



Denis L. Brown

Shell Oil Products US

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July 19, 2005

Jerry Wickham  
Alameda County Health Care Services Agency  
1131 Harbor Bay Parkway, Suite 250  
Alameda, CA 94502-6577

Alameda County  
JUL 25 2005  
Environmental Health

Re: Second Quarter 2005 Monitoring Report  
Shell-branded Service Station  
610 Market Street  
Oakland, California  
SAP Code 135692  
Incident No. 98995750

Dear Mr. Wickham:

Attached for your review and comment is a copy of the *Second Quarter 2005 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.

If you have any questions or concerns, please call me at (707) 865-0251.

Sincerely,

Denis L. Brown  
Sr. Environmental Engineer

July 19, 2005

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

Re: **Second Quarter 2005 Monitoring Report**  
Shell-branded Service Station  
610 Market Street  
Oakland, California  
Incident #99895750  
Cambria Project #247-0594-002  
ACHCSA Case # RO-0493

Alameda County  
JUL 25 2005  
Environmental Health



Dear Mr. Wickham:

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 (DVE) Treatment:** 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  
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**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. Beginning in January 2002, well MW-2 was added to the weekly GWE schedule at the site. 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**

Method	Period	TPHg (pounds)		Benzene (pounds)		MTBE (pounds)	
		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 – 4/26/05	NA	47.4	NA	0.380	NA	136.5
Subtotal (per phase)		52.9	50.8	2.83	0.467	43.0	208.4
<b>Total Mass Removed</b>		<b>103.7 pounds</b>		<b>3.30 pounds</b>		<b>251.4 pounds</b>	

**SECOND QUARTER 2005 ACTIVITIES**

**Groundwater Monitoring:** Blaine Tech Services, Inc. (Blaine) of San Jose, California gauged and sampled the site wells in May 2005, calculated groundwater elevations, and compiled the analytical data. In addition, at Shell's request, Blaine gauged and sampled well MW-5 in June 2005. 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 operating the fixed GWE system on February 18, 2003. Wells MW-2, MW-3, MW-6, MW-7, and MW-8 are equipped with pumps to be used as extraction points. Table 1 summarizes system analytical data. 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 has operated at an average flow rate of approximately 2.02 gallons per minute since startup.

Cambria shut the GWE system off on April 29, 2005, in response to GWE system analytical data indicating MTBE breakthrough of the second carbon vessel. The GWE system has remained off, pending evaluation of the second quarter 2005 groundwater monitoring results. Cambria sampled and profiled the spent carbon for disposal.

As of April 26, 2005, a total of 2,075,169 gallons of groundwater had been extracted. A total of 47.4 pounds of TPHg, 0.380 pounds of benzene, and 136.5 pounds of MTBE has been recovered. Table 2 presents mass removal data.

**ANTICIPATED THIRD QUARTER 2005 ACTIVITIES**

**Groundwater Monitoring:** Blaine will gauge and sample all monitoring wells in September 2005 and tabulate the data. In addition, Blaine will gauge and sample well MW-5 in July and August 2005. Cambria will prepare a monitoring report.

**Remedial Activities:** Once carbon replacement activities are completed, Cambria will restart the GWE system, pumping from well MW-3 only. Per Cambria's standard operating procedures and East Bay Municipal Utilities District treatment-system monitoring requirements, Cambria will perform routine operation and maintenance of the GWE system. Cambria will monitor concentration trends and GWE system effectiveness.

**CLOSING**

We appreciate the opportunity to work with you on this project. Please call Cynthia Vasko at (510) 420-3344 if you have any questions or comments.

Sincerely,  
**Cambria Environmental Technology, Inc**



*Cynthia Vasko*

Cynthia Vasko  
Project Engineer

*Matthew W. Derby*

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



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

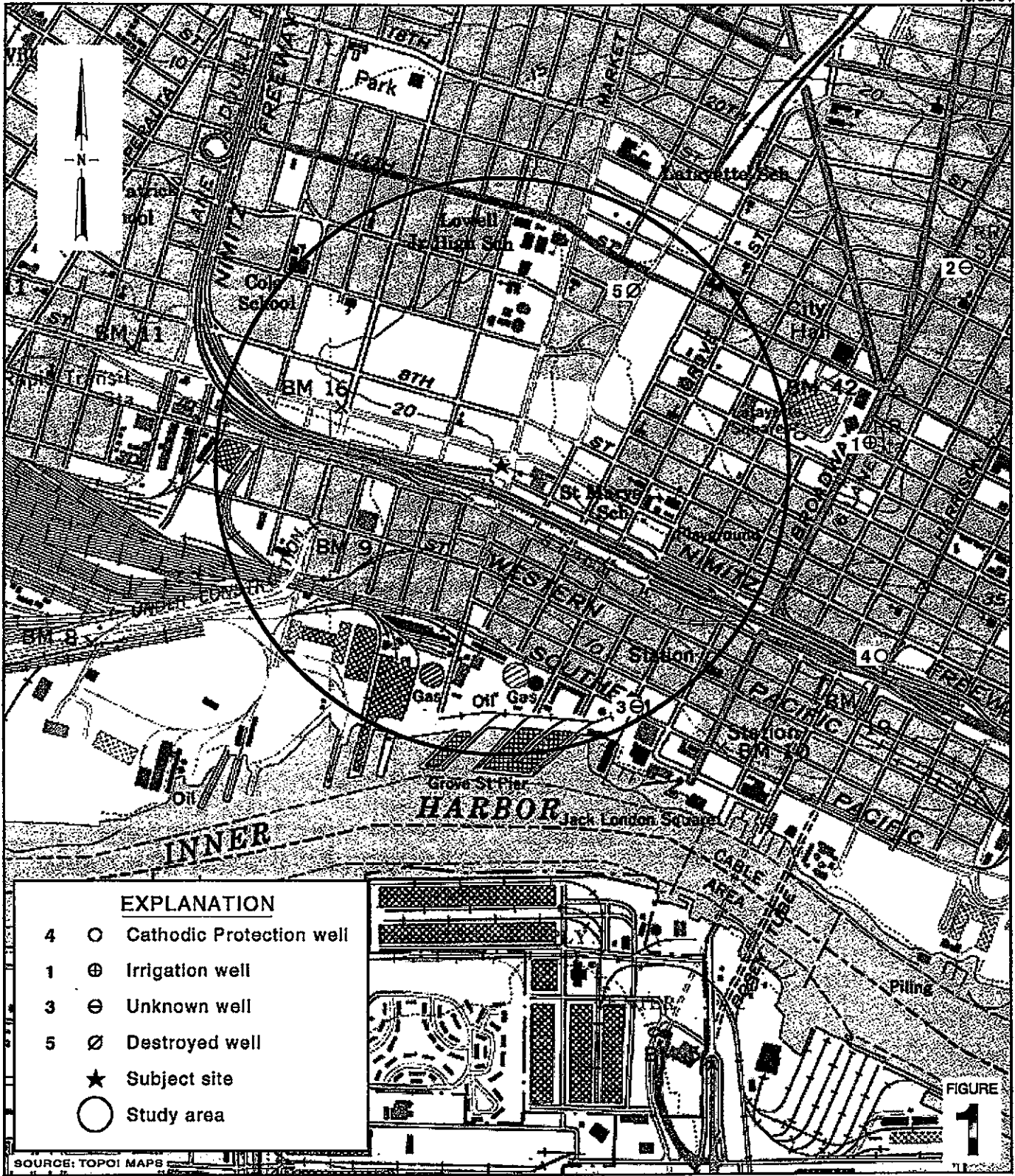
Tables:            1 - Groundwater Extraction – System Analytical Data  
                      2 - Groundwater Extraction – Operation and Mass Removal Data

Attachment:      A - Blaine Groundwater Monitoring Report and Field Notes

cc:                Denis Brown, Shell Oil Products US, 20945 S. Wilmington Ave., Carson, CA 90810  
                      Virginia R. Rawson, Tr., 1860 Tice Creek Drive #1353, Walnut Creek, CA 94595  
                      Roger Schmidt, 1224 Contra Costa Dr., El Cerrito, CA 94530

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G:\OAKLAND 810 MARKET\FIGURE\VIC-WELL-SURVEY.A1



**EXPLANATION**

4	○	Cathodic Protection well
1	⊕	Irrigation well
3	⊖	Unknown well
5	⊘	Destroyed well
	★	Subject site
	○	Study area

SOURCE: TOPOI MAPS

0      1/8      1/4      1/2      1

SCALE : 1" = 1/4 MILE

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



**Vicinity / Area Well Survey Map**  
 1/2 Mile Radius

**EXPLANATION**

- MW-1 ● Monitoring well location
- MW-2 ● Monitoring well used for groundwater extraction
- T1 ▲ Tank observation well location
- SB-E ● Soil boring location (4/17/02)
- SB-A ● Geoprobe boring location (3/31/98)
- Electrical line (E)
- Storm drain line (SD)
- Sanitary sewer line (SS)
- Water line (W)
- Gas line (G)
- Telecommunication line (T)

- Groundwater flow direction
- xx.xx Groundwater elevation contour, in feet above mean sea level (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.	

- Flow direction
- Manhole
- Groundwater extraction system piping
- INF GWE system sampling location

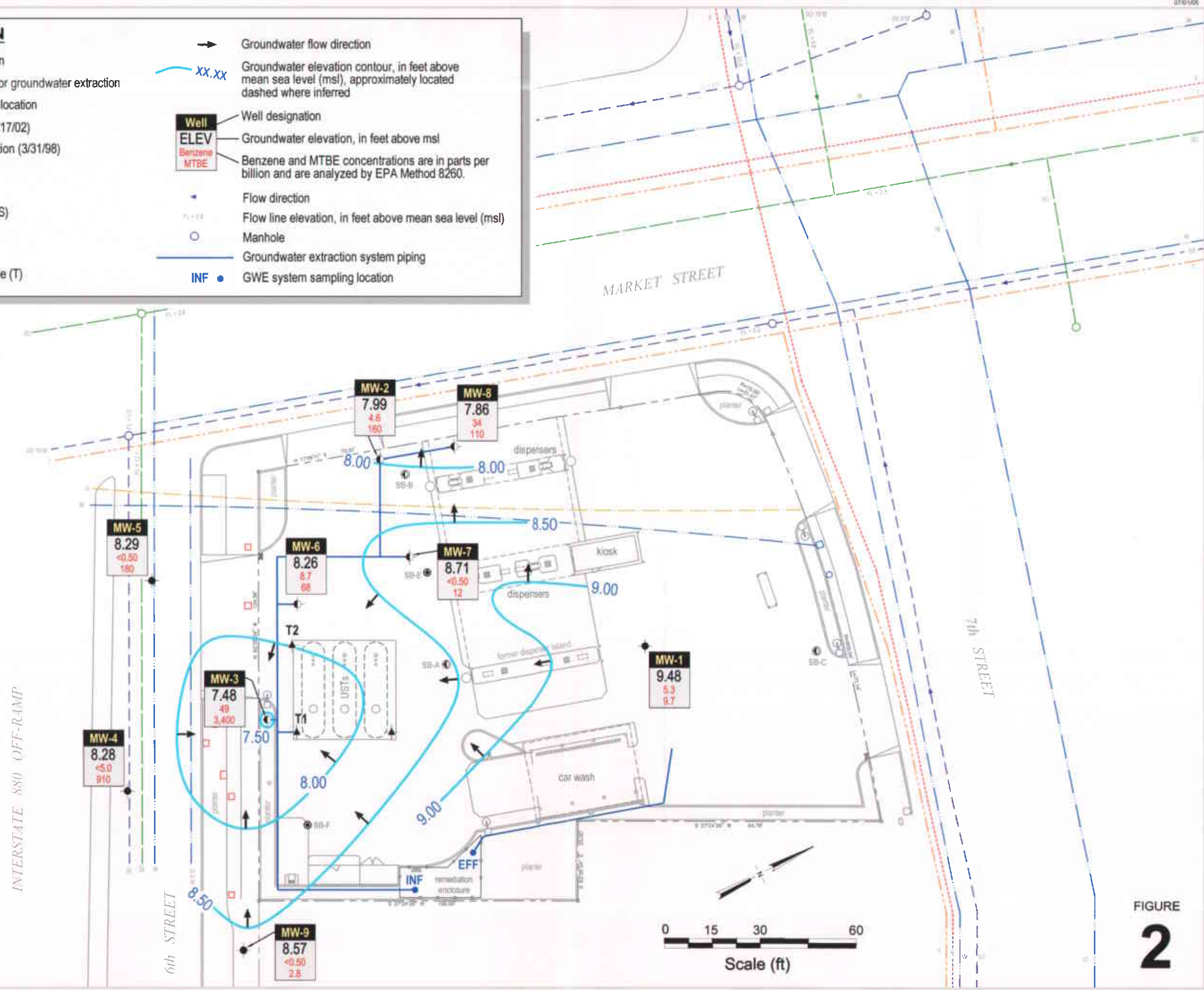


FIGURE  
**2**

Groundwater Elevation  
Contour Map



C A M B R I A

Shell-branded Service Station

610 Market Street  
Oakland, California  
Incident No. 98995750

May 18, 2005

0:30AM/ND 610 MARKET/FILED/COM/SL/05/05

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

Sample Date (mm/dd/yy)	Influent			Midfluent 1			Midfluent 2			Effluent		
	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	<0.50	<50	<0.50	<0.50
08/11/2003	<2,500	<25	4,900	<250	<2.5	280	<50	<0.50	<0.50	<50	<0.50	<0.50
08/28/2003	<2,500	<25	7,700	<100	<1.0	260	<50	<0.50	<0.50	<50	<0.50	<0.50
09/08/2003	<2,500	<25	6,600	<50	<0.50	140	<50	<0.50	<0.50	<50	<0.50	<0.50
09/22/2003	<5,000	<50	5,700	<250	<2.5	230	<50	<0.50	<0.50	<50	<0.50	<0.50
10/08/2003	<2,500	<25	3,100	<50	<0.50	140	<50	<0.50	<0.50	<50	<0.50	<0.50
10/21/2003	<5,000	<50	3,800	<250	<2.5	180	<50	<0.50	<0.50	<50	<0.50	<0.50
11/06/2003	<1,000	<10	3,500	<50	<0.50	150	<50	<0.50	<0.50	<50	<0.50	<0.50
12/05/2003	<2,000	<20	3,400	<50	<0.50	130	<50	<0.50	<0.50	<50	<0.50	<0.50
01/09/2004	<2,000	<20	2,700	<50	<0.50	210	<50	<0.50	<0.50	<50	<0.50	<0.50
02/09/2004	<250	7.8	250	<50	<0.50	180	<50	<0.50	<0.50	<50	<0.50	<0.50
03/09/2004	<250	8.6	700	<100	<1.0	270	<50	<0.50	<0.50	<50	<0.50	<0.50
04/13/2004	<1,000	<10	1,900	<250	<2.5	570	<50	<0.50	<0.50	<50	<0.50	<0.50
05/10/2004	<1,000	<10	1,600	<250	<2.5	660	<50	<0.50	<0.50	<50	<0.50	<0.50



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

Sample Date (mm/dd/yy)	Influent			Midfluent 1			Midfluent 2			Effluent		
	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)
05/28/2004	3,400	170	1,200	<50	<0.5	<0.50	<50	<0.50	<0.50	<50	<0.50	<0.50
06/09/2004	<1,000	<10	1,100	<250	<2.5	920	<50	<0.50	<0.50	<50	<0.50	<0.50
07/07/2004	<1,000	<10	1,100	<500	<5.0	1,100	<50	<0.50	<0.50	<50	<0.50	<0.50
08/03/2004	<1,000	<10	850	<500	<5.0	680	<50	<0.50	<0.50	<50	<0.50	<0.50
09/16/2004	<250	<2.5	480	<500	<5.0	920	<50	<0.50	<0.50	<50	<0.50	<0.50
10/12/2004	<50	<0.50	320	<150	<1.5	820	<50	<0.50	<0.50	<50	<0.50	<0.50
11/08/2004	<200	<2.0	400	<250	<2.5	700	<50	<0.50	<0.50	<50	<0.50	<0.50
12/02/2004	<250	<2.5	530	<500	<5.0	860	<50	<0.50	<0.50	<50	<0.50	<0.50
01/10/2005	<250	<2.5	350	<500	<5.0	880	<50	<0.50	<0.50	<50	<0.50	<0.50
02/08/2005	<250	<2.5	460	<500	<5.0	830	<50	<0.50	<0.50	<50	<0.50	<0.50
03/07/2005	310	8.9	120	<500	<5.0	850	<50	<0.50	<0.50	<50	<0.50	<0.50
04/13/2005	<250	<2.5	350	<500	<5.0	550	<50	<0.50	1.2	<50	<0.50	<0.50

**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			Benzene			MTBE		
						TPHg Conc. (ppb)	Period Removal (pounds)	Cumulative Removal (pounds)	Benzene Conc. (ppb)	Period Removal (pounds)	Cumulative Removal (pounds)	MTBE Conc. (ppb)	Period Removal (pounds)	Cumulative Removal (pounds)
02/18/03	0.0	100	0	0.00	0	<20,000	0.00000	0.00000	270	0.00000	0.00000	93,000	0.00000	0.00000
02/18/03	3.5	1,024	924	4.40	924		0.07710	0.07710		0.00208	0.00208		0.71705	0.71705
02/25/03	140.2	30,312	29,288	3.57	30,212	<20,000	2.44390	2.52100	<200	0.02444	0.02652	74,000	18.08482	18.80187
03/11/03	475.8	84,666	54,354	2.70	84,566	<10,000	2.26775	4.78874	<100	0.02268	0.04920	47,000	21.31681	40.11868
03/13/03	524.0	92,030	7,364	2.55	91,930		0.30724	5.09598		0.00307	0.05227		2.88805	43.00673
03/25/03	527.0	92,840	810	4.50	92,740	<10,000	0.03379	5.12978	<100	0.00034	0.05261	38,000	0.25684	43.26357
04/07/03	838.6	142,754	49,914	2.67	142,654	30,000	12.49501	17.62478	<250	0.05206	0.10467	33,000	13.74451	57.00807
04/14/03	985.4	165,205	22,451	2.55	165,105		5.62017	23.24496		0.02342	0.12809		6.18219	63.19027
04/22/03	1,184.1	197,360	32,155	2.70	197,260	<25,000	3.35391	26.59887	<250	0.03354	0.16163	26,000	6.97613	70.16640
04/29/03	1,305.4	216,450	19,090	2.62	216,350		1.99117	28.59004		0.01991	0.18154		4.14164	74.30804
05/01/03	1,351.3	223,850	7,400	2.69	223,750	<10,000	0.30874	28.89878	<100	0.00309	0.18463	25,000	1.54371	75.85174
05/20/03	1,783.0	291,620	67,770	2.62	291,520	<10,000	2.82749	31.72626	<100	0.02827	0.21290	17,000	9.61345	85.46519
06/03/03	2,122.1	341,643	50,023	2.46	341,543	<10,000	2.08705	33.81331	<100	0.02087	0.23377	15,000	6.26115	91.72634
06/17/03	2,456.1	388,001	46,358	2.31	387,901	<10,000	1.93414	35.74745	<100	0.01934	0.25311	17,000	6.57607	98.30241
06/30/03	2,766.0	429,880	41,879	2.25	429,780		1.74727	37.49472		0.01747	0.27059		5.94071	104.24311
07/14/03	3,095.9	473,549	43,669	2.21	473,449		1.82195	39.31667		0.01822	0.28881		6.19462	110.43774
07/28/03	3,423.7	514,826	41,277	2.10	514,726	<5,000	0.86107	40.17774	<50	0.00861	0.29742	7,100	2.44545	112.88319
08/11/03	3,761.9	545,750	30,924	1.52	545,650	<2,500	0.32255	40.50029	<25	0.00323	0.30064	4,900	1.26440	114.14759
08/28/03	4,171.0	595,525	49,775	2.03	595,425	<2,500	0.51918	41.01947	<25	0.00519	0.30583	7,700	3.19812	117.34571
09/08/03	4,435.4	626,720	31,195	1.97	626,620	<2,500	0.32538	41.34485	<25	0.00325	0.30909	6,600	1.71799	119.06371
09/22/03	4,769.9	665,449	38,729	1.93	665,349	<5,000	0.80792	42.15277	<50	0.00808	0.31717	5,700	1.84206	120.90577
10/08/03	5,084.6	701,104	35,655	1.89	701,004	<2,500	0.37190	42.52466	<25	0.00372	0.32089	3,100	0.92231	121.82807
10/21/03	5,396.7	735,644	34,540	1.84	735,544	<5,000	0.72054	43.24520	<50	0.00721	0.32809	3,800	1.09521	122.92329
11/06/03	5,785.7	778,218	42,574	1.82	778,118	<1,000	0.17763	43.42283	<10	0.00178	0.32987	3,500	1.24338	124.16667
11/19/03	6,097.1	810,223	32,005	1.71	810,123		0.13353	43.55636		0.00134	0.33120		0.93471	125.10139
12/05/03	6,481.6	849,610	39,387	1.71	849,510	<2,000	0.32866	43.88502	<20	0.00329	0.33449	3,400	1.11744	126.21883
12/23/03	6,909.0	898,595	48,985	1.91	898,495		0.40875	44.29376		0.00409	0.33858		1.38974	127.60857
01/02/04	7,057.2	917,835	19,240	2.16	917,735		0.16055	44.45431		0.00161	0.34018		0.54585	128.15443
01/09/04	7,170.7	941,766	23,931	3.51	941,666	<2,000	0.19969	44.65400	<20	0.00200	0.34218	2,700	0.53916	128.69358
01/21/04	7,461.1	986,590	44,824	2.57	986,490		0.37403	45.02803		0.00374	0.34592		1.00987	129.70346
02/09/04	7,492.3	991,309	4,719	2.52	991,209	<250	0.00492	45.03295	7.8	0.00031	0.34623	250	0.00984	129.71330
02/25/04	7,872.5	1,048,823	57,514	2.52	1,048,723		0.05999	45.09294		0.00374	0.34997		0.11998	129.83328
03/09/04	7,952.6	1,062,912	14,089	2.93	1,062,812	<250	0.01470	45.10763	8.6	0.00101	0.35098	700	0.08229	129.91558
03/23/04	8,285.6	1,117,340	54,428	2.72	1,117,240		0.05677	45.16440		0.00391	0.35489		0.31792	130.23349
04/13/04	8,792.3	1,191,229	73,889	2.43	1,191,129	<1,000	0.30828	45.47268	<10	0.00308	0.35797	1,900	1.17146	131.40495
04/29/04	9,010.2	1,221,189	29,960	2.29	1,221,089		0.12500	45.59768		0.00125	0.35922		0.47499	131.87994
05/10/04	9,273.9	1,256,838	35,649	2.25	1,256,738	<1,000	0.14873	45.74641	<10	0.00149	0.36071	1,600	0.47595	132.35589
05/25/04	9,633.5	1,299,232	42,394	1.96	1,299,132		0.17688	45.92329		0.00177	0.36248		0.56600	132.92189
05/28/04	9,633.5	1,299,232	0	0.00	1,299,132	3,400	0.00000	45.92329	170	0.00000	0.36248	1,200	0.00000	132.92189
06/09/04	9,784.0	1,317,792	18,560	2.06	1,317,692	<1,000	0.07744	46.00073	<10	0.00077	0.36325	1,100	0.17036	133.09225

**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			Benzene			MTBE		
						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)
06/22/04	10,092.7	1,353,124	35,332	1.91	1,353,024		0.14741	46.14814		0.00147	0.36472		0.32431	133.41656
07/07/04	10,452.9	1,392,516	39,392	1.82	1,392,416	<1,000	0.16435	46.31249	<10	0.00164	0.36637	1,100	0.36157	133.77813
07/22/04	10,815.9	1,431,329	38,813	1.78	1,431,229		0.16193	46.47442		0.00162	0.36799		0.35626	134.13438
08/03/04	11,101.8	1,458,993	27,664	1.61	1,458,893	<1,000	0.11542	46.58984	<10	0.00115	0.36914	850	0.19621	134.33060
08/18/04	11,462.6	1,489,829	30,836	1.42	1,489,729		0.12865	46.71849		0.00129	0.37043		0.21871	134.54931
08/31/04	11,774.4	1,509,195	19,366	1.04	1,509,095		0.08080	46.79929		0.00081	0.37124		0.13736	134.68667
09/16/04	12,158.3	1,544,659	35,464	1.54	1,544,559	<250	0.03699	46.83628	<2.5	0.00037	0.37161	480	0.14204	134.82871
09/29/04	12,454.1	1,570,554	25,895	1.46	1,570,454		0.02701	46.86329		0.00027	0.37188		0.10372	134.93243
10/12/04	12,764.9	1,596,571	26,017	1.40	1,596,471	<50	0.00543	46.86872	<0.50	0.00005	0.37193	320	0.06947	135.00190
10/29/04	13,155.1	1,629,213	32,642	1.39	1,629,113		0.00681	46.87553		0.00007	0.37200		0.08716	135.08906
11/08/04	13,396.0	1,650,078	20,865	1.44	1,649,978	<200	0.01741	46.89294	<2.0	0.00017	0.37217	400	0.06964	135.15870
11/23/04	13,753.4	1,681,329	31,251	1.46	1,681,229		0.02608	46.91902		0.00026	0.37243		0.10431	135.26301
12/02/04	13,970.7	1,699,369	18,040	1.38	1,699,269	<250	0.01882	46.93783	<2.5	0.00019	0.37262	530	0.07978	135.34279
12/13/04	14,232.5	1,722,500	23,131	1.47	1,722,400		0.02413	46.96196		0.00024	0.37286		0.10230	135.44509
12/27/04	14,569.0	1,753,347	30,847	1.53	1,753,247		0.03217	46.99414		0.00032	0.37318		0.13642	135.58151
01/10/05	14,908.0	1,791,516	38,169	1.88	1,791,416	<250	0.03981	47.03395	<2.5	0.00040	0.37358	350	0.11147	135.69298
01/24/05	15250.0 a	1,833,667	42,151	2.05	1,833,567		0.04397	47.07791		0.00044	0.37402		0.12310	135.81608
02/08/05	15610.0 a	1,877,563	43,896	2.03	1,877,463	<250	0.04579	47.12370	<2.5	0.00046	0.37448	460	0.16849	135.98457
02/22/05	977.7 b	1,905,770	28,207	1.41	1,905,670		0.02942	47.15312		0.00029	0.37477		0.10827	136.09284
03/07/05	981.5	1,906,415	645	2.83	1,906,315	310	0.00167	47.15479	8.9	0.00005	0.37482	120	0.00065	136.09349
03/21/05	1313.8	1,955,583	49,168	2.47	1,955,483		0.12719	47.28197		0.00365	0.37847		0.04923	136.14272
04/13/05	1868.6	2,040,301	84,718	2.55	2,040,201	<250	0.08836	47.37034	<2.5	0.00088	0.37936	350	0.24742	136.39014
04/26/05	2178.9	2,075,269	34,968	1.88	2,075,169		0.03647	47.40681		0.00036	0.37972		0.10212	136.49227
<b>Total Extracted Volume:</b>					<b>2,075,169</b>	<b>Total Pounds Removed:</b>		<b>47.407</b>	<b>Total Pounds Removed:</b>		<b>0.380</b>	<b>Total Pounds Removed:</b>		<b>136.492</b>
<b>Average Operational Flow Rate:</b>					<b>2.02</b>	<b>Total Gallons Removed:</b>		<b>7.783</b>	<b>Total Gallons Removed:</b>		<b>0.052</b>	<b>Total Gallons Removed:</b>		<b>22.105</b>

**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<sup>6</sup>µg) 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)<sup>-1</sup> (cc/g) x 453.6 (g/pound) x (L/1000 cc) \* (gal/3.785 L)  
 Density inputs: TPHg = 0.73 g/cc, benzene = 0.88 g/cc, MTBE = 0.74 g/cc  
 TPHg, BTEX, and MTBE analyzed by EPA Method 8260B  
 a. Hour meter value is calculated due to hour meter failure  
 b. Hour meter replaced on 2/8/05. Initial reading 645.2 hours.

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

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**BLAINE**  
**TECH SERVICES** INC.

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GROUNDWATER SAMPLING SPECIALISTS  
SINCE 1985

July 1, 2005

Denis Brown  
Shell Oil Products US  
20945 South Wilmington Avenue  
Carson, CA 90810

Second Quarter 2005 Groundwater Monitoring at  
Shell-branded Service Station  
610 Market Street  
Oakland, CA

Monitoring performed on May 18 and June 17, 2005

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Groundwater Monitoring Report **050518-PC-1 (Revised)**

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/ks

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

cc: Anni Kreml  
Cambria Environmental Technology, Inc.  
5900 Hollis Street, Suite A  
Emeryville, 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 8260 (ug/L)	DIPE (ug/L)	ETBE (ug/L)	TAME (ug/L)	TBA (ug/L)	TOC (MSL)	Depth to Water (ft.)	GW Elevation (MSL)
MW-1	12/17/1998	2,200	20	<10	110	420	NA	NA	NA	NA	NA	21.70	13.71	7.99
MW-1	03/09/1999	4,320	25.8	<10.0	338	474	NA	NA	NA	NA	NA	21.70	13.03	8.67
MW-1	06/16/1999	6,150	107	84.0	615	1,050	NA	NA	NA	NA	NA	21.70	13.82	7.88
MW-1	09/29/1999	3,440	97.3	58.7	433	578	NA	NA	NA	NA	NA	21.70	14.45	7.25
MW-1	12/22/1999	1,370	34.5	4.38	196	49.1	NA	NA	NA	NA	NA	21.70	15.39	6.31
MW-1	03/21/2000	2,550	10.3	3.36	164	312	NA	NA	NA	NA	NA	21.70	11.94	9.76
MW-1	06/20/2000	4,770	64.3	18.6	387	732	NA	NA	NA	NA	NA	21.70	13.15	8.55
MW-1	09/21/2000	7,490	350	229	690	1,490	NA	NA	NA	NA	NA	21.70	13.65	8.05
MW-1	11/30/2000	5,410	420	168	494	1,170	NA	NA	NA	NA	NA	21.70	14.20	7.50
MW-1	03/06/2001	965	25.7	9.14	13.3	9.12	NA	NA	NA	NA	NA	21.70	12.99	8.71
MW-1	06/28/2001	5,900	190	71	360	910	110	NA	NA	NA	NA	21.70	13.98	7.72
MW-1	09/12/2001	7,400	240	110	460	1,300	130	NA	NA	NA	NA	21.70	14.15	7.55
MW-1	12/12/2001	1,700	100	30	120	300	98	NA	NA	NA	NA	21.70	13.75	7.95
MW-1	03/08/2002	1,100	63	12	74	83	50	NA	NA	NA	NA	21.70	13.22	8.48
MW-1	06/06/2002	2,300	95	31	130	290	49	NA	NA	NA	NA	21.70	13.57	8.13
MW-1	09/09/2002	3,600	150	44	200	590	54	NA	NA	NA	NA	21.70	14.05	7.65
MW-1	12/12/2002	2,200	130	14	120	310	46	NA	NA	NA	NA	21.70	14.20	7.50
MW-1	02/26/2003	580	30	2.9	25	48	27	NA	NA	NA	NA	21.70	13.57	8.13
MW-1	04/15/2003	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	21.70	13.67	8.03
MW-1	06/13/2003	440	18	6.1	33	88	24	NA	NA	NA	NA	21.70	13.85	7.85
MW-1	09/26/2003	54	3.8	0.51	4.7	7.5	11	NA	NA	NA	NA	21.70	14.63	7.07
MW-1	11/24/2003	120	5.6	0.87	8.4	20	17	NA	NA	NA	NA	21.70	14.86	6.84
MW-1	03/01/2004	350	20	3.8	38	100	18	NA	NA	NA	NA	21.70	12.85	8.85
MW-1	06/15/2004	100	1.8	<0.50	2.6	6.1	15	NA	NA	NA	NA	21.70	14.27	7.43
MW-1	09/16/2004	200	20	0.75	7.8	16	27	<2.0	<2.0	<2.0	<5.0	21.70	14.60	7.10
MW-1	12/29/2004	67	1.8	<0.50	1.8	3.5	15	NA	NA	NA	NA	21.70	14.27	7.43
MW-1	02/28/2005	60	1.8	<0.50	1.9	3.6	22	NA	NA	NA	NA	21.70	12.45	9.25
MW-1	03/23/2005	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	21.70	12.50	9.20

**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 8260 (ug/L)	DIPE (ug/L)	ETBE (ug/L)	TAME (ug/L)	TBA (ug/L)	TOC (MSL)	Depth to Water (ft.)	GW Elevation (MSL)
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MW-1	05/18/2005	92	5.3	<0.50	5.4	12	9.7	NA	NA	NA	NA	21.70	12.22	9.48
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MW-2	12/17/1998	<5,000	<50	<50	<50	<50	NA	NA	NA	NA	NA	19.61	12.07	7.54
MW-2	03/09/1999	<250	5.20	<2.50	<2.50	<2.50	NA	NA	NA	NA	NA	19.61	11.46	8.15
MW-2	06/16/1999	<50.0	0.569	<0.500	<0.500	<0.500	NA	NA	NA	NA	NA	19.61	12.26	7.35
MW-2	09/29/1999	58.6	2.51	0.978	<0.500	<0.500	NA	NA	NA	NA	NA	19.61	12.51	7.10
MW-2	12/22/1999	<2,000	50.4	<20.0	<20.0	<20.0	NA	NA	NA	NA	NA	19.61	13.40	6.21
MW-2	03/21/2000	<5,000	94.7	<50.0	<50.0	<50.0	NA	NA	NA	NA	NA	19.61	10.36	9.25
MW-2	06/20/2000	101	5.95	<0.500	<0.500	0.552	NA	NA	NA	NA	NA	19.61	11.12	8.49
MW-2	09/21/2000	<2,000	<20.0	<20.0	<20.0	<20.0	NA	NA	NA	NA	NA	19.61	11.95	7.66
MW-2	11/30/2000	81.1	4.46	0.924	0.841	3.23	NA	NA	NA	NA	NA	19.61	12.48	7.13
MW-2	03/06/2001	<500	183	<5.00	<5.00	<5.00	NA	NA	NA	NA	NA	19.61	11.10	8.51
MW-2	06/28/2001	<1,000	<10	<10	<10	<10	4,200	NA	NA	NA	NA	19.61	12.40	7.21
MW-2	09/12/2001	<2,000	120	<20	<20	<20	17,000	NA	NA	NA	NA	19.61	12.45	7.16
MW-2	12/12/2001	<1,000	<10	<10	<10	<10	3,000	NA	NA	NA	NA	19.61	12.14	7.47
MW-2	03/08/2002	<250	<2.5	<2.5	<2.5	<2.5	1,100	NA	NA	NA	NA	19.61	11.68	7.93
MW-2	06/06/2002	<500	<5.0	<5.0	<5.0	<5.0	2,000	NA	NA	NA	NA	19.61	11.95	7.66
MW-2	09/09/2002	<200	<2.0	<2.0	<2.0	<2.0	740	NA	NA	NA	NA	19.62	12.38	7.24
MW-2	12/12/2002	<200	<2.0	<2.0	<2.0	<2.0	1,000	NA	NA	NA	NA	19.62	12.40	7.22
MW-2	02/26/2003	<500	<5.0	<5.0	<5.0	<5.0	1,600	NA	NA	NA	NA	19.62	12.69	6.93
MW-2	04/15/2003	NA	NA	NA	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	790	NA	NA	NA	NA	19.62	12.65	6.97
MW-2	09/26/2003	<250	<2.5	<2.5	<2.5	<5.0	250	NA	NA	NA	NA	18.20	12.95	5.25
MW-2	11/24/2003	<50	<0.50	<0.50	<0.50	<1.0	87	NA	NA	NA	NA	18.20	12.89	5.31
MW-2	03/01/2004	<50	<0.50	<0.50	<0.50	<1.0	35	NA	NA	NA	NA	18.20	10.08	8.12
MW-2	06/15/2004	66 b	<0.50	<0.50	<0.50	<1.0	110	NA	NA	NA	NA	18.20	12.85	5.35
MW-2	09/16/2004	<50	<0.50	<0.50	<0.50	<1.0	26	<2.0	<2.0	<2.0	<5.0	18.20	12.00	6.20
MW-2	12/29/2004	<50	<0.50	0.73	<0.50	<1.0	43	NA	NA	NA	NA	18.20	11.60	6.60



**WELL CONCENTRATIONS**  
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MW-2	02/28/2005	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	18.20	9.71	8.49
MW-2	03/23/2005	340 f	3.9	<2.0	<2.0	<4.0	370	NA	NA	NA	NA	18.20	10.10	8.10
<b>MW-2</b>	<b>05/18/2005</b>	<b>&lt;100</b>	<b>4.6</b>	<b>&lt;1.0</b>	<b>&lt;1.0</b>	<b>3.3</b>	<b>160</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>18.20</b>	<b>10.21</b>	<b>7.99</b>
MW-3	12/17/1998	30,000	890	110	2,100	4,300	43,000	NA	NA	NA	NA	19.05	11.65	7.40
MW-3	03/09/1999	22,700	536	<200	1,030	1,510	38,500	NA	NA	NA	NA	19.05	11.03	8.02
MW-3	06/16/1999	19,300	625	129	805	1,210	51,600	NA	NA	NA	NA	19.05	11.89	7.16
MW-3	09/29/1999	20,200	727	155	1,000	1,180	136,000a	NA	NA	NA	NA	19.05	12.35	6.70
MW-3	12/22/1999	44,500	767	64.4	1,810	2,090	186,000a	NA	NA	NA	NA	19.05	13.45	5.60
MW-3	03/21/2000	<25,000	466	<250	727	2,280	155,000	NA	NA	NA	NA	19.05	10.00	9.05
MW-3	06/20/2000	16,200	1,140	98.8	1,140	1,410	376,000a	NA	NA	NA	NA	19.05	11.15	7.90
MW-3	09/21/2000	<50,000	712	<500	520	795	298,000	NA	NA	NA	NA	19.05	11.58	7.47
MW-3	11/30/2000	18,000	1,050	124	1,120	2,010	403,000a	NA	NA	NA	NA	19.05	12.10	6.95
MW-3	03/06/2001	19,900	1,290	115	1,450	1,760	149,000	NA	NA	NA	NA	19.05	11.00	8.05
MW-3	06/28/2001	<50,000	1,200	<250	1,100	1,300	610,000	NA	NA	NA	NA	19.05	11.96	7.09
MW-3	09/12/2001	<20,000	430	<200	230	480	390,000	NA	NA	NA	NA	19.05	12.05	7.00
MW-3	10/23/2001	11,000	350	<100	210	440	290,000	NA	NA	NA	NA	19.05	12.62	6.43
MW-3	12/12/2001	<20,000	280	<200	<200	<200	160,000	NA	NA	NA	NA	19.05	11.83	7.22
MW-3	03/08/2002	<20,000	270	<200	<200	<200	340,000	NA	NA	NA	NA	19.05	11.26	7.79
MW-3	06/06/2002	<50,000	290	<250	<250	<250	290,000	NA	NA	NA	NA	19.05	11.50	7.55
MW-3	09/09/2002	<20,000	<200	<200	<200	<200	230,000	NA	NA	NA	NA	19.06	11.92	7.14
MW-3	12/12/2002	<50,000	<200	<200	<200	<500	190,000	NA	NA	NA	NA	19.06	10.95	8.11
MW-3	02/26/2003	<25,000	<250	<250	<250	<250	210,000	NA	NA	NA	NA	19.06	15.01	4.05
MW-3	04/15/2003	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	19.06	15.12	3.94
MW-3	06/13/2003	<25,000	<250	<250	<250	<500	27,000	NA	NA	NA	NA	19.06	15.25	3.81
MW-3	09/26/2003	<10,000	<100	<100	<100	<200	15,000	NA	NA	NA	NA	18.08	16.65 c	NA
MW-3	11/24/2003	<10,000	<100	<100	<100	<200	9,900	NA	NA	NA	NA	18.08	15.13	2.95
MW-3	03/01/2004	<10,000	<100	<100	<100	<200	8,000	NA	NA	NA	NA	18.08	9.97	8.11

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Well ID	Date	TPPH (ug/L)	B (ug/L)	T (ug/L)	E (ug/L)	X (ug/L)	MTBE 8260 (ug/L)	DIPE (ug/L)	ETBE (ug/L)	TAME (ug/L)	TBA (ug/L)	TOC (MSL)	Depth to Water (ft.)	GW Elevation (MSL)
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MW-3	06/15/2004	<10,000	<100	<100	<100	<200	6,900	NA	NA	NA	NA	18.08	15.05	3.03
MW-3	09/16/2004	<500	<5.0	<5.0	<5.0	<10	1,000	<20	<20	<20	75	18.08	14.70	3.38
MW-3	12/29/2004	<250	2.8	<2.5	<2.5	<5.0	580	NA	NA	NA	NA	18.08	14.83	3.25
MW-3	02/28/2005	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	18.08	9.60	8.48
MW-3	03/23/2005	<1,000	<10	<10	<10	<20	1,500	NA	NA	NA	NA	18.08	12.68	5.40
<b>MW-3</b>	<b>05/18/2005</b>	<b>1,200</b>	<b>49</b>	<b>&lt;10</b>	<b>47</b>	<b>&lt;20</b>	<b>3,400</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>18.08</b>	<b>10.60</b>	<b>7.48</b>

MW-4	05/13/2002	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	10.64	NA
MW-4	05/20/2002	<1,000	<10	<10	<10	<10	4,600	NA	NA	NA	NA	NA	10.64	NA
MW-4	06/06/2002	<1,000	<10	<10	<10	<10	4,800	NA	NA	NA	NA	NA	10.61	NA
MW-4	09/09/2002	Unable to sample			NA	NA	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	1,000	NA	NA	NA	NA	18.03	11.15	6.88
MW-4	12/12/2002	<100	<1.0	<1.0	<1.0	<1.0	370	NA	NA	NA	NA	18.03	11.13	6.90
MW-4	02/26/2003	<50	<0.50	<0.50	<0.50	<0.50	<5.0	NA	NA	NA	NA	18.03	10.61	7.42
MW-4	04/15/2003	NA	NA	NA	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	2.3	NA	NA	NA	NA	18.03	10.88	7.15
MW-4	09/26/2003	<5,000	<50	<50	<50	<100	13,000	NA	NA	NA	NA	18.03	11.58	6.45
MW-4	11/24/2003	<13,000	<130	<130	<130	<250	11,000	NA	NA	NA	NA	18.03	11.78	6.25
MW-4	03/01/2004	<50	<0.50	<0.50	<0.50	<1.0	<0.50	NA	NA	NA	NA	18.03	9.47	8.56
MW-4	06/15/2004	<500	<5.0	<5.0	<5.0	<10	630	NA	NA	NA	NA	18.03	11.38	6.65
MW-4	09/16/2004	<100	<1.0	12	<1.0	<2.0	280	<4.0	<4.0	<4.0	280	18.03	11.80	6.23
MW-4	12/29/2004	<50	<0.50	<0.50	<0.50	<1.0	<0.50	NA	NA	NA	NA	18.03	10.63	7.40
MW-4	02/28/2005	<50	<0.50	<0.50	<0.50	<1.0	<0.50	NA	NA	NA	NA	18.03	9.20	8.83
MW-4	03/23/2005	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	18.03	9.43	8.60
<b>MW-4</b>	<b>05/18/2005</b>	<b>1,900</b>	<b>&lt;5.0</b>	<b>&lt;5.0</b>	<b>16</b>	<b>97</b>	<b>910</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>18.03</b>	<b>9.75</b>	<b>8.28</b>

MW-5	05/13/2002	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	10.40	NA
MW-5	05/20/2002	<2,500	<25	<25	<25	<25	17,000	NA	NA	NA	NA	NA	10.41	NA

**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 8260 (ug/L)	DIPE (ug/L)	ETBE (ug/L)	TAME (ug/L)	TBA (ug/L)	TOC (MSL)	Depth to Water (ft.)	GW Elevation (MSL)
MW-5	06/06/2002	<5,000	<50	<50	<50	<50	15,000	NA	NA	NA	NA	NA	10.36	NA
MW-5	09/09/2002	Unable to sample		NA	NA	NA	NA	NA	NA	NA	NA	17.78	10.82	6.96
MW-5	09/18/2002	<2,500	<25	<25	<25	<25	16,000	NA	NA	NA	NA	17.78	10.81	6.97
MW-5	12/12/2002	<2,500	<25	<25	<25	<25	13,000	NA	NA	NA	NA	17.78	10.83	6.95
MW-5	02/26/2003	<2,000	<20	<20	<20	<20	7,500	NA	NA	NA	NA	17.78	10.57	7.21
MW-5	04/15/2003	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	17.78	10.69	7.09
MW-5	06/13/2003	<2,500	<25	<25	<25	<50	4,400	NA	NA	NA	NA	17.78	10.82	6.96
MW-5	09/26/2003	<2,500	<25	<25	<25	<50	4,700	NA	NA	NA	NA	17.78	11.49	6.29
MW-5	11/24/2003	<10,000	<100	<100	<100	<200	7,100	NA	NA	NA	NA	17.78	11.70	6.08
MW-5	03/01/2004	<2,000	<20	<20	<20	<40	2,800	NA	NA	NA	NA	17.78	9.68	8.10
MW-5	06/15/2004	<2,000	<20	<20	<20	<40	2,100	NA	NA	NA	NA	17.78	11.28	6.50
MW-5	09/16/2004	<2,000	<20	<20	<20	<40	2,200	<80	<80	<80	2,800	17.78	11.62	6.16
MW-5	12/29/2004	<2,000	<20	<20	<20	<40	3,700	NA	NA	NA	NA	17.78	11.11	6.67
MW-5	02/28/2005	<200	<2.0	<2.0	<2.0	<4.0	740	NA	NA	NA	NA	17.78	9.50	8.28
MW-5	03/23/2005	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	17.78	9.70	8.08
MW-5	05/18/2005	<50 g	<0.50	<0.50	<0.50	<1.0	180	NA	NA	NA	NA	17.78	9.49	8.29
MW-5	06/17/2005	NA	NA	NA	NA	NA	270	NA	NA	NA	NA	17.78	9.89	7.89

MW-6	03/28/2003	Well inaccessible		NA	NA	NA	NA	NA	NA	NA	NA	18.10	NA	NA
MW-6	04/07/2003	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	18.10	13.80	4.30
MW-6	04/15/2003	14,000	<250	<250	<250	<500	41,000	NA	NA	NA	NA	18.10	15.05	3.05
MW-6	06/13/2003	<10,000	<100	<100	<100	<200	27,000	NA	NA	NA	NA	18.10	14.42	3.68
MW-6	09/26/2003	<5,000	<50	<50	<50	<100	11,000	NA	NA	NA	NA	18.05	18.35 c	NA
MW-6	11/24/2003	<10,000	<100	<100	<100	<200	5,000	NA	NA	NA	NA	18.05	14.68	3.37
MW-6	03/01/2004	<1,000	<10	<10	<10	<20	2,500	NA	NA	NA	NA	18.05	9.84	8.21
MW-6	06/15/2004	<1,000	<10	<10	<10	<20	2,800	NA	NA	NA	NA	18.05	14.82	3.23
MW-6	09/16/2004	<1,000	<10	<10	<10	<20	830	<40	<40	<40	610	18.05	14.20	3.85
MW-6	12/29/2004	<200	<2.0	<2.0	<2.0	<4.0	530	NA	NA	NA	NA	18.05	14.78	3.27

**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 8260 (ug/L)	DIPE (ug/L)	ETBE (ug/L)	TAME (ug/L)	TBA (ug/L)	TOC (MSL)	Depth to Water (ft.)	GW Elevation (MSL)
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MW-6	02/28/2005	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	18.05	9.58	8.47
MW-6	03/23/2005	290 f	<2.0	<2.0	<2.0	<4.0	590	NA	NA	NA	NA	18.05	14.22	3.83
<b>MW-6</b>	<b>05/18/2005</b>	<b>390</b>	<b>8.7</b>	<b>&lt;0.50</b>	<b>0.93</b>	<b>9.0</b>	<b>68</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>18.05</b>	<b>9.79</b>	<b>8.26</b>

MW-7	03/28/2003	Well inaccessible		NA	NA	NA	NA	NA	NA	NA	NA	19.16	NA	NA
MW-7	04/07/2003	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	19.16	13.85	5.31
MW-7	04/15/2003	6,000	<100	<100	<100	<200	19,000	NA	NA	NA	NA	19.16	13.95	5.21
MW-7	06/13/2003	<5,000	<50	<50	<50	<100	5,700	NA	NA	NA	NA	19.16	13.92	5.24
MW-7	09/26/2003	<250	<2.5	<2.5	<2.5	<5.0	110	NA	NA	NA	NA	19.13	13.85	5.28
MW-7	11/24/2003	<50	<0.50	0.59	<0.50	1.7	7.6	NA	NA	NA	NA	19.13	13.99	5.14
MW-7	03/01/2004	67 b	<0.50	<0.50	<0.50	<1.0	120	NA	NA	NA	NA	19.13	10.85	8.28
MW-7	06/15/2004	120 b	<0.50	<0.50	<0.50	<1.0	89	NA	NA	NA	NA	19.13	13.27	5.86
MW-7	09/16/2004	<500	<5.0	<5.0	<5.0	<10	130	<20	<20	<20	4,700	19.13	12.83	6.30
MW-7	12/29/2004	<500	<5.0	<5.0	<5.0	<10	130	NA	NA	NA	NA	19.13	11.82	7.31
MW-7	02/28/2005	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	19.13	10.59	8.54
MW-7	03/23/2005	<1,000	<10	<10	<10	<20	16	NA	NA	NA	NA	19.13	11.16	7.97
<b>MW-7</b>	<b>05/18/2005</b>	<b>67 g</b>	<b>&lt;0.50</b>	<b>&lt;0.50</b>	<b>&lt;0.50</b>	<b>&lt;1.0</b>	<b>12</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>19.13</b>	<b>10.42</b>	<b>8.71</b>

MW-8	03/28/2003	Well inaccessible		NA	NA	NA	NA	NA	NA	NA	NA	18.72	NA	NA
MW-8	04/07/2003	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	18.72	14.13	4.59
MW-8	04/15/2003	890	29	22	15	71	430	NA	NA	NA	NA	18.72	14.10	4.62
MW-8	06/13/2003	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	18.72	13.94	4.78
MW-8	09/26/2003	<250	55	51	33	140	330	NA	NA	NA	NA	18.71	14.21	4.50
MW-8	11/24/2003	<5,000	<50	<50	<50	<100	5,600	NA	NA	NA	NA	18.71	14.16	4.55
MW-8	03/01/2004	<50	<0.50	<0.50	<0.50	<1.0	12	NA	NA	NA	NA	18.71	10.34	8.37
MW-8	06/15/2004	2,800	170	240	140	560	440	NA	NA	NA	NA	18.71	13.88	4.83
MW-8	09/16/2004	2,500	180	200	120	490	480	<10	<10	<10	260	18.71	13.92	4.79
MW-8	12/29/2004	4,400	360	600	280	1,400	690	NA	NA	NA	NA	18.71	13.44	5.27

**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 8260 (ug/L)	DIPE (ug/L)	ETBE (ug/L)	TAME (ug/L)	TBA (ug/L)	TOC (MSL)	Depth to Water (ft.)	GW Elevation (MSL)
MW-8	02/28/2005	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	18.71	10.15	8.56
MW-8	03/23/2005	2,800	120	190	110	420	300	NA	NA	NA	NA	18.71	13.79	4.92
<b>MW-8</b>	<b>05/18/2005</b>	<b>250</b>	<b>34</b>	<b>3.4</b>	<b>6.6</b>	<b>27</b>	<b>110</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>18.71</b>	<b>10.85</b>	<b>7.86</b>
MW-9	03/28/2003	NA	NA	NA	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	37	NA	NA	NA	NA	18.78	11.24	7.54
MW-9	06/13/2003	290 b	<0.50	<0.50	<0.50	2.6	34	NA	NA	NA	NA	18.78	11.39	7.39
MW-9	09/26/2003	540 b	<0.50	<0.50	<0.50	9.2	21	NA	NA	NA	NA	18.78	12.12	6.66
MW-9	11/24/2003	650 d	<0.50	<0.50	<0.50	6.3	14	NA	NA	NA	NA	18.78	12.30	6.48
MW-9	03/01/2004	230 d	<0.50	<0.50	<0.50	1.7	7.7	NA	NA	NA	NA	18.78	10.45	8.33
MW-9	06/15/2004	280	<0.50	<0.50	<0.50	1.9	8.3	NA	NA	NA	NA	18.78	11.88	6.90
MW-9	09/16/2004	260	<0.50	<0.50	<0.50	1.5	3.9	<2.0	<2.0	<2.0	<5.0	18.78	12.26	6.52
MW-9	12/29/2004	220	<0.50	<0.50	<0.50	1.2	3.5	NA	NA	NA	NA	18.78	11.76	7.02
MW-9	02/28/2005	140 g	<0.50	<0.50	<0.50	<1.0	1.5	NA	NA	NA	NA	18.78	10.21	8.57
MW-9	03/23/2005	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	18.78	10.14	8.64
<b>MW-9</b>	<b>05/18/2005</b>	<b>210 g</b>	<b>&lt;0.50</b>	<b>&lt;0.50</b>	<b>&lt;0.50</b>	<b>&lt;1.0</b>	<b>2.8</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>18.78</b>	<b>10.21</b>	<b>8.57</b>

**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 8260 (ug/L)	DIPE (ug/L)	ETBE (ug/L)	TAME (ug/L)	TBA (ug/L)	TOC (MSL)	Depth to Water (ft.)	GW Elevation (MSL)
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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

DIPE = Di-isopropyl ether, analyzed by EPA Method 8260B

ETBE = Ethyl tertiary butyl ether, analyzed by EPA Method 8260B

TAME = Tertiary amyl methyl ether, analyzed by EPA Method 8260B

TBA = Tertiary butyl alcohol, analyzed by EPA Method 8260B

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 laboratory standard.

c = Measurement is depth to top of pump; unable to reach water with sounder.

d = Sample contains discrete peaks in addition to gasoline.

f = Quantity of unknown hydrocarbon(s) in sample based on gasoline.

g = The concentration reported reflects individual or discrete unidentified peaks not matching a typical fuel pattern.

Wells MW-1, MW-2, and MW-3 surveyed December 9, 1998 by Virgil Chavez Land Surveying of Vallejo, CA.

Wells MW-6 through MW-9 surveyed April 10, 2003 by Virgil Chavez Land Surveying of Vallejo, CA.

Wells MW-2, MW-3, MW-6, MW-7, and MW-8 surveyed September 23, 2003 by Virgil Chavez Land Surveying of Vallejo, CA.

**Blaine Tech Services, Inc.**

July 01, 2005

1680 Rogers Avenue  
San Jose, CA 95112-1105  
Attn.: Leon Gearhart  
Project#: 050617-MT2  
Project: 98995750  
Site: 610 Market Street, Oakland

Dear Mr. Gearhart,

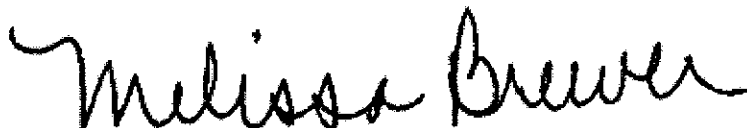
Attached is our report for your samples received on 06/20/2005 14:35  
This report has been reviewed and approved for release. Reproduction of this report  
is permitted only in its entirety.

Please note that any unused portion of the samples will be discarded after  
08/04/2005 unless you have requested otherwise.

We appreciate the opportunity to be of service to you. If you have any questions,

You can also contact me via email. My email address is: [mbrewer@stl-inc.com](mailto:mbrewer@stl-inc.com)

Sincerely,



Melissa Brewer  
Project Manager

**Gas/BTEX Fuel Oxygenates 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: 050617-MT2

98995750

Received: 06/20/2005 14:35

Site: 610 Market Street, Oakland

**Samples Reported**

Sample Name	Date Sampled	Matrix	Lab #
MW-5	06/17/2005 14:10	Water	1



**Gas/BTEX Fuel Oxygenates 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: 050617-MT2  
98995750

Received: 06/20/2005 14:35

Site: 610 Market Street, Oakland

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Prep(s): 5030B	Test(s): 8260B
Sample ID: <b>MW-5</b>	Lab ID: 2005-06-0571 - 1
Sampled: 06/17/2005 14:10	Extracted: 6/28/2005 20:17
Matrix: Water	QC Batch#: 2005/06/28-1C.65
Analysis Flag: L2, pH: <2 ( See Legend and Note Section )	

Compound	Conc.	RL	Unit	Dilution	Analyzed	Flag
Methyl tert-butyl ether (MTBE)	270	2.0	ug/L	4.00	06/28/2005 20:17	
<i><b>Surrogate(s)</b></i>						
1,2-Dichloroethane-d4	101.3	73-130	%	4.00	06/28/2005 20:17	
Toluene-d8	105.0	81-114	%	4.00	06/28/2005 20:17	

**Gas/BTEX Fuel Oxygenates 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: 050617-MT2  
98995750

Received: 06/20/2005 14:35

Site: 610 Market Street, Oakland

**Batch QC Report**

Prep(s): 5030B

**Method Blank**

MB: 2005/06/28-1C.65-045

**Water**

Test(s): 8260B

**QC Batch # 2005/06/28-1C.65**

Date Extracted: 06/28/2005 18:26

Compound	Conc.	RL	Unit	Analyzed	Flag
Methyl tert-butyl ether (MTBE)	ND	0.5	ug/L	06/28/2005 18:26	
<b>Surrogates(s)</b>					
1,2-Dichloroethane-d4	82.6	73-130	%	06/28/2005 18:26	
Toluene-d8	84.0	81-114	%	06/28/2005 18:26	

**Gas/BTEX Fuel Oxygenates 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: 050617-MT2  
98995750

Received: 06/20/2005 14:35

Site: 610 Market Street, Oakland

**Batch QC Report**

Prep(s): 5030B

Test(s): 8260B

**Laboratory Control Spike**

**Water**

**QC Batch # 2005/06/28-1C.65**

LCS 2005/06/28-1C.65-046

Extracted: 06/28/2005

Analyzed: 06/28/2005 18:00

LCSD

Compound	Conc. ug/L		Exp.Conc.	Recovery %		RPD	Ctrl.Limits %		Flags	
	LCS	LCSD		LCS	LCSD		%	Rec.	RPD	LCS
Methyl tert-butyl ether (MTBE)	26.4		100	105.6			65-165	20		
<b>Surrogates(s)</b>										
1,2-Dichloroethane-d4	451		500	90.2			73-130			
Toluene-d8	532		500	106.4			81-114			

**Gas/BTEX Fuel Oxygenates 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: 050617-MT2

98995750

Received: 06/20/2005 14:35

Site: 610 Market Street, Oakland

**Batch QC Report**

Prep(s): 5030B

Test(s): 8260B

**Matrix Spike ( MS / MSD )**

**Water**

**QC Batch # 2005/06/28-1C.65**

MW-5 >> MS

Lab ID: 2005-06-0571 - 001

MS: 2005/06/28-1C.65-044

Extracted: 06/28/2005

Analyzed: 06/28/2005 20:44

Dilution: 4.00

MSD: 2005/06/28-1C.65-010

Extracted: 06/28/2005

Analyzed: 06/28/2005 21:10

Dilution: 4.00

Compound	Conc. ug/L			Spk.Level	Recovery %			Limits %		Flags	
	MS	MSD	Sample	ug/L	MS	MSD	RPD	Rec.	RPD	MS	MSD
Methyl tert-butyl ether	371	274	273	100	98.0	1.0	196.	65-165	20		M5
<i>Surrogate(s)</i>											
1,2-Dichloroethane-d4	463	452		500	92.5	90.4		73-130			
Toluene-d8	502	472		500	100.4	94.4		81-114			

**Gas/BTEX Fuel Oxygenates 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: 050617-MT2

98995750

Received: 06/20/2005 14:35

Site: 610 Market Street, Oakland

---

**Legend and Notes**

---

**Analysis Flag**

L2

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

**Result Flag**

M5

MS/MSD spike recoveries were below acceptance limits. See blank spike (LCS).

SNELL CHAIN OF CUSTODY RECORD

116747

Lab Identification (if necessary):

Address:

City, State, Zip:

Shell Project Manager to be involved:

- SCIENCE & ENGINEERING
- TECHNICAL SERVICES
- CRM/HOUSTON

Denis Brown

2005-06-0571

INCIDENT NUMBER (S&E ONLY)

9 8 9 9 5 7 5 0

SAP or CRMT NUMBER (TS/CRMT)

DATE

6/17/05

PAGE

1 of 1

SAMPLER COMPANY: <b>Blaine Tech Services</b>		LOG CODE: <b>BTSS</b>	SITE ADDRESS (Street and City): <b>610 Market Street, Oakland</b>		GLOBAL ID NO.: <b>T0600102121</b>
ADDRESS: <b>1680 Rogers Avenue, San Jose, CA 95112</b>			EDF DELIVERABLE TO (Responsible Party or Designer): <b>Anni Kreni</b>		PHONE NO.: <b>510-420-3335</b>
PROJECT CONTACT (Priority is PDF Request): <b>Leon Guarhart</b>			EMAIL: <b>ShellOaklandEDF@cambria-env.com</b>		CONTRACT PROJECT NO: <b>D500017-1M12</b>
TELEPHONE: <b>408-573-0555</b>	FAX: <b>408-573-7771</b>	EMAIL: <b>lguarhart@blainetech.com</b>		LAB USE ONLY	

Mike Toll

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

LA - RWQCE REPORT FORMAT  LIST AGENCY:

GCMS MTBE CONFIRMATION: HIGHEST \_\_\_\_\_ HIGHEST per BORING \_\_\_\_\_ ALL \_\_\_\_\_

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

REQUESTED ANALYSIS

Field Sample Identification	TPH - Gas, Purgeable	BTEX	MTBE (0021B - 5ppb RL)	MTBE (0260B - 0.5ppb RL)	Oxygenates (S) by (0260B)	Ethanol (0260B)	Methanol	1,2-DCA (0260B)	EDB (0260B)	TPH - Diesel, Extractable (8015m)	FIELD NOTES: Container/Preservative or PID Readings or Laboratory Notes
HW-5			X								TEMPERATURE ON RECEIPT °C A

LAB USE ONLY	SAMPLING		MATRIX	NO. OF CONT.	TPH - Gas, Purgeable	BTEX	MTBE (0021B - 5ppb RL)	MTBE (0260B - 0.5ppb RL)	Oxygenates (S) by (0260B)	Ethanol (0260B)	Methanol	1,2-DCA (0260B)	EDB (0260B)	TPH - Diesel, Extractable (8015m)	FIELD NOTES
	DATE	TIME													
	6/17/05	1400	W	3			X								

Retrieved by: (Signature) <i>[Signature]</i>			Retrieved by: (Signature) <i>[Signature]</i>			Date: 6/20/05	Date: 6/20/05
Retrieved by: (Signature) <i>[Signature]</i>			Retrieved by: (Signature) <i>[Signature]</i>			Date: 6/20/05	Date: 6/20/05
Retrieved by: (Signature) <i>[Signature]</i>			Retrieved by: (Signature) <i>[Signature]</i>			Date: 6/20/05	Date: 6/20/05

S&E Form No. 7-1 (REV. 01/04)

**Blaine Tech Services, Inc.**

June 01, 2005

1680 Rogers Avenue  
San Jose, CA 95112-1105  
Attn.: Leon Gearhart  
Project#: 050518-PC1  
Project: 98995750  
Site: 610 Market Street, Oakland

Dear Mr.Gearhart,

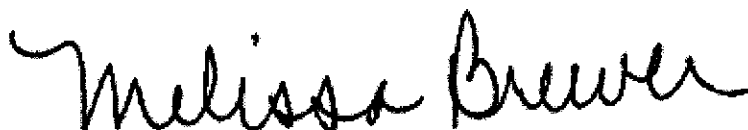
Attached is our report for your samples received on 05/19/2005 13:14  
This report has been reviewed and approved for release. Reproduction of this report  
is permitted only in its entirety.

Please note that any unused portion of the samples will be discarded after  
07/03/2005 unless you have requested otherwise.

We appreciate the opportunity to be of service to you. If you have any questions,

You can also contact me via email. My email address is: [mbrewer@stl-inc.com](mailto:mbrewer@stl-inc.com)

Sincerely,



Melissa Brewer  
Project Manager

**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: 050518-PC1

98995750

Received: 05/19/2005 13:14

Site: 610 Market Street, Oakland

**Samples Reported**

Sample Name	Date Sampled	Matrix	Lab #
MW-1	05/18/2005 11:14	Water	1
MW-2	05/18/2005 09:20	Water	2
MW-3	05/18/2005 09:00	Water	3
MW-4	05/18/2005 10:15	Water	4
MW-5	05/18/2005 10:54	Water	5
MW-6	05/18/2005 08:20	Water	6
MW-7	05/18/2005 09:05	Water	7
MW-8	05/18/2005 09:28	Water	8
MW-9	05/18/2005 09:58	Water	9



**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: 050518-PC1  
98995750

Received: 05/19/2005 13:14

Site: 610 Market Street, Oakland

Prep(s): 5030B	Test(s): 8260B
Sample ID: <b>MW-1</b>	Lab ID: 2005-05-0587 - 1
Sampled: 05/18/2005 11:14	Extracted: 5/26/2005 09:05
Matrix: Water	QC Batch#: 2005/05/26-1D.64

Compound	Conc.	RL	Unit	Dilution	Analyzed	Flag
Gasoline [Shell]	92	50	ug/L	1.00	05/26/2005 09:05	
Benzene	5.3	0.50	ug/L	1.00	05/26/2005 09:05	
Toluene	ND	0.50	ug/L	1.00	05/26/2005 09:05	
Ethylbenzene	5.4	0.50	ug/L	1.00	05/26/2005 09:05	
Total xylenes	12	1.0	ug/L	1.00	05/26/2005 09:05	
Methyl tert-butyl ether (MTBE)	9.7	0.50	ug/L	1.00	05/26/2005 09:05	
<b>Surrogate(s)</b>						
1,2-Dichloroethane-d4	88.1	73-130	%	1.00	05/26/2005 09:05	
Toluene-d8	99.6	81-114	%	1.00	05/26/2005 09:05	

**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: 050518-PC1  
98995750

Received: 05/19/2005 13:14

Site: 610 Market Street, Oakland

Prep(s): 5030B Test(s): 8260B  
Sample ID: **MW-2** Lab ID: 2005-05-0587 - 2  
Sampled: 05/18/2005 09:20 Extracted: 5/28/2005 00:59  
Matrix: Water QC Batch#: 2005/05/27-2B.62  
Analysis Flag: L2, pH: <2 ( See Legend and Note Section )

Compound	Conc.	RL	Unit	Dilution	Analyzed	Flag
Gasoline [Shell]	ND	100	ug/L	2.00	05/28/2005 00:59	
Benzene	4.6	1.0	ug/L	2.00	05/28/2005 00:59	
Toluene	ND	1.0	ug/L	2.00	05/28/2005 00:59	
Ethylbenzene	ND	1.0	ug/L	2.00	05/28/2005 00:59	
Total xylenes	3.3	2.0	ug/L	2.00	05/28/2005 00:59	
Methyl tert-butyl ether (MTBE)	160	1.0	ug/L	2.00	05/28/2005 00:59	
<b>Surrogate(s)</b>						
1,2-Dichloroethane-d4	112.5	73-130	%	2.00	05/28/2005 00:59	
Toluene-d8	101.6	81-114	%	2.00	05/28/2005 00:59	

**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: 050518-PC1

98995750

Received: 05/19/2005 13:14

Site: 610 Market Street, Oakland

Prep(s):	5030B	Test(s):	8260B
Sample ID:	<b>MW-3</b>	Lab ID:	2005-05-0587 - 3
Sampled:	05/18/2005 09:00	Extracted:	5/26/2005 10:41
Matrix:	Water	QC Batch#:	2005/05/26-1D.64
Analysis Flag: L2 ( See Legend and Note Section )			

Compound	Conc.	RL	Unit	Dilution	Analyzed	Flag
Gasoline [Shell]	1200	1000	ug/L	20.00	05/26/2005 10:41	
Benzene	49	10	ug/L	20.00	05/26/2005 10:41	
Toluene	ND	10	ug/L	20.00	05/26/2005 10:41	
Ethylbenzene	47	10	ug/L	20.00	05/26/2005 10:41	
Total xylenes	ND	20	ug/L	20.00	05/26/2005 10:41	
Methyl tert-butyl ether (MTBE)	3400	10	ug/L	20.00	05/26/2005 10:41	
<b>Surrogate(s)</b>						
1,2-Dichloroethane-d4	103.5	73-130	%	20.00	05/26/2005 10:41	
Toluene-d8	100.6	81-114	%	20.00	05/26/2005 10:41	



**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: 050518-PC1  
98995750

Received: 05/19/2005 13:14

Site: 610 Market Street, Oakland

Prep(s): 5030B	Test(s): 8260B
Sample ID: <b>MW-5</b>	Lab ID: 2005-05-0587 - 5
Sampled: 05/18/2005 10:54	Extracted: 5/26/2005 11:29
Matrix: Water	QC Batch#: 2005/05/26-1D.64

Compound	Conc.	RL	Unit	Dilution	Analyzed	Flag
Gasoline [Shell]	ND	50	ug/L	1.00	05/26/2005 11:29	Q6
Benzene	ND	0.50	ug/L	1.00	05/26/2005 11:29	
Toluene	ND	0.50	ug/L	1.00	05/26/2005 11:29	
Ethylbenzene	ND	0.50	ug/L	1.00	05/26/2005 11:29	
Total xylenes	ND	1.0	ug/L	1.00	05/26/2005 11:29	
Methyl tert-butyl ether (MTBE)	180	0.50	ug/L	1.00	05/26/2005 11:29	
<b>Surrogate(s)</b>						
1,2-Dichloroethane-d4	96.2	73-130	%	1.00	05/26/2005 11:29	
Toluene-d8	98.7	81-114	%	1.00	05/26/2005 11:29	

**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: 050518-PC1

98995750

Received: 05/19/2005 13:14

Site: 610 Market Street, Oakland

Prep(s): 5030B	Test(s): 8260B
Sample ID: <b>MW-6</b>	Lab ID: 2005-05-0587 - 6
Sampled: 05/18/2005 08:20	Extracted: 5/26/2005 11:53
Matrix: Water	QC Batch#: 2005/05/26-1D.64

Compound	Conc.	RL	Unit	Dilution	Analyzed	Flag
Gasoline [Shell]	390	50	ug/L	1.00	05/26/2005 11:53	
Benzene	8.7	0.50	ug/L	1.00	05/26/2005 11:53	
Toluene	ND	0.50	ug/L	1.00	05/26/2005 11:53	
Ethylbenzene	0.93	0.50	ug/L	1.00	05/26/2005 11:53	
Total xylenes	9.0	1.0	ug/L	1.00	05/26/2005 11:53	
Methyl tert-butyl ether (MTBE)	68	0.50	ug/L	1.00	05/26/2005 11:53	
<b>Surrogate(s)</b>						
1,2-Dichloroethane-d4	95.4	73-130	%	1.00	05/26/2005 11:53	
Toluene-d8	95.3	81-114	%	1.00	05/26/2005 11:53	

**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: 050518-PC1

98995750

Received: 05/19/2005 13:14

Site: 610 Market Street, Oakland

Prep(s): 5030B	Test(s): 8260B
Sample ID: <b>MW-7</b>	Lab ID: 2005-05-0587 - 7
Sampled: 05/18/2005 09:05	Extracted: 5/26/2005 12:17
Matrix: Water	QC Batch#: 2005/05/26-1D.64

Compound	Conc.	RL	Unit	Dilution	Analyzed	Flag
Gasoline [Shell]	67	50	ug/L	1.00	05/26/2005 12:17	Q6
Benzene	ND	0.50	ug/L	1.00	05/26/2005 12:17	
Toluene	ND	0.50	ug/L	1.00	05/26/2005 12:17	
Ethylbenzene	ND	0.50	ug/L	1.00	05/26/2005 12:17	
Total xylenes	ND	1.0	ug/L	1.00	05/26/2005 12:17	
Methyl tert-butyl ether (MTBE)	12	0.50	ug/L	1.00	05/26/2005 12:17	
<b>Surrogate(s)</b>						
1,2-Dichloroethane-d4	95.6	73-130	%	1.00	05/26/2005 12:17	
Toluene-d8	98.1	81-114	%	1.00	05/26/2005 12:17	

**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: 050518-PC1

98995750

Received: 05/19/2005 13:14

Site: 610 Market Street, Oakland

Prep(s): 5030B	Test(s): 8260B
Sample ID: MW-8	Lab ID: 2005-05-0587 - 8
Sampled: 05/18/2005 09:28	Extracted: 5/26/2005 12:41
Matrix: Water	QC Batch#: 2005/05/26-1D.64

Compound	Conc.	RL	Unit	Dilution	Analyzed	Flag
Gasoline [Shell]	250	50	ug/L	1.00	05/26/2005 12:41	
Benzene	34	0.50	ug/L	1.00	05/26/2005 12:41	
Toluene	3.4	0.50	ug/L	1.00	05/26/2005 12:41	
Ethylbenzene	6.6	0.50	ug/L	1.00	05/26/2005 12:41	
Total xylenes	27	1.0	ug/L	1.00	05/26/2005 12:41	
Methyl tert-butyl ether (MTBE)	110	0.50	ug/L	1.00	05/26/2005 12:41	
<b>Surrogate(s)</b>						
1,2-Dichloroethane-d4	95.0	73-130	%	1.00	05/26/2005 12:41	
Toluene-d8	100.4	81-114	%	1.00	05/26/2005 12:41	



**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: 050518-PC1

98995750

Received: 05/19/2005 13:14

Site: 610 Market Street, Oakland

Prep(s): 5030B

Test(s): 8260B

Sample ID: MW-9

Lab ID: 2005-05-0587 - 9

Sampled: 05/18/2005 09:58

Extracted: 5/26/2005 13:30

Matrix: Water

QC Batch#: 2005/05/26-1D.64

Compound	Conc.	RL	Unit	Dilution	Analyzed	Flag
Gasoline [Shell]	210	50	ug/L	1.00	05/26/2005 13:30	Q6
Benzene	ND	0.50	ug/L	1.00	05/26/2005 13:30	
Toluene	ND	0.50	ug/L	1.00	05/26/2005 13:30	
Ethylbenzene	ND	0.50	ug/L	1.00	05/26/2005 13:30	
Total xylenes	ND	1.0	ug/L	1.00	05/26/2005 13:30	
Methyl tert-butyl ether (MTBE)	2.8	0.50	ug/L	1.00	05/26/2005 13:30	
<b>Surrogate(s)</b>						
1,2-Dichloroethane-d4	97.5	73-130	%	1.00	05/26/2005 13:30	
Toluene-d8	91.0	81-114	%	1.00	05/26/2005 13:30	

**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: 050518-PC1

98995750

Received: 05/19/2005 13:14

Site: 610 Market Street, Oakland

**Batch QC Report**

Prep(s): 5030B

**Method Blank**

MB: 2005/05/26-1D.64-007

**Water**

Test(s): 8260B

**QC Batch # 2005/05/26-1D.64**

Date Extracted: 05/26/2005 08:07

Compound	Conc.	RL	Unit	Analyzed	Flag
Gasoline [Shell]	ND	50	ug/L	05/26/2005 08:07	
Methyl tert-butyl ether (MTBE)	ND	0.5	ug/L	05/26/2005 08:07	
Benzene	ND	0.5	ug/L	05/26/2005 08:07	
Toluene	ND	0.5	ug/L	05/26/2005 08:07	
Ethylbenzene	ND	0.5	ug/L	05/26/2005 08:07	
Total xylenes	ND	1.0	ug/L	05/26/2005 08:07	
<b>Surrogates(s)</b>					
1,2-Dichloroethane-d4	90.0	73-130	%	05/26/2005 08:07	
Toluene-d8	98.8	81-114	%	05/26/2005 08:07	

**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: 050518-PC1

98995750

Received: 05/19/2005 13:14

Site: 610 Market Street, Oakland

**Batch QC Report**

Prep(s): 5030B

**Method Blank**

MB: 2005/05/27-2B.62-008

**Water**

Test(s): 8260B

**QC Batch # 2005/05/27-2B.62**

Date Extracted: 05/27/2005 20:08

Compound	Conc.	RL	Unit	Analyzed	Flag
Gasoline [Shell]	ND	50	ug/L	05/27/2005 20:08	
Methyl tert-butyl ether (MTBE)	ND	0.5	ug/L	05/27/2005 20:08	
Benzene	ND	0.5	ug/L	05/27/2005 20:08	
Toluene	ND	0.5	ug/L	05/27/2005 20:08	
Ethylbenzene	ND	0.5	ug/L	05/27/2005 20:08	
Total xylenes	ND	1.0	ug/L	05/27/2005 20:08	
<b>Surrogates(s)</b>					
1,2-Dichloroethane-d4	109.8	73-130	%	05/27/2005 20:08	
Toluene-d8	100.6	81-114	%	05/27/2005 20:08	

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

Blaine Tech Services, Inc.

Attn.: Leon Gearhart

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

Project: 050518-PC1

98995750

Received: 05/19/2005 13:14

Site: 610 Market Street, Oakland

**Batch QC Report**

Prep(s): 5030B

Test(s): 8260B

**Laboratory Control Spike**

**Water**

**QC Batch # 2005/05/26-1D.64**

LCS 2005/05/26-1D.64-043

Extracted: 05/26/2005

Analyzed: 05/26/2005 07:43

LCSD

Compound	Conc. ug/L		Exp.Conc.	Recovery %		RPD	Ctrl.Limits %		Flags	
	LCS	LCSD		LCS	LCSD		%	Rec.	RPD	LCS
Methyl tert-butyl ether (MTBE)	23.8		25	95.2			65-165	20		
Benzene	21.3		25	85.2			69-129	20		
Toluene	24.9		25	99.6			70-130	20		
<b>Surrogates(s)</b>										
1,2-Dichloroethane-d4	441		500	88.2			73-130			
Toluene-d8	495		500	99.0			81-114			

**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: 050518-PC1  
98995750

Received: 05/19/2005 13:14

Site: 610 Market Street, Oakland

**Batch QC Report**

Prep(s): 5030B

Test(s): 8260B

**Laboratory Control Spike**

**Water**

**QC Batch # 2005/05/27-2B.62**

LCS 2005/05/27-2B.62-041

Extracted: 05/27/2005

Analyzed: 05/27/2005 19:41

LCSD

Compound	Conc. ug/L		Exp.Conc.	Recovery %		RPD	Ctrl.Limits %		Flags	
	LCS	LCSD		LCS	LCSD		%	Rec.	RPD	LCS
Methyl tert-butyl ether (MTBE)	25.0		25	100.0			65-165	20		
Benzene	26.5		25	106.0			69-129	20		
Toluene	28.7		25	114.8			70-130	20		
<b>Surrogates(s)</b>										
1,2-Dichloroethane-d4	489		500	97.8			73-130			
Toluene-d8	501		500	100.2			81-114			

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

Blaine Tech Services, Inc.

Attn.: Leon Gearhart

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

Project: 050518-PC1

98995750

Received: 05/19/2005 13:14

Site: 610 Market Street, Oakland

**Batch QC Report**

Prep(s): 5030B

Test(s): 8260B

**Matrix Spike ( MS / MSD )**

**Water**

**QC Batch # 2005/05/26-1D.64**

MS/MSD

Lab ID: 2005-05-0591 - 003

MS: 2005/05/26-1D.64-054

Extracted: 05/26/2005

Analyzed: 05/26/2005 15:54

Dilution: 1.00

MSD: 2005/05/26-1D.64-018

Extracted: 05/26/2005

Analyzed: 05/26/2005 16:18

Dilution: 1.00

Compound	Conc. ug/L			Spk.Level# ug/L	Recovery %			Limits %		Flags	
	MS	MSD	Sample		MS	MSD	RPD	Rec.	RPD	MS	MSD
Methyl tert-butyl ether	25.9	26.1	ND	25	103.6	104.4	0.8	65-165	20		
Benzene	23.2	24.0	ND	25	92.8	96.0	3.4	69-129	20		
Toluene	25.8	26.9	ND	25	103.2	107.6	4.2	70-130	20		
<b>Surrogate(s)</b>											
1,2-Dichloroethane-d4	451	425		500	90.2	85.0		73-130			
Toluene-d8	495	502		500	99.0	100.4		81-114			

**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: 050518-PC1  
98995750

Received: 05/19/2005 13:14

Site: 610 Market Street, Oakland

**Batch QC Report**

Prep(s): 5030B

Test(s): 8260B

**Matrix Spike ( MS / MSD )**

**Water**

**QC Batch # 2005/05/27-2B.62**

MS/MSD

Lab ID: 2005-05-0560 - 002

MS: 2005/05/27-2B.62-004

Extracted: 05/27/2005

Analyzed: 05/27/2005 21:04

Dilution: 1.00

MSD: 2005/05/27-2B.62-030

Extracted: 05/27/2005

Analyzed: 05/27/2005 21:30

Dilution: 1.00

Compound	Conc. ug/L			Spk.Level ug/L	Recovery %			Limits %		Flags	
	MS	MSD	Sample		MS	MSD	RPD	Rec.	RPD	MS	MSD
Methyl tert-butyl ether	23.1	25.8	1.25	25	87.4	98.2	11.6	65-165	20		
Benzene	24.6	27.0	ND	25	98.4	108.0	9.3	69-129	20		
Toluene	25.9	28.8	ND	25	103.6	115.2	10.6	70-130	20		
<b>Surrogate(s)</b>											
1,2-Dichloroethane-d4	482	503		500	96.4	100.7		73-130			
Toluene-d8	492	510		500	98.5	102.0		81-114			

**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: 050518-PC1

98995750

Received: 05/19/2005 13:14

Site: 610 Market Street, Oakland

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**Legend and Notes**

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**Sample Comment**

Lab ID: 2005-05-0587 -5

Siloxane peaks are found in the sample which are not believed to be gasoline related. If they were to be quantified as gasoline, the concentration would be 53 ug/L.

**Analysis Flag**

L2

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

**Result Flag**

Q6

The concentration reported reflect(s) individual or discrete unidentified peaks not matching a typical fuel pattern.



# SHELL CHAIN OF CUSTODY RECORD

112061

Lab Identification (if necessary)

Address:

City, State, Zip:

Shell Project Manager to be invoiced:

- SCIENCE & ENGINEERING
- TECHNICAL SERVICES
- CRMT HOUSTON

Denis Brown

2005-05-0587

INCIDENT NUMBER (S&E ONLY)

9 8 9 9 5 7 5 0

SAP or CRMT NUMBER (TS/CRMT)

DATE:

5/18/05

PAGE:

6 of 7

<b>SAMPLING COMPANY:</b> <b>Blaine Tech Services</b> <small>ADDRESS:</small> 1680 Rogers Avenue, San Jose, CA 95112 <small>PROJECT CONTACT (Name/Title or POC Name/Title):</small> <b>Leon Gearhart</b> <small>TELEPHONE:</small> 408-573-0555 <small>FAX:</small> 408-573-7771 <small>EMAIL:</small> lgearhart@blainetech.com		<small>LOS CODE:</small> <b>BTSS</b>	<small>SITE ADDRESS (Street and City):</small> <b>610 Market Street, Oakland</b> <small>SHIP DELIVERABLE TO (Responsible Party or Location):</small> Ann Kreml <small>PHONE NO.:</small> 510-420-3335 <small>EMAIL:</small> SheilOaklandEOD@cambria-env.com <small>CONSULTANT PROJECT NO.:</small> E50716-101 <small>BTS #</small>	<small>GLOBAL ID NO.:</small> <b>T0600102121</b>
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TURNAROUND TIME (BUSINESS DAYS):  
 10 DAYS     5 DAYS     72 HOURS     48 HOURS     24 HOURS     LESS THAN 24 HOURS

LA - RWQCB REPORT FORMAT     WST AGENCY: \_\_\_\_\_

GC/MS MTBE CONFIRMATION: HIGHEST \_\_\_\_\_ HIGHEST per BORING \_\_\_\_\_ ALL \_\_\_\_\_

SPECIAL INSTRUCTIONS OR NOTES: \_\_\_\_\_ CHECK BOX IF EOD IS NOT NEEDED:

### REQUESTED ANALYSIS

TPH - Gas, Purgeable	BTEX	MTBE (8031B - 5ppb RL)	MTBE (8250B - 0.5ppb RL)	Oxygenates (5) by (8260B)	Ethanol (8260B)	Methanol	1,2-DCA (8260B)	EOB (8260B)	TPH - Diesel, Extractable (8015m)
X	X	X	X	X	X	X	X	X	X
X	X	X	X	X	X	X	X	X	X
X	X	X	X	X	X	X	X	X	X
X	X	X	X	X	X	X	X	X	X
X	X	X	X	X	X	X	X	X	X
X	X	X	X	X	X	X	X	X	X
X	X	X	X	X	X	X	X	X	X
X	X	X	X	X	X	X	X	X	X
X	X	X	X	X	X	X	X	X	X

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

3°C

TEMPERATURE ON RECEIPT OF \_\_\_\_\_

LAB USE ONLY	Field Sample Identification	SAMPLING		MATRIX	NO. OF CONT.
		DATE	TIME		
	MU-1	5/18/05	1114	W	3
	MU-2		920		3
	MU-3		900		3
	MU-4		1015		3
	MU-5		1054		3
	MU-6		820		3
	MU-7		905		3
	MU-8		928		3
	MU-9		958		3

Prepared by (Signature): <i>T. Van</i> Prepared by (Signature): <i>[Signature]</i> Prepared by (Signature): _____	Received by (Signature): <i>[Signature]</i> Received by (Signature): <i>[Signature]</i> Received by (Signature): _____	Date: 5/18/05 Date: 5/19/05 Date: _____	Time: 1314 Time: 1613 Time: _____
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## WELL GAUGING DATA

Project # 050617-NT2 Date 10/17/05 Client Skel

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 <u>(OC)</u>
UW-5	4					9.89	20.05	↓

## SHELL WELL MONITORING DATA SHEET

BTS #: <u>050617-MT2</u>	Site: <u>98995750</u>
Sampler: <u>MT</u>	Date: <u>6/17/05</u>
Well I.D.: <u>MW-5</u>	Well Diameter: 2 3 <u>4</u> 6 8
Total Well Depth (TD): <u>20.05</u>	Depth to Water (DTW): <u>9.89</u>
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: <u>PVC</u> Grade	D.O. Meter (if req'd): YSI HACH
DTW with 80% Recharge [(Height of Water Column x 0.20) + DTW]: <u>11.92</u>	

Purge Method: Bailer Watterra Sampling Method: Bailer  
 Disposable Bailer Peristaltic Disposable Bailer  
 Positive Air Displacement Extraction Pump Extraction Port  
Electric Submersible Other Dedicated Tubing

Other: \_\_\_\_\_

$\frac{6.6 \text{ (Gals.)} \times 3}{1 \text{ Case Volume Specified Volumes}} = 19.8 \text{ Gals. Calculated Volume}$	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <th>Well Diameter</th> <th>Multiplier</th> <th>Well Diameter</th> <th>Multiplier</th> </tr> <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>3"</td> <td>0.37</td> <td>Other</td> <td>radius<sup>2</sup> * 0.163</td> </tr> </table>	Well Diameter	Multiplier	Well Diameter	Multiplier	1"	0.04	4"	0.65	2"	0.16	6"	1.47	3"	0.37	Other	radius <sup>2</sup> * 0.163	
Well Diameter	Multiplier	Well Diameter	Multiplier															
1"	0.04	4"	0.65															
2"	0.16	6"	1.47															
3"	0.37	Other	radius <sup>2</sup> * 0.163															

Time	Temp (°F)	pH	Cond. (mS or <u>µS</u> )	Turbidity (NTUs)	Gals. Removed	Observations
<u>1359</u>	<u>70.0</u>	<u>6.7</u>	<u>1072</u>	<u>41</u>	<u>6.6</u>	
<u>1401</u>	<u>70.3</u>	<u>6.8</u>	<u>1020</u>	<u>60</u>	<u>13.2</u>	
<u>1403</u>	<u>70.6</u>	<u>6.9</u>	<u>1001</u>	<u>72</u>	<u>19.8</u>	

Did well dewater? Yes <u>No</u>	Gallons actually evacuated: <u>19.8</u>	
Sampling Date: <u>6/17/05</u>	Sampling Time: <u>1410</u>	Depth to Water: <u>12.15</u>
Sample I.D.: <u>MW-5</u>	Laboratory: <u>STL</u> Other _____	
Analyzed for: TPH-G BTEX <u>MTBE</u> 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	

## WELL GAUGING DATA

Project # 050510-PC1 Date 5/10/05 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 <del>TOB</del>	
MW-1	4					12.22	24.62	TOC	
MW-2	4					10.21	-	↓	Ext.
MW-3	4					10.00	-		Ext.
MW-4	4					9.75	19.75		Tr.
MW-5	4					9.99	19.93		Tr.
MW-6	4					9.79	-		Ext.
MW-7	4					10.42	18.22		Ext.
MW-8	4					10.85	17.79		Ext.
MW-9	4					10.21	19.75		

## SHELL WELL MONITORING DATA SHEET

BTS #: 050518-PC1	Site: 98995750
Sampler: PC/PM	Date: 5/18/05
Well I.D.: MW-1	Well Diameter: 2 3 <u>4</u> 6 8
Total Well Depth (TD): 24.62	Depth to Water (DTW): 12.22
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: <u>Grade</u>	D.O. Meter (if req'd): YSI HACH
DTW with 80% Recharge [(Height of Water Column x 0.20) + DTW]: 14.7	

Purge Method:  Bailer       Waterra      Sampling Method:  Bailer  
 Disposable Bailer       Peristaltic       Disposable Bailer  
 Positive Air Displacement       Extraction Pump       Extraction Port  
 Electric Submersible      Other \_\_\_\_\_       Dedicated Tubing

$8.1 \text{ (Gals.)} \times 3 = 24.3 \text{ Gals.}$ 1 Case Volume      Specified Volumes      Calculated Volume	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <th>Well Diameter</th> <th>Multiplier</th> <th>Well Diameter</th> <th>Multiplier</th> </tr> <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>3"</td> <td>0.37</td> <td>Other</td> <td>radius<sup>2</sup> * 0.163</td> </tr> </table>	Well Diameter	Multiplier	Well Diameter	Multiplier	1"	0.04	4"	0.65	2"	0.16	6"	1.47	3"	0.37	Other	radius <sup>2</sup> * 0.163
Well Diameter	Multiplier	Well Diameter	Multiplier														
1"	0.04	4"	0.65														
2"	0.16	6"	1.47														
3"	0.37	Other	radius <sup>2</sup> * 0.163														

Time	Temp (°F)	pH	Cond. (mS or μS)	Turbidity (NTUs)	Gals. Removed	Observations
1050	66.0	6.7	819	55	8.1	clear
1058	67.3	6.5	811	23	16.2	"
	Dewatered @ 20.2 gal					
1114	66.1	6.6	812	21		"

Did well dewater?  Yes      No      Gallons actually evacuated: 20.2

Sampling Date: 5/18/05      Sampling Time: 1114      Depth to Water: 14.70

Sample I.D.: MW-1      Laboratory: STI 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 #: <u>050510-PC1</u>	Site: <u>98995750</u>
Sampler: <u>PC/PM</u>	Date: <u>5/10/05</u>
Well I.D.: <u>MW-2</u>	Well Diameter: 2 3 <u>4</u> 6 8 _____
Total Well Depth (TD): <u>—</u>	Depth to Water (DTW): <u>10.21</u>
Depth to Free Product: _____	Thickness of Free Product (feet): _____
Referenced to: <u>PVC</u> Grade	D.O. Meter (if req'd): YSI HACH
DTW with 80% Recharge [(Height of Water Column x 0.20) + DTW]: _____	

Purge Method: Bailer      Waterra      Sampling Method: Bailer  
                  Disposable Bailer      Peristaltic      ← Disposable Bailer  
                  Positive Air Displacement      Extraction Pump      Extraction Port  
                  Electric Submersible      Other \_\_\_\_\_      Dedicated Tubing  
                                                                                   Other: \_\_\_\_\_

_____ (Gals.) X _____ = _____ Gals. I Case Volume      Specified Volumes      Calculated Volume	<table border="1" style="width: 100%; border-collapse: collapse; text-align: center;"> <tr> <th>Well Diameter</th> <th>Multiplier</th> <th>Well Diameter</th> <th>Multiplier</th> </tr> <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>3"</td> <td>0.37</td> <td>Other</td> <td>radius<sup>2</sup> * 0.163</td> </tr> </table>	Well Diameter	Multiplier	Well Diameter	Multiplier	1"	0.04	4"	0.65	2"	0.16	6"	1.47	3"	0.37	Other	radius <sup>2</sup> * 0.163
Well Diameter	Multiplier	Well Diameter	Multiplier														
1"	0.04	4"	0.65														
2"	0.16	6"	1.47														
3"	0.37	Other	radius <sup>2</sup> * 0.163														

Time	Temp (°F)	pH	Cond. (mS or $\mu$ S)	Turbidity (NTUs)	Gals. Removed	Observations
<u>9:20</u>	<u>67.1</u>	<u>6.6</u>	<u>842</u>	<u>15</u>		

Did well dewater?    Yes    No      Gallons actually evacuated: \_\_\_\_\_

Sampling Date: 5/10/05    Sampling Time: 9:20      Depth to Water: \_\_\_\_\_

Sample I.D.: MW-2      Laboratory: STD    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

**Blaine Tech Services, Inc. 1680 Rogers Ave., San Jose, CA 95112 (800) 545-7558**

## SHELL WELL MONITORING DATA SHEET

BTS #: <u>050510-PL</u>	Site: <u>90776950</u>
Sampler: <u>AC/PM</u>	Date: <u>5/10/05</u>
Well I.D.: <u>MW-3</u>	Well Diameter: 2 3 <u>4</u> 6 8 _____
Total Well Depth (TD): <u>-</u>	Depth to Water (DTW): <u>10.60</u>
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: <u>PVT</u> 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 Positive Air Displacement 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	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <th>Well Diameter</th> <th>Multiplier</th> <th>Well Diameter</th> <th>Multiplier</th> </tr> <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>3"</td> <td>0.37</td> <td>Other</td> <td>radius<sup>2</sup> * 0.163</td> </tr> </table>	Well Diameter	Multiplier	Well Diameter	Multiplier	1"	0.04	4"	0.65	2"	0.16	6"	1.47	3"	0.37	Other	radius <sup>2</sup> * 0.163
Well Diameter	Multiplier	Well Diameter	Multiplier														
1"	0.04	4"	0.65														
2"	0.16	6"	1.47														
3"	0.37	Other	radius <sup>2</sup> * 0.163														

Time	Temp (°F)	pH	Cond. (mS or <del>µS</del> )	Turbidity (NTUs)	Gals. Removed	Observations
<u>9:00</u>	<u>66.3</u>	<u>6.5</u>	<u>1015</u>	<u>455</u>		

Did well dewater? Yes No      Gallons actually evacuated: \_\_\_\_\_

Sampling Date: 5/10/05      Sampling Time: 9:00      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 #: <u>050518-PC1</u>	Site: <u>98995750</u>
Sampler: <u>PC/PM</u>	Date: <u>5/10/05</u>
Well I.D.: <u>MW-4</u>	Well Diameter: 2 3 <u>4</u> 6 8
Total Well Depth (TD): <u>19.70</u>	Depth to Water (DTW): <u>9.75</u>
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: <u>PVC</u> Grade	D.O. Meter (if req'd): YSI HACH
DTW with 80% Recharge [(Height of Water Column x 0.20) + DTW]: <u>11.74</u>	

Purge Method: Bailer      Waterra      Sampling Method: Bailer  
 Disposable Bailer      Peristaltic      Disposable Bailer  
 Positive Air Displacement      Extraction Pump      Extraction Port  
 Electric Submersible      Other \_\_\_\_\_      Dedicated Tubing

Other: \_\_\_\_\_

6.5 (Gals.) X 3 = 19.5 Gals.  
 1 Case Volume      Specified Volumes      Calculated Volume

Well Diameter	Multiplier	Well Diameter	Multiplier
1"	0.04	4"	0.65
2"	0.16	6"	1.47
3"	0.37	Other	radius <sup>2</sup> * 0.163

Time	Temp (°F)	pH	Cond. (mS or <del>µS</del> )	Turbidity (NTUs)	Gals. Removed	Observations
10:06	64.5	7.1	409	481	6.5	cloudy
10:07	65.0	7.0	450	352	13	"
10:08	64.9	6.9	566	78	19.5	"

Did well dewater? Yes  No  Gallons actually evacuated: 19.5

Sampling Date: 5/10/05      Sampling Time: 10:15      Depth to Water: 16.11

Sample I.D.: MW-4      Laboratory: STD      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 #: <u>050510-PC1</u>	Site: <u>90995750</u>
Sampler: <u>PC/PM</u>	Date: <u>5/10/05</u>
Well I.D.: <u>MU-5</u>	Well Diameter: 2 3 <u>(4)</u> 6 8 _____
Total Well Depth (TD): <u>19.93</u>	Depth to Water (DTW): <u>9.49</u>
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: <u>PVE</u> Grade	D.O. Meter (if req'd): YSI HACH
DTW with 80% Recharge [(Height of Water Column x 0.20) + DTW]: <u>11.50</u>	

Purge Method: Bailer Disposable Bailer Positive Air Displacement <input checked="" type="checkbox"/> Electric Submersible	Waterra Peristaltic Extraction Pump Other _____	Sampling Method: <input checked="" type="checkbox"/> Bailer Disposable Bailer Extraction Port Dedicated Tubing Other: _____
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$\frac{6.7 \text{ (Gals.)} \times 3}{1 \text{ Case Volume Specified Volumes}} = \frac{20.1 \text{ Gals.}}{\text{Calculated Volume}}$	<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>3"</td> <td>0.37</td> <td>Other</td> <td>radius<sup>2</sup> * 0.163</td> </tr> </tbody> </table>	Well Diameter	Multiplier	Well Diameter	Multiplier	1"	0.04	4"	0.65	2"	0.16	6"	1.47	3"	0.37	Other	radius <sup>2</sup> * 0.163
Well Diameter	Multiplier	Well Diameter	Multiplier														
1"	0.04	4"	0.65														
2"	0.16	6"	1.47														
3"	0.37	Other	radius <sup>2</sup> * 0.163														

Time	Temp (°F)	pH	Cond. (mS or µS)	Turbidity (NTUs)	Gals. Removed	Observations
1040	64.8	6.9	935	70	7	
1042	65.7	6.9	956	48	14	
1045	65.8	6.9	956	260	21	

Did well dewater? Yes  No  Gallons actually evacuated: 20

Sampling Date: 5/10/05 Sampling Time: 1054 Depth to Water: 16.33

Sample I.D.: MU-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 #: <u>050518-PC1</u>	Site: <u>98995750</u>
Sampler: <u>PC</u>	Date: <u>5/10/05</u>
Well I.D.: <u>MU-6</u>	Well Diameter: 2 3 <u>4</u> 6 8
Total Well Depth (TD): <u>-</u>	Depth to Water (DTW): <u>9.79</u>
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: <u>PVC</u> 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~~ ~~Positive Air Displacement~~ ~~Electric Submersible~~      Waterra Peristaltic Extraction Pump Other \_\_\_\_\_

Sampling Method: Bailer Disposable Bailer Extraction Port Dedicated Tubing

Other: \_\_\_\_\_

(Gals.) X _____ = _____ Gals.	
I 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	radius <sup>2</sup> * 0.163

Time	Temp (°F)	pH	Cond. (mS or <u>µS</u> )	Turbidity (NTUs)	Gals. Removed	Observations
<u>0820</u>	<u>69.1</u>	<u>6.0</u>	<u>988</u>	<u>74</u>		<u>clear</u>

Did well dewater?      Yes      No      Gallons actually evacuated: \_\_\_\_\_

Sampling Date: 5/10/05      Sampling Time: 820      Depth to Water: \_\_\_\_\_

Sample I.D.: MU-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 #: <u>050518-PC1</u>	Site: <u>48995750</u>
Sampler: <u>PC/PM</u>	Date: <u>5/18/05</u>
Well I.D.: <u>MU-7</u>	Well Diameter: 2 3 <u>4</u> 6 8 _____
Total Well Depth (TD): <u>10.22</u>	Depth to Water (DTW): <u>10.42</u>
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: <u>PVC</u> 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 Positive Air Displacement 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	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <th>Well Diameter</th> <th>Multiplier</th> <th>Well Diameter</th> <th>Multiplier</th> </tr> <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>3"</td> <td>0.37</td> <td>Other</td> <td>radius<sup>2</sup> * 0.163</td> </tr> </table>	Well Diameter	Multiplier	Well Diameter	Multiplier	1"	0.04	4"	0.65	2"	0.16	6"	1.47	3"	0.37	Other	radius <sup>2</sup> * 0.163
Well Diameter	Multiplier	Well Diameter	Multiplier														
1"	0.04	4"	0.65														
2"	0.16	6"	1.47														
3"	0.37	Other	radius <sup>2</sup> * 0.163														

Time	Temp (°F)	pH	Cond. (mS or <del>µS</del> )	Turbidity (NTUs)	Gals. Removed	Observations
9:05	64.9	6.6	853	63		

Did well dewater?    Yes    No      Gallons actually evacuated: \_\_\_\_\_

Sampling Date: 5/18/05      Sampling Time: 9:05      Depth to Water: \_\_\_\_\_

Sample I.D.: MU-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 #: <u>050510 PCI</u>	Site: <u>9899 5750</u>
Sampler: <u>PC/PM</u>	Date: <u>5/10/05</u>
Well I.D.: <u>MWB</u>	Well Diameter: 2 3 <u>4</u> 6 8
Total Well Depth (TD): <u>17.79</u>	Depth to Water (DTW): <u>10.85</u>
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: <u>PVO</u> 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  
 Positive Air Displacement  
 Electric Submersible

Water  
 Peristaltic  
 Extraction Pump  
 Other \_\_\_\_\_

Sampling Method: Bailer  
 Disposable Bailer  
 Extraction Port  
 Dedicated Tubing

Other: \_\_\_\_\_

_____ (Gals.) X _____ = _____ Gals. 1 Case Volume      Specified Volumes      Calculated Volume	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <th>Well Diameter</th> <th>Multiplier</th> <th>Well Diameter</th> <th>Multiplier</th> </tr> <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>3"</td> <td>0.37</td> <td>Other</td> <td>radius<sup>2</sup> * 0.163</td> </tr> </table>	Well Diameter	Multiplier	Well Diameter	Multiplier	1"	0.04	4"	0.65	2"	0.16	6"	1.47	3"	0.37	Other	radius <sup>2</sup> * 0.163
Well Diameter	Multiplier	Well Diameter	Multiplier														
1"	0.04	4"	0.65														
2"	0.16	6"	1.47														
3"	0.37	Other	radius <sup>2</sup> * 0.163														

Time	Temp (°F)	pH	Cond. (mS or $\mu$ S)	Turbidity (NTUs)	Gals. Removed	Observations
928	64.9	6.6	376	13		

Did well dewater?    Yes    No                      Gallons actually evacuated:

Sampling Date: 5/10/05      Sampling Time: 928      Depth to Water:

Sample I.D.: MWB                      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 #: 050510-PC1	Site: 98995150
Sampler: PC/PM	Date: 5/18/05
Well I.D.: MW-9	Well Diameter: 2 3 ④ 6 8 _____
Total Well Depth (TD): 19.75	Depth to Water (DTW): 10.21
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: <input checked="" type="checkbox"/> PVO Grade	D.O. Meter (if req'd): YSI HACH
DTW with 80% Recharge [(Height of Water Column x 0.20) + DTW]: 12.12	

Purge Method: Bailer Disposable Bailer Positive Air Displacement <input checked="" type="checkbox"/> Electric Submersible	Waterra Peristaltic Extraction Pump Other _____	Sampling Method: Bailer Disposable Bailer Extraction Port Dedicated Tubing Other: _____
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6.2 (Gals.) X 3 = 18.6 Gals. 1 Case Volume      Specified Volumes      Calculated Volume	<table style="width: 100%; border-collapse: collapse;"> <tr> <th style="text-align: left; border-bottom: 1px solid black;">Well Diameter</th> <th style="text-align: left; border-bottom: 1px solid black;">Multiplier</th> <th style="text-align: left; border-bottom: 1px solid black;">Well Diameter</th> <th style="text-align: left; border-bottom: 1px solid black;">Multiplier</th> </tr> <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>3"</td> <td>0.37</td> <td>Other</td> <td>radius<sup>2</sup> * 0.163</td> </tr> </table>	Well Diameter	Multiplier	Well Diameter	Multiplier	1"	0.04	4"	0.65	2"	0.16	6"	1.47	3"	0.37	Other	radius <sup>2</sup> * 0.163
Well Diameter	Multiplier	Well Diameter	Multiplier														
1"	0.04	4"	0.65														
2"	0.16	6"	1.47														
3"	0.37	Other	radius <sup>2</sup> * 0.163														

Time	Temp (°F)	pH	Cond (mS or <span style="border: 1px solid black; border-radius: 50%; padding: 2px;">μS</span> )	Turbidity (NTUs)	Gals. Removed	Observations
0942	63.9	6.8	804	207	6.2	tan
0943	64.0	6.5	1016	228	12.4	"
0944	64.1	6.4	1167	762	18.6	"

Did well dewater?    Yes     No    Gallons actually evacuated: 18.6

Sampling Date: 5/18/05    Sampling Time: 958    Depth to Water: 12.12

Sample I.D.: MW-9    Laboratory:  STI    Other \_\_\_\_\_

Analyzed for: ~~TPH-G~~ ~~BTEX~~ ~~MTBS~~ 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