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Alameda County
Environmental Health

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

June 23, 2010 Project No. 2087-6600-01

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

Re: Groundwater Monitoring Report, Second Quarter 2010, for Foothill Mini Mart, located at 6600 Foothill Boulevard, Oakland, California (ACEHS Case No. RO0000175)

Dear Mr. Khatri:

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 second quarter 2010 at the Foothill Mini Mart, located at 6600 Foothill Boulevard, Oakland, California (Figure 1). This report has been prepared in compliance with Alameda County Environmental Health Services (ACEHS) requirements for underground storage tank (UST) investigations.

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

Sincerely,

STRATUS ENVIRONMENTAL, INC.

Scott G. Bittinger, P. Project Manager

agu

wyi S. Kowtha, P.E

Principal Engineer

Attachment: Groundwater Monitoring Report, Second Quarter 2010

Scott G. Bittinger

No. 7477

cc: Mr. Ravi Sekhon

Date June 23, 2010

FOOTHILL MINI MART 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 Services / Case No.

RO0000175

WORK PERFORMED THIS PERIOD (Second Quarter 2010):

1. Stratus monitored groundwater elevations in, and collected groundwater samples from, wells MW-1 through MW-7, MW-10, MW-11, MW-12A, MW-13A, MW-5B, MW-6B, and MW-12B.

- 2. Groundwater samples were analyzed at a state-certified analytical laboratory for gasoline range organics (GRO) by EPA Method SW8015B/DHS LUFT Manual, 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), 1,2-dichloroethane (1,2-DCA), 1,2-dibromoethane (EDB), ethanol, and methanol by EPA Method SW8260B.
- 3. Stratus compiled and evaluated groundwater monitoring data.

WORK PROPOSED FOR NEXT PERIOD (Third Quarter 2010):

- 1. In a letter dated July 24, 2009, ACEHS directed that all previously existing monitoring wells be gauged and sampled on a semi-annual basis and that recently installed monitoring wells be gauged and sampled on a quarterly basis for four quarters, and then switched to a semi-annual monitoring program. Many of the site monitoring wells (MW-7, MW-10, MW-11, MW-12A, MW-13A, MW-5B, MW-6B, and MW-12B) were installed in September 2009. Given the ACEHS directive, these 8 wells will be sampled during the third quarter 2010. All 14 groundwater monitoring wells will be monitored for depth to groundwater during the third quarter 2010, however groundwater samples will not be collected from wells MW-1 through MW-6 given the ACEHS directive.
- 2. A previous consultant representing Mr. Sekhon performed a relatively extensive subsurface environmental investigation at the site during the fall of 2009. In a report documenting this work (2009 Soil and Groundwater Investigation Report, dated November 2, 2009), the consultant recommended that a Feasibility Study/Corrective Action Plan (FS/CAP) report be prepared. In a letter dated June 10, 2010, ACEHS personnel concurred with this recommendation, and requested that the FS/CAP report be submitted by August 9, 2010.

Stratus concurs that preparation of the FS/CAP report is appropriate. In the June 10, 2010 letter, ACEHS personnel indicate that three <u>viable</u> remedial alternatives to mitigate the site contaminants should be evaluated as part of the FS process, and that the most cost effective of these 3 alternatives be selected as the corrective action approach.

It does not appear that any pilot testing has been performed to evaluate the viability of any remedial technology for the site. Given the importance of selecting the best remedial approach, Stratus is recommending that site specific pilot testing of at least two potentially viable remedial technologies be performed, in order to assess the effectiveness of each technology at this site. Completion of this work should allow for an improved evaluation of the potential site remedial alternatives, and improve

the likelihood of selecting the best remedial approach for use in corrective action. Stratus will work with ACEHS personnel in order to determine an appropriate 'sequence of events' in order to move the project through the Feasibility Study/Corrective Action method selection process.

Current Phase of Project:	Monitoring/Assessment
Frequency of Groundwater Sampling:	Wells MW-1 through MW-6 : Semi-Annually
_	Wells MW-7, MW-10, MW-11, MW-12A, MW-13A, MW-5B, MW-6B, and MW-12B: Quarterly until initial 4 sampling events completed, then semi-annually
Frequency of Groundwater Monitoring:	All Wells : Quarterly
Groundwater Sampling Date:	June 1, 2010
Is Free Product (FP) Present on Site:	No
Approx. Depth to Groundwater (Upper):	6.00 to 9.82 feet below top of well casing
Approx. Depth to Groundwater (Lower):	12.87 to 37.49 feet below top of well casing
Groundwater Flow Direction (Upper):	Variable
Approximate Groundwater Gradient (Upper):	0.03 to 0.18 ft/ft
Groundwater Flow Direction (Lower):	Not calculated
Approximate Groundwater Gradient (Lower):	Not calculated

DISCUSSION:

Shallow Screened Well Network

Depth to groundwater in the monitoring wells ranged from 6.00 to 9.82 feet below the top of the well casing. Depth-to-water measurements were converted to feet above mean sea level (MSL) and used to construct a groundwater elevation contour map (Figure 2). Variable directions of groundwater flow were observed in the site vicinity, using the June 1, 2010 groundwater level measurements, with groundwater gradients ranging from approximately 0.03 to 0.18 ft/ft. Based on the distributions of contaminants in shallow groundwater at the site (discussed below), contaminant plume transport appears to have predominately occurred in the southeast and south directions; thus southeast-south groundwater flow may be representative of site conditions.

Groundwater beneath the site is impacted with GRO, BTEX, MTBE, and TBA. Figures 4 through 7 illustrate the interpreted lateral extent of GRO, benzene, MTBE, and TBA distribution in shallow groundwater, respectively, using data collected on June 1, 2010. The figures illustrate that GRO and MTBE impact extends across the largest area of the site vicinity, with the benzene plume a much smaller area of the site. The GRO, MTBE, and TBA plumes extend at least 200 feet southeast of the UST area of the Foothill Mini Mart. The highest concentrations of GRO, benzene, and MTBE (7,500 μ g/L, 100 μ g/L, and 350 μ g/L, respectively, in June 2010) were detected in the sample collected from well MW-6, and the highest concentration of TBA (7,300 μ g/L) was reported in the well MW-2 sample. Given this observation, the highest concentrations of GRO, benzene, and MTBE are situated offsite, across Foothill Boulevard and southeast of the former UST.

Deeper Screened Well Network

Depth to groundwater in the monitoring wells ranged from 12.87 to 37.49 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.

MTBE was detected at very low concentrations in the samples collected from wells MW-5B and MW-12B (0.70 μ g/L and 0.84 μ g/L, respectively). No GRO, BTEX, or TBA were detected in the samples collected from the deeper screened monitoring wells. Analytical results of GRO, benzene, MTBE, and TBA for groundwater samples collected from the deeper screened wells during the second quarter 2010 are presented on Figure 8. Given the available data set, the vertical extent of contaminant distribution in groundwater appears adequately characterized.

ATTACHMENTS:

Table 1	Groundwater Elevation and Analytical Summary
Table 2	Groundwater Analytical Results for Oxygenates
Table 3	Drilling and Well Construction Summary
Figure 1	Site Location Map
• Figure 2	Groundwater Elevation Contour Map, Shallow Screened Wells (Second Quarter 2010)
Figure 3	Groundwater Elevation Map, Deep Screened Wells (Second Quarter 2010)
Figure 4	GRO Iso-Concentration Contour Map, Shallow Screened Wells (Second Quarter 2010)
Figure 5	Benzene Iso-Concentration Contour Map, Shallow Screened Wells (Second Quarter 2010)
Figure 6	MTBE Iso-Concentration Contour Map, Shallow Screened Wells (Second Quarter 2010)
• Figure 7	TBA Iso-Concentration Contour Map, Shallow Screened Wells (Second Quarter 2010)
Figure 8	Groundwater Analytical Summary, Deep Screened Wells (Second Quarter 2010)
 Appendix A 	Field Data Sheets
Appendix B	Sampling and Analyses Procedures
Appendix CAppendix D	Laboratory Analytical Reports and Chain-of-Custody Documentation GeoTracker Electronic Submittal Information

TABLE 1
GROUNDWATER ELEVATION AND ANALYTICAL SUMMARY

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)
SHALLOV	WELLS									
MW-1	06/13/01 03/21/02	9.36 7.96	100* 100*	90.64 92.04	ND 95	ND ND	ND ND	ND ND	ND ND	130 72.5
	07/09/02 07/11/03	8.51 8.66	100* 160.25	91.49 151.59	ND ND	ND 0.7	ND ND	ND ND	ND 1.2	208 636
	11/13/03	8.10	160.25	152.15	<5,000	ND	ND	ND	ND	72,000
	02/19/04 05/21/04	8.24 8.51	160.25 160.25	152.01 151.74	1,350 ND	460 <50	ND <50	ND <50	ND <100	82,000 12,000
	08/11/05	8.34	160.25	151.91	ND	ND	ND	ND	ND	4,900
	11/30/05 08/08/08	9.86 10.62	160.25 60.02	150.39 49.40	<250 390	<2.5 <1.5	<2.5 <1.5	<2.5 <1.5	<2.5 <1.5	8,400 720
	11/05/08	10.78	60.02	49.24	350	<5.0	<10	<10	<10	580
	02/06/09 05/07/09	9.05 6.76	60.02 60.02	50.97 53.26	150 420	<1.5 <0.50	<1.5 <0.50	<1.5 <0.50	<1.5 <0.50	610 210
	06/01/10	7.58	60.02	52.44	190	< 0.50	< 0.50	<0.50	< 0.50	170

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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

TABLE 1
GROUNDWATER ELEVATION AND ANALYTICAL SUMMARY

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

TABLE 1
GROUNDWATER ELEVATION AND ANALYTICAL SUMMARY

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

TABLE 1
GROUNDWATER ELEVATION AND ANALYTICAL SUMMARY

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

TABLE 1
GROUNDWATER ELEVATION AND ANALYTICAL SUMMARY

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
	06/01/10	5.85	37.01	31.16	7,500	100	<2.3 [3]	28	48	

foothill_quarterly_data 6 of 8 Stratus Environmental

TABLE 1
GROUNDWATER ELEVATION AND ANALYTICAL SUMMARY

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-7	06/01/10	9.74	58.66	48.92	<50	< 0.50	<0.50	<0.50	<0.50	22
MW-10	06/01/10	8.85	61.89	53.04	<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
MW-12A	06/01/10	8.07	62.98	54.91	270	<0.50	<0.50	<0.50	<0.50	260
MW-13A	06/01/10	6.47	60.90	54.43	1,500	< 0.50	<0.50	<0.50	< 0.50	7.1
DEEPER '	WELLS									
MW-5B	06/01/10	12.87	57.69	44.82	<50	<0.50	<0.50	<0.50	<0.50	0.70
MW-6B	06/01/10	35.75	56.71	20.96	<50	<0.50	<0.50	<0.50	< 0.50	<0.50
MW-12B	06/01/10	37.49	62.94	25.45	<50	<0.50	<0.50	<0.50	<0.50	0.84

TABLE 1 GROUNDWATER ELEVATION AND ANALYTICAL SUMMARY

Foothill Mini Mart, 6600 Foothill Boulevard, Oakland, California

XX/ 11	D 41. 4 - W - 4	Top of Casing	Groundwater	CDO	Ромионо	Talvana	Ethyl-	Total	MTBE
Well	Date Collected Depth to Water	Elevation (ft	Elevation	GRO	Benzene	Toluene	benzene	Xylenes	
Number	(feet)	msl)	(ft msl) [1]	(µg/L)	(µg/L)	(μg/L)	(μg/L)	(μg/L)	(μg/L)

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

[1] = 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.

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

* The top of casing (TOC) elevations origi'--lly 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.

TABLE 2 ANALYTICAL RESULTS FOR FUEL OXYGENATES AND ADDITIVES

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 W	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		<1,000		
	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	< 5.0		
MW-2	06/13/01	94,000	980							
	03/21/02	79,100						~-	MAR NOV	
	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							Die sau	
	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		
					- -	- 1				

TABLE 2
ANALYTICAL RESULTS FOR FUEL OXYGENATES AND ADDITIVES

Well Number	Date	MTBE	TBA	ETBE	DIPE	TAME	Methanol	Ethanol	1,2-DCA	EDB
Well Ivulibei	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				NA. 200				
	03/21/02	7,520								
	07/09/02	40.8								
	07/11/03	24.3		***	no es					
	11/13/03	37	27							
	02/19/04	42.7	508						***	
	05/21/04	54	1,100			***			Mile Ann	
	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		
MW-4	07/09/02	28,300	ann 1981							
	07/11/03	16,600	AT 416							
	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	<80	< 5.0	< 0.50	< 0.50
	11/05/08	31	760	< 2.0	< 2.0	< 2.0		<100		
	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	< 5.0		
	06/01/10	9.4	900	<2.0[1]	<2.0 [1]	<2.0 [1]	<50	<5.0		

TABLE 2
ANALYTICAL RESULTS FOR FUEL OXYGENATES AND ADDITIVES

Well Number	Date	MTBE	TBA	ETBE	DIPE	TAME	Methanol	Ethanol	1,2-DCA	EDB
wen rumber	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							No. 200
	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		
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		
	20,01,10	330	770	5.0[1]	·5.0 [1]	\J.U [1]	\J0	~5.0		

TABLE 2 ANALYTICAL RESULTS FOR FUEL OXYGENATES AND ADDITIVES

Foothill Mini Mart, 6600 Foothill Boulevard, Oakland, California

Well Number	Date Collected	MTBE (μg/L)	TBA (μg/L)	ETBE (µg/L)	DIPE (μg/L)	TAME (μg/L)	Methanol (μg/L)	Ethanol (μg/L)	1,2-DCA (μg/L)	EDB (μg/L)
MW-7	06/01/10	22	18	<1.0	<1.0	<1.0	<50	<5.0		
MW-10	06/01/10	< 0.50	<10	<1.0	<1.0	<1.0	<50	<5.0		
MW-11	06/01/10	6.7	<10	<1.0	<1.0	<1.0	<50	<5.0		
MW-12A	06/01/10	260	<10	<1.0	<1.0	<1.0	<50	<5.0		
MW-13A	06/01/10	7.1	33	<1.0	<1.0	<1.0	<50	<5.0		
DEEPER WE	ELLS									
MW-5B	06/01/10	0.70	<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		
MW-12B	06/01/10	0.84	<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

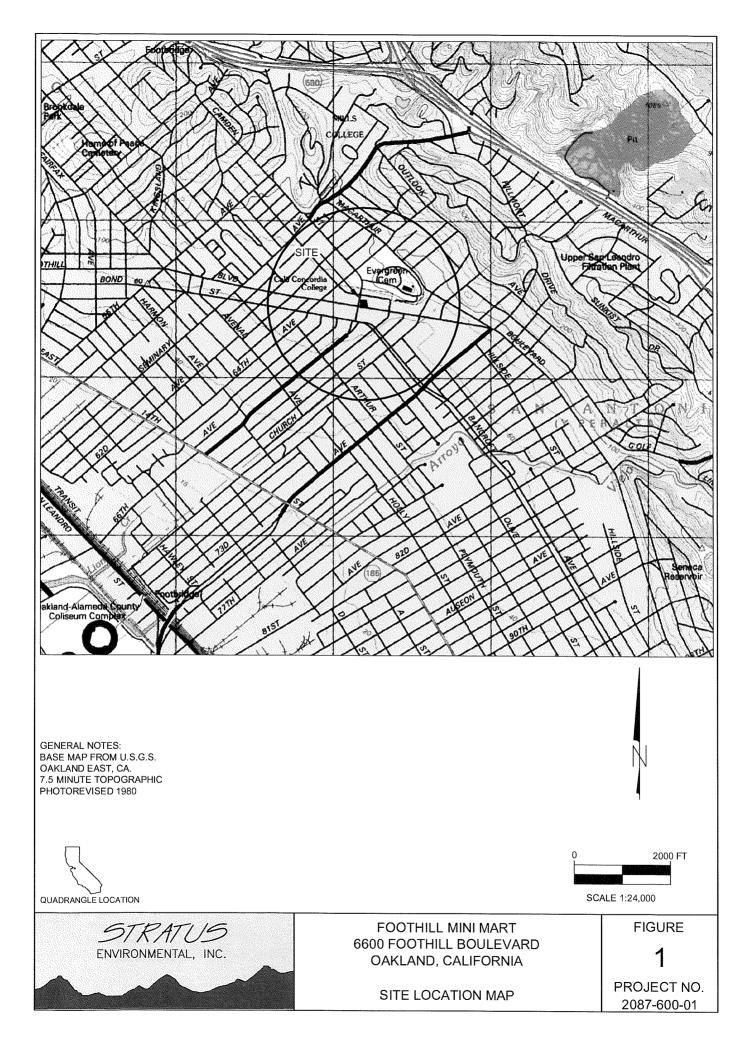
mg/L = micrograms per liter

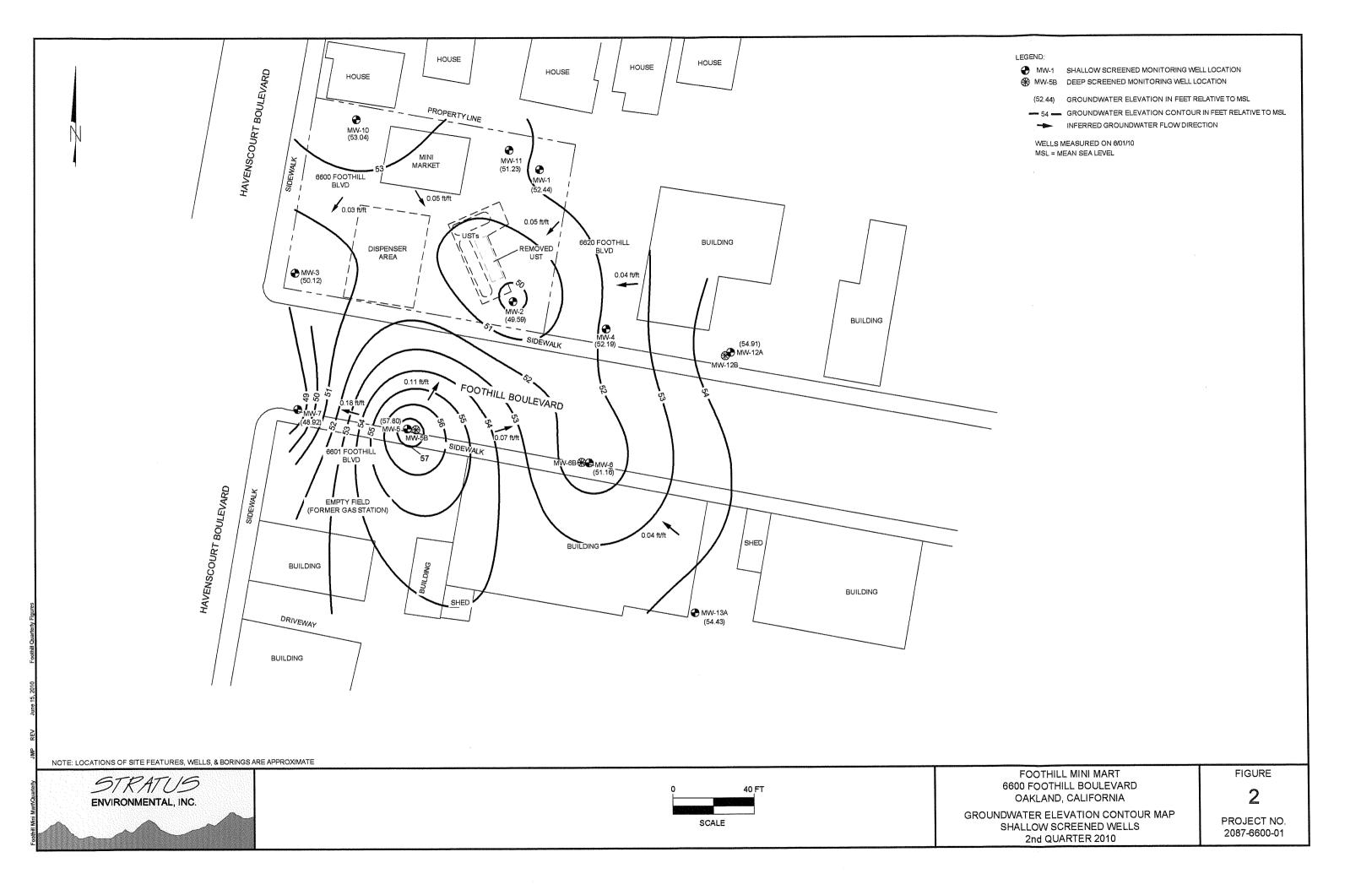
[1] = Reporting limits were increased due to high concentration of target analytes.

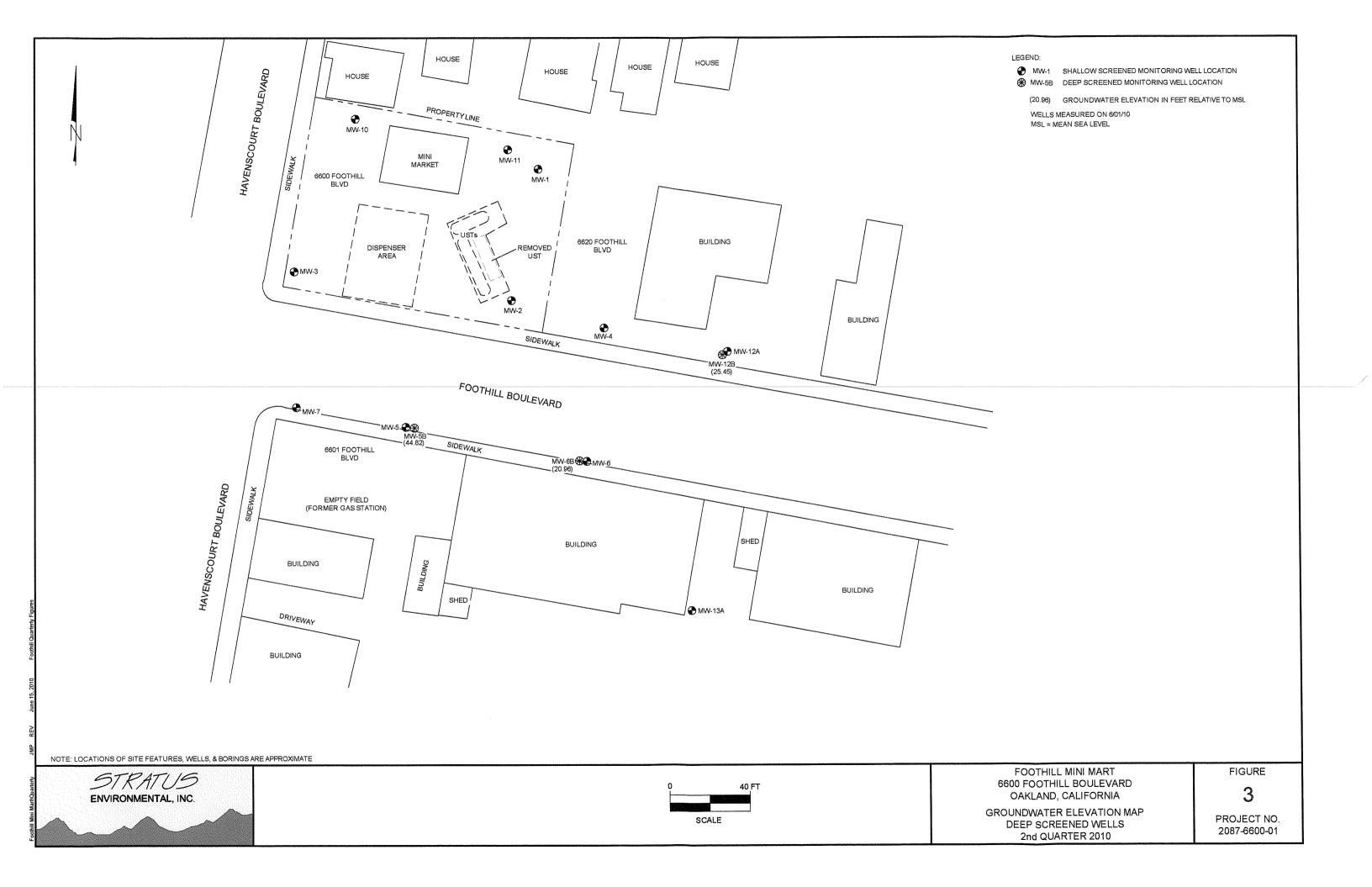
TABLE 3
WELL CONSTRUCTION DETAIL SUMMARY

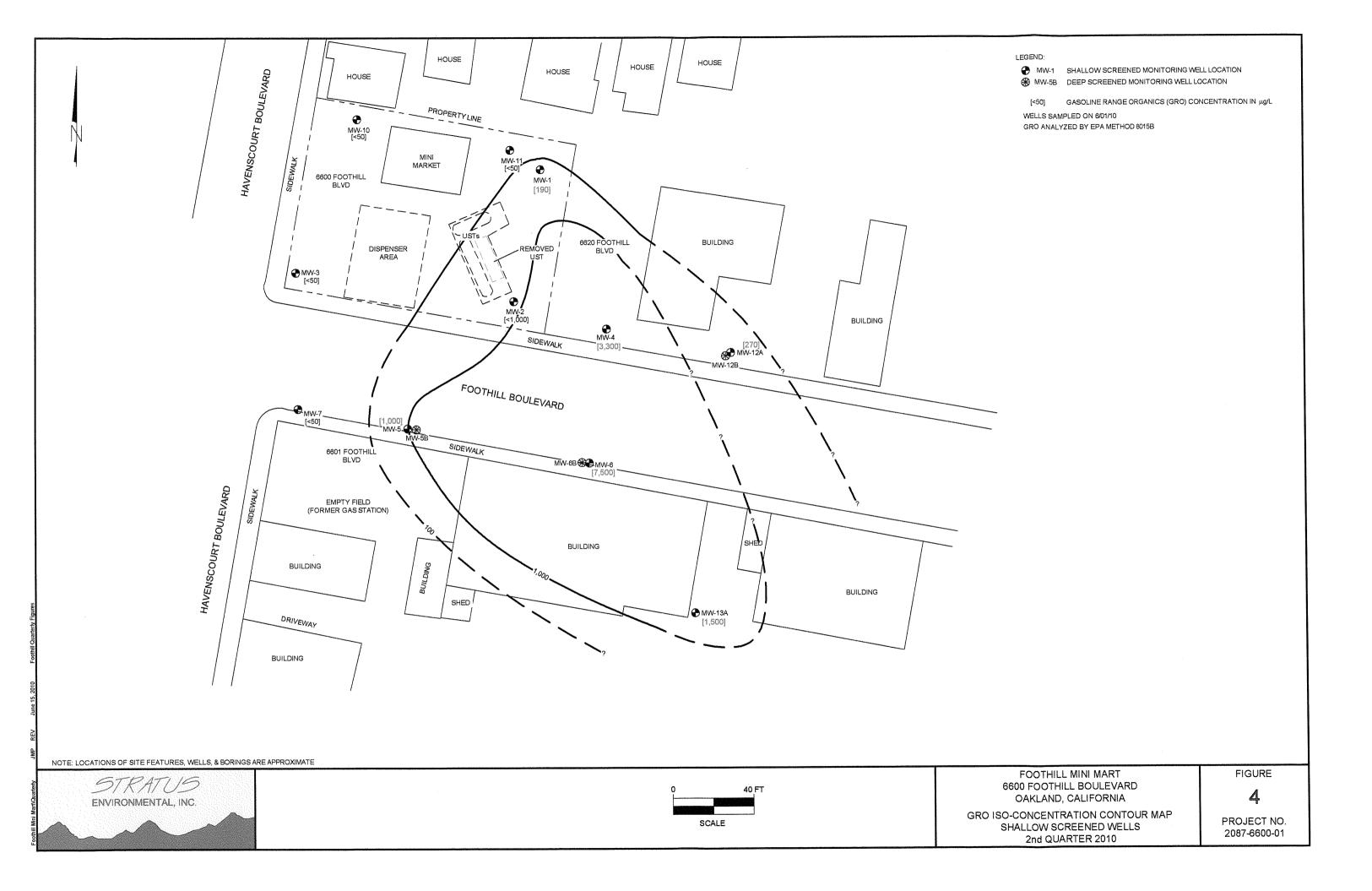
Boring/Well I.D.	Date Installed	Boring Depth (feet)	Boring Diameter (inches)	Well Diameter (inches)	Well Depth (feet)	Screen Interval (feet bgs)	Slot Size (inches)	Drilling Method
Shallow Ground	water Monitor	ing Wells						
MW-1	06/04/01	25	8	2	25	10-25	0.01	HSA
MW-2	06/04/01	25	8	2	25	10-25	0.01	HSA
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 Grounds	vater 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
Notes: HSA = hollow st			2,700					Wile ob

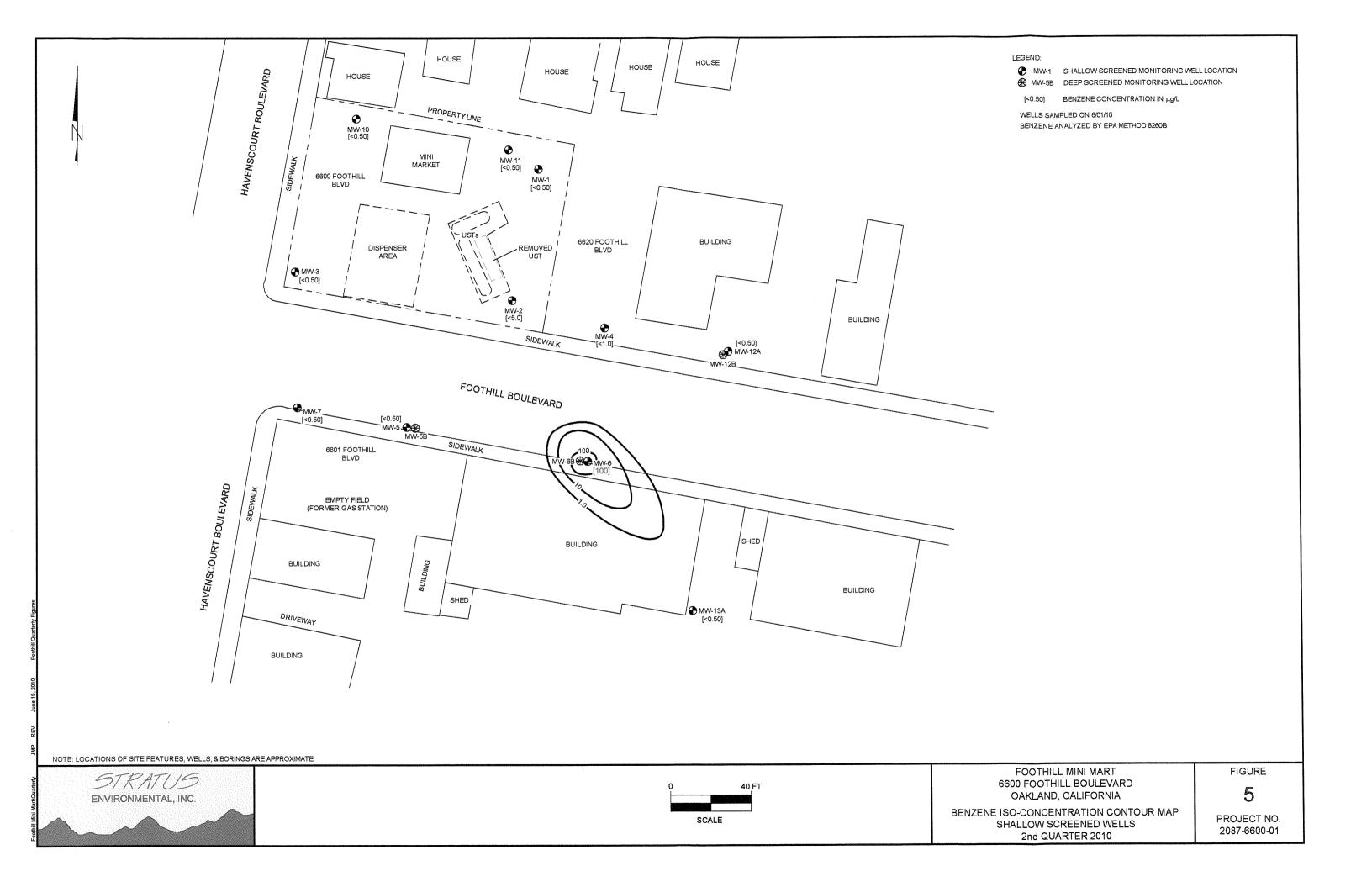
HSA = hollow stem auger

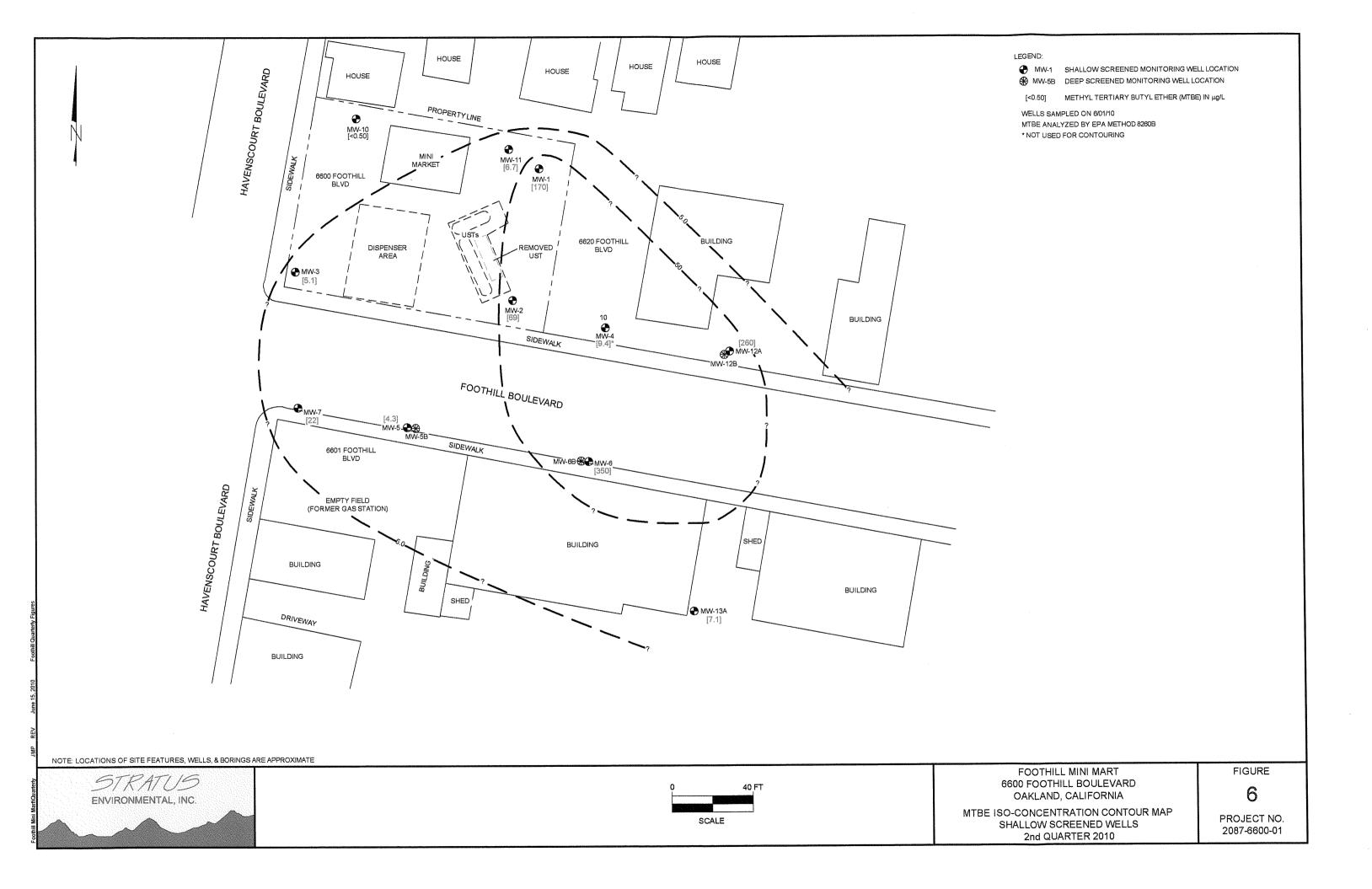


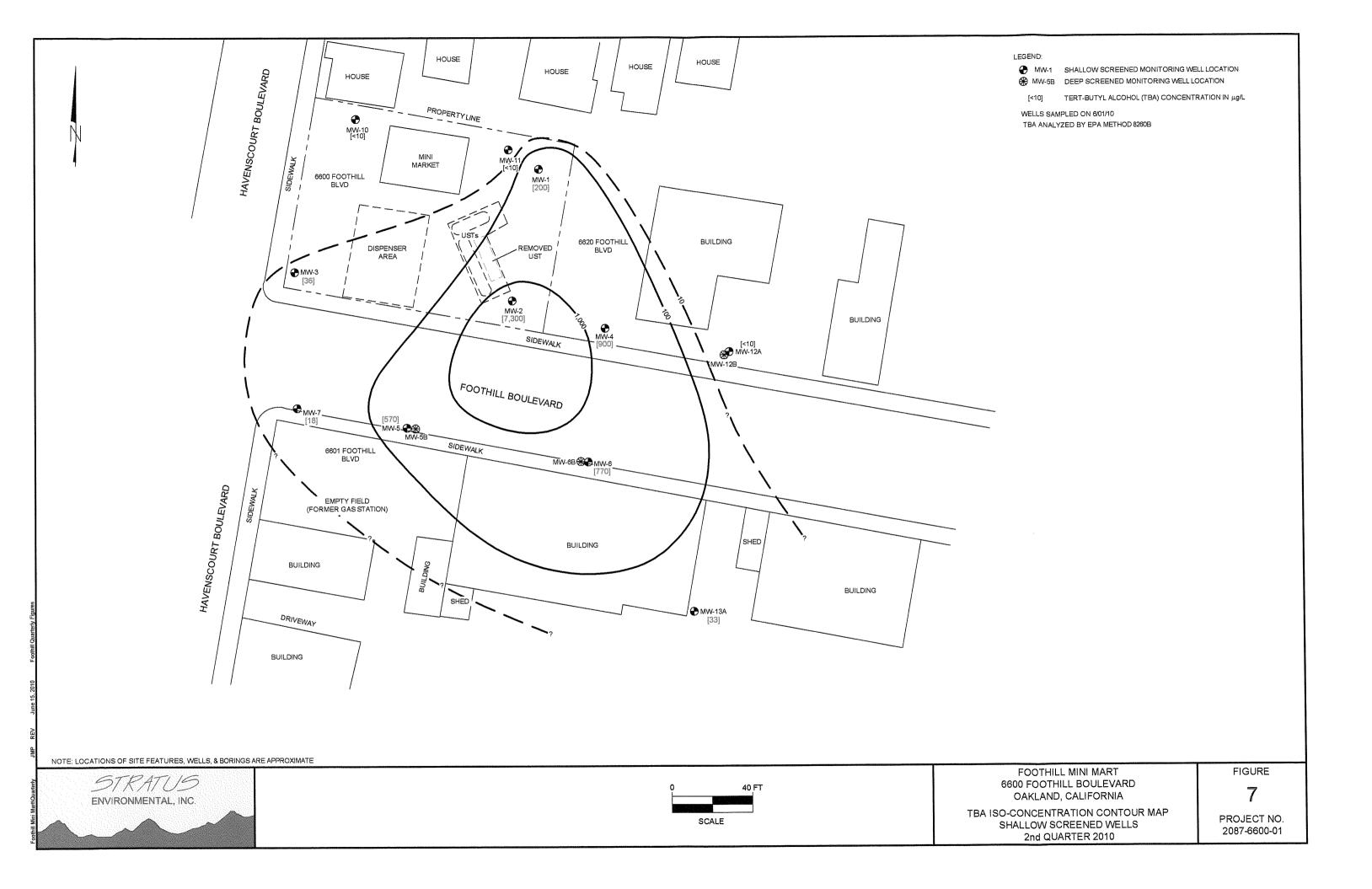


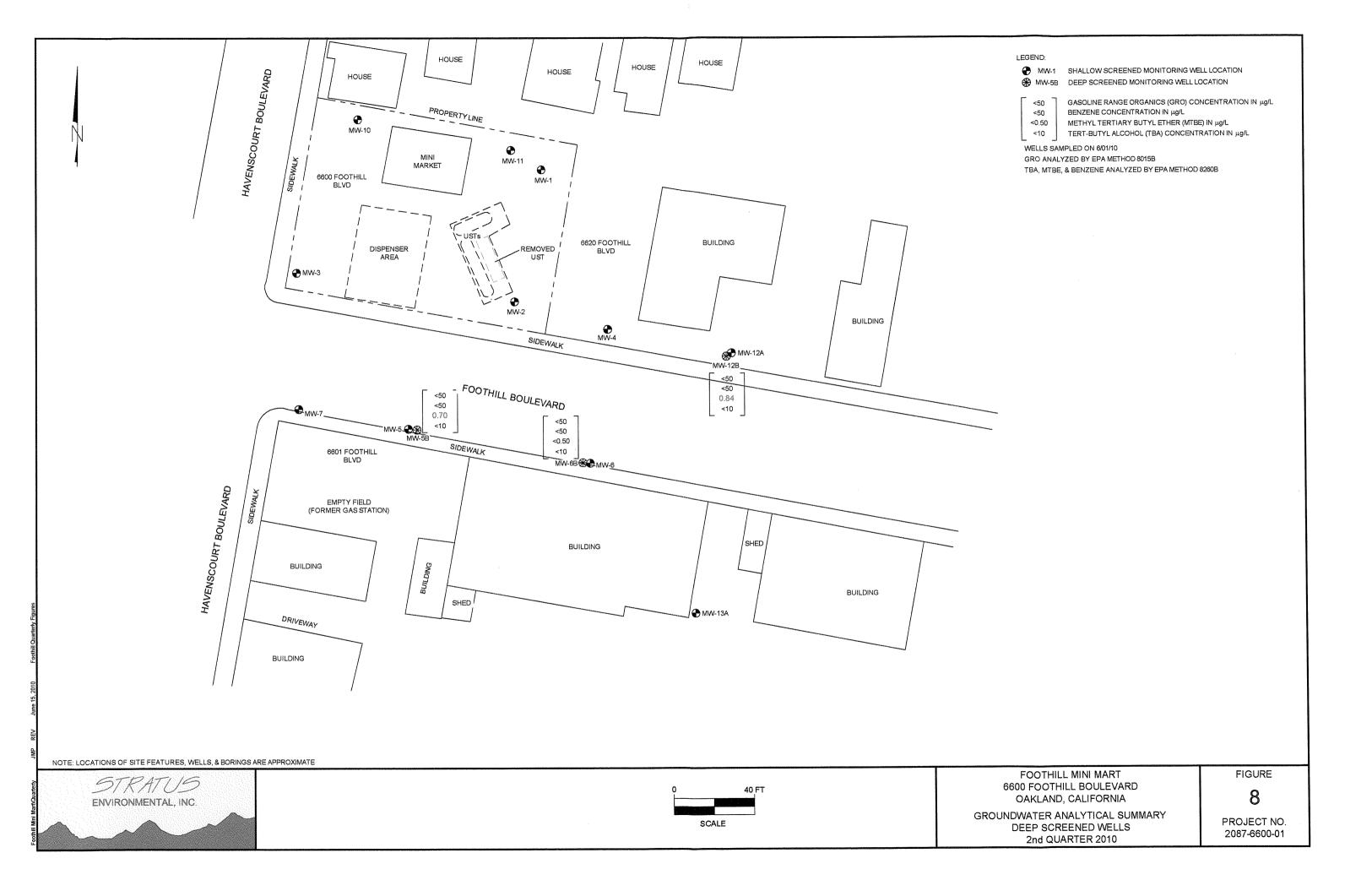












APPENDIX A FIELD DATA SHEETS

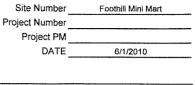


		THE STREET	
Site Address	6600 Foothill	Site Number	Foothill Mini Mart
City	Oakland, CA	Project Number	
Sampled By:	VZ, LF	Project PM	
Signature	V 2/	DATE	6/1/2010
	7		

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)	Diamater (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)
MW-1	0711		7.58	24.15	16.57	2	0.5	8.29	7.00		X			10.76	MW-1	1217	3.10
MW-2	0736		9.15	24.30	15.15	2	0.5	7.58	7.50		X			15.15	MW-2	1121	3.09
MW-3	0731		9.82	23.50	13.48	2	0.5	6.84	7.00		X			9.88	MW-3	1200	3.45
MW-5	0816		8.15	19.35	11.20	2	0.5	5.60	5.50		X			8.27	MW-5	1101	2.87
MW-5B		,	12.87	45.10	32.23	2	0.5	16.12	16.00		X			25.73	MW-5B	1226	2.12
MW-6	0824		5.85	19.00	13.15	2	0.5	4.58	6.50		X			7.49	MW-6	0857	2.14
MW-6B	0826	-24.	35.75	49.85	14.10	2	0.5	7.05	7.00		X			41.51	MW-6B	1027	3.08
MW-7	0801		9.74	24.67	14.93	2	0.5	7.47	7.50		X			16:41	MW-7	1257	1.07
MW-10	0723		8.85	24.87	16.02	2	0.5	8.01	6.00		X		120	11.66	MW-10	1158	2.62
MW-11	0700		9.74	24.75	15.01	2	0.5	7.51	7.50		X			10.72	MW-11	1227	3.24
MW-12A	1024		8.07	21.46	13.39	2	0.5	4.70	7.00		X			10.37	MW-12A	1055	3.52
MW-12B	1021		37.49	43.31	\$5.82	2	0.5	2.91	3.00		X			40.79	MW-12B	1244	3.07
MW-13A	الحصاسيا		6.47	24.85	18.38	2	0.5	9-19	9.00		X			9.01	MW-13A	11349	. 85
MW-4	1012		6.00	19.59	13.59	2	15	6.80	4.00		X		Dry	7.09	mu-y	13/4	3.03
							,			.							
				A11	wells	2	taes	1000-	Bail	Sh	en	we	rite	d to	sa.	mple	
										<u> </u>							
			7/	15 /			11		11	2	1		1-11	16 0	<u></u>	0 100	2.0
			nw-	13A	Owe	ner	C	onta	ted	120	asc	4	15	7517		OWN	7
					, ,	1			1		<u> </u>			-21		-	
			He	woul	of no	Þ7	1ea	ve c	onta	0	16	DTZ	- 0	2196	45	Ĵ	
		L. Journal of the Control of the Con				1	1		\	2	 	/		/			
			Say	5 n	re s	pol	ug	na	ve 1	/	a		eac	9			
						3 /1	-1	+	31		1		. 1	F		. 4 6	211
			MWY	3 C	dsing	10	en t	_ T	rouble	<u> </u>	216	in	<u>u</u>	ailer	do	on w	41
											<u></u>						

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 mesured before purge)

	CALIBI	RATION DATE
pН	VA	10-1-10
Conductivity	_,	
DO	2-	2





Site Address	6600 Foothill
City	Oakland, CA
Sampled By:	VZ, LF
Signature	13

Ø		Bail		Well ID MW	'-3	Pun	N)		
1180		Odor	Y (V)	Purge start time	0845		Odor	Y 🚳	
Temp C	рН	cond	gallons		Temp C	рН	cond	gallons	
17.8	\$ 5.61	363	Ø	time 0845	20.0	5.96	210	Ø	
18.1	5.94	146	3 _	time 0847	20.2	5.90	<u> ఇం</u> ప	3.5	
Dry	at 60	اهو		time 0849	20.3	5.98	181.5	7	
18.5	6.44	302	Ь	time					
purge stop time 082\				purge stop time	0849		ORP .	18	
Well ID MW-2				Well ID MW	/-\		Bail		
0903		Odor	Y (1)	Purge start time	0924		Odor	Y (N)	
Temp C	pН	cond	gallons		Temp C	рН	cond	gallons	
19.8	5.76	377	Ø	time 0924	19.0	6.08	228	er	
19.6	5.91	384	3.5	time 0930	18.8	5.87	249	4.5	
19.6	5.96	394	7.5	time 0935	Dry .	J.F 4.	gal		
				time 1213	19.4	6.23	261	7.0	
purge stop time 0913			79	purge stop time	0935		ORP 5	⁻ 8	
-11	Bo	~i		Well ID NW-	123	Bail			
947		Odor	Y 🕦	Purge start time	1031		Odor	Y (N)	
Temp C	pН	cond	gallons		Temp C	pН	cond	gallons	
1.81	5.65	492	Ø	time 1031	19.4	5-99	739	S	
18.1	5.68	529	4	time 034	19.6	6.39	710	1.5	
18.2	5-67	644	7.5	time 1037	19-6	6.65	728	3.00	
		·		time					
º958)	ORP 7	2	purge stop time	1037		ORP &	32	
12A		Bail							
1042		Odor			1102		Odor	08	
Temp C	pН	cond	gallons		Temp C	pН	cond	gallons	
188	6.87	278	Ø	time 1102	19.2	6.23	262	B	
.0.0			2	time 1107	10 2	6-23	268	2	
18.8	6.50	288	3.50	time 1107	19.2	Con land	200	3.5	
	6.50	288	3.00	time 1109		at 4	T	3.5	
18.8			3.00	1301			T	4.0	
	17.8 18.1 Dy 18.5 0821 20903 Temp C 19.6 19.7 Temp C	17.8 \$5.61 18.1 5.94 18.5 6.44 0821 2 0903 Temp C pH 19.8 5.76 19.6 5.91 19.6 5.96 0913 -11 Bc 944 Temp C pH 18.1 5.68 18.2 5.61 2958 12A 1042 Temp C pH	Odor Temp C	Dodor No Temp C pH cond gallons 17.8 25.61 363 25 18.1 5.94 271 3 18.5 6.44 302 6 18.5 6.44 302 6 18.6 5.76 377 27 19.6 5.96 394 7.5 19.6 5.96 394 7.5 19.6 5.96 394 7.5 19.6 5.96 394 7.5 19.6 5.96 394 7.5 18.1 5.68 5.29 4 18.2 5.67 644 7.5 18.2 5.67 644 7.5 19.3 645 645 645 645 645 19.3 645 645 645 645 645 19.3 645 645 645 645 645 19.3 645 645 645 645 645 19.3 645 645 645 645 645 19.3 645 645 645 645 645 19.3 645 645 645 645 645 19.3 645 645 645 645 645 19.3 645 645 645 645 645 19.3 645 645 645 645 645 19.3 645 645 645 645 645 19.3 645 645 645 645 645 19.3 645 645 645 645 645 19.3 645 645 645 645 19.3 645 645 645 645 19.3 645 645 645 645 19.3 645 645 645 645 19.3 645 645 645 645 19.3 645 645 645 645 19.3 645 645 645 19.3 645 645 645 19.3 645 645 645 19.3 645 645 645 19.3 645 645 645 19.3 645 645 645 19.3 645 645 645 19.3 645 645 645 19.3 645 645 645 19.3 645 645 645 19.3 645 645 645 19.3 645 645 19.	Note	Description Description	Temp C pH cond gallons Temp C pH cond gallons Temp C pH Temp C pH	St	



Site Address	6600 Foothill
City	Oakland, CA
Sampled By:	VZ, LF
Signature	VR

Site Number_	Foothill Mini Mart
Project Number	
Project PM	
DATE	6/1/2010

Well ID	mn	1-6		sheen	Well ID	MW-	68		
Purge start time		°33	Odor		Purge start time	09		Odor	Y (N)
Bail	Temp C	pН	cond	gallons	Bail	Temp C	pН	cond	gallons
time 0833	19.7	6.77	366	\$	time 0906	17.0	7.15	375	<i>හ</i>
time 0843	17.7	6.96	340		time 0911	16.5	7.33	368	3.5
time 0857	17.5	6.74	3/8	6.5	time /oz7	17.8	7.40	414(7.0
time		•			time				
purge stop time	rge stop time 0857 ORP 4/			purge stop time	0921	/	ORP (63	
Well ID NW-5				Well ID	M	15-5B	3		
Purge start time	092	6	Odor	Y (N)	Purge start time	094	3	Odor	YN
Bail	Temp C	pН	cond	gallons	Bail	Temp C	pН	cond	gallons
time 0 926	16.7	6.96	125	≥ ⊘	time 0943	17.7	6.87	343	R
time 0930	16.9	6.78	141		time /0 10	17.9	7.20		8
time // 0 /	17.9	6.99	1621	5.5	time 1226	19.5	798	403	(4)
time					time		7.28		
purge stop time	09	36	ORP	73	purge stop time	102	Z	ORP (11
Well ID	MW	- 7			Well ID		ŧ		
Purge start time	10	4/	Odor	YN	Purge start time			Odor	Y N
Bail	Temp C	рН	cond	gallons		Temp C	pН	cond	gallons
time 1041	18.0	6.72	447	R	time				
time 1047	17.8	6.83	483		time				
time 1257	19.1	6.91	8041	7.5	time				
time					time				
purge stop time	1055		ORP	129	purge stop time			ORP	
Well ID	mw.	-13A			Well ID				
Purge start time	(31	7	Odor	YN	Purge start time			Odor	ΥN
Bail	Temp C	рН	cond	gallons		Temp C	рН	cond	gallons
time 1317	21.1	6.91	190	Ø.	time				
time /333	21.4	6.80	244	4.5	time				
time /34 9	20.5	6.71	272	9.0	time				
time					time				
purge stop time	134	9	ORP	(32	purge stop time	,		ORP	

PALL HES

APPENDIX B SAMPLING AND ANALYSES PROCEDURES

SAMPLING AND ANALYSES PROCEDURES

The sampling and analyses 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 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 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 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[®] 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



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: 06/03/10

Job:

Foothill Mini Mart

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

		Parameter	Concentr	ration	Reporting Limit	Date Extracted	Date Analyzed	•
Client ID:	MW-1						•	
Lab ID:	STR10060343-01A	TPH-P (GRO)	190		50 μg/L	06/04/10	06/04/10	
Date Sampled	06/01/10 12:17	Tertiary Butyl Alcohol (TBA)	200		10 μ g /L	06/04/10	06/04/10	
		Methyl tert-butyl ether (MTBE)	170		0.50 μg/L	06/04/10	06/04/10	
		Di-isopropyl Ether (DIPE)	ND		1.0 μ g /L	06/04/10	06/04/10	
42		Ethyl Tertiary Butyl Ether (ETBE)	ND		1.0 μg/L	06/04/10	06/04/10	
or gus h		Benzene	ND		0.50 µg/L	06/04/10	06/04/10	
14 (2.5	3.77	Tertiary Amyl Methyl Ether (TAME)	ND		1.0 µg/L	06/04/10	06/04/10	
	D ₁₈₆	Toluene	ND		0.50 µg/L	06/04/10	06/04/10	
23.		Ethylbenzene	ND		0.50 μg/L	06/04/10	06/04/10	
		m,p-Xylene	ND		0.50 μg/L	06/04/10	06/04/10	
	- J 42 5	o-Xylene	ND		0.50 μg/L	06/04/10	06/04/10	
Client ID:	MW-2							
Lab ID:	STR10060343-02A	TPH-P (GRO)	ND	V	1,000 µg/L	06/04/10	06/04/10	
Date Sampled	06/01/10 11:21	Tertiary Butyl Alcohol (TBA)	7,300		100 μg/L	06/04/10	06/04/10	
*		Methyl tert-butyl ether (MTBE)	69		5.0 μg/L	06/04/10	06/04/10	
		Di-isopropyl Ether (DIPE)	ND	V	10 μg/L	06/04/10	06/04/10	
		Ethyl Tertiary Butyl Ether (ETBE)	ND	V	10 μg/L	06/04/10	06/04/10	
., T		Benzene	ND	V	5.0 μg/L	06/04/10	06/04/10	
		Tertiary Amyl Methyl Ether (TAME)	ND	V	10 μg/L	06/04/10	06/04/10	
1 1 1		Toluene	ND	V	5.0 μg/L	06/04/10	06/04/10	
		Ethylbenzene	ND	V	5.0 μg/L	06/04/10	06/04/10	
		m,p-Xylene	ND	V	5.0 μg/L	06/04/10	06/04/10	
		o-Xylene	ND	V	5.0 μg/L	06/04/10	06/04/10	
Client ID:	MW-3							
Lab ID:	STR10060343-03A	TPH-P (GRO)	ND		50 μg/L	06/04/10	06/04/10	
Date Sampled	06/01/10 12:00	Tertiary Butyl Alcohol (TBA)	36		10 μg/L	06/04/10	06/04/10	
8.7	ă	Methyl tert-butyl ether (MTBE)	5.1		0.50 μg/L	06/04/10	06/04/10	
		Di-isopropyl Ether (DIPE)	ND		1.0 μg/L	06/04/10	06/04/10	
		Ethyl Tertiary Butyl Ether (ETBE)	ND		1.0 µg/L	06/04/10	06/04/10	
	171 - 7	Benzene	ND		0.50 μg/L	06/04/10	06/04/10	
	- (M), 43	Tertiary Amyl Methyl Ether (TAME)	ND		1.0 μg/L	06/04/10	06/04/10	
		Toluene	ND		0.50 μg/L	06/04/10	06/04/10	
		Ethylbenzene	ND		0.50 μg/L	06/04/10	06/04/10	
		m,p-Xylene	ND		0.50 μg/L	06/04/10	06/04/10	
		o-Xylene	ND		$0.50~\mu g/L$	06/04/10	06/04/10	

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Alpha Analytical, Inc.

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Client ID:	MW-4						
Lab ID :	STR10060343-04A	TPH-P (GRO)	3,300		200 μg/L	06/04/10	06/04/10
Date Sampled	06/01/10 13:14	Tertiary Butyl Alcohol (TBA)	900		20 μg/L	06/04/10	06/04/10
		Methyl tert-butyl ether (MTBE)	9.4		1.0 μg/L	06/04/10	06/04/1
		Di-isopropyl Ether (DIPE)	ND	v	2.0 μg/L	06/04/10	06/04/1
		Ethyl Tertiary Butyl Ether (ETBE)	ND	V	2.0 μg/L	06/04/10	06/04/1
		Benzene	ND	v	1.0 μg/L	06/04/10	06/04/1
		Tertiary Amyl Methyl Ether (TAME)	ND	V	2.0 μg/L	06/04/10	06/04/1
		Toluene	ND	V	1.0 μg/L	06/04/10	06/04/1
		Ethylbenzene	4.1		1.0 μg/L	06/04/10	06/04/1
		m,p-Xylene	ND	V	1.0 μg/L	06/04/10	06/04/1
10.75		o-Xylene	ND	V	1.0 μg/L	06/04/10	06/04/1
Client ID:	MW-5				. 5		
ab ID :	STR10060343-05A	TPH-P (GRO)	1,000		100 μg/L	06/04/10	06/04/1
Date Sampled	06/01/10 11:01	Tertiary Butyl Alcohol (TBA)	570		10 μg/L	06/04/10	06/04/1
		Methyl tert-butyl ether (MTBE)	4.3		0.50 μg/L	06/04/10	06/04/1
	ł	Di-isopropyl Ether (DIPE)	ND		1.0 μg/L	06/04/10	06/04/1
	* **	Ethyl Tertiary Butyl Ether (ETBE)	ND		1.0 μg/L	06/04/10	06/04/1
	14	Benzene	ND		0.50 μg/L	06/04/10	06/04/1
	- 11 11 11 11 11 11 11 11 11 11 11 11 11	Tertiary Amyl Methyl Ether (TAME)	ND		1.0 μg/L	06/04/10	06/04/1
	5 \$ 9 -1 -1,	Toluene	ND		0.50 μg/L	06/04/10	06/04/1
*		Ethylbenzene	ND		0.50 μg/L	06/04/10	06/04/1
		m,p-Xylene	ND		0.50 μg/L	06/04/10	06/04/1
		o-Xylene	ND		0.50 μg/L	06/04/10	06/04/1
Client ID:	MW-5B		ND		V.50 μg/ L	00/01/10	00/0 // 1
Lab ID :	STR10060343-06A	TPH-P (GRO)	ND		50 μg/L	06/04/10	06/04/1
Date Sampled	06/01/10 12:26	Tertiary Butyl Alcohol (TBA)	ND		10 μg/L	06/04/10	06/04/1
		Methyl tert-butyl ether (MTBE)	0.70		0.50 μg/L	06/04/10	06/04/1
		Di-isopropyl Ether (DIPE)	ND		1.0 μg/L	06/04/10	06/04/1
		Ethyl Tertiary Butyl Ether (ETBE)	ND		1.0 μg/L	06/04/10	06/04/1
NAME OF THE REAL PROPERTY.		Benzene	ND		0.50 μg/L	06/04/10	06/04/1
1 5 (11) 5 (Tertiary Amyl Methyl Ether (TAME)	ND		0.30 μg/L 1.0 μg/L	06/04/10	06/04/1
1.43%	N.	Toluene Toluene	ND		0.50 μg/L	06/04/10	06/04/1
A PARIS	\$ sr	Ethylbenzene	ND		0.50 μg/L 0.50 μg/L	06/04/10	06/04/1
		m,p-Xylene	ND		0.50 μg/L 0.50 μg/L	06/04/10	06/04/1
		o-Xylene	ND		0.50 μg/L 0.50 μg/L	06/04/10	06/04/1
Client ID:	MW-6	0-Nylene	ND		0.30 µg/L	00/04/10	00/04/
Lab ID :	STR10060343-07A	TPH-P (GRO)	7.500		500~/I	06/04/10	06/04/1
	06/01/10 08:57	Tertiary Butyl Alcohol (TBA)	7,500 770		500 μg/L	06/04/10	06/04/1 06/04/1
Dute Sampled	00/01/10 00.57	Methyl tert-butyl ether (MTBE)	350		50 μg/L	06/04/10	06/04/1
				37	2.5 μg/L		
		Di-isopropyl Ether (DIPE)	ND	V	5.0 μg/L	06/04/10	06/04/1
		Ethyl Tertiary Butyl Ether (ETBE)	ND	V	5.0 μg/L	06/04/10	06/04/1
		Benzene Terriery April Medial Educ (TAME)	100	7.7	2.5 μg/L	06/04/10	06/04/1
		Tertiary Amyl Methyl Ether (TAME)	ND	V	5.0 μg/L	06/04/10	06/04/1
î.		Toluene	ND	V	2.5 μg/L	06/04/10	06/04/1
		Ethylbenzene	28		2.5 μg/L	06/04/10	06/04/1
		m,p-Xylene	48		2.5 μg/L	06/04/10	06/04/1
		o-Xylene	ND	V	2.5 μg/L	06/04/10	06/04/1



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Date STR 10060343-08A TPH-P (GRO)	Client ID:	MW-6B			-		
Date Samplet 0-01/10 10-27			TPH-P (GRO)	ND	50 μg/L	06/04/10	06/04/10
Methy tear-buys their (MTBE) ND 0.50 kg/L 0604/10 0504/1	Date Sampled	06/01/10 10:27	, ,				
	- 12,		Methyl tert-butyl ether (MTBE)				
			Ethyl Tertiary Butyl Ether (ETBE)				
Part			Benzene			06/04/10	
Client ID: Toluen			Tertiary Amyl Methyl Ether (TAME)	ND		06/04/10	06/04/10
Ethylbenzene ND 0.50 kg/L 0604/10 0			Toluene	ND		06/04/10	
Mp-Xylene			Ethylbenzene	ND	, •	06/04/10	06/04/10
Clear ID: NW-7 Clear ID: STR 10060343-094 TPH-P (GRO) ND 50 µg/L 0604/10 0604/10 Date Sample 0601/10 12:57 Terriary Butyl Alcohol (TBA) 18 10 µ g/L 0604/10 0604/10 0604/10 Date Sample 0601/10 12:57 Terriary Butyl Ether (DIPE) ND 1.0 µg/L 0604/10 0604/10 0604/10 Date Sample 0604/10 0604/10 Date Sample 0604/10 06		A STATE OF THE STA		ND		06/04/10	06/04/10
Clear ID MW-7			o-Xylene	ND			
Date Sampled 06/01/10 12:57 Tertiary Butyl Alcohol (TBA) 18 10 μg/L 06/04/10 06/04/10 06/04/10 Di-isopropyl Ether (DIPE) ND 1.0 μg/L 06/04/10 06/04/10 06/04/10 Di-isopropyl Ether (DIPE) ND 1.0 μg/L 06/04/10 06/04/1	Client ID:	MW-7					
Methyl tert-butyl ether (MTBE) 22 0.50 µg/L 0.604/10 0.604/10 Disopropyl Ether (DIPE) ND 1.0 µg/L 0.604/10 0.604/10 Ethyl Tertiary Butyl Ether (ETBE) ND 1.0 µg/L 0.604/10 0.604/10 Demzene ND 0.50 µg/L 0.604/10 0.604/10 Demzene ND 0.50 µg/L 0.604/10 0.604/10 Demzene ND 0.50 µg/L 0.604/10 0.604/10 Disopropyl Ether (TAME) ND 0.50 µg/L 0.604/10 0.604/10 Demzene ND 0.50 µg/L 0.604/10 0.604/10 Disopropyl Ether (DIPE) ND 0.50 µg/L 0.604/10 0.604/10 Disopropyl Ether	Lab ID:	STR10060343-09A	TPH-P (GRO)	ND	50 μg/L	06/04/10	06/04/10
Di-isopropyl Ether (DIPE) ND 1.0 µg/L 06/04/10	Date Sampled	06/01/10 12:57	Tertiary Butyl Alcohol (TBA)	18	10 μg/L	06/04/10	06/04/10
Ethyl Tertiary Butyl Ether (ETBE) ND 1.0 μg/L 06/04/10 06			Methyl tert-butyl ether (MTBE)	22	0.50 μg/L	06/04/10	06/04/10
Benzene			Di-isopropyl Ether (DIPE)	ND	1.0 μg/L	06/04/10	06/04/10
Tertiary Amyl Methyl Ether (TAME) ND			Ethyl Tertiary Butyl Ether (ETBE)	ND	. 1.0 μg/L	06/04/10	06/04/10
Toluene			Benzene	ND	0.50 μg/L	06/04/10	06/04/10
Ethylbenzene ND 0.50 µg/L 06/04/10 06/04/10 06/04/10 0-Xylene ND 0.50 µg/L 06/04/10 06/04/10 0-Xylene ND 0.50 µg/L 06/04/10 06/04/10 0-Xylene ND 0.50 µg/L 06/04/10 06/			Tertiary Amyl Methyl Ether (TAME)	ND	1.0 µg/L	06/04/10	06/04/10
My-10 My-	· Name	÷	Toluene	ND	0.50 μg/L	06/04/10	06/04/10
Client ID : O-Xylene ND O.50 μg/L O6/04/10 O6/04/10 Lab ID : STR 10060343-10A TPH-P (GRO) ND S0 μg/L O6/04/10 O6/04/10 Date Sampled O6/01/10 11:58 Tertiary Butyl Alcohol (TBA) ND 1.0 μg/L O6/04/10 O6/04/10 Di-isopropyl Ether (DIPE) ND 1.0 μg/L O6/04/10 O6/04/10 Ethyl Tertiary Butyl Ether (ETBE) ND 1.0 μg/L O6/04/10 O6/04/10 Ethyl Tertiary Butyl Ether (ETBE) ND 1.0 μg/L O6/04/10 O6/04/10 Ethyl Tertiary Amyl Methyl Ether (TAME) ND 1.0 μg/L O6/04/10 O6/04/10 Tertiary Amyl Methyl Ether (TAME) ND 0.50 μg/L O6/04/10 O6/04/10 Toluene ND 0.50 μg/L O6/04/10 O6/04/10 Ethylbenzene ND 0.50 μg/L O6/04/10 O6/04/10 Client ID : STR 10060343-11A TPH-P (GRO) ND S0 μg/L O6/04/10 O6/04/10 Date Sampled O6/01/10 12:27 Tertiary Butyl Alcohol (TBA) ND 10 μg/L O6/04/10 O6/04/10 Date Sampled O6/01/10 12:27 Tertiary Butyl Alcohol (TBA) ND 10 μg/L O6/04/10 O6/04/10 Date Sampled O6/01/10 12:27 Tertiary Butyl Ether (MTBE) 6.7 O.50 μg/L O6/04/10 O6/04/10 Di-isopropyl Ether (DIPE) ND 1.0 μg/L O6/04/10 O6/04/10 O6/04/10 O6/04/10 O6/04/10 O6/04/10 O6/04/10 O6/04/10 O6/04/10 O6/04/10 O6/04/10 O6/04/10 O6/04/10 O6/04/10 O6/04/10 O6/04/10 O6/04/10 O6/04/10 O6/04/10 O6/04/10 O6/04/10 O6/04/10 O6/04/10 O6/04/10 O6/04/10 O6/04/10 O6/04/10 O6/04/10 O6/04/10 O6/04/10 O6/04/10 O6/04/10 O6/04/10 O6/04/10 O6/04/10 O6/04/1	141		Ethylbenzene	ND	0.50 μg/L	06/04/10	06/04/10
Client ID: STR 10060343-10A TPH-P (GRO) ND ND 10 µg/L 06/04/10			m,p-Xylene	ND	0.50 μg/L	06/04/10	06/04/10
Lab ID : STR 10060343-10A TPH-P (GRO) ND S0 μg/L 06/04/10 06/04/10 Date Sampled 06/01/10 11:58 Tertiary Butyl Alcohol (TBA) ND 10 μg/L 06/04/10 06/04			o-Xylene	ND	$0.50~\mu g/L$	06/04/10	06/04/10
Date Sampled 06/01/10 11:58 Tertiary Butyl Alcohol (TBA) ND 10 μg/L 06/04/10 06/04/1							
Methyl tert-butyl ether (MTBE) ND 0.50 µg/L 06/04/10 06/04/10 Di-isopropyl Ether (DIPE) ND 1.0 µg/L 06/04/10 06/04/10 Ethyl Tertiary Butyl Ether (ETBE) ND 1.0 µg/L 06/04/10 06/04/10 Benzene ND 0.50 µg/L 06/04/10 06/04/10 Tertiary Amyl Methyl Ether (TAME) ND 1.0 µg/L 06/04/10 06/04/10 Tertiary Amyl Methyl Ether (TAME) ND 0.50 µg/L 06/04/10 06/04/10 Toluene ND 0.50 µg/L 06/04/10 06/04/10 Ethylbenzene ND 0.50 µg/L 06/04/10 06/04/10 Toluene ND 0.50 µg/L 06/04/10 06/04/10 Toluene ND 0.50 µg/L 06/04/10 06/04/10 Tertiary Amyl Methyl Ether (TAME) ND 0.50 µg/L 06/04/10 06/04/10 Tertiary Butyl Alcohol (TBA) ND 10 µg/L 06/04/10 06/04/10 Date Sampled 06/01/10 12:27 Tertiary Butyl Alcohol (TBA) ND 10 µg/L 06/04/10 06/04/10 Di-isopropyl Ether (MTBE) 6.7 0.50 µg/L 06/04/10 06/04/10 Di-isopropyl Ether (DIPE) ND 1.0 µg/L 06/04/10 06/04/10 Di-isopropyl Ether (DIPE) ND 1.0 µg/L 06/04/10 06/04/10 Tertiary Butyl Ether (ETBE) ND 1.0 µg/L 06/04/10 06/04/10 Tertiary Amyl Methyl Ether (TAME) ND 1.0 µg/L 06/04/10 06/04/10 Tertiary Amyl Methyl Ether (TAME) ND 0.50 µg/L 06/04/10 06/04/10 Tertiary Amyl Methyl Ether (TAME) ND 0.50 µg/L 06/04/10 06/04/10 Tertiary Amyl Methyl Ether (TAME) ND 0.50 µg/L 06/04/10 06/04/10 Tertiary Amyl Methyl Ether (TAME) ND 0.50 µg/L 06/04/10 06/04/10 Tertiary Amyl Methyl Ether (TAME) ND 0.50 µg/L 06/04/10 06/04/10 Tertiary Amyl Methyl Ether (TAME) ND 0.50 µg/L 06/04/10 06/04/10 Tertiary Amyl Methyl Ether (TAME) ND 0.50 µg/L 06/04/10 06/04/10 Tertiary Amyl Methyl Ether (TAME) ND 0.50 µg/L 06/04/10 06/04/10 Tertiary Amyl Methyl Ether (TAME) ND 0.50 µg/L 06/04/10 06/04/10 Tertiary Amyl Methyl Ether (TAME) ND 0.50 µg/L 06/04/10 06/04/10 Tertiary Amyl Methyl Ether (TAME) ND 0			TPH-P (GRO)	ND	50 μg/L	06/04/10	06/04/10
Di-isopropyl Ether (DIPE) ND 1.0 μg/L 06/04/10 06/04/10 Ethyl Tertiary Butyl Ether (ETBE) ND 1.0 μg/L 06/04/10 06/04/10 Benzene ND 0.50 μg/L 06/04/10 06/04/10 Tertiary Amyl Methyl Ether (TAME) ND 1.0 μg/L 06/04/10 06/04/10 Toluene ND 0.50 μg/L 06/04/10 06/04/10 Ethylbenzene ND 0.50 μg/L 06/04/10 06/04/10 m,p-Xylene ND 0.50 μg/L 06/04/10 06/04/10 o-Xylene ND 0.50 μg/L 06/04/10 06/04/10 Date Sampled 06/01/10 12:27 Tertiary Butyl Alcohol (TBA) ND 10 μg/L 06/04/10 06/04/10 Date Sampled 06/01/10 12:27 Tertiary Butyl Alcohol (TBA) ND 10 μg/L 06/04/10 06/04/10 Di-isopropyl Ether (DIPE) ND 1.0 μg/L 06/04/10 06/04/10 Ethyl Tertiary Butyl Ether (ETBE) ND 1.0 μg/L 06/04/10 06/04/10 Ethyl Tertiary Butyl Ether (ETBE) ND 1.0 μg/L 06/04/10 06/04/10 Ethyl Tertiary Butyl Ether (TAME) ND 1.0 μg/L 06/04/10 06/04/10 Ethyl Tertiary Butyl Ether (TAME) ND 1.0 μg/L 06/04/10 06/04/10 Ethyl Tertiary Amyl Methyl Ether (TAME) ND 1.0 μg/L 06/04/10 06/04/10 Toluene ND 0.50 μg/L 06/04/10 06/04/10 Ethylbenzene ND 0.50 μg/L 06/04/10 06/04/10 O6/04/10 06/04/10 06	Date Sampled	06/01/10 11:58	Tertiary Butyl Alcohol (TBA)	ND	10 μg/L	06/04/10	06/04/10
Ethyl Tertiary Butyl Ether (ETBE) ND 1.0 μg/L 06/04/10 06/04/10 06/04/10 Benzene ND 0.50 μg/L 06/04/10 06/04/10 06/04/10 Tertiary Amyl Methyl Ether (TAME) ND 1.0 μg/L 06/04/10 06/04/10 Toluene ND 0.50 μg/L 06/04/10 06/04/10 Ethylbenzene ND 0.50 μg/L 06/04/10 06/04/10 π,p-Xylene ND 0.50 μg/L 06/04/10 06/04/10 σ-Xylene ND 0.50 μg/L 06/04/10 06/04/10 σ-Xylene ND 0.50 μg/L 06/04/10 06/04/10 O-Xylene ND 0.50 μg/L 06/04/10 06/04/10 D-Xylene ND 0.50 μg/L 06/04/10 D-Xylene ND 0.50 μg/L 06/04/10 D-Xylene ND			Methyl tert-butyl ether (MTBE)	ND	0.50 μg/L	06/04/10	06/04/10
Renzene ND 0.50 µg/L 06/04/10 06/0		, in	• •• • • • •	ND	1.0 μg/L	06/04/10	06/04/10
Tertiary Amyl Methyl Ether (TAME)			Ethyl Tertiary Butyl Ether (ETBE)	ND	1.0 μg/L	06/04/10	06/04/10
Toluene ND 0.50 μg/L 06/04/10 06/04/10 06/04/10 Ethylbenzene ND 0.50 μg/L 06/04/10 06/04/10 06/04/10 m,p-Xylene ND 0.50 μg/L 06/04/10 06/04/1			Benzene	ND	0.50 μg/L	06/04/10	06/04/10
Ethylbenzene ND 0.50 μg/L 06/04/10 06/04/10				ND	1.0 μg/L	06/04/10	
Mg Mg Mg Mg Mg Mg Mg Mg				ND	0.50 μg/L	06/04/10	06/04/10
O-Xylene ND O.50 μg/L O6/04/10 O6			•	ND	0.50 μg/L	06/04/10	
Client ID: MW-11 Lab ID: STR10060343-11A TPH-P (GRO) ND 50 μg/L 06/04/10 06/04/10 Date Sampled O6/01/10 12:27 Tertiary Butyl Alcohol (TBA) ND 10 μg/L 06/04/10 06/04/10 Methyl tert-butyl ether (MTBE) 6.7 0.50 μg/L 06/04/10 06/04/10 Di-isopropyl Ether (DIPE) ND 1.0 μg/L 06/04/10 06/04/10 Ethyl Tertiary Butyl Ether (ETBE) ND 1.0 μg/L 06/04/10 06/04/10 Benzene ND 0.50 μg/L 06/04/10 06/04/10 Tertiary Amyl Methyl Ether (TAME) ND 1.0 μg/L 06/04/10 06/04/10 Toluene ND 0.50 μg/L 06/04/10 06/04/10 Ethylbenzene ND 0.50 μg/L 06/04/10 06/04/10 MD 0.50 μg/L 06/04/10 06/04/10 06/04/10 MD 0.50 μg/L 06/04/10 06/04/10 06/04/10 MD 0.50 μg/L 06/04/10 06/04/10 06/04/10			• •	ND	0.50 μg/L		
Lab ID: STR10060343-11A TPH-P (GRO) ND 50 μg/L 06/04/10 06/04/10 Date Sampled 06/01/10 12:27 Tertiary Butyl Alcohol (TBA) ND 10 μg/L 06/04/10 06/04/10 Methyl tert-butyl ether (MTBE) 6.7 0.50 μg/L 06/04/10 06/04/10 Di-isopropyl Ether (DIPE) ND 1.0 μg/L 06/04/10 06/04/10 Ethyl Tertiary Butyl Ether (ETBE) ND 1.0 μg/L 06/04/10 06/04/10 Benzene ND 0.50 μg/L 06/04/10 06/04/10 Tertiary Amyl Methyl Ether (TAME) ND 1.0 μg/L 06/04/10 06/04/10 Toluene ND 0.50 μg/L 06/04/10 06/04/10 Ethylbenzene ND 0.50 μg/L 06/04/10 06/04/10 MD 0.50 μg/L 06/04/10 06/04/10 06/04/10			o-Xylene	ND	0.50 μg/L	06/04/10	06/04/10
Date Sampled 06/01/10 12:27 Tertiary Butyl Alcohol (TBA) ND 10 μg/L 06/04/10 06/04/10 Methyl tert-butyl ether (MTBE) 6.7 0.50 μg/L 06/04/10 06/04/10 Di-isopropyl Ether (DIPE) ND 1.0 μg/L 06/04/10 06/04/10 Ethyl Tertiary Butyl Ether (ETBE) ND 1.0 μg/L 06/04/10 06/04/10 Benzene ND 0.50 μg/L 06/04/10 06/04/10 Tertiary Amyl Methyl Ether (TAME) ND 1.0 μg/L 06/04/10 06/04/10 Toluene ND 0.50 μg/L 06/04/10 06/04/10 Ethylbenzene ND 0.50 μg/L 06/04/10 06/04/10 m,p-Xylene ND 0.50 μg/L 06/04/10 06/04/10							
Methyl tert-butyl ether (MTBE) 6.7 0.50 μg/L 06/04/10 06/04/10 Di-isopropyl Ether (DIPE) ND 1.0 μg/L 06/04/10 06/04/10 Ethyl Tertiary Butyl Ether (ETBE) ND 1.0 μg/L 06/04/10 06/04/10 Benzene ND 0.50 μg/L 06/04/10 06/04/10 Tertiary Amyl Methyl Ether (TAME) ND 1.0 μg/L 06/04/10 06/04/10 Toluene ND 0.50 μg/L 06/04/10 06/04/10 Ethylbenzene ND 0.50 μg/L 06/04/10 06/04/10 m,p-Xylene ND 0.50 μg/L 06/04/10 06/04/10	i		• •				
Di-isopropyl Ether (DIPE) ND 1.0 μg/L 06/04/10 06/04/10 Ethyl Tertiary Butyl Ether (ETBE) ND 1.0 μg/L 06/04/10 06/04/10 06/04/10 Benzene ND 0.50 μg/L 06/04/10 06/04/10 Tertiary Amyl Methyl Ether (TAME) ND 1.0 μg/L 06/04/10 06/04/10 Toluene ND 0.50 μg/L 06/04/10 06/04/10 Ethylbenzene ND 0.50 μg/L 06/04/10 06/04/10 m,p-Xylene ND 0.50 μg/L 06/04/10 06/04/10 06/04/10 06/04/10 0 06/04/10 06/04/10 0 06/04/10 0 06/04/10 0 06/04/10 0 06/04/10 0 06/04/10 0 06/04/10 0 06/04/10 0 06/04/10 0	Date Sampleo	1 06/01/10 12:27	• • •				
Ethyl Tertiary Butyl Ether (ETBE) ND 1.0 μg/L 06/04/10 06/04/10 Benzene ND 0.50 μg/L 06/04/10 06/04/10 Tertiary Amyl Methyl Ether (TAME) ND 1.0 μg/L 06/04/10 06/04/10 Toluene ND 0.50 μg/L 06/04/10 06/04/10 Ethylbenzene ND 0.50 μg/L 06/04/10 06/04/10 m,p-Xylene ND 0.50 μg/L 06/04/10 06/04/10							
Benzene ND 0.50 μg/L 06/04/10 06/04/10 Tertiary Amyl Methyl Ether (TAME) ND 1.0 μg/L 06/04/10 06/04/10 Toluene ND 0.50 μg/L 06/04/10 06/04/10 Ethylbenzene ND 0.50 μg/L 06/04/10 06/04/10 m,p-Xylene ND 0.50 μg/L 06/04/10 06/04/10							
Tertiary Amyl Methyl Ether (TAME) ND 1.0 μg/L 06/04/10 06/04/10 Toluene ND 0.50 μg/L 06/04/10 06/04/10 Ethylbenzene ND 0.50 μg/L 06/04/10 06/04/10 m,p-Xylene ND 0.50 μg/L 06/04/10 06/04/10							
Toluene ND 0.50 μg/L 06/04/10 06/04/10 Ethylbenzene ND 0.50 μg/L 06/04/10 06/04/10 m,p-Xylene ND 0.50 μg/L 06/04/10 06/04/10	183						
Ethylbenzene ND 0.50 μg/L 06/04/10 06/04/10 m,p-Xylene ND 0.50 μg/L 06/04/10 06/04/10		1000					
m,p-Xylene ND 0.50 μg/L 06/04/10 06/04/10							
m,p-xylene ND 0.50 μg/L 06/04/10 06/04/10 o-Xylene ND 0.50 μg/L 06/04/10 06/04/10							
o-Xylene ND 0.50 μg/L 06/04/10 06/04/10							
			o-Aylene	NU	0.30 μg/L	06/04/10	06/04/10



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Client ID:	MW-12A					
ab ID :	STR10060343-12A	TPH-P (GRO)	270	50 μg/L	06/04/10	06/04/1
Date Sampled	06/01/10 12:55	Tertiary Butyl Alcohol (TBA)	ND	10 μg/L	06/04/10	06/04/1
		Methyl tert-butyl ether (MTBE)	260	0.50 μg/L	06/04/10	06/04/1
		Di-isopropyl Ether (DIPE)	ND	1.0 µg/L	06/04/10	06/04/1
		Ethyl Tertiary Butyl Ether (ETBE)	ND	1.0 μg/L	06/04/10	06/04/
		Benzene	ND	0.50 μg/L	06/04/10	06/04/
		Tertiary Amyl Methyl Ether (TAME)	ND	1.0 μg/L	06/04/10	06/04/
		Toluene	ND	0.50 μg/L	06/04/10	06/04/
		Ethylbenzene	ND	0.50 μg/L	06/04/10	06/04
		m,p-Xylene	ND	0.50 μg/L	06/04/10	06/04/
		o-Xylene	ND	0.50 μg/L	06/04/10	06/04
lient ID:	MW-12B			, ,		
ab ID ;	STR10060343-13A	TPH-P (GRO)	ND	50 μg/L	06/04/10	06/04
ate Sampled	06/01/10 12:44	Tertiary Butyl Alcohol (TBA)	ND	10 μg/L	06/04/10	06/04
1 -	4.4	Methyl tert-butyl ether (MTBE)	0.84	0.50 μg/L	06/04/10	06/04
	** **	Di-isopropyl Ether (DIPE)	ND	1.0 µg/L	06/04/10	06/04
	//4 t	Ethyl Tertiary Butyl Ether (ETBE)	ND	1.0 µg/L	06/04/10	06/04
	1.0	Benzene	ND	0.50 μg/L	06/04/10	06/04
	110000	Tertiary Amyl Methyl Ether (TAME)	ND	1.0 μg/L	06/04/10	06/04
		Toluene	ND	0.50 μg/L	06/04/10	06/04
		Ethylbenzene	ND	0.50 μg/L	06/04/10	06/04
		m,p-Xylene	ND	0.50 μg/L	06/04/10	06/04
		o-Xylene	ND	0.50 μg/L	06/04/10	06/04
ient ID:	MW-13A					
ıb ID ;	STR10060343-14A	TPH-P (GRO)	1,500	50 μg/L	06/07/10	06/07
ate Sampled	06/01/10 13:49	Tertiary Butyl Alcohol (TBA)	33	10 μg/L	06/07/10	06/07
		Methyl tert-butyl ether (MTBE)	7.1	0.50 μg/L	06/07/10	06/07
		Di-isopropyl Ether (DIPE)	ND	1.0 μg/L	06/07/10	06/03
		Ethyl Tertiary Butyl Ether (ETBE)	ND	1.0 μg/L	06/07/10	06/0
+ 4 HD .		Benzene	ND	0.50 μg/L	06/07/10	06/0
1 111		Tertiary Amyl Methyl Ether (TAME)	ND	1.0 μg/L	06/07/10	06/07
Troppia includ	383	Toluene	ND	0.50 μg/L	06/07/10	06/07
***		Ethylbenzene	ND	0.50 μg/L	06/07/10	06/07
	,	m,p-Xylene	ND	0.50 μg/L	06/07/10	06/07
		o-Xylene	ND	0.50 μg/L	06/07/10	06/07

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 L. Scholl, Ph.D., Laboratory Director · Randy Gardner, Laboratory Manager · Walter Hinchman, Quality Assurance Officer

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

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.

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: 06/03/10

Job:

Foothill Mini Mart

GC/MSD by Direct Injection EPA Method SW8260B-DI

	Parameter	Concentration	Reporting Limit	Date Extracted	Date Analyzed
Client ID: MW-1					
Lab ID: STR10060343-01A	Methanol	ND	50 μg/L	06/04/10 09:19	06/04/10
Date Sampled 06/01/10 12:17	Ethanol	ND	5.0 μg/L	06/04/10 09:19	06/04/10
Client ID: MW-2					
Lab ID: STR10060343-02A	Methanol	ND	50 μg/L	06/04/10 09:19	06/04/10
Date Sampled 06/01/10 11:21	Ethanol	ND	5.0 μg/L	06/04/10 09:19	06/04/10
Client ID: MW-3					
Lab ID: STR10060343-03A	Methanol	ND	50 μg/L	06/04/10 09:19	06/04/10
Date Sampled 06/01/10 12:00	Ethanol	ND	5.0 μg/L	06/04/10 09:19	06/04/10
Client ID: MW-4					
Lab ID: STR10060343-04A	Methanol	ND	50 μg/L	06/04/10 09:19	06/04/10
Date Sampled 06/01/10 13:14	Ethanol	ND ND	5.0 μg/L	06/04/10 09:19	06/04/10
•					
Client ID: MW-5					
Lab ID: STR10060343-05A Date Sampled 06/01/10 11:01	Methanol Ethanol	ND ND	50 μg/L	06/04/10 09:19 06/04/10 09:19	06/04/10 06/04/10
Date Sampled 00/01/10 11.01	Litaro	GN	5.0 μg/L	00/04/10 09.19	00/04/10
Client ID: MW-5B					
Lab ID: STR10060343-06A	Methanol	ND	50 μg/L	06/04/10 09:19	06/04/10
Date Sampled 06/01/10 12:26	Ethanol	ND	5.0 μg/L	06/04/10 09:19	06/04/10
Client ID: MW-6					
Lab ID: STR10060343-07A	Methanol	ND	50 μg/L	06/04/10 09:19	06/04/10
Date Sampled 06/01/10 08:57	Ethanol	ND	5.0 μg/L	06/04/10 09:19	06/04/10
Client ID: MW-6B					
Lab ID: STR10060343-08A	Methanol	ND	50 μg/L	06/04/10 09:19	06/04/10
Date Sampled 06/01/10 10:27	Ethanol	ND	5.0 μg/L	06/04/10 09:19	06/04/10
Client ID: MW-7					
Lab ID: STR10060343-09A	Methanol	ND	50 μg/L	06/04/10 09:19	06/04/1
Date Sampled 06/01/10 12:57	Ethanol	ND	5.0 μg/L	06/04/10 09:19	06/04/1
Client ID: MW-10					
Lab ID: STR10060343-10A	Methanol	ND	50 μg/L	06/04/10 09:19	06/04/1
Date Sampled 06/01/10 11:58	Ethanol	ND	50 μg/L 5.0 μg/L	06/04/10 09:19	06/04/10
Client ID: MW-11					
Lab ID: STR10060343-11A	Methanol	ND	50 μg/L	06/04/10 09:19	06/04/1
Date Sampled 06/01/10 12:27	Ethanol	ND ND	50 μg/L 5.0 μg/L	06/04/10 09:19	06/04/1
1 197 3 (%)			- 1.0 -		. 5, 5 ., 1

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Client ID: MW-12A					
Lab ID: STR10060343-12A	Methanol	ND	50 μg/L	06/04/10 09:19	06/04/10
Date Sampled 06/01/10 12:55	Ethanol	ND	5.0 μg/L	06/04/10 09:19	06/04/10
Client ID: MW-12B					
Lab ID: STR10060343-13A	Methanol	ND	50 μg/L	06/04/10 09:19	06/04/10
Date Sampled 06/01/10 12:44	Ethanol	ND	5.0 μg/L	06/04/10 09:19	06/04/10
Člient ID: MW-13A					
Lab ID: STR10060343-14A	Methanol	ND	50 μg/L	06/04/10 09:19	06/04/10
Date Sampled 06/01/10 13:49	Ethanol	ND	5.0 μg/L	06/04/10 09:19	06/04/10

ND = Not Detected

Roger Scholl Kandy Sulm Walter Hindren

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) 736-7522 / Carson, CA • (714) 386-2901 / info@alpha-analytical.com

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

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6/10/10

Report Date



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Date: 09-Jun-10		(QC Su	mmary	Repor	t				Work Orde 10060343	
	CHEM\MS11\DATA\100604\1	0060409.D	Type: ME	Ва	tch ID: 2438	82	hod SW82	Analy		06/04/2010 13:40	
Sample ID:	MBLK-24382	Units : µg/L			D_11_1006			Prep I		06/04/2010 09:19	•
Analyte		Result	PQL	SpkVal	SpkRetVal	%REC	LCL(ME)	UCL(ME)	RPDRef	Val %RPD(Limit)	Qual
Methanol Ethanol		ND ND	50 5								
Surr: Hexafluo	ro-2-propanoi	518		500		104	70	130			
•	Control Spike		Type: LC	S Te	st Code: El	PA Met	hod SW82	60B-DI			
File ID: C:\HP	CHEM\MS11\DATA\100604\1	0060405.D		Ва	tch ID: 243	82		Analy	sis Date:	06/04/2010 12:05	
Sample ID:	LCS-24382	Units : µg/L	F	Run ID: MS	SD_11_1006	604A		Prep I	Date:	06/04/2010 09:19	
Analyte	142	Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRef	Val %RPD(Limit)	Qual
Methanol Ethanol		268 290	50 5	250 250		107 116	54 70	132 142			
Surr: Hexafluo	ro-2-propanol	486		500		97	70	130			
Sample Mat	rix Spike		Type: MS	5 Te	st Code: El	PA Met	hod SW82	60B-DI			
File ID: C:\HP	CHEM\MS11\DATA\100604\1	0060491.D		Ва	tch ID: 243	82		Analy	sis Date:	06/04/2010 13:21	
Sample ID:	10060343-02AMS	Units : µg/L	F	Run ID: MS	SD_11_100	604A		Prep	Date:	06/04/2010 09:19	
Analyte		Result	PQL				LCL(ME)	UCL(ME)	RPDRef	Val %RPD(Limit)	Qual
Methanol		223	50	250	0		48	142		· · · · · · · · · · · · · · · · · · ·	
Ethanol		199	5	250	0		68	143			
Surr: Hexafluo	ro-2-propanol	476		500		95	70	130			
Sample Mat	rix Spike Duplicate		Type: MS	SD Te	est Code: El	PA Me	thod SW82	60B-DI			
File ID: C:\HP	CHEM\MS11\DATA\100604\1	0060408.D		Ba	atch ID: 243	82		. Analy	sis Date:	06/04/2010 13:02	
Sample ID:	10060343-02AMSD	Units : µg/L	F	Run ID: MS	SD_11_100	604A		Prep	Date:	06/04/2010 09:19	
Analyte		Result	PQL	SpkVal	SpkRefVal	%REC	C LCL(ME)	UCL(ME)	RPDRef	Val %RPD(Limit)	Qual
Methanol	station in	195	50	250	0	78	48	142	222.	5 13.3(20)	
Ethanol '	- 142 - 15" 	228	5	250	0	• •	68	143	199.	4 13.3(20)	
Surr: Hexafluo	ro-z-propanol	542		500		108	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: 09-Jun-10	Ç	(C Sι	ımmary	Report	;			Work Orde 10060343	
Method Blank		Type: M	BLK Te	st Code: EP	A Meth	od SW80	15		
File ID: C:\HPCHEM\MS10\DATA\100604\100604	105.D		Ва	tch ID: MS1	0W060	4B	Analysis Date:	06/04/2010 10:28	
Sample ID: MBLK MS10W0604B Ur	nits : µg/L		Run ID: MS	D 10 1006	04A		Prep Date:	06/04/2010 10:28	
Analyte	Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME) RPDRef	Val %RPD(Limit)	Qual
TPH-P (GRO)	ND	50							
Surr: 1,2-Dichloroethane-d4	10.4	-	10		104	70	130		
Surr: Toluene-d8	9.93		10		99	70	130		
Surr: 4-Bromofluorobenzene	9.82		10		98	70	130		
Laboratory Control Spike		Type: L	CS Te	st Code: EF	A Meth	od SW80	15		
File ID: C:\HPCHEM\MS10\DATA\100604\100604	406.D		Ba	itch ID: MS1	0W060	4B	Analysis Date:	06/04/2010 11:05	
Sample ID: GLCS MS10W0604B Ur	nits : µg/L		Run ID: MS	SD_10_1006	04A		Prep Date:	06/04/2010 11:05	
Analyte	Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME) RPDRef	Val %RPD(Limit)	Qual
TPH-P (GRO)	355	50	400		89	70	130		
Surr: 1,2-Dichloroethane-d4	9.57		10		96	70	130		
Surr: Toluene-d8	9.7		10		97	70	130		
Surr: 4-Bromofluorobenzene	10		10		100	70	130		
Sample Matrix Spike		Type: N	IS Te	est Code: EF	A Met	nod SW80	15		
File ID: C:\HPCHEM\MS10\DATA\100604\100604	417.D		Ba	atch ID: MS1	0W060	4B	Analysis Date:	06/04/2010 15:13	
Sample ID: 10060343-01AGS U	nits : μg/L		Run ID: MS	SD_10_1006	04A		Prep Date:	06/04/2010 15:13	
Analyte	Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME) RPDRef	Val %RPD(Limit)	Qual
TPH-P (GRO)	2500	250	2000	190.8	115	58	135		
Surr: 1,2-Dichloroethane-d4	49.9		50		99.7	70	130		
Surr: Toluene-d8	50.1		50		100	70	₋ 130		
Surr: 4-Bromofluorobenzene	47		50		94	70	130		
Sample Matrix Spike Duplicate		Type: N	ISD T	est Code: El	A Met	hod SW80	15		
File ID: C:\HPCHEM\MS10\DATA\100604\100604	418.D		Ва	atch ID: MS1	0W060	4B	Analysis Date:	06/04/2010 15:35	
Sample ID: 10060343-01AGSD U	nits : µg/L		Run ID: M	SD_10_1006	604A		Prep Date:	06/04/2010 15:35	
Analyte	Result	PQL				LCL(ME)	UCL(ME) RPDRef	Val %RPD(Limit)	Qual
TPH-P (GRO)	2670	250	2000	190.8	124	58	135 249	5 6.8(20)	
Surr: 1,2-Dichloroethane-d4	49.2		50		98	70	130		
Surr: Toluene-d8	49.3		50		99	70 .	130		
Surr: 4-Bromofluorobenzene	48.7		50		97	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.

Reported in micrograms per Liter, per client request.



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Date: 09-Jun-10		QC Sun	nmary	Report					Work Orde 10060343	
Method Blank File ID: C:\HPCHEM\MS10\DATA\100604\1	10060405.D	Type: MBL		st Code: EPA				s Date:	06/04/2010 10:28	
Sample ID: MBLK MS10W0604A	Units : µg/L	D,		D_10_100604		***	Prep D		06/04/2010 10:28	
Analyte Analyt	. •					LCL(ME)				Ousi
	Result	PQL.	Spkvai	SpkRetVal %	KEU	LCL(ME)	UCL(ME) F	KPDRetv	/al %RPD(Limit)	Qual
Tertiary Butyl Alcohol (TBA)	ND	10								
Methyl tert-butyl ether (MTBE)	ND	0.5								
Di-isopropyl Ether (DIPE)	ND	1								
Ethyl Tertiary Butyl Ether (ETBE)	ND	1								
Benzene Tortion Amyl Mothyl Ethor (TAME)	ND ND	0.5								
Tertiary Amyl Methyl Ether (TAME) Toluene	ND	1								
Ethylbenzene	ND ND	0.5								
m.p-Xylene	ND ND	0.5 0.5								
o-Xylene	ND ND	0.5								
Surr: 1,2-Dichloroethane-d4	10.4	0.5	10		104	70	130			
Surr: Toluene-d8	9.93		10		99	70	130			
Surr: 4-Bromofluorobenzene	9.82		10		98	70	130			
Laboratory Control Spike		Type: LCS		st Code: EPA	Math	od SW82		*******		
File ID: C:\HPCHEM\MS10\DATA\100604\1	10060403 D	. , po. Lo o		tch ID: MS10\				ie Nate	06/04/2010 09:43	
Sample ID: LCS MS10W0604A	Units : µg/L	D.				7.7	Prep D		06/04/2010 09:43	
Analyte Analyte				D_10_100604		101/145	=			Ougl
	Result	PQL						KPUReit	/al %RPD(Limit)	Qual
Methyl tert-butyl ether (MTBE) Benzené	9.31	0.5	10		93	62	136			
Toluene	10.5	0.5	10		105	70	130			
Ethylbenzene	9.49 10.6	0.5	10		95 106	80 80	120 ≃120			
m,p-Xylene	10.4	0.5 0.5	10 10		106	70	130			
o-Xylene	10.5	0.5	10		105	70	130			
Surr: 1,2-Dichloroethane-d4	10.7	0.5	10		107	70	130			
Surr: Toluene-d8	9.28		10		93	70	130			,
Surr: 4-Bromofluorobenzene	9.8		10		98	70	130			
Sample Matrix Spike		Type: MS	Te	st Code: EPA	Meth	od SW82	260B			
File ID: C:\HPCHEM\MS10\DATA\100604\	10060415.D	.,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,		tch ID: MS10				is Date:	06/04/2010 14:29	
Sample ID: 10060343-01AMS	Units : µg/L	R		D 10 10060			Prep D		06/04/2010 14:29	
Analyte	Result	PQL				LCL(ME)	•		/al %RPD(Limit)	Qual
Methyl tert-butyl ether (MTBE)	214	1.3	50		94	56	141			
Benzene	51.6	1.3	50		103	67	130			
Toluene	49.2	1.3	50	0	98	66	130			
Ethylbenzene	52.9	1.3	50	0	106	68	130			
m,p-Xylene	51.1	1.3	50	0	102	64	130			
o-Xylene	51.7	1.3	50	0	103	70	130			
Surr: 1,2-Dichloroethane-d4	50.2		50		100	70	130		.*	
Surr: Toluene-d8	49.2		50		98	70	130			
Surr: 4-Bromofluorobenzene	50.3		50		101	70	130			
Sample Matrix Spike Duplicate		Type: MS	D Te	st Code: EPA	Meth	nod SW82				
File ID: C:\HPCHEM\MS10\DATA\100604\	10060416.D		Ва	tch ID: MS10	W060	4A	Analys	is Date:	06/04/2010 14:51	
Sample ID: 10060343-01AMSD	Units : µg/L	R	un ID: MS	D_10_10060	4A		Prep D	ate:	06/04/2010 14:51	
Analyte	Result	PQL	SpkVal	SpkRefVal %	REC	LCL(ME)	UCL(ME)	RPDRef\	Val %RPD(Limit)	Qual
Methyl tert-butyl ether (MTBE)	223	1.3	50	166.5	112	56	141	213.	5 4.2(20)	
Benzene	56	1.3	50		112	67	130	51.62		
Toluene	53.3	1.3	50	0	107	66	130	49.24		
Ethylbenzene	57.4	1.3	50		115	68	130	52.9		
m,p-Xylene	54.6	1.3	50		109	64	130	51.09		
o-Xylene	55	1.3	50		110	70	130	51.7	1 6.2(20)	
Surr: 1,2-Dichloroethane-d4	50.5		50		101	70	130			
Surr: Toluene-d8	49.1		50		98	70	130			
Surr: 4-Bromofluorobenzene	50.3		50		101	70	130			



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Date:	*	
09-Jun-	Ú	

QC Summary Report

Work Order: 10060343

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.

Billing Information:

Stratus Environmental

3330 Cameron Park Drive

CHAIN-OF-CUSTODY RECORD

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: Vince Z.

WorkOrder: STR10060343

Report Due By: 5:00 PM On: 11-Jun-10

Date Printed Cooler Temp Samples Received 03-Jun-10 03-Jun-10 4°C

Page: 1 of 2

Cameron Park, CA 95682-8861

Client:

PO:

Suite 550

OC Level : S3

Client's COC #: 21978, 21975

- Final Rot MRLK LCS MS/MSD With Surrogates

Job: Foothill Mini Mart

ANT-17-7-1							Requested Tests							
Npha .	Client	į	Collection	No. of	Bottles	5	ALCOHOL_	TPH/P_W	VOC_W				!	
Sample ID	Sample ID	Matrix	c Date	Alpha	Sub	TAT	W							 Sample Remarks
STR10060343-01A	MW-1	AQ	06/01/10 12:17	5	0	6	Low Level MeOH / EtOH	GAS-C	BTEX/OXY_			;		
STR10060343-02A	MW-2	AQ	06/01/10 11:21	5	0	6	Low Level MeOH / EtOH	GAS-C	BTEX/OXY_			:		
STR10060343-03A	MW-3	AQ	06/01/10 12:00	5	0	6	Low Level MeOH / EtOH	GAS-C	BTEX/OXY_ C		***************************************		;	
STR10060343-04A	MW-4	AQ	06/01/10 13:14	5	0	6	Low Level McOH / EtOH	GAS-C	BTEX/OXY_			:	1	
STR10060343-05A	MW-5	AQ	06/01/10 11:01	5	0	6	Low Level MeOH / EtOH	GAS-C	BTEX/OXY_C			T W MATE 1		
STR10060343-06A	MW-5B	AQ	06/01/10 12:26	5	0	6	Low Level MeOH / EtOH	GAS-C	BTEX/OXY_ C				!	
STR10060343-07A	MW-6	AQ	06/01/10 08:57	5	0	6	Low Level MeOH / EtOH	GAS-C	BTEX/OXY_				:	
STR10060343-08A	MW-6B	AQ	06/01/10 10:27	5	0	6	Low Level MeOH / EtOH	GAS-C	BTEX/OXY_					

Comments:	Security seals intact. Frozen i	ce. :			
		*		y	magnification a propagation of the enterprise in the contract the contract to the cont
		Signature	Print Name	Company	Date/Time
Logged in by:	1 1010 1.1	(hender)	Tale 1)10K10800	Alpha Analytical, Inc.	6/3/10/1024

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

Alpha Analytical, Inc.

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

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

Phone Number

(530) 676-2062 x

Page: 2 of 2

WorkOrder: STR10060343

Report Due By: 5:00 PM On: 11-Jun-10

Stratus Environmental 3330 Cameron Park Drive

Suite 550

Cameron Park, CA 95682-8861

EDD Required: Yes

Sampled by: Vince Z.

Cooler Temp

4°C

Samples Received 03-Jun-10

Date Printed 03-Jun-10

PO:

Alpha

Client:

Client's COC #: 21978, 21975

QC Level: S3

Client

Foothill Mini Mart

Collection No of Bottles

= Final Rpt, MBLK, LCS, MS/MSD With Surrogates

Report Attention

Scott Bittinger

EMail Address

sbittinger@stratusinc.net

Requested Tests ALCOHOL TOUR W

Aipna	Chem	Conection	NO. OI	Domes	•	ALCOHOL_ IPH/P_	V VOC_VV		
Sample ID	Sample ID	Matrix Date	Alpha	Sub	TAT	W			Sample Remarks
STR10060343-09A	MW-7	AQ 06/01/10 12:57	5	0	6	Low Level GAS-C MeOH / EtOH	BTEX/OXY_ C		
STR10060343-10A	MW-10	AQ 06/01/10 11:58	5	0	6	Low Level GAS-C MeOH / EtOH	BTEX/OXY_ C		
STR10060343-11A	MW-11	AQ 06/01/10 12:27	5	0	6	Low Level GAS-C MeOH / EtOH	BTEX/OXY_ C		
STR10060343-12A	MW-12A	AQ 06/01/10 12:55	5	0	6	Low Level GAS-C MeOH / EtOH	BTEX/OXY_		
STR10060343-13A	MW-12B	AQ 06/01/10 12:44	5	0	6	Low Level GAS-C McOH / EtOH	BTEX/OXY_ C		
STR10060343-14A	MW-13A	AQ 06/01/10 13:49	5	0	6	Low Level GAS-C MeOH / EtOH	BTEX/OXY_		

Comments:

Security seals intact. Frozen ice. :

Logged in by:

Signature

Pkint Name alo

Company Alpha Analytical, Inc. Date/Time

的一种,我们就是一个人,我们就是一个人,我们就是一个人,我们就是一个人,我们就是一个人,我们就是一个人,我们就是一个人,我们就是一个人,我们就是一个人,我们就是

Billing Information: Name <u>STRATUS</u> ENV.	D 1.	D. #560	255 Glendale	Alpha Analytical, Inc. 55 Glendale Avenue, Suite 21 parks, Nevada 89431-5778				pies ((Collected From W CA NV OR OTHER			ich S VA	State? Page	21978 age # <u> </u>	
Address 3330 Cameron Par City, State, Zip Cameron Par Phone Number 330-676-6004 Fax 3	30-676-6	ions (a)	Phone (775) Fax (775) 35	355-1044					Anal	yses Re	equire	ed			
Client Name Foothill Min; Mart Address 6600 Foothill Blu City State 7in	rd.	P.O. # EMail Address	Job						14				- / '	uired QC Level? II III IV	
Time Date Matrix* Sampled by	e Z	Phone # Report Attention Scott	Fax	#	·	Total and type of	GRO	BTEX	12/23		<i>\</i>		Global ID #	F? YES NO	
	Office (Use Only)	Sample Description		TAT	Field Filtered	containers ** See below	0	02/	\s_	1-1	/	\angle	RE	MARKS	
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ADDITIONAL INSTRUCTIONS:															
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Received by	PROF.				i i							d i			
*Key: AQ - Aqueous SO - Soil	WA - Waste	e OT - Other AR - Air	**: L-Lite	er V-	Voa	S-Soil Jar	0-0	Orbo	T-Tedi	ar E	B-Brass	3	P-Plastic	OT-Other	

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 coco-The liability of the laboratory is limited to the amount paid for the report.

Billing Information Name <u>57897</u> Address 3330	Up FAIV	Dr. #550	Alpha Analytic 255 Glendale Avenu Sparks, Nevada 894:	e, Suite 21 31-5778	1	Samı AZ _ ID	oles Col CA OR	lected ×	d From NV OTHE	Which WA R	State? ————————————————————————————————————	21975 * <u>2 or 2</u>	
City, State, Zip	Cameron Park, meron Park, 676-6004 Fax 530-676	Phone (775) 355-1 Fax (775) 355-040					,	Analys	ses Re	quired			
Client Name Footh	ill Mini Mart Foothill Blub.	P.O. # EMail Address	Job#	-/.	//			7/	l '	uired QC Level?			
City, State, Zip Dak	land CA	Phone #				FRO	الجر ا	2/		L /	EDD / EDI	F? YES NO	
Time Date Sampled Sampled 2 0 /0 Below	Sampled by / *>	Report Attention Scott Sample Description	TAT	TAT Field Filtered ** See below			#7EX	No.	/ /	<i>\</i>	L	Global ID #REMARKS	
1349 06 01 AQ	SILICULA 3-1-	MW-13A	5ta		51	X	XX				A11-		
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ADDITIONAL IN	STRUCTIONS:												
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*Key: AQ - Aqueous	SO - Soil WA - Was	te OT - Other AR - Air	**: L-Liter	V-Voa	S-Soil Jar	O-C)rbo -	T-Tedlar	r B-	Brass	P-Plastic	OT-Other	

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.

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

Submittal Title:

depth to groundwater measurements, 6/1/10

Facility Global ID:

T0600102286

Facility Name:

FOOTHILL MINI MART

File Name:

GEO_WELL.zip

Organization Name:

Stratus Environmental, Inc.

Username:

STRATUS NOCAL

IP Address:

12.186.106.98

Submittal Date/Time:

6/4/2010 2:04:33 PM

Confirmation Number:

2127753019

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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 - Monitoring Report - Quarterly

Submittal Title: 2Q10 Groundwater Analytical

Facility Global ID: T0600102286

Facility Name: FOOTHILL MINI MART

File Name: 10060343.zip

Organization Name: Stratus Environmental, Inc.

<u>Username:</u> STRATUS NOCAL <u>IP Address:</u> 12.186.106.98

Submittal Date/Time: 6/17/2010 1:56:07 PM

Confirmation Number: 8733834803

VIEW QC REPORT

VIEW DETECTIONS REPORT

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