#### **RECEIVED**

By Alameda County Environmental Health at 1:37 pm, Feb 13, 2013

Mr. Keith Nowell Alameda County Environmental Health Services 1131 Harbor Bay Parkway, Suite 250 Alameda, California 94502-6577

Re: Foothill Mini Mart, 6600 Foothill Boulevard, Oakland, California (ACEHS Case No. RO0000175)

Dear Mr. Nowell:

Stratus Environmental, Inc. (Stratus) has recently prepared a *Groundwater Monitoring Report, First Quarter 2013* on my behalf. The report was prepared in regards to Alameda County Fuel Leak Case No. RO0000175, located at 6600 Foothill Boulevard, Oakland, 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,

Ravi Sekhon

D & 2000



February 12, 2013 Project No. 2087-6600-01

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

Re: Groundwater Monitoring Report, First Quarter 2013, for Foothill Mini Mart, located at 6600 Foothill Boulevard, Oakland, California (ACEHD Case No. RO0000175)

Dear Mr. Nowell:

Stratus Environmental, Inc. (Stratus) is submitting the attached report, on behalf of Mr. Ravi Sekhon, to document the findings of a groundwater monitoring and sampling event conducted during the first quarter 2013 at the Foothill Mini Mart, located at 6600 Foothill Boulevard, Oakland, California (Figure 1). 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.

Semi-Annual Groundwater Monitoring Report, First Quarter 2013

Sincerely,

STRATUS ENVIRONMENTAL, INC.

Scott G. Bittinger, P.G. Project Manager

tachment:

14601

Stephen J. Carter, P.G.

Senior Geologist

Mr. Ravi Sekhon

10. 7417. and Ms. Joseph and Maude LeBlanc

Date	February 12, 2013	
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#### FOOTHILL MINI MART SEMI-ANNUAL GROUNDWATER MONITORING REPORT

Facility Address: 6600 Foothill Boulevard, California

Consulting Co./Contact Person: Stratus Environmental, Inc. / Scott Bittinger, P.G.

Consultant Project No: 2087-6600-01

Primary Agency/Regulatory ID No: Alameda County Environmental Health Department (ACEHD) / Case No. RO0000175

#### WORK PERFORMED THIS PERIOD (Fourth Quarter 2012 and First Quarter 2013):

 On January 2, 2013, Stratus conducted first quarter 2013 groundwater monitoring and sampling activities at the site. During this event, monitoring wells MW-1 through MW-7, MW-10, MW-11, MW-12A, MW-13A, MW-5B, MW-6B, and MW-12B were gauged for depth to water and evaluated for the presence of free product. Following gauging, samples were collected and forwarded to a state-certified analytical laboratory for analysis.

#### WORK PROPOSED FOR NEXT PERIOD (Second and Third Quarters 2013):

- 1. Based on recent communication with ACEHD personnel, it is our understanding that ACEHD and the UST Cleanup Fund are in discussions as to whether the site can potentially qualify for environmental case closure under the State Water Resources Control Board's recently adopted Low Threat Closure Policy. Future environmental work activities at the site, including possible implementation of the June 21, 2012 CAP, will be based upon this determination.
- 2. If the site does not qualify for closure, the next groundwater monitoring and sampling event will be performed during the third quarter 2013.

Current Phase of Project:	SC; will request CAP/REM designation if remediation of site is deemed necessary by ACEHD and the UST Cleanup Fund
Frequency of Groundwater Sampling:	Semi-Annual (1 <sup>st</sup> & 3 <sup>rd</sup> ): Wells MW-1 through MW-7, MW-10, MW-11, MW-12A, MW-13A, MW-5B, MW-6B, and MW-12B
Frequency of Groundwater Monitoring:	Semi-Annual (1 <sup>st</sup> & 3 <sup>rd</sup> ): Wells MW-1 through MW-7, MW-10, MW-11, MW-12A, MW-13A, MW-5B, MW-6B, and MW-12B
Groundwater Sampling Date:	January 2, 2013
Is Free Product (FP) Present on Site:	No
Approx. Depth to Groundwater (Upper):	4.26 to 9.16 feet below top of well casing
Approx. Depth to Groundwater (Lower):	11.01 to 39.76 feet below top of well casing
Groundwater Flow Direction (Upper):	West-southwest (onsite), west-northwest (offsite to the south)
Approximate Groundwater Gradient (Upper):	0.03 to 0.04 ft/ft
Groundwater Flow Direction (Lower):	Not calculated
Approximate Groundwater Gradient (Lower):	Not calculated

#### DISCUSSION:

On January 2, 2013, Stratus conducted semi-annual groundwater monitoring and sampling activities at the site. During this event, wells MW-1 through MW-7, MW-10, MW-11, MW-12A, MW-13A, MW-5B, MW-6B, and MW-12B were monitored, purged and sampled. Groundwater samples were analyzed at a state-certified analytical laboratory for gasoline range organics (GRO) by EPA Method SW8015B, and for benzene, toluene, ethylbenzene, and total xylenes (BTEX), methyl tertiary butyl ether (MTBE), tertiary amyl methyl ether (TAME), ethyl tertiary butyl ether (ETBE), di-isopropyl ether (DIPE), tertiary butyl alcohol (TBA), low level ethanol, and methanol by EPA Method SW8260B. Field data sheets, sampling procedures and laboratory analytical reports are included as Appendices A, B, and C, respectively. Analytical results of 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.

#### Shallow Screened Well Network

Depth to groundwater in the monitoring wells ranged between 4.26 and 9.16 feet below the top of the well casing on January 2, 2013. Depth-to-water measurements were converted to feet above mean sea level (MSL) and used to construct a groundwater elevation contour map (Figure 2). A west-southwest groundwater flow direction was observed onsite, and a west-northwest groundwater flow direction was observed south of Foothill Boulevard. Groundwater gradients ranged from approximately 0.03 to 0.04 ft/ft. Variable groundwater flow directions have been calculated during historical site work.

Groundwater beneath the site is impacted with GRO, BTEX, MTBE, and TBA. During the first quarter 2013 sampling event, GRO was detected in five of the eleven sampled wells (MW-2, MW-4, MW-6, MW-12A, and MW-13A), with a maximum concentration reported in offsite well MW-6 (3,500 micrograms per liter [µg/L]). Benzene was only detected in well MW-6 (61 µg/L). MTBE was reported in ten of the eleven sampled wells with a concentration range between 1.6 µg/L (MW-11) and 360 µg/L (MW-6). TBA was detected in samples collected from six of the shallow screened wells, at concentrations ranging from 26 µg/L (MW-13A) to 3,900 µg/L (MW-5). TAME, ETBE, DIPE, ethanol, and methanol were not reported in any of the shallow screened well samples during the first quarter 2013 sampling event. Figures 4 through 7 illustrate the interpreted lateral extent of GRO, benzene, MTBE, and TBA distribution in shallow groundwater, respectively, using data collected on January 2, 2013. The results of first quarter 2013 well sampling, and the general configuration of the plumes depicted on Figures 4 through 7, are generally consistent with the findings of previous work.

#### Deeper Screened Well Network

Depth to groundwater in the monitoring wells ranged from 11.01 to 39.76 feet below the top of the well casing. Groundwater elevations are depicted on Figure 3. Given the large discrepancy in groundwater elevations measured in the three deeper screened monitoring wells, an evaluation of groundwater flow direction at this depth in the subsurface does not appear appropriate using the current data set.

Analytical results of GRO, benzene, MTBE, and TBA for groundwater samples collected from the deeper screened wells during the first quarter 2013 are presented on Figure 8. MTBE and xylenes were reported in the sample collected from well MW-5B, at concentrations of 22  $\mu$ g/L and 1.4  $\mu$ g/L, respectively. Xylenes were also detected in the MW-6B (0.65  $\mu$ g/L) and MW-12B (0.89  $\mu$ g/L) samples. No GRO, benzene, toluene, ethylbenzene, TBA, DIPE, ETBE, TAME, ethanol, or methanol were detected in the deeper well samples. While MTBE concentrations in MW-5B remain relatively low, an increasing concentration trend is observed in samples collected from this well.

#### ATTACHMENTS:

- Table 1 Groundwater Elevation and Analytical Summary
- Table 2 Groundwater Analytical Results for Oxygenates and Additives
- Table 3 Well Construction Detail Summary
- Figure 1 Site Location Map

• Figure 2	Groundwater Elevation Contour Map, Shallow Screened Wells (First Quarter 2013)
• Figure 3	Groundwater Elevation Map, Deep Screened Wells (First Quarter 2013)
• Figure 4	GRO Iso-Concentration Contour Map, Shallow Screened Wells (First Quarter 2013)
• Figure 5	Benzene Iso-Concentration Contour Map, Shallow Screened Wells (First Quarter 2013)
• Figure 6	MTBE Iso-Concentration Contour Map, Shallow Screened Wells (First Quarter 2013)
• Figure 7	TBA Iso-Concentration Contour Map, Shallow Screened Wells (First Quarter 2013)
• Figure 8	Groundwater Analytical Summary, Deep Screened Wells (First Quarter 2013)
<ul> <li>Appendix A</li> </ul>	Field Data Sheets
<ul> <li>Appendix B</li> </ul>	Sampling and Analyses Procedures
<ul><li>Appendix C</li><li>Appendix D</li></ul>	Laboratory Analytical Reports and Chain-of-Custody Documentation GeoTracker Electronic Submittal Information

Well Number	Date Collected	Depth to Water (feet)	Top of Casing Elevation (ft msl)	Groundwater Elevation (ft msl) [1]	GRO (μg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethyl- benzene (µg/L)	Total Xylenes (µg/L)	MTBE (μg/L)
SHALLOW WI	ELLS									
MW-1	06/13/01	9.36	100*	90.64	ND	ND	ND	ND	ND	130
	03/21/02	7.96	100*	92.04	95	ND	ND	ND	ND	72.5
	07/09/02	8.51	100*	91.49	ND	ND	ND	ND	ND	208
	07/11/03	8.66	160.25	151.59	ND	0.7	ND	ND	1.2	636
	11/13/03	8.10	160.25	152.15	<5,000	ND	ND	ND	ND	72,000
	02/19/04	8.24	160.25	152.01	1,350	460	ND	ND	ND	82,000
	05/21/04	8.51	160.25	151.74	ND	<50	<50	<50	<100	12,000
	08/11/05	8.34	160.25	151.91	ND	ND	ND	ND	ND	4,900
	11/30/05	9.86	160.25	150.39	<250	<2.5	<2.5	<2.5	<2.5	8,400
	08/08/08	10.62	60.02	49.40	390	<1.5	<1.5	<1.5	<1.5	720
	11/05/08	10.78	60.02	49.24	350	< 5.0	<10	<10	<10	580
	02/06/09	9.05	60.02	50.97	150	<1.5	<1.5	<1.5	<1.5	610
	05/07/09	6.76	60.02	53.26	420	< 0.50	< 0.50	< 0.50	< 0.50	210
	06/01/10	7.58	60.02	52.44	190	< 0.50	< 0.50	< 0.50	< 0.50	170
	09/07/10	11.33	60.02	48.69			Not Schedule	d for Sampling		
	12/08/10	10.61	60.02	49.41	150	< 0.50	< 0.50	<0.50	< 0.50	300
	05/26/11	8.51	60.02	51.51	57	< 0.50	< 0.50	< 0.50	< 0.50	100
	12/13/11	10.54	60.02	49.48	<50	< 0.50	< 0.50	< 0.50	< 0.50	23
	07/23/12	10.82	60.02	49.20	<50	< 0.50	< 0.50	< 0.50	< 0.50	37
	01/02/13	6.15	60.02	53.87	<50	<0.50	<0.50	<0.50	0.58	11

Well Number	Date Collected	Depth to Water (feet)	Top of Casing Elevation (ft msl)	Groundwater Elevation (ft msl) [1]	GRO (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethyl- benzene (µg/L)	Total Xylenes (µg/L)	MTBE (μg/L)
MW-2	06/13/01	10.44	98.71*	88.27	5,800	160	210	290	980	94,000
	03/21/02	8.18	98.71*	90.53	452	3.4	ND	1.6	2.1	79,100
	07/09/02	8.35	98.71*	90.36	497	61.6	ND	ND	1.6	37,600
	07/11/03	7.58	158.97	151.39	553	48.9	ND	ND	ND	38,200
	11/13/03	8.01	158.97	150.96	<2,500	NS	ND	ND	ND	47,000
	02/19/04	6.43	158.97	152.54	4,390	410	265	160	490	26,700
	05/21/04	6.83	158.97	152.14	1,150	254	<200	<200	<400	24,600
	08/11/05	7.31	158.97	151.66	91	ND	1.1	ND	ND	6,500
	11/30/05	7.98	158.97	150.99	69	ND	1.4	ND	ND	2,300
	08/08/08	7.19	58.74	51.55	300	<9.0	<9.0	<9.0	<9.0	9.8
	11/05/08	7.14	58.74	51.60	510	< 0.50	<1.0	<1.0	<1.0	12
	02/06/09	6.92	58.74	51.82	50	<4.0	<4.0	<4.0	<4.0	10
	05/07/09	6.53	58.74	52.21	860	<4.0	<4.0	<4.0	<4.0	9.7
	06/01/10	9.15	58.74	49.59	<1,000 [3]	<5.0 [3]	<5.0 [3]	<5.0 [3]	<5.0 [3]	69
	09/07/10	9.69	58.74	49.05				d for Sampling		
	12/08/10	8.34	58.74	50.40	<1,000 [3]	<5.0 [3]	<5.0 [3]	<5.0 [3]	<5.0 [3]	21
	05/26/11	10.51	58.74	48.23	<500[3]	<2.5[3]	<2.5[3]	<2.5[3]	<2.5[3]	27
	12/13/11	9.50	58.74	49.24	270	< 0.50	<0.50	< 0.50	< 0.50	22
	07/23/12	9.01	58.74	49.73	120	< 0.50	< 0.50	< 0.50	< 0.50	3.7
	01/02/13	6.23	58.74	52.51	150	< 0.50	<0.50	< 0.50	<0.50	5.9

Well Number	Date Collected	Depth to Water (feet)	Top of Casing Elevation (ft msl)	Groundwater Elevation (ft msl) [1]	GRO (μg/L)	Benzene (µg/L)	Toluene (μg/L)	Ethyl- benzene (µg/L)	Total Xylenes (µg/L)	MTBE (μg/L)
MW-3	06/13/01	9.69	99.90*	90.21	300	1	ND	0.07	2	450
	03/21/02	8.80	99.90*	91.10	274	1.1	ND	1	2.5	7,520
	07/09/02	9.33	99.90*	90.57	ND	ND	ND	ND	ND	40.8
	07/11/03	9.35	160.17	150.82	ND	ND	ND	ND	ND	24
	11/13/03	8.85	160.17	151.32	ND	ND	ND	ND	ND	37
	02/19/04	8.46	160.17	151.71	83	ND	ND	ND	ND	42.7
	05/21/04	9.09	160.17	151.08	ND	ND	ND	ND	ND	54
	08/11/05	8.87	160.17	151.30	ND	ND	ND	ND	ND	27
	11/30/05	9.73	160.17	150.44	ND	ND	ND	ND	ND	28
	08/08/08	9.64	59.94	50.30	99	< 0.50	< 0.50	< 0.50	< 0.50	4.5
	11/05/08	9.33	59.94	50.61	55	< 0.50	<1.0	<1.0	<1.0	4.5
	02/06/09	9.37	59.94	50.57	100	< 0.50	< 0.50	< 0.50	< 0.50	5.3
	05/07/09	8.98	59.94	50.96	410	< 0.50	< 0.50	< 0.50	< 0.50	5.5
	06/01/10	9.82	59.94	50.12	<50	< 0.50	< 0.50	< 0.50	< 0.50	5.1
	09/07/10	10.88	59.94	49.06			Not Schedule	d for Sampling		
	12/08/10	9.82	59.94	50.12	53	< 0.50	< 0.50	<0.50	< 0.50	6.6
	05/26/11	9.93	59.94	50.01	54	< 0.50	< 0.50	< 0.50	< 0.50	4.9
	12/13/11	10.52	59.94	49.42	<50	< 0.50	< 0.50	< 0.50	< 0.50	3.3
	07/23/12	10.64	59.94	49.30	<50	< 0.50	< 0.50	< 0.50	<0.50	4.5
	01/02/13	8.47	59.94	51.47	<100[3]	<0.50	<0.50	<0.50	0.52	3.0

Well Number	Date Collected	Depth to Water (feet)	Top of Casing Elevation (ft msl)	Groundwater Elevation (ft msl) [1]	GRO (μg/L)	Benzene (µg/L)	Toluene (μg/L)	Ethyl- benzene (µg/L)	Total Xylenes (µg/L)	MTBE (μg/L)
MW-4	07/09/02	8.14	98.19*	90.05	9,680	43	17	369	1,990	28,300
	07/11/03	6.73	158.42	151.69	3,170	16.5	6.4	71.7	240	16,600
	11/13/03	6.54	158.42	151.88	<1,000	49	ND	340	900	16,000
	02/19/04	4.37	158.42	154.05	7,230	107	7	497	1,063	14,300
	05/21/04	5.79	158.42	152.63	9,340	194	ND	309	860	7,380
	08/11/05	6.65	158.42	151.77	3,000	15	24	87	190	1,200
	11/30/05	6.05	158.42	152.37	4,300	18	28	84	130	340
	08/08/08	5.91	58.19	52.28	3,600	0.53	0.61	5.6	1.5	24
	11/05/08	5.33	58.19	52.86	2,000	0.58	<1.0	6.8	1.2	31
	02/06/09	5.15	58.19	53.04	3,400	0.81	< 0.50	10	1.2	39
	05/07/09	4.86	58.19	53.33	4,500	0.73	< 0.50	7.4	1.2	29
	06/01/10	6.00	58.19	52.19	3,300	<1.0 [3]	<1.0 [3]	4.1	<1.0 [3]	9.4
	09/07/10			Inaccessib	le for monit	oring; not sched	duled for sampli	ng		
	12/08/10	5.75	58.19	52.44	3,800	<1.0 [3]	<1.0 [3]	7.3	<1.0 [3]	7.6
	05/26/11	5.87	58.19	52.32	4,000	<2.5[3]	<2.5[3]	2.6	<2.5[3]	3.7
	12/13/11	6.36	58.19	51.83	1,500	< 0.50	0.54	0.55	1.21	8.2
	07/23/12	6.82	58.19	51.37	2,300	<1.0[3]	<1.0[3]	<1.0[3]	<1.0[3]	4.7
	01/02/13	4.64	58.19	53.55	1,200	< 0.50	0.51	1.5	3.0	2.0

Well Number	Date Collected	Depth to Water (feet)	Top of Casing Elevation (ft msl)	Groundwater Elevation (ft msl) [1]	GRO (μg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethyl- benzene (µg/L)	Total Xylenes (µg/L)	MTBE (μg/L)
MW-5	07/09/02	8.16	97.81*	89.65	275	30.2	ND	ND	3	18,600
	07/11/03	7.94	158.03	150.09	890	10	0.6	ND	7.1	5,090
	11/13/03	7.41	158.03	150.62	<1,000	ND	ND	ND	ND	3,400
	02/19/04	6.14	158.03	151.89	1,310	ND	0.7	ND	2.2	438
	05/21/04	7.42	158.03	150.61	1,960	9.7	0.7	ND	ND	214
	08/11/05	7.67	158.03	150.36	410 [2]	ND	3.3	ND	ND	100
	11/30/05	8.51	158.03	149.52	240 [2]	ND	1.8	ND	1.4	82
	08/08/08	7.59	57.80	50.21	1,900	< 0.50	< 0.50	< 0.50	4.0	8.6
	11/05/08	6.91	57.80	50.89	1,600	< 0.50	<1.0	<1.0	1.1	4.8
	02/06/09	6.98	57.80	50.82	680	< 0.50	< 0.50	< 0.50	2.2	5.5
	05/07/09	6.43	57.80	51.37	1,900	0.72	0.91	< 0.50	2.3	4.3
	06/01/10	8.15	57.80	49.65	1,000	< 0.50	< 0.50	< 0.50	< 0.50	4.3
	09/07/10	9.37	57.80	48.43			Not Schedule	ed for Sampling	5	
	12/08/10	7.78	57.80	50.02	200	< 0.50	< 0.50	< 0.50	< 0.50	5.9
	05/26/11	8.08	57.80	49.72	230	<1.0[3]	<1.0[3]	<1.0[3]	<1.0[3]	3.5
	12/13/11	8.63	57.80	49.17	<200[3]	<1.0[3]	<1.0[3]	<1.0[3]	<1.0[3]	2.8
	07/23/12	8.99	57.80	48.81	<100[3]	< 0.50	< 0.50	< 0.50	<0.50	2.5
	01/02/13	6.24	57.80	51.56	<200[3]	<1.0[3]	<1.0[3]	<1.0[3]	1.3	3.0

Foothill Mini Mart, 6600 Foothill Boulevard, Oakland, California

Well Number	Date Collected	Depth to Water (feet)	Top of Casing Elevation (ft msl)	Groundwater Elevation (ft msl) [1]	GRO (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethyl- benzene (µg/L)	Total Xylenes (µg/L)	MTBE (μg/L)
MW-6	07/09/02	7.45	97*	89.55	12,000	432	22	637	1,740	11,300
	07/11/03	7.98	157.24	149.26	2,970	534	6.3	70.1	278	18,000
	11/13/03	7.47	157.24	149.77	<2,500	300	ND	ND	52	18,000
	02/19/04	5.09	157.24	152.15	5,340	184	5	65	127	5,310
	05/21/04	6.38	157.24	150.86	6,110	340	12.7	205	308.8	3,900
	08/11/05	6.68	157.24	150.56	6,100	470	48	23	30	3,200
	11/30/05	7.43	157.24	149.81	3,700	310	30	16	12	3,400
	08/08/08	6.23	57.01	50.78	6,500	63	2.0	42	98	230
	11/05/08	5.35	57.01	51.66	4,800	74	<5.0	23	42	340
	02/06/09	5.44	57.01	51.57	5,800	34	1.1	16	38	140
	05/07/09	4.91	57.01	52.10	5,800	32	1.2	14	37	150
	06/01/10	5.85	57.01	51.16	7,500	100	<2.5 [3]	28	48	350
	09/07/10	7.84	57.01	49.17			Not Schedule	d for Sampling		
	12/08/10	5.15	57.01	51.86	6,200	90	1.1	46	53.7	420
	05/26/11	5.73	57.01	51.28	5,500	54	<1.0[3]	23	30.4	230
	12/13/11	6.28	57.01	50.73	6,400	77	<2.5[3]	19	19	400
	07/23/12	6.88	57.01	50.13	5,800	54	<1.5[3]	9.4	9.3	320
	01/02/13	4.26	57.01	52.75	3,500	61	<2.5[3]	29	32.6	360

Stratus

Well Number	Date Collected	Depth to Water (feet)	Top of Casing Elevation (ft msl)	Groundwater Elevation (ft msl) [1]	GRO (µg/L)	Benzene (µg/L)	Toluene (μg/L)	Ethyl- benzene (µg/L)	Total Xylenes (µg/L)	MTBE (μg/L)
										<del></del>
MW-7	06/01/10	9.74	58.66	48.92	<50	< 0.50	< 0.50	< 0.50	< 0.50	22
	09/07/10	9.74	58.66	48.92	<50	< 0.50	< 0.50	< 0.50	< 0.50	17
	12/08/10	8.95	58.66	49.71	< 50	< 0.50	< 0.50	< 0.50	< 0.50	7.6
	05/26/11	11.15	58.66	47.51	<50	< 0.50	< 0.50	< 0.50	< 0.50	2.8
	12/13/11	9.41	58.66	49.25	<50	< 0.50	< 0.50	< 0.50	< 0.50	9.6
	07/23/12	11.20	58.66	47.46	<50	< 0.50	< 0.50	< 0.50	<0.50	6.7
	01/02/13	8.46	58.66	50.20	<50	<0.50	<0.50	<0.50	1.2	5.0
MW-10	06/01/10	8.85	61.89	53.04	<50	<0.50	<0.50	<0.50	<0.50	< 0.50
	09/07/10	11.75	61.89	50.14	<50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
	12/08/10	13.60	61.89	48.29	<50	< 0.50	< 0.50	< 0.50	<0.50	< 0.50
	05/26/11	10.45	61.89	51.44	<50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
	12/13/11	12.91	61.89	48.98	<50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
	07/23/12	11.12	61.89	50.77	<50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
	01/02/13	9.16	61.89	52.73	<50	<0.50	<0.50	<0.50	<0.50	< 0.50
MW-11	06/01/10	9.74	60.97	51.23	<50	<0.50	<0.50	<0.50	<0.50	6.7
	09/07/10	11.68	60.97	49.29	59	< 0.50	< 0.50	< 0.50	< 0.50	98
	12/08/10	12.19	60.97	48.78	52	< 0.50	<0.50	<0.50	< 0.50	96
	05/26/11	10.80	60.97	50.17	<50	< 0.50	< 0.50	< 0.50	< 0.50	17
	12/13/11	12.27	60.97	48.70	<50	< 0.50	< 0.50	< 0.50	<0.50	<0.50
	07/23/12	12.51	60.97	48.46	<50	< 0.50	< 0.50	< 0.50	<0.50	1.6
	01/02/13	8.41	60.97	52.56	<50	<0.50	< 0.50	<0.50	0.52	1.6

Well Number	Date Collected	Depth to Water (feet)	Top of Casing Elevation (ft msl)	Groundwater Elevation (ft msl) [1]	GRO (µg/L)	Benzene (µg/L)	Toluene (μg/L)	Ethyl- benzene (µg/L)	Total Xylenes (µg/L)	MTBE (μg/L)			
MW-12A	06/01/10	8.07	62.98	54.91	270	<0.50	< 0.50	<0.50	<0.50	260			
	09/07/10					Inaccessible							
	12/08/10	10.35	62.98	52.63	150	< 0.50	< 0.50	< 0.50	< 0.50	300			
	05/26/11	8.84	62.98	54.14	140	< 0.50	< 0.50	< 0.50	< 0.50	250			
	12/13/11	9.45	62.98	53.53	240	< 0.50	< 0.50	< 0.50	< 0.50	420			
	07/23/12	10.28	62.98	52.70	170	< 0.50	< 0.50	< 0.50	< 0.50	260			
	01/02/13	6.71	62.98	56.27	72	< 0.50	<0.50	<0.50	0.69	140			
MW-13A	06/01/10	6.47	60.90	54.43	1,500	<0.50	<0.50	<0.50	<0.50	7.1			
	09/07/10		Inaccessible										
	12/08/10	5.45	60.90	55.45	2,200	0.63	< 0.50	< 0.50	< 0.50	15			
	05/26/11	6.37	60.90	54.53	840	< 0.50	< 0.50	< 0.50	< 0.50	8.3			
	12/13/11	6.59	60.90	54.31	1,500	< 0.50	< 0.50	< 0.50	< 0.50	6.8			
	07/23/12	6.68	60.90	54.22	970	< 0.50	< 0.50	< 0.50	< 0.50	2.1			
	01/02/13	4.81	60.90	56.09	970	<1.0[3]	<1.0[3]	<1.0[3]	<1.0[3]	3.7			
REMEDIATIO	N WELL												
EX-1	05/26/11	10.26	NM	NM	600	<2.5[3]	<2.5[3]	<2.5[3]	<2.5[3]	730			
	12/13/11	NM	NM	NM									
	07/23/12	NM	NM	NM									
	01/02/13			N	ot scheduled	for gauging or	sampling						

Well Number	Date Collected	Depth to Water (feet)	Top of Casing Elevation (ft msl)	Groundwater Elevation (ft msl) [1]	GRO (μg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethyl- benzene (µg/L)	Total Xylenes (µg/L)	MTBE (μg/L)
DEEPER WEL	LS				<del></del> -	<del></del>	<del></del>	(100.27	(FE/2)	
MW-5B	06/01/10	12.87	57.69	44.82	<50	< 0.50	<0.50	< 0.50	< 0.50	0.70
	09/07/10	13.28	57.69	44.41	<50	< 0.50	< 0.50	< 0.50	< 0.50	1.4
	12/08/10	13.95	57.69	43.74	<50	< 0.50	< 0.50	< 0.50	< 0.50	1.6
	05/26/11	12.51	57.69	45.18	<50	< 0.50	< 0.50	< 0.50	< 0.50	3.2
	12/13/11	11.94	57.69	45.75	<50	< 0.50	< 0.50	< 0.50	< 0.50	7.5
	07/23/12	13.06	57.69	44.63	<50	< 0.50	< 0.50	< 0.50	< 0.50	16
	01/02/13	11.01	57.69	46.68	<50	< 0.50	<0.50	<0.50	1.4	22
MW-6B	06/01/10	35.75	56.71	20.96	<50	<0.50	<0.50	<0.50	<0.50	< 0.50
	09/07/10	37.24	56.71	19.47	<50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
	12/08/10	39.82	56.71	16.89	<50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
	05/26/11	36.70	56.71	20.01	<50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
	12/13/11	39.80	56.71	16.91	<50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
	07/23/12	38.40	56.71	18.31	<50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
	01/02/13	39.22	56.71	17.49	<50	<0.50	< 0.50	< 0.50	0.65	< 0.50
MW-12B	06/01/10	37.49	62.94	25.45	<50	<0.50	<0.50	<0.50	<0.50	0.84
	09/07/10				I	naccessible				
	12/08/10	39.66	62.94	23.28	<50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
	05/26/11	34.74	62.94	28.20	<50	< 0.50	< 0.50	< 0.50	< 0.50	0.80
	12/13/11	38.91	62.94	24.03	<50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
	07/23/12	38.34	62.94	24.60	<50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
	01/02/13	39.76	62.94	23.18	<50	< 0.50	< 0.50	< 0.50	0.89	< 0.50

Foothill Mini Mart, 6600 Foothill Boulevard, Oakland, California

Well Number	Date Collected	Depth to Water (feet)	Top of Casing Elevation (ft msl)	Groundwater Elevation (ft msl) [1]	GRO (µg/L)	Benzene (µg/L)	Toluene (μg/L)	Ethyl- benzene (µg/L)	Total Xylenes (µg/L)	MTBE (µg/L)
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#### Legend/Key:

GRO = Gasoline range organics

MTBE = Methyl tertiary butyl ether

ND= "not-detected" or below the Method Detection Limits

-- = Not available/not analyzed

ft msl = feet above mean sea level

μg/L = micrograms per liter

- [2] = Laboratory reported does not match gasoline pattern.
- [3] = Reporting limits were increased due to high concentration of target analytes.

<sup>[1] =</sup> The TOC elevations reported in groundwater monitoring reports prior to second quarter 2010 are incorrect. The datum elevation adopted previously was revised on August 4, 2008 using the city of Oakland datum ('--D83). The revised TOC elevations are converted to mean sea level elevation and used to calculate all groundwater elevations.

<sup>\*</sup> The top of casing (TOC) elevations originally surveyed on June 31, 2001 used MW-1 as the common datum with assumed elevation of 100.00 feet above mean sea level (msl). All other TOC elevations were surveyed relative to MW-1. All of the wells were again surveyed per GeoTracker standard on July 11, 2003, by PLS Surveys Inc., a California licensed surveyor. All elevations are reported with respect to feet above mean sea level.

Well Number	Date	MTBE	TBA	ETBE	DIPE	TAME	Methanol	Ethanol	1,2-DCA	EDB
	Collected	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(μg/L)	(µg/L)	(µg/L)	(μg/L)
SHALLOW WE	ELLS									
MW-1	06/13/01	130								
	03/21/02	72.5								
	07/09/02	208								
	07/11/03	636								
	11/13/03	72,000	22,000							
	02/19/04	82,000	8,360							
	05/21/04	12,000	<1,000							
	08/11/05	4,900	-,							
	11/30/05	8,400								
	08/08/08	720	7.4J	<1.5	<1.5	<1.5	<300	<15	<1.5	 -1.5
	11/05/08	580	<100	<20	<20	<20	~500 	<1,000		<1.5
	02/06/09	610	120	<1.5	<1.5	<1.5	<600	<15		
	05/07/09	210	110	< 0.50	<0.50	<0.50	<150	<5.0		
	06/01/10	170	200	<1.0	<1.0	<1.0	<50			
	09/07/10	170	200	~1.0		1.0 eduled for Sa		<5.0		
	12/08/10	300	110	<1.0	<1.0	<1.0		-5.0		
	05/26/11	100	81	<1.0	<1.0	<1.0 <1.0	<50	<5.0		
	12/13/11	23	<10	<1.0			<50	<5.0		
	07/23/12	37	<10		<1.0	<1.0	<50	<5.0		
	01/02/13	11		<1.0	<1.0	<1.0	<50	<5.0		
	01/02/13	11	<10	<1.0	<1.0	<1.0	<50	<5.0		
MW-2	06/13/01	94,000	980							
	03/21/02	79,100								
	07/09/02	37,600								
	07/11/03	38,200								
	11/13/03	47,000	11,000							
	02/19/04	26,700	3,930							
	05/21/04	24,600	<4,000							
	08/11/05	6,500								
	11/30/05	2,300								
	08/08/08	9.8	17,000	<9.0	<9.0	<9.0	<900	<90	<9.0	<9.0
	11/05/08	12	13,000	<2.0	<2.0	<2.0		<100		
	02/06/09	10	11,000	<4.0	<4.0	<4.0	<400	<40		
	05/07/09	9.7	12,000	<4.0	<4.0	<4.0	<400	<40		
	06/01/10	69	7,300	<10 [1]	<10 [1]	<10 [1]	<50	<5.0		
	09/07/10	0,5	7,500	-10[1]		eduled for Sa		<b>\</b> 3.0	••	
	12/08/10	21	9,900	<10 [1]	<10 [1]	<10 [1]		<5.0		
	05/26/11	27	5,400	<5.0[1]	<5.0[1]	<5.0[1]	<50	<5.0 <5.0		
	12/13/11	22	840	<1.0	<1.0	<1.0	<50			
	07/23/12	3.7	510	<1.0	<1.0	<1.0		<5.0		
	01/02/13	5.9	950	<1.0	<1.0		<50	<5.0	-	
	01/02/13	3.7	730	~1.0	~1.0	<1.0	<50	<5.0		

Well Number	Date	MTBE	TBA	ETBE	DIPE	TAME	Methanol	Ethanol	1,2-DCA	EDB
	Collected	(µg/L)	(µg/L)	(μg/L)	(µg/L)	(µg/L)	(µg/L)	(μg/L)	(μg/L)	(µg/L)
MW-3	06/13/01	450								
	03/21/02	7,520								
	07/09/02	40.8								
	07/11/03	24.3								
	11/13/03	37	27							
	02/19/04	42.7	508							
	05/21/04	54	1,100							
	08/11/05	27								
	11/30/05	28								
	08/08/08	4.5	130	< 0.50	< 0.50	< 0.50	<80	<5.0	< 0.50	< 0.50
	11/05/08	4.5	500	< 2.0	< 2.0	<2.0		<100		
	02/06/09	5.3	770	< 0.50	< 0.50	< 0.50	<100	<5.0		
	05/07/09	5.5	900	< 0.50	< 0.50	< 0.50	<50	<5.0		
	06/01/10	5.1	36	<1.0	<1.0	<1.0	<50	<5.0		
	09/07/10				Not Sch	eduled for Sa				
	12/08/10	6.6	680	<1.0	<1.0	<1.0	<50	< 5.0		
	05/26/11	4.9	590	<1.0	<1.0	<1.0	<50	<5.0		
	12/13/11	3.3	<10	<1.0	<1.0	<1.0	<50	<5.0		
	07/23/12	4.5	14	<1.0	<1.0	<1.0	<50	<5.0		
	01/02/13	3.0	440	<1.0	<1.0	<1.0	<50	<5.0		
MW-4	07/09/02	28,300					••			
	07/11/03	16,600								
	11/13/03	16,000	4,500							
	02/19/04	14,300	1,440							~~
	05/21/04	7,380	<2,000							
	08/11/05	1,200								
	11/30/05	340		••						
	08/08/08	24	1,800	< 0.50	< 0.50	< 0.50	< <b>8</b> 0	<5.0	<0.50	-0.50
	11/05/08	31	760	<2.0	<2.0	<2.0		<100		<0.50
	02/06/09	39	1,400	< 0.50	< 0.50	<0.50	<200	<5.0		
	05/07/09	29	1,000	< 0.50	< 0.50	< 0.50	<200			
	06/01/10	9.4	900	<2.0 [1]	<2.0 [1]			<5.0		
	09/07/10	7.7	700	~2.0 [1]		<2.0 [1]	<50	<5.0		
	12/08/10	7.6	940	<2.0 [1]		eduled for Sa		-5.0		
	05/26/11	3.7	1,400	<5.0[1]	<2.0 [1]	<2.0 [1]	<50	<5.0		
	12/13/11	8.2	1,400		<5.0[1]	<5.0[1]	<50	<5.0		
	07/23/12	8.2 4.7		<1.0	<1.0	<1.0	<50	<5.0		
	01/02/13	2.0	2,400	<2.0 [1]	<2.0 [1]	<2.0 [1]	<50	<5.0		
	01/02/13	2.0	1,200	<1.0	<1.0	<1.0	<50	<5.0		

Foothill Mini Mart, 6600 Foothill Boulevard, Oakland, California

Well Number	Date	MTBE	TBA	ETBE	DIPE	TAME	Methanol	Ethanol	1,2-DCA	EDB
	Collected	(µg/L)	(µg/L)	(µg/L)	(μg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(μg/L)
MW-5	07/09/02	18,600								
	07/11/03	5,090								
	11/13/03	3,400	3,100							
	02/19/04	438	1,340							
	05/21/04	214	436							
	08/11/05	100								
	11/30/05	82								
	08/08/08	8.6	510	< 0.50	< 0.50	< 0.50	< 50	<5.0	< 0.50	< 0.50
	11/05/08	4.8	170	< 2.0	< 2.0	< 2.0		<100		
	02/06/09	5.5	110	< 0.50	< 0.50	< 0.50	<200	< 5.0		
	05/07/09	4.3	60	< 0.50	< 0.50	< 0.50	< 50	<5.0		
	06/01/10	4.3	570	<1.0	<1.0	<1.0	<50	< 5.0		
	09/07/10				Not Scho	eduled for Sa				
	12/08/10	5.9	1,300	<1.0	<1.0	<1.0	<50	<5.0		
	05/26/11	3.5	1,300	<2.0[1]	<2.0[1]	<2.0[1]	< 50	<5.0		~-
	12/13/11	2.8	2,800	<2.0[1]	<2.0[1]	<2.0[1]	<50	< 5.0		
	07/23/12	2.5	1,400	<1.0	<1.0	<1.0	<50	< 5.0		
	01/02/13	3.0	3,900	<2.0[1]	<2.0[1]	<2.0[1]	<50	<5.0		
MW-6	07/09/02	11,300								
	07/11/03	18,000								
	11/13/03	18,000	ND							
	02/19/04	5,310	4,260							
	05/21/04	3,900	4,060							
	08/11/05	3,200								
	11/30/05	3,400								
	08/08/08	230	810	< 0.50	< 0.50	< 0.66	<200	<8.0	< 0.50	< 0.50
	11/05/08	340	950	<10	<10	<10		<500		
	02/06/09	140	690	< 0.50	< 0.50	< 0.50	<200	<5.0		
	05/07/09	150	460	< 0.50	< 0.50	< 0.50	<100	<5.0		
	06/01/10	350	770	<5.0 [1]	<5.0 [1]	<5.0 [1]	<50	<5.0		
	09/07/10					duled for Sa		2.0		·
	12/08/10	420	890	<2.0 [1]	<2.0 [1]	<2.0 [1]	< <b>5</b> 0	<5.0		
	05/26/11	230	640	<2.0[1]	<2.0[1]	<2.0[1]	<50	<5.0		
	12/13/11	400	1,200	<5.0[1]	<5.0[1]	<5.0[1]	<50	<5.0		
	07/23/12	320	1,200	<3.0[1]	<3.0[1]	21	<50	<5.0		
	01/02/13	360	1,300	<5.0[1]	<5.0[1]	<5.0[1]	<50	<5.0		

Stratus

Well Number	Date	MTBE	TBA	ETBE	DIPE	TAME	Methanol	Ethanol	1,2-DCA	EDB
	Collected	(µg/L)	(μg/L)	(µg/L)	(µg/L)	(µg/L)	(μg/L)	(µg/L)	(μg/L)	(μg/L)
MW-7	06/01/10	22	18	<1.0	~1.0	<b>~1.0</b>	-50			
141 44 - 7	09/07/10	17	<10	<1.0	<1.0	<1.0	<50	<5.0		
	12/08/10	7.6	<10	<1.0	<1.0	<1.0	<50	<5.0		
	05/26/11	2.8	<10	<1.0	<1.0	<1.0	<50	< 5.0		
	12/13/11	9.6	<10	<1.0	<1.0 <1.0	<1.0	<50	<5.0		
	07/23/12	6.7	<10	<1.0	<1.0	<1.0	<50	<5.0		
	01/02/13	5.0	<10	<1.0	<1.0	<1.0 <1.0	<50	<5.0		
	01/02/15	3.0	10	~1.0	<b>\1.0</b>	<1.0	<50	<5.0		
MW-10	06/01/10	< 0.50	<10	<1.0	<1.0	<1.0	<50	<5.0		
	09/07/10	< 0.50	<10	<1.0	<1.0	<1.0	< 50	< 5.0		
	12/08/10	< 0.50	<10	<1.0	<1.0	<1.0	< 50	<5.0		
	05/26/11	< 0.50	<10	<1.0	<1.0	<1.0	< 50	<5.0		
	12/13/11	< 0.50	<10	<1.0	<1.0	<1.0	<50	< 5.0		
	07/23/12	< 0.50	<10	<1.0	<1.0	<1.0	< 50	<5.0		
	01/02/13	< 0.50	<10	<1.0	<1.0	<1.0	<50	<5.0		
MW-11	06/01/10	6.7	<10	<1.0	-1.0	41.0	450			
171 77 - 11	09/07/10	98	<10	<1.0	<1.0 <1.0	<1.0	<50	<5.0		
	12/08/10	96	<10	<1.0	<1.0	<1.0 <1.0	<50	<5.0		
	05/26/11	17	<10	<1.0	<1.0	<1.0	<50	<5.0		
	12/13/11	< 0.50	<10	<1.0	<1.0	<1.0	<50 <50	<5.0		
	07/23/12	1.6	<10	<1.0	<1.0	<1.0	<50 <50	<5.0		
	01/02/13	1.6	<10	<1.0	<1.0	<1.0	<50	<5.0		
	51/0=/15	1.0	110	1.0	1.0	<b>\1.0</b>	<b>\</b> 30	<5.0		
MW-12A	06/01/10	260	<10	<1.0	<1.0	<1.0	<50	<5.0		
	09/07/10				]	Inaccessible				
	12/08/10	300	<10	<1.0	<1.0	<1.0	<50	< 5.0		
	05/26/11	250	<10	<1.0	<1.0	<1.0	<50	<5.0		
	12/13/11	420	66	<1.0	<1.0	<1.0	<50	< 5.0		
	07/23/12	260	90	<1.0	<1.0	<1.0	<50	<5.0		
	01/02/13	140	<10	<1.0	<1.0	<1.0	<50	<5.0		
MW-13A	06/01/10	7.1	33	<1.0	<1.0	<1.0	~E0	-5.0		
1.111 1311	09/07/10	7.1	33	~1.0			<50	<5.0		
		1.5				naccessible				
	12/08/10	15	61	<1.0	<1.0	<1.0	<50	<5.0		
	05/26/11	8.3	33	<1.0	<1.0	<1.0	<50	<5.0		
	12/13/11	6.8	27	<1.0	<1.0	<1.0	<50	< 5.0		
	07/23/12	2.1	12	<1.0	<1.0	<1.0	<50	<5.0		
	01/02/13	3.7	26	<2.0[1]	<2.0[1]	<2.0[1]	<50	<5.0		••
REMEDIATION	WELL									
EX-1	05/26/11	730	6,700	<b>∠5</b> Ω[1]	∠5 0F17	/E 0[17	-20			
121-1		730	0,700	<5.0[1]	<5.0[1]	<5.0[1]	<50	<5.0		
	12/13/11									
	07/23/12									
	01/02/13				Not sche	duled for san	noline			

Foothill Mini Mart, 6600 Foothill Boulevard, Oakland, California

Well Number	Date	MTBE	TBA	ETBE	DIPE	TAME	Methanol	Ethanol	1,2-DCA	EDB
Well Number	Collected	(μg/L)	(µg/L)	(µg/L)	(μg/L)	(µg/L)	(µg/L)	(µg/L)	(μg/L)	(μg/L)
DEEPER WELI	LS									
MW-5B	06/01/10	0.70	-10	-1.0	-1.0					
1V1 W - 3D		0.70	<10	<1.0	<1.0	<1.0	<50	<5.0		
	09/07/10	1.4	<10	<1.0	<1.0	<1.0	<50	<5.0		[
	12/08/10	1.6	<10	<1.0	<1.0	<1.0	<50	<5.0		
ĺ	05/26/11	3.2	<10	<1.0	<1.0	<1.0	<50	<5.0		
	12/13/11	7.5	<10	<1.0	<1.0	<1.0	<50	<5.0		
	07/23/12	16	<10	<1.0	<1.0	<1.0	<50	< 5.0		
	01/02/13	22	<10	<1.0	<1.0	<1.0	<50	<5.0		
MW-6B	06/01/10	< 0.50	<10	<1.0	<1.0	<1.0	<50	<5.0		
	09/07/10	< 0.50	<10	<1.0	<1.0	<1.0	<50	<5.0		
	12/08/10	< 0.50	<10	<1.0	<1.0	<1.0	<50	<5.0		
	05/26/11	< 0.50	<10	<1.0	<1.0	<1.0	<50	<5.0		
	12/13/11	< 0.50	<10	<1.0	<1.0	<1.0	<50	<5.0		
	07/23/12	< 0.50	<10	<1.0	<1.0.	<1.0	<50	< 5.0		
	01/02/13	< 0.50	<10	<1.0	<1.0	<1.0	<50	<5.0		
MW-12B	06/01/10	0.84	<10	<1.0	<1.0	<1.0	<50	<5.0		
	09/07/10					naccessible		3.0		
	12/08/10	<50	<10	<1.0	<1.0	<1.0	<50	<5.0		
	05/26/11	0.80	<10	<1.0	<1.0	<1.0	<50	<5.0		
	12/13/11	< 0.50	<10	<1.0	<1.0	<1.0	<50	<5.0		
, i	07/23/12	< 0.50	<10	<1.0	<1.0	<1.0	<50	<5.0		
	01/02/13	<0.50	<10	<1.0	<1.0	<1.0	<50	<5.0		

#### Legend/Key:

MTBE = Methyl tertiary butyl ether

TBA = Tertiary butyl alcohol

DIPE = Di-isopropyl ether

ETBE = Ethyl tertiary butyl ether

TAME = Tertiary amyl methyl ether

1,2-DCA = 1,2-Dichloroethane

EDB = 1,2-Dibromoethane

ND= "not-detected" or below the Method Detection Limits

--= Not available/not analyzed

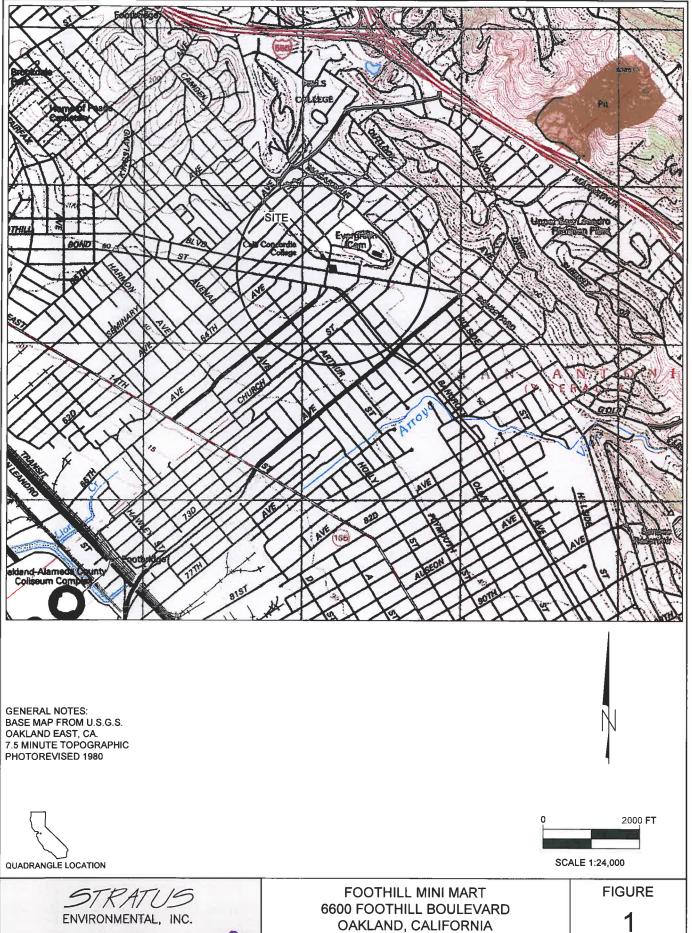
mg/L = micrograms per liter

<sup>[1] =</sup> Reporting limits were increased due to high concentration of target analytes.

# TABLE 3 WELL CONSTRUCTION DETAIL SUMMARY Foothill Mini Mart, 6600 Foothill Boulevard, Oakland, California

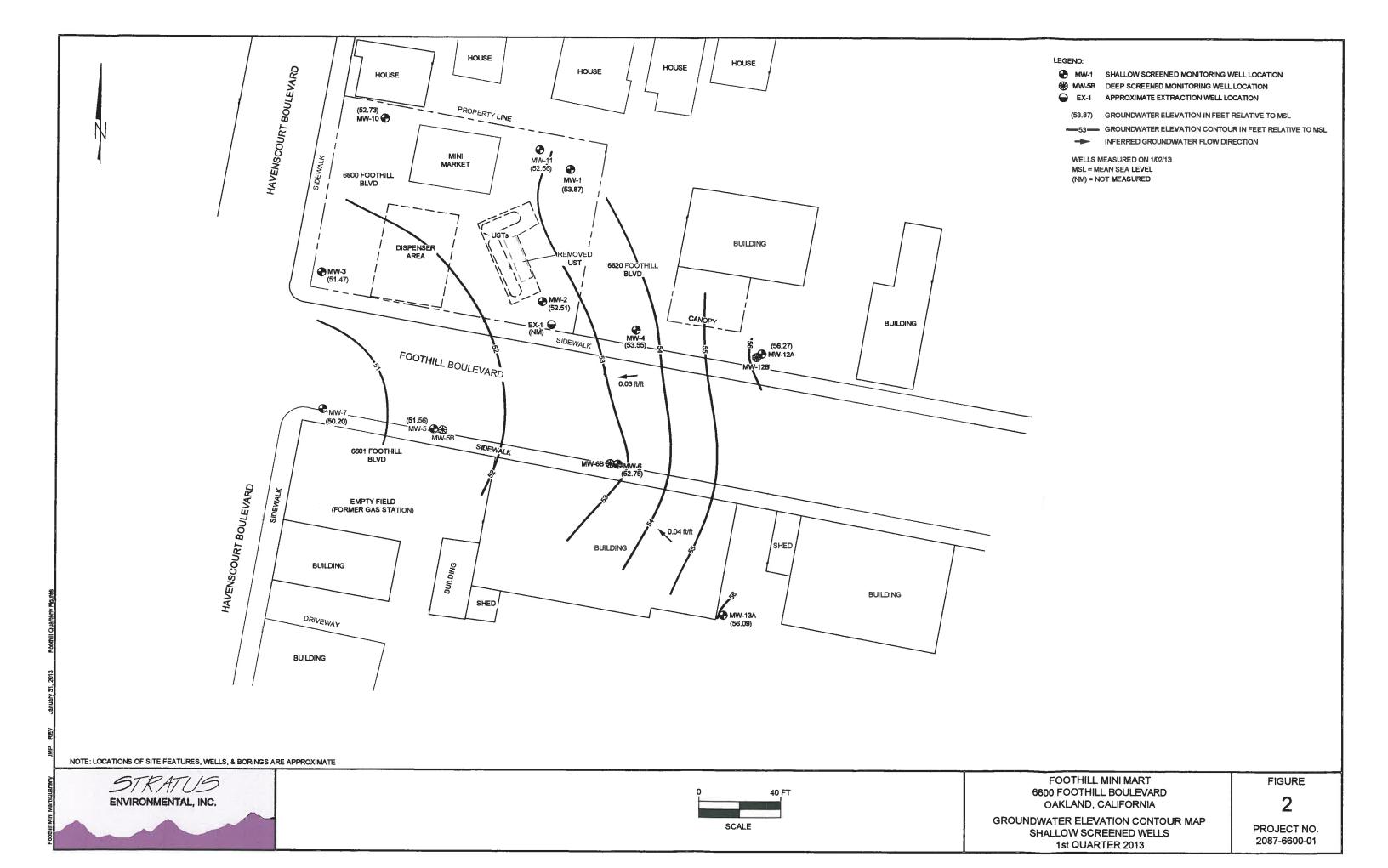
Boring/Well I.D.	Date Installed	Boring Depth (feet)	Boring Diameter (inches)	Well Diameter (inches)	Well Depth (feet)	Screen Interval (feet bgs)	Slot Size (inches)	Drilling Method
Shallow Ground	water Monitor	ring Wells						
MW-1	06/04/01	25	8	2	25	10-25	0.01	HSA
MW-2	06/04/01	25	8	2	25	10-25	0.01	HSA
MW-3	06/04/01	25	8	2	25	10-25	0.01	HSA
MW-4	06/26/02	20	8	2	20	7.5-20	0.01	HSA
MW-5	06/26/02	20	8	2	20	7.5-20	0.01	HSA
MW-6	06/26/02	20	8	2	20	7.5-20	0.01	HSA
MW-7	09/23/09	25	8	2	25	10-25	0.01	HSA
MW-10	09/22/09	25	8	2	25	15-25	0.01	HSA
MW-11	09/23/09	25	8	2	25	10-25	0.01	HSA
MW-12A	09/22/09	25	8	2	25	10-25	0.01	HSA
MW-13A	09/24/09	25	8	2	25	525	0.01	HSA
Deeper Groundw	ater Monitori	ng Wells						
MW-5B	09/23/09	45	8	2	45	35-45	0.01	HSA
MW-6B	09/24/09	50	8	2	50	35-50	0.01	HSA
MW-12B	09/22/09	43	8	2	43	33-43	0.01	HSA
Remediation We	lls							
EX-1	04/04/11	30	10	4	30	10-30	0.02	HSA
IW-1A/B	04/06/11	28	8	1	21.5	20.5-21.5	0.02	HSA
				1	27	25-27	microporous	11511
IW-2A/B	04/06/11	28	8	1	21.5	20.5-21.5	0.02	HSA
				1	27	25-27	microporous	11011
Soil Gas Monitor	ing Wells							
SGW-1	04/06/11	2.5	6	0.25	2.5	2.2.5	1	hand
		۵.3	υ	0.23	2.5	2-2.5	mesh	digging hand
SGW-2	04/07/11	1.5	6	0.25	1.5	1-1.5	mesh	digging
Notes: HSA = hollow ste	m auger	<del></del>	<del></del>					

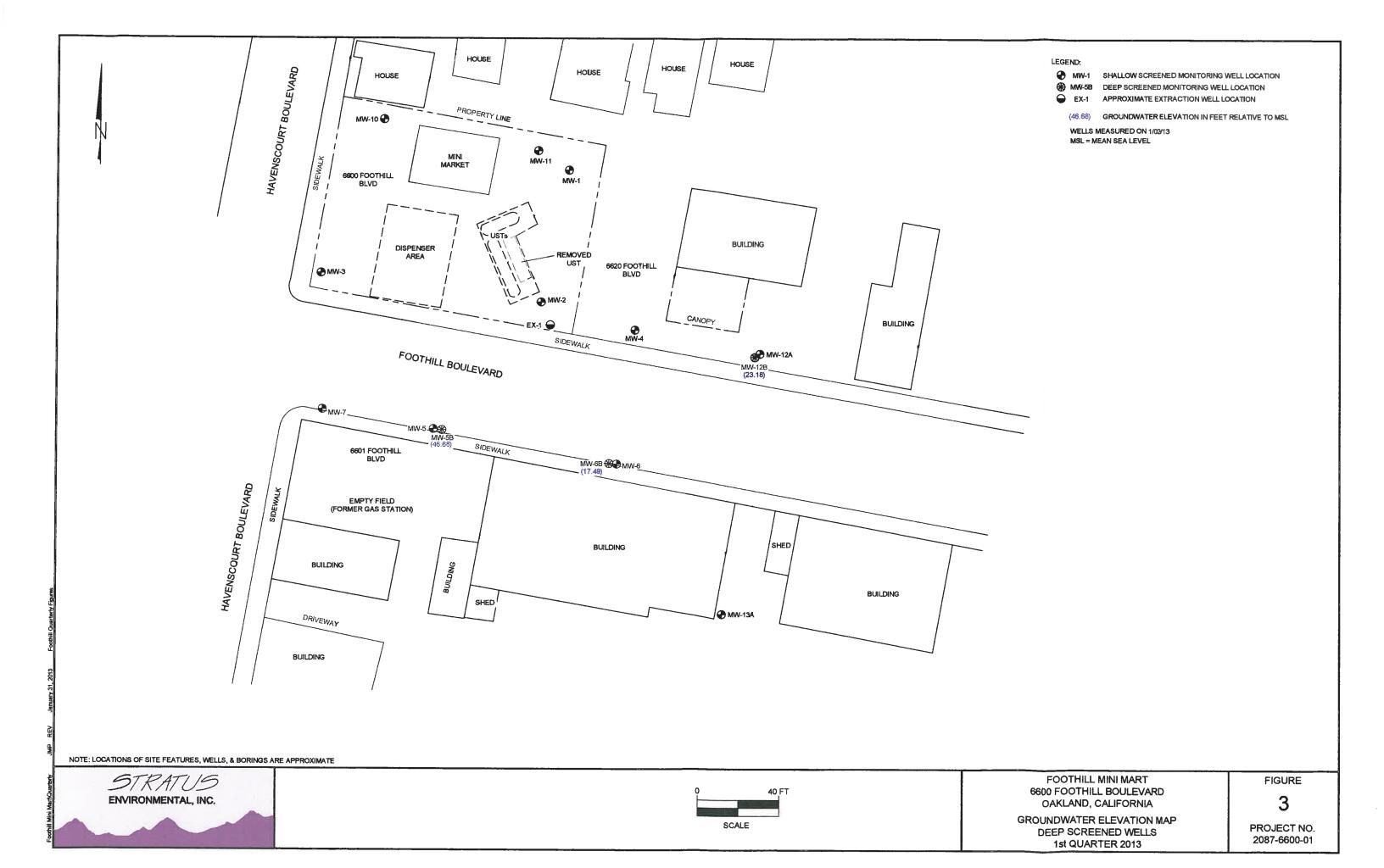
foothill\_quarterly\_data

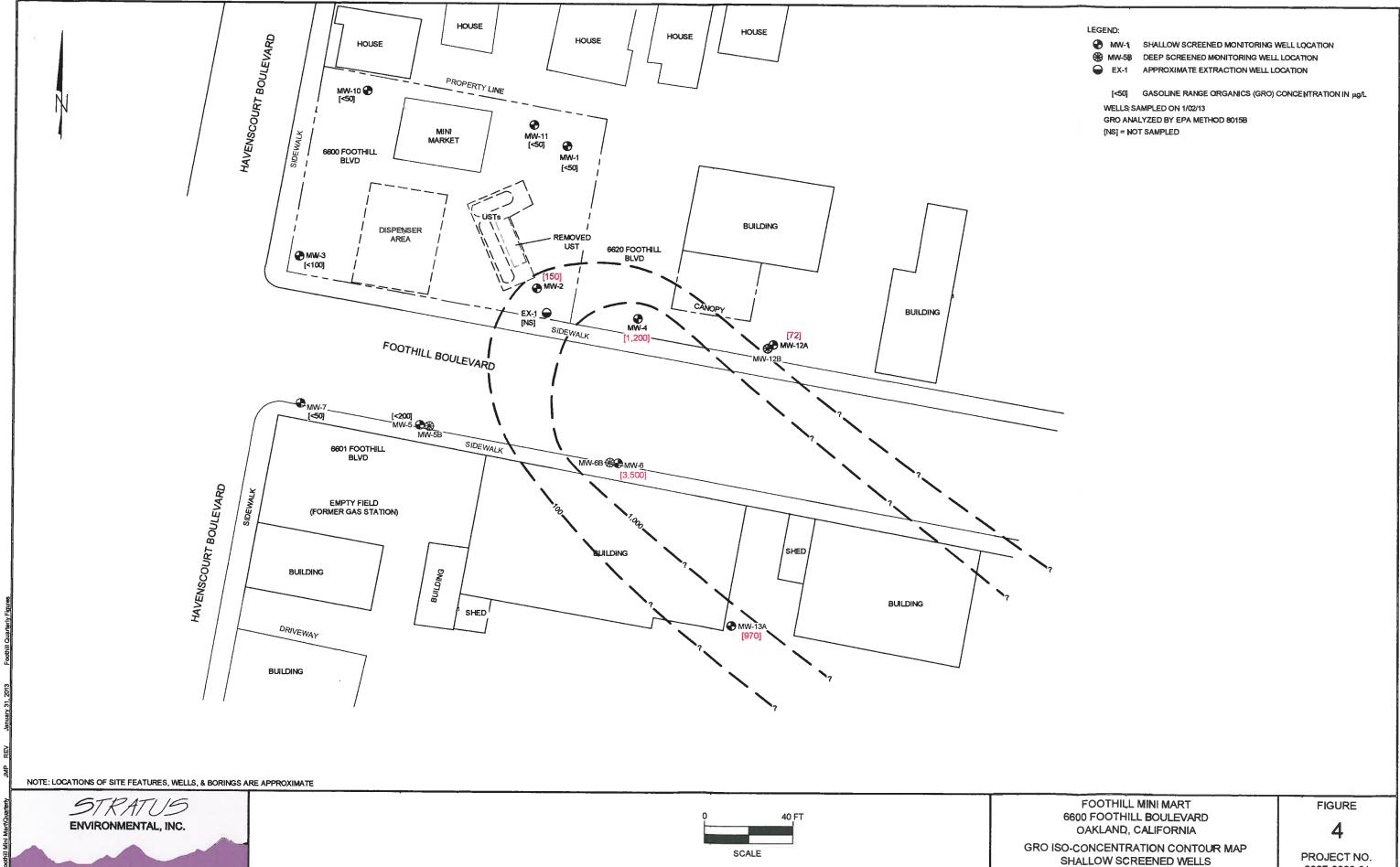


SITE LOCATION MAP

1 PROJECT NO. 2087-6600-01

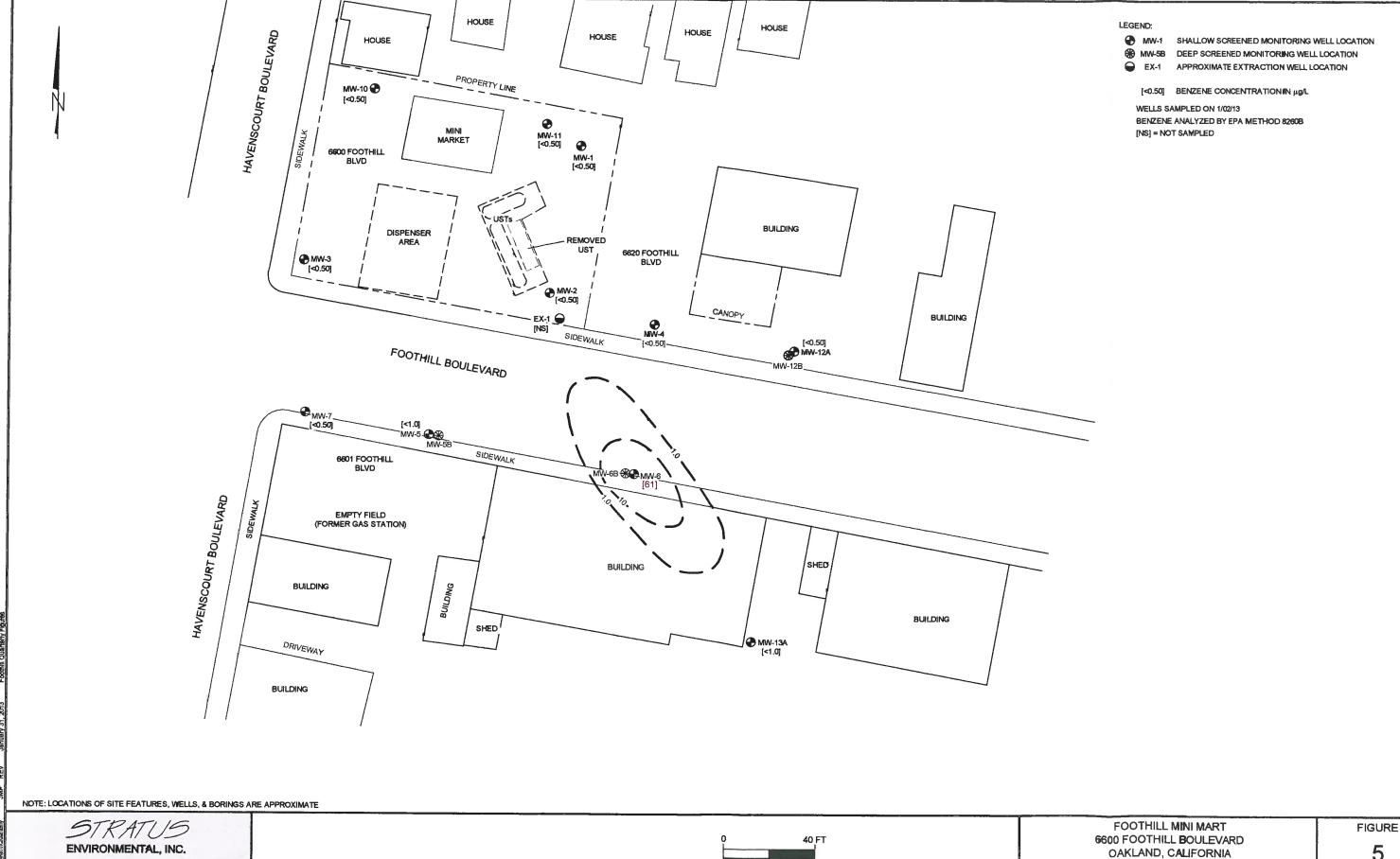






2087-6600-01

1st QUARTER 2013



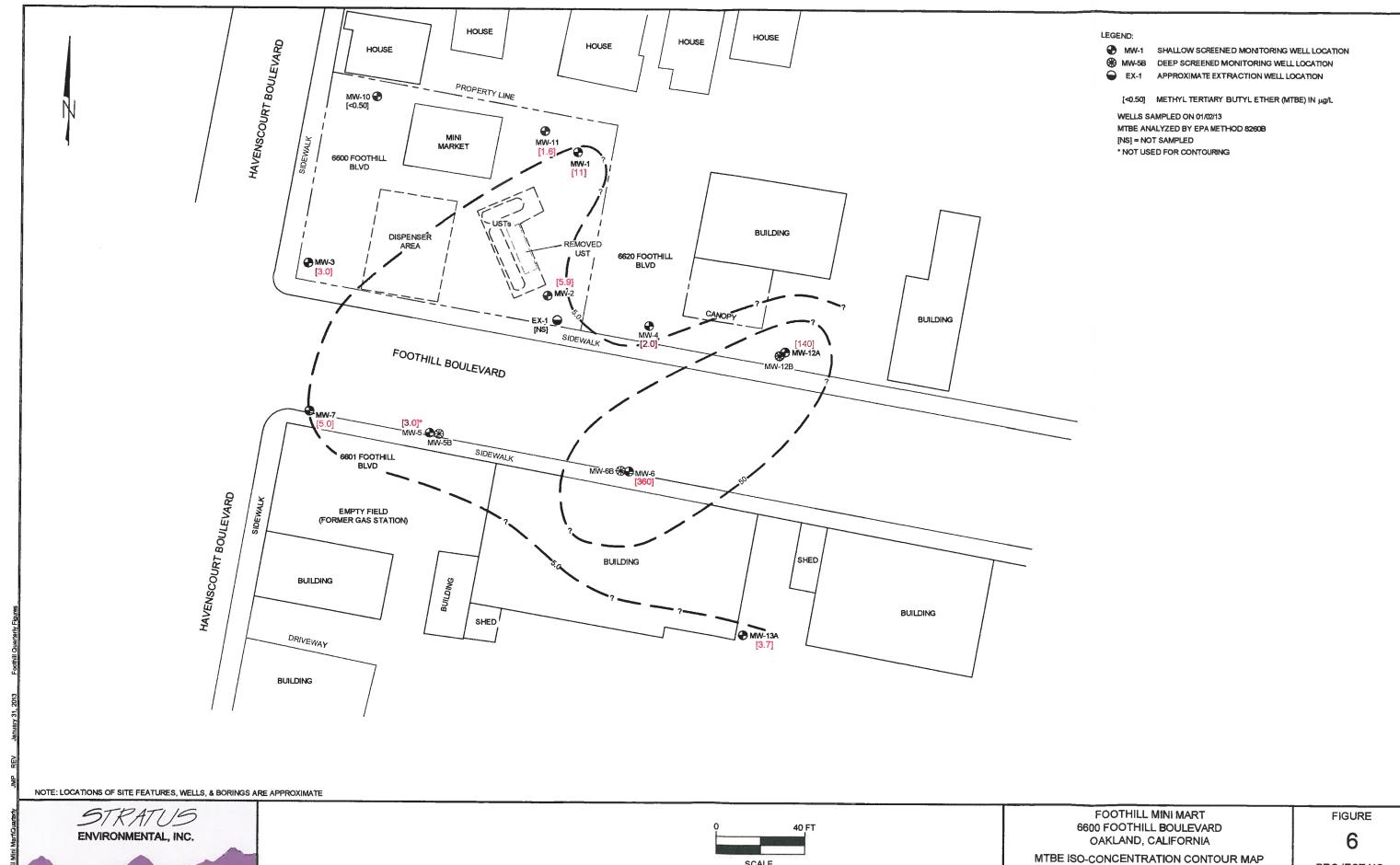
**FIGURE** 

BENZENE ISO-CONCENTRATION CONTOUR MAP

SHALLOW SCREENED WELLS

1st QUARTER 2013

PROJECT NO. 2087-6600-01

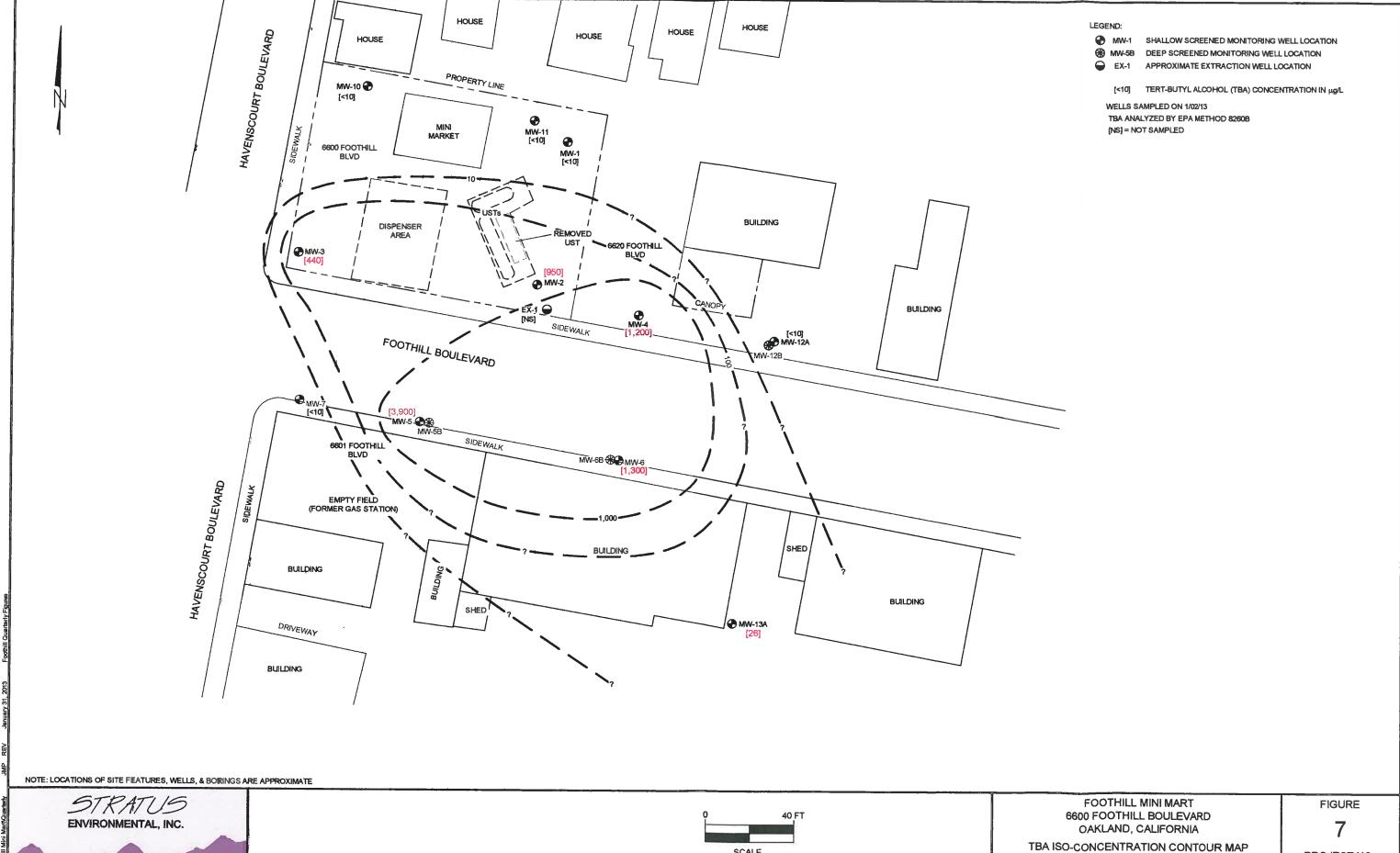


**SCALE** 

PROJECT NO. 2087-6600-01

SHALLOW SCREENED WELLS

1st QUARTER 2013



SCALE

SHALLOW SCREENED WELLS

1st QUARTER 2013

PROJECT NO. 2087-6600-01



PROJECT NO. 2087-6600-01

DEEP SCREENED WELLS

1st QUARTER 2013

# APPENDIX A FIELD DATA SHEETS



Site Address_	6600 Foothill Blvd	
City_	Oakland	_
Sampled by:	Carl Schulze	_
Signature		

Site Number_	Foothill Mini Mart	
Project Number	2087-6600-01	
Project PM_	Scott Bittinger	
DATE	01/02/13	



	W	ater Level D	Data			Purge V	olume Cal	culations			Purge	Metho	d		ample Reco		Piald Dat
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		Pump		DTW at sample time (feet)	Sample I.D	Sample Time	DO (mg/L)
AWA	1517		6.15	24.15	18.00	5 "	0.5	9	9					12.70	mv-1	1600	3.37
3-wm.	1726		6.23	24.02	17.79	٤"	0.5	9	٩					16.64	MW-2	1749	482
MW-3	1827		8.47	23.58	14.61	۷,	0.5	7	7					4.23	AV-3	1700	
MW-4	1307		4.64	17.93	13.29	۲"	0.5	6.5	6.5					5.66	MW-4	1355	2.38 3.56
MW-5	0535		6. 24	19.36	51.87	211	c 3	6.5	6.5					6.95	mw-5		3.97
MW-58	0337		11.01	45.13	34.12	5"	03	17	17	_				32.56	MV-58	6725	6.45
mw-P	1018		4.26	18 62	14.36	2"	c.2	7	7					1.70	WM-F	1043	3.17
WM-PB	2957		\$9.22	el des	10.66	2"	0.5	5	5			$\vdash$		13.61	10-6B	1030	4.1\
MW-7	0749		છુ,વા	24.69	16.22	7 3	0.5	8	3					19.15	AW-7	0312	3.10
AW-10	1628		9.16	24.40	15.74	2"	0.5	7.5	7.5				-	17.36		1710	
WM-11	1545		8.41	24.71	16.30	۷"	6 · Ĵ	8	8			-		10.14	= MW-10	1610	7.57
MW-IZA	1340		6.7(	21.48	14.77	۲"	0.5	7	7					11.47	mw-11	1411	2.87
MW-IZB	1304		39.76	43.30	3.54	۲"	0.5	1.5	1.5			_	$\neg$	41.61	MW-124	1403	3. 27
MW-13A	1107		4.81	24.87	20.06	z "	0.5	10	10					9,55	mw-12B	1123	2.56
												- 1-					
							•			-	$\dashv$	$\dashv$	-+				
								la.				$\Box$	$\Box$				
								* * * *		+	$\dashv$	_	-			-	
										_	$\rightarrow$	$\rightarrow$					

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	
рН		
Conductivity		
DO		



Site Address <u>5 6600 Foothill Blvd</u>

City Oakland

Sampled By: Corl Schulze Signature Site Number Foothill Mini Mart
Project Number 2087-6600-01
Project PM Scott Bittinger
DATE 01/02/13

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Site Address :6600 Foothill-Blvd

City Oakland.

Sampled By: Cos\
Signature C

Site Number Foothill Mini Mart

Project Number 2087-6600-01

Project PM Scott Bittinger

DATE DATE DI/OZ/J3

Well ID											
W 2 126						Well ID MW-1					
Purge start time			Odor	Y 69	Purg	Purge start time			Odor	Y 🚱	
	Temp C	pH	cond	gallons			Temp C	рН	cond	gallons	
time 1336	(2.8	7.07	621 p	0	time	1525	18.(	662	5214	0	
time 140 ≤	18.2	7.13	230pm	1.5	time	1531	17.4	6.25	503p	3	
time	ļ	`.			time	1342	18.6	6.37	516	L	
time					time	1600	17.9	6.40	513	9	
purge stop time のこ 3.27			ORP	6	purge stop time 96 3.37			ORP	47		
Well ID Mu		Well ID MW-3				· - <del></del>					
Purge start time			Odor	Y 🚱	Purge start time			Odor	YN		
	Temp C	pН	cond	gallons			Temp C	рН	cond	gallons	
time 1547	17.5	6.20	762 pc	0	time	1637	19.5	6 54	4842	o	
time 1554	17. 7	6.19	854 h	ч	time	1692	19.6	655	501 p	3	
time 1616	17.5	6.36	787 pc	E	time	1700	18.6	6.41	489/	7	
time			,		time				<u> </u>		
purge stop time 00 2.87			ORP	57	purge	stop time	<u> 00 7.</u>	3.9	ORP	61	
Well ID MW-10					Well ID MW-Z						
Purge start time ~~ 10			Odor	YN	Purge	Purge start time			Odor	Y N	
	Temp C	рН	cond	gallons			Temp C	рН	cond	gallons	
time 1650	17.3	6.64	SZYM	6	time	1733	8.81	6.53	736 pc	٥	
time 1654	17.5	6.60	475 pc	3	time	1738	19.0	6.57	712 pc	Š	
ime 1710	16.5	6.67	525 pc	7.5	time	1741	19.0	6.53	737m	6	
ime					time	1749	18.3	6.33	725µ	9	
ourge stop time 30 7.57		ORP	70	purge	stop time	00	1.8z	ORP 6			
Well ID					Well I	Well ID					
ourge start time			Odor	Purge	urge start time			Odor	YN		
	Temp C	рН	cond	gallons			Temp C	рН	cond	gallons	
ime		H.			lime					33110	
me					lime						
me					lime						
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urge stop time \			ORP		purge :	rurge stop time				ORP	
			· · · · · <del>- · · · · · · · · · · · · · ·</del>				JAP .				

# 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

# 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 typical 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 Tesson 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 Teslon 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 accruing 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, nonconforments, 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<sup>©</sup> 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 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<sup>®</sup> sheeting and plastic caps. The sample is then placed in a Ziploc<sup>®</sup> 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 Califomia-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

#### 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 bonles, 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 1percent 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

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

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 Equipment blanks will be collected and analyzed from non-disposable sampling equipment that is used for collecting groundwater samples at the rate of one

## 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

### - 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
- 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
- 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

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, 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 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



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: 01/04/13

Job: 2

2087-6600-01/Foothill Mini Mart

## GC/MSD by Direct Injection EPA Method SW8260B-DI

	Parameter	Concentration	Reporting Limit	Date Extracted	Date Analyzed
Client ID: MW-1					1 HILLY EVU
Lab ID: STR13010445-01A	Methanol	ND	50 μg/L	01/09/13	01/09/13
Date Sampled 01/02/13 16:00	-	ND	50 μg/L 5.0 μg/L	01/09/13	01/09/13
Client ID: MW-2			, •		
Lab ID: STR13010445-02A	Methanol	ND	50 μg/L	01/09/13	01/09/13
Date Sampled 01/02/13 17:49	Ethanol	ND	5.0 μg/L	01/09/13	01/09/13
Client ID: MW-3					
Lab ID: STR13010445-03A	Methanol	ND	50 μg/L	01/09/13	01/09/13
Date Sampled 01/02/13 17:00	Ethanol	ND	5.0 μg/L	01/09/13	01/09/13
Client ID: MW-4					
Lab ID: STR13010445-04A	Methanol	ND	50 μg/L	01/09/13	01/09/13
Date Sampled 01/02/13 13:55	Ethanol	ND	5.0 μg/L	01/09/13	01/09/13
Client ID: MW-5					
Lab ID: STR13010445-05A	Methanol	ND	50 μg/L	01/09/13	01/09/13
Date Sampled 01/02/13 09:25	Ethanol	ND	5.0 μg/L	01/09/13	01/09/13
Client ID: MW-5B					
Lab ID: STR13010445-06A	Methanol	ND	50 μg/L	01/09/13	01/09/13
Date Sampled 01/02/13 09:42	Ethanol	ND	5.0 μg/L	01/09/13	01/09/13
Client ID: MW-6					
Lab ID: STR13010445-07A	Methanol	ND	50 μg/L	01/09/13	01/09/13
Date Sampled 01/02/13 10:43	Ethanol	ND	5.0 μg/L	01/09/13	01/09/13
Client ID: MW-6B					
Lab ID: STR13010445-08A	Methanol	ND	50 μg/L	01/09/13	01/09/13
Date Sampled 01/02/13 10:30	Ethanol	ND	5.0 μg/L	01/09/13	01/09/13
Client ID: MW-7					
Lab ID: STR13010445-09A	Methanol	ND	50 μg/L	01/09/13	01/09/13
Date Sampled 01/02/13 08:12	Ethanol	ND	5.0 μg/L	01/09/13	01/09/13
Client ID: MW-10					
Lab ID: STR13010445-10A	Methanol	ND	50 μg/L	01/09/13	01/09/13
Date Sampled 01/02/13 17:10	Ethanol	ND	5.0 μg/L	01/09/13	01/09/13
Client ID: MW-11					
Lab ID: STR13010445-11A	Methanol	ND	50 μg/L	01/09/13	01/09/13
Date Sampled 01/02/13 16:10	Ethanol	ND	5.0 μg/L	01/09/13	01/09/13



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Client ID: MW-12A					
Lab ID: STR13010445-12A	Methanol	ND	50 μg/L	01/09/13	01/09/13
Date Sampled 01/02/13 14:11	Ethanol	ND	5.0 μg/L	01/09/13	01/09/13
Client ID: MW-12B					
Lab ID: STR13010445-13A	Methanol	ND	50 μg/L	01/09/13	01/09/13
Date Sampled 01/02/13 14:03	Ethanol	ND	5.0 μg/L	01/09/13	01/09/13
Client ID: MW-13A					
Lab ID: STR13010445-14A	Methanol	ND	50 μg/L	01/09/13	01/09/13
Date Sampled 01/02/13 11:23	Ethanol	ND	5.0 μg/L	01/09/13	01/09/13

ND = Not Detected

Roger Scholl

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.

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1/11/13 Report Date



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#### **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: 01/04/13

Job:

2087-6600-01/Foothill Mini Mart

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

		Parameter	Concentratio	n	Reporting	Date	Date
Client ID:	MW-I				Limit	Extracted	Analyzed
Lab ID:	STR13010445-01A	TPH-P (GRO)	ND		50 μg/L	01/07/13	01/07/13
Date Sampled	01/02/13 16:00	Tertiary Butyl Alcohol (TBA)	ND		10 μg/L	01/07/13	01/07/13
		Methyl tert-butyl ether (MTBE)	11		0.50 μg/L	01/07/13	01/07/13
		Di-isopropyl Ether (DIPE)	ND		1.0 μg/L	01/07/13	01/07/13
		Ethyl Tertiary Butyl Ether (ETBE)	ND		1.0 μg/L	01/07/13	01/07/13
		Benzene	ND		0.50 μg/L	01/07/13	01/07/13
		Tertiary Amyl Methyl Ether (TAME)	ND		1.0 μg/L	01/07/13	01/07/13
		Toluene	ND		0.50 μg/L	01/07/13	01/07/13
		Ethylbenzene	ND		0.50 μg/L	01/07/13	01/07/13
		m,p-Xylene	0.58		0.50 μg/L	01/07/13	01/07/13
		o-Xylene	ND		0.50 μg/L	01/07/13	01/07/13
Client ID:	MW-2				0.00 FB 2	01/01/15	01/07/15
Lab ID:	STR13010445-02A	TPH-P (GRO)	150		50 μg/L	01/07/13	01/07/13
Date Sampled	01/02/13 17:49	Tertiary Butyl Alcohol (TBA)	950		10 μg/L	01/07/13	01/07/13
		Methyl tert-butyl ether (MTBE)	5.9		0.50 μg/L	01/07/13	01/07/13
		Di-isopropyl Ether (DIPE)	ND		1.0 μg/L	01/07/13	01/07/13
		Ethyl Tertiary Butyl Ether (ETBE)	ND		1.0 μg/L	01/07/13	01/07/13
		Benzene	ND		0.50 μg/L	01/07/13	01/07/13
		Tertiary Amyl Methyl Ether (TAME)	ND		1.0 μg/L	01/07/13	01/07/13
		Toluene	ND		0.50 μg/L	01/07/13	01/07/13
		Ethylbenzene	ND		0.50 μg/L	01/07/13	01/07/13
		m,p-Xylene	ND		0.50 μg/L	01/07/13	01/07/13
		o-Xylene	ND		0.50 μg/L	01/07/13	01/07/13
	MW-3						
	STR13010445-03A	TPH-P (GRO)	ND	V	100 μg/L	01/11/13	01/11/13
Date Sampled	01/02/13 17:00	Tertiary Butyl Alcohol (TBA)	440		10 μg/L	01/11/13	01/11/13
		Methyl tert-butyl ether (MTBE)	3.0		0.50 μg/L	01/11/13	01/11/13
		Di-isopropyl Ether (DIPE)	ND		1.0 μg/L	01/11/13	01/11/13
		Ethyl Tertiary Butyl Ether (ETBE)	ND		1.0 μg/L	01/11/13	01/11/13
		Benzene	ND		0.50 μg/L	01/11/13	01/11/13
		Tertiary Amyl Methyl Ether (TAME)	ND		1.0 µg/L	01/11/13	01/11/13
		Toluene	ND		0.50 μg/L	01/11/13	01/11/13
		Ethylbenzene	ND		$0.50~\mu g/L$	01/11/13	01/11/13
		m,p-Xylene	0.52		0.50 μg/L	01/11/13	01/11/13
		o-Xylene	ND		0.50 μg/L	01/11/13	01/11/13



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Client ID:	MW-4						
Lab ID:	STR13010445-04A	TPH-P (GRO)	1,200		100 μg/L	01/07/13	01/07/13
Date Sampled	01/02/13 13:55	Tertiary Butyl Alcohol (TBA)	1,200		10 μg/L	01/07/13	01/07/13
		Methyl tert-butyl ether (MTBE)	2.0		0.50 μg/L	01/07/13	01/07/13
		Di-isopropyl Ether (DIPE)	ND		1.0 μg/L	01/07/13	01/07/13
		Ethyl Tertiary Butyl Ether (ETBE)	ND		1.0 μg/L	01/07/13	01/07/13
		Benzene	ND		0.50 μg/L	01/07/13	01/07/13
		Tertiary Amyl Methyl Ether (TAME)	ND		1.0 μg/L	01/07/13	01/07/13
		Toluene	0.51		0.50 μg/L	01/07/13	01/07/13
		Ethylbenzene	1.5		0.50 μg/L	01/07/13	01/07/13
		m,p-Xylene	1.8		0.50 μg/L	01/07/13	01/07/13
		o-Xylene	1.2		0.50 μg/L	01/07/13	01/07/13
Client ID:	MW-5					•	
Lab ID:	STR13010445-05A	TPH-P (GRO)	ND	V	200 μg/L	01/07/13	01/07/13
Date Sampled	01/02/13 09:25	Tertiary Butyl Alcohol (TBA)	3,900		20 μg/L	01/07/13	01/07/13
		Methyl tert-butyl ether (MTBE)	3.0		1.0 μg/L	01/07/13	01/07/13
		Di-isopropyl Ether (DIPE)	ND	V	2.0 μg/L	01/07/13	01/07/13
		Ethyl Tertiary Butyl Ether (ETBE)	ND	v	2.0 μg/L	01/07/13	01/07/13
		Benzene	ND	V	1.0 μg/L	01/07/13	01/07/13
		Tertiary Amyl Methyl Ether (TAME)	ND	V	2.0 μg/L	01/07/13	01/07/13
		Toluene	ND	V	1.0 μg/L	01/07/13	01/07/13
		Ethylbenzene	ND	V	1.0 μg/L	01/07/13	01/07/13
		m,p-Xylene	1.3		1.0 μg/L	01/07/13	01/07/13
-		o-Xylene	ND	V	1.0 µg/L	01/07/13	01/07/13
Client ID:	MW-5B						
Lab ID :	STR13010445-06A	TPH-P (GRO)	ND		50 μg/L	01/07/13	01/07/13
Date Sampled	01/02/13 09:42	Tertiary Butyl Alcohol (TBA)	' ND		10 μg/L	01/07/13	01/07/13
		Methyl tert-butyl ether (MTBE)	22		0.50 μg/L	01/07/13	01/07/13
		Di-isopropyl Ether (DIPE)	ND		1.0 μg/L	01/07/13	01/07/13
		Ethyl Tertiary Butyl Ether (ETBE)	ND		1.0 μg/L	01/07/13	01/07/13
		Benzene	ND		0.50 μg/L	01/07/13	01/07/13
		Tertiary Amyl Methyl Ether (TAME)	ND		1.0 μg/L	01/07/13	01/07/13
		Toluene	ND		0.50 μg/L	01/07/13	01/07/13
		Ethylbenzene	ND		0.50 μg/L	01/07/13	01/07/13
		m,p-Xylene	1.4		0.50 μg/L	01/07/13	01/07/13
Client ID:	MW-6	o-Xylene	ND		0.50 μg/L	01/07/13	01/07/13
Lab ID:	STR13010445-07A	Thu n (on o)					
	01/02/13 10:43	TPH-P (GRO)	3,500		500 μg/L	01/07/13	01/07/13
Date Bampion	01/02/13 10.43	Tertiary Butyl Alcohol (TBA)	1,300		50 μg/L	01/07/13	01/07/13
		Methyl tert-butyl ether (MTBE)	360		2.5 μg/L	01/07/13	01/07/13
		Di-isopropyl Ether (DIPE)	ND	٧	5.0 μg/L	01/07/13	01/07/13
		Ethyl Tertiary Butyl Ether (ETBE) Benzene	ND	V	5.0 μg/L	01/07/13	01/07/13
			61		2.5 μg/L	01/07/13	01/07/13
		Tertiary Amyl Methyl Ether (TAME) Toluene	ND	V	5.0 μg/L	01/07/13	01/07/13
		Ethylbenzene	ND	V	2.5 μg/L	01/07/13	01/07/13
		m,p-Xylene	29		2.5 μg/L	01/07/13	01/07/13
		o-Xylene	29		2.5 μg/L	01/07/13	01/07/13
		·,1000	3.6		2.5 μg/L	01/07/13	01/07/13



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Client ID:	MW-6B		,			
Lab ID:	STR13010445-08A	TPH-P (GRO)	ND	50 μg/L	01/07/13	01/07/13
Date Sampled	01/02/13 10:30	Tertiary Butyl Alcohol (TBA)	ND	10 μg/L	01/07/13	01/07/13
		Methyl tert-butyl ether (MTBE)	ND	0.50 μg/L	01/07/13	01/07/13
		Di-isopropyl Ether (DIPE)	ND	1.0 μg/L	01/07/13	01/07/13
		Ethyl Tertiary Butyl Ether (ETBE)	ND	1.0 μg/L	01/07/13	01/07/13
		Benzene	ND	0.50 μg/L	01/07/13	01/07/13
		Tertiary Amyl Methyl Ether (TAME)	ND	1.0 μg/L	01/07/13	01/07/13
		Toluene	ND	0.50 μg/L	01/07/13	01/07/13
		Ethylbenzene	ND	0.50 μg/L	01/07/13	01/07/13
		m,p-Xylene	0.65	0.50 μg/L	01/07/13	01/07/13
		o-Xylene	ND	0.50 μg/L	01/07/13	01/07/13
Client ID:	MW-7			0.00 µg 2	01/0//13	01/0//15
Lab ID:	STR13010445-09A	TPH-P (GRO)	ND	50 μg/L	01/07/13	01/07/13
Date Sampled	01/02/13 08:12	Tertiary Butyl Alcohol (TBA)	ND	10 μg/L	01/07/13	01/07/13
		Methyl tert-butyl ether (MTBE)	5.0	0.50 μg/L	01/07/13	01/07/13
		Di-isopropyl Ether (DIPE)	ND	1.0 μg/L	01/07/13	01/07/13
		Ethyl Tertiary Butyl Ether (ETBE)	ND	1.0 μg/L	01/07/13	01/07/13
		Benzene	ND	0.50 μg/L	01/07/13	01/07/13
		Tertiary Amyl Methyl Ether (TAME)	ND	1.0 μg/L	01/07/13	01/07/13
		Toluene	ND	0.50 μg/L	01/07/13	01/07/13
		Ethylbenzene	ND	0.50 μg/L	01/07/13	01/07/13
		m,p-Xylene	1.2	0.50 μg/L	01/07/13	01/07/13
		o-Xylene	ND	0.50 μg/L	01/07/13	01/07/13
Client ID:	MW-10				0 1, 0 1, 20	01/07/13
Lab ID:	STR13010445-10A	TPH-P (GRO)	ND	50 μg/L	01/07/13	01/07/13
Date Sampled	01/02/13 17:10	Tertiary Butyl Alcohol (TBA)	ND	10 μg/L	01/07/13	01/07/13
		Methyl tert-butyl ether (MTBE)	ND	0.50 μg/L	01/07/13	01/07/13
		Di-isopropyl Ether (DIPE)	ND	1.0 μg/L	01/07/13	01/07/13
		Ethyl Tertiary Butyl Ether (ETBE)	ND	1.0 µg/L	01/07/13	01/07/13
		Benzene	ND	0.50 μg/L	01/07/13	01/07/13
		Tertiary Amyl Methyl Ether (TAME)	ND	1.0 μg/L	01/07/13	01/07/13
		Toluene	ND	0.50 μg/L	01/07/13	01/07/13
		Ethylbenzene	ND	0.50 μg/L	01/07/13	01/07/13
		m,p-Xylene	ND	0.50 μg/L	01/07/13	01/07/13
		o-Xylene	ND	0.50 μg/L	01/07/13	01/07/13
	MW-11					
	STR13010445-11A	TPH-P (GRO)	ND	50 μg/L	01/07/13	01/07/13
Date Sampled	01/02/13 16:10	Tertiary Butyl Alcohol (TBA)	ND	10 μg/L	01/07/13	01/07/13
		Methyl tert-butyl ether (MTBE)	1.6	0.50 μg/L	01/07/13	01/07/13
		Di-isopropyl Ether (DIPE)	ND	1.0 μg/L	01/07/13	01/07/13
		Ethyl Tertiary Butyl Ether (ETBE)	ND	1.0 μg/L	01/07/13	01/07/13
		Benzene	ND	0.50 μg/L	01/07/13	01/07/13
		Tertiary Amyl Methyl Ether (TAME)	ND	1.0 μg/L	01/07/13	01/07/13
		Toluene	ND	0.50 μg/L	01/07/13	01/07/13
		Ethylbenzene	ND	0.50 μg/L	01/07/13	01/07/13
		m,p-Xylene	0.52	0.50 μg/L	01/07/13	01/07/13
		o-Xylene	ND	0.50 μg/L	01/07/13	01/07/13



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Client ID:	MW-12A						
Lab ID :	STR13010445-12A	TPH-P (GRO)	72		50 μg/L	01/07/13	01/07/13
Date Sampled	01/02/13 14:11	Tertiary Butyl Alcohol (TBA)	ND		10 μg/L	01/07/13	01/07/13
		Methyl tert-butyl ether (MTBE)	140		0.50 μg/L	01/07/13	01/07/13
		Di-isopropyl Ether (DIPE)	ND		1.0 μg/L	01/07/13	01/07/13
		Ethyl Tertiary Butyl Ether (ETBE)	ND		1.0 μg/L	01/07/13	01/07/13
		Benzene	ND		0.50 μg/L	01/07/13	01/07/13
		Tertiary Amyl Methyl Ether (TAME)	ND		1.0 μg/L	01/07/13	01/07/13
		Toluene	ND		0.50 μg/L	01/07/13	01/07/13
		Ethylbenzene	ND		0.50 μg/L	01/07/13	01/07/13
		m,p-Xylene	0.69		0.50 μg/L	01/07/13	01/07/13
		o-Xylene	ND		0.50 μg/L	01/07/13	01/07/13
Client ID:	MW-12B						
Lab ID :	STR13010445-13A	TPH-P (GRO)	ND		50 μg/L	01/07/13	01/07/13
Date Sampled	01/02/13 14:03	Tertiary Butyl Alcohol (TBA)	ND		10 μg/L	01/07/13	01/07/13
		Methyl tert-butyl ether (MTBE)	ND		0.50 μg/L	01/07/13	01/07/13
		Di-isopropyl Ether (DIPE)	ND		1.0 μg/L	01/07/13	01/07/13
		Ethyl Tertiary Butyl Ether (ETBE)	ND		1.0 μg/L	01/07/13	01/07/13
		Benzene	ND		0.50 μg/L	01/07/13	01/07/13
		Tertiary Amyl Methyl Ether (TAME)	ND		1.0 μg/L	01/07/13	01/07/13
		Toluene	ND		$0.50~\mu g/L$	01/07/13	01/07/13
		Ethylbenzene	ND		0.50 μg/L	01/07/13	01/07/13
		m,p-Xylene	0.89		$0.50~\mu g/L$	01/07/13	01/07/13
CII I I		o-Xylene .	ND		0.50 μg/L	01/07/13	01/07/13
Client ID:	MW-13A						
Lab ID:	STR13010445-14A	TPH-P (GRO)	970		200 μg/L	01/07/13	01/07/13
Date Sampled	01/02/13 11:23	Tertiary Butyl Alcohol (TBA)	26		20 μg/L	01/07/13	01/07/13
		Methyl tert-butyl ether (MTBE)	3.7		1.0 μg/L	01/07/13	01/07/13
		Di-isopropyl Ether (DIPE)	ND	٧	2.0 μg/L	01/07/13	01/07/13
		Ethyl Tertiary Butyl Ether (ETBE)	ND	. <b>V</b>	2.0 μg/L	01/07/13	01/07/13
		Benzene	ND	<b>V</b> .	1.0 μg/L	01/07/13	01/07/13
		Tertiary Amyl Methyl Ether (TAME)	ND	V	2.0 μg/L	01/07/13	01/07/13
		Toluene	ND	V	1.0 μg/L	01/07/13	01/07/13
		Ethylbenzene	ND	V	1.0 μg/L	01/07/13	01/07/13
		m,p-Xylene	ND	V	$1.0~\mu g/L$	01/07/13	01/07/13
		o-Xylene	ND	V	1.0 μg/L	01/07/13	01/07/13

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 Kandy Soulin Walter Stirken

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

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1/11/13

Report Date



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## **VOC Sample Preservation Report**

Work Order: STR13010445

Job:

2087-6600-01/Foothill Mini Mart

Alpha's Sample ID	Client's Sample ID	Matrix	рН
13010445-01A	. MW-1	Aqueous	2
13010445-02A	MW-2	Aqueous	2
13010445-03A	MW-3	Aqueous	2
13010445-04A	MW-4	Aqueous	2
13010445-05A	MW-5	Aqueous	2
13010445-06A	MW-5B	Aqueous	2
13010445-07A	MW-6	Aqueous	2
13010445-08A	MW-6B	Aqueous	. 2
13010445-09A	MW-7	Aqueous	2
13010445-10A	MW-10	Aqueous	2
13010445-11A	MW-11	Aqueous	2
13010445-12A	MW-12A	Aqueous	2
13010445-13A	MW-12B	Aqueous	2
13010445-14A	MW-13A	Aqueous	2

1/11/13



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

Date: 11-Jan-13		QC Summary Report						Work Order: 13010445			
Method Bla	nk		Type: M	BLK Te	est Code: El	PA Met	hod SW82	60B-DI		<del></del>	
File ID: C:\HP	CHEM\MS11\DATA\130109\1:	3010907.D		Ва	atch ID: 302	21		Analy	sis Date:	01/09/2013 13:40	
Sample ID:	MBLK-30221	Units : µg/L		Run ID: MS	SD_11_130	109A		Prep	Date:	01/09/2013 09:18	
Analyte	·	Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRef	/al %RPD(Limit)	Qual
Methanol		ND	50								
Ethanol	0	ND	5								
Surr: Hexafluo		542		500		108	58	133			
	Control Spike		Type: L		est Code: El		hod SW82	60B-DI			
	CHEM\MS11\DATA\130109\1:	3010912.D		Ва	atch ID: 302	21		Analy	sls Date:	01/09/2013 15:35	
Sample ID:	LC\$-30221	Units : µg/L		Run ID: MS	SD_11_130 <sup>-</sup>	109A		Prep	Date:	01/09/2013 09:18	
Analyte		Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRef\	/al %RPD(Limit)	Qual
Methanol		261	50			105	49	138			
Ethanol Surr: Hexafluo	m-2-nmaanol	293	5			117	66	152			
		507	_	500		101	58	133			
Sample Mat			Type: M		est Code: El		hod SW82	60B-DI			
	CHEM\MS11\DATA\130109\13				tch ID: 302			•		01/09/2013 16:35	
Sample ID:	13010445-01AMS	Units : µg/L			SD_11_130 <sup>-</sup>			Prep		01/09/2013 09:18	
Analyte		Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRef\	/al %RPD(Limit)	Qual
Methanol		386	50		0	154	43	147			M1
Ethanol		493	5	250	0	197	63	152			M1
Surr: Hexafluo	ro-2-propanol	551		500		110	58	133			_
	rix Spike Duplicate		Type: M	SD Te	est Code: El	PA Met	hod SW82	60B-DI			
	CHEM\MS11\DATA\130109\13	8010916.D		Ва	tch ID: 302	21		Analy	sis Date:	01/09/2013 16:55	
Sample ID:	13010445-01AMSD	Units : µg/L		Run ID: MS	SD_11_130 <sup>4</sup>	109A		Prep	Date:	01/09/2013 09:18	
Analyte		Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRef\	/al %RPD(Limit)	Qual
Methanol		308	50	250	0	123	43	147	386	22.5(26)	
Ethanol		473	5	250	0	189	63	152	493.2	4.1(26)	M1
Surr: Hexafluor	ro-2-propanol	516		500		103	58	133			

#### 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.

M1 = Matrix spike recovery was high, the method control sample recovery was acceptable.



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

Date: 11-Jan-13	(	QC S	ımmar	y Repor	t				Work Order: 13010445		
Method Blank File ID: 13010706.D Sample ID: MBLK MS12W0107B	Units : µg/L	Type: N	Ba Run ID: M	atch ID: MS1 SD_12_1301	2W010	07B	Prep Date:	e: 01/07/2013 13:32 01/07/2013 13:32			
Analyte	Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME) RPDR	efVal %RPD(Limit)	Qua		
TPH-P (GRO) Surr: 1,2-Dichloroethane-d4 Surr: Toluene-d8 Surr: 4-Bromofluorobenzene	ND 8.03 10.8 10.5	50	10 10 10		80 108 105	70 70 70	130 130 130				
Laboratory Control Spike		Type: L	CS T	est Code: EF	A Met	hod SW80	15B/C / SW8260	В			
File ID: 13010704.D Sample ID: GLCS MS12W0107B Analyte	Units : µg/L	BOI	Run ID: MS	atch ID: MS1 SD_12_1301	07A	-	Prep Date:	9: 01/07/2013 12:25 01/07/2013 12:25			
TPH-P (GRO)	Result	PQL		SpkRetVal				efVal %RPD(Limit)	Qua		
Surr: 1,2-Dichloroethane-d4 Surr: Toluene-d8 Surr: 4-Bromofluorobenzene	356 8.26 10.8 9.78	50	400 10 10 10		89 83 108 98	70 70 70 70	130 130 130 130				
Sample Matrix Spike		Туре: М					15B/C / SW8260	R	<del></del>		
File ID: 13010719.D				atch ID: MS1				o: 01/07/2013 18:28			
Sample ID: 13010445-01AGS Analyte	Units : <b>μg/L</b> Result	PQL	Run ID: MS	SD_12_1301	07A		Prep Date:	01/07/2013 18:28 of Val %RPD(Limit)	Qua		
TPH-P (GRO) Surr: 1,2-Dichloroethane-d4 Surr: Toluene-d8 Surr: 4-Bromofluorobenzene	1400 44.3 53.4 48.9	250		0	70 89 107 98	54 70 70 70	143 130 130 130	over to a scanney			
Sample Matrix Spike Duplicate		Type: M	SD Te	st Code: EP	A Met	hod SW80	15B/C / SW8260I	3			
File ID: 13010720.D			Ba	itch ID: MS1	2W010	7B	Analysis Date	e: 01/07/2013 18:51			
Sample ID: 13010445-01AGSD	Units : μg/L			SD_12_1301			Prep Date:	01/07/2013 18:51			
Analyte	Result	PQL	SpkVal	SpkRefVal <sup>1</sup>	%REC	LCL(ME)	UCL(ME) RPDRe	fVal %RPD(Limit)	Qua		
TPH-P (GRO) Surr: 1,2-Dichloroethane-d4 Surr: Toluene-d8 Surr: 4-Bromofluorobenzene	1470 42.4 52.4 49	250	2000 50 50 50	0	74 85 105 98	54 70 70 70	143 139 130 130 130	97 5.3(23)			

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.

Reported in micrograms per Liter, per client request.



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Date: 11-Jan-13	. (	QC Su	mmar	y Repor	t				<b>Work Orde</b> 13010445	-
Method Blank		Type: MB	LK To	est Code: EF	A Met	hod SW82	260B			
File ID: 13010706.D			Ва	atch ID: MS1	2W010	)7A	Analys	is Date:	01/07/2013 13:32	
Sample ID: MBLK MS12W0107A	Units : µg/L	R	un ID: M	SD_12_1301	07A		Prep D		01/07/2013 13:32	
Analyte	Result	PQL				LCL(ME)			Val %RPD(Limit)	Qual
Tertiary Butyl Alcohol (TBA)	ND	10				<del></del>				
Methyl tert-butyl ether (MTBE)	ND	0.5								
DI-isopropyi Ether (DIPE) Ethyl Tertiary Butyl Ether (ETBE)	ND	1								
Benzene	ND ND	1								
Tertiary Amyl Methyl Ether (TAME)	ND	0.5 1								
Toluene	ND	0.5								
Ethylbenzene	ND	0.5								
m,p-Xylene	ND	0.5								
o-Xylene	ND	0.5								
Surr: 1,2-Dichloroethane-d4	8.03		10		80	70	130			
Sur: Toluene-d8	10.8		10		108	70	130			
Surr: 4-Bromoftuorobenzene	10.5		10		105	70	130			_
Laboratory Control Spike		Type: LC		est Code: EF						
File ID: 13010705.D			Ba	tch ID: MS1	2W010	)7A	Analys	is Date:	01/07/2013 12:47	
Sample ID: LCS MS12W0107A	Units : µg/L			SD_12_1301			Prep D		01/07/2013 12:47	
Analyte	Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME) F	RPDRef\	/al %RPD(Limit)	Qual
Methyl tert-butyl ether (MTBE)	10.8	0.5	10		108	63	137			
Benzene	11.4	0.5	10		114	70	130			
Toluene	11.2	0.5	10		112	80	120		•	
Ethylbenzene m,p-Xylene	11.9	0.5	10		119	80	120			
o-Xylene	11	0.5	10		110	65	139			
Surr: 1,2-Dichloroethane-d4	10.9 8.22	0.5	10 10		109 82	70	130			
Surr: Toluene-d8	10.9		10		109	70 70	130 130			
Surr: 4-Bromofluorobenzene	9.4		10		94	70	130			
Sample Matrix Spike		Type: MS	Te	st Code: EP	A Met	hod SW82	60B			_
File ID: 13010717.D			Ва	tch ID: MS1	2W010	7A	Analys	is Date:	01/07/2013 17:42	
Sample ID: 13010445-01AMS	Units : µg/L	R	un ID: MS	SD_12_1301	07A		Prep D	ate:	01/07/2013 17:42	
Analyte	Result	PQL				LCL(ME)	UCL(ME) F	RPDRef\	/al %RPD(Limit)	Qual
Methyl tert-butyl ether (MTBE)	63	1.3	50	10.53	105	56	140			
Benzene	48.3	1.3	50	0	97	67	134			
Toluene	45.9	1.3	50	0	92	38	130			
Ethylbenzene m.p-Xylene	49.8	1.3	50	0	100	70	130			
o-Xylene	45.1 45.4	1.3	50	0.58	89	65	139			
Surr: 1,2-Dichloroethane-d4	45.4 45.1	1.3	50 50	0	91	69 70	130			
Surr: Toluene-d8	52.7		50 50		90 105	70 70	130 130			
Surr: 4-Bromofluorobenzene	46.9		50		94	70 70	130			
Sample Matrix Spike Duplicate		Type: MS	D Te	est Code: EP			-	Ħ		
File ID: 13010718.D		,,		tch ID: MS1				s Data:	01/07/2013 18:05	
Sample ID: 13010445-01AMSD	Units : µg/L	P		D_12_1301			Prep D		01/07/2013 18:05	
Analyte	Result	PQL				I CL (ME)	•		/al %RPD(Limit)	Qual
Methyl tert-butyl ether (MTBE)	61.2	1.3	50 50	10.53	101				<del></del>	
Benzene	48.8	1.3	50 50	10.53	98	56 67	140 134	63.02 48.29		
Toluene	46.5	1.3	50	0	93	38	130	45.94	• •	
Ethylbenzene	50.6	1.3	50	ŏ	101	70	130	49.75	• •	
m,p-Xylene	46.1	1.3	50	0.58	91	65	139	45.08		
o-Xylene	45.9	1.3	50	0	92	69	130	45.41		
Surr: 1,2-Dichloroethane-d4	41.8		50		84	70	130			
Surr: Toluene-d8 Surr: 4-Bromofluorobenzene	52.4		50		105	70	130			
Carr. T-Diomonopalizaria	46.8		50		94	70	130			



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

Date:	
1-lan-1	

QC Summary Report

Work Order: 13010445

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.

<b>Billing</b>	Information	:
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Stratus Environmental

3330 Cameron Park Drive

Cameron Park, CA 95682-8861

#### CHAIN-OF-CUSTODY RECORD

Page: 1 of 2

#### Alpha Analytical, Inc.

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

TEL: (775) 355-1044 FAX: (775) 355-0406 Report Attention Phone Number **EMail Address** 

Scott Bittinger (530) 676-2062 x sbittinger@stratusinc.net

EDD Required: Yes

Sampled by: Carl Schulze

PO:

Client:

Client's COC #: 10584, 10572

Job: 2087-6600-01/Foothill Mini Mart Cooler Temp Samples Received 04-Jan-13 5°C

WorkOrder: STR13010445

Report Due By: 5:00 PM On: 11-Jan-13

**Date Printed** 04-Jan-13

OC Level : S3

Suite 550

= Final Pot MRIK LCS MS/MSD With Surrogator

							1			Requested	Tests				
Alpha	Client		Collection	No. of	Bottles	•	ALCOHOL_	TPH/P_W	VOC_W						1
Sample ID	Sample ID	Matri	x Date	Alpha	Sub	TAT	w								Sample Remarks
STR13010445-01A	MW-1	AQ	01/02/13 16:00	6	0	5	Low Level McOH / EtOH	GAS-C	C C						
STR13010445-02A	MW-2	AQ	01/02/13 17:49	6	0	5	Low Level MeOH / EtOH	GAS-C	BTEX/OXY_						
STR13010445-03A	MW-3	AQ	01/02/13 17:00	6	0	5	Low Level MeOH / EtOH	GAS-C	BTEX/OXY_				•		
STR13010445-04A	MW-4	AQ	01/02/13 13:55	6	0	5	Low Level MeOH / EtOH	GAS-C	BTEX/OXY_		T				
STR13010445-05A	MW-5	AQ	01/02/13 09:25	6	0	5	Low Level MeOH / EtOH	GAS-C	BTEX/OXY_						
STR13010445-06A	MW-5B	AQ	01/02/13 09:42	6	0	5	Low Level MeOH / EtOH	GAS-C	BTEX/OXY_			i		1	
STR13010445-07A	MW-6	AQ	01/02/13 10:43	6	0	5	Low Level MeOH / EtOH	GAS-C	C C				_	Γ	
STR13010445-08A	MW-6B	AQ	01/02/13 10:30	6	0	5	Low Level MeOH / EtOH	GAS-C	BTEX/OXY_ C						

_				
$\Gamma_{\alpha}$	ma	m	OM	ts:

Security seals intact. Frozen ice. Low level Alcohols per COC. :

	Signature	Print Name	Company	Date/Time
Logged in by:		Swan New	Alpha Analytical, Inc.	1/4/13 124

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
D111111134	moninauon

Client:

PO:

#### **CHAIN-OF-CUSTODY RECORD**

#### Alpha Analytical, Inc.

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

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

Stratus Environmental 3330 Cameron Park Drive Suite 550

Cameron Park, CA 95682-8861

Client's COC #: 10584, 10572

Report Attention Phone Number EMail Address

Scott Bittinger (530) 676-2062 x sbittinger@stratusinc.net

EDD Required: Yes

Sampled by: Carl Schulze

Job : 2087-6600-01/Foothill Mini Mart

Cooler Temp Samples Received

5 °C 04-Jan-13

WorkOrder: STR13010445

Report Due By: 5:00 PM On: 11-Jan-13

Date Printed 04-Jan-13

Page: 2 of 2

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

	<b>.</b>										
Alpha Sample ID	Client Sample ID	Collection Matrix Date	No. of Bottles Alpha Sub	TAT	ALCOHOL_ W	TPH/P_W	VOC_W				Sample Remarks
STR13010445-09A	MW-7	AQ 01/02/13 08:12	6 0	5	Low Level MeOH / EtOH	GAS-C	BTEX/OXY_				
STR13010445-10A	MW-10	AQ 01/02/13 17:10	6 0	5	Low Level MeOH / EtOH	GAS-C	C C				
STR13010445-11A	MW-11	AQ 01/02/13 16:10	6 0	5	Low Level MeOH / EIOH	GAS-C	BTEX/OXY_				
STR13010445-12A	MW-12A	AQ 01/02/13 14:11	6 0	5	Low Level MeOH / EtOH	GAS-C	BTEX/OXY_				
STR13010445-13A	MW-12B	AQ 01/02/13 14:03	6 0	5	Low Level MeOH / EtOH	GAS-C	C C	T			-
STR13010445-14A	MW-13A	AQ 01/02/13 11:23	6 0	5	Low Level MeOH / EtOH	GAS-C	C C				

Co	mme	nts:
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Security seals intact. Frozen ice. Low level Alcohols per COC. :

	Signature	Print Name	Company	Date/Time
Logged in by: _		Turk Nen	Alpha Analytical, Inc.	1/4/13 1244

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

Phone Number:

	Billing information:	
Company:	Stratus Environmental	
Attn:	Sec. 18	
Address:	3330 Cameron Park Dr.	
City, State, Zip:	Cameron Park, CA	



#### Alpha Analytical, Inc.

Main Laboratory: 255 Glendale Ave, Suite 21 Sparks, NV 89431

Phone: 775-355-1044

Fex: 775-355-0406

#### Satellite Service Centers:

Northern CA: 9891 Horn Road, Suite C, Rancho Cordova, CA 95827 Southern NV: 8255 McLeod Ave, Suite 24, Las Vegas, NV 89120 Southern CA: 1007 E. Dominguez St., Suite O, Carson, CA 90746

Phone: 916-366-9089 Phone: 702-281-4848 Phone: 714-386-2901 1058 J

Consultant/ Client Info: Job and Purchase Order Info:									147														
	Consulta	ent/ Client Info: المنال المرمن الإ	1	Job and Purchase Or		F	Report A	ttention	/Prolect I	Manager:		QC Deliverable Info:											
Company: Address;		O Foothill			6600 -	<u> </u>	_	Name:		اعرد،	++ R:	Hinger			EDD Rec	quired? 🌘	) / No	EDF Requ	dred? Yes / No				
City, State, Zip:	_Oal	cloud, CA	P.O. #				Email Address:								Global ID		TOLO	102286					
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Samples Collects	d from whic	ch State? (circle one)	Z CA NV WA ID (	R DOD Site Other	Guman.	10.1014.94	Compresses	<u> </u>				Anaheda	Requested										
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1600 01/02		NEW STEELS	- UM. PARTE		لماد	~	6V	X	Y.	X	3		_	_	+	<del>                                     </del>	_						
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ADDITIONAL INST	RUCTIONS:	:																					
100	detec	ition level	ethanol, meth	lene						-													
l (field sampler) at	test to the v	validity and authenticity o	f this sample(s). I am sware t	hat tempering with or intentio	nally mistal	peling the	sample in	cation dat	a or time	of collect	lon in co-	aldered form	and may be	manus de 4	lan lanal c :#	NAC 1	45 0000 4 2 2						
		Schulze,_			,				0 01 4110	01 002001	aon ia com	amesed itsind	and may be	grounds :	or legal acti	ION. NAC 4	40.9030 (C) (2	i).					
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Relinquished by: (Si	ignature/Affil	Bation):	Date:	Time:		Received	by: (Signat	ure/Affiliation	on):		750	y va				Date:	-	Time:					
										_													
NOTE: Samples ar	re discarded	* Key: A 60 days after sample rece	Q - Aqueous WA - V ipt unless other arrangements :	/aste OT - Other	**: L - Li	iter \	V - VOA	S-So	I Jar	O - Orb	O T-	Tedlar	B - Brass	P - Pla	astic O	T - Other							
received by the labo	eratory with ti	his COC. The liability of th	e laboratory is limited to the em	ount paid for the report.	20 (010)					. 1110	- sport for ti	re enerysis of	nie groae 250	ilhesis (9)	phiicania out	y w those sa	umpies						

Billing Information:  Company: Stratus Environmenta Address: City, State, Zip: Phone Number: Fax:  Consultant/ Client Info: Company: Foothill Mini Mark			Fex.  Fex.  Tanti Client Info:  Abill Mini Mark	Job a  Job #	Job and Purchase Order Info:					Glendale Ilite Ser Road, St Leod Ave Domingue	vice Cenuite C, Rar , Suite 24, ez St., Suit	ters: cho Cordo Las Vega: a O, Carso Project I	va, CA 9582 s, NV 89431 n, CA 90748 Manager:	27 ) ·	340 Se	Phone: Phone: Phone:	e: 916-388-9089 e: 702-281-4848 e: 714-386-2901					
Address: City, State	, Zip:	000 000	O Foothill Blud.	Job Name; P.O.#;	<del>-                                    </del>				Email Add Phone #:	íress;							Global ID:		706	00 1022	84	
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Samples	Collected	from whi	Ich State? (circle one) AZ CA	NV WA ID OR DOD!	Site Other	id term	dus.	in day					Analysi	is Reques	ted						Remark	
Time Sampled (HiHMM) 1411 1405 1123	Date Sampled (MMMDD) O\/OZ O\/OZ	AQ AQ	Lab ID Number (For Lab Use Only)	MW-13A	rigtion	bks bks bfs	> > Fled Filtered?	S C C the Containers (See Kay Below)	x x	x x STEX	\$, \x	x x = ethand, methonal										
ADDITION	AL INOTE	BUCTION	0.																			
ADDITION	-			1 11 1																		
	100	aere	ction level etha	nol, methanol						·		-										
Sampled I	sy: C	ar)	velidity and authenticity of this samp		ing with or intentional	lly mislab		sample loc			of collect	ion is cons	sidered frau	ad and ma	y be gro	ounds for						
Relinquish		<u> </u>		Date: 03.13	13:52		1	by: (Signate	NNI	WVV	)							ato:	03.1	3 13	3:67	
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Relinquish	ed by: (Sig	nature/Aff	/illation):	Date:	Time:		Received	by: (Signati	re/Affillati	on):							Di	ate:		Time	D:	

\* 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 60 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!

Submittal Type:

**GEO\_WELL** 

Report Title:

1Q13 QMR Geowell 1-2-13

Facility Global ID:

T0600102286

**Facility Name:** 

**FOOTHILL MINI MART** 

File Name:

GEO\_WELL.zip

**Organization Name:** 

Stratus Environmental, Inc.

<u>Username:</u>

**STRATUS NOCAL** 

**IP Address:** 

50.192.223.97

Submittal Date/Time:

2/12/2013 10:35:28 AM

**Confirmation Number:** 

8905408740

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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!

Submittal Type:

**EDF** 

Report Title:

1Q13 QMR Analytical 1-2-13

Report Type:

**Monitoring Report - Semi-Annually** 

Facility Global ID:

T0600102286

**Facility Name:** 

FOOTHILL MINI MART

File Name:

13010445\_EDF.zip

Organization Name:

Stratus Environmental, Inc. STRATUS NOCAL

<u>Username:</u> <u>IP Address:</u>

50.192.223.97

Submittal Date/Time:

2/12/2013 10:36:38 AM

**Confirmation Number:** 

9019792079

**VIEW QC REPORT** 

**VIEW DETECTIONS REPORT** 

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