,



Tod Granicher
Project Manager

SEVERN TRENT STL

Submission #: 2003-06-0465

Gas/BTEX/MTBE by 8260B (C6-C12)

Blaine Tech Services, Inc.
Attn.: Leon Gearhart

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

Project: 030613-MM1
98995750

Received: 06/13/2003 15:01

Site: 610 Market Street, Oakland

Samples Reported

Sample Name	Date Sampled	Matrix	Lab #
MW-1	06/13/2003 10:05	Water	1
MW-2	06/13/2003 10:19	Water	2
MW-3	06/13/2003 10:25	Water	3
MW-4	06/13/2003 08:25	Water	4
MW-5	06/13/2003 08:55	Water	5
MW-6	06/13/2003 10:30	Water	6
MW-7	06/13/2003 10:40	Water	7
MW-9	06/13/2003 09:35	Water	8

Gas/BTEX/MTBE by 8260B (C6-C12)

Blaine Tech Services, Inc.

Attn.: Leon Gearhart

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

Project: 030613-MM1
98995750

Received: 06/13/2003 15:01

Site: 610 Market Street, Oakland

Prep(s):	5030B	Test(s):	8260FAB
Sample ID:	**MW-1**	Lab ID:	2003-06-0465 - 1
Sampled:	06/13/2003 10:05	Extracted:	6/26/2003 00:45
Matrix:	Water	QC Batch#:	2003/06/25-2a.64

Compound	Conc.	RL	Unit	Dilution	Analyzed	Flag
Gasoline	440	50	ug/L	1.00	06/26/2003 00:45	
Benzene	18	0.50	ug/L	1.00	06/26/2003 00:45	
Toluene	6.1	0.50	ug/L	1.00	06/26/2003 00:45	
Ethylbenzene	33	0.50	ug/L	1.00	06/26/2003 00:45	
Total xylenes	88	1.0	ug/L	1.00	06/26/2003 00:45	
Methyl tert-butyl ether (MTBE)	24	0.50	ug/L	1.00	06/26/2003 00:45	
Surrogates(s)						
1,2-Dichloroethane-d4	101.4	76-130	%	1.00	06/26/2003 00:45	
Toluene-d8	94.9	78-115	%	1.00	06/26/2003 00:45	

Gas/BTEX/MTBE by 8260B (C6-C12)

Blaine Tech Services, Inc.

Attn.: Leon Gearhart

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

Project: 030613-MM1
98995750

Received: 06/13/2003 15:01

Site: 610 Market Street, Oakland

Prep(s):	5030B	Test(s):	8260FAB
Sample ID:	**MW-2**	Lab ID:	2003-06-0465 - 2
Sampled:	06/13/2003 10:19	Extracted:	6/26/2003 11:38
Matrix:	Water	QC Batch#:	2003/06/26-1f.64

Analysis Flag: o (See Legend and Note Section)

Compound	Conc.	RL	Unit	Dilution	Analyzed	Flag
Gasoline	ND	500	ug/L	10.00	06/26/2003 11:38	
Benzene	ND	5.0	ug/L	10.00	06/26/2003 11:38	
Toluene	ND	5.0	ug/L	10.00	06/26/2003 11:38	
Ethylbenzene	ND	5.0	ug/L	10.00	06/26/2003 11:38	
Total xylenes	ND	10	ug/L	10.00	06/26/2003 11:38	
Methyl tert-butyl ether (MTBE)	790	5.0	ug/L	10.00	06/26/2003 11:38	
Surrogates(s)						
1,2-Dichloroethane-d4	100.8	76-130	%	10.00	06/26/2003 11:38	
Toluene-d8	96.5	78-115	%	10.00	06/26/2003 11:38	

Gas/BTEX/MTBE by 8260B (C6-C12)

Blaine Tech Services, Inc.

Attn.: Leon Gearhart

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

Project: 030613-MM1
98995750

Received: 06/13/2003 15:01

Site: 610 Market Street, Oakland

Prep(s):	5030B	Test(s):	8260FAB
Sample ID:	**MW-3**	Lab ID:	2003-06-0465 - 3
Sampled:	06/13/2003 10:25	Extracted:	6/26/2003 12:00
Matrix:	Water	QC Batch#:	2003/06/26-1f.64

Analysis Flag: o (See Legend and Note Section)

Compound	Conc.	RL	Unit	Dilution	Analyzed	Flag
Gasoline	ND	25000	ug/L	500.00	06/26/2003 12:00	
Benzene	ND	250	ug/L	500.00	06/26/2003 12:00	
Toluene	ND	250	ug/L	500.00	06/26/2003 12:00	
Ethylbenzene	ND	250	ug/L	500.00	06/26/2003 12:00	
Total xylenes	ND	500	ug/L	500.00	06/26/2003 12:00	
Methyl tert-butyl ether (MTBE)	27000	250	ug/L	500.00	06/26/2003 12:00	
Surrogates(s)						
1,2-Dichloroethane-d4	102.4	76-130	%	500.00	06/26/2003 12:00	
Toluene-d8	93.0	78-115	%	500.00	06/26/2003 12:00	

Gas/BTEX/MTBE by 8260B (C6-C12)

Blaine Tech Services, Inc.

Attn.: Leon Gearhart

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

Project: 030613-MM1
98995750

Received: 06/13/2003 15:01

Site: 610 Market Street, Oakland

Prep(s):	5030B	Test(s):	8260FAB
Sample ID:	**MW-4**	Lab ID:	2003-06-0465 - 4
Sampled:	06/13/2003 08:25	Extracted:	6/26/2003 13:29
Matrix:	Water	QC Batch#:	2003/06/26-1f.64

Compound	Conc.	RL	Unit	Dilution	Analyzed	Flag
Gasoline	180	50	ug/L	1.00	06/26/2003 13:29	g
Benzene	ND	0.50	ug/L	1.00	06/26/2003 13:29	
Toluene	110	0.50	ug/L	1.00	06/26/2003 13:29	
Ethylbenzene	ND	0.50	ug/L	1.00	06/26/2003 13:29	
Total xylenes	ND	1.0	ug/L	1.00	06/26/2003 13:29	
Methyl tert-butyl ether (MTBE)	2.3	0.50	ug/L	1.00	06/26/2003 13:29	
Surrogates(s)						
1,2-Dichloroethane-d4	103.1	76-130	%	1.00	06/26/2003 13:29	
Toluene-d8	95.3	78-115	%	1.00	06/26/2003 13:29	

Gas/BTEX/MTBE by 8260B (C6-C12)

Blaine Tech Services, Inc.

Attn.: Leon Gearhart

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

Project: 030613-MM1
98995750

Received: 06/13/2003 15:01

Site: 610 Market Street, Oakland

Prep(s):	5030B	Test(s):	8260FAB
Sample ID:	**MW-5**	Lab ID:	2003-06-0465 - 5
Sampled:	06/13/2003 08:55	Extracted:	6/26/2003 02:14
Matrix:	Water	QC Batch#:	2003/06/25-2a.64

Analysis Flag: o (See Legend and Note Section)

Compound	Conc.	RL	Unit	Dilution	Analyzed	Flag
Gasoline	ND	2500	ug/L	50.00	06/26/2003 02:14	
Benzene	ND	25	ug/L	50.00	06/26/2003 02:14	
Toluene	ND	25	ug/L	50.00	06/26/2003 02:14	
Ethylbenzene	ND	25	ug/L	50.00	06/26/2003 02:14	
Total xylenes	ND	50	ug/L	50.00	06/26/2003 02:14	
Methyl tert-butyl ether (MTBE)	4400	25	ug/L	50.00	06/26/2003 02:14	
Surrogates(s)						
1,2-Dichloroethane-d4	114.4	76-130	%	5.00	06/26/2003 02:14	
Toluene-d8	97.4	78-115	%	5.00	06/26/2003 02:14	

Gas/BTEX/MTBE by 8260B (C6-C12)

Blaine Tech Services, Inc.
Attn.: Leon Gearhart

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

Project: 030613-MM1
98995750

Received: 06/13/2003 15:01

Site: 610 Market Street, Oakland

Prep(s):	5030B	Test(s):	8260FAB
Sample ID:	**MW-6**	Lab ID:	2003-06-0465 - 6
Sampled:	06/13/2003 10:30	Extracted:	6/26/2003 18:58
Matrix:	Water	QC Batch#:	2003/06/26-1f.64

Analysis Flag: o (See Legend and Note Section)

Compound	Conc.	RL	Unit	Dilution	Analyzed	Flag
Gasoline	ND	10000	ug/L	200.00	06/26/2003 18:58	
Benzene	ND	100	ug/L	200.00	06/26/2003 18:58	
Toluene	ND	100	ug/L	200.00	06/26/2003 18:58	
Ethylbenzene	ND	100	ug/L	200.00	06/26/2003 18:58	
Total xylenes	ND	200	ug/L	200.00	06/26/2003 18:58	
Methyl tert-butyl ether (MTBE)	27000	100	ug/L	200.00	06/26/2003 18:58	
Surrogates(s)						
1,2-Dichloroethane-d4	106.3	76-130	%	200.00	06/26/2003 18:58	
Toluene-d8	93.5	78-115	%	200.00	06/26/2003 18:58	

Gas/BTEX/MTBE by 8260B (C6-C12)

Blaine Tech Services, Inc.

Attn.: Leon Gearhart

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

Project: 030613-MM1
98995750

Received: 06/13/2003 15:01

Site: 610 Market Street, Oakland

Prep(s):	5030B	Test(s):	8260FAB
Sample ID:	**MW-7**	Lab ID:	2003-06-0465 - 7
Sampled:	06/13/2003 10:40	Extracted:	6/26/2003 14:58
Matrix:	Water	QC Batch#:	2003/06/26-1f.64

Analysis Flag: o (See Legend and Note Section)

Compound	Conc.	RL	Unit	Dilution	Analyzed	Flag
Gasoline	ND	5000	ug/L	100.00	06/26/2003 14:58	
Benzene	ND	50	ug/L	100.00	06/26/2003 14:58	
Toluene	ND	50	ug/L	100.00	06/26/2003 14:58	
Ethylbenzene	ND	50	ug/L	100.00	06/26/2003 14:58	
Total xylenes	ND	100	ug/L	100.00	06/26/2003 14:58	
Methyl tert-butyl ether (MTBE)	5700	50	ug/L	100.00	06/26/2003 14:58	
Surrogates(s)						
1,2-Dichloroethane-d4	106.5	76-130	%	100.00	06/26/2003 14:58	
Toluene-d8	95.2	78-115	%	100.00	06/26/2003 14:58	

Gas/BTEX/MTBE by 8260B (C6-C12)

Blaine Tech Services, Inc.

Attn.: Leon Gearhart

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

Project: 030613-MM1
98995750

Received: 06/13/2003 15:01

Site: 610 Market Street, Oakland

Prep(s):	5030B	Test(s):	8260FAB
Sample ID:	**MW-9**	Lab ID:	2003-06-0465 - 8
Sampled:	06/13/2003 09:35	Extracted:	6/25/2003 16:37
Matrix:	Water	QC Batch#:	2003/06/25-1a.65

Compound	Conc.	RL	Unit	Dilution	Analyzed	Flag
Gasoline	290	50	ug/L	1.00	06/25/2003 16:37	g
Benzene	ND	0.50	ug/L	1.00	06/25/2003 16:37	
Toluene	ND	0.50	ug/L	1.00	06/25/2003 16:37	
Ethylbenzene	ND	0.50	ug/L	1.00	06/25/2003 16:37	
Total xylenes	2.6	1.0	ug/L	1.00	06/25/2003 16:37	
Methyl tert-butyl ether (MTBE)	34	0.50	ug/L	1.00	06/25/2003 16:37	
Surrogates(s)						
1,2-Dichloroethane-d4	91.7	76-130	%	1.00	06/25/2003 16:37	
Toluene-d8	86.1	78-115	%	1.00	06/25/2003 16:37	

Gas/BTEX/MTBE by 8260B (C6-C12)

Blaine Tech Services, Inc.
Attn.: Leon Gearhart

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

Project: 030613-MM1
98995750

Received: 06/13/2003 15:01

Site: 610 Market Street, Oakland

Batch QC Report

Prep(s): 5030B — Test(s): 8260FAB

Method Blank — Water — **QC Batch # 2003/06/25-1a.65**

MB: 2003/06/25-1a.65-040 — Date Extracted: 06/25/2003 11:51

Compound	Conc.	RL	Unit	Analyzed	Flag
Gasoline	ND	50	ug/L	06/25/2003 11:51	
Benzene	ND	0.5	ug/L	06/25/2003 11:51	
Toluene	ND	0.5	ug/L	06/25/2003 11:51	
Ethylbenzene	ND	0.5	ug/L	06/25/2003 11:51	
Total xylenes	ND	1.0	ug/L	06/25/2003 11:51	
Methyl tert-butyl ether (MTBE)	ND	0.5	ug/L	06/25/2003 11:51	
Surrogates(s)					
1,2-Dichloroethane-d4	89.6	76-130	%	06/25/2003 11:51	
Toluene-d8	100.0	78-115	%	06/25/2003 11:51	

Gas/BTEX/MTBE by 8260B (C6-C12)

Blaine Tech Services, Inc.
Attn.: Leon Gearhart

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

Project: 030613-MM1
98995750

Received: 06/13/2003 15:01

Site: 610 Market Street, Oakland

Batch QC Report

Prep(s): 5030B — Water — Test(s): 8260FAB

Method Blank — **QC Batch # 2003/06/25-2a.64**

MB: 2003/06/25-2a.64-053 — Date Extracted: 06/25/2003 21:26

Compound	Conc.	RL	Unit	Analyzed	Flag
Gasoline	ND	50	ug/L	06/25/2003 21:26	
Benzene	ND	0.5	ug/L	06/25/2003 21:26	
Toluene	ND	0.5	ug/L	06/25/2003 21:26	
Ethylbenzene	ND	0.5	ug/L	06/25/2003 21:26	
Total xylenes	ND	1.0	ug/L	06/25/2003 21:26	
Methyl tert-butyl ether (MTBE)	ND	0.5	ug/L	06/25/2003 21:26	
Surrogates(s)					
1,2-Dichloroethane-d4	99.6	76-130	%	06/25/2003 21:26	
Toluene-d8	95.6	78-115	%	06/25/2003 21:26	

Gas/BTEX/MTBE by 8260B (C6-C12)

Blaine Tech Services, Inc.
Attn.: Leon Gearhart

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

Project: 030613-MM1
98995750

Received: 06/13/2003 15:01

Site: 610 Market Street, Oakland

Batch QC Report

Prep(s): 5030B — Test(s): 8260FAB

Method Blank — **Water** — **QC Batch # 2003/06/26-1f.64**

MB: 2003/06/26-1f.64-003 — Date Extracted: 06/26/2003 10:24

Compound	Conc.	RL	Unit	Analyzed	Flag
Gasoline	ND	50	ug/L	06/26/2003 10:24	
Benzene	ND	0.5	ug/L	06/26/2003 10:24	
Toluene	ND	0.5	ug/L	06/26/2003 10:24	
Ethylbenzene	ND	0.5	ug/L	06/26/2003 10:24	
Total xylenes	ND	1.0	ug/L	06/26/2003 10:24	
Methyl tert-butyl ether (MTBE)	ND	0.5	ug/L	06/26/2003 10:24	
Surrogates(s)					
1,2-Dichloroethane-d4	101.2	76-130	%	06/26/2003 10:24	
Toluene-d8	94.4	78-115	%	06/26/2003 10:24	

Gas/BTEX/MTBE by 8260B (C6-C12)

Blaine Tech Services, Inc.

Attn.: Leon Gearhart

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

Project: 030613-MM1
98995750

Received: 06/13/2003 15:01

Site: 610 Market Street, Oakland

Batch QC Report

Prep(s): 5030B

Test(s): 8260FAB

Laboratory Control Spike | **Water** | **QC Batch # 2003/06/25-1a.65**

LCS 2003/06/25-1a.65-039 Extracted: 06/25/2003 Analyzed: 06/25/2003 11:06

LCSD 2003/06/25-1a.65-001 Extracted: 06/25/2003 Analyzed: 06/25/2003 11:28

Compound	Conc. ug/L		Exp.Conc.	Recovery %		RPD	Ctrl.Limits %		Flags	
	LCS	LCSD		LCS	LCSD	%	Rec.	RPD	LCS	LCSD
Benzene	24.4	24.4	25	97.6	97.6	0.0	69-129	20		
Toluene	23.6	24.5	25	94.4	98.0	3.7	70-130	20		
Methyl tert-butyl ether (MTBE)	31.3	29.4	25	125.2	117.6	6.3	65-165	20		
Surrogates(s)										
1,2-Dichloroethane-d4	450	436	500	90.0	87.2		76-130			
Toluene-d8	468	474	500	93.6	94.8		78-115			

Gas/BTEX/MTBE by 8260B (C6-C12)

Blaine Tech Services, Inc.
Attn.: Leon Gearhart

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

Project: 030613-MM1
98995750

Received: 06/13/2003 15:01

Site: 610 Market Street, Oakland

Batch QC Report

Prep(s): 5030B — Test(s): 8260FAB

Laboratory Control Spike — **Water** — **QC Batch # 2003/06/25-2a.64**

LCS 2003/06/25-2a.64-052 — Extracted: 06/25/2003 — Analyzed: 06/25/2003 20:42

LCSD 2003/06/25-2a.64-001 — Extracted: 06/25/2003 — Analyzed: 06/25/2003 21:04

Compound	Conc. ug/L		Exp.Conc.	Recovery %		RPD	Ctrl.Limits %		Flags	
	LCS	LCSD		LCS	LCSD	%	Rec.	RPD	LCS	LCSD
Benzene	23.5	23.8	25	94.0	95.2	1.3	69-129	20		
Toluene	23.3	24.5	25	93.2	98.0	5.0	70-130	20		
Methyl tert-butyl ether (MTBE)	27.2	27.9	25	108.8	111.6	2.5	65-165	20		
Surrogates(s)										
1,2-Dichloroethane-d4	492	513	500	98.4	102.6		76-130			
Toluene-d8	476	489	500	95.2	97.8		78-115			

Gas/BTEX/MTBE by 8260B (C6-C12)

Blaine Tech Services, Inc.

Attn.: Leon Gearhart

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

Project: 030613-MM1
98995750

Received: 06/13/2003 15:01

Site: 610 Market Street, Oakland

Batch QC Report

Prep(s): 5030B

Test(s): 8260FAB

Laboratory Control Spike | **Water** | **QC Batch # 2003/06/26-1f.64**

LCS 2003/06/26-1f.64-002 Extracted: 06/26/2003 Analyzed: 06/26/2003 09:40

LCSD 2003/06/26-1f.64-001 Extracted: 06/26/2003 Analyzed: 06/26/2003 10:02

Compound	Conc. ug/L		Exp.Conc.	Recovery %		RPD	Ctrl.Limits %		Flags	
	LCS	LCSD		LCS	LCSD	%	Rec.	RPD	LCS	LCSD
Benzene	22.9	23.2	25	91.6	92.8	1.3	69-129	20		
Toluene	23.2	23.1	25	92.8	92.4	0.4	70-130	20		
Methyl tert-butyl ether (MTBE)	26.6	28.2	25	106.4	112.8	5.8	65-165	20		
Surrogates(s)										
1,2-Dichloroethane-d4	506	531	500	101.2	106.2		76-130			
Toluene-d8	480	493	500	96.0	98.6		78-115			

SEVERN TRENT STL

Submission #: 2003-06-0465

Gas/BTEX/MTBE by 8260B (C6-C12)

Blaine Tech Services, Inc.
Attn.: Leon Gearhart

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

Project: 030613-MM1
98995750

Received: 06/13/2003 15:01

Site: 610 Market Street, Oakland

Batch QC Report

Prep(s): 5030B — Test(s): 8260FAB

Matrix Spike (MS / MSD) — **Water** — **QC Batch # 2003/06/26-1f.64**

MW-4 >> MS — Lab ID: 2003-06-0465 - 004

MS: 2003/06/26-1f.64-036 — Extracted: 06/26/2003 — Analyzed: 06/26/2003 17:29 — Dilution: 1.00

MSD: 2003/06/26-1f.64-037 — Extracted: 06/26/2003 — Analyzed: 06/26/2003 17:51 — Dilution: 1.00

Compound	Conc. ug/L			Spk.Level	Recovery %			Limits %		Flags	
	MS	MSD	Sample	ug/L	MS	MSD	RPD	Rec.	RPD	MS	MSD
Benzene	23.1	23.0	ND	25	92.4	92.0	0.4	69-129	20		
Toluene	126	130	107	25	76.0	92.0	19.0	70-130	20		
Methyl tert-butyl ether	32.4	30.7	2.31	25	120.4	122.8	2.0	65-165	20		
Surrogate(s)											
1,2-Dichloroethane-d4	528	527		500	105.6	105.4		76-130			
Toluene-d8	494	491		500	98.8	98.2		78-115			

Gas/BTEX/MTBE by 8260B (C6-C12)

Blaine Tech Services, Inc.

Attn.: Leon Gearhart

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

Project: 030613-MM1
98995750

Received: 06/13/2003 15:01

Site: 610 Market Street, Oakland

Legend and Notes

Analysis Flag

o

Reporting limits were raised due to high level of analyte present in the sample.

Result Flag

g

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

LAB: STL

Lab Identification (if necessary):

Address:

City, State, Zip:

SHELL Chain Of Custody Record

75133

Shell Project Manager to be Invoiced:

☑ SCIENCE & ENGINEERING

☐ TECHNICAL SERVICES

☐ CRMT HOUSTON

Karen Petryna

2003-06-0465

INCIDENT NUMBER (S&E ONLY): 9 8 9 9 5 7 5 0

SAP or CRMT NUMBER (TS/CRMT):

DATE: 6/13/03

PAGE: 1 of 1

SAMPLING COMPANY: Blaine Tech Services	LOG CODE: BTSS	SITE ADDRESS (Street and City): 610 Market Street, Oakland
ADDRESS: 1680 Rogers Avenue, San Jose, CA 95112		GLOBAL ID NO.: T0600102121
PROJECT CONTACT (Hardcopy or PDF Report to): Leon Gearhart		EDF DELIVERABLE TO (Responsible Party or Designee): Anni Kreml
TELEPHONE: 408-573-0555	FAX: 408-573-7771	E-MAIL: lgearhart@blainetech.com
PHONE NO.: 510-420-3335	E-MAIL: ShellOaklandEDF@cambria-env.com	CONSULTANT PROJECT NO.: BTS # 030613-MA1
SAMPLER NAME(S) (Print): MICHAEL MCNAMARA		LAB USE ONLY

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

☐ LA - RWQCB REPORT FORMAT ☐ UST AGENCY: ______

GC/MS MTBE CONFIRMATION: HIGHEST ______ HIGHEST per BORING ______ ALL ______

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

REQUESTED ANALYSIS

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

TEMPERATURE ON RECEIPT C°: 2.4°C

LAB USE ONLY	Field Sample Identification	SAMPLING DATE	SAMPLING TIME	MATRIX	NO. OF CONT.	TPH - Gas, Purgeable	BTEX	MTBE (8021B - 5ppb RL)	MTBE (8260B - 0.5ppb RL)	Oxygenates (5) by (8260B)	Ethanol (8260B)	Methanol	1,2-DCA (8260B)	EDB (8260B)		TPH - Diesel, Extractable (8015m)									FIELD NOTES
	MW-1	6/13/03	1005	GW	3	X	X		X																
	MW-2	↓	1011	GW	3	X	X		X																
	MW-3		1025	GW	3	X	X		X																
	MW-4		825	GW	3	X	X		X																
	MW-5		855	GW	3	X	X		X																
	MW-6		1030	GW	3	X	X		X																
	MW-7		1040	GW	3	X	X		X																
	~~MW-8~~																								
	MW-9	↓	935	GW	3	X	X		X																

Relinquished by: (Signature)	Received by: (Signature)	Date:	Time:
[signature]	[signature]	6/13/03	1501
[signature] 6/13/03 1801			
	Denise Harrington / STL-SF	6/13/03	1803

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

10/16/00 Revision

WELL GAUGING DATA

Project # 030613-MM1 Date 6/13/03 Client Shell

Site 610 Market St, Oakland

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	4					13.85	24.58	TOC	
(MW-2)	4	(*) gauged with Ext system vault				12.65	—	↓	
(MW-3)	4	[illegible]				15.25	—	↓	
MW-4	4					10.88	19.77	↓	traffic
MW-5	4					10.82	20.02	↓	traffic
(MW-6)	4	(*)				14.42	—	↓	Ext pump
MW-7	4	(*)				13.92	—	↓	Ext. Pump
(MW-8)	4	(*)				13.94	—	↓	Ext. Pump
MW-9	4					11.39	19.74	↓	

(*) gauged with Ext System pump vault (running system)

(MW-7) - Extract System (→ Port Sample)

~~[illegible] = dry until [illegible] pump. [illegible] (Extraction system → port sample)~~ (MISLABELING OF WELL)

SHELL WELL MONITORING DATA SHEET

BTS #: 030613-MM1	Site: 610 Market St., Oakland
Sampler: MM	Date: 6/13/03
Well I.D.: MW-1	Well Diameter: 2 3 (4) 6 8 ___
Total Well Depth (TD): 24.58	Depth to Water (DTW): 17.06
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: (PVC) Grade	D.O. Meter (if req'd): YSI HACH
DTW with 80% Recharge [(Height of Water Column x 0.20) + DTW]: 16.73	16.00

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

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

7.0 (Gals.) X 3 = 21.0 Gals.
1 Case Volume | Specified Volumes | Calculated Volume

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

Time	Temp (°F)	pH	Cond. (mS or µS)	Turbidity (NTUs)	Gals. Removed	Observations
1000	66.9	6.6	727	36	7.0	clear
	dewatered	@	770	gal's		
						DTW = 16.70
1004	66.7	6.6	746	33		DTW = 15.97

Did well dewater? (Yes) No Gallons actually evacuated: 7.0

Sampling Date: 6/13/03 Sampling Time: 1005 Depth to Water: 15.97

Sample I.D.: MW-1 Laboratory: (STL) Other_____

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

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

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

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

SHELL WELL MONITORING DATA SHEET

BTS #: 030617-MM1	Site: 610 Market St., Oakland
Sampler: MM	Date: 6/13/03
Well I.D.: MW-2	Well Diameter: 2 3 (4) 6 8 ___
Total Well Depth (TD): ~~12~~	Depth to Water (DTW): 12.65
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: (PVC) Grade	D.O. Meter (if req'd): YSI HACH
DTW with 80% Recharge [(Height of Water Column x 0.20) + DTW]:	

Purge Method: Bailer, Disposable Bailer, Middleburg, ~~Electric Submersible~~ MA, Waterra, Peristaltic, Extraction Pump, Other ____

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

____ (Gals.) X FOR SAMPLE = ____ Gals.
1 Case Volume | Specified Volumes | Calculated Volume

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

Time	Temp (°F)	pH	Cond. (mS or µS)	Turbidity (NTUs)	Gals. Removed	Observations
1019	66.8	6.9	681	13	~~1~~	Clear

Did well dewater? Yes No Gallons actually evacuated:

Sampling Date: 6/13/03 Sampling Time: 1019 Depth to Water:

Sample I.D.: MW-2 Laboratory: (STL) Other ____

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

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

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

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

SHELL WELL MONITORING DATA SHEET

BTS #: 03617-MM1	Site: 610 Market St., Oakland
Sampler: MM	Date: 6/13/03
Well I.D.: MW-3	Well Diameter: 2 3 (4) 6 8 ___
Total Well Depth (TD): —	Depth to Water (DTW): 15.25
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: (PVC) Grade	D.O. Meter (if req'd): YSI HACH
DTW with 80% Recharge [(Height of Water Column x 0.20) + DTW]:	

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

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

_____(Gals.) X PURGE SAMPLE = _____ Gals.
1 Case Volume | Specified Volumes | Calculated Volume

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

Time	Temp (°F)	pH	Cond. (mS or µS)	Turbidity (NTUs)	Gals. Removed	Observations
1025	67.2	6.9	715	19	—	clear

Did well dewater? Yes No Gallons actually evacuated:

Sampling Date: 6/13/03 Sampling Time: 1025 Depth to Water:

Sample I.D.: MW-3 Laboratory: (STL) Other_____

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

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

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

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

SHELL WELL MONITORING DATA SHEET

BTS #: 030613-MM1	Site: 610 Market St., Oakland
Sampler: MM	Date: 6/13/03
Well I.D.: MW-4	Well Diameter: 2 3 (4) 6 8 ___
Total Well Depth (TD): 19.77	Depth to Water (DTW): 10.88
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: (PVC) Grade	D.O. Meter (if req'd): YSI HACH
DTW with 80% Recharge [(Height of Water Column x 0.20) + DTW]: 12.65	

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

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

5.8 (Gals.) X	3 =	17.4 Gals.	
1 Case Volume	Specified Volumes	Calculated Volume	

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

Time	Temp (°F)	pH	Cond. (mS or (µS))	Turbidity (NTUs)	Gals. Removed	Observations
818	65.9	6.6	649	42	6.0	clear
	Rewatered @	6.5	4 gal's			DTW = 13.10
824	66.9	6.6	614	38		

Did well dewater? (Yes) No Gallons actually evacuated: 6.5

Sampling Date: 6/13/03 Sampling Time: 825 Depth to Water: 13.10 Traffic

Sample I.D.: MW-4 Laboratory: (STL) Other_____

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

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

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

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

SHELL WELL MONITORING DATA SHEET

BTS #: 07617-MM1	Site: 610 Market St., Oakland
Sampler: MM	Date: 6/13/07
Well I.D.: MW-5	Well Diameter: 2 3 (4) 6 8 ___
Total Well Depth (TD): 20.02	Depth to Water (DTW): 10.82
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: (PVC) Grade	D.O. Meter (if req'd): YSI HACH
DTW with 80% Recharge [(Height of Water Column x 0.20) + DTW]: 12.66	

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

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

6.6 (Gals.) X	3	=	19.8	Gals.
1 Case Volume	Specified Volumes		Calculated Volume	

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

Time	Temp (°F)	pH	Cond. (mS or µS)	Turbidity (NTUs)	Gals. Removed	Observations
	dewatered @ 5.0 gals					
848	64.9	7.0	1114	58	5.0	clear
						DTW = 14.64
854	65.5	7.0	1113	>200		slightly cloudy

Did well dewater? (Yes) No Gallons actually evacuated: 5.0

Sampling Date: 6/13/07 Sampling Time: 855 Depth to Water: 14.64

Sample I.D.: MW-5 Laboratory: (STL) Other_____

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

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

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

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

SHELL WELL MONITORING DATA SHEET

BTS #: 030617-MM1	Site: 610 Market St., Oakland
Sampler: MM	Date: 6/13/03
Well I.D.: MW-6	Well Diameter: 2 3 (4) 6 8 ____
Total Well Depth (TD): ———	Depth to Water (DTW): 14.42
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: (PVC) Grade	D.O. Meter (if req'd): YSI HACH
DTW with 80% Recharge [(Height of Water Column x 0.20) + DTW]:	

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

Sampling Method: (Bailer) MM / Disposable Bailer / (Extraction Port) / ~~Dedicated Tubing~~ / Other: _____

____ (Gals.) X	PORT SAMPLE	= ____ Gals.
1 Case Volume	Specified Volumes	Calculated Volume

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

Time	Temp (°F)	pH	Cond. (mS or µS)	Turbidity (NTUs)	Gals. Removed	Observations
1030	67.6	7.1	512	10	———	Clear

Did well dewater? Yes No Gallons actually evacuated:

Sampling Date: 6/13/03 Sampling Time: 1030 Depth to Water:

Sample I.D.: MW-6 Laboratory: (STL) Other_____

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

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

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

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

SHELL WELL MONITORING DATA SHEET

BTS #: 030617-MM1	Site: 610 Market St., Oakland
Sampler: MM	Date: 6/13/03
Well I.D.: MW-7	Well Diameter: 2 3 (4) 6 8 ____
Total Well Depth (TD): ——	Depth to Water (DTW): 13.92
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: (PVC) Grade	D.O. Meter (if req'd): YSI HACH
DTW with 80% Recharge [(Height of Water Column x 0.20) + DTW]:	

Purge Method: Bailer, Disposable Bailer, Middleburg, ~~Electric Submersible~~, Waterra, Peristaltic, Extraction Pump, Other____

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

Other: ____

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

—— (Gals.) X PORT SAMPLE = —— Gals.
1 Case Volume — Specified Volumes — Calculated Volume

Time	Temp (°F)	pH	Cond. (mS or (µS))	Turbidity (NTUs)	Gals. Removed	Observations
1046	68.3	7.1	511	7	——	clear

Did well dewater? Yes No	Gallons actually evacuated:
Sampling Date: 6/13/03 Sampling Time: 1040	Depth to Water:
Sample I.D.: MW-7	Laboratory: (STL) Other____
Analyzed for: (TPH-G) (BTEX) (MTBE) TPH-D	Other:
EB I.D. (if applicable): @ Time	Duplicate I.D. (if applicable):
Analyzed for: TPH-G BTEX MTBE TPH-D	Other:
D.O. (if req'd): Pre-purge: mg/L	Post-purge: mg/L
O.R.P. (if req'd): Pre-purge: mV	Post-purge: mV

SHELL WELL MONITORING DATA SHEET

BTS #: 030617-MM1	Site: 610 Market St., Oakland
Sampler: MM	Date: 6/13/03
Well I.D.: MW-2	Well Diameter: 2 3 (4) 6 8 ____
Total Well Depth (TD): ~~13.94~~ rm	Depth to Water (DTW): 13.94
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: (PVC) Grade	D.O. Meter (if req'd): YSI HACH
DTW with 80% Recharge [(Height of Water Column x 0.20) + DTW]:	

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

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

____(Gals.) X	____	= ____ Gals.
1 Case Volume	Specified Volumes	Calculated Volume

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

Time	Temp (°F)	pH	Cond. (mS or µS)	Turbidity (NTUs)	Gals. Removed	Observations
	DID NOT SAMPLE; Waited for 1.5 hours with					
				extraction port valve open and no		
				water came out.		

Did well dewater? Yes No	Gallons actually evacuated:		
Sampling Date: 6/13/03	Sampling Time: NO SAMPLE	Depth to Water:	
Sample I.D.: MW-2	Laboratory: (STL) Other ____		
Analyzed for: (TPH-G) (BTEX) (MTBE) TPH-D Other:			
EB I.D. (if applicable): @ Time	Duplicate I.D. (if applicable):		
Analyzed for: TPH-G BTEX MTBE TPH-D Other:			
D.O. (if req'd): Pre-purge:	mg/L	Post-purge:	mg/L
O.R.P. (if req'd): Pre-purge:	mV	Post-purge:	mV

SHELL WELL MONITORING DATA SHEET

BTS #: 03-617-MM1	Site: 610 Market St., Oakland
Sampler: MM	Date: 6/13/03
Well I.D.: MW-4	Well Diameter: 2 3 (4) 6 8 ___
Total Well Depth (TD): 19.74	Depth to Water (DTW): 11.39
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: (PVC) Grade	D.O. Meter (if req'd): YSI HACH
DTW with 80% Recharge [(Height of Water Column x 0.20) + DTW]: 13.06	

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

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

5.4 (Gals.) X 3 = 16.2 Gals.
1 Case Volume | Specified Volumes | Calculated Volume

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

Time	Temp (°F)	pH	Cond. (mS or (µS))	Turbidity (NTUs)	Gals. Removed	Observations
921	64.8	6.8	1093	>200		slightly cloudy
	dewatered	@	6.0 gal	~~22~~		DTW = 12.61
934	64.5	6.4	1796	>200		

Did well dewater? (Yes) No Gallons actually evacuated: 6.0

Sampling Date: 6/13/03 Sampling Time: 935 Depth to Water: 12.61

Sample I.D.: MW-4 Laboratory: (STL) Other_____

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

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

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

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