

#### **RECEIVED**

2:38 pm, Nov 16, 2010

Alameda County Environmental Health

November 15, 2010

Re: Third Quarter 2010 Groundwater Monitoring Report

Shell-Branded Service Station 4212 (*aka* 4226) First Street Pleasanton, California

Dear Mr. Jerry Wickham:

I declare, under penalty of perjury, that the information and/or recommendations contained in the attached document or report is true and correct to the best of my knowledge.

Sincerely, Shell Oil Products US

Denis L. Brown Project Manager November 15, 2010 Delta Project No. SCA421211D SAP No. 135782

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



#### Re: THIRD QUARTER 2010

GROUNDWATER MONITORING REPORT

Shell-Branded Service Station 4212 (*aka* 4226) First Street Pleasanton, California

Dear Mr. Wickham:

On behalf of Equilon Enterprises LLC *dba* Shell Oil Products (Shell), Delta Consultants (Delta) has prepared this *Third Quarter 2010 Groundwater Monitoring Report* for the site referenced above. Field monitoring activities at the site were conducted by Blaine Tech Services, Inc. under direct contract to Shell and included the collection of groundwater samples and static water level measurements. Delta does not provide any oversight of Blaine Tech Services Inc's work or protocol. A Delta staff member performed an evaluation of the data provided to us under the supervision of a California Registered Civil Engineer or a California Professional Geologist.

This report represents Delta's professional opinions based upon the currently available information and is arrived at in accordance with currently acceptable professional standards. This report is based upon a specific scope of work requested by the client. The Contract between Delta and its client outlines the scope of work, and only those tasks specifically authorized by that contract or outlined in this report were performed. This report is intended only for the use of Delta's client and anyone else specifically listed on this report. Delta will not and cannot be liable for unauthorized reliance by any other third party. Other than as contained in this paragraph, Delta makes no express or implied warranty as to the contents of this report.



November 15, 2010 Third Quarter 2010 Groundwater Monitoring Report 4212 (aka 4226) First Street, Pleasanton, California Page 2

This site is included in a portfolio of sites which were transferred to Conestoga-Rovers & Associates (CRA) during the fourth quarter 2010. Future correspondence should be directed to the CRA Project Manager, Peter Schaefer, who can be reached at (510) 420-3319. If you have any questions regarding this site, please contact Suzanne McClurkin-Nelson (Delta Project Manager) at (408) 826-1875 or Denis Brown (Shell Site Manager) at (707) 865-0251.

Sincerely,

**Delta Consultants** 

Suzanne McClurkin-Nelson

Fram Mila-Well

Senior Project Manager

Regina Bussard, P.G.

Project Geologist

Attachment:

Third Quarter 2010 Groundwater Monitoring Report

BUSSARD No. 8288

cc: Denis Brown, Shell Oil Products US (via electronic)

Danielle Stefani, Livermore-Pleasanton Fire Department

Cheryl Dizon, Zone 7 Water Agency

November 15, 2010 Third Quarter 2010 Groundwater Monitoring Report 4212 (aka 4226) First Street, Pleasanton, California Page 3

#### SHELL QUARTERLY STATUS REPORT

Station Address:	4212 (aka 4226) First Street, Pleasanton, California
Delta Project No.:	SCA421211D
Shell Project Manager / Phone No.:	Denis Brown / (707) 865-0251
Delta Site Manager / Phone No.:	Suzanne McClurkin-Nelson / (408) 826-1875
Primary Agency / Regulatory ID No.:	Alameda County Health Care Services Agency (ACHCSA) (Mr. Jerry Wickham, P.G., CHG)
Other Agencies to Receive Copies:	None

#### WORK PERFORMED THIS QUARTER (THIRD -2010):

- 1. Quarterly groundwater monitoring and sampling; Submitted quarterly report.
- 2. Submitted monthly status reports on progress of remediation system installation.

#### WORK PROPOSED FOR NEXT QUARTER (FOURTH -2010):

- 1. Quarterly groundwater monitoring and sampling; Submit quarterly report.
- 2. Obtain Planning Department permit for construction of remediation system; submit Building Department permit application and additional requirements to Planning Department.
- 3. Schedule construction of remaining remediation wells and system upon receipt of building permit; Prepare report summarizing remediation well installation activities
- 4. Submit monthly status reports on progress of remediation system installation.

Current Phase of Project:	Groundwater monitoring (remediation system in planning)
Site Use:	Shell-branded Service Station
Frequency of Sampling:	Quarterly
Frequency of Monitoring:	Quarterly
Is Separate Phase Hydrocarbon Present Onsite (Well #'s):	Yes No
Cumulative SPH Recovered to Date :	NA
SPH Recovered This Quarter:	None
Sensitive Receptor(s) and Respective Direction(s):	The Arroyo Del Valle Creek is located approximately 1,133 feet north-west of the site. A supply well (3S/1E-21C1) was located 1,000 feet northwest of the site and a municipal well (3S/1E-16P10) was located approximately 1,200 feet north of the site.
Site Lithology:	The site is underlain by interlayered silt, silty sand, gravelly sand and silty gravel.

#### SHELL QUARTERLY STATUS REPORT (CONT.)

Current Remediation Techniques: Quarterly monitoring of natural attenuation

Permits for Discharge: None

Groundwater Recovered This Quarter: 81.6 gallons were recovered on August 5, 2010.

Approximate Depth to Groundwater: 32.00 to 33.82 feet below top of well casing (TOC).

90.10 feet below TOC in deeper Well MW-1B.

Groundwater Gradient: North-northwest at approximately 0.06 ft/ft

Current Agency Correspondence: ACHCSA email dated December 4, 2009, February 10, 2010

and February 24, 2010 (Appendix A)

Date of Most Recent Work Plan Approval: ACHCSA letter dated August 7, 2009 approving Interim

Remediation work Plan (Appendix A)

Site History:

Case Opening 1985

Onsite Assessment 1986 - 2007

Offsite Assessment None

Passive Remediation Monitored Natural Attenuation

Active Remediation June 2007, Step Draw Down;

June, August 2007, Batch Extraction

February 2009, Dual-Phase Extraction Pilot Test

January 2010, Air Sparge Pilot Test

Closure None

Summary of Unusual Activity: None

Analytical results for the third quarter 2010 are consistent with historical data set. Elevated concentrations of total petroleum hydrocarbons as gasoline (TPH-g), benzene, methyl tert-butyl ether (MTBE) and tert-butyl alcohol (TBA) remain in wells MW-1, MW-2 and MW-4.

Remediation wells SVE-1 through SVE-4, a test air sparge well (AS-10) and an observation well (OW-1) were installed January 2010. An Authority to Construct was issued for the site by the Bay Area Air Quality Management District (BAAQMD) on June 29, 2010. Planning Department approval for the proposed soil vapor extraction (SVE) and air sparge (AS) system was received September 22, 2010. The Building Department Permit package should be submitted in November 2010. Installation of the remaining proposed sparge wells (AS-1 through AS-9) and a proposed additional vapor extraction well (SVE-5, west of monitoring well MW-2) was delayed due to transition of the site to Conestoga-Rovers & Associates (CRA) in October 2010. The remaining wells will be scheduled by CRA in 2010; upon receipt of the building department permits, CRA will set the schedule for trenching and installation of the SVE/AS remediation system.

#### **ATTACHMENTS:**

#### Figures:

Figure 1 – Site Location Map

Figure 2 – Groundwater Elevation Contour Map – 8/5/2010

Figure 3 – Groundwater Hydrocarbon Distribution Map – 8/5/2010

#### Table:

Table 1 -Historic Well Concentrations

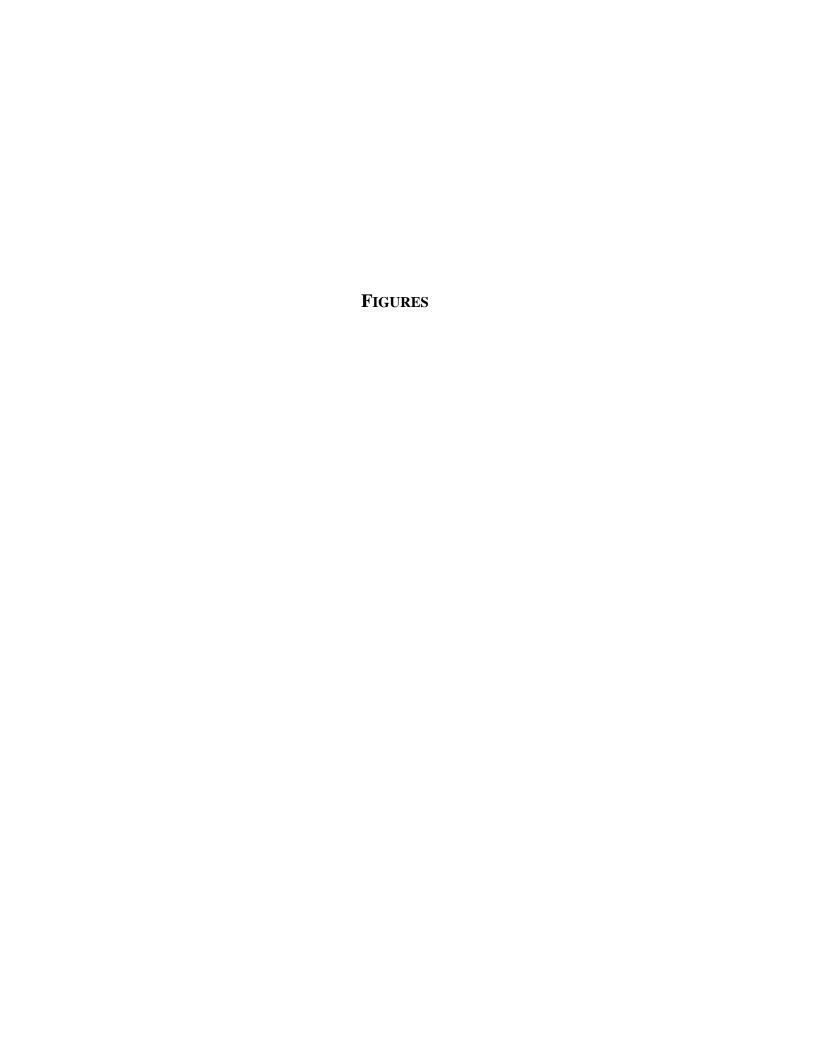
#### Appendices:

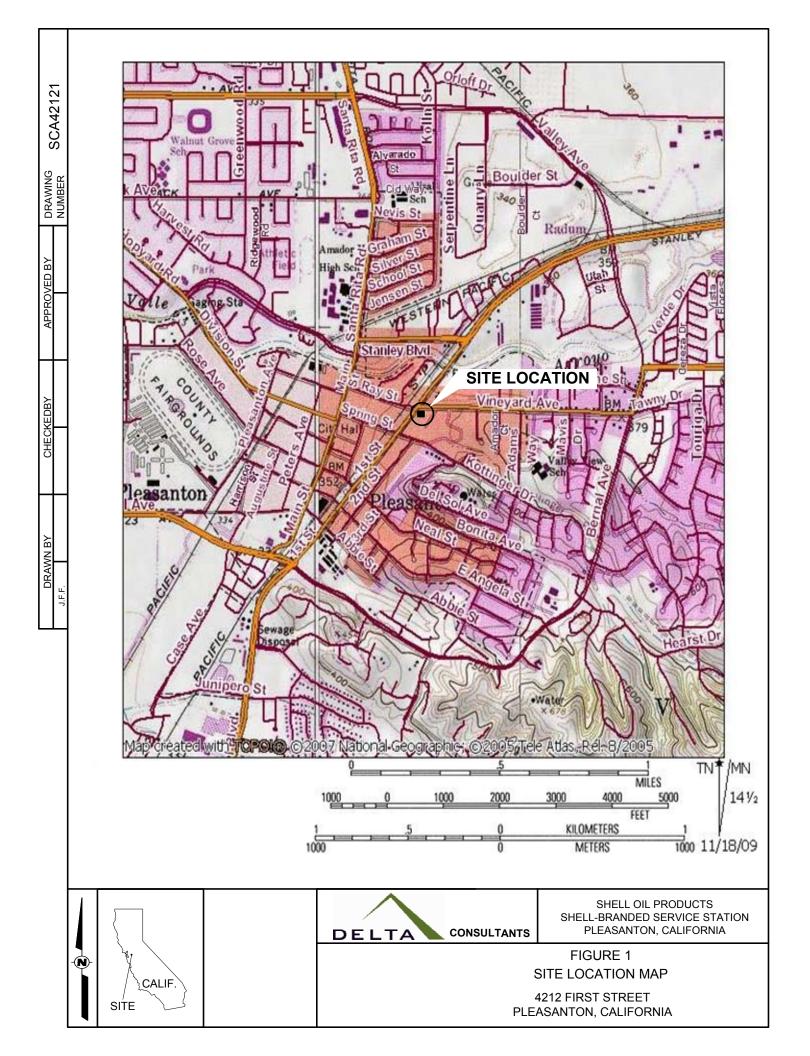
Appendix A – Agency Correspondence

Appendix B – Blaine Tech Services, Inc. Field Data Sheets

Appendix C – Blaine Tech Services, Inc. Field Procedures

Appendix D – Certified Analytical Report with Chain-of-Custody Documentation









LEGEND

MW−1 � GROUNDWATER MONITORING

WELL LOCATION AND DESIGNATION

DESTROYED GROUNDWATER MONITORING WELL LOCATION AND DESIGNATION

TB-1 € ABANDONED TANK BACKFILL WELL

343.08

GROUNDWATER ELEVATION IN FEET ABOVE MEAN SEA LEVEL (Ft/MSL)

**344.00 — — GROUNDWATER CONTOUR** IN FEET ABOVE MEAN SEA

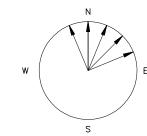
LEVEL (Ft/MSL)

CONTOUR INTERVAL=1.00 FEET

MONITORS DEEPER WATER BEARING ZONE; NOT USED USED IN CONTOURING

APPROXIMATE GROUNDWATER GRADIENT DIRECTION (ft/ft)

HISTORIC GROUNDWATER FLOW DIRECTIONS



MW-1B\*

DATE	FLOW
	DIRECTION
8/5/2005	ENE
11/22/2005	ENE
2/7/2006	NNE
5/16/2006	NNE
8/21/2006	N
11/14/2006	N
2/1/2007	NNE
8/22/2007	N, NNE
11/26/2007	NNE
2/19/2008	NNW
5/23/2008	N
8/7/2008	N, NNW
12/3/2008	NNE
2/5/2009	NNE
5/7/2009	NNW
8/20/2009	NE
11/9/2009	NE
2/11/2010	N
5/13/2010	NNW
8/5/2010	NNW

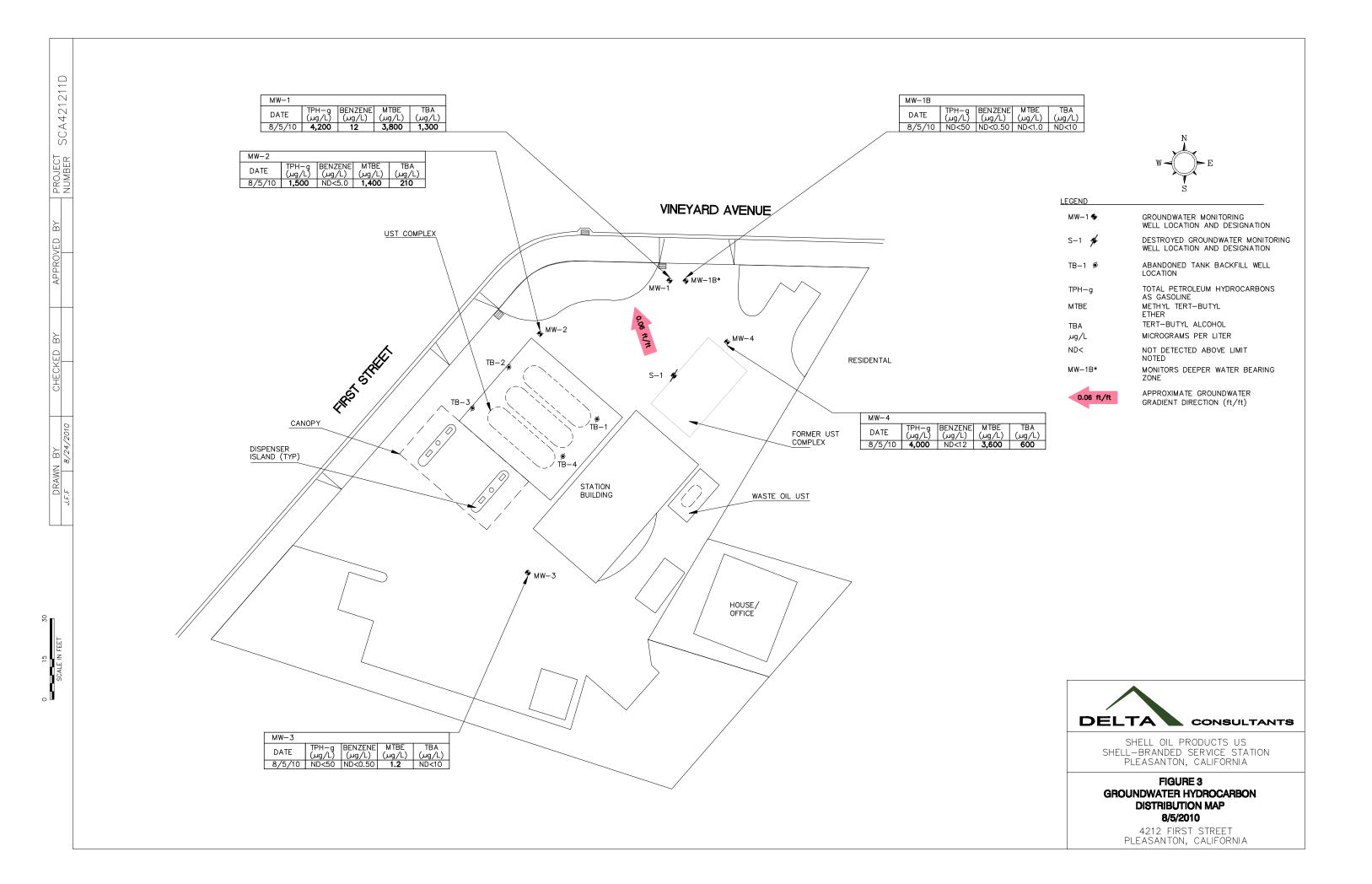


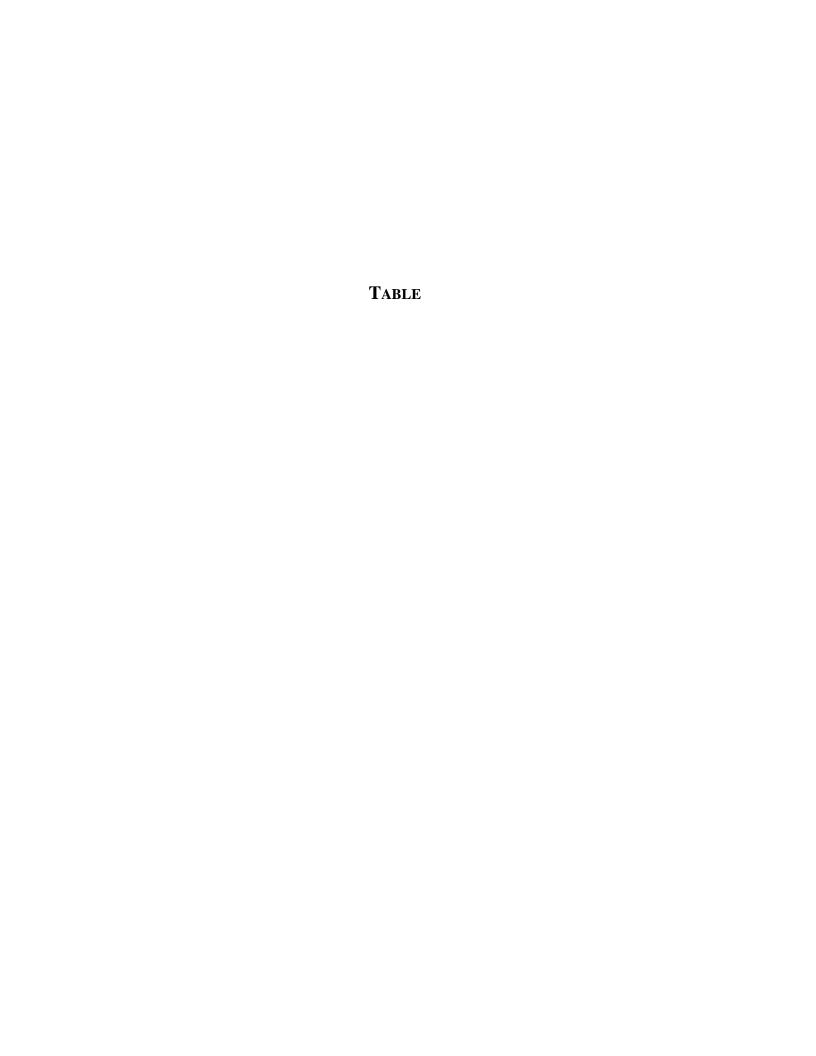
SHELL OIL PRODUCTS US SHELL—BRANDED SERVICE STATION PLEASANTON, CALIFORNIA

#### FIGURE 2

#### **GROUNDWATER ELEVATION CONTOUR MAP** 8/5/2010

4212 FIRST STREET PLEASANTON, CALIFORNIA





							MTBE	MTBE						Depth to	GW
Well ID	Date	TPH-g	В	Т	E	X	8020	8260	DIPE	ETBE	TAME	TBA	TOC	Water	Elevation
		(ug/L)	(MSL)	(ft.)	(MSL)										
MW-1	6/16/1999	NA	371.20	37.81	333.39										
MW-1	6/30/1999	89.0	5.89	<0.500	<0.500	0.652	<5.00	NA	NA	NA	NA	NA	371.20	33.65	337.55
MW-1	9/24/1999	1,560	473	<10.0	<10.0	22.8	<2.50	NA	NA	NA	NA	NA	371.20	37.04	334.16
MW-1	12/8/1999	1,020	375	<5.00	<5.00	15.2	<50.0	NA	NA	NA	NA	NA	371.20	36.79	334.41
MW-1	2/10/2000	523	106	<5.00	<5.00	31.8	2.9	NA	NA	NA	NA	NA	371.20	34.90	336.30
MW-1	5/17/2000	<50.0	<0.500	<0.500	<0.500	<0.500	37	29.5	NA	NA	NA	NA	371.20	32.55	338.65
MW-1	8/3/2000	808	290	<2.50	<2.50	8.9	<12.5	NA	NA	NA	NA	NA	371.20	39.13	332.07
MW-1	10/31/2000	507	250	0.962	<0.500	23.5	3.76	NA	NA	NA	NA	NA	371.20	37.91	333.29
MW-1	3/1/2001	<50.0	<0.500	<0.500	<0.500	<0.500	74.6	NA	NA	NA	NA	NA	371.20	39.60	331.60
MW-1	5/30/2001	780	280	<2.0	<2.0	11	NA	<2.0	NA	NA	NA	NA	371.20	39.53	331.67
MW-1	8/2/2001	1,900	580	<2.5	<2.5	12	NA	<25	NA	NA	NA	NA	371.20	39.61	331.59
MW-1	12/6/2001	840	190	<0.50	<0.50	13	NA	<5.0	NA	NA	NA	NA	371.20	39.63	331.57
MW-1	2/5/2002	2,700	650	<2.5	<2.5	7.2	NA	<25	NA	NA	NA	NA	371.20	35.53	335.67
MW-1	6/17/2002	2,500	550	<2.0	<2.0	5.9	NA	<20	NA	NA	NA	NA	371.20	39.29	331.91
MW-1	7/25/2002	690	130	<0.50	<0.50	4.4	NA	18	NA	NA	NA	NA	371.20	39.39	331.81
MW-1	11/14/2002	400	31	<0.50	<0.50	2.7	NA	27	NA	NA	NA	NA	371.20	40.00	331.20
MW-1	2/12/2003	840	0.85	<0.50	<0.50	<0.50	NA	40	NA	NA	NA	NA	371.20	32.92	338.28
MW-1	5/14/2003	680	190	<2.5	<2.5	<5.0	NA	95	NA	NA	NA	NA	371.20	32.57	338.63
MW-1	7/29/2003	870	190	<2.5	<2.5	<5.0	NA	150	NA	NA	NA	NA	371.20	33.82	337.38
MW-1	11/19/2003	<200	14	<2.0	<2.0	<4.0	NA	230	NA	NA	NA	NA	371.20	38.28	332.92
MW-1	2/19/2004	58 d	11	<0.50	<0.50	<1.0	NA	85	NA	NA	NA	NA	371.20	36.93	334.27
MW-1	5/3/2004	670	310	<2.5	<2.5	<5.0	NA	420	NA	NA	NA	NA	371.20	32.70	338.50
MW-1	8/24/2004	430 d	34	<2.5	<2.5	<5.0	NA	690	NA	NA	NA	NA	371.20	34.66	336.54
MW-1	11/15/2004	<250	29	<2.5	<2.5	<5.0	NA	470	NA	NA	NA	NA	371.20	38.27	332.93
MW-1	2/2/2005	540 e	87	<2.5	<2.5	<5.0	NA	700	NA	NA	NA	NA	371.20	32.02	339.18
MW-1	5/5/2005	460 e	88	<2.5	<2.5	<5.0	NA	300	NA	NA	NA	NA	371.20	36.82	334.38
MW-1	8/5/2005	910	230	<2.5	<2.5	<5.0	NA	480	NA	NA	NA	NA	371.20	33.35	337.85
MW-1	11/22/2005	1,760	27	<0.500	<0.500	1	NA	1,160	NA	NA	NA	NA	371.20	33.42	337.78
MW-1	2/7/2006	4,620	225	<0.500	<0.500	<0.500	NA	1,480	NA	NA	NA	NA	371.20	31.63	339.57
MW-1	5/16/2006	1,100	130	<0.50	2	2	NA	1,600	NA	NA	NA	NA	371.20	31.16	340.04

							MTBE	MTBE						Depth to	GW
Well ID	Date	TPH-g	В	Т	E	X	8020	8260	DIPE	ETBE	TAME	TBA	TOC	Water	Elevation
		(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(MSL)	(ft.)	(MSL)
,															
MW-1	8/21/2006	2,700	86	<0.500	1	1	NA	1,960	NA	NA	NA	NA	371.20	33.07	338.13
MW-1	11/14/2006	1,400 g	30	<25	<25	<25	NA	2,100	<25	<25	<25	<1,000	371.20	33.73	337.47
MW-1	2/1/2007	800	21	<0.50	<0.50	<1.0	NA	2,300	NA	NA	NA	NA	371.20	33.02	338.18
MW-1	6/1/2007	1,400 j,k	68	<20	<20	4.4	NA	2,200	NA	NA	NA	NA	371.20	32.87	338.33
MW-1	8/22/2007	250 j	20	<20	<20	<20	NA	3,100	NA	NA	NA	1,500	371.20	34.64	336.56
MW-1	11/26/2007	1,800 j	33	<20	<20	<20	NA	3,100	<40	<40	<40	930	371.20	35.59	335.61
MW-1	2/19/2008	1,800 j	33	<20	<20	<20	NA	3,700	NA	NA	NA	1,700	371.20	31.05	340.15
MW-1	5/23/2008	3,700	100	<25	<25	<25	NA	3,100	NA	NA	NA	1,300	371.20	31.80	339.40
MW-1	8/7/2008	4,200	33	<25	<25	<25	NA	3,500	NA	NA	NA	<250	371.20	33.03	338.17
MW-1	12/3/2008	3,400	34	<25	<25	<25	NA	3,200	NA	NA	NA	980	371.20	35.19	336.01
MW-1	2/5/2009	2,100	26	<25	<25	<25	NA	1,700	NA	NA	NA	340	371.20	35.07	336.13
MW-1	5/7/2009	4,400	230	<25	<25	<25	NA	3,700	NA	NA	NA	980	371.20	32.45	338.75
MW-1	8/20/2009	3,100	86	<25	<25	<25	NA	2,500	NA	NA	NA	730	371.20	34.48	336.72
MW-1	11/9/2009	3,200	230	<20	<20	33	NA	2,100	<40	<40	<40	530	371.20	35.84	335.36
MW-1	2/11/2010	4,400	30	<20	<20	<20	NA	3,000	NA	NA	NA	730	371.20	34.06	337.14
MW-1	5/13/2010	3,300	38	<20	<20	<20	NA	3,300	NA	NA	NA	1,100	371.20	31.99	339.21
MW-1	8/5/2010	4,200	12	<20	<20	<20	NA	3,800	NA	NA	NA	1,300	371.20	33.70	337.50
MW-1B	9/21/2006	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	371.67	76.94	294.73
MW-1B	9/28/2006	<50	<0.50	<0.50	<0.50	<0.50	NA	21	NA	NA	NA	<20	371.67	77.15	294.52
MW-1B	11/14/2006	320 g	<5.0	<5.0	<5.0	<5.0	NA	310	<5.0	<5.0	<5.0	<200	371.67	69.38	302.29
MW-1B	2/1/2007	77	0.53	<0.50	<0.50	<1.0	NA	150	NA	NA	NA	NA	371.67	60.92	310.75
MW-1B	6/1/2007	<50 j,k	0.25 I	<1.0	<1.0	<1.0	NA	74	NA	NA	NA	NA	371.67	61.07	310.60
MW-1B	8/22/2007	<50 j	0.25 I	<1.0	<1.0	<1.0	NA	35	NA	NA	NA	7.1 l	371.67	77.54	294.13
MW-1B	11/26/2007	<50 j	<0.50	<1.0	<1.0	<1.0	NA	1.7	<2.0	<2.0	<2.0	<10	371.67	68.50	303.17
MW-1B	2/19/2008	65 j	2.6	4.2	<1.0	1.1	NA	58	NA	NA	NA	<10	371.67	57.21	314.46
MW-1B	5/23/2008	<50	<0.50	<1.0	<1.0	<1.0	NA	3.6	NA	NA	NA	<10	371.67	57.53	314.14
MW-1B	8/7/2008	<50	<0.50	<1.0	<1.0	<1.0	NA	1.1	NA	NA	NA	<10	371.67	72.51	299.16
MW-1B	12/3/2008	<50	<0.50	<1.0	<1.0	<1.0	NA	3.4	NA	NA	NA	<10	371.67	80.84	290.83
MW-1B	2/5/2009	<50	<0.50	<1.0	<1.0	<1.0	NA	4.4	NA	NA	NA	<10	371.67	76.11	295.56
MW-1B	5/7/2009	<50	<0.50	<1.0	<1.0	<1.0	NA	2.5	NA	NA	NA	13	371.67	66.97	304.70

							MTBE	MTBE						Depth to	GW
Well ID	Date	TPH-g	В	Т	Е	Х	8020	8260	DIPE	ETBE	TAME	TBA	TOC	Water	Elevation
		(ug/L)	(MSL)	(ft.)	(MSL)										
MW-1B	8/20/2009	<50	<0.50	<1.0	<1.0	<1.0	NA	1.7	NA	NA	NA	<10	371.67	97.32	274.35
MW-1B	11/9/2009	<50	<0.50	<1.0	<1.0	<1.0	NA	<1.0	<2.0	<2.0	<2.0	<10	371.67	98.90	272.77
MW-1B	2/11/2010	<50	<0.50	<1.0	<1.0	<1.0	NA	1.1	NA	NA	NA	<10	371.67	90.72	280.95
MW-1B	5/13/2010	<50	<0.50	<1.0	<1.0	<1.0	NA	2.0	NA	NA	NA	<10	371.67	80.56	291.11
MW-1B	8/5/2010	<50	<0.50	<1.0	<1.0	<1.0	NA	<1.0	NA	NA	NA	<10	371.67	90.10	281.57
-															
MW-2	2/3/2000	NA	372.40	32.65	339.75										
MW-2	2/7/2000	NA	372.40	35.51	336.89										
MW-2	2/10/2000	<50.0	<0.500	<0.500	<0.500	<0.500	2.61	NA	NA	NA	NA	NA	372.40	36.62	335.78
MW-2	5/17/2000	120	4.09	<0.500	<0.500	<0.500	29	NA	NA	NA	NA	NA	372.40	32.14	340.26
MW-2	8/3/2000	<50.0	0.692	<0.500	<0.500	<0.500	40.5	36.6b	NA	NA	NA	NA	372.40	32.42	339.98
MW-2	10/31/2000	<50.0	<0.500	<0.500	<0.500	<0.500	57.4	44.8c	NA	NA	NA	NA	372.40	33.02	339.38
MW-2	3/1/2001	173	1.64	1.65	2.86	3.97	127	167	NA	NA	NA	NA	372.40	32.54	339.86
MW-2	5/30/2001	<50	<0.50	<0.50	<0.50	<0.50	NA	170	NA	NA	NA	NA	372.40	32.42	339.98
MW-2	8/2/2001	<50	<0.50	<0.50	<0.50	<0.50	NA	160	NA	NA	NA	NA	372.40	32.55	339.85
MW-2	12/6/2001	<50	<0.50	<0.50	<0.50	<0.50	NA	170	NA	NA	NA	NA	372.40	33.15	339.25
MW-2	2/5/2002	<50	0.72	<0.50	<0.50	1.7	NA	170	NA	NA	NA	NA	372.40	32.29	340.11
MW-2	6/17/2002	<50	<0.50	<0.50	<0.50	<0.50	NA	260	NA	NA	NA	NA	372.40	32.63	339.77
MW-2	7/25/2002	<50	<0.50	<0.50	<0.50	<0.50	NA	280	NA	NA	NA	NA	372.40	32.80	339.60
MW-2	11/14/2002	120	13	9	3.8	14	NA	430	NA	NA	NA	NA	372.40	33.31	339.09
MW-2	2/12/2003	<100	<1.0	<1.0	<1.0	<1.0	NA	430	NA	NA	NA	NA	372.40	32.15	340.25
MW-2	5/14/2003	<250	<2.5	<2.5	<2.5	<5.0	NA	470	NA	NA	NA	NA	372.40	32.01	340.39
MW-2	7/29/2003	<250	<2.5	<2.5	<2.5	<5.0	NA	670	NA	NA	NA	NA	372.40	32.51	339.89
MW-2	11/19/2003	<50	<0.50	<0.50	<0.50	<1.0	NA	54	NA	NA	NA	NA	372.40	33.83	338.57
MW-2	2/19/2004	65	<0.50	3.4	1.4	6.5	NA	8.2	NA	NA	NA	NA	372.40	32.68	339.72
MW-2	5/3/2004	<50	<0.50	<0.50	<0.50	<1.0	NA	5.2	NA	NA	NA	NA	372.40	32.07	340.33
MW-2	8/24/2004	<50	<0.50	<0.50	<0.50	<1.0	NA	2.7	NA	NA	NA	NA	372.40	32.44	339.96
MW-2	11/15/2004	<50	<0.50	<0.50	<0.50	<1.0	NA	1.3	NA	NA	NA	NA	372.40	32.95	339.45
MW-2	2/2/2005	<50	<0.50	<0.50	<0.50	<1.0	NA	24	NA	NA	NA	NA	372.40	31.94	340.46
MW-2	5/5/2005	72 f	<0.50	<0.50	<0.50	<1.0	NA	4.9	NA	NA	NA	NA	372.40	31.91	340.49
MW-2	8/5/2005	<50	<0.50	<0.50	<0.50	<1.0	NA	16	NA	NA	NA	NA	372.40	32.15	340.25

							MTBE	MTBE						Depth to	GW
Well ID	Date	TPH-g	В	Т	Е	X	8020	8260	DIPE	ETBE	TAME	TBA	TOC	Water	Elevation
		(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(MSL)	(ft.)	(MSL)
MW-2	11/22/2005	840	1	<0.500	<0.500	1	NA	556	NA	NA	NA	NA	372.40	32.31	340.09
MW-2	2/7/2006	3,550	<0.500	<0.500	<0.500	<0.500	NA	2,500	NA	NA	NA	NA	372.40	31.70	340.70
MW-2	5/16/2006	1,400	<5.0	<5.0	<5.0	<10	NA	1,700	NA	NA	NA	NA	372.40	31.38	341.02
MW-2	8/21/2006	1,910	<0.500	<0.500	<0.500	<0.500	NA	2,590	NA	NA	NA	NA	372.40	33.29	339.11
MW-2	11/14/2006	2,300 g	<25	<25	<25	<25	NA	2,500	<25	<25	<25	<1,000	372.40	32.67	339.73
MW-2	2/1/2007	670	<0.50	<0.50	<0.50	<1.0	NA	2,000	NA	NA	NA	NA	372.40	32.13	340.27
MW-2	6/1/2007	500 j,k	<10	<20	<20	<20	NA	2,000	NA	NA	NA	NA	372.40	32.14	340.26
MW-2	8/22/2007	100 j,k	<10	<20	<20	<20	NA	2,400	NA	NA	NA	120 I	372.40	32.93	339.47
MW-2	11/26/2007	1,600 j,k	<10	<20	<20	<20	NA	2,900	<40	<40	<40	<200	372.40	33.44	338.96
MW-2	2/19/2008	1,300 j,k	<10	<20	<20	<20	NA	3,300	NA	NA	NA	<200	372.40	31.18	341.22
MW-2	5/23/2008	1,900	<12	<25	<25	<25	NA	1,700	NA	NA	NA	<250	372.40	31.44	340.96
MW-2	8/7/2008	1,700	<10	<20	<20	<20	NA	1,300	NA	NA	NA	<200	372.40	31.94	340.46
MW-2	12/3/2008	3,000	<10	<20	<20	<20	NA	2,900	NA	NA	NA	<200	372.40	32.53	339.87
MW-2	2/5/2009	1,200	<10	<20	<20	<20	NA	1,000	NA	NA	NA	<200	372.40	32.29	340.11
MW-2	5/7/2009	2,400	<10	<20	<20	<20	NA	2,400	NA	NA	NA	<200	372.40	31.98	340.42
MW-2	8/20/2009	2,800	<10	<20	<20	<20	NA	2,400	NA	NA	NA	<200	372.40	32.51	339.89
MW-2	11/9/2009	4,100	<12	<25	<25	<25	NA	3,800	<50	<50	<50	<250	372.40	32.43	339.97
MW-2	2/11/2010	4,300	<12	<25	<25	<25	NA	3,200	NA	NA	NA	<250	372.40	32.07	340.33
MW-2	5/13/2010	2,400	<10	<20	<20	<20	NA	2,500	NA	NA	NA	<200	372.40	31.63	340.77
MW-2	8/5/2010	1,500	<5.0	<10	<10	<10	NA	1,400	NA	NA	NA	210	372.40	33.82	338.58
MW-3	2/3/2000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	375.05	32.06	342.99
MW-3	2/7/2000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	375.05	32.57	342.48
MW-3	2/10/2000	180	5.12	<0.500	<0.500	0.714	26.8	21.5a	NA	NA	NA	NA	375.05	32.77	342.28
MW-3	5/17/2000	1,360	414	<5.00	<5.00	17.6	<25.0	NA	NA	NA	NA	NA	375.05	31.00	344.05
MW-3	8/3/2000	<50.0	0.536	<0.500	<0.500	<0.500	22	NA	NA	NA	NA	NA	375.05	31.03	344.02
MW-3	10/31/2000	<50.0	<0.500	<0.500	<0.500	<0.500	31.1	NA	NA	NA	NA	NA	375.05	31.28	343.77
MW-3	3/1/2001	384	172	0.815	<0.500	8	5.16	NA	NA	NA	NA	NA	375.05	31.21	343.84
MW-3	5/30/2001	<50	<0.50	<0.50	<0.50	<0.50	NA	110	NA	NA	NA	NA	375.05	31.02	344.03
MW-3	8/2/2001	<50	<0.50	<0.50	<0.50	<0.50	NA	93	NA	NA	NA	NA	375.05	30.94	344.11
MW-3	12/6/2001	110	<0.50	<0.50	<0.50	2.3	NA	180	NA	NA	NA	NA	375.05	31.28	343.77

							MTBE	MTBE						Depth to	GW
Well ID	Date	TPH-g	В	Т	Е	X	8020	8260	DIPE	ETBE	TAME	TBA	TOC	Water	Elevation
		(ug/L)	(MSL)	(ft.)	(MSL)										
MW-3	2/5/2002	<50	0.89	0.6	<0.50	2.1	NA	130	NA	NA	NA	NA	375.05	31.12	343.93
MW-3	6/17/2002	<50	<0.50	<0.50	<0.50	<0.50	NA	72	NA	NA	NA	NA	375.05	31.21	343.84
MW-3	7/25/2002	<50	<0.50	<0.50	<0.50	<0.50	NA	81	NA	NA	NA	NA	375.05	30.96	344.09
MW-3	11/14/2002	<50	<0.50	<0.50	<0.50	<0.50	NA	60	NA	NA	NA	NA	375.05	31.44	343.61
MW-3	2/12/2003	<50	<0.50	<0.50	<0.50	<0.50	NA	43	NA	NA	NA	NA	375.05	31.28	343.77
MW-3	5/14/2003	<50	<0.50	<0.50	<0.50	<1.0	NA	24	NA	NA	NA	NA	375.05	31.20	343.85
MW-3	7/29/2003	<50	<0.50	<0.50	<0.50	<1.0	NA	21	NA	NA	NA	NA	375.05	31.29	343.76
MW-3	11/19/2003	<50	<0.50	<0.50	<0.50	<1.0	NA	8.2	NA	NA	NA	NA	375.05	31.86	343.19
MW-3	2/19/2004	81	0.67	4.4	1.8	8.6	NA	13	NA	NA	NA	NA	375.05	31.66	343.39
MW-3	5/3/2004	<50	<0.50	<0.50	<0.50	<1.0	NA	13	NA	NA	NA	NA	375.05	31.72	343.33
MW-3	8/24/2004	<50	<0.50	<0.50	<0.50	<1.0	NA	10	NA	NA	NA	NA	375.05	32.09	342.96
MW-3	11/15/2004	<50	<0.50	<0.50	<0.50	<1.0	NA	6.6	NA	NA	NA	NA	375.05	31.50	343.55
MW-3	2/2/2005	<50	<0.50	<0.50	<0.50	<1.0	NA	3.1	NA	NA	NA	NA	375.05	31.28	343.77
MW-3	5/5/2005	<50	<0.50	<0.50	<0.50	<1.0	NA	2.3	NA	NA	NA	NA	375.05	31.42	343.63
MW-3	8/5/2005	<50	<0.50	<0.50	<0.50	<1.0	NA	2.4	NA	NA	NA	NA	375.05	31.35	343.70
MW-3	11/22/2005	<50	<0.500	<0.500	<0.500	<0.500	NA	3.84	NA	NA	NA	NA	375.05	31.98	343.07
MW-3	2/7/2006	<50.0	<0.500	<0.500	<0.500	<0.500	NA	<0.500	NA	NA	NA	NA	375.05	31.24	343.81
MW-3	5/16/2006	<50	<0.50	<0.50	<0.50	<1.0	NA	4.5	NA	NA	NA	NA	375.05	31.37	343.68
MW-3	8/21/2006	<50.0	<0.500	<0.500	<0.500	<0.500	NA	4.04	NA	NA	NA	NA	375.05	31.95	343.10
MW-3	11/14/2006	<50	<0.50	<0.50	<0.50	<0.50	NA	3.8	<0.50	<0.50	<0.50	<20	375.05	32.24	342.81
MW-3	2/1/2007	<50	<0.50	<0.50	<0.50	<1.0	NA	2.8	NA	NA	NA	NA	375.05	32.17	342.88
MW-3	6/1/2007	<50 j	<0.50	<1.0	<1.0	<1.0	NA	3.1	NA	NA	NA	NA	375.05	31.86	343.19
MW-3	8/22/2007	<50 j	<0.50	<1.0	<1.0	<1.0	NA	4.6	NA	NA	NA	<10	375.05	32.18	342.87
MW-3	11/26/2007	<50 j	<0.50	<1.0	<1.0	<1.0	NA	3.5	<2.0	<2.0	<2.0	<10	375.05	32.69	342.36
MW-3	2/19/2008	<50 j	<0.50	1.2	<1.0	<1.0	NA	2.6	NA	NA	NA	<10	375.05	30.94	344.11
MW-3	5/23/2008	<50	<0.50	<1.0	<1.0	<1.0	NA	3.6	NA	NA	NA	<10	375.05	31.45	343.60
MW-3	8/7/2008	<50	<0.50	<1.0	<1.0	<1.0	NA	3.0	NA	NA	NA	<10	375.05	31.40	343.65
MW-3	12/3/2008	<50	<0.50	<1.0	<1.0	<1.0	NA	2.1	NA	NA	NA	<10	375.05	32.12	342.93
MW-3	2/5/2009	<50	<0.50	<1.0	<1.0	<1.0	NA	1.1	NA	NA	NA	<10	375.05	32.74	342.31
MW-3	5/7/2009	<50	<0.50	<1.0	<1.0	<1.0	NA	<1.0	NA	NA	NA	<10	375.05	31.69	343.36
MW-3	8/20/2009	<50	<0.50	<1.0	<1.0	<1.0	NA	2.0	NA	NA	NA	<10	375.05	32.42	342.63

Well ID	Date	TPH-g (ug/L)	<b>B</b> (ug/L)	T (ug/L)	<b>E</b> (ug/L)	X (ug/L)	<b>MTBE</b> <b>8020</b> (ug/L)	<b>MTBE</b> <b>8260</b> (ug/L)	<b>DIPE</b> (ug/L)	ETBE (ug/L)	TAME (ug/L)	TBA (ug/L)	TOC (MSL)	Depth to Water (ft.)	GW Elevation (MSL)
MW-3	11/9/2009	<50	<0.50	<1.0	<1.0	<1.0	NA	1.7	<2.0	<2.0	<2.0	<10	375.05	32.54	342.51
MW-3	2/11/2010	<50	<0.50	<1.0	<1.0	<1.0	NA	2.1	NA	NA	NA	<10	375.05	31.81	343.24
MW-3	5/13/2010	<50	<0.50	<1.0	<1.0	<1.0	NA	1.7	NA	NA	NA	<10	375.05	31.25	343.80
MW-3	8/5/2010	<50	<0.50	<1.0	<1.0	<1.0	NA	1.2	NA	NA	NA	<10	375.05	32.00	343.05
MW-4	9/21/2006	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	372.78	31.58	341.20
MW-4	9/28/2006	11,000	<250	<250	<250	<250	NA	13,000	NA	NA	NA	<10,000	372.78	31.57	341.21
MW-4	11/14/2006	30,000	<250	<250	<250	<250 h,i	NA	14,000	<250	<250	<250	<10,000	372.78	32.11	340.67
MW-4	2/1/2007	6,300	50	<5.0	19	120	NA	14,000	NA	NA	NA	NA	372.78	33.23	339.55
MW-4	6/1/2007	8,200 j	52	<25	26	150	NA	11,000	NA	NA	NA	NA	372.78	31.57	341.21
MW-4	8/22/2007	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	372.78	33.40	339.38
MW-4	11/26/2007	12,000 j	71	<100	<100	<100	NA	20,000	<200	<200	<200	<1,000	372.78	34.74	338.04
MW-4	2/19/2008	13,000 j	<100	<200	<200	<200	NA	18,000	NA	NA	NA	2,900	372.78	29.70	343.08
MW-4	5/23/2008	21,000	<100	<200	<200	<200	NA	16,000	NA	NA	NA	<2,000	372.78	31.67	341.11
MW-4	8/7/2008	27,000	<100	<200	<200	<200	NA	21,000	NA	NA	NA	<2,000	372.78	31.90	340.88
MW-4	12/3/2008	20,000	19	<25	<25	29	NA	21,000	NA	NA	NA	2,500	372.78	34.32	338.46
MW-4	2/5/2009	15,000	200	<200	<200	<200	NA	13,000	NA	NA	NA	<2,000	372.78	34.58	338.20
MW-4	5/7/2009	18,000	<100	<200	<200	<200	NA	17,000	NA	NA	NA	<2,000	372.78	31.34	341.44
MW-4	8/20/2009	15,000	<50	<100	<100	<100	NA	13,000	NA	NA	NA	1,900	372.78	33.56	339.22
MW-4	11/9/2009	13,000	<50	<100	<100	<100	NA	11,000	<200	<200	<200	<1000	372.78	33.57	339.21
MW-4	2/11/2010	11,000	95	<100	<100	110	NA	7,500	NA	NA	NA	3,200	372.78	31.21	341.57
MW-4	5/13/2010	8,800	48	<50	57	96	NA	7,800	NA	NA	NA	2,900	372.78	30.19	342.59
MW-4	8/5/2010	4,000	<12	<25	<25	<25	NA	3,600	NA	NA	NA	600	372.78	32.22	340.56

Shell-branded Service Station 4212 (aka 4226) First Street Pleasanton, California

			_			.,	MTBE	MTBE						Depth to	GW
Well ID	Date	TPH-g	В	Τ	E	X	8020	8260	DIPE	ETBE	TAME	TBA	TOC	Water	Elevation
		(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(MSL)	(ft.)	(MSL)
TB-1	2/12/2003	Well inacce	essible	NA	NA	NA	NA								
TB-1	2/28/2003	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	12.54	NA
TB-1	5/14/2003	<50	<0.50	<0.50	<0.50	<1.0	NA	<5.0	NA	NA	NA	NA	NA	12.31	NA
TB-2	2/12/2003	Well inacce	essible	NA	NA	NA	NA								
TB-2	2/28/2003	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	12.56	NA
TB-2	5/14/2003	Insufficient	water	NA	NA	12.54	NA								
TB-3	2/12/2003	Well dry	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TB-3	2/28/2003	Well dry	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TB-3	5/14/2003	Well dry	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TB-4	2/12/2003	Well dry	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TB-4	2/28/2003	Well dry	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TB-4	5/14/2003	Well dry	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

#### **Abbreviations:**

TPH-g = Total petroleum hydrocarbons as gasoline by EPA Method 8260B; prior to May 30, 2001, analyzed by EPA Method 8015.

BTEX = Benzene, toluene, ethylbenzene, xylenes by EPA Method 8260B; prior to May 30, 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

Shell-branded Service Station 4212 (aka 4226) First Street Pleasanton, California

							MTBE	MTBE						Depth to	GW
Well ID	Date	TPH-g	В	Т	E	X	8020	8260	DIPE	ETBE	TAME	TBA	TOC	Water	Elevation
		(ug/L)	(MSL)	(ft.)	(MSL)										

#### Notes:

- a = Sample was analyzed outside of the EPA recommended holding time.
- b = Concentration is an estimate value above the linear quantitation range.
- c = The result reported was generated out of time. The sample was originally run within hold time, but needed to be re-analyzed.
- d = Sample contains discrete peak in addition to gasoline.
- e = Quantity of unknown hydrocarbon(s) in sample based on gasoline.
- f = The concentration reported reflect(s) individual or discrete unidentified peaks not matching a typical fuel pattern.
- g = The result for this hydrocarbon is elevated due to the presence of single analyte peak(s) in the quantitation range.
- h = Sample was originally analyzed with a positive result, however the reanalysis did not confirm the presence of the analyte.
- i = Confirmatory analysis was past holding time.
- j = Analyzed by EPA Method 8015B (M).
- k = The sample chromatographic pattern for TPH does not match the chromatographic pattern of the specified standard. Quantitation of the unknown hydrocarbon(s) in the sample was based upon the specified standard.
- I = Analyte was detected at a concentration below the reporting limit and above the laboratory method detection limit. Reported value is estimated.

Well MW-1 surveyed on May 4, 1999 by Virgil Chavez Land Surveying of Vallejo, CA.

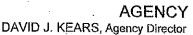
Site surveyed on March 19, 2000 by Virgil Chavez Land Surveying of Vallejo, CA.

Site surveyed on January 15, 2002 by Virgil Chavez Land Surveying of Vallejo, CA.

3Q06 survey data for wells MW-1B and MW-4 provided by Delta Environmental Consultants, Inc. of San Jose, CA.

## APPENDIX A AGENCY CORRESPONDENCE

## ALAMEDA COUNTY HEALTH CARE SERVICES





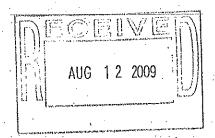
ENVIRONMENTAL HEALTH SERVICES ENVIRONMENTAL PROTECTION 1131 Harbor Bay Parkway, Suite 250 Alameda, CA 94502-6577

(510) 567-6700 FAX (510) 337-93

August 7, 2009

Denis Brown Shell Oil Products US 20945 S. Wilmington Ave. Carson, CA 90810-1039

Douglas and Mary Safreno 1627 Vineyard Avenue Pleasanton, CA 94566-6389



Subject: Fuel Leak Case No. RO0000360 and Geotracker Global ID T0600101259, Shell#13-5782, 4226 First Street, Pleasanton, CA 94566 – Work Plan Approval

Dear Mr. Brown and Mr. and Ms. Safreno:

Alameda County Environmental Health (ACEH) staff has reviewed the fuel leak case file for the above-referenced site including the reports entitled, "Interim Remediation Work Plan, Shell-branded Service Station, 4212 First Street, Pleasanton, California," dated June 1, 2009 (Work Plan). The Work Plan was prepared on Shell's behalf by Delta Environmental Consultants, Inc.

The Work Plan proposes installation of a soil vapor extraction and air sparging system including extraction wells, sparging wells, and observation wells for interim remediation to address elevated concentrations of fuel hydrocarbons in soil and groundwater at the site. The proposed scope of work is acceptable and may be implemented as proposed.

#### **TECHNICAL REPORT REQUEST**

Please submit technical reports to Alameda County Environmental Health (Attention: Jerry Wickham), according to the following schedule:

- December 14, 2009 System Installation and Start-up Report
- 45 days following the end of each quarter following system installation and start-up —
   Quarterly Remediation Progress and Monitoring Report

These reports are being requested pursuant to California Health and Safety Code Section 25296.10. 23 CCR Sections 2652 through 2654, and 2721 through 2728 outline the responsibilities of a responsible party in response to an unauthorized release from a petroleum UST system, and require your compliance with this request.

Denis Brown Douglas and Mary Safreno RO0000360 August 7, 2009 Page 2

#### **ELECTRONIC SUBMITTAL OF REPORTS**

ACEH's Environmental Cleanup Oversight Programs (LOP and SLIC) require submission of reports in electronic form. The electronic copy replaces paper copies and is expected to be used for all public information requests, regulatory review, and compliance/enforcement activities. submission of electronic documents to the Alameda County Environmental Cleanup Oversight Program FTP site are provided on the attached "Electronic Report Upload Instructions." Submission of reports to the Alameda County FTP site is an addition to existing requirements for electronic submittal of information to the State Water Resources Control Board (SWRCB) Geotracker website. In September 2004, the SWRCB adopted regulations that require electronic submittal of information for all groundwater cleanup programs. For several years, responsible parties for cleanup of leaks from underground storage tanks (USTs) have been required to submit groundwater analytical data, surveyed locations of monitoring wells, and other data to the Geotracker database over the Internet. Beginning July 1, 2005, these same reporting requirements were added to Spills, Leaks, Investigations, and Cleanup (SLIC) sites. Beginning July 1, 2005, electronic submittal of a complete copy of all reports for all sites is required in Geotracker (in Please visit the SWRCB website for more information on these requirements PDF format). (http://www.swrcb.ca.gov/ust/cleanup/electronic reporting).

#### PERJURY STATEMENT

All work plans, technical reports, or technical documents submitted to ACEH must be accompanied by a cover letter from the responsible party that states, at a minimum, the following: "I declare, under penalty of perjury, that the information and/or recommendations contained in the attached document or report is true and correct to the best of my knowledge." This letter must be signed by an officer or legally authorized representative of your company. Please include a cover letter satisfying these requirements with all future reports and technical documents submitted for this fuel leak case.

#### PROFESSIONAL CERTIFICATION & CONCLUSIONS/RECOMMENDATIONS

The California Business and Professions Code (Sections 6735, 6835, and 7835.1) requires that work plans and technical or implementation reports containing geologic or engineering evaluations and/or judgments be performed under the direction of an appropriately registered or certified professional. For your submittal to be considered a valid technical report, you are to present site specific data, data interpretations, and recommendations prepared by an appropriately licensed professional and include the professional registration stamp, signature, and statement of professional certification. Please ensure all that all technical reports submitted for this fuel leak case meet this requirement.

#### UNDERGROUND STORAGE TANK CLEANUP FUND

Please note that delays in investigation, later reports, or enforcement actions may result in your becoming ineligible to receive grant money from the state's Underground Storage Tank Cleanup Fund (Senate Bill 2004) to reimburse you for the cost of cleanup.

Denis Brown Douglas and Mary Safreno RO0000360 August 7, 2009 Page 3

#### **AGENCY OVERSIGHT**

If it appears as though significant delays are occurring or reports are not submitted as requested, we will consider referring your case to the Regional Board or other appropriate agency, including the County District Attorney, for possible enforcement actions. California Health and Safety Code, Section 25299.76 authorizes enforcement including administrative action or monetary penalties of up to \$10,000 per day for each day of violation.

If you have any questions, please call me at (510) 567-6791 or send me an electronic mail message at jerry.wickham@acgov.org.

Sincerely,

Jerry Wickham, California PG 3766, CEG 1177, and CHG 297

Senior Hazardous Materials Specialist

Enclosure: ACEH Electronic Report Upload (ftp) Instructions

cc: Cheryl Dizon, QIC 80201, Zone 7 Water Agency, 100 North Canyons Parkway Livermore, CA 94551

Danielle Stefani, Livermore-Pleasanton Fire Department, 3560 Nevada Street Pleasanton, CA 94566

Suzanne McClurkin-Nelson, Delta Environmental Consultants, Inc., 312 Piercy Road, San Jose, CA 95138

Donna Drogos, ACEH Jerry Wickham, ACEH File

## Alameda County Environmental Cleanup Oversight Programs (LOP and SLIC)

ISSUE DATE: July 5, 2005

REVISION DATE: March 27, 2009

PREVIOUS REVISIONS: December 16, 2005,

October 31, 2005

SECTION: Miscellaneous Administrative Topics & Procedures

SUBJECT: Electronic Report Upload (ftp) Instructions

The Alameda County Environmental Cleanup Oversight Programs (LOP and SLIC) require submission of all reports in electronic form to the county's ftp site. Paper copies of reports will no longer be accepted. The electronic copy replaces the paper copy and will be used for all public information requests, regulatory review, and compliance/enforcement activities.

#### REQUIREMENTS

Entire report including cover letter must be submitted to the ftp site as a single portable document format (PDF) with no password protection. (Please do not submit reports as attachments to electronic mail.)

It is preferable that reports be converted to PDF format from their original format, (e.g., Microsoft Word) rather than scanned.

Signature pages and perjury statements must be included and have either original or electronic signature.

Do not password protect the document. Once indexed and inserted into the correct electronic case file, the document will be secured in compliance with the County's current security standards and a password. Documents with password protection will not be accepted.

Each page in the PDF document should be rotated in the direction that will make it easiest to read on a computer

monitor.

Reports must be named and saved using the following naming convention:

RO# Report Name\_Year-Month-Date (e.g., RO#5555\_WorkPlan\_2005-06-14)

#### Additional Recommendations

A separate copy of the tables in the document should be submitted by e-mail to your Caseworker in Excel format.
 These are for use by assigned Caseworker only.

#### **Submission Instructions**

1) Obtain User Name and Password:

- a) Contact the Alameda County Environmental Health Department to obtain a User Name and Password to upload files to the ftp site.
  - i) Send an e-mail to dehloptoxic@acgov.org

Or

ii) Send a fax on company letterhead to (510) 337-9335, to the attention of My Le Huynh.

- b) In the subject line of your request, be sure to include "ftp PASSWORD REQUEST" and in the body of your request, include the Contact Information, Site Addresses, and the Case Numbers (RO# available in Geotracker) you will be posting for.
- 2) Upload Files to the ftp Site

a) Using Internet Explorer (IE4+), go to ftp://alcoftp1.acgov.org

(i) Note: Netscape and Firefox browsers will not open the FTP site.

b) Click on File, then on Login As.

c) Enter your User Name and Password. (Note: Both are Case Sensitive.)

d) Open "My Computer" on your computer and navigate to the file(s) you wish to upload to the ftp site.

- e) With both "My Computer" and the ftp site open in separate windows, drag and drop the file(s) from "My Computer" to the ftp window.
- 3) Send E-mail Notifications to the Environmental Cleanup Oversight Programs

a) Send email to dehloptoxic@acgov.org notify us that you have placed a report on our ftp site.

b) Copy your Caseworker on the e-mail. Your Caseworker's e-mail address is the entire first name then a period and entire last name @acgov.org. (e.g., firstname.lastname@acgov.org)

c) The subject line of the e-mail must start with the RO# followed by Report Upload. (e.g., Subject: RO1234 Report Upload) If site is a new case without an RO# use the street address instead.

d) If your document meets the above requirements and you follow the submission instructions, you will receive a notification by email indicating that your document was successfully uploaded to the ftp site.

#### **Suzanne McClurkin-Nelson**

From: Wickham, Jerry, Env. Health [jerry.wickham@acgov.org]

Sent: Friday, December 04, 2009 6:03 PM

To: Suzanne McClurkin-Nelson

Cc: Regina Bussard; denis.l.brown@shell.com; Scott Pearson

Subject: RE: 4226 First St., Pleasanton (aka 4212) (Case No. RO0000360)

#### Suzanne,

The proposal to extend the schedule for submittal of a System Installation and Startup Report beyond December 14, 2009 and to provide a detailed schedule for proposed system installation no later than December 14, 2009 is acceptable. ACEH may provide additional comments pending review of the detailed schedule.

#### Regards,

Jerry Wickham
Alameda County Environmental Health
1131 Harbor Bay Parkway
Alameda, CA 94502
510-567-6791
jerry.wickham@acgov.org

From: Suzanne McClurkin-Nelson [mailto:SMcClurkin-Nelson@deltaenv.com]

Sent: Wednesday, November 25, 2009 2:12 PM

To: Wickham, Jerry, Env. Health

Cc: Suzanne McClurkin-Nelson; Regina Bussard; denis.l.brown@shell.com; Scott Pearson

Subject: 4226 First St., Pleasanton (aka 4212) (Case No. RO0000360)

Importance: High

Jerry; As we discussed Monday, I have attached a letter proposing a change in the deliverable requested in your letter dated August 7, 2009 as noted below:

- Provide detailed schedule of pre-field and field work for proposed system installation no later than December 14, 2009.
- Provide monthly status reports each month thereafter, beginning 1/15/10, until the system is installed, at which time a proposed date for submittal of a System Installation and Startup Report will be finalized.

Please let me know if this is an acceptable schedule - thanks!

Suzanne McClurkin-Nelson | Senior Project Manager | Global Oil & Gas Business Group Delta Consultants, an Oranjewoud N.V. Company

Direct +1 408 826 1875 | Mobile +1 408 796 8889 | Alternate +1 408 582 4422 smcclurkin-nelson@deltaenv.com | www.deltaenv.com

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#### **Suzanne McClurkin-Nelson**

From: Wickham, Jerry, Env. Health [jerry.wickham@acgov.org]

Sent: Wednesday, February 10, 2010 10:24 AM

**To:** 'Brown, Denis L SOPUS-OP-COR-H'; Suzanne McClurkin-Nelson

**Subject:** Draft Fact Sheet for 4212 First Street Pleasanton

Attachments: RO0360, Shell, 4226 First, Pleasanton Draft Fact Sheet 2010-02-09.doc

#### Denis and Suzanne,

Attached is a Draft Fact Sheet for the Shell site at 4212/4226 First Street in Pleasanton we discussed last week. Please review the Draft Fact Sheet and provide any comments. The Fact Sheet will be sent to residents within 200 feet of the site. I would like to send this out by February 25.

#### Regards,

Jerry Wickham
Alameda County Environmental Health
1131 Harbor Bay Parkway
Alameda, CA 94502
510-567-6791
jerry.wickham@acgov.org

#### DRAFT FACT SHEET SHELL BRANDED SERVICE STATION #13-5782 February 9, 2010

Site Location: Shell#13-5782, 4226 First Street, Pleasanton, CA 94566 Fuel Leak Case #RO0000434 and Geotracker Global ID # T0600101259

**Summary** – This fact sheet has been prepared to inform community members and other interested parties of the status of a soil and groundwater cleanup at a service station site at 4226 First Street in Pleasanton, California. Shell Oil Products US, the lead responsible party for the fuel leak case, will be evaluating two remedial technologies (soil vapor extraction and air sparging) to cleanup up gasoline contamination that resulted from fuel leaks at the service station. Soil vapor extraction (SVE) applies a vacuum to unsaturated soils above the water table to induce a controlled flow of air containing volatile contaminants removed from the soil. Extracted air will be treated at the surface to remove fuel hydrocarbons from the vapor. The treated air will be sampled on a regular basis to assure that treated air from the system meets discharge requirements of the Bay Area Air Quality Management District.

Air sparging injects air below the water table to volatilize contaminants in groundwater that can then be recovered by SVE. Air sparging also increases the oxygen content of groundwater, which may also increase the rate of biodegradation of petroleum hydrocarbons in groundwater. Planning and permitting is currently underway to install the SVE and air sparging system. Permitting and system installation is expected to be completed between May and July 2010. Aboveground equipment used for the SVE/air sparging system will be located... [please input location]. Operation of the system will be monitored over time to evaluate whether SVE and air sparging may be effective for final site cleanup.

**Background** – The site is currently an operating Shell-branded service station. Four gasoline underground storage tanks were removed from the northern portion of site in 1985 and were replaced by three new USTs installed in front of the station building. Environmental investigations conducted to date have delineated an area of petroleum hydrocarbons in soil and groundwater encompassing the current and former USTs and extending along the direction of groundwater flow to the north and northeast beneath Vineyard Avenue and First Street.

Next Step - Shell Oil Products US is working with Alameda County Environmental Health (ACEH) to implement a soil and groundwater cleanup at the site. Two remedial technologies (SVE and air sparging) will be implemented on an interim basis to assess their effectiveness. Descriptions of the two remedial technologies and how they will be implemented at the site are described in a document prepared by Delta Environmental on behalf of Shell Oil Products US entitled, "Interim Remediation Work Plan," dated June 1, 2009. This report along with all reports and correspondence for the case can be viewed over the Internet on the ACEH website (http://www.acgov.org/aceh/lop/ust.htm) or the California Water Resources Control **Board** Geotracker (http://www.swrcb.ca.gov/ust/cleanup/electronic\_reporting). If you have any questions or comments regarding the ongoing soil and groundwater cleanup at the site, please contact Jerry Wickham at the address below.

Additional information: Contact Jerry Wickham of the Alameda County Department of Environmental Health, 1131 Harbor Bay Parkway, Alameda, CA 94502 at 510-567-6791 or by email at jerry.wickham@acgov.org

#### Suzanne McClurkin-Nelson

From: Suzanne McClurkin-Nelson

Sent: Wednesday, February 24, 2010 2:36 PM

To: 'Wickham, Jerry, Env. Health'

Cc: Suzanne McClurkin-Nelson; Regina Bussard; 'denis.l.brown@shell.com'

Subject: RE: Draft Fact Sheet for 4212 First Street Pleasanton

Importance: High

Attachments: RO0360 Shell 4226 First Pleasanton Draft Fact Sheet 2010-02-09.doc

Hi Jerry - I have made a few revisions to the Fact Sheet, sorry not to get it back to you sooner. We had to resend the building permit application to the property owners for their signature (it was original sent to them Dec. 2009) and just this week got it back, so the complete application package will be submitted this week. I will send you an updated status report by Friday.

Let me know if you have any questions - thanks!

Suzanne McClurkin-Nelson | Senior Project Manager | North American Operations Delta Consultants, an Oranjewoud N.V. Company
Direct +1 408 826 1875 | Mobile +1 408 796 8889 | Alternate +1 408 582 4422
smcclurkin-nelson@deltaenv.com | www.deltaenv.com

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From: Wickham, Jerry, Env. Health [mailto:jerry.wickham@acgov.org]

Sent: Wednesday, February 10, 2010 10:24 AM

To: 'Brown, Denis L SOPUS-OP-COR-H'; Suzanne McClurkin-Nelson

Subject: Draft Fact Sheet for 4212 First Street Pleasanton

Denis and Suzanne,

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Regards,

Jerry Wickham
Alameda County Environmental Health
1131 Harbor Bay Parkway
Alameda, CA 94502
510-567-6791
jerry.wickham@acgov.org

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Air sparging (AS) injects air below the water table to volatilize contaminants in groundwater that can then be recovered by SVE. AS also increases the oxygen content of groundwater, which may also increase the rate of biodegradation of petroleum hydrocarbons in groundwater. Planning and permitting is currently underway to install the SVE and air sparging system. Permitting and system installation is expected to be completed between May 2010 and the end of the year. Aboveground equipment used for the SVE/AS system will be located in an enclosed treatment system compound situated in the area currently comprising two parking spaces in the landscaped area off of Vineyard Avenue. Operation of the system will be monitored over time to evaluate whether SVE and AS may be effective for final site cleanup.

**Background** – The site is currently an operating Shell-branded service station. Four gasoline underground storage tanks were removed from the northern portion of site in 1985 and were replaced by three new USTs installed in front of the station building. Environmental investigations conducted to date have delineated an area of petroleum hydrocarbons in soil and groundwater encompassing the current and former USTs and extending along the direction of groundwater flow to the north and northeast beneath Vineyard Avenue and First Street.

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Additional information: Contact Jerry Wickham of the Alameda County Department of Environmental Health, 1131 Harbor Bay Parkway, Alameda, CA 94502 at 510-567-6791 or by email at jerry.wickham@acgov.org

#### **Suzanne McClurkin-Nelson**

**From:** Wickham, Jerry, Env. Health [jerry.wickham@acgov.org]

**Sent:** Wednesday, February 24, 2010 3:35 PM

To: Suzanne McClurkin-Nelson

Cc: Regina Bussard; denis.l.brown@shell.com

Subject: RE: Draft Fact Sheet for 4212 First Street Pleasanton

Hi Suzanne,

Thank you for the comments! The Fact Sheet should go out tomorrow.

#### Regards,

Jerry Wickham
Alameda County Environmental Health
1131 Harbor Bay Parkway
Alameda, CA 94502
510-567-6791
jerry.wickham@acgov.org

From: Suzanne McClurkin-Nelson [mailto:SMcClurkin-Nelson@deltaenv.com]

Sent: Wednesday, February 24, 2010 2:36 PM

To: Wickham, Jerry, Env. Health

Cc: Suzanne McClurkin-Nelson; Regina Bussard; denis.l.brown@shell.com

Subject: RE: Draft Fact Sheet for 4212 First Street Pleasanton

Importance: High

Hi Jerry - I have made a few revisions to the Fact Sheet, sorry not to get it back to you sooner. We had to resend the building permit application to the property owners for their signature (it was original sent to them Dec. 2009) and just this week got it back, so the complete application package will be submitted this week. I will send you an updated status report by Friday.

Let me know if you have any questions - thanks!

Suzanne McClurkin-Nelson | Senior Project Manager | North American Operations Delta Consultants, an Oranjewoud N.V. Company
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**From:** Wickham, Jerry, Env. Health [mailto:jerry.wickham@acgov.org]

Sent: Wednesday, February 10, 2010 10:24 AM

To: 'Brown, Denis L SOPUS-OP-COR-H'; Suzanne McClurkin-Nelson

Subject: Draft Fact Sheet for 4212 First Street Pleasanton

Denis and Suzanne,

Attached is a Draft Fact Sheet for the Shell site at 4212/4226 First Street in Pleasanton we discussed last week. Please review the Draft Fact Sheet and provide any comments. The Fact Sheet will be sent to residents within 200 feet of the site. I would like to send this out by February 25.

Regards,

Jerry Wickham
Alameda County Environmental Health
1131 Harbor Bay Parkway
Alameda, CA 94502
510-567-6791
jerry.wickham@acgov.org

#### **Suzanne McClurkin-Nelson**

From: Suzanne McClurkin-Nelson

**Sent:** Monday, August 02, 2010 3:24 PM

To: 'Wickham, Jerry, Env. Health'

Cc: 'denis.l.brown@shell.com'; Suzanne McClurkin-Nelson; Regina Bussard; Matt Lambert; Oscar

Valdez

Subject: July 2010 Monthly Status Report (System Installation) - 4212 First, Pleasanton (Fuel Leak

Case No. RO0000360)

Importance: High

Attachments: 2010-06-29\_Approved ATC Permit.pdf; Installation schedule as of 080210.pdf

#### Hello Jerry;

The planning permit application package was re-submitted to the City of Pleasanton Planning Division today. The Planning Division associate in charge of our permit request will be on vacation most of September, so we are hoping to get this wrapped up in August and submit a permit request to the Building Department immediately following receipt of the planning permit. Following receipt of the planning department permit, a preliminary determination will be made as to whether the Building Department application will need to go through legal review; if so, the turnaround is anticipated to be at a minimum 3-4 weeks for the Building Department permit. It is quite likely, however, that we will not be required to go through the legal review, in which case the permit could be issued within a week.

Re-submittal of the Planning Permit Application hinged on (1) receipt of our Authority to Construct (ATC), (2) completion of a noise survey to show compliance with the residential noise standard cited in Section 9.04.035 of the Pleasanton Municipal Code, and (3) specific plan revisions as noted in a letter dated June 29, 2010 from the City of Pleasanton Planning Division. The ATC was issued on June 29, 2010 by Bay Area Air Quality District (BAAQMD), but a hard copy was never received in the mail; a faxed version was sent to us on July 22nd following a query into the status of the permit (attached). Local ordinance limits noise levels near residential areas to 60 decibels (dB) from 10:00 pm to 6:00 am; the limit applies to total noise, including typical street traffic noise. Rather than conduct a noise survey at a 'similar' site, Delta and Shell have opted to modify the run time of the proposed system with a timer, which would shut the system down during hours subject to the noise ordinance restrictions (10:00 PM to 6:00 AM); this will allow us the run the system 16 hours every day with an 8-hour recharge period. Once the system is installed and operational, a noise survey at the site can be conducted if at some point it would be felt to optimize system efficiency.

Installation of the remaining remediation wells (nine air sparge wells and one additional SVE well) has been targeted for the 3Q10; system installation is currently targeted for early winter (Oct/Nov).

A monthly status report for August 2010 will be scheduled for submittal to you no later than August 31, 2010. I've attached an updated schedule; please let me know if you have any questions or comments. Thanks!

Suzanne McClurkin-Nelson | Consultant | North American Operations Delta Consultants, an Oranjewoud N.V. Company
Direct +1 408 826 1875 | Mobile +1 408 796 8889 | Alternate +1 408 582 4422
smcclurkin-nelson@deltaenv.com | www.deltaenv.com

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#### Proposed Schedule for SVE/AS System Installation and Startup

Shell-Branded Service Station 4226 First Street (aka 4212 First Street) Pleasanton, California

Tools Decembring	_	009		F.1	Manufa	A			010		0	Outober	Marriage	December
Task Description Complete engineering drawings for SVE/AS system; submit for	November	December	January	February	March	April	May	June	July	August	September	October	November	December
internal review, submit to sub-contrators for bid estimates	11/20/09													
First request to subcontractors for system installation bid	11/23/09													
General PG&E application submitted	11/23/09													
(power to site)		12/3/09												i
(power to site)														
Preliminary bids for system installation received from subcontractors		12/9/09												i
Permit application for SVE/AS/Observation Well installations														
submitted		12/9/09												i
Get revised drawings from Drafting		12/17/09												i
Revised Bids requested from Subcontractors		12/17/09												
Preliminary award to subcontractor for system install		12/30*09												
SVE Well permit applications sent to Subcontractor for														
signatures		12/9/09												i
SVE (and one AS) Well Permits granted/received		12/15/09												i
Install four SVE wells (SVE-1 through SVE-4), observ. well														
(OBS-1) and a test air sparge well (SP-10)			1/12-14/10											
Complete air sparge pilot testing; analytical samples			4/0											
submitted (5-day TAT)			1/26/10											
Planning permit application submitted (with drawings and														
other required documents); 3-4 week review anticipated				2/9/10										i
Receive response to Planning Dept. Permit (need additional														
info, site photos, additional design copies)					3/2/10									
BAAQMD application package for Authority to Construct														
submitted					3/10/10									i
Submit additional fees to BAAQMD for ATC						4/23/10								
System design review/revisions based on planning						4/23/10								
, ,						(in progress)	5/27/10							i
department comments and air sparge result analysis							5/28/10							
Planning permit application re-submitted with revisions							5/28/10	6/7/10						
Submit air sparge pilot test report								6/22/10						
Request risk analysis from BAAQMD								6/24/10						
Complete system design drawing revisions									1 1	la a dala a				-
PG&E work (prep electrical supply for site)								(postpone	d due to pemiti	ing delays)				
Conduct noise survey (per Planning Dept. request)									7/22/10					
									(issued					i
Receive ATC from BAAQMD									6/29/10)					i
Re-submit Planning Permit Application									,	8/2/10				
Planning permit received										(mid August)				i
Submit Building permit application; 10 days needed for														
review/issue										(late August)				i
Building Dept. finishes application review and sends														
comments and changes											(early Sept)			i
Building Dept. permit application re-submitted with revisions;														
7 to 10 days needed for review/issue											(mid Sept)			
Building permit received											(late Sept)			
Install remaining remediation wells AS-1 to AS-9 & SVE-5											,			
Schedule system installation activities														
System installation (currently estimated at 4 weeks)														
Startup notification to BAAQMD (at														
least 3 days prior to startup)														
PG&E final power hookup														
System shakedown, inspection, trouble-shooting														
System startup and sampling														
Begin continuous operation (assuming all compliance														
parameters are met)														
Startup report to BAAQMD & ACEH														
(*or as required by the ATC)														
(														
L														

Please note the above calendar assumes a limited turnaround time for agency review of respective permits and applications, and will be updated as changes occur throughout the process.



BAY AREA AIR QUALITY

June 29, 2010

MANAGEMENT

Shell Oil Products US 20945 So Wilmington Ave Carson, CA 90810

4157494949

DISTRICT

SINCE 1955

Attention: Shell/Denis Brown

Authority to Construct for Permit Application No. 21705, Plant No. 20140

#### Required Action

Your Authority to Construct is enclosed. This Authority to Construct is not a Permit to Operate. To receive your Permit to Operate you must:

- 1. Complete the Start-up Notification portion of the Authority to Construct.
- 2. Send the Start-up Notification to the assigned Permit Engineer via e-mail, fax or mail at least seven days prior to operating your equipment.

Note: Operation of equipment without sending the Start-up Notification to the District may result in enforcement action.

### Authorization of Limited Use

The Authority to Construct authorizes operation during the start-up period from the date of initial operation indicated in your Start-up Notification until the Permit to Operate is issued, up to a maximum of 90 days. All conditions (specific or implied) included in this Authority to Construct will be in effect during the start-up period.

#### Contact Information

If you have any questions, please contact your assigned Permit Engineer:

Flora W Chan, Air Quality Engineer I

Tel: (415) 749-4630 Fax: (415) 749-4949 Email: fchan@baaqmd.gov



Spare the Air



# BAY AREA AIR QUALITY MANAGEMENT DISTRICT Authority to Construct

(This is not a Permit to Operate)

Plant No. 20140 Application No. 21705

### Shell Oil Products US

4212 1st Street, Pleasanton, CA 94566 is hereby granted an Authority to Construct for the following equipment:

S-1 Soil Vapor Extraction System, 150 scfm vacuum blower

abated by

A-1 SVE Abatement System

SVE Abatement System, Thermal/Catalytic Oxidizer/ 2 Carbon drums

Equipment above is subject to attached condition no. 24667.

4157494949

Approved by

Issue date: June 29, 2010 Expiration date: June 28, 2012

for

JACK P. BROADBENT EXECUTIVE OFFICER / APCO

### **Start-up Notification**

Instructions: At least seven days before the scheduled initial operation contact your assigned Permit Engineer via email or complete and send this Start-up Notification to the District via fax or mail.

Engineer: Flora W Chan, Air Quality Engineer I

Tel: (415) 749-4630 Fax: (415) 749-4949

Email: fchan@baaqmd.gov

Application No. 21705

The initial operation of this equipment is scheduled for \_\_\_\_\_\_\_ (month/day/year)

Print your first and last name

Telephone No.



Plant Name: Shell Oil Products US

4157494949

S-1 Soil Vapor Extraction System, 150 scfm vacuum blower

Condition No. 24667

Plant No. 20140

Application No. 21705

- 1. Precursor Organic Compound (POC) emissions from Source S -1 shall be abated by Abatement device A-1 SVE Abatement System, consisting of either a Thermal Oxidizer, Catalytic Oxidizer, or at least two (200 lbs minimum capacity) Activated Carbon Vessels during all periods of Operation. Start-up and subsequent operation of each abatement device shall take place only after written notification of same has been received by the District's Engineering Division. Influent vapor flow shall not exceed 150 scfm. [Basis. Reg 8-47-301,302].
- The POC abatement efficiency of abatement device A-1 2. shall be maintained at a minimum of 98.5% by weight for inlet POC concentrations greater than or equal to 2000 ppmv (measured as hexane). For inlet concentrations below 2000 ppmv and greater than or equal to 200 ppmv, minimum abatement efficiency of 97% shall maintained. For inlet concentrations below 200 ppmv, a minimum abatement efficiency of 90% shall maintained. The minimum abatement efficiency shall be waived if outlet POC concentrations are shown to be less than 10 ppmv (measured as hexane). In no event shall Benzene emissions to the atmosphere exceed 0.05 pounds per day for sources S-1.

3. While operating as a Thermal Oxidizer, the minimum operating temperature of A-1 shall not be less than 1400 degrees Fahrenheit. While operating as a Catalytic Oxidizer, the minimum operating temperature of A-1 shall not be less than 600 degrees Fahrenheit.

- 4. To determine compliance with Condition Number 3, the Thermal/Catalytic Oxidizer shall be equipped with continuous measuring and temperature recording instrumentation. The temperature data collected from the temperature recorder shall be maintained in a file which shall be available for District inspection for a period of at least 2 years following the date on which such data are recorded.
- 5. To determine compliance with Condition 2, within ten days after start-up of the Thermal Oxidizer, and within ten days after start-up of the Catalytic Oxidizer, the operator of these sources shall:
  - a. Analyze inlet gas stream to determine the flow rate and concentration of POC present.
  - b. Analyze exhaust gas to determine the flow rate, and the concentration of Benzene and POC present.
  - c. Calculate the Benzene emission rate in pounds per day based on the exhaust gas analysis and the operating exhaust flow rate. The soil vapor flow rate shall be decreased, if necessary, to demonstrate compliance with Condition 2.

07/22/2010 13:47

Plant Name: Shell Oil Products US

S-1 Soil Vapor Extraction System, 150 scfm vacuum blower

Condition No. 24667

Plant No. 20140

Application No. 21705

- d. Calculate the POC abatement efficiency based on the inlet and exhaust gas analysis. For the purpose of determining compliance with condition 2, the POC concentration shall be reported as hexane.
- e. Submit to the District's Engineering Division the test results and emission calculations within one month from the testing date. Samples shall be analyzed according to modified EPA test methods 8015 and 8020 or their equivalent to determine the concentrations of POC and Benzene.
- 6. The operator of this source shall maintain the following records for each month of operation of the Thermal/Catalytic Oxidizer:
  - a. Days and hours of operation.
    - b. Each emission test, analysis or monitoring results logged-in for the day of operation they were taken.
    - c. Analysis results for any catalyst plugs removed from the bed to determine remaining life of the catalyst.

Such records shall be retained and made available for inspection by the District for two years following the date the data is recorded. [basis: Reg. 1-523]

- 7. During operation of the Activated Carbon Vessels, the operator of this source shall monitor with a photo-ionization detector (PID), flame-ionization detector (FID), or other method approved in writing by the District's Source Test Manager at the following locations:
  - a. At the inlet to the second to last Carbon vessel in series.
  - b. At the inlet to the last Carbon vessel in series,
  - c. At the outlet of the Carbon vessel that is last in series prior to venting to the atmosphere. When using an FID to monitor breakthrough, readings may be taken with and without a Carbon filter tip fitted on the FID probe. Concentrations measured with the Carbon filter tip in place shall be considered methane for the purpose of these permit conditions.
- 8. These monitor readings shall be recorded in a monitoring log at the time they are taken. The monitoring results shall be used to estimate the frequency of Carbon change-out necessary to maintain compliance with conditions number 9 and 10, and shall be conducted on a daily basis. The operator of this source may propose for District review, based on actual measurements taken at the site during operation of the source, that the monitoring schedule be changed based on the decline in organic emissions and/or the



07/22/2010 13:47

Plant Name: Shell Oil Products US

Soil Vapor Extraction System, 150 scfm vacuum blower S-1

Condition No. 24667

Plant No. 20140

Application No. 21705

demonstrated breakthrough rates of the carbon vessels. Written approval by the District's Engineering Division must be received by the operator prior to a change to the monitoring schedule.

BAAQMD

- The second to last Carbon vessel shall be immediately 9. changed out with unspent carbon upon breakthrough, defined as the detection at its outlet in excess of the higher of the following limits:
  - 10 % of the inlet stream concentration to the carbon bed.

10 ppmv (measured as hexane).

- The last Carbon vessel shall be immediately changed out with unspent Carbon upon detection at its outlet of ppmv or greater (measured as hexane).
- operator of this source shall maintain following information for each month of operation of the Activated Carbon Vessels:

Hours and time of operation.

- Each emission test, analysis or monitoring results logged in for the day of operation they were taken.
  - The number of Carbon vessels removed from service.

Such records shall be retained and made available for inspection by the District for two years following date the data is recorded. [basis: Reg.523]

- Any non-compliance with these conditions shall 12. reported to the Compliance and Enforcement Division at the time that it is first discovered. The submittal shall detail the corrective action taken and shall include the data showing the exceedance as well as the time of occurrence,
- The operator shall maintain a file containing all measurements, records and other data that are required to be collected pursuant to the various provisions of this conditional Authority to Construct/Permit Operate. All measurements, records and data required to be maintained by the operator shall be retained for at least two years following the date the data is recorded [basis: Reg 1-523].

Upon final completion of the remediation project, operator of Source S-1 shall notify the Engineering Division within two weeks of decommissioning operation.

End of Conditions

#### Suzanne McClurkin-Nelson

From: Suzanne McClurkin-Nelson

**Sent:** Tuesday, August 31, 2010 4:59 PM

To: 'Wickham, Jerry, Env. Health'

Cc: 'denis.l.brown@shell.com'; Suzanne McClurkin-Nelson; Regina Bussard; Matt Lambert; Oscar

Valdez

Subject: August 2010 Monthly Status Report (System Installation) - 4212 First, Pleasanton (Fuel Leak

Case No. RO0000360)

Attachments: Installation schedule as of 083110.pdf

#### Hi Jerry;

The planning permit application package was re-submitted to the City of Pleasanton Planning Division on August 2, 2010 (via hand delivery). The Planning Division associate in charge of our permit request will be on vacation most of September, so we were hoping to get this wrapped up in August and submit a permit request to the Building Department immediately following receipt of the planning permit. Unfortunately, we have not yet received our Planning permit, and it was in fact handed off to someone else within the department because Marion's time was diverted to a large project, as far as we understand. We are hoping to get the permit within the next week or two and will submit the building permit application as soon as possible following receipt of the planning permit. A preliminary determination will be made at that time as to whether the Building Department application will need to go through legal review; if so, the turnaround is anticipated to be at a minimum 3-4 weeks for the Building Department permit. We are hopeful that we will not be required to go through the legal review, in which case the building permit could be issued within a week.

We are looking at installing the remaining remediation wells at the site in the next 6 weeks (nine air sparge wells and one additional SVE well); system installation (trenching to remediation wells and installation of the remediation compound and equipment) is currently targeted for early winter (Nov). Currently, there are four SVE wells and one air sparge well at the site (installed in order to conduct a pilot test).

A monthly status report for September 2010 will be scheduled for submittal to you no later than September 30, 2010. I've attached an updated schedule; please let me know if you have any questions or comments. Thanks!

Suzanne McClurkin-Nelson | Consultant | North American Operations Delta Consultants, an Oranjewoud N.V. Company
Direct +1 408 826 1875 | Mobile +1 408 796 8889 | Alternate +1 408 582 4422
smcclurkin-nelson@deltaenv.com | www.deltaenv.com

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#### Proposed Schedule for SVE/AS System Installation and Startup

Shell-Branded Service Station 4226 First Street (aka 4212 First Street) Pleasanton, California

	20	100						20	010					
Task Description	November	December	January	February	March	April	May	June	July	August	September	October	November	December
Complete engineering drawings for SVE/AS system; submit for		December	oundary	1 Cbruary	Waron	7,0111	ividy	ounc	July	August	Осрастыст	October	November	December
internal review, submit to sub-contrators for bid estimates	11/20/09													i I
First request to subcontractors for system installation bid	11/23/09													
General PG&E application submitted														
(power to site)		12/3/09												i l
,		40/0/00												
Preliminary bids for system installation received from subcontractors		12/9/09												i I
Permit application for SVE/AS/Observation Well installations		12/9/09												
submitted		12/9/09												
Get revised drawings from Drafting		12/17/09												
Revised Bids requested from Subcontractors		12/17/09												i l
Preliminary award to subcontractor for system install		12/30*09												
SVE Well permit applications sent to Subcontractor for		12/9/09												i
signatures		12/3/03												i l
SVE (and one AS) Well Permits granted/received		12/15/09												
Install four SVE wells (SVE-1 through SVE-4), observ. well			1/12-14/10											
(OBS-1) and a test air sparge well (SP-10)			1/12-14/10											i
Complete air sparge pilot testing; analytical samples			1/26/10											
submitted (5-day TAT)			1/20/10											
Planning permit application submitted (with drawings and				2/9/10										
other required documents); 3-4 week review anticipated				2/9/10										
Receive response to Planning Dept. Permit (need additional					0.15									
info, site photos, additional design copies)					3/2/10									i I
BAAQMD application package for Authority to Construct														
submitted					3/10/10									
Submit additional fees to BAAQMD for ATC						4/23/10								
System design review/revisions based on planning						1/20/10								
department comments and air sparge result analysis						(in progress)	5/27/10							
Planning permit application re-submitted with revisions							5/28/10							
Submit air sparge pilot test report							3/20/10	6/7/10						
Request risk analysis from BAAQMD								6/22/10						
Complete system design drawing revisions								6/24/10						
PG&E work (prep electrical supply for site)								(delayed)						
Conduct noise survey (per Planning Dept. request)								(delayed)	(cancelled)					
Conduct hoise survey (per Flamming Dept. request)									7/22/10					
									(issued					i I
Receive ATC from BAAQMD									6/29/10)					i l
Re-submit Planning Permit Application										8/2/10				
Planning permit received											(early Sept)			
Submit Building permit application; 10 days needed for														
review/issue											(mid Sept)			i I
Building Dept. finishes application review and sends											#-1- C #			
comments and changes											(late Sept)			
Building Dept. permit application re-submitted with revisions;														
7 to 10 days needed for review/issue											(late Sept)			
Install remaining remediation wells AS-1 to AS-9 & SVE-5											(late Sept)			
Building permit received												(early Oct)		
Schedule system installation activities												(mid Oct)		
System installation (currently estimated at 4 weeks)												, , , , , ,		
Startup notification to BAAQMD (at														
least 3 days prior to startup)														
PG&E final power hookup														
System shakedown, inspection, trouble-shooting														
System startup and sampling														
Begin continuous operation (assuming all compliance														
parameters are met)														
Startup report to BAAQMD & ACEH														
(*or as required by the ATC)														
( or as required by the ref of														
Please note the above calendar assumes a limited turnaround														

Please note the above calendar assumes a limited turnaround time for agency review of respective permits and applications, and will be updated as changes occur throughout the process.

#### **Suzanne McClurkin-Nelson**

From: Suzanne McClurkin-Nelson

Sent: Thursday, September 30, 2010 4:51 PM

To: Wickham, Jerry, Env. Health

Cc: denis.l.brown@shell.com; Regina Bussard; Suzanne McClurkin-Nelson; Matt Lambert; Oscar Valdez

Subject: September 2010 Monthly Status Report (System Installation) - 4212 First, Pleasanton (Fuel Leak Case No.

RO0000360)

Attachments: Installation schedule as of 093010.pdf

#### Hi Jerry;

The planning permit was conditionally approved by the City of Pleasanton Planning Division in a letter dated September 22, 2010. Delta is working on requested revisions for submittal to the Building Department and currently planning on submitted the permit application on or around October 8, 2010. A preliminary determination should be made by the Building Department on receipt of the application as to whether the application will need to go through legal review; if so, the turnaround is anticipated to be at a minimum 3-4 weeks for the Building Department permit. We are hopeful that we will not be required to go through the legal review, in which case the building permit could be issued within a week.

We are currently planning to install the remaining remediation wells at the site in late October (nine air sparge wells and one additional SVE well); system installation (trenching to remediation wells and installation of the remediation compound and equipment) is currently targeted for early winter (Nov/Dec). Currently, there are four SVE wells and one air sparge well at the site (installed in order to conduct a pilot test).

A monthly status report for October 2010 will be scheduled for submittal to you no later than October 29, 2010. I've attached an updated schedule; please let me know if you have any questions or comments. Thanks!

Suzanne McClurkin-Nelson | Consultant | North American Operations
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 $\underline{smcclurkin\text{-}nelson@deltaenv.com} \mid \underline{www.deltaenv.com}$ 

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#### Proposed Schedule for SVE/AS System Installation and Startup

Shell-Branded Service Station 4226 First Street (aka 4212 First Street) Pleasanton, California

	20	100						20	010					
Task Description	November	December	January	February	March	April	May	June	July	August	September	October	November	December
Complete engineering drawings for SVE/AS system; submit for		December	oundary	1 Cbruary	Waron	, April	ividy	ounc	outy	August	Осрасные	COLODEI	November	December
internal review, submit to sub-contrators for bid estimates	11/20/09													
First request to subcontractors for system installation bid	11/23/09													
General PG&E application submitted														
(power to site)		12/3/09												
,		40/0/00												
Preliminary bids for system installation received from subcontractors		12/9/09												
Permit application for SVE/AS/Observation Well installations		12/9/09												
submitted		12/9/09												
Get revised drawings from Drafting		12/17/09												
Revised Bids requested from Subcontractors		12/17/09												
Preliminary award to subcontractor for system install		12/30*09												
SVE Well permit applications sent to Subcontractor for		12/9/09												
signatures		12/9/09												
SVE (and one AS) Well Permits granted/received		12/15/09												
Install four SVE wells (SVE-1 through SVE-4), observ. well			1/12-14/10											
(OBS-1) and a test air sparge well (SP-10)			1/12-14/10											
Complete air sparge pilot testing; analytical samples			1/26/10											
submitted (5-day TAT)			1/20/10											
Planning permit application submitted (with drawings and				2/9/10										
other required documents); 3-4 week review anticipated				2/9/10										
Receive response to Planning Dept. Permit (need additional					0.15									
info, site photos, additional design copies)					3/2/10									
BAAQMD application package for Authority to Construct														
submitted					3/10/10									
Submit additional fees to BAAQMD for ATC						4/23/10								
System design review/revisions based on planning						1/20/10								
department comments and air sparge result analysis						(in progress)	5/27/10							
Planning permit application re-submitted with revisions							5/28/10							
Submit air sparge pilot test report							3/20/10	6/7/10						
Request risk analysis from BAAQMD								6/22/10						
Complete system design drawing revisions								6/24/10						
PG&E work (prep electrical supply for site)								(delayed)						
Conduct noise survey (per Planning Dept. request)								(delayed)	(cancelled)					
Conduct hoise survey (per rianning Dept. request)									7/22/10					
									(issued					
Receive ATC from BAAQMD									6/29/10)					
Re-submit Planning Permit Application										8/2/10				
Planning permit received											9/27/10			
Submit Building permit application; 10 days needed for														
review/issue												10/8/10		
Building Dept. finishes application review and sends														
comments and changes												10/22/10		
Building Dept. permit application re-submitted with revisions;												40.00		
7 to 10 days needed for review/issue												10/29/10		
Install remaining remediation wells AS-1 to AS-9 & SVE-5												10/29/10		
Building permit received													(early Nov)	
Schedule system installation activities													(early Nov)	
System installation (currently estimated at 4 weeks)													, ,	
Startup notification to BAAQMD (at														
least 3 days prior to startup)														
PG&E final power hookup														
System shakedown, inspection, trouble-shooting														
System startup and sampling														
Begin continuous operation (assuming all compliance														
parameters are met)														
Startup report to BAAQMD & ACEH														
(*or as required by the ATC)														
( or as required by the ATO)														
Please note the above calendar assumes a limited turnaround														

Please note the above calendar assumes a limited turnaround time for agency review of respective permits and applications, and will be updated as changes occur throughout the process.

# APPENDIX B

# BLAINE TECH SERVICES, INC. FIELD DATA SHEETS

# SHELL WELLHEAD INSPECTION FORM

(FOR SAMPLE TECHNICIAN)

Site Address	_47	JZ F	1487	51	ree	· \	Yeusun-	hoy:	CA. Date 8-5-10
Job Number		08 <i>0</i> 5	- 16	-		_ Tec	hnician		Page\_of(
Well ID	Well Inspected - No Corrective Action Required	Well Box Meets Compliance Requirements	Water Bailed From	Cap Replaced	Lock Replaced	Well Not Inspected (explain in notes)	New Deficiency Identified	Previously Identified Deficiency Persists	Notes
Mw-I	X	×							·
MW-13	1	X					٠		
MW-Z	X	大		·					
MW-2 MW-3 MW-4	X	Y							•
MW-4	X	<u> </u>							
	·								·
				·					
, /									
				_					
				_					
				_					
			.  -						
Well box must meet a	II three	criteria to	be co	mpli	anf: 1	) WELL IS	SECURAF	SLE BY DE	SIGN (12"or less) 2) WELL IS MARKED WITH THE WORDS
Monitoring well"  Notes:	(12"or	less) 3)	WELL	TAG	IS PR	ESENT, SI	ECURE, AI	ND CORRE	CT .
——————————————————————————————————————			· · · · · · · · · · · · · · · · · · ·						
A CONTRACTOR OF THE CONTRACTOR					<del></del>				
BLAINE TECH SERVICE	ES, INC.	· · · · · · · · · · · · · · · · · · ·	SAN	4 JOSE		SACRAMEN	TO LO	S ANGELES	SAN DIEGO SEATTLE www.blainetech.com



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١	'V	L.	レレ	U.	H	ハ	JIJ	N	. 1	$\cup$	$\Delta$		L

			· · · · · · · · · · · · · · · · · · ·	
Projec	ct# 100905- 201	Date 8 65-10	Client Shel	
Site	Japan Johns W	IZIZ First St., Pleas	anton	

Well ID	Time	Well Size (in.)	Sheen / Odor	Depth to Immiscible Liquid (ft.)	Thickness of Immiscible Liquid (ft.)	Immiscibles Removed	Depth to water (ft.)	Depth to well bottom (ft.)	Survey Point: TOB or TOC	Notes
Mw-I	<i>फ</i> युर्व	2					33,70	5700		
MW-18	0750	4					90.10	107.82		
Mw-2	UA 53	4					32.82	45.83	e de la companya de l	
Mw-3	0742	4					32.00	3460		
MW-3 MW-4	07%	4					32.00 32.22	46.71	Y	

# SHEL WELL MONITORING DATE HEET

BTS #: \00	6905-Sc	21		Site:4217 First street Pleusuatory								
Sampler:	70				8-5-							
Well I.D.:	MW-	CANADO CONTRACTOR OF THE PROPERTY OF THE PROPE		Well D	iameter	r: (2) 3 <b>/</b> 4)	6 8					
Total Well	· · · · · · · · · · · · · · · · · · ·	)): 5 <del>1</del>	600	Depth t	to Wate	r (DTW): 33	370					
Depth to Fr	ree Produc	:t:		Thickn	Thickness of Free Product (feet):							
Referenced	to:	PVC	Grade	D.O. Meter (if req'd): YSI HACH								
DTW with	80% Rech	arge [(F	Height of Water	er Column x 0.20) + DTW]: 38, 36								
Purge Method:	Bailer Disposable B Positive Air Flectric Subr	Displaceme mersible d	ent Extrac		Well Diamete 1"	0.04 4"	Disposable Bailer Extraction Port Dedicated Tubing					
1 Case Volume	Gals.) X Speci	3 ified Volun	$\frac{1}{\text{mes}} = \frac{1}{\text{Calculated Vo}}$	Gals.	2" 3"	0.16 6" 0.37 Othe	1.47 ner radius <sup>2</sup> * 0.163					
Time	Temp (°F)	рН	Cond. (mS or uS)	i	oidity TUs)	Gals. Removed	Observations					
0839	67.7	6.62	1903	103	>	3.7						
0843	67.8	6.68	1994	156	2	7.4						
0847	67.9	6,75	1918	20	2	11/1						
well ?	now din	J.										
Did well de			No	Gallons	actuall	y evacuated:	i(.\$					
Sampling D	ate: 8-5-	10	Sampling Time	e: Kac	)	Depth to Wate	er: 31.28					
Sample I.D.	: Mw-			Laborat	ory: (	CalScience Colu	umbia Other					
Analyzed fo		BTEX	MTBE TPH-D	Oxygenat	tes (5)	Other: See	COC					
EB I.D. (if a	ipplicable)	):	@ Time	Duplica	te I.D. (	(if applicable):						
Analyzed fo	r: TPH-G	BTEX	MTBE TPH-D	Oxygenat	tes (5)	Other:						
D.O. (if req'	d): Pr	re-purge:	\$50 page graph and the special shape and the	$^{ m mg}/_{ m L}$	P	ost-purge:	mg/L					
O.R.P. (if re	q'd): Pr	re-purge:		mV	P	ost-purge:	mV					

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

# SHEL WELL MONITORING DATA HEET

BTS #: 100	5905 - Si	21.		Site:47	217 Five	st street	<u> </u>	Leusulator					
Sampler:	20			Date:	8-5-								
Well I.D.:	MW-	16		Well D	Diameter	r: 2 3	<u>(4)</u>	6 8					
Total Well	Depth (TI	)): <sub>[0</sub> .	7.87	Depth	to Wate	er (DTW):	90	-10					
Depth to Fr	ree Produc	t:		Thickn	Thickness of Free Product (feet):								
Referenced	to:	PVC	Grade	D.O. M	Aeter (if	req'd):		YSI HACH					
DTW with	80% Rech	arge [(F	Height of Water	Columr	1 x 0.20	<u>)</u> + DTW]:	9	3.64					
Purge Method:	Bailer Disposable B Positive Air I Electric Subn	Displaceme		Waterra Peristaltic ction Pump			Other:	Bailer Disposable Bailer Extraction Port Dedicated Tubing					
1 Case Volume		3 ified Volum	= 34.5 mes Calculated Vol	_ Gals.	Well Diamete 1" 2" 3"	ter Multiplier 0.04 0.16 0.37	Well D 4" 6" Other	Diameter Multiplier  0.65  1.47  radius <sup>2</sup> * 0.163					
Time	Temp (°F)	рН	Cond. (mS or uS)	Ī	oidity ΓUs)	Gals. Remo	oved	Observations					
080	64,2	6.59	1236	3(		11.5							
0813	67.3	6-81	1234	18		23.6							
0815	67.8	6.83	1233	17		345							
Did well dev	water?	Yes (	No	Gallons	actuall	ly evacuated	d:	345					
Sampling Da	ate: g-5-		Sampling Time	e: 130°	5	Depth to V	Vater	90.15					
Sample I.D.:	: Mw-	13		Laborat	.ory:	CalScience	Colun	mbia Other					
Analyzed for	r: TPH-G	BTEX	MTBE TPH-D	Oxygenat	tes (5)	Other: Se.	e (	Coe					
EB I.D. (if a	pplicable)	.*	@ Time	Duplicate I.D. (if applicable):									
Analyzed for	r: TPH-G	BTEX	MTBE TPH-D	Oxygenat	tes (5)	Other:							
D.O. (if req'o	d): Pr	e-purge:		mg/ <sub>L</sub>	P	ost-purge:		mg/ <sub>L</sub>					
O.R.P. (if red	q'd): Pr	e-purge:	 I	mV	P	ost-purge:	. STATESTICAL STAT	mV					

# SHEL WELL MONITORING DATA HEET

BTS #: \00	6805-SC	2		Site:4217 First street Pleusubling								
Sampler:	٥٠	***************************************			3-5-							
Well I.D.:	MW-S	2		Well Dia	ımeter	r: 2 3 (4)	6 8					
Total Well			282	Depth to	Wate	er (DTW): 33	3.87					
Depth to Fi			#PA-PA-PA-PA-PA-PA-PA-PA-PA-PA-PA-PA-PA-P	Thicknes	ss of F	Free Product (fee						
Referenced		PVC	Grade	D.O. Met	ter (if	req'd):	YSI HACH					
DTW with	80% Rech	arge [(F	Height of Water	Column x	c 0.20	) + DTW]:	36-27					
Purge Method:	Bailer Disposable B Positive Air I Electric Subm	Displaceme		Waterra Peristaltic ction Pump		Sampling Method: Other:	: Baile Disposable Bailer Extraction Port Dedicated Tubing					
			***************************************	1	ell Diamete	ter Multiplier Well I	Diameter Multiplier 0.65					
7.9 (I Case Volume	(Gals.) XSpecif	3 ified Volum	$\frac{1}{1000} = \frac{23.4}{\text{Calculated Vol}}$	_ Gals.	2" 3"	0.04 4" 0.16 6" 0.37 Other	1.47					
Time	Temp (°F)	рН	Cond. (mS or (µS)	Turbidi (NTUs	•	Gals. Removed	Observations					
0822	G7.5	6.54	939	12	31	7.8	O O O O O O O O O O O O O O O O O O O					
	00-	Rema	. /	gulas								
1315	67.4	667	97.1	NI NI		Segregation last de mallionistatique						
							-					
Did well de	water?	Yes	No	Gallons a	ctuall	ly evacuated:	146					
Sampling D	rate: 8-5-	10	Sampling Time	e: 13(5	,	Depth to Water						
Sample I.D.	: Mw-	2		Laborator	y:	CalScience Colu	ımbia Other					
Analyzed fo		BTEX	MTBE TPH-D	Oxygenates	s (5)	Other: See	Coc					
EB I.D. (if a	applicable)	•	(a) Time	Duplicate	I.D. (	(if applicable):						
Analyzed fo	or: TPH-G	BTEX	МТВЕ ТРН-D	Oxygenates	; (5)	Other:						
D.O. (if req'	d): Pr	e-purge:	paramasa kalaban kadi kendi di d	mg/L	P	ost-purge:	mg/L					
O.R.P. (if re	g'd): Pr	e-purge:	1	mV -	P	ost-purge:	mV					

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

# SHEL WELL MONITORING DATA HEET

BTS #: \100	6 <b>905</b> -Sc	<del>)</del>		Site:4217 First street Pleusulation							
Sampler:				Date:							
Well I.D.:	MW-	3		Well Di	ameter	:: 2 3 (4)	6 8				
Total Well	Depth (TD	)): 30	460	Depth to Water (DTW): 32.00							
Depth to Fi	ree Produc			Thickness of Free Product (feet):							
Referenced	to:	(PVC)	Grade	D.O. Meter (if req'd): YSI HACH							
DTW with	80% Rech	arge [(F	Height of Water	Column	x 0 <u>.20</u> ]	) + DTW]: 3	2,57				
Purge Method:	Gaile Disposable B Positive Air I Electric Subn	Displaceme	ent Extrac			Sampling Method: Other:	Bailer Disposable Bailer Extraction Port Dedicated Tubing				
1 Case Volume		3 ified Volum	= 5\ nes Calculated Vol	Gals.	Vell Diamete 1" 2" 3"	er Multiplier Well I 0.04 4" 0.16 6" 0.37 Other	Diameter Multiplier  0.65  1.47  r radius <sup>2</sup> * 0.163				
Time	Temp (°F)	рН	Cond. (mS or (LS)	Turbi (NTU	•	Gals. Removed	Observations				
080Z	66.2	6.81	822	12		1.7					
		Deval	ral o Za	allans			·				
1256	66.8	6.83	833	W		est-ell-constructions state					
Did well de	water?	(Yes	No	Gallons	actuall	y evacuated:	2.0				
Sampling D	Pate: 8-5-	10	Sampling Time	e: ( <b>7.5</b> (	)	Depth to Water	r: 32.23				
Sample I.D.	: Mw-	3		Laborato	ory:	CalScience Colu	ımbia Other				
Analyzed fo	or: TPH-G	BTEX	MTBE TPH-D	Oxygenate	es (5)	Other: See	Coe				
EB I.D. (if a	applicable)	):	@ Time	Duplicat	e I.D. (	(if applicable):					
Analyzed for	or: TPH-G	BTEX	MTBE TPH-D	Oxygenate	es (5)	Other:					
D.O. (if req	'd): Pr	re-purge:	All relicates bear attractions and an extension of the state of the st	mg/L	P	ost-purge:	mg/L				
O.R.P. (if re	eq'd): Pr	re-purge:		mV	P	ost-purge:	mV				

# SHEL WELL MONITORING DATE HEET

			<u> </u>			**************************************			
BTS #: \00	5905-Sc	<b>)</b>		Site:421	Z Fivs	t street	Pie	ecisalatory	
Sampler:	20			Date: {	8-5-1	0			
Well I.D.:	MW-	4		Well Dia	ameter	: 2 3	<u>(4)</u>	6 8	
Total Well	Depth (TI	)): 40	64-1	Depth to	Water	r (DTW):	32.7	22	
Depth to Fr	ee Produc	t:		Thicknes	ss of F	ree Product	(feet)	):	
Referenced	to:	PVC	Grade	D.O. Me	eter (if	req'd):	Y	SI HACH	
DTW with	80% Rech	arge [(F	Height of Water	Column :	x 0.20)	) + DTW]:	35.1		
Purge Method:	Bailer Disposable B Positive Air I Electric Subn	Displaceme		Waterra Peristaltic ction Pump	ell Diamete		Other: Well Diar	Bailed Disposable Bailer Extraction Port Dedicated Tubing  meter Multiplier 0.65	
O( ) ( ( ( ) ( ) ( ) ( ) ( ) ( ) ( ) ( )	Gals.) X Speci	3 ified Volum	$\frac{1}{1} = \frac{28 \cdot 7}{\text{Calculated Vol}}$		2" 3"	0.04 0.16 0.37	6" Other	1.47 radius <sup>2</sup> * 0.163	
Time	Temp (°F)	рН	Cond. (mS or (µS)	Turbid (NTU	. •	Gals. Remo	oved	Observations	
0954	64.5	6.82	926	22		9.4			
0856	67.3	6.79	939	36		19.9			
	Der	vater	W @ 2	D gelle	28				
MAR	67.1	6.60	928	UB		Samoone			
Did well dev	water?	Yes	No	Gallons a	actuall	y evacuated	l: 22	>	
Sampling D	ate: 8-5-	VO_	Sampling Time	e: 124	5	Depth to W	Vater:	3421	
Sample I.D.	: Mw-	4		Laborato	ry: (	CalScience	Columb	bia Other	
Analyzed fo	or: TPH-G	BTEX	MTBE TPH-D	Oxygenate	s (5)	Other: Se.	e C	00	
EB I.D. (if a	pplicable)	):	@ Time	Duplicate	e I.D. (	(if applicab	le):		
Analyzed fo	r: TPH-G	BTEX	МТВЕ ТРН-D	Oxygenate	es (5)	Other:		and an account to the second s	
D.O. (if req'o	d): Pr	re-purge:		mg/L	Po	ost-purge:		n	mg/L
O.R.P. (if re	q'd): Pr	re-purge:	The state of the s	mV	Po	ost-purge:		n	nV

# APPENDIX C

# BLAINE TECH SERVICES, INC. FIELD PROCEDURES



GROUNDWATER SAMPLING SPECIALISTS
SINCE 1985

August 23, 2010

Denis Brown Shell Oil Products US 2095 South Wilmington Avenue Carson, CA 90810

> Third Quarter 2010 Groundwater Monitoring at Shell-branded Service Station 4212 First Street Pleasanton, CA

Monitoring performed on August 5, 2010

### Groundwater Monitoring Report 100805-JO-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 Martinez Refining Company.

Basic field information is presented alongside analytical values excerpted from the laboratory report in the cumulative table of **WELL CONCENTRATIONS**. The full analytical report for the most recent samples and the field data sheets are attached to this report.

At a minimum, Blaine Tech Services, Inc. field personnel are certified on completion of a forty-hour Hazardous Materials and Emergency Response training course per 29 CFR 1910.120. Field personnel are also enrolled in annual eight-hour refresher courses.

SAN JOSE SACRAMENTO LOS ANGELES SAN DIEGO SEATTLE

1680 ROGERS AVENUE SAN JOSE, CA (408) 573-0555 FAX (408) 573-7771 LIC. 746684 www.blainetech.com

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,

Mike Ninokata Project Manager

MN/np

attachments: Cumulative Table of WELL CONCENTRATIONS

Certified Analytical Report

Field Data Sheets

cc: Suzanne McClurkin-Nelson Delta Environmental 175 Bernal Rd., Suite 200 San Jose, CA 95119

SAN JOSE SACRAMENTO LOS ANGELES SAN DIEGO SEATTLE

# BLAINE TECH SERVICES, INC. METHODS AND PROCEDURES FOR THE ROUTINE MONITORING OF GROUNDWATER WELLS AT SHELL SITES

Blaine Tech Services, Inc. performs environmental sampling and documentation as an independent third party. We specialize in groundwater monitoring assignments and intentionally limit the scope of our services to those centered on the generation of objective information.

To avoid conflicts of interest, Blaine Tech Services, Inc. personnel do not evaluate or interpret the information we collect. As a state licensed contractor (C-57 well drilling –water – 746684) performing strictly technical services, we do not make any professional recommendations and perform no consulting of any kind.

#### SAMPLING PROCEDURES OVERVIEW

#### SAFETY

All groundwater monitoring assignments performed for Shell comply with Shell's safety guidelines, 29 CFR 1910.120 and SB-198 Injury and Illness Prevention Program (IIPP). All Field Technicians receive the full 40-hour 29CFR 1910.120 OSHA SARA HAZWOPER course, medical clearance and on-the-job training prior to commencing any work on any Shell site.

#### INSPECTION AND GAUGING

Wells are inspected prior to evacuation and sampling. The condition of the wellhead is checked and noted according to a wellhead inspection checklist.

Standard measurements include the depth to water (DTW) and the total well depth (TD) obtained with industry standard electronic water level indicators that are graduated in increments of hundredths of a foot.

The water in each well is inspected for the presence of immiscibles. When free product is suspected, its presence is confirmed using an electronic interface probe (e.g. MMC). No samples are collected from a well containing over two-hundredths of a foot (0.02') of product.

#### **EVACUATION**

Depth to water measurements are collected by our personnel prior to purging and minimum purge volumes are calculated anew for each well based on the height of the water column and the diameter of the well. Expected purge volumes are never less than three case volumes and are set at no less than four case volumes in some jurisdictions.

Well purging devices are selected on the basis of the well diameter and the total volume to be evacuated. In most cases the well will be purged using an electric submersible pump (i.e. Grundfos) suspended near (but not touching) the bottom of the well.

#### PARAMETER STABILIZATION

Well purging completion standards include minimum purge volumes, but additionally require stabilization of specific groundwater parameters prior to sample collection. Typical groundwater parameters used to measure stability are electrical conductivity, pH, and temperature. Instrument readings are obtained at regular intervals during the evacuation process (no less than once per case volume).

Stabilization standards for routine quarterly monitoring of fuel sites include the following: Temperature is considered to have stabilized when successive readings do not fluctuate more than +/- 1 degree Celsius. Electrical conductivity is considered stable when successive readings are within 10%. pH is considered to be stable when successive readings remain constant or vary no more than 0.2 of a pH unit.

#### **DEWATERED WELLS**

Normal evacuation removes no less than three case volumes of water from the well. However, less water may be removed in cases where the well dewaters and does not immediately recharge.

#### MEASURING RECHARGE

Upon completion of well purging, a depth to water measurement is collected and notated to ensure that the well has recharged to within 80% of its static, pre-purge level prior to sampling.

Wells that do not immediately show 80% recharge or dewatered wells will be allowed a minimum of 2 hours to recharge prior to sampling. The water level at time of sampling will be noted.

#### **PURGEWATER CONTAINMENT**

All non-hazardous purgewater evacuated from each groundwater monitoring well is captured and contained in on-board storage tanks on the Sampling Vehicle and/or special water hauling trailers. Effluent from the decontamination of reusable apparatus (sounders, electric pumps and hoses etc.), consisting of groundwater combined with deionized water and non-phosphate soap, is also captured and pumped into effluent tanks.

Non-hazardous purgewater is transported under standard Bill of Lading documentation to a Blaine Tech Services, Inc. facility before being transported to a Shell approved disposal facility.

#### SAMPLE COLLECTION DEVICES

All samples are collected using a stainless steel, Teflon or disposable bailers.

#### SAMPLE CONTAINERS

Sample material is decanted directly from the sampling baller into sample containers provided by the laboratory that will analyze the samples. The transfer of sample material from the bailer to the sample container conforms to specifications contained in the USEPA T.E.G.D. The type of sample container, material of construction, method of closure and filling requirements are specific to the intended analysis. Chemicals needed to preserve the sample material are commonly placed inside the sample containers by the laboratory or glassware vendor prior to delivery of the bottle to our personnel. The laboratory sets the number of replicate containers.

#### TRIP BLANKS

Trip Blanks, if requested, are taken to the site and kept inside the sample cooler for the duration of the event. They are turned over to the laboratory for analysis with the samples from that site.

#### **DUPLICATES**

Duplicates, if requested, may be collected at a site. The Field Technician uses their discretionin choosing the well at which the Duplicate is collected, typically one suspected of containing measurable contaminants. The Duplicate sample is labeled "DUP" and the time of collection is omitted from the COC, thus rendering the sample blind.

#### SAMPLE STORAGE

All sample containers are promptly placed in food grade ice chests for storage in the field and transport (direct or via our facility) to the designated analytical laboratory. These ice chests contain quantities of restaurant grade ice as a refrigerant material. The samples are maintained in either an ice chest or a refrigerator until relinquished into the custody of the laboratory or laboratory courier.

## **DOCUMENTATION CONVENTIONS**

A label must be affixed to all sample containers. In most cases these labels are generated by our office personnel and are partially preprinted. Labels can also be hand written by our field personnel. The site is identified with the store number and site address, as is the particular groundwater well from which the sample is drawn (e.g. MW-1, MW-2, S-1 etc.). The time and date of sample collection along with the initials of the person who collects the sample are handwritten onto the label.

Chain of Custody records are created using client specific preprinted forms following USEPA specifications.

Bill of Lading records are contemporaneous records created in the field at the site where the non-hazardous purgewater is generated. Field Technicians use preprinted Bill of Lading forms.

#### DECONTAMINATION

All equipment is brought to the site in clean and serviceable condition and is cleaned after use in each well and before subsequent use in any other well. Equipment is decontaminated before leaving the site.

The primary decontamination device is a commercial steam cleaner. The steam cleaner is detuned to function as a hot pressure washer that is then operated with high quality deionized water that is produced at our facility and stored onboard our sampling vehicle. Cleaning is facilitated by the use of proprietary fixtures and devices included in the patented workstation (U.S. Patent 5,535,775) that is incorporated in each sampling vehicle. The steam cleaner is used to decon reels, pumps and bailers.

Any sensitive equipment or parts (i.e. Dissolved Oxygen sensor membrane, water level indicator, etc.) that cannot be washed using the high pressure water, will be sprayed with a nonphosphate soap and deionized water solution and rinsed with deionized water,

#### DISSOLVED OXYGEN READINGS

Dissolved Oxygen readings are taken pre- and/or post-purge using YSI meters (e.g. YSI Model 54, 58 or 95) or HACH field test kits.

The YSI meters are equipped with a stirring device that enables them to collect accurate in-situ readings. The probe/stirring devices are modified to allow downhole measurements to be taken from wells with diameters as small as two inches. The probe and reel is decontaminated between wells as described above. The meter is calibrated between wells as per the instructions in the operating manual. The probe and stirrer is lowered into the water column. The reading is allowed to stabilize prior to collection.

#### OXYIDATON REDUCTION POTENTIAL READINGS

All readings are obtained with either Corning or Myron-L meters (e.g. Corning ORP-65 or a Myron-L Ultrameter GP). The meter is cleaned between wells as described above. The meter is calibrated at the start of each day according to the instruction manual.

#### FERROUS IRON MEASUREMENTS

All field measurements are collected at time of sampling with a HACH test kit.

# APPENDIX D

# CERTIFIED ANALYTICAL REPORT WITH CHAIN-OF-CUSTODY DOCUMENTATION





August 18, 2010

Michael Ninokata Blaine Tech Services, Inc. 1680 Rogers Avenue San Jose, CA 95112-1105

Calscience Work Order No.: 10-08-0616

Client Reference: 4212 First St., Pleasanton, CA

#### Dear Client:

Enclosed is an analytical report for the above-referenced project. The samples included in this report were received 8/7/2010 and analyzed in accordance with the attached chain-of-custody.

Calscience Environmental Laboratories certifies that the test results provided in this report meet all NELAC requirements for parameters for which accreditation is required or available. Any exceptions to NELAC requirements are noted in the case narrative. The original report of subcontracted analysis, if any, is provided herein, and follows the standard Calscience data package. The results in this analytical report are limited to the samples tested and any reproduction thereof must be made in its entirety.

If you have any questions regarding this report, please do not hesitate to contact the undersigned.

Sincerely,

Calscience Environmental Laboratories, Inc.

Xuan H. Dang Project Manager

NELAP ID: 03220CA

**CSDLAC ID: 10109** 

SCAQMD ID: 93LA0830



# **Analytical Report**



Blaine Tech Services, Inc. 1680 Rogers Avenue San Jose, CA 95112-1105 Date Received: Work Order No: Preparation:

10-08-0616 EPA 5030B

Method: Units: LUFT GC/MS / EPA 8260B

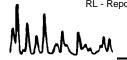
ug/L

08/07/10

Project: 4212 First St., Pleasanton, CA

Page 1 of 3

	,	-, -, -								- ~;	90 1 01 0
Client Sample Number				b Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/ Analy		QC Batch II
MW-1				)616-1-A	08/05/10 13:00	Aqueous	GC/MS CC	08/12/10	08/13 06:		100812L02
<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qual</u>	<u>Parameter</u>			Result	<u>RL</u>	<u>DF</u>	<u>Qual</u>
Benzene	12	10	20		Methyl-t-Buty	d Ether (MTE	BE)	3800	20	20	
Ethylbenzene	ND	20	20		Tert-Butyl Ald	cohol (TBA)		1300	200	20	
Toluene	ND	20	20		TPPH			4200	1000	20	
Xylenes (total)	ND	20	20								
Surrogates:	<u>REC (%)</u>	Control Limits	<u>Qua</u>	<u>l</u>	Surrogates:			<u>REC (%)</u>	Control Limits	<u>C</u>	<u>Qual</u>
Dibromofluoromethane	115	80-126			1,2-Dichloroe	ethane-d4		111	80-131		
Foluene-d8	100	80-120			Toluene-d8-T	TPPH .		103	88-112		
1,4-Bromofluorobenzene	94	80-120									
MW-1B			10-08-0	)616-2-A	08/05/10 13:05	Aqueous	GC/MS CC	08/12/10	08/13 06:4		100812L02
Parameter	Result	RL	<u>DF</u>	Qual	Parameter			Result	RL	DF	Qual
Benzene	ND	0.50	<u></u> 1	<u> </u>	Methyl-t-Buty	d Ether (MTR	!E\	ND	1.0	1	<u> </u>
Ethylbenzene	ND	1.0	1		Tert-Butyl Ald	`	,L)	ND	1.0	1	
Foluene	ND	1.0	1		TPPH	30.10. (1.27.1)		ND	50	1	
Kylenes (total)	ND	1.0	1							•	
Surrogates:	REC (%)	Control Limits	Qua	<u>l</u>	Surrogates:			REC (%)	Control Limits	<u>C</u>	<u>Qual</u>
Dibromofluoromethane	116	80-126			1,2-Dichloroe	ethane-d4		115	80-131		
Toluene-d8	99	80-120			Toluene-d8-T	ГРРН		100	88-112		
1,4-Bromofluorobenzene	94	80-120									
MW-2			10-08-0	)616-3-B	08/05/10 13:15	Aqueous	GC/MS CC	08/13/10	08/13 17:		100813L01
<u>Parameter</u>	Result	<u>RL</u>	<u>DF</u>	<u>Qual</u>	<u>Parameter</u>			Result	<u>RL</u>	<u>DF</u>	Qual
Benzene	ND	5.0	10		Methyl-t-Buty	l Ether (MTE	BE)	1400	10	10	
Ethylbenzene	ND	10	10		Tert-Butyl Ald	cohol (TBA)	•	210	100	10	
Toluene	ND	10	10		TPPH			1500	500	10	
Kylenes (total)	ND	10	10								
Surrogates:	<u>REC (%)</u>	Control Limits	<u>Qua</u>	<u>l</u>	Surrogates:			REC (%)	Control Limits	<u>C</u>	<u>Qual</u>
Dibromofluoromethane	109	80-126			1,2-Dichloroe	ethane-d4		106	80-131		
		00 400						400	00 440		
Toluene-d8	98	80-120			Toluene-d8-T	TPPH		100	88-112		





# **Analytical Report**



Blaine Tech Services, Inc. 1680 Rogers Avenue San Jose, CA 95112-1105 Date Received: Work Order No: Preparation:

10-08-0616 EPA 5030B

08/07/10

Method: Units: LUFT GC/MS / EPA 8260B

ug/L

Project: 4212 First St., Pleasanton, CA

Page 2 of 3

	,										
Client Sample Number				o Sample lumber	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/ Analy		QC Batch ID
MW-3			10-08-0	616-4-A	08/05/10 12:50	Aqueous	GC/MS CC	08/12/10	08/13 07:4		100812L02
<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qual</u>	Parameter			Result	<u>RL</u>	<u>DF</u>	<u>Qual</u>
Benzene	ND	0.50	1		Methyl-t-Buty	l Ether (MTE	BE)	1.2	1.0	1	
Ethylbenzene	ND	1.0	1		Tert-Butyl Ald	cohol (TBA)		ND	10	1	
Toluene	ND	1.0	1		TPPH			ND	50	1	
Xylenes (total)	ND	1.0	1								
Surrogates:	REC (%)	Control Limits	Qua	Į.	Surrogates:			REC (%)	Control Limits	<u>C</u>	<u>Qual</u>
Dibromofluoromethane	120	80-126			1,2-Dichloroe	ethane-d4		116	80-131		
Toluene-d8	101	80-120			Toluene-d8-1	ГРРН		102	88-112		
1,4-Bromofluorobenzene	94	80-120									
MW-4			10-08-0	616-5-B	08/05/10 12:45	Aqueous	GC/MS CC	08/13/10	08/13 17:4		100813L01
Parameter	Result	RL	DF	Qual	Doromotor			Result	RL	DF	Qual
				<u>Quai</u>	<u>Parameter</u>						Quai
Benzene	ND	12	25		Methyl-t-Buty	,	3⊨)	3600	25	25	
Ethylbenzene Toluene	ND ND	25	25		Tert-Butyl Ald	conoi (TBA)		600 4000	250	25	
Xylenes (total)	ND ND	25 25	25 25		IFFN			4000 1200 25		25	
, ,	REC (%)	Control	∠ɔ Qual	ı	Surrogates:			REC (%)	Control		)ual
Surrogates:	<u>KEC (%)</u>	Limits	Qua		Surroyales.			IXEO (70)	Limits		<u>tuai</u>
Dibromofluoromethane	109	80-126			1,2-Dichloroe	ethane-d4		107	80-131		
Toluene-d8	99	80-120			Toluene-d8-1			102	88-112		
1,4-Bromofluorobenzene	97	80-120			i oluene-uo- i	IFFII		102	00-112		
,		00-120	000.40	707 4 450	NI/A	<b>A</b>	00/110 00	00/40/40	08/13	2/10	4000401.00
Method Blank			099-12-	767-4,452	N/A	Aqueous	GC/MS CC	06/12/10	01:0		100812L02
<u>Parameter</u>	Result	RL	DF	Qual	<u>Parameter</u>			Result	RL	DF	<u>Qual</u>
Benzene	ND	0.50	1		Methyl-t-Buty	/I Ether (MTB	BE)	ND	1.0	1	
Ethylbenzene	ND	1.0	1		Tert-Butyl Ald		,	ND	10	1	
Toluene	ND	1.0	1		TPPH	- \ '-/		ND	50	1	
Xylenes (total)	ND	1.0	1							•	
Surrogates:	REC (%)	Control Limits	Qua		Surrogates:			REC (%)	Control Limits	<u>C</u>	<u>)ual</u>
Dibromofluoromethane	116	80-126			1,2-Dichloroethane-d4 110			110	80-131		
Toluene-d8	99	80-120			Toluene-d8-TPPH 102				88-112		
1,4-Bromofluorobenzene	95	80-120									
1,4 DIGITIONIQUIODENZENE	00	50-120									





# **Analytical Report**



Blaine Tech Services, Inc. 1680 Rogers Avenue San Jose, CA 95112-1105 Date Received: Work Order No: Preparation: 08/07/10 10-08-0616

Method:
Units:

EPA 5030B LUFT GC/MS / EPA 8260B

ug/L

Project: 4212 First St., Pleasanton, CA

Page 3 of 3

Client Sample Number				ib Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed		QC Batch ID
Method Blank			099-12	-767-4,453	N/A	Aqueous	GC/MS CC	08/13/10	08/13 13:0		100813L01
<u>Parameter</u>	Result	<u>RL</u>	<u>DF</u>	<u>Qual</u>	<u>Parameter</u>			Result	<u>RL</u>	<u>DF</u>	<u>Qual</u>
Benzene	ND	0.50	1		Methyl-t-Buty	Ether (MTE	BE)	ND	1.0	1	
Ethylbenzene	ND	1.0	1		Tert-Butyl Alc	ohol (TBA)		ND	10	1	
Toluene	ND	1.0	1		TPPH			ND	50	1	
Xylenes (total)	ND	1.0	1								
Surrogates:	REC (%)	Control Limits	Qua	<u>al</u>	Surrogates:			REC (%)	Control Limits	<u>C</u>	<u>Qual</u>
Dibromofluoromethane	112	80-126			1,2-Dichloroe	thane-d4		110	80-131		
Toluene-d8	100	80-120			Toluene-d8-T	PPH		103	88-112		
1,4-Bromofluorobenzene	96	80-120									



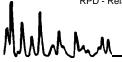
# **Quality Control - Spike/Spike Duplicate**



Blaine Tech Services, Inc. 1680 Rogers Avenue San Jose, CA 95112-1105 Date Received: Work Order No: Preparation: Method: 08/07/10 10-08-0616 EPA 5030B LUFT GC/MS / EPA 8260B

Project 4212 First St., Pleasanton, CA

Quality Control Sample ID	Matrix	Instrument	Date Prepared		Date Analyzed	MS/MSD Batch Number
10-08-0617-1	Aqueous	GC/MS CC	08/12/10		08/13/10	100812S02
Parameter	MS %REC	MSD %REC	%REC CL	RPD	RPD CL	<u>Qualifiers</u>
Benzene	96	96	80-120	0	0-20	
Ethylbenzene	93	94	73-127	1	0-20	
Toluene	97	96	80-120	2	0-20	
Methyl-t-Butyl Ether (MTBE)	95	98	65-131	3	0-22	
Tert-Butyl Alcohol (TBA)	95	96	62-134	0	0-20	



RPD - Relative Percent Difference , CL - Control Limit



# **Quality Control - Spike/Spike Duplicate**



Blaine Tech Services, Inc. 1680 Rogers Avenue San Jose, CA 95112-1105 Date Received: Work Order No: Preparation: Method: 08/07/10 10-08-0616 EPA 5030B EPA 8260B

#### Project 4212 First St., Pleasanton, CA

Quality Control Sample ID	Matrix	Instrument	Date Prepared		Date Analyzed	MS/MSD Batch Number
10-08-0161-3	Aqueous	GC/MS CC	08/13/10		08/13/10	100813S01
<u>Parameter</u>	MS %REC	MSD %REC	%REC CL	RPD	RPD CL	Qualifiers
Benzene	103	103	80-120	0	0-20	
Ethylbenzene	102	102	73-127	0	0-20	
Toluene	105	104	80-120	1	0-20	
Methyl-t-Butyl Ether (MTBE)	97	100	65-131	2	0-22	
Tert-Butyl Alcohol (TBA)	91	95	62-134	4	0-20	



RPD - Relative Percent Difference , CL - Control Limit



# **Quality Control - LCS/LCS Duplicate**



Blaine Tech Services, Inc. 1680 Rogers Avenue San Jose, CA 95112-1105 Date Received: Work Order No: Preparation: Method:

10-08-0616 EPA 5030B

N/A

LUFT GC/MS / EPA 8260B

Project: 4212 First St., Pleasanton, CA

Quality Control Sample ID	Matrix	Instrumen	Da t Prep		Date Analyzed	LCS/LCSD Bate Number	ch
099-12-767-4,452	Aqueous	GC/MS CC	08/1	2/10 (	08/13/10	100812L02	
<u>Parameter</u>	LCS %	GREC LC	SD %REC	%REC CI	_ <u>RPD</u>	RPD CL	Qualifiers
Benzene	103		93	80-120	10	0-20	
Ethylbenzene	102		93	80-123	10	0-20	
Toluene	104		95	80-120	9	0-20	
Methyl-t-Butyl Ether (MTBE)	104		95	75-123	10	0-25	
Tert-Butyl Alcohol (TBA)	99		93	72-126	7	0-20	
TPPH	97		97	65-135	0	0-30	



# **Quality Control - LCS/LCS Duplicate**



Blaine Tech Services, Inc. 1680 Rogers Avenue San Jose, CA 95112-1105 Date Received: Work Order No: Preparation: Method:

10-08-0616 EPA 5030B

N/A

LUFT GC/MS / EPA 8260B

Project: 4212 First St., Pleasanton, CA

Quality Control Sample ID	Matrix	Inst	rument	Date Prepar		ate lyzed	LCS/LCSD Bate Number	:h
099-12-767-4,453	Aqueous	Aqueous GC/MS CC		08/13/	10 08/1	3/10	100813L01	
<u>Parameter</u>	LCS %	<u>6REC</u>	LCSD %	<u>REC</u>	%REC CL	<u>RPD</u>	RPD CL	Qualifiers
Benzene	96	10			80-120	5	0-20	
Ethylbenzene	96		100		80-123	4	0-20	
Toluene	98		103		80-120	5	0-20	
Methyl-t-Butyl Ether (MTBE)	92		97		75-123	5	0-25	
Tert-Butyl Alcohol (TBA)	92		94		72-126	2	0-20	
TPPH	100	)	100		65-135	0	0-30	



# **Glossary of Terms and Qualifiers**



Work Order Number: 10-08-0616

Qualifier *	Definition See applicable analysis comment.
<	Less than the indicated value.
	Greater than the indicated value.
>	
1	Surrogate compound recovery was out of control due to a required sample dilution, therefore, the sample data was reported without further clarification.
2	Surrogate compound recovery was out of control due to matrix interference. The associated method blank surrogate spike compound was in control and, therefore, the sample data was reported without further clarification.
3	Recovery of the Matrix Spike (MS) or Matrix Spike Duplicate (MSD) compound was out of control due to matrix interference. The associated LCS and/or LCSD was in control and, therefore, the sample data was reported without further clarification.
4	The MS/MSD RPD was out of control due to matrix interference. The LCS/LCSD RPD was in control and, therefore, the sample data was reported without further clarification.
5	The PDS/PDSD or PES/PESD associated with this batch of samples was out of control due to a matrix interference effect. The associated batch LCS/LCSD was in control and, hence, the associated sample data was reported without further clarification.
В	Analyte was present in the associated method blank.
E	Concentration exceeds the calibration range.
J	Analyte was detected at a concentration below the reporting limit and above the laboratory method detection limit. Reported value is estimated.
ME	LCS Recovery Percentage is within LCS ME Control Limit range.
ND	Parameter not detected at the indicated reporting limit.
Q	Spike recovery and RPD control limits do not apply resulting from the parameter concentration in the sample exceeding the spike concentration by a factor of four or greater.
X	% Recovery and/or RPD out-of-range.
Z	Analyte presence was not confirmed by second column or GC/MS analysis.
	Solid - Unless otherwise indicated, solid sample data is reported on a wet weight basis, not corrected for % moisture.

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# <WebShip>>>>>

800-322-5555 WWW.gso.com

Page 11 of 12

Ship From: ALAN KEMP CAL SCIENCE- CONCORD 5063 COMMERCIAL CIRCLE #H CONCORD, CA 94520
Ship To: SAMPLE RECEIVING

SAMPLE RECEIVING CEL 7440 LINCOLN WAY GARDEN GROVE, CA 92841

COD: \$0.00

Reference: BTS

**Delivery Instructions:** 

Signature Type: SIGNATURE REQUIRED

Package 1 of 3

Send Label To Printer	Delina All	Edit Shipment	Finish
Send Laber to Finite:	E PINCAII		

#### LABEL INSTRUCTIONS:

Do not copy or reprint this label for additional shipments - each package must have a unique barcode.

STEP 1 - Use the "Send Label to Printer" button on this page to print the shipping label on a laser or inkjet printer.

STEP 2 - Fold this page in half.

STEP 3 - Securely attach this label to your package, do not cover the barcode.

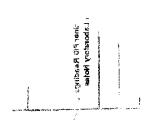
STEP 4 - Request an on-call pickup for your package, if you do not have scheduled daily pickup service or Drop-off your package at the nearest GSO drop box. Locate nearest GSO dropbox locations using this link.

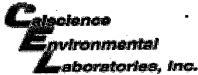
#### **ADDITIONAL OPTIONS:**

Send Label Via Email Create Return Label

#### **TERMS AND CONDITIONS:**

By giving us your shipment to deliver, you agree to all the service terms and conditions described in this section. Our liability for loss or damage to any package is limited to your actual damages or \$100 whichever is less, unless you pay for and declare a higher authorized value. If you declare a higher value and pay the additional charge, our liability will be the lesser of your declared value or the actual value of your loss or damage. In any event, we will not be liable for any damage, whether direct, incidental, special or consequential, in excess of the declared value of a shipment whether or not we had knowledge that such damage might be incurred including but not limited to loss of income or profit. We will not be liable for your acts or omissions, including but not limited to improper or insufficient packaging, securing, marking or addressing. Also, we will not be liable if you or the recipient violates any of the terms of our agreement. We will not be liable for loss, damage or delay caused by events we cannot control, including but not limited to acts of God, perils of the air, weather conditions, act of public enemies, war, strikes, or civil commotion. The highest declared value for our GSO Priority Letter or GSO Priority Package is \$500. For other shipments the highest declared value is \$10,000 unless your package contains items of "extraordinary value", in which case the highest declared value we allow is \$500. Items of "extraordinary value" include, but or not limited to, artwork, jewelry, furs, precious metals, tickets, negotiable instruments and other items with intrinsic value.





WORK ORDER #: 10-08- 2 6 7 6

SAMPLE RECEIPT FORM Cooler _/ of _/
DATE: 08/7/10
TEMPERATURE: Thermometer ID: SC1 (Criteria: 0.0 °C − 6.0 °C, not frozen)  Temperature> 8 °C + 0.5 °C (CF) = 3 2 °C
CUSTODY SEALS INTACT:  Cooler
SAMPLE CONDITION:  Chain-Of-Custody (COC) document(s) received with samples
□ No analysis requested. □ Not relinquished. □ No date/time relinquished.  Sampler's name indicated on COC. □□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□
Proper preservation noted on COC or sample container.  U  Unpreserved vials received for Volatiles analysis  Volatile analysis container(s) free of headspace.  Tedlar bag(s) free of condensation.  CONTAINER TYPE:
Solid: □4ozCGJ □8ozCGJ □16ozCGJ □Sleeve () □EnCores® □TerraCores® □ Water: □VOA □WOAh □VOAna₂ □125AGB □125AGBh □125AGBp □1AGB □1AGBna₂ □1AGBs □500AGB □500AGJ □500AGJs □250AGB □250CGB □250CGBs □1PB □500PB □500PBna □250PB □250PBn □125PB □125PBznna □100PJ □100PJna₂ □ □ □ Air: □Tedlar® □Summa® Other: □ Trip Blank Lot#: Labeled/Checked by: ☆ Container: C: Clear A: Amber P: Plastic G: Glass J: Jar B: Bottle Z: Ziploc/Resealable Bag E: Envelope Reviewed by: ☑ □ Preservative: h: HCL n: HNO₃ na₂:Na₂SaO₃ na: NaOH p: H₃PO₄ s: H₂SO₄ znna: ZnAc₂+NaOH f: Field-filtered Scanned by: ✓ □SC