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5206766005

Mr. Jerry Wickham
Alameda County
Environmental Health Department
1131 Harbor Bay Parkway, Suite 250
Alameda, California 94502-6577

4-12-13

Re: B&C Gas Mini Mart, 2008 First Street, Livermore, California
(ACEHD Case No. RO0000278)

Dear Mr. Wickham:

Stratus Environmental, Inc. (Stratus) has recently prepared a document titled *Quarterly Groundwater Monitoring and Remediation Report, First Quarter 2013* on my behalf. The report was prepared in regards to Alameda County Fuel Leak Case No. RO0000278, located at 2008 First Street, Livermore, California.

I have reviewed a copy of this report, sent to me by representatives of Stratus, and "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,

Balaji Angil
B&C Gas Mini Mart

Chel:



3330 Cameron Park Drive, Ste 550
Cameron Park, California 95682
(530) 676-6004 ~ Fax: (530) 676-6005

April 15, 2013
Project No. 2146-2008-01

Mr. Jerry Wickham
Alameda County
Environmental Health Department
1131 Harbor Bay Parkway, Suite 250
Alameda, California 94502-6577

Re: **Quarterly Groundwater Monitoring and Remediation Report, First Quarter 2013,**
Former B&C Gas Mini Mart, located at 2008 First Street, Livermore, California (ACEHD
Case No. RO0000278)

Dear Mr. Wickham:

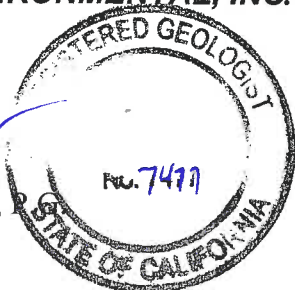
Stratus Environmental, Inc. (Stratus) is submitting the attached report, on behalf of Mr. Balaji Angle, to document work performed during the first quarter 2013 at the former B&C Gas Mini Mart, located at 2008 First Street, Livermore, California. This report has been prepared in compliance with Alameda County Environmental Health Department (ACEHD) requirements for underground storage tank (UST) investigations. Stratus representatives, whose signatures appear below, declare under penalty of perjury, that the information contained in the attached report are true and correct to the best of our knowledge.

If you have any questions regarding this report, please contact Scott Bittinger at (530) 676-2062.

Sincerely,

STRATUS ENVIRONMENTAL, INC.

Scott G. Bittinger,
Project Manager



Deborah L. Barr, P.E.
Project Engineer

Attachment: Quarterly Groundwater Monitoring and Remediation Report, First Quarter 2013

cc: Mr. Balaji Angle, B&C Gas Mini Mart

Date April 15, 2013

**FORMER B&C GAS MINI MART
GROUNDWATER MONITORING AND REMEDIATION REPORT**

Facility Address: 2008 First Street, Livermore, California
Consulting Co./Contact Person: Stratus Environmental, Inc. / Scott Bittinger, P.G.
Consultant Project No: 2146-2008-01
Primary Agency/Regulatory ID No: Alameda County Environmental Health Department (ACEHD) / Case No. RO0000278

WORK PERFORMED THIS PERIOD (First Quarter 2013):

1. During the first quarter 2013, Stratus continued operation of the ozone (O₃) injection groundwater remediation system. Stratus completed a total of three site visits to verify system operation, conduct routine maintenance, and to periodically collect monitoring data from the well array to gauge system effectiveness and maintain permit compliance. The ozone system was manually shut down on February 8, 2013 for system repair.
2. Stratus met with Pacific Gas & Electric Company (PG&E) February 13, 2013 to coordinate the scope of work required for the installation of a temporary gas service for future soil vapor extraction (SVE) remedial work.
3. A semi-annual groundwater monitoring and sampling event was performed on March 18 and 19, 2013.

WORK PROPOSED FOR NEXT PERIOD (Second Quarter 2013):

1. Complete repair of system as necessary and continue operation of the O₃ remediation system during the second quarter 2013. Stratus will continue to visit the site at least every other week to verify operation, conduct maintenance, and periodically collect monitoring data/samples from observation wells to gauge system effectiveness. Nearby wells SVE-3A/B and SVE-4A/B will be added to the well network used to assess the effectiveness of the current remediation system.
2. Stratus will continue to implement work activities necessary to begin SVE remedial efforts, including obtaining a power supply for the equipment.

Current Phase of Project: Groundwater Monitoring, Onsite Ozone Injection (CAP/REM – O&M), near source SVE has been approved by ACEHD, but not yet implemented.

Frequency of Groundwater Sampling: MW-2 through MW-5, MW-7 MW-13, CMT-1 Z1, CMT-2 Z1, CMT-3 Z1, and CMT-4 Z2= semi-annually (first & third calendar quarter); MW-8 through MW-12 and D-2 = annually (first calendar quarter); wells SVE-3A/B and SVE-4A/B to be sampled periodically, exact schedule will be dependent upon whether SVE remediation is being performed using these wells for extraction.

Frequency of Groundwater Monitoring: MW-2, MW-3, MW-4, SVE-3A, SVE-3B, SVE-4A, SVE-4B = quarterly
All wells = semi-annual (1st & 3rd)

Groundwater Sampling Dates: March 18 and 19, 2013

Is Free Product (FP) Present on Site: No

Approximate Depth to Groundwater: 27.98 to 38.45 ft bgs

Groundwater Flow Direction: Northwest

Groundwater Gradient: 0.02 ft/ft

IN-SITU GROUNDWATER REMEDIATION SYSTEM

Equipment Inventory:	Calcon Environmental (Calcon) HiPro™ 2500 Ozone Injection System
Ozone Injection System Status:	Non-Operational until February 28, 2012; Operational February 28, 2012 until February 8, 2013 (currently needs repairs).
Injection wells:	SP-1A/B, SP-2A/B, SP-4A/B (ozone not being injected into well SP-3A/B). Offsite wells SP-5 A/B/C and SP-6 A/B/C not connected to remediation system.

DISCUSSION:

GROUNDWATER MONITORING AND SAMPLING EVENT

Stratus conducted groundwater monitoring and sampling activities on March 18 and 19, 2013. During this event, the monitoring/remediation wells were gauged for depth to water and evaluated for the presence of free product. Following gauging, select wells were purged and groundwater samples were collected. Field data sheets prepared at the time of well gauging and sampling are provided in Appendix A. Collected groundwater samples were forwarded to a state-certified analytical laboratory and analyzed for gasoline range organics (GRO) using EPA Method SW8015B/SW8260B, and for benzene, toluene, ethylbenzene, and total xylenes (BTEX compounds), methyl tertiary butyl ether (MTBE), and tertiary butyl ether (TBA) using EPA Method SW8260B. A description of sampling and analysis procedures utilized by Stratus and/or laboratory personnel are provided in Appendix B. A copy of the certified analytical laboratory report documenting sampling results is provided in Appendix C. Analytical results for sampled wells and depth to groundwater measurements have been uploaded to the State of California's GeoTracker database. Documentation of these data uploads is attached in Appendix D.

At the time of the first quarter 2013 groundwater monitoring/sampling event, depth to groundwater was measured between 27.98 to 38.45 feet below ground surface (bgs) in the monitoring wells. Table 1 presents a summary of depth to groundwater measurements and groundwater elevations corrected to mean sea level (MSL). Groundwater levels increased nearly 10 feet between September 2012 (third quarter 2012 monitoring event) and the March 2013 well monitoring event. Groundwater elevation data (MSL) was used to prepare a groundwater elevation contour map (Figure 4). The groundwater flow direction was to the northwest at a calculated gradient of 0.02 ft/ft; this groundwater flow direction and gradient are generally consistent with the findings of previous work.

GRO and benzene were detected in samples collected from wells MW-2, MW-3, MW-5, MW-7, SVE-3A/B, and SVE-4A/B. GRO concentrations ranged from 90 micrograms per liter ($\mu\text{g/L}$) at well MW-2, to 6,800 $\mu\text{g/L}$ at well MW-5. Benzene concentrations ranged from 0.94 $\mu\text{g/L}$ (SVE-4B) to 57 $\mu\text{g/L}$ (MW-5). MTBE was detected in the samples collected from wells MW-3, MW-5, MW-7, SVE-3A, and SVE-4A, at a concentration range of 0.91 $\mu\text{g/L}$ (SVE-4A) to 21 $\mu\text{g/L}$ (MW-5). No petroleum hydrocarbons or fuel oxygenates were detected in samples collected downgradient of well MW-7. TBA was not detected in any of the groundwater samples. Figure 5 presents a summary of groundwater analytical results for the March 2013 well sampling.

REMEDIATION SYSTEM

Ozone Injection System Description First Quarter 2013 Operation and Maintenance

A Calcon HiPro™ 2500 ozone injection system is currently being used to inject air and ozone to mitigate petroleum hydrocarbon impact to the groundwater. The remediation system is situated within a locked, fenced remedial compound located immediately adjacent to the convenience store building on the property (see Figure 2). The system is currently configured to cyclically inject an air/ozone mixture into wells SP-1A/B, SP-2A/B, and SP-4A/B. Subgrade piping with conveyance tubing extends from the remediation compound area to well SP-3A/B, however, this tubing is not currently connected to the ozone injection system. Conveyance piping and tubing has not been installed to offsite wells SP-5A/B/C or SP-6A/B/C. Operational parameters and field data collected are summarized in Tables 2 and 3, respectively. Field data sheets prepared during each site visit are included in Appendix A.

Stratus personnel visited the site on January 9 and 28, and February 8, 2013 in order to perform operation and maintenance visits on the equipment. The ozone injection system was manually turned off for repair February 8, 2013. Field data sheets documenting observations and work performed by Stratus personnel are included in Appendix A.

During the first quarter 2013, wells SVE-3A/B and SVE 4A/B were added to the monitoring program, however, with the poor operational performance of the ozone injection system, Stratus has not yet obtained enough data to effectively evaluate the performance of the in-situ groundwater remediation in the area surrounding the injection wells. Stratus will continue to collect field parameters (pH, DO, ORP and temperature) at wells MW-2, offsite wells MW-5 and injection well SP-5 A/B/C, in addition to the newly installed wells SVE-3A/B and SVE 4A/B, once the ozone injection system is restarted. Performance of the groundwater remedial efforts will be re-evaluated at that time.

ATTACHMENTS:

- Table 1 Groundwater Elevation and Analytical Summary
- Table 2 Ozone Injection System – Operational Summary
- Table 3 Ozone Injection System – Summary of Field Data
- Figure 1 Site Location Map
- Figure 2 Site Plan
- Figure 3 Site Vicinity Map
- Figure 4 Groundwater Elevation Contour Map, First Quarter 2013
- Figure 5 Groundwater Analytical Summary Map, First Quarter 2013
- Appendix A Field Data Sheets
- Appendix B Sampling and Analysis Procedures
- Appendix C Laboratory Analytical Reports and Chain-of-Custody Documentation
- Appendix D GeoTracker Electronic Submittal Confirmations

TABLE 1
HISTORICAL GROUNDWATER ELEVATION AND ANALYTICAL SUMMARY
B&C Gas Mini Mart
2008 First Street, Livermore

Well Number	Date Collected	Depth to Water (feet)	Well Elevation (ft msl)	Groundwater Elevation (ft msl)			Ethyl-benzene (µg/L)	Total Xylenes (µg/L)	MTBE (µg/L)	TAME (µg/L)	TBA (µg/L)	
				GRO (µg/L)	Benzene (µg/L)	Toluene (µg/L)						
MS (MW-1)	03/21/07	32.57	477.79	445.22	--	--	--	--	--	--	--	
	03/23/07	--	--	--	770	1.0	<0.50	<0.50	<0.50	--	<5.0	
	06/21/07	40.40		437.39	--	--	--	--	--	--	--	
	09/24/07	48.16		429.63	--	--	--	--	--	--	--	
	12/17/07	48.35		429.44	--	--	--	--	--	--	--	
	03/03/08	36.20		441.59	--	--	--	--	--	--	--	
	06/09/08	41.50		436.29	--	--	--	--	--	--	--	
	08/26/08	50.58		427.21	--	--	--	--	--	--	--	
	12/08/08	52.12		425.67	--	--	--	--	--	--	--	
	12/31/08	--	--	--	560	16	0.68	4.6	1.4	11	<0.050	<10
	Well Destroyed											

TABLE 1
HISTORICAL GROUNDWATER ELEVATION AND ANALYTICAL SUMMARY
B&C Gas Mini Mart
2008 First Street, Livermore

Well Number	Date Collected	Depth to Water (feet)	Well Elevation (ft msl)	Groundwater Elevation (ft msl)			Ethyl-benzene (µg/L)	Total Xylenes (µg/L)	MTBE (µg/L)	TAME (µg/L)	TBA (µg/L)	
				GRO (µg/L)	Benzene (µg/L)	Toluene (µg/L)						
MW-2	03/21/07	28.77	486.25	457.48	--	--	--	--	--	--	--	
	03/27/07	--		--	7,800	330	91	810	870	34	--	<7.0
	06/21/07	36.10		450.15	--	--	--	--	--	--	--	--
	06/22/07	--		--	2,400	150	12	130	23	23	--	<40
	09/25/07	44.99		441.26	10,000	270	17	230	31	15	--	43
	12/17/07	44.89		441.36	--	--	--	--	--	--	--	--
	12/18/07	--		--	4,500	51	4.7	58	32	10	<0.50	<10
	03/03/08	32.42		453.83	--	--	--	--	--	--	--	--
	03/04/08	--		--	3,600	70	7.2	70	120	6.3	--	<50
	06/09/08	37.39		448.86	--	--	--	--	--	--	--	--
	06/10/08	--		--	<50	59	6.5	19	65	12	--	<10
	08/26/08	46.79		439.46	--	--	--	--	--	--	--	--
	08/27/08	--		--	360	5.9	<0.50	0.56	<1.0	0.74	--	<10
	12/08/08	49.12		437.13	--	--	--	--	--	--	--	--
	12/10/08	--		--	4,800	37	11	26	310	14	--	<100
	03/26/09	38.90		447.35	2,000	3.6	<0.50	<0.50	3.8	0.84	--	<10
	02/18/11	33.40		452.85	<50	<0.50	<0.50	<0.50	<1.0	<0.50	--	--
	09/27/11	33.83		452.42	100	1.0	<0.50	0.66	<1.0	<0.50	--	<10
	01/25/12	39.57		446.68	210	5.5	<0.50	<0.50	<0.50	<0.50	--	<10
	09/20/12	41.40		444.85	55	<0.50	<0.50	<0.50	<0.50	<0.50	--	<10
	03/18/13	32.34		453.91	90	1.4	<0.50	1.3	<0.50	<0.50	--	<10

TABLE 1
HISTORICAL GROUNDWATER ELEVATION AND ANALYTICAL SUMMARY
B&C Gas Mini Mart
2008 First Street, Livermore

Well Number	Date Collected	Depth to Water (feet)	Well Elevation (ft msl)	Groundwater Elevation (ft msl)			Ethyl-benzene (µg/L)	Total Xylenes (µg/L)	MTBE (µg/L)	TAME (µg/L)	TBA (µg/L)	
				GRO (µg/L)	Benzene (µg/L)	Toluene (µg/L)						
MW-3	03/21/07	28.09	486.39	458.30	--	--	--	--	--	--	--	
	03/22/07	--	--	--	130	2.5	<0.50	0.98	<0.50	16	--	<5.0
	06/21/07	35.30	--	451.09	--	--	--	--	--	--	--	--
	06/22/07	--	--	--	180	6.4	<0.50	<0.50	<0.50	46	--	<20
	09/24/07	43.72	--	442.67	--	--	--	--	--	--	--	--
	09/25/07	--	--	--	6,500	29	2.0	76	42	8.6	--	33
	12/17/07	43.87	--	442.52	--	--	--	--	--	--	--	--
	12/18/07	--	--	--	7,200	93	6.8	70	73	24	<0.50	<10
	03/03/08	31.59	--	454.80	--	--	--	--	--	--	--	--
	03/04/08	--	--	--	1,400	1.1	<0.50	6.6	6.2	6.2	--	<10
	06/09/08	36.62	--	449.77	--	--	--	--	--	--	--	--
	06/10/08	--	--	--	<50	1.4	<0.50	0.60	<1.0	2.2	--	<10
	08/26/08	45.72	--	440.67	--	--	--	--	--	--	--	--
	08/27/08	--	--	--	2,600	160	9.8	56	30	100	--	<10
	12/08/08	48.22	--	438.17	--	--	--	--	--	--	--	--
	12/10/08	--	--	--	3,200	440	20	79	30	380	--	<100
	03/26/09	37.92	--	448.47	830	34	1.6	<0.50	3.5	42	--	<10
	02/18/11	32.26	--	454.13	120	1.2	<0.50	<0.50	<1.0	4.1	--	--
	09/27/11	32.79	--	453.60	490	2.0	<0.50	1.4	<1.0	19.0	--	<10
	01/25/12	38.66	--	447.73	600	19	<0.50	2.3	0.82	8.7	--	<10
	09/20/12	40.35	--	446.04	720	28	0.61	2.9	0.65	41	--	<10
	03/18/13	31.50	--	454.89	140	4.2	<0.50	0.75	<0.50	18	--	<10

TABLE 1
HISTORICAL GROUNDWATER ELEVATION AND ANALYTICAL SUMMARY
B&C Gas Mini Mart
2008 First Street, Livermore

Well Number	Date Collected	Depth to Water (feet)	Well Elevation (ft msl)	Groundwater Elevation (ft msl)				Ethyl-benzene (µg/L)	Total Xylenes (µg/L)	MTBE (µg/L)	TAME (µg/L)	TBA (µg/L)
				GRO (µg/L)	Benzene (µg/L)	Toluene (µg/L)						
MW-4	03/21/07	28.67	487.43	458.76	--	--	--	--	--	--	--	--
	03/27/07	--	--	--	<50	<0.50	<0.50	<0.50	<0.50	<0.50	--	<5.0
	06/21/07	32.20	--	455.23	--	--	--	--	--	--	--	--
	06/22/07	--	--	--	<50	<0.50	<0.50	<0.50	<0.50	1.1	--	<20
	09/24/07	44.57	--	442.86	--	--	--	--	--	--	--	--
	09/25/07	--	--	--	140	<0.50	<0.50	<0.50	<0.50	<0.50	--	<10
	12/17/07	44.67	--	442.76	--	--	--	--	--	--	--	--
	12/18/07	--	--	--	350	0.53	<0.50	0.72	<1.0	<0.50	<0.50	<10
	03/03/08	32.20	--	455.23	--	--	--	--	--	--	--	--
	03/04/08	--	--	--	93	<0.50	<0.50	<0.50	<1.0	<0.50	--	<10
	06/09/08	37.28	--	450.15	--	--	--	--	--	--	--	--
	06/10/08	--	--	--	<50	<0.50	<0.50	<0.50	<1.0	<0.50	--	<10
	08/26/08	46.63	--	440.80	--	--	--	--	--	--	--	--
	08/27/08	--	--	--	<50	<0.50	<0.50	<0.50	<1.0	<0.50	--	<10
	12/08/08	49.23	--	438.20	--	--	--	--	--	--	--	--
	12/09/08	--	--	--	340	3.30	1.2	<0.50	2.8	<0.50	--	<10
	03/26/09	38.83	--	448.60	290	0.94	<0.50	<0.50	<1.0	<0.50	--	<10
	02/18/11	29.98	--	457.45	<50	<0.50	<0.50	<0.50	<1.0	<0.50	--	--
	09/27/11	33.61	--	453.82	<50	<0.50	<0.50	<0.50	<1.0	<0.50	--	<10
	01/25/12	39.42	--	448.01	<50	<0.50	<0.50	<0.50	<0.50	<0.50	--	<10
	09/20/12	41.16	--	446.27	63	<0.50	<0.50	<0.50	<0.50	<0.50	--	<10
	03/18/13	32.13	--	455.30	<50	<0.50	<0.50	<0.50	<0.50	<0.50	--	<10

TABLE 1
HISTORICAL GROUNDWATER ELEVATION AND ANALYTICAL SUMMARY
B&C Gas Mini Mart
2008 First Street, Livermore

Well Number	Date Collected	Depth to Water (feet)	Well Elevation (ft msl)	Groundwater		GRO (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethyl-benzene (µg/L)	Total Xylenes (µg/L)	MTBE (µg/L)	TAME (µg/L)	TBA (µg/L)
				Elevation (ft msl)									
MW-5	03/21/07	28.47	484.33	455.86	--	--	--	--	--	--	--	--	--
	03/27/07	--	--	--	4,000	140	4.2	300	64	23	--	--	<5.0
	06/21/07	35.30	--	449.03	--	--	--	--	--	--	--	--	--
	06/22/07	--	--	--	4,200	180	5.5	200	18	29	--	--	<20
	09/24/07	38.72	--	445.61	--	--	--	--	--	--	--	--	--
	09/25/07	--	--	--	6,000	420	27	560	110	56	--	--	98
	12/17/07	38.71	--	445.62	--	--	--	--	--	--	--	--	--
	03/03/08	32.10	--	452.23	--	--	--	--	--	--	--	--	--
	03/04/08	--	--	--	12,000	550	48	1,000	260	78	--	--	<100
	06/09/08	37.02	--	447.31	--	--	--	--	--	--	--	--	--
	06/11/08	--	--	--	<50	720	33	1,200	97	77	--	--	<10
	08/26/08	--	--	--	--	--	--	--	--	--	--	--	--
	12/08/08	--	--	--	--	--	--	--	--	--	--	--	--
	03/26/09	--	--	--	--	--	--	--	--	--	--	--	--
	02/18/11	32.79	--	451.54	4,500	230	<10	140	<20	21	--	--	--
	09/27/11	33.62	--	450.71	1,800	34	1.9	8.5	2.2	<0.50	--	--	<10
01/25/12	38.62	--	445.71	--	--	--	--	--	--	--	--	--	
09/20/12	39.00	--	445.33	--	--	--	--	--	--	--	--	--	
03/19/13	32.03	--	452.30	6,800	57	4.6	47	8.1	21	--	--	<50[1]	
MW-6	09/27/11	--	486.29	--	--	--	--	--	--	--	--	--	--
	01/25/12	--	--	--	--	--	--	--	Well Damaged				
	12/26/12	--	--	--	--	--	--	--	Well Destroyed				

TABLE 1
HISTORICAL GROUNDWATER ELEVATION AND ANALYTICAL SUMMARY
B&C Gas Mini Mart
2008 First Street, Livermore

Well Number	Date Collected	Depth to Water (feet)	Well Elevation (ft msl)	Groundwater Elevation (ft msl)	Analytical Summary							
					GRO (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethyl-benzene (µg/L)	Total Xylenes (µg/L)	MTBE (µg/L)	TAME (µg/L)	TBA (µg/L)
MW-7	03/21/07	28.86	480.54	451.68	--	--	--	--	--	--	--	--
	03/23/07	--		--	560	4.3	<0.50	0.83	<0.50	22	--	<5.0
	06/21/07	35.70		444.84	--	--	--	--	--	--	--	--
	06/22/07	--		--	4,200	9.1	<0.50	18	4.1	9.9	--	<20
	09/24/07	44.07		436.47	--	--	--	--	--	--	--	--
	09/25/07	--		--	590	0.56	<0.50	0.52	<0.50	14	--	<10
	12/17/07	44.13		436.41	--	--	--	--	--	--	--	--
	12/18/07	--		--	1,800	2.2	<0.50	1.9	0.58	16	<0.50	<10
	03/03/08	31.89		448.65	--	--	--	--	--	--	--	--
	03/04/08	--		--	3,700	85	6.7	180	25	49	--	<10
	06/09/08	37.21		443.33	--	--	--	--	--	--	--	--
	06/10/08	--		--	<50	76	6.5	95	13	53	--	<10
	08/26/08	46.11		434.43	--	--	--	--	--	--	--	--
	08/27/08	--		--	650	11	0.56	4.0	<1.0	15	--	<10
	12/08/08	48.02		432.52	--	--	--	--	--	--	--	--
	12/09/08	--		--	1,600	7.2	<0.50	<0.50	<1.0	9.6	--	<10
	03/26/09	37.77		442.77	850	49	2.0	22	2.1	37	--	<10
	02/18/11	32.51		448.03	<50	<0.50	<0.50	<0.50	<1.0	0.98	--	--
	09/27/11	33.59		446.95	690	13	<0.50	<0.50	<1.0	23	--	<10
	01/26/12	39.07		441.47	<50	<0.50	<0.50	<0.50	<0.50	<0.50	--	<10
	09/20/12	41.04		439.50	53	<0.50	<0.50	<0.50	<0.50	1.1	--	<10
	03/18/13	31.88		448.66	410	7.3	<0.50	0.56	<0.50	8.1	--	<10

TABLE 1
HISTORICAL GROUNDWATER ELEVATION AND ANALYTICAL SUMMARY
B&C Gas Mini Mart
2008 First Street, Livermore

Well Number	Date Collected	Depth to Water (feet)	Well Elevation (ft msl)	Groundwater Elevation (ft msl)				Ethyl-benzene (µg/L)	Total Xylenes (µg/L)	MTBE (µg/L)	TAME (µg/L)	TBA (µg/L)
				GRO (µg/L)	Benzene (µg/L)	Toluene (µg/L)						
MW-8	03/21/07	33.76	475.62	441.86	--	--	--	--	--	--	--	--
	06/21/07	42.10		433.52	--	--	--	--	--	--	--	--
	09/24/07	51.04		424.58	--	--	--	--	--	--	--	--
	12/17/07	50.18		425.44	--	--	--	--	--	--	--	--
	12/18/07	--		--	54	<0.50	<0.50	<0.50	<1.0	<0.50	<0.50	<10
	03/03/08	37.84		437.78	--	--	--	--	--	--	--	--
	06/09/08	43.50		432.12	--	--	--	--	--	--	--	--
	08/26/08	44.53		431.09	--	--	--	--	--	--	--	--
	12/08/08	--		--	--	--	--	--	--	--	--	--
	02/18/11	37.59		438.03	<50	<0.50	<0.50	<0.50	<1.0	<0.50	--	--
	09/27/11	39.76		435.86	--	--	--	--	--	--	--	--
	01/26/12	44.27		431.35	<50	<0.50	<0.50	<0.50	<0.50	<0.50	--	<10
	09/20/12	46.94		428.68	--	--	--	--	--	--	--	--
	03/18/13	37.04		438.58	<50	<0.50	<0.50	<0.50	<0.50	<0.50	--	<10

TABLE 1
HISTORICAL GROUNDWATER ELEVATION AND ANALYTICAL SUMMARY
B&C Gas Mini Mart
2008 First Street, Livermore

Well Number	Date Collected	Depth to Water (feet)	Well Elevation (ft msl)	Groundwater			Ethyl-benzene (µg/L)	Total Xylenes (µg/L)	MTBE (µg/L)	TAME (µg/L)	TBA (µg/L)
				Elevation (ft msl)	GRO (µg/L)	Benzene (µg/L)					
MW-9	03/21/07	30.76	479.48	448.72	--	--	--	--	--	--	--
	06/21/07	38.10		441.38	--	--	--	--	--	--	--
	09/24/07	43.30		436.18	--	--	--	--	--	--	--
	12/17/07	43.34		436.14	--	--	--	--	--	--	--
	03/03/08	34.35		445.13	--	--	--	--	--	--	--
	06/09/08	39.64		439.84	--	--	--	--	--	--	--
	08/26/08	43.33		436.15	--	--	--	--	--	--	--
	12/08/08	--		--	--	--	--	--	--	--	--
	01/25/12	41.12		438.36	<50	<0.50	<0.50	<0.50	<0.50	--	<10
	09/20/12	43.23		436.25	--	--	--	--	--	--	--
	03/18/13	33.90		445.58	<50	<0.50	<0.50	<0.50	<0.50	--	<10

TABLE 1
HISTORICAL GROUNDWATER ELEVATION AND ANALYTICAL SUMMARY
B&C Gas Mini Mart
2008 First Street, Livermore

Well Number	Date Collected	Depth to Water (feet)	Well Elevation (ft msl)	Groundwater Elevation (ft msl)	Analytical Data								
					GRO (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethyl-benzene (µg/L)	Total Xylenes (µg/L)	MTBE (µg/L)	TAME (µg/L)	TBA (µg/L)	
MW-10	03/21/07	34.01	473.84	439.83	--	--	--	--	--	--	--	--	--
	06/21/07	42.30		431.54	--	--	--	--	--	--	--	--	--
	09/24/07	51.43		422.41	--	--	--	--	--	--	--	--	--
	12/17/07	50.37		423.47	--	--	--	--	--	--	--	--	--
	12/18/07	--		--	<50	<0.50	<0.50	<0.50	<1.0	<0.50	<0.50	--	<10
	03/03/08	38.22		435.62	--	--	--	--	--	--	--	--	--
	06/09/08	44.28		429.56	--	--	--	--	--	--	--	--	--
	08/26/08	44.88		428.96	--	--	--	--	--	--	--	--	--
	12/08/08	--		--	--	--	--	--	--	--	--	--	--
	02/18/11	37.88		435.96	<50	<0.50	<0.50	<0.50	<1.0	<0.50	--	--	--
	09/27/11	40.12		433.72	--	--	--	--	--	--	--	--	--
	01/26/12	44.65		429.19	<50	<0.50	<0.50	<0.50	<0.50	<0.50	--	--	<10
	09/20/12	47.27		426.57	--	--	--	--	--	--	--	--	--
	03/18/13	37.40		436.44	<50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	--	<10

TABLE 1
HISTORICAL GROUNDWATER ELEVATION AND ANALYTICAL SUMMARY
B&C Gas Mini Mart
2008 First Street, Livermore

Well Number	Date Collected	Depth to Water (feet)	Well Elevation (ft msl)	Groundwater Elevation (ft msl)	Analytical Summary							
					GRO (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethyl-benzene (µg/L)	Total Xylenes (µg/L)	MTBE (µg/L)	TAME (µg/L)	TBA (µg/L)
MW-11	03/21/07	30.49	467.32	436.83	--	--	--	--	--	--	--	--
	06/21/07	38.30		429.02	--	--	--	--	--	--	--	--
	09/24/07	43.22		424.10	--	--	--	--	--	--	--	--
	12/17/07	43.18		424.14	--	--	--	--	--	--	--	--
	03/03/08	34.72		432.60	--	--	--	--	--	--	--	--
	06/09/08	40.42		426.90	--	--	--	--	--	--	--	--
	08/26/08	43.57		423.75	--	--	--	--	--	--	--	--
	12/08/08	50.18		417.14	--	--	--	--	--	--	--	--
	09/27/11	36.35		430.97	--	--	--	--	--	--	--	--
	01/26/12	40.72		426.60	<50	9.0	<0.50	<0.50	<0.50	<0.50	--	<10
	09/20/12	43.08		424.24	--	--	--	--	--	--	--	--
	03/18/13	33.41		433.91	<50	<0.50	<0.50	<0.50	<0.50	<0.50	--	<10

TABLE 1
HISTORICAL GROUNDWATER ELEVATION AND ANALYTICAL SUMMARY
B&C Gas Mini Mart
2008 First Street, Livermore

Well Number	Date Collected	Depth to Water (feet)	Well Elevation (ft msl)	Groundwater				Ethyl-benzene (µg/L)	Total Xylenes (µg/L)	MTBE (µg/L)	TAME (µg/L)	TBA (µg/L)
				Elevation (ft msl)	GRO (µg/L)	Benzene (µg/L)	Toluene (µg/L)					
MW-12	03/21/07	24.77	460.73	435.96	--	--	--	--	--	--	--	--
	06/21/07	32.90		427.83	--	--	--	--	--	--	--	--
	09/24/07	42.20		418.53	--	--	--	--	--	--	--	--
	12/17/07	40.93		419.80	--	--	--	--	--	--	--	--
	12/18/07	--		--	<50	<0.50	<0.50	<0.50	<1.0	<0.50	<0.50	<10
	03/03/08	28.99		431.74	--	--	--	--	--	--	--	--
	06/09/08	35.10		425.63	--	--	--	--	--	--	--	--
	08/26/08	42.55		418.18	--	--	--	--	--	--	--	--
	12/08/08	--		--	--	--	--	--	--	--	--	--
	09/27/11	30.80		429.93	--	--	--	--	--	--	--	--
	01/26/12	35.25		425.48	<50	<0.50	<0.50	<0.50	<0.50	<0.50	--	<10
	09/20/12	38.06		422.67	--	--	--	--	--	--	--	--
	03/18/13	27.98		432.75	<50	<0.50	<0.50	<0.50	<0.50	<0.50	--	<10

TABLE 1
HISTORICAL GROUNDWATER ELEVATION AND ANALYTICAL SUMMARY
B&C Gas Mini Mart
2008 First Street, Livermore

Well Number	Date Collected	Depth to Water (feet)	Well Elevation (ft msl)	Groundwater Elevation (ft msl)	Analytical Summary							
					GRO (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethyl-benzene (µg/L)	Total Xylenes (µg/L)	MTBE (µg/L)	TAME (µg/L)	TBA (µg/L)
MW-13	03/21/07	30.37	477.18	446.81	--	--	--	--	--	--	--	--
	03/27/07	--		--	<50	<0.50	<0.50	<0.50	<0.50	4.6	--	<5.0
	06/21/07	37.60		439.58	--	--	--	--	--	--	--	--
	06/22/07	--		--	180	0.52	<0.50	<0.50	<0.50	23	--	<200
	09/24/07	45.60		431.58	--	--	--	--	--	--	--	--
	09/25/07	--		--	<50	<0.50	<0.50	<0.50	<0.50	6.9	--	<10
	12/17/07	45.13		432.05	--	--	--	--	--	--	--	--
	12/18/07	--		--	73	<0.50	<0.50	<0.50	<1.0	2.8	<0.50	<10
	03/03/08	33.82		443.36	--	--	--	--	--	--	--	--
	03/04/08	--		--	740	20	0.76	5.8	2.0	35	--	<10
	06/09/08	39.02		438.16	--	--	--	--	--	--	--	--
	06/10/08	--		--	<50	27	0.5	1.9	<1.0	39	--	<10
	08/26/08	47.52		429.66	--	--	--	--	--	--	--	--
	08/27/08	--		--	<50	<0.50	<0.50	<0.50	<1.0	2.9	--	<10
	12/08/08	49.02		428.16	--	--	--	--	--	--	--	--
	12/10/08	--		--	<50	<0.50	<0.50	<0.50	<1.0	<0.50	--	<10
	03/26/09	39.59		437.59	350	15	0.52	<0.50	<1.0	19	--	<10
	02/18/11	34.27		442.91	<50	1.1	<0.50	<0.50	<1.0	8.4	--	--
	09/27/11	35.86		441.32	74	<0.50	<0.50	<0.50	<1.0	7.2	--	<10
	01/25/12	40.65		436.53	170	<0.50	<0.50	<0.50	<0.50	13	--	<10
	09/20/12	42.76		434.42	<50	<0.50	<0.50	<0.50	<0.50	8.6	--	<10
	03/18/13	33.82		443.36	<50	<0.50	<0.50	<0.50	<0.50	<0.50	--	<10

TABLE 1
HISTORICAL GROUNDWATER ELEVATION AND ANALYTICAL SUMMARY
B&C Gas Mini Mart
2008 First Street, Livermore

Well Number	Date Collected	Depth to Water (feet)	Well Elevation (ft msl)	Groundwater Elevation (ft msl)	Analytical Summary							
					GRO (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethyl-benzene (µg/L)	Total Xylenes (µg/L)	MTBE (µg/L)	TAME (µg/L)	TBA (µg/L)
CMT-1 Z1	03/21/07	35.26	471.96	436.70	--	--	--	--	--	--	--	--
	03/22/07	--	--	--	<50	<0.50	<0.50	<0.50	<0.50	<0.50	--	<5.0
	06/21/07	43.40	--	428.56	--	--	--	--	--	--	--	--
	09/24/07	--	--	--	--	--	--	--	--	--	--	--
	12/17/07	--	--	--	--	--	--	--	--	--	--	--
	03/03/08	39.80	--	432.16	--	--	--	--	--	--	--	--
	03/05/08	--	--	--	<50	<0.50	<0.50	<0.50	<1.0	<0.50	<0.50	<10
	06/09/08	--	--	--	--	--	--	--	--	--	--	--
	08/26/08	--	--	--	--	--	--	--	--	--	--	--
	12/08/08	--	--	--	--	--	--	--	--	--	--	--
	02/18/11	38.38	--	433.58	<50	<0.50	<0.50	<0.50	<1.0	<0.50	--	--
	09/27/11	41.31	--	430.65	<50	<0.50	<0.50	<0.50	<1.0	<0.50	--	<10
	01/25/12	45.30	--	426.66	--	--	--	--	--	--	--	--
	09/20/12	45.30	--	426.66	--	--	--	--	--	--	--	--
	03/18/13	38.45	--	433.51	--	--	--	--	--	--	--	--

TABLE 1
HISTORICAL GROUNDWATER ELEVATION AND ANALYTICAL SUMMARY
B&C Gas Mini Mart
2008 First Street, Livermore

Well Number	Date Collected	Depth to Water (feet)	Well Elevation (ft msl)	Groundwater				Ethyl-benzene (µg/L)	Total Xylenes (µg/L)	MTBE (µg/L)	TAME (µg/L)	TBA (µg/L)
				GRO (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Elevation (ft msl)					
CMT-2 Z1	03/21/07	34.15	472.53	438.38	--	--	--	--	--	--	--	--
	06/21/07	42.90		429.63	--	--	--	--	--	--	--	--
	09/24/07	--		--	--	--	--	--	--	--	--	--
	12/17/07	--		--	--	--	--	--	--	--	--	--
	03/03/08	38.63		433.90	--	--	--	--	--	--	--	--
	06/09/08	44.58		427.95	--	--	--	--	--	--	--	--
	08/26/08	--		--	--	--	--	--	--	--	--	--
	12/08/08	--		--	--	--	--	--	--	--	--	--
	02/18/11	37.62		434.91	<50	<0.50	<0.50	<0.50	<0.50	<0.50	--	--
	09/27/11	40.59		431.94	<50	<0.50	<0.50	<0.50	<1.0	<0.50	--	<10
	01/25/12	45.14		427.39	<50	<0.50	<0.50	<0.50	<0.50	<0.50	--	<10
	09/20/12	48.47		424.06	--	--	--	--	--	--	--	--
	03/18/13	37.19		435.34	--	--	--	--	--	--	--	--

TABLE 1
HISTORICAL GROUNDWATER ELEVATION AND ANALYTICAL SUMMARY
B&C Gas Mini Mart
2008 First Street, Livermore

Well Number	Date Collected	Depth to Water (feet)	Well Elevation (ft msl)	Groundwater									
				Elevation (ft msl)	GRO (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethyl-benzene (µg/L)	Total Xylenes (µg/L)	MTBE (µg/L)	TAME (µg/L)	TBA (µg/L)	
CMT-3 Z1	03/21/07	34.40	476.28	441.88	--	--	--	--	--	--	--	--	--
	06/21/07	42.60		433.68	--	--	--	--	--	--	--	--	--
	09/24/07	--		--	--	--	--	--	--	--	--	--	--
	12/17/07	--		--	--	--	--	--	--	--	--	--	--
	03/03/08	38.45		437.83	--	--	--	--	--	--	--	--	--
	06/09/08	--		--	--	--	--	--	--	--	--	--	--
	08/26/08	--		--	--	--	--	--	--	--	--	--	--
	12/08/08	--		--	--	--	--	--	--	--	--	--	--
	02/18/11	38.48		437.80	<50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	--	--
	09/27/11	40.64		435.64	<50	<0.50	<0.50	<0.50	<0.50	<1.0	<0.50	--	25.00
	01/25/12	43.20		433.08	--	--	--	--	--	--	--	--	--
	09/20/12	43.20		433.08	--	--	--	--	--	--	--	--	--
	03/18/13	37.94		438.34	<50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	--	<10

TABLE 1
HISTORICAL GROUNDWATER ELEVATION AND ANALYTICAL SUMMARY
B&C Gas Mini Mart
2008 First Street, Livermore

Well Number	Date Collected	Depth to Water (feet)	Well Elevation (ft msl)	Groundwater Elevation (ft msl)	Analytical Summary							
					GRO (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethyl-benzene (µg/L)	Total Xylenes (µg/L)	MTBE (µg/L)	TAME (µg/L)	TBA (µg/L)
CMT-4 Z2	03/21/07	28.22	485.82	457.60	--	--	--	--	--	--	--	--
	03/22/07	--		--	5,800	1,800	130	190	180	1,700	--	140
	06/21/07	35.20		450.62	--	--	--	--	--	--	--	--
	09/24/07	--		--	--	--	--	--	--	--	--	--
	12/17/07	--		--	--	--	--	--	--	--	--	--
	03/03/08	32.12		453.70	--	--	--	--	--	--	--	--
	03/05/08	--		--	8,200	1,600	160	290	690	900	<12	<250
	06/09/08	36.71		449.11	--	--	--	--	--	--	--	--
	08/26/08	--		--	--	--	--	--	--	--	--	--
	12/08/08	--		--	--	--	--	--	--	--	--	--
	03/27/09	--		--	--	--	--	--	--	--	--	--
	02/18/11	37.70		448.12	--	--	--	--	--	--	--	--
	09/27/11	33.22		452.60	1,400	210	10	66	140	150	<2.5	<50
	01/25/12	37.40		448.42	--	--	--	--	--	--	--	--
	09/20/12	37.40		448.42	--	--	--	--	--	--	--	--
	03/18/13	32.05		453.77	--	--	--	--	--	--	--	--

TABLE 1
HISTORICAL GROUNDWATER ELEVATION AND ANALYTICAL SUMMARY
B&C Gas Mini Mart
2008 First Street, Livermore

Well Number	Date Collected	Depth to Water (feet)	Well Elevation (ft msl)	Groundwater Elevation (ft msl)	Analytical Summary (µg/L)							
					GRO	Benzene	Toluene	Ethyl-benzene	Total Xylenes	MTBE	TAME	TBA
D-2	03/21/07	26.50	460.01	433.51	--	--	--	--	--	--	--	--
	03/22/07	--	--	--	<50	<0.50	<0.50	<0.50	<0.50	<0.50	--	<5.0
	06/21/07	34.40	--	425.61	--	--	--	--	--	--	--	--
	06/22/07	--	--	--	<50	<0.50	<0.50	<0.50	<0.50	<0.50	--	<20
	09/24/07	43.61	--	416.40	--	--	--	--	--	--	--	--
	09/25/07	--	--	--	<50	<0.50	<0.50	<0.50	<0.50	<0.50	--	<10
	12/17/07	39.07	--	420.94	--	--	--	--	--	--	--	--
	12/18/07	--	--	--	<50	<0.50	<0.50	<0.50	<1.0	<0.50	<0.50	<10
	03/03/08	28.07	--	431.94	--	--	--	--	--	--	--	--
	03/04/08	--	--	--	<50	<0.50	<0.50	<0.50	<1.0	<0.50	--	<10
	06/09/08	36.42	--	423.59	--	--	--	--	--	--	--	--
	06/10/08	--	--	--	<50	<0.50	<0.50	<0.50	<1.0	<0.50	--	<10
	08/26/08	45.39	--	414.62	--	--	--	--	--	--	--	--
	08/28/08	--	--	--	230	<0.50	<0.50	<0.50	<1.0	<0.50	--	<10
	12/08/08	43.07	--	416.94	--	--	--	--	--	--	--	--
	12/09/08	--	--	--	<50	<0.50	<0.50	<0.50	<1.0	<0.50	--	<10
	03/26/09	34.33	--	425.68	<50	<0.50	<0.50	<0.50	<1.0	<0.50	--	<10
	09/27/11	31.46	--	428.55	--	--	--	--	--	--	--	--
	01/26/12	41.38	--	418.63	<50	<0.50	<0.50	<0.50	<0.50	<0.50	--	<10
	09/20/12	43.51	--	416.50	--	--	--	--	--	--	--	--
03/18/13	33.99	--	426.02	<50	<0.50	<0.50	<0.50	<0.50	<0.50	--	<10	
SVE-3A	03/18/13	32.26	--	--	170	13	<0.50	<0.50	<0.50	2.1	--	<10
SVE-3B	03/18/13	32.32	--	--	650	5.8	<0.50	18	<0.50	<0.50	--	<10
SVE-4A	03/19/13	31.72	--	--	210	3.2	<0.50	<0.50	0.66	0.91	--	<10
SVE-4B	03/19/13	31.39	--	--	720	0.94	<0.50	<0.50	<0.50	<0.50	--	<10

TABLE 1
HISTORICAL GROUNDWATER ELEVATION AND ANALYTICAL SUMMARY
B&C Gas Mini Mart
2008 First Street, Livermore

Well Number	Date Collected	Depth to Water (feet)	Well Elevation (ft msl)	Groundwater Elevation (ft msl)	GRO (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethyl-benzene (µg/L)	Total Xylenes (µg/L)	MTBE (µg/L)	TAME (µg/L)	TBA (µg/L)
Notes:					Analysis:							
GRO = Gasoline Range Organics C4-C13					GRO analyzed using EPA Method SW8015B/ SW8260B,							
MTBE = Methyl tert-butyl ether					all remaining analytes analyzed using EPA Method SW8260B.							
TAME=Tert amyl-methyl ether												
TBA=Tert-butyl alcohol												
msl = Mean sea level												
µg/L = Micrograms per liter												
-- = Not analyzed/Not measured												
1 = Reporting limits were increased due to high concentrations of target analytes.					All data taken from Golder Associates, 2011 Second Semi-Annual Groundwater Monitoring Report, dated November 2, 2011							

TABLE 2
Ozone Injection System --- Operational Summary
 B&C Gas Mini Mart, 2008 First Street, Livermore, CA

Date	O ₃ System Status (arrive/depart)	Hour Meter Reading	O ₃ plus air Flowrate	Injection Pressure	Oxygen Flowrate
			(scfm)	(psi)	(scfh)
02/28/12	Off/On ¹	0.0	1.2	15.0	--
03/06/12	On/On	--	1.0	37.0	--
03/29/12	Off/On ²	0.8	3.8	6.0	12.0
04/10/12	Off/On ³	6.7	4.0	11.0	11.0
04/23/12	On/On	214.2	2.5	5.0	13.0
05/07/12	On/On	365.6	2.6	8.0	12.0
05/22/12	Off/On ³	372.0	4.1	6.0	12.0
05/31/12	Off/On ⁴	380.0	4.4	12.0	12.0
06/04/12	Off/On ⁵	386.0	4.4	13.0	12.0
06/20/12	Off/On ⁶	387.4	4.2	12.0	12.0
07/03/12	Off/On	396.7	4.4	9.0	12.0
07/23/12	Off/On ⁴	397.1	5.0	13.0	12.0
08/06/12	Off/On ⁴	399.3	3.4	14.0	12.0
08/23/12	Off/On ⁴	402.0	2.0	5.0	12.0
09/03/12	Off/On	408.5	3.2	3.0	12.0
09/20/12	Off/Off	540.0	--	--	--
10/01/12	On/On	634.7	4.1	4.0	12.0
10/16/12	On/On	985.7	4.5	16.0	12.0
11/05/12	On/On	1410.0	4.4	6.0	18.0
11/19/12	Off/On ⁷	1521.4	4.5	14.0	12.0
12/04/12	On/On ⁸	1522.9	4.3	40.0	12.0
12/18/12	Off/On ⁹	0.50	5.0	26.0	12.0
01/09/13	On/On	346.70	5.0	20.0	12.0
01/28/13	On/On	556.50	5.0	16.0	12.0
02/08/13	On/Off ¹⁰	656.50	4.4	20.0	12.0
Average			3.8	13.8	12.3

Legend:

O₃ = ozone

psi = pounds per square inch

scfm = standard cubic feet per minute

scfh = standard cubic feet per hour

-- = not measured/not applicable

Notes:

¹ System was originally shut down on December 28, 2011 due to a bad compressor. On January 18, 2012 a field visit to repair the compressor was completed, however, the existing compressor was unable to be repaired. Remediation system re-started February 28, 2012 after replacing the compressor. Ozone system was re-started with a zero hour meter reading.

² System down upon arrival, compressor replaced.

³ System down upon arrival, due to high temp, restart system.

⁴ System down upon arrival, restart system.

⁵ System down upon arrival due to lack of power, restart system.

⁶ System down upon arrival due to high temp, tarp installed over compound to shade unit from sun, and restart system.

⁷ System down upon arrival. Loose wire on compressor. Repair, restart system.

⁸ System hour meter reset to zero, prior to departure.

⁹ System down upon arrival due to high air flow, restart system.

¹⁰ Ozone system not operating, therefore, system manually turned off for repair.

1. Ozone system has a total of 8 ports available, six are currently connected to injection wells (SP-1A/B, SP-2A/B, and SP-4A/B) as of May 22, 2012.

2. Ozone injection duration set at 10 minutes per well.

TABLE 3
Ozone Injection System --- Summary of Field Data
 B&C Gas Mini Mart, 2008 First Street, Livermore, CA

Well Number	Date ¹	Number of Days Since Re-Start	Depth to Water (ft)	DO (mg/L)	Temp. (°C)	pH	Specific Conductivity (µS/cm)	ORP (mV)
MW-2	04/10/12	42	38.56	1.05	17.8	7.39	797	327
	04/23/12	55	36.84	2.26	19.1	7.16	738	168
	05/07/12	69	37.11	3.75	19.3	6.58	696	302
	05/22/12	84	37.81	1.06	18	6.94	706	303
	05/31/12	93	--	--	--	--	--	--
	06/04/12	97	38.37	2.77	18.8	7.01	694	217
	06/20/12	113	--	--	--	--	--	--
	07/03/12	126	39.94	2.13	18.7	6.73	687	209
	07/23/12	146	40.55	4.35	19.0	6.96	644	371
	08/06/12	160	--	--	--	--	--	--
	08/23/12	177	41.05	1.33	18.9	7.03	576	333
	09/03/12	188	--	--	--	--	--	--
	09/20/12	205	41.40	1.92	17.7	7.00	502	326
	10/01/12	216	39.62	2.83	18.9	7.23	498	333
	10/16/12	231	39.60	3.48	19.1	6.97	500	374
	11/05/12	251	40.68	4.50	19.1	7.06	452	361
	11/19/12	265	40.23	0.75	18.8	7.59	430	349
	12/04/12	280	36.82	3.80	18.5	6.86	403	377
	12/18/12	294	34.65	0.73	17.8	7.02	415	357
	01/09/13	316	31.78	6.68	18.3	7.44	435	399
01/28/13	335	31.93	5.16	18.7	7.11	378	367	
02/08/13	346	--	--	--	--	--	--	
MW-3	04/10/12	42	37.69	0.60	18.1	6.89	721	357
	04/23/12	55	35.90	1.26	18.9	6.99	706	166
	05/07/12	69	36.25	1.95	18.8	6.71	701	297
	05/22/12	84	36.89	1.29	18.1	7.08	702	305
	05/31/12	93	--	--	--	--	--	--
	06/04/12	97	37.41	2.00	18.6	7.12	688	214
	06/20/12	113	--	--	--	--	--	--
	07/03/12	126	38.98	2.50	18.3	7.04	7	199
	07/23/12	146	39.52	4.36	18.7	6.93	630	368
	08/06/12	160	--	--	--	--	--	--
	08/23/12	177	40.23	0.96	18.5	7.04	553	331
	09/03/12	188	--	--	--	--	--	--
	09/20/12	205	40.35	1.25	17.1	6.96	488	315
	10/01/12	216	40.28	0.80	18.5	7.19	493	337
	10/16/12	231	40.03	0.93	18.7	6.90	498	376
	11/05/12	251	39.52	0.80	18.6	7.02	450	362
	11/19/12	265	39.24	0.45	18.4	7.23	427	351
	12/04/12	280	35.77	0.73	18.0	7.00	404	376
	12/18/12	294	33.72	1.00	17.5	7.11	411	359
	01/09/13	316	30.69	1.40	17.1	7.31	455	377
01/28/13	335	30.77	1.10	17.8	7.29	389	359	
02/08/13	346	--	--	--	--	--	--	

TABLE 3
Ozone Injection System --- Summary of Field Data
 B&C Gas Mini Mart, 2008 First Street, Livermore, CA

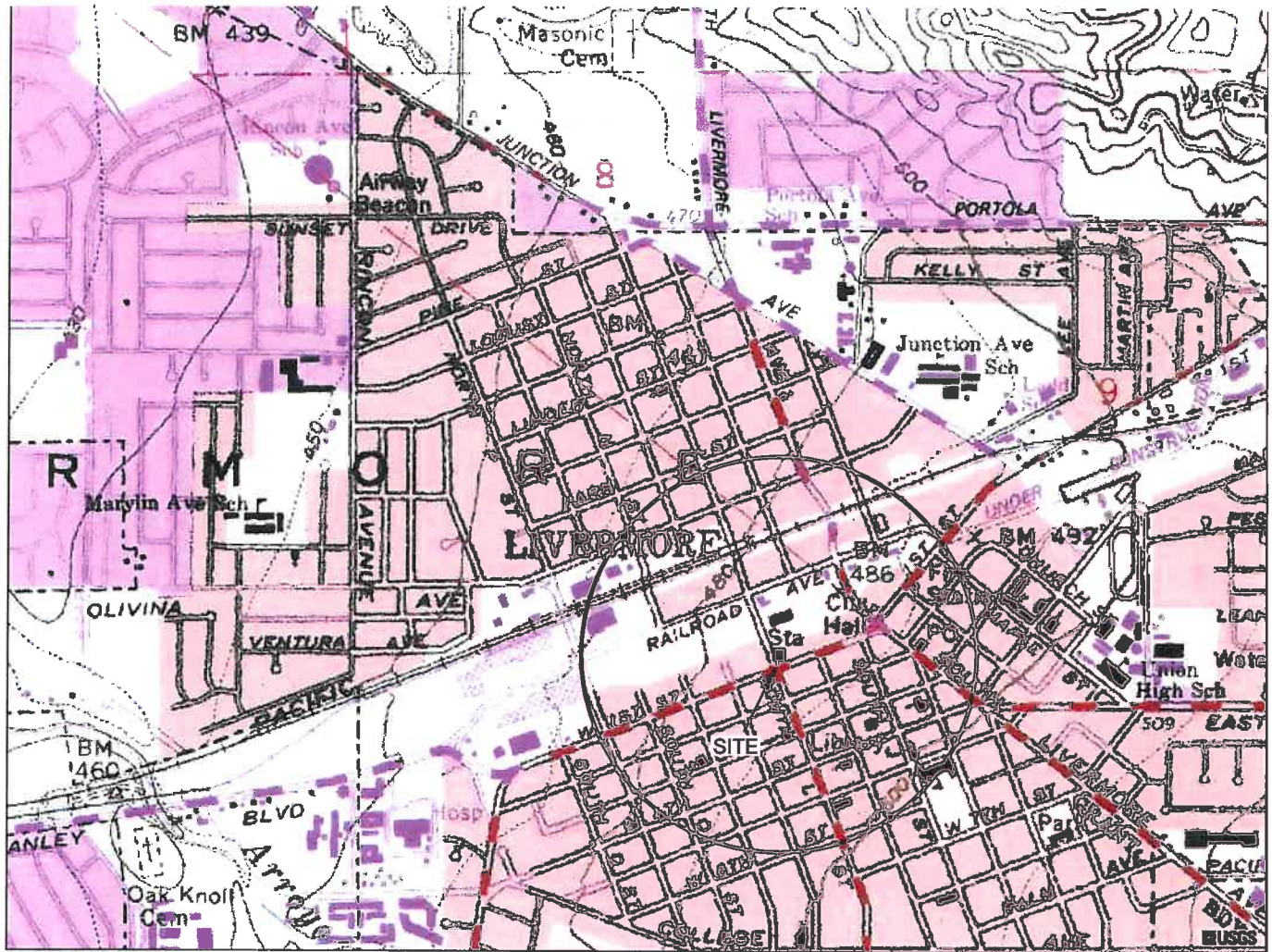
Well Number	Date ¹	Number of Days Since Re-Start	Depth to Water (ft)	DO (mg/L)	Temp. (°C)	pH	Specific Conductivity (µS/cm)	ORP (mV)
MW-5	04/10/12	42	--	--	--	--	--	--
	04/23/12	55	--	--	--	--	--	--
	05/07/12	69	--	--	--	--	--	--
	05/22/12	84	37.27	1.24	18.1	6.94	910	259
	05/31/12	93	--	--	--	--	--	--
	06/04/12	97	--	--	--	--	--	--
	06/20/12	113	--	--	--	--	--	--
	07/03/12	126	38.75	12.20	18.3	7.20	814	282
	07/23/12	146	--	--	--	--	--	--
	08/06/12	160	--	--	--	--	--	--
	08/23/12	177	--	--	--	--	--	--
	09/03/12	188	--	--	--	--	--	--
	09/20/12	205	39.00	--	--	--	<i>Dry</i>	--
	10/01/12	216	--	--	--	--	--	--
	10/16/12	231	--	--	--	--	<i>Dry</i>	--
	11/05/12	251	--	--	--	--	<i>Dry</i>	--
	11/19/12	265	--	--	--	--	--	--
	12/04/12	280	--	--	--	--	--	--
	12/18/12	294	--	--	--	--	--	--
	01/09/13	316	--	--	--	--	--	--
01/28/13	335	31.34	1.00	15.9	7.80	429	318	
02/08/13	346	--	--	--	--	--	--	
SP-5A	04/10/12	42	37.87	1.94	18.1	6.69	924	334
	04/23/12	55	36.15	1.80	19.2	6.83	538	174
	05/07/12	69	36.58	1.81	18.8	6.49	716	323
	05/22/12	84	36.75	0.94	18.0	6.61	745	292
	05/31/12	93	--	--	--	--	--	--
	06/04/12	97	36.70	3.31	18.2	7.02	872	299
	06/20/12	113	--	--	--	--	--	--
	07/03/12	126	38.82	--	--	--	<i>Dry</i>	--
	07/23/12	146	--	--	--	--	<i>Dry</i>	--
	08/06/12	160	--	--	--	--	--	--
	08/23/12	177	--	--	--	--	<i>Dry</i>	--
	09/03/12	188	--	--	--	--	--	--
	09/20/12	205	--	--	--	--	--	--
	10/01/12	216	39.00	--	--	--	<i>Dry</i>	--
	10/16/12	231	--	--	--	--	<i>Dry</i>	--
	11/05/12	251	--	--	--	--	<i>Dry</i>	--
	11/19/12	265	--	--	--	--	--	--
	12/04/12	280	36.90	1.50	17.8	7.09	127	360
	12/18/12	294	34.18	1.04	17.2	6.97	415	359
	01/09/13	316	31.25	1.22	17.2	6.57	167	376
01/28/13	335	31.36	1.90	17.5	7.37	89	347	
02/08/13	346	--	--	--	--	--	--	

TABLE 3
Ozone Injection System --- Summary of Field Data
B&C Gas Mini Mart, 2008 First Street, Livermore, CA

Well Number	Date ¹	Number of Days Since Re-Start	Depth to Water (ft)	DO (mg/L)	Temp. (°C)	pH	Specific Conductivity (µS/cm)	ORP (mV)
SP-5B	04/10/12	42	37.99	1.59	18.6	6.76	692	298
	04/23/12	55	36.02	1.65	18.8	7.15	691	128
	05/07/12	69	36.37	2.06	18.1	6.33	1420	290
	05/22/12	84	37.02	0.97	18.8	6.24	151.5	278
	05/31/12	93	--	--	--	--	--	--
	06/04/12	97	37.58	3.06	18.1	7.44	692	334
	06/20/12	113	--	--	--	--	--	--
	07/03/12	126	39.15	7.14	18.6	6.99	467	188
	07/23/12	146	39.65	4.33	19.3	7.49	220	346
	08/06/12	160	--	--	--	--	--	--
	08/23/12	177	40.33	0.94	18.9	7.66	384	322
	09/03/12	188	--	--	--	--	--	--
	09/20/12	205	--	--	--	--	--	--
	10/01/12	216	42.50	0.82	18.8	7.42	415	316
	10/16/12	231	40.27	1.70	18.7	7.02	482	360
	11/05/12	251	39.77	1.00	18.5	7.16	382	364
	11/19/12	265	--	--	--	--	--	--
	12/04/12	280	36.11	0.92	17.3	7.44	393	358
	12/18/12	294	34.02	1.15	16.4	7.58	526	349
	01/09/13	316	31.03	1.69	17.1	6.83	64	360
01/28/13	335	31.52	1.30	17.1	7.40	139	349	
02/08/13	346	--	--	--	--	--	--	
SP-5C	04/10/12	42	37.62	2.04	18.6	7.14	697	366
	04/23/12	55	35.77	2.00	18.4	7.50	578	10
	05/07/12	69	36.00	3.23	18.6	6.37	189	242
	05/22/12	84	36.53	1.65	18.4	6.65	182	264
	05/31/12	93	--	--	--	--	--	--
	06/04/12	97	37.35	3.10	18.6	7.51	216	328
	06/20/12	113	--	--	--	--	--	--
	07/03/12	126	38.84	13.09	18.2	6.82	320	192
	07/23/12	146	40.53	4.88	19.1	8.00	301	314
	08/06/12	160	--	--	--	--	--	--
	08/23/12	177	39.99	0.97	18.4	8.24	529	318
	09/03/12	188	--	--	--	--	--	--
	09/20/12	205	--	--	--	--	--	--
	10/01/12	216	42.30	100.00	18.5	7.54	517	290
	10/16/12	231	39.95	1.57	18.6	7.01	432	349
	11/05/12	251	39.56	1.30	18.1	7.21	435	369
	11/19/12	265	--	--	--	--	--	--
	12/04/12	280	35.90	1.90	17.3	8.00	262	345
	12/18/12	294	35.75	1.15	16.3	7.94	82	347
	01/09/13	316	30.23	4.31	16.5	6.91	117	370
01/28/13	335	30.82	1.72	16.8	7.52	125	340	
02/08/13	346	--	--	--	--	--	--	

TABLE 3
Ozone Injection System --- Summary of Field Data
 B&C Gas Mini Mart, 2008 First Street, Livermore, CA

Well Number	Date ¹	Number of Days Since Re-Start	Depth to Water (ft)	DO (mg/L)	Temp. (°C)	pH	Specific Conductivity (µS/cm)	ORP (mV)
<p>Legend:</p> <p>ft = feet DO = dissolved oxygen mg/L = milligrams per liter Temp. = temperature °C = degrees Celsius</p> <p style="text-align: right;">µS/cm = microSiemens per centimeter ORP = oxidation reduction potential mV = millivolts</p> <p>Temp., pH, specific conductivity, and ORP measurements recorded without purging.</p> <p>¹ System was originally shut down on December 28, 2011 and re-started February 28, 2012. Additional field parameters to monitor ozone systems remediation on groundwater were attained beginning April 10, 2012.</p>								



GENERAL NOTES:
 BASE MAP FROM U.S.G.S.
 LIVERMORE, CA.
 7.5 MINUTE TOPOGRAPHIC
 PHOTOREVISED 1999



APPROXIMATE SCALE



QUADRANGLE LOCATION

STRATUS
 ENVIRONMENTAL, INC.

B & C GAS MINI MART
 2008 FIRST STREET
 LIVERMORE, CALIFORNIA

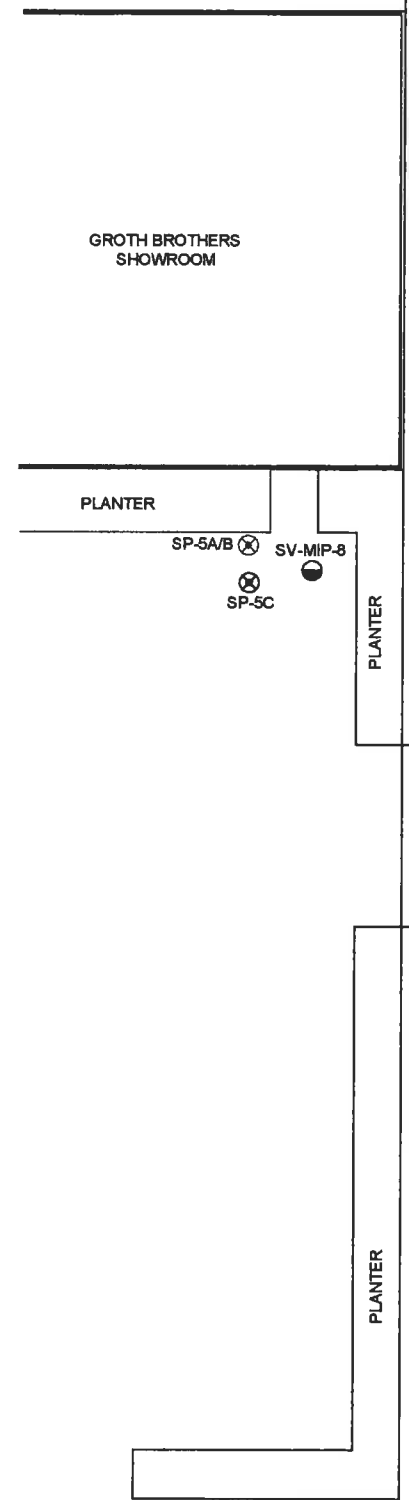
SITE LOCATION MAP

FIGURE
 1

PROJECT NO.
 2146-2008-01



- LEGEND:
- MW-1 MONITORING WELL LOCATION
 - SV-MW-2 SOIL VAPOR EXTRACTION WELL
 - ⊗ SP-1A/B OZONE SPARGE WELL



- MW-5
- ⊗ SP-6A/B
- ⊗ SP-6C

SOUTH L STREET



- ⊗ SP-3A/B
- SV-MW-2
- MW-2
- SVE-3A/B
- ⊗ SP-1A/B
- ⊗ SP-2A/B

- ⊗ SP-4A/B
- CMT4

- SVE-2

- MW-3

- MW-4

NOTE: LOCATIONS OF FEATURES DEPICTED ON THIS FIGURE ARE APPROXIMATE.

STRATUS
ENVIRONMENTAL, INC.



B & C GAS MINI MART
2008 1st STREET
LIVERMOORE, CALIFORNIA

SITE PLAN

FIGURE
2

PROJECT NO.
2146-2008-01





B & C GAS MINI MART
 2008 1st STREET
 LIVERMORE, CALIFORNIA

GROUNDWATER ELEVATION CONTOUR MAP
 1st QUARTER 2013

FIGURE
4
 PROJECT NO.
 2146-2008-01



APPENDIX A
FIELD DATA SHEETS



Site Address 2008 First Street
 City Livermore
 Sampled by: Carl Schulze
 Signature [Signature]

Site Number B&C Gas
 Project Number 2146-2008-01
 Project PM Scott Bittinger
 DATE 03/18 - 03/20/13

Water Level Data					Purge Volume Calculations					Purge Method				Sample Record			Field Data
Well ID	Time	Depth to Product (feet)	Depth to Water (feet)	Total Depth (feet)	Water column (feet)	Diameter (inches)	Multiplier	3 casing volumes (gallons)	Actual water purged (gallons)	No Purge	Bailer	Pump	other	DTW at sample time (feet)	Sample I.D	Sample Time	DO (mg/L)
3/18 MW-2	0758		32.34	57.65	25.34	4"	2	50.64	51					52.63	MW-2	1215	1.52
MW-3	0745		31.50	57.28	25.78	4"	2	50.64	52		x			31.71	MW-3	1514	0.74
MW-4	0727		32.13	59.60	27.47	4"	2	54.94	55		x			32.21	MW-4	1045	4.14
3/19 MW-5	0558		32.03	39.45	7.42	4"	2	14.84	15		x			33.02	MW-5	0625	1.89
3/18 MW-6															MW-6		
MW-7	0853		31.88	48.95	17.07	2"	0.5	8.34	9		x			31.89	MW-7	0915	1.98
MW-8	0947		37.04	52.55	15.51	2"	0.5	7.76	8		x			37.10	MW-8	1010	2.01
MW-9	0311		33.90	43.81	9.91	2"	0.5	4.96	5		x			34.37	MW-9	0335	3.10
MW-10	1233		37.40	53.16	15.76	2"	0.5	7.86	9		x			37.40	MW-10	1256	2.49
MW-11	1135		33.41	48.62	15.21	2"	0.5	7.62	8		x			33.47	MW-11	1202	3.75
MW-12	1053		27.98	42.92	14.94	2"	0.5	7.47	7.5		x			28.00	MW-12	1115	4.63
MW-13	0930		33.82	53.87	20.05	2"	0.5	10.03	10		x			33.88	MW-13	0833	1.97
CMT-1 Z1	1037		38.45	45.46									N/A		CMT-1 Z1	N/A	N/A
CMT-2 Z1	1028		37.19	48.89									N/A		CMT-2 Z1	N/A	N/A
CMT-3 Z1	0938		37.94	43.30					NP			x			CMT-3 Z1	0651	N/A
CMT-4 Z1	0739		32.05	37.25									N/A		CMT-4 Z1	N/A	N/A
D-2	1132		33.99	123.29	89.30	2"	0.5	44.65	45	x	x			33.99	D-2	1514	3.91
SVE-3A	0752		32.26	39.66	7.40	2"	0.5	3.70	4		x			32.28	SVE-3A	1401	1.27
SVE-3B	0755		32.32	50.50	18.18	2"	0.5	9.09	9.5		x			32.35	SVE-3B	1410	1.14
3/19 SVE-4A	0454		31.72	34.00	7.28	2"	0.5	3.64	4		x			31.77	SVE-4A	0532	3.58
3/19 SVE-4B	0456		31.39	51.30	19.91	2"	0.5	9.95	10		x			31.52	SVE-4B	0541	1.42
All wells gauged 03/18 except SVE-4A/B & MW-5																	
CMT: unable to sample, peristaltic pump max'd out @ 27 FT bgs																	

Multiplier
 2" = 0.5 3" = 1.0 4" = 2.0 6" = 4.4

Please refer to groundwater sampling field procedures
 pH/Conductivity/temperature Meter - Oakton Model PC-10
 DO Meter - Oakton 300 Series (DO is always measured before purge)

CALIBRATION DATE
 pH 03/15/13
 Conductivity _____
 DO _____



Site Address 2008 First Street
 City Livermore
 Sampled By: Carl Schulze
 Signature Carl Schulze

Site Number B&C Gas
 Project Number 2146-2008-01
 Project PM S. Bittinger
 DATE 03/18 - 03/19/13

Well ID <u>MW-7</u>					Well ID <u>MW-7</u>				
Purge start time			Odor		Purge start time			Odor	
Temp C	pH	cond	gallons	Y	Temp C	pH	cond	gallons	Y
time 0925	17.6	6.79	501 μ	0	time 0857	18.7	7.35	444	0
time 0930	18.7	6.90	472	2.5	time 0902	18.9	7.21	434	3
time 0935	18.2	7.23	445	5	time 0907	18.8	7.23	430	6
time					time 0915	18.4	7.38	419	9
purge stop time 00: 3.10			ORP 13		purge stop time 00: 1.98			ORP 13	
Well ID <u>MW-8</u>					Well ID <u>MW-12</u>				
Purge start time			Odor		Purge start time			Odor	
Temp C	pH	cond	gallons	Y	Temp C	pH	cond	gallons	Y
time 0953	18.7	7.43	400	0	time 1058	19.7	7.63	411 μ	0
time 0959	18.9	7.32	410	3	time 1103	19.7	7.46	409	2
time 1005	19.1	7.26	409	6	time 1107	19.7	7.36	405	5
time 1010				8	time 1115	19.8	7.46	400	7.5
purge stop time 00: 2.01			ORP 13		purge stop time 00: 4.63			ORP 11	
Well ID <u>MW-11</u>					Well ID <u>D-2</u>				
Purge start time			Odor		Purge start time			Odor	
Temp C	pH	cond	gallons	Y	Temp C	pH	cond	gallons	Y
time 1142	20.9	7.55	381 μ	0	time 1214	20.9	7.50	348 μ	0
time 1147	20.5	7.46	369	2	time				
time 1153	20.8	7.32	363	5	time				
time 1202	21.0	7.48	360	8	time				
purge stop time 00: 3.75			ORP 1		purge stop time 00: 3.91			ORP -4	
Well ID <u>MW-10</u>					Well ID <u>MW-3</u>				
Purge start time			Odor		Purge start time			Odor	
Temp C	pH	cond	gallons	Y	Temp C	pH	cond	gallons	Y
time 1239	20.2	7.12	354 μ	0	time 1436	21.1	7.70	338 μ	0
time 1244	20.0	7.23	353	3	time 1444	19.9	7.74	336	815
time 1249	19.7	7.19	351	6	time 1500	20.1	7.78	338	880
time 1256	19.8	7.36	352	9	time 1514	19.7	7.83	337	1352
purge stop time 00: 2.49			ORP 3		purge stop time 00: 0.74			ORP 12	



Site Address 2008 first St.
 City Livermore
 Sampled By: Carl Schulze
 Signature Carl Schulze

Site Number B&C Gas
 Project Number 2146-2008-01
 Project PM S. Bittinger
 DATE 03/18 - 03/29/13

Well ID <u>SVE-3A</u>					Well ID <u>SVE-3B</u>						
Purge start time		Temp C	pH	cond	gallons	Purge start time		Temp C	pH	cond	gallons
time	1332	21.8	7.47	392 _μ	0	time	1343	21.3	7.46	345 _μ	0
time	1336	21.3	7.33	384	2	time	1349	20.7	7.37	342	3
time	1401	20.7	7.42	258 363	4	time	1354	20.6	7.34	341	6
time						time	1410	20.1	7.79	342	9.5
purge stop time		DO: 1.27		ORP 23		purge stop time		DO: 1.14		ORP -7	
Well ID <u>SVE-4A</u>					Well ID <u>SVE-4B</u>						
Purge start time		Temp C	pH	cond	gallons	Purge start time		Temp C	pH	cond	gallons
time	0502	19.5	8.02	180.1 _μ	0	time	0512	19.2	7.77	180.5	0
time	0507	19.8	7.82	177.4	2	time	0517	19.2	7.65	178.3	3
time	0532	19.0	7.80	177.3	4	time	0522	19.3	7.50	177.0	6
time						time	0541	18.4	7.80	174.8	10
purge stop time		DO: 3.58		ORP 72		purge stop time		DO: 1.42		ORP 70	
Well ID <u>MW-5</u>					Well ID <u>CMT-3 21</u>						
Purge start time		Temp C	pH	cond	gallons	Purge start time		Temp C	pH	cond	gallons
time	0605	18.7	7.57	166.4 _μ	0	time	0651	N/A	N/A	N/A	NP
time	0612	19.3	7.26	166.9	5	time					
time	0617	19.3	7.15	166.6	10	time					
time	0625	18.4	7.20	164.0	15	time					
purge stop time		DO: 1.89		ORP 70		purge stop time				ORP	
Well ID <u>CMT-2 21</u>					Well ID <u>CMT-1 21</u>						
Purge start time		Temp C	pH	cond	gallons	Purge start time		Temp C	pH	cond	gallons
time		N/A	N/A	N/A	NP	time		N/A	N/A	N/A	NP
time						time					
time						time					
time						time					
purge stop time				ORP		purge stop time				ORP	



Site Address 2008 First Street
 City Livermore
 Sampled By: Carl Schulze
 Signature Carl Schulze

Site Number BFC Gas
 Project Number 2146-2008-01
 Project PM S. Bittinger
 DATE 03/18 - 03/19/13

Well ID <u>MW-13</u>					Well ID <u>MW-4</u>								
Purge start time			Odor		Y	<input checked="" type="checkbox"/>	Purge start time			Odor		Y	<input checked="" type="checkbox"/>
	Temp C	pH	cond	gallons				Temp C	pH	cond	gallons		
time	<u>0311</u>	<u>17.7</u>	<u>7.83</u>	<u>168.8_μ</u>	<u>0</u>			time	<u>1007</u>	<u>19.0</u>	<u>8.27</u>	<u>181.3_μ</u>	<u>0</u>
time	<u>0817</u>	<u>18.4</u>	<u>7.51</u>	<u>167.9</u>	<u>3</u>			time	<u>1017</u>	<u>18.8</u>	<u>7.96</u>	<u>171.9</u>	<u>15</u>
time	<u>0825</u>	<u>18.2</u>	<u>7.44</u>	<u>166.8</u>	<u>6</u>			time	<u>1029</u>	<u>18.5</u>	<u>7.71</u>	<u>168.2</u>	<u>30</u>
time	<u>0833</u>	<u>17.2</u>	<u>7.62</u>	<u>160.0</u>	<u>10</u>			time	<u>1045</u>	<u>18.1</u>	<u>7.91</u>	<u>149.1</u>	<u>55</u>
purge stop time			DO: <u>1.97</u>		ORP <u>77</u>		purge stop time			DO: <u>4.14</u>		ORP <u>74</u>	
Well ID <u>CMT-4 22</u>					Well ID <u>MW-2</u>								
Purge start time			Odor		Y	N	Purge start time			Odor		<input checked="" type="checkbox"/>	N
	Temp C	pH	cond	gallons				Temp C	pH	cond	gallons		
time	<u>N/A</u>	<u>N/A</u>	<u>N/A</u>	<u>N/A</u>	<u>N/A</u>			time	<u>1136</u>	<u>20.8</u>	<u>7.85</u>	<u>177.0_μ</u>	<u>0</u>
time								time	<u>1147</u>	<u>20.2</u>	<u>7.84</u>	<u>173.7</u>	<u>15</u>
time								time	<u>1200</u>	<u>20.8</u>	<u>7.85</u>	<u>173.7</u>	<u>30</u>
time								time	<u>1215</u>	<u>20.3</u>	<u>8.10</u>	<u>176.4</u>	<u>50</u>
purge stop time			ORP				purge stop time			DO: <u>1.52</u>		ORP <u>67</u>	
Well ID					Well ID								
Purge start time			Odor		Y	N	Purge start time			Odor		Y	N
	Temp C	pH	cond	gallons				Temp C	pH	cond	gallons		
time								time					
time								time					
time								time					
time								time					
purge stop time			ORP				purge stop time			ORP			
Well ID					Well ID								
Purge start time			Odor		Y	N	Purge start time			Odor		Y	N
	Temp C	pH	cond	gallons				Temp C	pH	cond	gallons		
time								time					
time								time					
time								time					
time								time					
purge stop time			ORP				purge stop time			ORP			

B+C GAS Mini MANT
2008 First Street, Livermore

Ozone Injection System

DRILLING

Date: 1-9-13
Onsite Time: 0300
Offsite Time: 0600
Equipment Manufacturer/Model#: _____

Technician: PHILL
Weather Conditions: cloudy
Ambient Temperature: 48

Ozone Generator Panel:

System Status Upon Arrival: Operational Non-operational

System Status Upon Arrival: Operational Non-operational

Hour Meter Reading: 346.7 Oxygen flow rate: 12

Injection Pressure: 20 Valve #1 Air + ozone flow rate: 3.0

Field Measurements							
Well ID	Time	DTW	pH	DO	Cond.	ORP	Temp
		feet bgs	units	mg/L	msiemen	mV	deg F
VW 4A		30.88	7.07	2.00	555	398	15.8
4B		30.75	7.84	1.80	439	393	17.3
MW 2		31.78	7.44	6.68	435	399	18.3
MW 3		30.69	7.31	1.40	455	377	17.1
VW 3A		31.56	7.81	7.70	486	375	16.6
3B		32.02	7.48	3.00	456	374	17.1
DP-5A		31.25	6.57	1.22	167.2	376	17.2
5B		31.03	6.83	1.69	63.5	360	17.1
5C		30.23	6.91	4.31	117.0	370	16.5

Develop VW 3A/13
VW 4A/13

Signature: *Phill*

Date: 1-9-13

B+C GAS Mini Mart
2008 First Street, Livermore

ORIGINAL

Ozone Injection System

Date: 1-28-13
Onsite Time: 0500
Offsite Time: _____
Equipment Manufacturer/Model#: _____

Technician: CHILL
Weather Conditions: CMC
Ambient Temperature: 35

Ozone Generator Panel:

System Status Upon Arrival: Operational Non-operational
System Status Upon Arrival: Operational Non-operational

Hour Meter Reading: 556.5 Oxygen flow rate: 12
Injection Pressure: 14 Air + ozone flow rate: 5.0 CFM

Field Measurements							
Well ID	Time	DTW	pH	DO	Cond.	ORP	Temp
		feet bgs	units	mg/L	msiemen	mV	deg F
MW 1		31.34	7.80	1.00	429	318	15.9
SP5C		30.82	7.52	1.72	125.3	340	16.8
5B		31.52	7.40	1.30	139.2	349	17.1
54		31.36	7.37	1.90	89.1	347	17.5
MW 2		31.95	7.11	5.16	378	367	18.7
MW 3		30.77	7.29	1.10	389	359	17.8

Signature: [Signature]

Date: 1-28-13

B+C GAS Mini Mart
2008 First Street, Livermore

ORIGINAL

Ozone Injection System

Date: 2-8-13
Onsite Time: 0500
Offsite Time: 0550
Equipment Manufacturer/Model#: _____

Technician: PHILL
Weather Conditions: Cloudy - Rain
Ambient Temperature: 38

Ozone Generator Panel:

System Status Upon Arrival: Operational Non-operational
System Status Upon Arrival: Operational Non-operational

Hour Meter Reading: 656.5 Oxygen flow rate: 12
Injection Pressure: 20 Air + ozone flow rate: 4.4

Field Measurements							
Well ID	Time	DTW	pH	DO	Cond.	ORP	Temp
		feet bgs	units	mg/L	msiemen	mV	deg F

1) Ozone Generator NOT working
2) O₂ generator NOT working ALSO
Sending ozone generator to H₂O For Repair

Signature: [Signature]

Date: 2-8-13

B+C GAS Mini Mart
 2008 First Street, Livermore

ORIGINAL

Ozone Injection System

Date: 2-18-13
 Onsite Time: 0800
 Offsite Time: -
 Equipment Manufacturer/Model#: _____

Technician: CHILL
 Weather Conditions: Chy
 Ambient Temperature: 42

No site visit system off

Ozone Generator Panel:

System Status Upon Arrival: Operational Non-operational

System Status Upon Arrival: Operational Non-operational

Hour Meter Reading: _____ Oxygen flow rate: _____

Injection Pressure: _____ Air + ozone flow rate: _____

Field Measurements							
Well ID	Time	DTW	pH	DO	Cond.	ORP	Temp
		feet bgs	units	mg/L	msiemen	mV	deg F

Signature: CHILL

Date: 21813

APPENDIX B

SAMPLING AND ANALYSES PROCEDURES

SAMPLING AND ANALYSIS PROCEDURES

The sampling and analysis procedures as well as the quality assurance plan are contained in this appendix. The procedures and adherence to the quality assurance plan will provide for consistent and reproducible sampling methods; proper application of analytical methods; accurate and precise analytical results; and finally, these procedures will provide guidelines so that the overall objectives of the monitoring program are achieved.

Ground Water and Liquid-Phase Petroleum Hydrocarbon Depth Assessment

A water/hydrocarbon interface probe is used to assess the liquid-phase petroleum hydrocarbon (LPH) thickness, if present, and a water level indicator is used to measure the ground water depth in monitoring wells that do not contain LPH. Depth to ground water or LPH is measured from a datum point at the top of each monitoring well casing. The datum point is typically a notch cut in the north side of the casing edge. If a water level indicator is used, the tip is subjectively analyzed for hydrocarbon sheen.

Subjective Analysis of Ground Water

Prior to purging, a water sample is collected from the monitoring well for subjective assessment. The sample is retrieved by gently lowering a clean, disposable bailer to approximately one-half the bailer length past the air/liquid interface. The bailer is then retrieved, and the sample contained within the bailer is examined for floating LPH and the appearance of a LPH sheen.

Monitoring Well Purging and Sampling

Monitoring wells are purged using a pump or bailer until pH, temperature, and conductivity of the purge water has stabilized and a minimum of three well volumes of water have been removed. If three well volumes can not be removed in one half hour's time the well is allowed to recharge to 80% of original level. After recharging, a ground water sample is then removed from each of the wells using a disposable bailer.

A Teflon bailer, electric submersible or bladder pump will be the only equipment used for well sampling. When samples for volatile organic analysis are being collected, the pump flow will be regulated at approximately 100 milliliters per minute to minimize pump effluent turbulence and aeration. Glass bottles of at least 40-milliliters volume and fitted with Teflon-lined septa will be used in sampling for volatile organics. These bottles will be filled completely to prevent air from remaining in the bottle. A positive meniscus forms when the bottle is completely full. A convex Teflon septum will be placed over the positive meniscus to eliminate air. After the bottle is capped, it is inverted and tapped to verify that it contains no air bubbles. The sample containers for other parameters will be filled, filtered as required, and capped.

The water sample is collected, labeled, and handled according to the Quality Assurance Plan. Water generated during the monitoring event is disposed of according to regulatory accepted method pertaining to the site.

QUALITY ASSURANCE PLAN

Procedures to provide data quality should be established and documented so that conditions adverse to quality, such as deficiencies, deviations, nonconformants, defective material, services, and/or equipment, can be promptly identified and corrected.

General Sample Collection and Handling Procedures

Proper collection and handling are essential to ensure the quality of a sample. Each sample is collected in a suitable container, preserved correctly for the intended analysis, and stored prior to analysis for no longer than the maximum allowable holding time. Details on the procedures for collection and handling of samples used on this project can be found in this section.

Soil and Water Sample Labeling and Preservation

Label information includes a unique sample identification number, job identification number, date, and time. After labeling all soil and water samples are placed in a Ziploc[®] type bag and placed in an ice chest cooled to approximately 4° Celsius. Upon arriving at Stratus' office the samples are transferred to a locked refrigerator cooled to approximately 4° Celsius. Chemical preservation is controlled by the required analysis and is noted on the chain-of-custody form. Trip blanks supplied by the laboratory accompany the groundwater sample containers and groundwater samples.

Upon recovery, the sample container is sealed to minimize the potential of volatilization and cross-contamination prior to chemical analysis. Soil sampling tubes are typically closed at each end with Teflon[®] sheeting and plastic caps. The sample is then placed in a Ziploc[®] type bag and sealed. The sample is labeled and refrigerated at approximately 4° Celsius for delivery, under strict chain-of-custody, to the analytical laboratory.

Sample Identification and Chain-of-Custody Procedures

Sample identification and chain-of-custody procedures document sample possession from the time of collection to ultimate disposal. Each sample container submitted for analysis has a label affixed to identify the job number, sampler, date and time of sample collection, and a sample number unique to that sample. This information, in addition to a description of the sample, field measurements made, sampling methodology, names of on-site personnel, and any other pertinent field observations, is recorded on the borehole log or in the field records. The samples are analyzed by a California-certified laboratory.

A chain-of-custody form is used to record possession of the sample from time of collection to its arrival at the laboratory. When the samples are shipped, the person in custody of them relinquishes the samples by signing the chain-of-custody form and

noting the time. The sample-control officer at the laboratory verifies sample integrity and confirms that the samples are collected in the proper containers, preserved correctly, and contain adequate volumes for analysis. These conditions are noted on a Laboratory Sample Receipt Checklist that becomes part of the laboratory report upon request.

If these conditions are met, each sample is assigned a unique log number for identification throughout analysis and reporting. The log number is recorded on the chain-of-custody form and in the legally-required log book maintained by the laboratory. The sample description, date received, client's name, and other relevant information is also recorded.

Equipment Cleaning

Sample bottles, caps, and septa used in sampling for volatile and semivolatile organics will be triple rinsed with high-purity deionized water. After being rinsed, sample bottles will be dried overnight at a temperature of 200°C. Sample caps and septa will be dried overnight at a temperature of 60°C. Sample bottles, caps, and septa will be protected from solvent contact between drying and actual use at the sampling site. Sampling containers will be used only once and discarded after analysis is complete.

Plastic bottles and caps used in sampling for metals will be soaked overnight in a 1-percent nitric acid solution. Next, the bottles and caps will be triple rinsed with deionized water. Finally, the bottles and caps will be air dried before being used at the site. Plastic bottles and caps will be constructed of linear polyethylene or polypropylene. Sampling containers will be used only once and discarded after analysis is complete. Glass and plastic bottles used by Stratus to collect groundwater samples are supplied by the laboratory.

Before the sampling event is started, equipment that will be placed in the well or will come in contact with groundwater will be disassembled and cleaned thoroughly with detergent water, and then steam cleaned with deionized water. Any parts that may absorb contaminants, such as plastic pump valves, etc. will be cleaned as described above or replaced.

During field sampling, equipment surfaces that are placed in the well or contact groundwater will be steam cleaned with deionized water before the next well is purged or sampled. Equipment blanks will be collected and analyzed from non-disposable sampling equipment that is used for collecting groundwater samples at the rate of one blank per twenty samples collected.

Internal Quality Assurance Checks

Internal quality assurance procedures are designed to provide reliability of monitoring and measurement of data. Both field and laboratory quality assurance checks are necessary to evaluate the reliability of sampling and analysis results. Internal quality assurance procedures generally include:

- Laboratory Quality Assurance

- Documentation of instrument performance checks
- Documentation of instrument calibration
- Documentation of the traceability of instrument standards, samples, and data
- Documentation of analytical and QC methodology (QC methodology includes use of spiked samples, duplicate samples, split samples, use of reference blanks, and check standards to check method accuracy and precision)

- Field Quality Assurance

- Documentation of sample preservation and transportation
- Documentation of field instrument calibration and irregularities in performance

Internal laboratory quality assurance checks will be the responsibility of the contract laboratories. Data and reports submitted by field personnel and the contract laboratory will be reviewed and maintained in the project files.

Types of Quality Control Checks

Samples are analyzed using analytical methods outlined in EPA Manual SW 846 and approved by the California Regional Water Quality Control Board-Central Valley Region in the Leaking Underground Fuel Tanks (LUFT) manual and appendices. Standard contract laboratory quality control may include analysis or use of the following:

- Method blanks – reagent water used to prepare calibration standards, spike solutions, etc. is analyzed in the same manner as the sample to demonstrate that analytical interferences are under control.
- Matrix spiked samples – a known amount of spike solution containing selected constituents is added to the sample at concentrations at which the accuracy of the analytical method is to satisfactorily monitor and evaluate laboratory data quality.
- Split samples – a sample is split into two separate aliquots before analysis to assess the reproducibility of the analysis.
- Surrogate samples – samples are spiked with surrogate constituents at known concentrations to monitor both the performance of the analytical system and the effectiveness of the method in dealing with the sample matrix.
- Control charts – graphical presentation of spike or split sample results used to track the accuracy or precision of the analysis.
- Quality control check samples – when spiked sample analysis indicates atypical instrument performance, a quality check sample, which is prepared independently of the calibration standards and contains the constituents of interest, is analyzed to confirm that measurements were performed accurately.

- Calibration standards and devices – traceable standards or devices to set instrument response so that sample analysis results represent the absolute concentration of the constituent.

Field QA samples will be collected to assess sample handling procedures and conditions. Standard field quality control may include the use of the following, and will be collected and analyzed as outlined in EPA Manual SW 846.

- Field blanks – reagent water samples are prepared at the sampling location by the same procedure used to collect field groundwater samples and analyzed with the groundwater samples to assess the impact of sampling techniques on data quality. Typically, one field blank per twenty groundwater samples collected will be analyzed per sampling event.
- Field replicates – duplicate or triplicate samples are collected and analyzed to assess the reproducibility of the analytical data. One replicate groundwater sample per twenty samples collected will be analyzed per sampling event, unless otherwise specified. Triplicate samples will be collected only when specific conditions warrant and generally are sent to an alternate laboratory to confirm the accuracy of the routinely used laboratory.
- Trip blanks – reagent water samples are prepared before field work, transported and stored with the samples and analyzed to assess the impact of sample transport and storage for data quality. In the event that any analyte is detected in the field blank, a trip blank will be included in the subsequent groundwater sampling event.

Data reliability will be evaluated by the certified laboratory and reported on a cover sheet attached to the laboratory data report. Analytical data resulting from the testing of field or trip blanks will be included in the laboratory's report. Results from matrix spike, surrogate, and method blank testing will be reported, along with a statement of whether the samples were analyzed within the appropriate holding time.

Stratus will evaluate the laboratory's report on data reliability and note significant QC results that may make the data biased or unacceptable. Data viability will be performed as outlined in EPA Manual SW 846. If biased or unacceptable data is noted, corrective actions (including re-sample/re-analyze, etc.) will be evaluated on a site-specific basis.

APPENDIX C

LABORATORY ANALYTICAL REPORTS AND CHAIN-OF-CUSTODY DOCUMENTATION



Alpha Analytical, Inc.

255 Glendale Ave. • Suite 21 • Sparks, Nevada 89431-5778
(775) 355-1044 • (775) 355-0406 FAX • 1-800-283-1183

ANALYTICAL REPORT

Stratus Environmental
3330 Cameron Park Drive
Cameron Park, CA 956828861

Attn: Scott Bittinger
Phone: (530) 676-2062
Fax: (530) 676-6005
Date Received : 03/21/13

Job: 2146-2008-01/B & C Gas Mini Mart

Total Petroleum Hydrocarbons - Purgeable (TPH-P) EPA Method SW8015B / SW8260B
Volatile Organic Compounds (VOCs) EPA Method SW8260B

Parameter	Concentration	Reporting Limit	Date Extracted	Date Analyzed
Client ID : MW-2				
Lab ID : STR13032142-01A	TPH-P (GRO)	90	50 µg/L	03/22/13
Date Sampled 03/19/13 12:15	Tertiary Butyl Alcohol (TBA)	ND	10 µg/L	03/22/13
	Methyl tert-butyl ether (MTBE)	ND	0.50 µg/L	03/22/13
	Benzene	1.4	0.50 µg/L	03/22/13
	Toluene	ND	0.50 µg/L	03/22/13
	Ethylbenzene	1.3	0.50 µg/L	03/22/13
	m,p-Xylene	ND	0.50 µg/L	03/22/13
	o-Xylene	ND	0.50 µg/L	03/22/13
Client ID : MW-3				
Lab ID : STR13032142-02A	TPH-P (GRO)	140	50 µg/L	03/22/13
Date Sampled 03/18/13 15:14	Tertiary Butyl Alcohol (TBA)	ND	10 µg/L	03/22/13
	Methyl tert-butyl ether (MTBE)	18	0.50 µg/L	03/22/13
	Benzene	4.2	0.50 µg/L	03/22/13
	Toluene	ND	0.50 µg/L	03/22/13
	Ethylbenzene	0.75	0.50 µg/L	03/22/13
	m,p-Xylene	ND	0.50 µg/L	03/22/13
	o-Xylene	ND	0.50 µg/L	03/22/13
Client ID : MW-4				
Lab ID : STR13032142-03A	TPH-P (GRO)	ND	50 µg/L	03/22/13
Date Sampled 03/19/13 10:45	Tertiary Butyl Alcohol (TBA)	ND	10 µg/L	03/22/13
	Methyl tert-butyl ether (MTBE)	ND	0.50 µg/L	03/22/13
	Benzene	ND	0.50 µg/L	03/22/13
	Toluene	ND	0.50 µg/L	03/22/13
	Ethylbenzene	ND	0.50 µg/L	03/22/13
	m,p-Xylene	ND	0.50 µg/L	03/22/13
	o-Xylene	ND	0.50 µg/L	03/22/13
Client ID : MW-5				
Lab ID : STR13032142-04A	TPH-P (GRO)	6,800	500 µg/L	03/22/13
Date Sampled 03/19/13 06:25	Tertiary Butyl Alcohol (TBA)	ND	50 µg/L	03/22/13
	Methyl tert-butyl ether (MTBE)	21	2.5 µg/L	03/22/13
	Benzene	57	2.5 µg/L	03/22/13
	Toluene	4.6	2.5 µg/L	03/22/13
	Ethylbenzene	47	2.5 µg/L	03/22/13
	m,p-Xylene	8.1	2.5 µg/L	03/22/13
	o-Xylene	ND	2.5 µg/L	03/22/13



Alpha Analytical, Inc.

255 Glendale Ave. • Suite 21 • Sparks, Nevada 89431-5778
 (775) 355-1044 • (775) 355-0406 FAX • 1-800-283-1183

Client ID : MW-7						
Lab ID :	STR13032142-05A	TPH-P (GRO)	410	50 µg/L	03/22/13	03/22/13
Date Sampled	03/18/13 09:15	Tertiary Butyl Alcohol (TBA)	ND	10 µg/L	03/22/13	03/22/13
		Methyl tert-butyl ether (MTBE)	8.1	0.50 µg/L	03/22/13	03/22/13
		Benzene	7.3	0.50 µg/L	03/22/13	03/22/13
		Toluene	ND	0.50 µg/L	03/22/13	03/22/13
		Ethylbenzene	0.56	0.50 µg/L	03/22/13	03/22/13
		m,p-Xylene	ND	0.50 µg/L	03/22/13	03/22/13
		o-Xylene	ND	0.50 µg/L	03/22/13	03/22/13
Client ID : MW-8						
Lab ID :	STR13032142-06A	TPH-P (GRO)	ND	50 µg/L	03/22/13	03/22/13
Date Sampled	03/18/13 10:10	Tertiary Butyl Alcohol (TBA)	ND	10 µg/L	03/22/13	03/22/13
		Methyl tert-butyl ether (MTBE)	ND	0.50 µg/L	03/22/13	03/22/13
		Benzene	ND	0.50 µg/L	03/22/13	03/22/13
		Toluene	ND	0.50 µg/L	03/22/13	03/22/13
		Ethylbenzene	ND	0.50 µg/L	03/22/13	03/22/13
		m,p-Xylene	ND	0.50 µg/L	03/22/13	03/22/13
		o-Xylene	ND	0.50 µg/L	03/22/13	03/22/13
Client ID : MW-9						
Lab ID :	STR13032142-07A	TPH-P (GRO)	ND	50 µg/L	03/22/13	03/22/13
Date Sampled	03/18/13 08:35	Tertiary Butyl Alcohol (TBA)	ND	10 µg/L	03/22/13	03/22/13
		Methyl tert-butyl ether (MTBE)	ND	0.50 µg/L	03/22/13	03/22/13
		Benzene	ND	0.50 µg/L	03/22/13	03/22/13
		Toluene	ND	0.50 µg/L	03/22/13	03/22/13
		Ethylbenzene	ND	0.50 µg/L	03/22/13	03/22/13
		m,p-Xylene	ND	0.50 µg/L	03/22/13	03/22/13
		o-Xylene	ND	0.50 µg/L	03/22/13	03/22/13
Client ID : MW-10						
Lab ID :	STR13032142-08A	TPH-P (GRO)	ND	50 µg/L	03/22/13	03/22/13
Date Sampled	03/18/13 12:56	Tertiary Butyl Alcohol (TBA)	ND	10 µg/L	03/22/13	03/22/13
		Methyl tert-butyl ether (MTBE)	ND	0.50 µg/L	03/22/13	03/22/13
		Benzene	ND	0.50 µg/L	03/22/13	03/22/13
		Toluene	ND	0.50 µg/L	03/22/13	03/22/13
		Ethylbenzene	ND	0.50 µg/L	03/22/13	03/22/13
		m,p-Xylene	ND	0.50 µg/L	03/22/13	03/22/13
		o-Xylene	ND	0.50 µg/L	03/22/13	03/22/13
Client ID : MW-11						
Lab ID :	STR13032142-09A	TPH-P (GRO)	ND	50 µg/L	03/22/13	03/22/13
Date Sampled	03/18/13 12:02	Tertiary Butyl Alcohol (TBA)	ND	10 µg/L	03/22/13	03/22/13
		Methyl tert-butyl ether (MTBE)	ND	0.50 µg/L	03/22/13	03/22/13
		Benzene	ND	0.50 µg/L	03/22/13	03/22/13
		Toluene	ND	0.50 µg/L	03/22/13	03/22/13
		Ethylbenzene	ND	0.50 µg/L	03/22/13	03/22/13
		m,p-Xylene	ND	0.50 µg/L	03/22/13	03/22/13
		o-Xylene	ND	0.50 µg/L	03/22/13	03/22/13
Client ID : MW-12						
Lab ID :	STR13032142-10A	TPH-P (GRO)	ND	50 µg/L	03/22/13	03/22/13
Date Sampled	03/18/13 11:15	Tertiary Butyl Alcohol (TBA)	ND	10 µg/L	03/22/13	03/22/13
		Methyl tert-butyl ether (MTBE)	ND	0.50 µg/L	03/22/13	03/22/13
		Benzene	ND	0.50 µg/L	03/22/13	03/22/13
		Toluene	ND	0.50 µg/L	03/22/13	03/22/13
		Ethylbenzene	ND	0.50 µg/L	03/22/13	03/22/13
		m,p-Xylene	ND	0.50 µg/L	03/22/13	03/22/13
		o-Xylene	ND	0.50 µg/L	03/22/13	03/22/13



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Client ID : MW-13							
Lab ID :	STR13032142-11A	TPH-P (GRO)	ND	50 µg/L	03/22/13	03/22/13	
Date Sampled	03/19/13 08:33	Tertiary Butyl Alcohol (TBA)	ND	10 µg/L	03/22/13	03/22/13	
		Methyl tert-butyl ether (MTBE)	ND	0.50 µg/L	03/22/13	03/22/13	
		Benzene	ND	0.50 µg/L	03/22/13	03/22/13	
		Toluene	ND	0.50 µg/L	03/22/13	03/22/13	
		Ethylbenzene	ND	0.50 µg/L	03/22/13	03/22/13	
		m,p-Xylene	ND	0.50 µg/L	03/22/13	03/22/13	
		o-Xylene	ND	0.50 µg/L	03/22/13	03/22/13	
Client ID : CMT-3 ZI							
Lab ID :	STR13032142-12A	TPH-P (GRO)	ND	50 µg/L	03/22/13	03/22/13	
Date Sampled	03/19/13 06:51	Tertiary Butyl Alcohol (TBA)	ND	10 µg/L	03/22/13	03/22/13	
		Methyl tert-butyl ether (MTBE)	ND	0.50 µg/L	03/22/13	03/22/13	
		Benzene	ND	0.50 µg/L	03/22/13	03/22/13	
		Toluene	ND	0.50 µg/L	03/22/13	03/22/13	
		Ethylbenzene	ND	0.50 µg/L	03/22/13	03/22/13	
		m,p-Xylene	ND	0.50 µg/L	03/22/13	03/22/13	
		o-Xylene	ND	0.50 µg/L	03/22/13	03/22/13	
Client ID : D-2							
Lab ID :	STR13032142-13A	TPH-P (GRO)	ND	50 µg/L	03/22/13	03/22/13	
Date Sampled	03/18/13 15:14	Tertiary Butyl Alcohol (TBA)	ND	10 µg/L	03/22/13	03/22/13	
		Methyl tert-butyl ether (MTBE)	ND	0.50 µg/L	03/22/13	03/22/13	
		Benzene	ND	0.50 µg/L	03/22/13	03/22/13	
		Toluene	ND	0.50 µg/L	03/22/13	03/22/13	
		Ethylbenzene	ND	0.50 µg/L	03/22/13	03/22/13	
		m,p-Xylene	ND	0.50 µg/L	03/22/13	03/22/13	
		o-Xylene	ND	0.50 µg/L	03/22/13	03/22/13	
Client ID : SVE-3A							
Lab ID :	STR13032142-14A	TPH-P (GRO)	170	50 µg/L	03/22/13	03/22/13	
Date Sampled	03/18/13 14:01	Tertiary Butyl Alcohol (TBA)	ND	10 µg/L	03/22/13	03/22/13	
		Methyl tert-butyl ether (MTBE)	2.1	0.50 µg/L	03/22/13	03/22/13	
		Benzene	13	0.50 µg/L	03/22/13	03/22/13	
		Toluene	ND	0.50 µg/L	03/22/13	03/22/13	
		Ethylbenzene	ND	0.50 µg/L	03/22/13	03/22/13	
		m,p-Xylene	ND	0.50 µg/L	03/22/13	03/22/13	
		o-Xylene	ND	0.50 µg/L	03/22/13	03/22/13	
Client ID : SVE-3B							
Lab ID :	STR13032142-15A	TPH-P (GRO)	650	50 µg/L	03/22/13	03/22/13	
Date Sampled	03/18/13 14:10	Tertiary Butyl Alcohol (TBA)	ND	10 µg/L	03/22/13	03/22/13	
		Methyl tert-butyl ether (MTBE)	ND	0.50 µg/L	03/22/13	03/22/13	
		Benzene	5.8	0.50 µg/L	03/22/13	03/22/13	
		Toluene	ND	0.50 µg/L	03/22/13	03/22/13	
		Ethylbenzene	18	0.50 µg/L	03/22/13	03/22/13	
		m,p-Xylene	ND	0.50 µg/L	03/22/13	03/22/13	
		o-Xylene	ND	0.50 µg/L	03/22/13	03/22/13	
Client ID : SVE-4A							
Lab ID :	STR13032142-16A	TPH-P (GRO)	210	50 µg/L	03/22/13	03/22/13	
Date Sampled	03/19/13 05:32	Tertiary Butyl Alcohol (TBA)	ND	10 µg/L	03/22/13	03/22/13	
		Methyl tert-butyl ether (MTBE)	0.91	0.50 µg/L	03/22/13	03/22/13	
		Benzene	3.2	0.50 µg/L	03/22/13	03/22/13	
		Toluene	ND	0.50 µg/L	03/22/13	03/22/13	
		Ethylbenzene	ND	0.50 µg/L	03/22/13	03/22/13	
		m,p-Xylene	0.66	0.50 µg/L	03/22/13	03/22/13	
		o-Xylene	ND	0.50 µg/L	03/22/13	03/22/13	



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Client ID :	SVE-4B						
Lab ID :	STR13032142-17A	TPH-P (GRO)	720	50 µg/L	03/22/13	03/22/13	
Date Sampled	03/19/13 05:41	Tertiary Butyl Alcohol (TBA)	ND	10 µg/L	03/22/13	03/22/13	
		Methyl tert-butyl ether (MTBE)	ND	0.50 µg/L	03/22/13	03/22/13	
		Benzene	0.94	0.50 µg/L	03/22/13	03/22/13	
		Toluene	ND	0.50 µg/L	03/22/13	03/22/13	
		Ethylbenzene	ND	0.50 µg/L	03/22/13	03/22/13	
		m,p-Xylene	ND	0.50 µg/L	03/22/13	03/22/13	
		o-Xylene	ND	0.50 µg/L	03/22/13	03/22/13	

Gasoline Range Organics (GRO) C4-C13

V = Reporting Limits were increased due to high concentrations of target analytes.

ND = Not Detected

Reported in micrograms per Liter, per client request.



Roger Scholl *Randy Gardner* *Walter Hinchman*
 Roger L. Scholl, Ph.D., Laboratory Director • Randy Gardner, Laboratory Manager • Walter Hinchman, Quality Assurance Officer
 Sacramento, CA • (916) 366-9089 / Las Vegas, NV • (702) 281-4848 / Carson, CA • (714) 386-2901 / info@alpha-analytical.com

Alpha Analytical, Inc. certifies that the test results meet all requirements of NELAC unless footnoted otherwise.

Statement of Data Authenticity : Alpha Analytical, Inc. attests that the data reported has not been altered in any way.



RS

3/28/13

Report Date

Alpha Analytical, Inc. currently holds appropriate and available California (#2019) and NELAC (01154CA) certifications for the data reported. Test results relate only to reported samples.



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VOC Sample Preservation Report

Work Order: STR13032142

Job: 2146-2008-01/B & C Gas Mini Mart

Alpha's Sample ID	Client's Sample ID	Matrix	pH
13032142-01A	MW-2	Aqueous	2
13032142-02A	MW-3	Aqueous	2
13032142-03A	MW-4	Aqueous	2
13032142-04A	MW-5	Aqueous	2
13032142-05A	MW-7	Aqueous	2
13032142-06A	MW-8	Aqueous	2
13032142-07A	MW-9	Aqueous	2
13032142-08A	MW-10	Aqueous	2
13032142-09A	MW-11	Aqueous	2
13032142-10A	MW-12	Aqueous	2
13032142-11A	MW-13	Aqueous	2
13032142-12A	CMT-3 Z1	Aqueous	2
13032142-13A	D-2	Aqueous	2
13032142-14A	SVE-3A	Aqueous	2
13032142-15A	SVE-3B	Aqueous	2
13032142-16A	SVE-4A	Aqueous	2
13032142-17A	SVE-4B	Aqueous	2

3/28/13

Report Date

Page 1 of 1



Alpha Analytical, Inc.

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Date:
25-Mar-13

QC Summary Report

Work Order:
13032142

Method Blank

Method Blank		Type	Test Code: EPA Method SW8015B/C / SW8260B							Qual
File ID: 13032205.D		MBLK	Batch ID: MS12W0322B				Analysis Date: 03/22/2013 12:28			
Sample ID:	MBLK MS12W0322B	Units : µg/L	Run ID: MSD_12_130322A			Prep Date: 03/22/2013 12:28				
Analyte	Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRefVal	%RPD(Limit)	Qual
TPH-P (GRO)	ND	50								
Surr: 1,2-Dichloroethane-d4	10.1		10		101	70	130			
Surr: Toluene-d8	10.5		10		105	70	130			
Surr: 4-Bromofluorobenzene	9.75		10		98	70	130			

Laboratory Control Spike

Laboratory Control Spike		Type	Test Code: EPA Method SW8015B/C / SW8260B							Qual
File ID: 13032203.D		LCS	Batch ID: MS12W0322B				Analysis Date: 03/22/2013 11:10			
Sample ID:	GLCS MS12W0322B	Units : µg/L	Run ID: MSD_12_130322A			Prep Date: 03/22/2013 11:10				
Analyte	Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRefVal	%RPD(Limit)	Qual
TPH-P (GRO)	436	50	400		109	70	130			
Surr: 1,2-Dichloroethane-d4	10.3		10		103	70	130			
Surr: Toluene-d8	10.1		10		101	70	130			
Surr: 4-Bromofluorobenzene	9.97		10		99.7	70	130			

Sample Matrix Spike

Sample Matrix Spike		Type	Test Code: EPA Method SW8015B/C / SW8260B							Qual
File ID: 13032217.D		MS	Batch ID: MS12W0322B				Analysis Date: 03/22/2013 17:13			
Sample ID:	13032142-01AGS	Units : µg/L	Run ID: MSD_12_130322A			Prep Date: 03/22/2013 17:13				
Analyte	Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRefVal	%RPD(Limit)	Qual
TPH-P (GRO)	1920	250	2000		89.75	91	54	143		
Surr: 1,2-Dichloroethane-d4	50.4		50		101	70	130			
Surr: Toluene-d8	48.9		50		98	70	130			
Surr: 4-Bromofluorobenzene	49.4		50		99	70	130			

Sample Matrix Spike Duplicate

Sample Matrix Spike Duplicate		Type	Test Code: EPA Method SW8015B/C / SW8260B							Qual
File ID: 13032218.D		MSD	Batch ID: MS12W0322B				Analysis Date: 03/22/2013 17:36			
Sample ID:	13032142-01AGSD	Units : µg/L	Run ID: MSD_12_130322A			Prep Date: 03/22/2013 17:36				
Analyte	Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRefVal	%RPD(Limit)	Qual
TPH-P (GRO)	1930	250	2000		89.75	92	54	143	1917	0.5(23)
Surr: 1,2-Dichloroethane-d4	50.9		50		102	70	130			
Surr: Toluene-d8	49.7		50		99	70	130			
Surr: 4-Bromofluorobenzene	50.1		50		100	70	130			

Comments:

Calculations are based off of raw (non-rounded) data. However, for reporting purposes, all QC data is rounded to three significant figures. Therefore, hand calculated values may differ slightly.



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Date:
25-Mar-13

QC Summary Report

Work Order:
13032142

Method Blank

Type MBLK Test Code: EPA Method SW8260B

File ID: 13032205.D

Batch ID: MS12W0322A

Analysis Date: 03/22/2013 12:28

Sample ID: MBLK MS12W0322A

Units: µg/L

Run ID: MSD_12_130322A

Prep Date: 03/22/2013 12:28

Analyte	Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRefVal	%RPD(Limit)	Qual
Tertiary Butyl Alcohol (TBA)	ND	10								
Methyl tert-butyl ether (MTBE)	ND	0.5								
Benzene	ND	0.5								
Toluene	ND	0.5								
Ethylbenzene	ND	0.5								
m,p-Xylene	ND	0.5								
o-Xylene	ND	0.5								
Surr: 1,2-Dichloroethane-d4	10.1		10		101	70	130			
Surr: Toluene-d8	10.5		10		105	70	130			
Surr: 4-Bromofluorobenzene	9.75		10		98	70	130			

Laboratory Control Spike

Type LCS Test Code: EPA Method SW8260B

File ID: 13032204.D

Batch ID: MS12W0322A

Analysis Date: 03/22/2013 11:53

Sample ID: LCS MS12W0322A

Units: µg/L

Run ID: MSD_12_130322A

Prep Date: 03/22/2013 11:53

Analyte	Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRefVal	%RPD(Limit)	Qual
Methyl tert-butyl ether (MTBE)	8.43	0.5	10		84	63	137			
Benzene	10.1	0.5	10		101	70	130			
Toluene	10.5	0.5	10		105	80	120			
Ethylbenzene	11.4	0.5	10		114	80	120			
m,p-Xylene	9.76	0.5	10		98	65	139			
o-Xylene	9.64	0.5	10		96	70	130			
Surr: 1,2-Dichloroethane-d4	9.61		10		96	70	130			
Surr: Toluene-d8	10.1		10		101	70	130			
Surr: 4-Bromofluorobenzene	10.6		10		106	70	130			

Sample Matrix Spike

Type MS Test Code: EPA Method SW8260B

File ID: 13032215.D

Batch ID: MS12W0322A

Analysis Date: 03/22/2013 16:27

Sample ID: 13032142-01AMS

Units: µg/L

Run ID: MSD_12_130322A

Prep Date: 03/22/2013 16:27

Analyte	Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRefVal	%RPD(Limit)	Qual
Methyl tert-butyl ether (MTBE)	45.3	1.3	50	0	91	56	140			
Benzene	51.8	1.3	50	1.39	101	67	134			
Toluene	50.5	1.3	50	0	101	38	130			
Ethylbenzene	57.7	1.3	50	1.25	113	70	130			
m,p-Xylene	47.4	1.3	50	0	95	65	139			
o-Xylene	48.5	1.3	50	0	97	69	130			
Surr: 1,2-Dichloroethane-d4	54.2		50		108	70	130			
Surr: Toluene-d8	48.9		50		98	70	130			
Surr: 4-Bromofluorobenzene	48.9		50		98	70	130			

Sample Matrix Spike Duplicate

Type MSD Test Code: EPA Method SW8260B

File ID: 13032216.D

Batch ID: MS12W0322A

Analysis Date: 03/22/2013 16:50

Sample ID: 13032142-01AMSD

Units: µg/L

Run ID: MSD_12_130322A

Prep Date: 03/22/2013 16:50

Analyte	Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRefVal	%RPD(Limit)	Qual
Methyl tert-butyl ether (MTBE)	47.7	1.3	50	0	95	56	140	45.27	5.3(40)	
Benzene	45.6	1.3	50	1.39	88	67	134	51.84	12.8(21)	
Toluene	45.7	1.3	50	0	91	38	130	50.45	10.0(20)	
Ethylbenzene	51.8	1.3	50	1.25	101	70	130	57.71	10.8(20)	
m,p-Xylene	42.1	1.3	50	0	84	65	139	47.43	12.0(20)	
o-Xylene	42.9	1.3	50	0	86	69	130	48.48	12.3(20)	
Surr: 1,2-Dichloroethane-d4	53.6		50		107	70	130			
Surr: Toluene-d8	48.7		50		97	70	130			
Surr: 4-Bromofluorobenzene	50.5		50		101	70	130			



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Date:
25-Mar-13

QC Summary Report

Work Order:
13032142

Comments:

Calculations are based off of raw (non-rounded) data. However, for reporting purposes, all QC data is rounded to three significant figures. Therefore, hand calculated values may differ slightly.

CHAIN-OF-CUSTODY RECORD

CA AMENDED
Page: 1 of 2

Alpha Analytical, Inc.
255 Glendale Avenue, Suite 21 Sparks, Nevada 89431-5778
TEL: (775) 355-1044 FAX: (775) 355-0406

WorkOrder : STR13032142
Report Due By : 5:00 PM On : 28-Mar-13

Report Attention **Phone Number** **Email Address**
Scott Bittinger (530) 676-2062 x sbittinger@statusinc.net

EDD Required : Yes

Sampled by : Carl Schulze

Client: Status Environmental 3330 Cameron Park Drive Suite 550 Cameron Park, CA 95682-8861
PO :
Client's COC # : 10652, 10653 Job : 2146-2008-01/B & C Gas Mini Mart
QC Level : S3 = Final Rpt, MBLK, LCS, MS/MSD With Surrogates

Alpha Analytical, Inc. = Final Rpt, MBLK, LCS, MS/MSD With Surrogates

Alpha Sample ID	Client Sample ID	Collection Matrix Date	No. of Bottles	Alpha Sub	TAT	TPH/P W	VOC W	Requested Tests	Sample Remarks
-----------------	------------------	------------------------	----------------	-----------	-----	---------	-------	-----------------	----------------

STR13032142-01A	MW-2	AQ 03/19/13	6	0	5				
STR13032142-02A	MW-3	AQ 03/18/13	4	0	5				
STR13032142-03A	MW-4	AQ 03/19/13	6	0	5				
STR13032142-04A	MW-5	AQ 03/19/13	4	0	5				
STR13032142-05A	MW-7	AQ 03/18/13	4	0	5				
STR13032142-06A	MW-8	AQ 03/18/13	4	0	5				
STR13032142-07A	MW-9	AQ 03/18/13	4	0	5				
STR13032142-08A	MW-10	AQ 03/18/13	4	0	5				
STR13032142-09A	MW-11	AQ 03/18/13	4	0	5				
STR13032142-10A	MW-12	AQ 03/18/13	4	0	5				

Comments: Security seals intact. Frozen ice. Samples were received outside of the 48HR holding time for NO3 for an unpreserved bottle, therefore, the H2SO4 bottle will be used for NO3 analysis. Filter and Preserve metals. Amended 4/10/13 to place Anions, Alk & Metals on hold. Reissue report and EDF, per Renee. SN

Logged in by: _____
 Signature: Samuel Allen
 Print Name: Samuel Allen
 Company: Alpha Analytical, Inc.
 Date/Time: 4/10/13 1420

NOTE: Samples are discarded 60 days after results are reported unless other arrangements are made. Hazardous samples will be returned to client or disposed of at client expense. The report for the analysis of the above samples is applicable only to those samples received by the laboratory with this COC. The liability of the laboratory is limited to the amount paid for the report. Matrix Type : AQ(Aqueous) AR(Air) SO(Soil) WS(Waste) DW(Drinking Water) OT(Other) Bottle Type: L-Liter V-Voa S-Soil Jar O-Orbo T-Tedlar B-Brass P-Plastic OT-Other

Billing Information :

CHAIN-OF-CUSTODY RECORD

CA AMENDED Page: 2 of 2

Alpha Analytical, Inc.
 255 Glendale Avenue, Suite 21 Sparks, Nevada 89431-5778
 TEL: (775) 355-1044 FAX: (775) 355-0406

WorkOrder : STR13032142
Report Due By : 5:00 PM On : 28-Mar-13

Client:
 Stratus Environmental
 3330 Cameron Park Drive
 Suite 550
 Cameron Park, CA 95682-8861

Report Attention	Phone Number	E-Mail Address
Scott Bittinger	(530) 676-2062 x	sbittinger@stratusinc.net

EDD Required : Yes

Sampled by : Carl Schulze

PO :
 Client's COC # : 10652, 10653 Job : 2146-2008-01/B & C Gas Mini Mart

Cooler Temp	Samples Received	Date Printed
2 °C	21-Mar-13	10-Apr-13

QC Level : S3 = Final Rpt, MBLK, LCS, MS/MSD With Surrogates

Alpha Sample ID	Client Sample ID	Collection Matrix	No. of Bottles Alpha Sub TAT	Requested Tests							Sample Remarks		
				TPHP_W	VOC_W								
STR13032142-11A	MW-13	AQ 03/19/13 08:33	6 0 5	GAS-C	BTXE/MTBE /TBA_C								
STR13032142-12A	CMT-3 Z1	AQ 03/19/13 06:51	4 0 5	GAS-C	BTXE/MTBE /TBA_C								
STR13032142-13A	D-2	AQ 03/18/13 15:14	4 0 5	GAS-C	BTXE/MTBE /TBA_C								
STR13032142-14A	SVE-3A	AQ 03/18/13 14:01	4 0 5	GAS-C	BTXE/MTBE /TBA_C								
STR13032142-15A	SVE-3B	AQ 03/18/13 14:10	4 0 5	GAS-C	BTXE/MTBE /TBA_C								
STR13032142-16A	SVE-4A	AQ 03/19/13 05:32	4 0 5	GAS-C	BTXE/MTBE /TBA_C								
STR13032142-17A	SVE-4B	AQ 03/19/13 05:41	4 0 5	GAS-C	BTXE/MTBE /TBA_C								

Comments: Security seals intact. Frozen ice. Samples were received outside of the 48HR holding time for NO3 for an unpreserved bottle, therefore, the H2SO4 bottle will be used for NO3 analysis. Filter and Preserve metals. Amended 4/10/13 to place Anions, Alk & : Metals on hold. Reissue report and EDF, per Renee. SN

Signature	Print Name	Company	Date/Time
	Scott Bittinger	Alpha Analytical, Inc.	4/10/13 1420

Logged in by: _____

NOTE: Samples are discarded 60 days after results are reported unless other arrangements are made. Hazardous samples will be returned to client or disposed of at client expense. The report for the analysis of the above samples is applicable only to those samples received by the laboratory with this COC. The liability of the laboratory is limited to the amount paid for the report. Matrix Type : AQ(Aqueous) AR(Air) SO(Soil) WS(Waste) DW(Drinking Water) OT(Other) Bottle Type: L-Liter V-Voa S-Soil Jar O-Orbo T-Tedlar B-Brass P-Plastic OT-Other

CHAIN-OF-CUSTODY RECORD

Alpha Analytical, Inc.
 255 Glendale Avenue, Suite 21 Sparks, Nevada 89431-5778
 TEL: (775) 355-1044 FAX: (775) 355-0406

CA

WorkOrder : STR13032142
Report Due By : 5:00 PM On : 28-Mar-13

Client:
 Stratus Environmental
 3330 Cameron Park Drive
 Suite 550
 Cameron Park, CA 95682-8861

Report Attention	Phone Number	E-Mail Address
Scott Bittinger	(530) 676-2062 x	sbittinger@stratusinc.net

EDD Required : Yes


Sampled by : Carl Schulze

PO :	<u>Cooler Temp</u>	<u>Samples Received</u>		<u>Date Printed</u>
Client's COC # : 10652, 10653 Job : 2146-2008-01/B & C Gas Mini Mart	2 °C	21-Mar-13		21-Mar-13

QC Level : S3 = Final Rpt, MBLK, LCS, MS/MSD With Surrogates

Alpha Sample ID	Client Sample ID	Collection Matrix	Collection Date	No. of Bottles			Requested Tests							Sample Remarks			
				Alpha	Sub	TAT	300_0_W	ALKALINIT Y_W	METALS_D S	TPHP_W	VOC_W						
STR13032142-11A	MW-13	AQ	03/19/13 08:33	6	0	5					GAS-C	BTXE/MTBE /TBA_C					
STR13032142-12A	CMT-3 Z1	AQ	03/19/13 06:51	4	0	5					GAS-C	BTXE/MTBE /TBA_C					
STR13032142-13A	D-2	AQ	03/18/13 15:14	4	0	5					GAS-C	BTXE/MTBE /TBA_C					
STR13032142-14A	SVE-3A	AQ	03/18/13 14:01	4	0	5					GAS-C	BTXE/MTBE /TBA_C					
STR13032142-15A	SVE-3B	AQ	03/18/13 14:10	4	0	5					GAS-C	BTXE/MTBE /TBA_C					
STR13032142-16A	SVE-4A	AQ	03/19/13 05:32	4	0	5					GAS-C	BTXE/MTBE /TBA_C					
STR13032142-17A	SVE-4B	AQ	03/19/13 05:41	4	0	5					GAS-C	BTXE/MTBE /TBA_C					

Comments: Security seals intact. Frozen ice. Samples were received outside of the 48HR holding time for NO3 for an unpreserved bottle, therefore, the H2SO4 bottle will be used for NO3 analysis. Filter and Preserve metals. :

	<u>Signature</u>	<u>Print Name</u>	<u>Company</u>	<u>Date/Time</u>
Logged in by:		Sarah Devi	Alpha Analytical, Inc.	3/21/13 11:12

NOTE: Samples are discarded 60 days after results are reported unless other arrangements are made. Hazardous samples will be returned to client or disposed of at client expense. The report for the analysis of the above samples is applicable only to those samples received by the laboratory with this COC. The liability of the laboratory is limited to the amount paid for the report.
 Matrix Type : AQ(Aqueous) AR(Air) SO(Soil) WS(Waste) DW(Drinking Water) OT(Other) Bottle Type: L-Liter V-Voa S-Soil Jar O-Orbo T-Tedlar B-Brass P-Plastic OT-Other

CHAIN-OF-CUSTODY RECORD**CA****Alpha Analytical, Inc.**

255 Glendale Avenue, Suite 21 Sparks, Nevada 89431-5778

TEL: (775) 355-1044 FAX: (775) 355-0406

WorkOrder : STR13032142**Report Due By : 5:00 PM On : 28-Mar-13****Client:**Stratus Environmental
3330 Cameron Park Drive
Suite 550
Cameron Park, CA 95682-8861**Report Attention****Phone Number****E-Mail Address**

Scott Bittinger

(530) 676-2062 x

sbittinger@stratusinc.net

EDD Required : Yes

Sampled by : Carl Schulze

PO :Cooler TempSamples ReceivedDate Printed

Client's COC # : 10652, 10653

Job : 2146-2008-01/B & C Gas Mini Mart

2 °C


21-Mar-13

21-Mar-13

QC Level : S3 = Final Rpt, MBLK, LCS, MS/MSD With Surrogates

Alpha Sample ID	Client Sample ID	Collection Matrix	No. of Bottles Alpha Sub TAT	Requested Tests						Sample Remarks					
				300_0_W	ALKALINIT Y_W	METALS_D S	TPHP_W	VOC_W							
STR13032142-01A	MW-2	AQ 03/19/13 12:15	6 0 5							GAS-C	BTXE/MTBE /TBA_C				
STR13032142-02A	MW-3	AQ 03/18/13 15:14	4 0 5							GAS-C	BTXE/MTBE /TBA_C				
STR13032142-03A	MW-4	AQ 03/19/13 10:45	6 0 5							GAS-C	BTXE/MTBE /TBA_C				
STR13032142-04A	MW-5	AQ 03/19/13 06:25	4 0 5							GAS-C	BTXE/MTBE /TBA_C				
STR13032142-05A	MW-7	AQ 03/18/13 09:15	4 0 5							GAS-C	BTXE/MTBE /TBA_C				
STR13032142-06A	MW-8	AQ 03/18/13 10:10	4 0 5							GAS-C	BTXE/MTBE /TBA_C				
STR13032142-07A	MW-9	AQ 03/18/13 08:35	4 0 5							GAS-C	BTXE/MTBE /TBA_C				
STR13032142-08A	MW-10	AQ 03/18/13 12:56	4 0 5							GAS-C	BTXE/MTBE /TBA_C				
STR13032142-09A	MW-11	AQ 03/18/13 12:02	4 0 5							GAS-C	BTXE/MTBE /TBA_C				
STR13032142-10A	MW-12	AQ 03/18/13 11:15	4 0 5							GAS-C	BTXE/MTBE /TBA_C				

Comments: Security seals intact. Frozen ice. Samples were received outside of the 48HR holding time for NO3 for an unpreserved bottle, therefore, the H2SO4 bottle will be used for NO3 analysis. Filter and Preserve metals. :

Signature	Print Name	Company	Date/Time
	Scott Bittinger	Alpha Analytical, Inc.	3/21/13 1117

Logged in by:

NOTE: Samples are discarded 60 days after results are reported unless other arrangements are made. Hazardous samples will be returned to client or disposed of at client expense.

The report for the analysis of the above samples is applicable only to those samples received by the laboratory with this COC. The liability of the laboratory is limited to the amount paid for the report.

Matrix Type : AQ(Aqueous) AR(Air) SO(Soil) WS(Waste) DW(Drinking Water) OT(Other) Bottle Type: L-Liter V-Voa S-Soil Jar O-Orbo T-Tedlar B-Brass P-Plastic OT-Other

Company: Stratus Environmental
 Attn: _____
 Address: 3330 Cameron Park Dr
Cameron Park, CA 95682
 City, State, Zip: _____
 Phone Number: _____ Fax: _____



Alpha Analytical, Inc.
 Main Laboratory: 255 Glendale Ave, Suite 21 Sparks, NV 89431
 Satellite Service Centers:
 Northern CA: 8891 Horn Road, Suite C, Rancho Cordova, CA 95827
 Southern NV: 6255 McLeod Ave, Suite 24, Las Vegas, NV 89120
 Southern CA: 1007 E. Dominguez St., Suite O, Carson, CA 90748

Phone: 775-355-1044
 Fax: 775-355-0408
 Phone: 916-368-9089
 Phone: 702-281-4848
 Phone: 714-386-2901

10652

Page # 1 of 2

Company: B+C Gas Mini Mart Job # 2146-2008-01 Report Attention/Project Manager: Scott B. Hinger QC Deliverable Info:
 Address: 2008 First Street Job Name: _____ Name: _____ EDD Required? Yes No EDF Required? Yes / No
 City, State, Zip: Livermore, CA P.O. #: _____ Email Address: sb.hinger@stratusinc.net Global ID: 20600100930
 Phone #: _____ Cell #: _____ Date Validation Level: III or IV

Samples Collected from which State? (circle one) AZ CA NV WA ID OR DOD Site Other

Time Sampled (HHMM)	Date Sampled (MM/DD)	Matrix* (See Key Below)	Lab ID Number (For Lab Use Only)	Sample Description	TAT	Field Filtered?	# Containers** (See Key Below)	Analysis Requested		Remarks
								GRO, BTEX	MTBE, TBA	
1215	03/19	AQ	320022	MW-2		>	4V, 2P	X	X	
1514	03/18		02	MW-3						
1045	03/19		03	MW-4			2P			
0625	03/19		04	MW-5						
0915	03/18		05	MW-7						
1010	03/18		06	MW-8						
0835	03/18		07	MW-9						
1256	03/18		08	MW-10						
1202	03/18		09	MW-11						
1115	03/18		10	MW-12						
0833	03/19		11	MW-13			2P			

ADDITIONAL INSTRUCTIONS:

(field sampler) attest to the validity and authenticity of this sample(s). I am aware that tampering with or intentionally mislabeling the sample location, date or time of collection is considered fraud and may be grounds for legal action. NAC 445.0636 (c) (2).

Sampled By: Carl Schutze
 Relinquished by: (Signature/Affiliation) [Signature] Date: 03/19/13 Time: 11:12 Received by: (Signature/Affiliation) [Signature] Date: 03/20/13 Time: 11:12
 Relinquished by: (Signature/Affiliation) _____ Date: _____ Time: _____ Received by: (Signature/Affiliation) [Signature] Date: 3/21/13 Time: 1026
 Relinquished by: (Signature/Affiliation) _____ Date: _____ Time: _____ Received by: (Signature/Affiliation) _____ Date: _____ Time: _____

* Key: AQ - Aqueous WA - Waste OT - Other **: L - Litr V - VOA S - Soil Jar O - Orbo T - Tedlar B - Brass P - Plastic OT - Other
 NOTE: Samples are discarded 90 days after sample receipt unless other arrangements are made. Hazardous samples will be returned to client or disposed of at client expense. The report for the analysis of the above samples is applicable only to those samples received by the laboratory with this COC. The liability of the laboratory is limited to the amount paid for the report.

Billing Information:
 Company: Stratus Environmental
 Attn: _____
 Address: 3330 Cameron Park Dr.
 City, State, Zip: Cameron Park CA 95682
 Phone Number: _____ Fax: _____



Alpha Analytical, Inc.
 Main Laboratory: 255 Glendale Ave, Suite 21 Sparks, NV 89431
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 Southern NV: 6255 McLeod Ave, Suite 24, Las Vegas, NV 89120
 Southern CA: 1007 E. Dominguez St., Suite O, Carson, CA 90746

Phone: 775-355-1044
 Fax: 775-355-0406
 Phone: 916-366-9089
 Phone: 702-281-4848
 Phone: 714-386-2901

10653

Consultant/Client Info:
 Company: BFC Gas Mini Mart
 Address: 2008 First Street
 City, State, Zip: Livermore, CA

Job and Purchase Order Info:
 Job # 2146-2008-01
 Job Name: _____
 P.O. #: _____

Report Attention/Project Manager:
 Name: Scott Bittinger
 Email Address: sbittinger@stratusinc.net
 Phone #: _____
 Cell #: _____

QC Deliverable Info:
 EDD Required? Yes No EDF Required? Yes / No
 Global ID: T0606100930
 Data Validation Level: III or IV

Samples Collected from which State? (circle one) AZ CA NV WA ID OR DOD Site Other

Time Sampled (HHMM)	Date Sampled (MM/DD)	Matrix* (See Key Below)	Lab ID Number (For Lab Use Only)	Sample Description	TAT	Field Filtered?	# Containers** (See Key Below)	Analysis Requested		Remarks
								GRO, BTEX	MTBE, TBA	
0651	03/19	AQ		CMT - 3 #1		✓	IV	X	X	
1514	03/18			D-2						
1401	03/18			SVE-3A						
1410	03/18			SVE-3B						
0532	03/19			SVE-4A						
0541	03/19			SVE-4B						

ADDITIONAL INSTRUCTIONS:

I (field sampler) attest to the validity and authenticity of this sample(s). I am aware that tampering with or intentionally mislabeling the sample location, date or time of collection is considered fraud and may be grounds for legal action. NAC 448.0838 (c) (2).

Sampled By: <u>Carl Schulze</u>	Date: <u>03/19/13</u>	Time: <u>1112</u>	Received by: (Signature/Affiliation): _____	Date: <u>03/20/13</u>	Time: <u>11:20</u>
Relinquished by: (Signature/Affiliation): <u>[Signature]</u>	Date: _____	Time: _____	Received by: (Signature/Affiliation): <u>[Signature]</u>	Date: <u>3/21/13</u>	Time: <u>1026</u>
Relinquished by: (Signature/Affiliation): _____	Date: _____	Time: _____	Received by: (Signature/Affiliation): _____	Date: _____	Time: _____

* Key: AQ - Aqueous WA - Waste OT - Other **: L - Liter V - VOA S - Soil Jar O - Orbo T - Tedlar B - Brass P - Plastic OT - Other

NOTE: Samples are discarded 80 days after sample receipt unless other arrangements are made. Hazardous samples will be returned to client or disposed of at client expense. The report for the analysis of the above samples is applicable only to those samples received by the laboratory with this COC. The liability of the laboratory is limited to the amount paid for the report.

APPENDIX D

**GEOTRACKER ELECTRONIC SUBMITTAL
CONFIRMATIONS**

STATE WATER RESOURCES CONTROL BOARD
GEOTRACKER ESI

UPLOADING A GEO_WELL FILE

SUCCESS

Processing is complete. No errors were found!
Your file has been successfully submitted!

<u>Submittal Type:</u>	GEO_WELL
<u>Report Title:</u>	1Q13 QMR Geowell March 2013
<u>Facility Global ID:</u>	T0600100930
<u>Facility Name:</u>	DESERT PETROLEUM #795
<u>File Name:</u>	GEO_WELL.zip
<u>Organization Name:</u>	Stratus Environmental, Inc.
<u>Username:</u>	STRATUS NOCAL
<u>IP Address:</u>	50.192.223.97
<u>Submittal Date/Time:</u>	4/10/2013 11:11:59 AM
<u>Confirmation Number:</u>	2704164028

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STATE WATER RESOURCES CONTROL BOARD
GEOTRACKER ESI

UPLOADING A EDF FILE

SUCCESS

Processing is complete. No errors were found!
Your file has been successfully submitted!

<u>Submittal Type:</u>	EDF
<u>Report Title:</u>	1Q13 QMR Analytical March 2013
<u>Report Type:</u>	Monitoring Report - Quarterly
<u>Facility Global ID:</u>	T0600100930
<u>Facility Name:</u>	DESERT PETROLEUM #795
<u>File Name:</u>	13032142_EDF.zip
<u>Organization Name:</u>	Stratus Environmental, Inc.
<u>Username:</u>	STRATUS NOCAL
<u>IP Address:</u>	50.192.223.97
<u>Submittal Date/Time:</u>	4/15/2013 12:24:06 PM
<u>Confirmation Number:</u>	5012958586

[VIEW QC REPORT](#)

[VIEW DETECTIONS REPORT](#)

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