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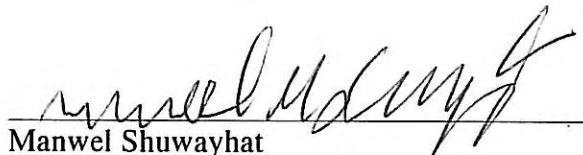
Allterra Environmental, Inc.
849 Almar Avenue, Suite C
No. 281
Santa Cruz, California 95060

Client: Manwel Shuwayhat
Project Location: 160 Holmes Street, Livermore, California
Subject: Third Quarter 2012 Groundwater Monitoring Report
Report Date: October 9, 2012

To Whom It May Concern:

I have reviewed the report referenced above and approve its distribution to the necessary regulatory agencies. Should any of the regulatory agencies require it, "I declare, under penalty of perjury, that the information and/or recommendations contained in the attached proposal or report is true and correct to the best of my knowledge."

Sincerely,



Manwel Shuwayhat



**Third Quarter 2012 Groundwater Monitoring Report
Fuel Leak Case No. RO0000324, Livermore Gas and Mini Mart
160 Holmes Street, Livermore, California**

Date:
October 9, 2012

Project No.:
160

Prepared For:
Livermore Gas and Mini mart
Attention: Manwel and Samira Shuwayhat
54 Wolfe Canyon Road
Kentfield, California 94904

Allterra Environmental, Inc.
849 Almar Avenue, Suite C, No. 281
Santa Cruz, California 95060

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October 9, 2012

Project No.: 160

Manwel and Samira Shuwayhat
Livermore Gas and Mini Mart
54 Wolfe Canyon Road
Kentfield, California 94904

**SUBJECT: Third Quarter 2012 Groundwater Monitoring Report for Fuel Leak Case
No. RO0000324, Livermore Gas and Mini Mart, 160 Holmes Street,
Livermore, California**

Dear Mr. and Mrs. Shuwayhat:

On your behalf, Allterra Environmental, Inc. (Allterra) has prepared this Third Quarter 2012 Groundwater Monitoring Report for the property located at 160 Holmes Street in Livermore, California (Site). This report describes the field and analytical methods, provides a summary of groundwater monitoring results, and presents conclusions and recommendations regarding groundwater conditions at the Site. Monitoring activities were completed in accordance with Alameda County Environmental Health (ACEH) and Regional Water Quality Control Board (RWQCB) guidelines, and Allterra's protocols presented in Appendix A.

Site Location and Description

The Site is located on the southwest corner of Holmes Street and 2nd Street at 160 Holmes Street in Livermore, California (Figure 1). The Site currently operates as a service station and convenience store. The Site is paved with concrete and asphalt, and a canopy covers the fuel dispensers. Pertinent site features, such as monitoring well locations, are presented on Figure 2.

Groundwater Monitoring for Third Quarter 2012

Field Activities

On August 28 and 29, and September 5, 2012, Allterra conducted groundwater monitoring at 10 on-site and off-site monitoring wells (MW-1B, MW-5A through MW-6, and MW-7B through MW-9B) and two on-site extraction wells (EW-1 and EW-3). MW-2A, MW-3A, MW-4A, and EW-2 are currently being sampled on an annual basis (first quarter of each year) and were therefore not sampled this quarter. Additionally, monitoring wells MW-1A, MW-2A, MW-3A, MW-4A, and MW-7A were dry and the wells included in the current monitoring program were also not sampled this quarter. Select wells were resampled on September 5, 2012 due to an analytical laboratory holding time issue associated with additional analyses requested by ACEH. Copies of the chain-of-custody documentation and the certified analytical report, including quality assurance and quality control (QA/QC) data, are included in Appendix C. Groundwater monitoring activities included the measurement of static groundwater levels, an evaluation of groundwater in the wells for the presence of petroleum hydrocarbons, field parameter testing, and groundwater quality sampling. Prior to sampling, all groundwater wells were purged using disposable bailers until temperature, color, specific conductance, and turbidity readings had

stabilized or until at least three casing volumes had been removed. Groundwater sampling field logs are included in Appendix B.

Laboratory Analysis

Groundwater samples collected from the monitoring wells and the extraction wells were submitted under chain-of-custody documentation to McCampbell Analytical, Inc., of Pittsburg, California, a State of California certified laboratory (ELAP #1644). All samples were analyzed for total petroleum hydrocarbons as gasoline (TPHg) by EPA method 8015B, and for benzene, toluene, ethylbenzene, xylenes (BTEX), and methyl tert-butyl ether (MTBE) by EPA Method 8021B. Additionally, select wells were analyzed for total petroleum hydrocarbons as diesel (TPHd) by EPA method 8015B, fuel oxygenates tert-amyl methyl ether (TAME), tert-butyl alcohol (TBA), di-isopropyl ether (DIPE), ethyl tert-butyl ether (ETBE), and MTBE, and lead scavengers 1,2-dibromoethane (EDB) and 1,2-dichloroethane (1,2-DCA) by EPA Method 8260B. Select wells were also analyzed for arsenic and chromium by EPA Method E200.8; hexavalent chromium by EPA Method E218.6; sulfate by EPA Method E300.1; carbonate, bicarbonate, and hydroxide by EPA Method 2320B; iron, manganese, and sodium by EPA Method E 200.7; dissolved oxygen by EPA Method 4500OG; ferrous iron by EPA Method 3500-Fe; carbon dioxide and methane by EPA Method RSK174/175; and total dissolved solids (TDS) by EPA Method SM2540C. Copies of the chain-of-custody documentation and the certified analytical report, including quality assurance and quality control (QA/QC) data, are included in Appendix C.

Groundwater Gradient and Flow Direction

On August 28, 2012, Allterra personnel measured and recorded depths to groundwater from the tops of well casings (TOC) for each well. Recorded depths to groundwater ranged from 28.87 to 31.22 feet below TOC. The surveyed elevations of each well casing (measured in feet relative to mean sea level), depths to groundwater, and calculated groundwater elevations are presented in Table 1 and depicted on Figure 3 as groundwater elevation contours. Several of the groundwater monitoring wells were dry during this sampling event and we have inferred the groundwater elevation contours based on extrapolation of the current data set, groundwater elevations collected during the previous quarter, and historic seasonal groundwater elevation trends for the Site. For the August 2012 monitoring event, the general groundwater flow direction is inferred to be to the northwest at a gradient of approximately 0.0067 feet per foot (ft/ft).

Analytical Results

Petroleum constituents were detected in four of the twelve wells sampled during this event. A summary of current and historical groundwater analytical results is presented in Table 2. A summary of other parameters tested for pursuant to technical comments in Alameda County's letter dated August 22, 2012 is presented in Table 3. Additionally, concentrations of dissolved TPHg, TPHd, benzene, MTBE, and TBA in groundwater are shown on Figures 4 through 7 and time trend plots for contaminant concentrations in wells MW-1A, EW-1, and EW-3 are shown on Figures 8 through 15. A discussion of current groundwater analytical results is presented below:

- TPHg was detected in one well (EW-3) at a concentration of 430 micrograms per liter ($\mu\text{g/L}$).
- TPHd was detected in one well (EW-3) at a concentration of 580 $\mu\text{g/L}$.
- Toluene was detected in one well (EW-1) at a concentration of 0.62 $\mu\text{g/L}$.
- Ethylbenzene was detected in one well (EW-3) at a concentration of 5.7 $\mu\text{g/L}$.
- Xylenes were detected in one well (EW-3) at a concentration of 20 $\mu\text{g/L}$.
- MTBE was detected in three wells at concentrations ranging from 0.55 $\mu\text{g/L}$ in MW-9B to 3,900 $\mu\text{g/L}$ in EW-3.
- TBA was detected in three wells at concentrations ranging from 2,000 $\mu\text{g/L}$ in MW-7B to 82,000 $\mu\text{g/L}$ in EW-3.
- Benzene was not detected at or above laboratory reporting limits in any wells sampled this quarter.
- Hexavalent chromium was detected in one well (MW-1B) at a concentration of 2.0 $\mu\text{g/L}$.

Conclusions

Based on the current groundwater monitoring data, Allterra concludes the following:

- The overall groundwater flow direction was inferred to be to the northwest with an estimated gradient of 0.0067 ft/ft, which is consistent with previous monitoring events.
- For the August/September 2012 monitoring event, petroleum constituents were detected at or above laboratory detection limits in four of the twelve wells sampled. The highest concentrations of petroleum constituents remaining in shallow groundwater are limited to the area proximate to well EW-3.
- The highest concentration of MTBE was detected in extraction well EW-3 (3,900 $\mu\text{g/L}$), which has a screen interval from 25 to 30 feet bgs. The highest concentration of TPHg was also found in EW-3 (430 $\mu\text{g/L}$).
- The highest concentration of TBA was detected in well EW-3 (82,000 $\mu\text{g/L}$). TBA was also detected in down-gradient monitoring well MW-7B at a concentration of 2,000 $\mu\text{g/L}$. TBA was not detected in any other down-gradient wells during this sampling event. Recent increases in TBA concentrations are likely due to degradation of MTBE caused by remedial activities and natural processes.

- Hexavalent chromium and field conductivity data collected during the third quarter 2012 indicates that geochemical parameters are stabilizing and that hexavalent chromium concentrations have decreased to acceptable levels to allow the use of further in-situ chemical oxidation.
- Since April 2011, petroleum constituents in groundwater have generally exhibited decreasing trends throughout the in-situ treatment zone. Substantial contaminant reduction has occurred in key wells MW-1A, EW-1, and EW-3 located within the source area.
- Based on third quarter 2012 analytical results, MW-1A demonstrates a 99.96%, 99.47%, 99.99%, and 99.98% reduction in TPHg, TPHd, benzene, and MTBE concentrations, respectively. EW-1 demonstrates a 99.86%, 77.27%, 99.89%, and 99.58% reduction in TPHg, TPHd, benzene, and MTBE concentrations, respectively. EW-3 demonstrates a 99.69%, 88.85%, 99.79%, and 99.07% reduction in TPHg, TPHd, benzene, and MTBE concentrations, respectively.
- Decreasing trends in petroleum constituents in shallow groundwater indicate that in-situ remedial efforts have been effective in treating soil and groundwater in the source area at the Site.

Recommendations

Based on the conclusions presented above, Allterra recommends the following:

- Continue with the current quarterly groundwater monitoring at the Site for the purpose of closely monitoring potential contaminant rebound under varying seasonal conditions.
- To reduce project costs, up-gradient wells MW-2A, MW-3A, and EW-2 and cross-gradient well MW-4A will continue to be sampled for TPHg, BTEX, and MTBE on an annual basis (first quarter of each year).
- All other wells will continue to be sampled and analyzed for TPHg, BTEX, and MTBE on a quarterly basis. Only select wells will be analyzed for TPHd, 5-fuel oxygenates, and lead scavengers on a quarterly basis.
- Prepare a work plan addendum pursuant to technical comments in Alameda County's letter dated August 22, 2012 to further address residual concentrations of petroleum constituents in soil and groundwater in the vicinity of well EW-3.

Limitations

Allterra prepared this report for the use of Livermore Gas and Mini Mart, ACEHS and RWQCB in evaluating groundwater quality at selected locations at the time of this study. Statements,

conclusions, and recommendations in this report are based solely on the field observations and analytical results related to work performed by Allterra and there is no warranty, expressed or implied. Site conditions and data can change over time; therefore, data presented in this report is only applicable to the timeframe of this study. Allterra's services have been performed in accordance with environmental principles generally accepted at this time and location.

Should you have any questions, please contact Allterra at (831) 425-2608.

Sincerely,
Allterra Environmental, Inc.



Aaron Powers
Project Geologist



Joe Mangine, P.G. 8423
Senior Geologist

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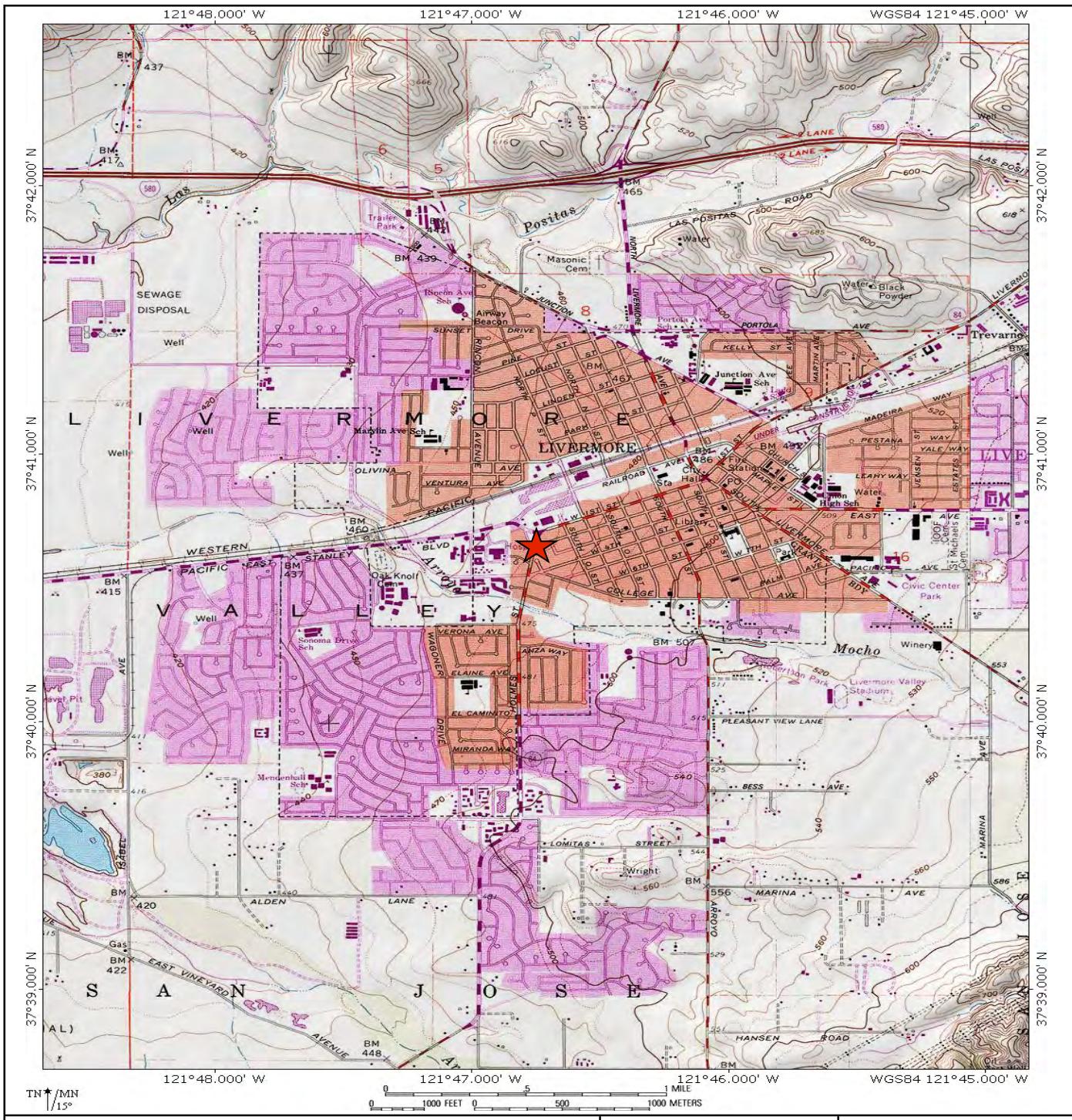
- Table 1, Groundwater Elevation Data
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- Appendix B, Groundwater Sampling Field Logs
- Appendix C, Certified Analytical Report and Chain-of-Custody

cc: Jerry Wickam, ACEHS

FIGURES 1 - 15

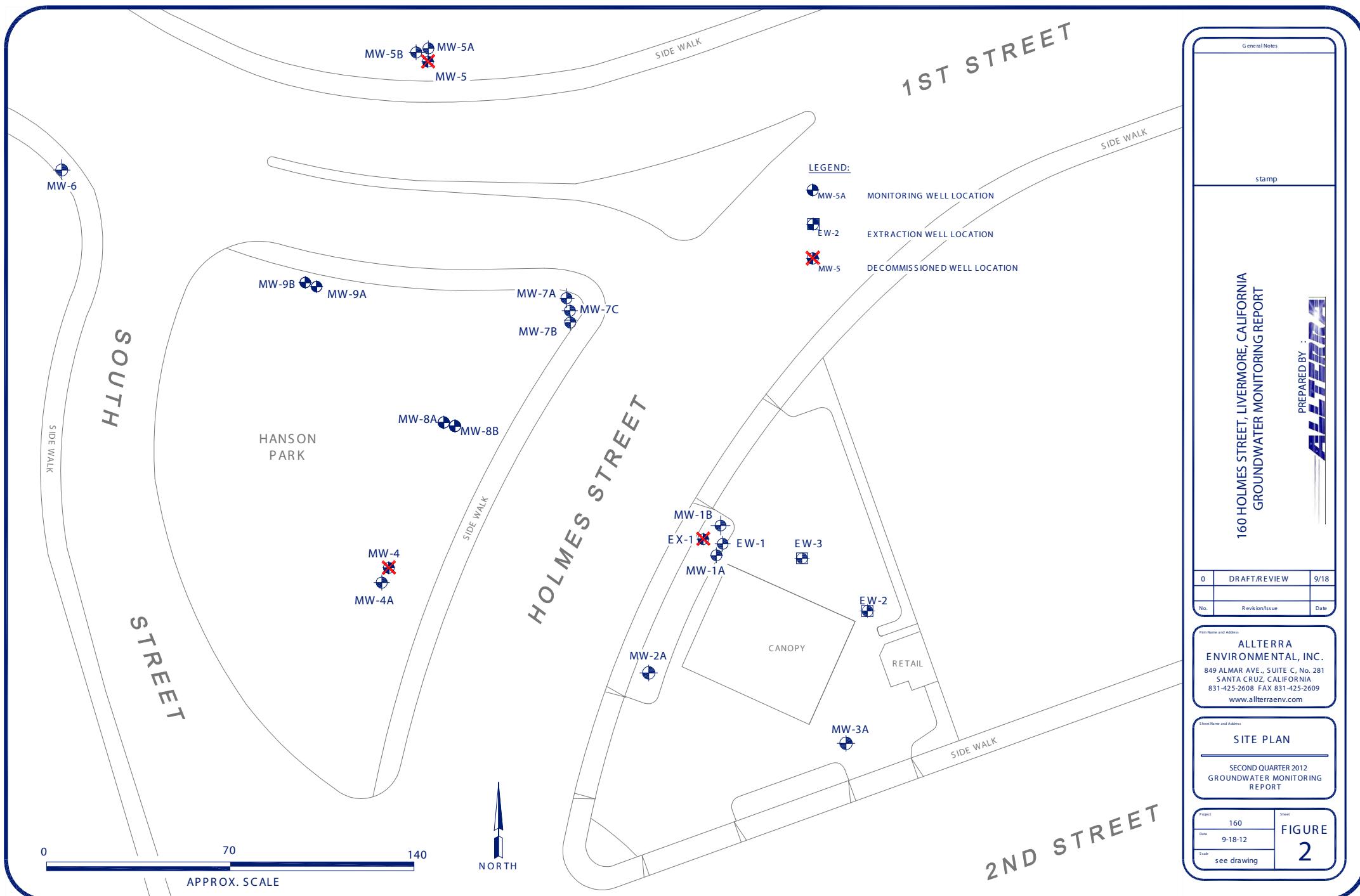


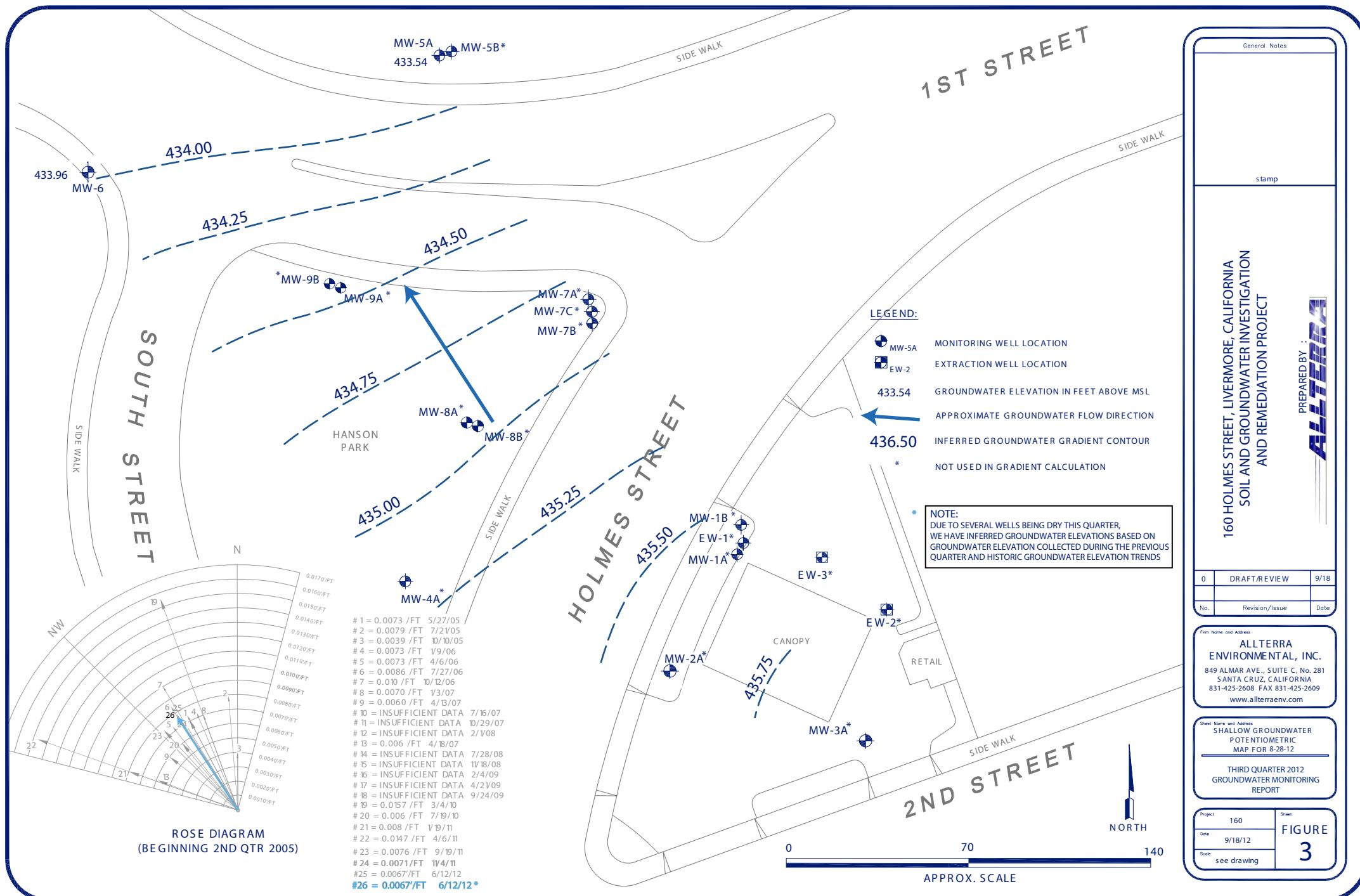
Vicinity Map
Livermore Gas and Minimart
160 Holmes Street
Livermore, California

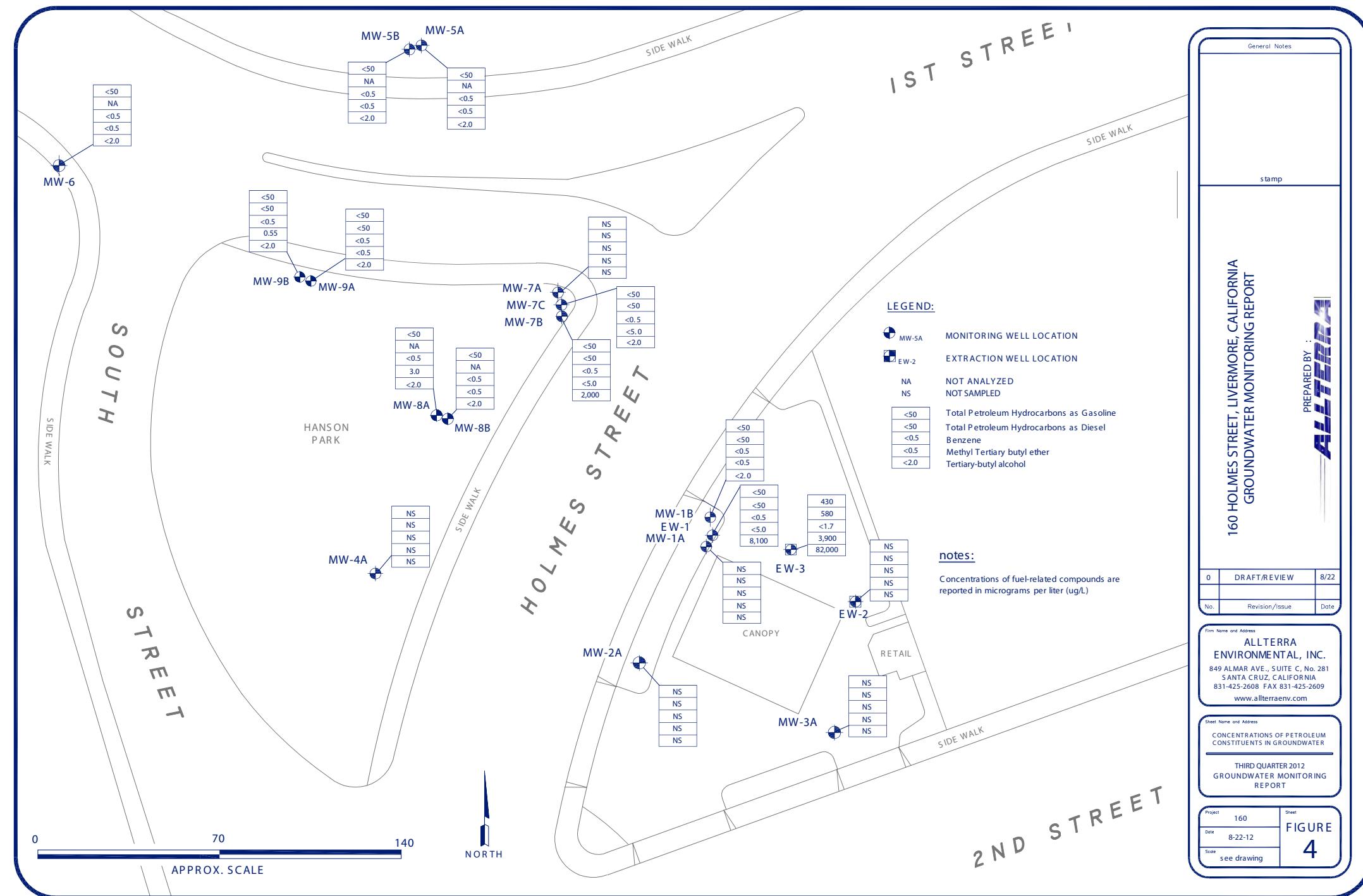
Figure 1

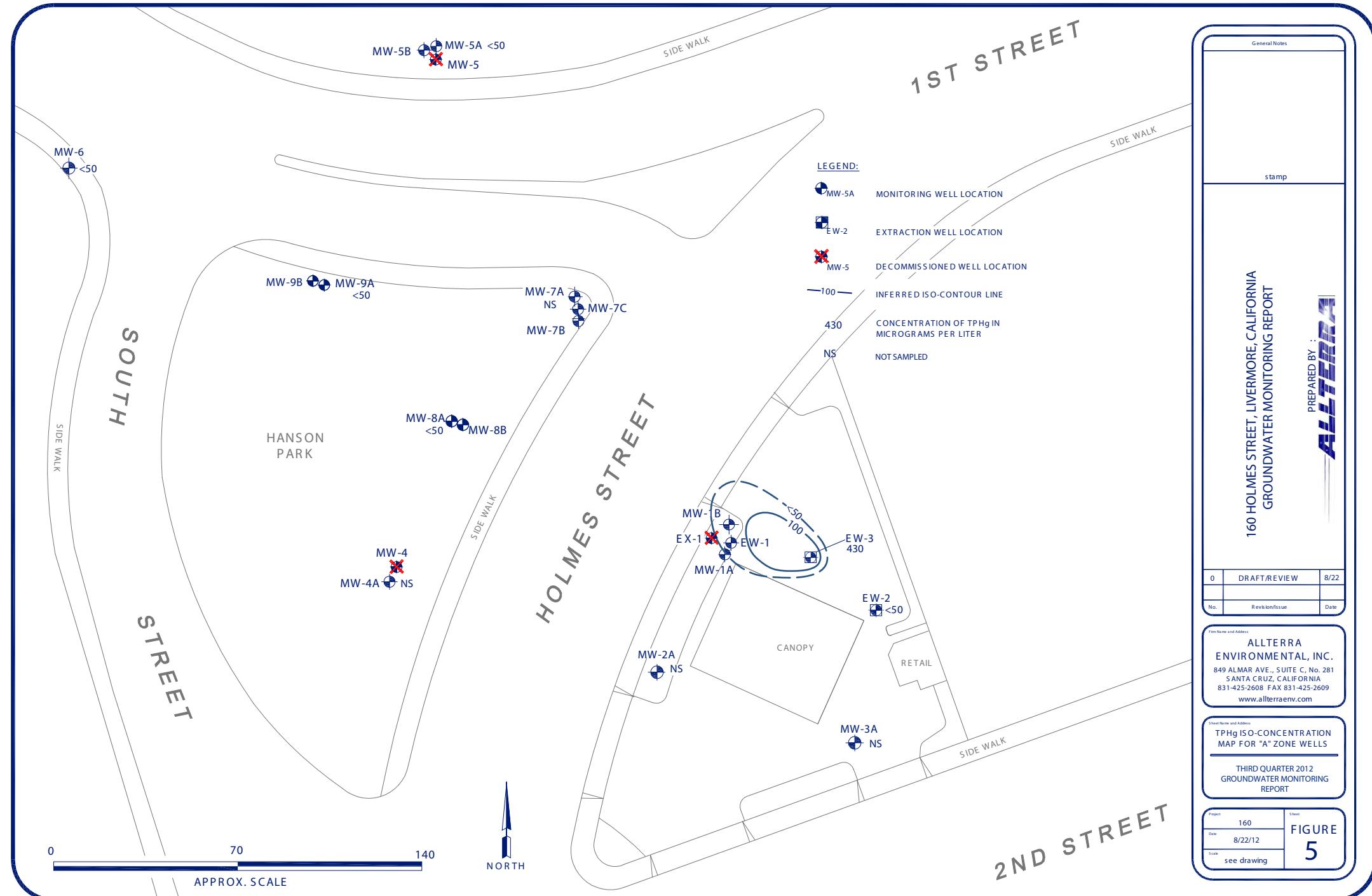
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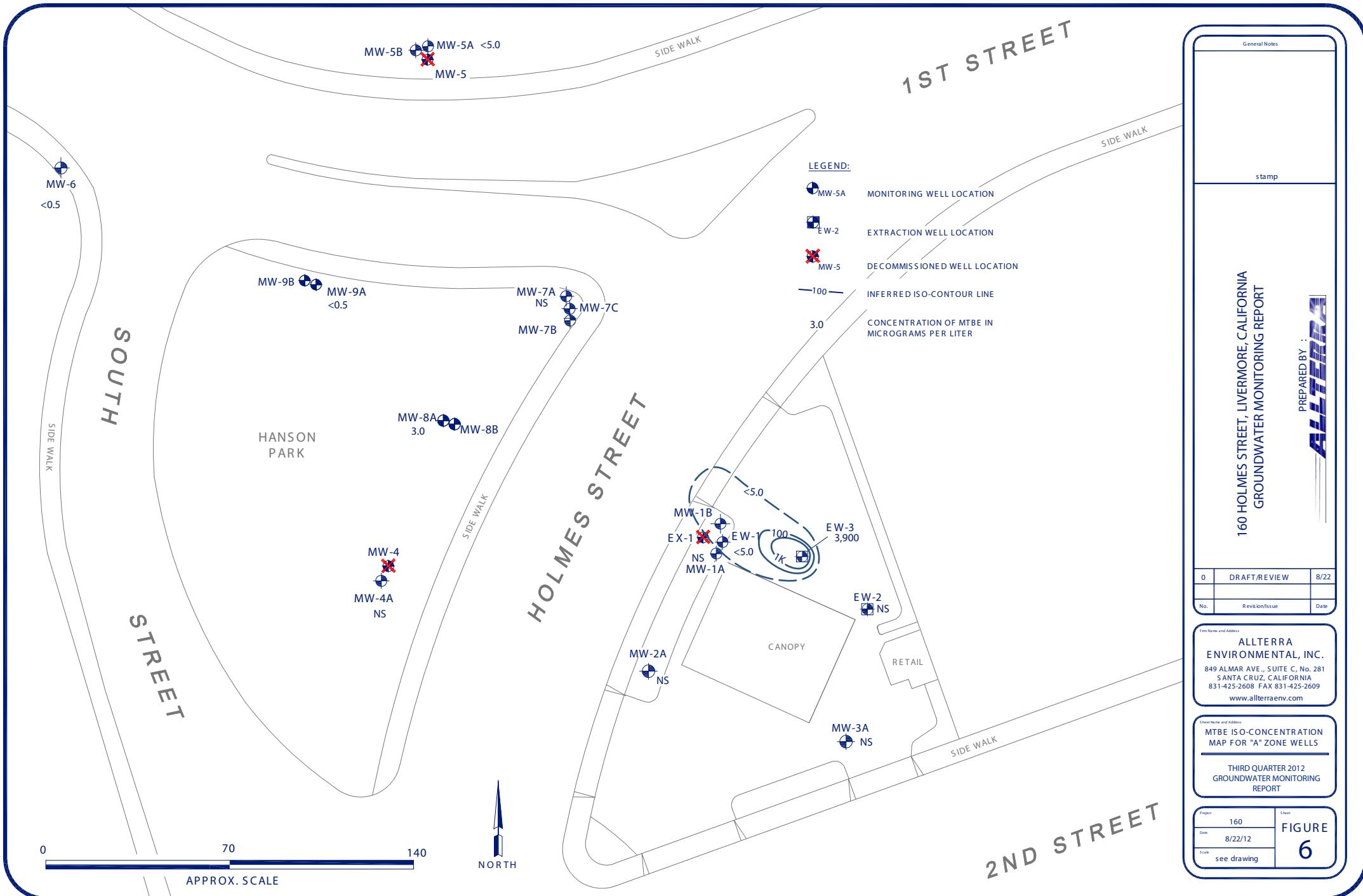
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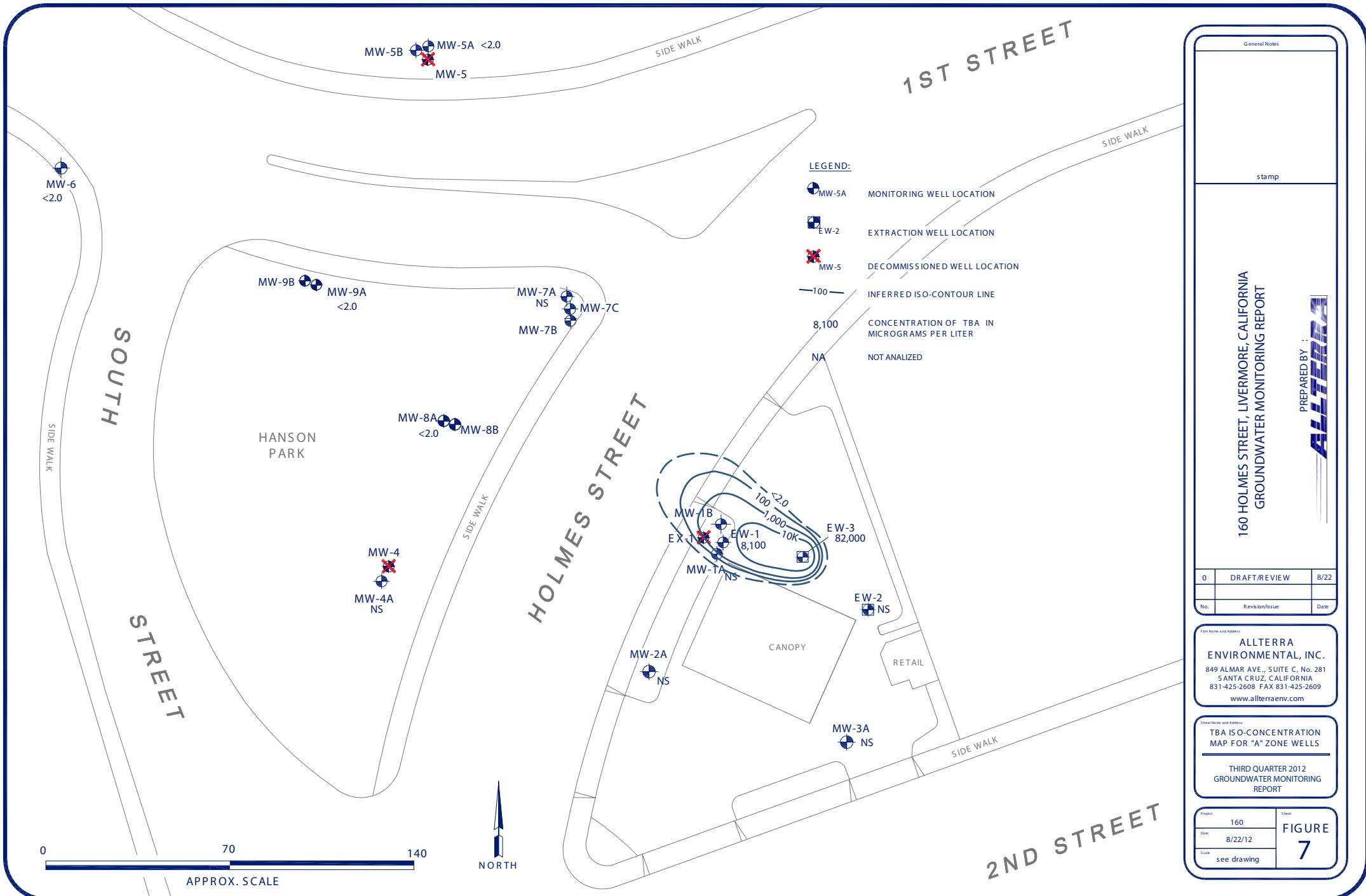


Figure 8
MW-1A TPHg Concentrations in Groundwater Over Time

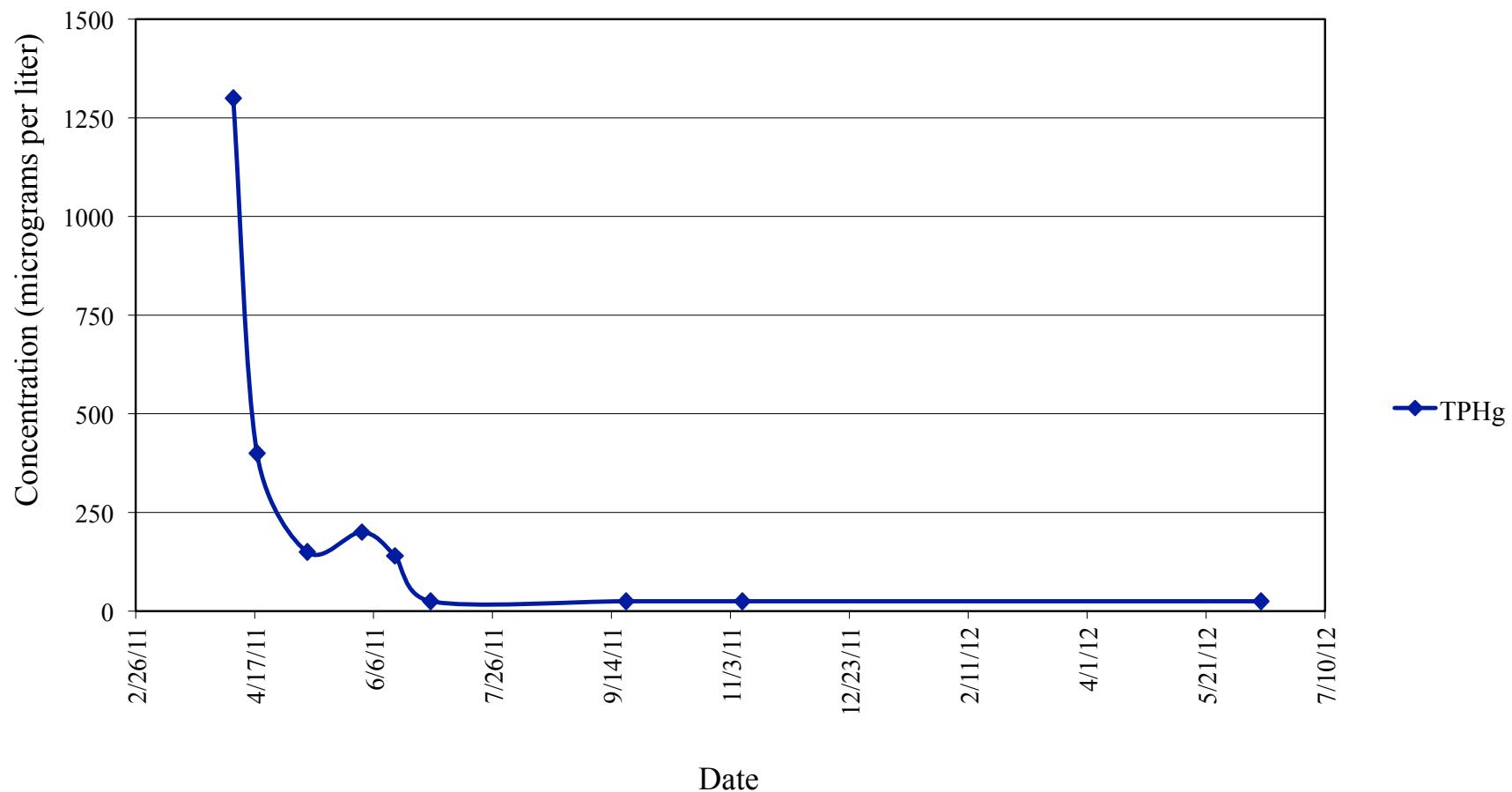


Figure 9
MW-1A MTBE Concentrations in Groundwater Over Time

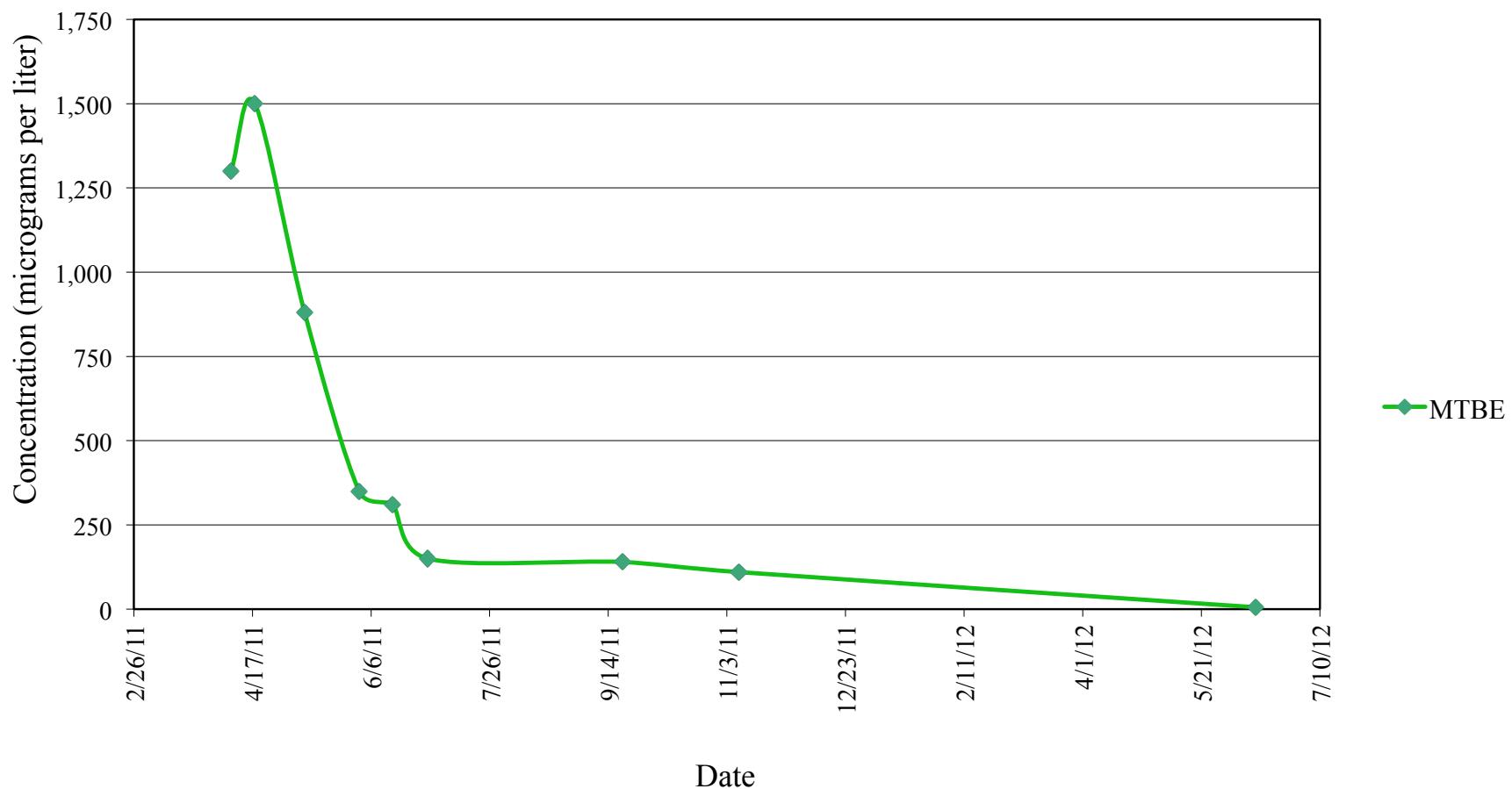


Figure 10
MW-1A TBA Concentrations in Groundwater Over Time

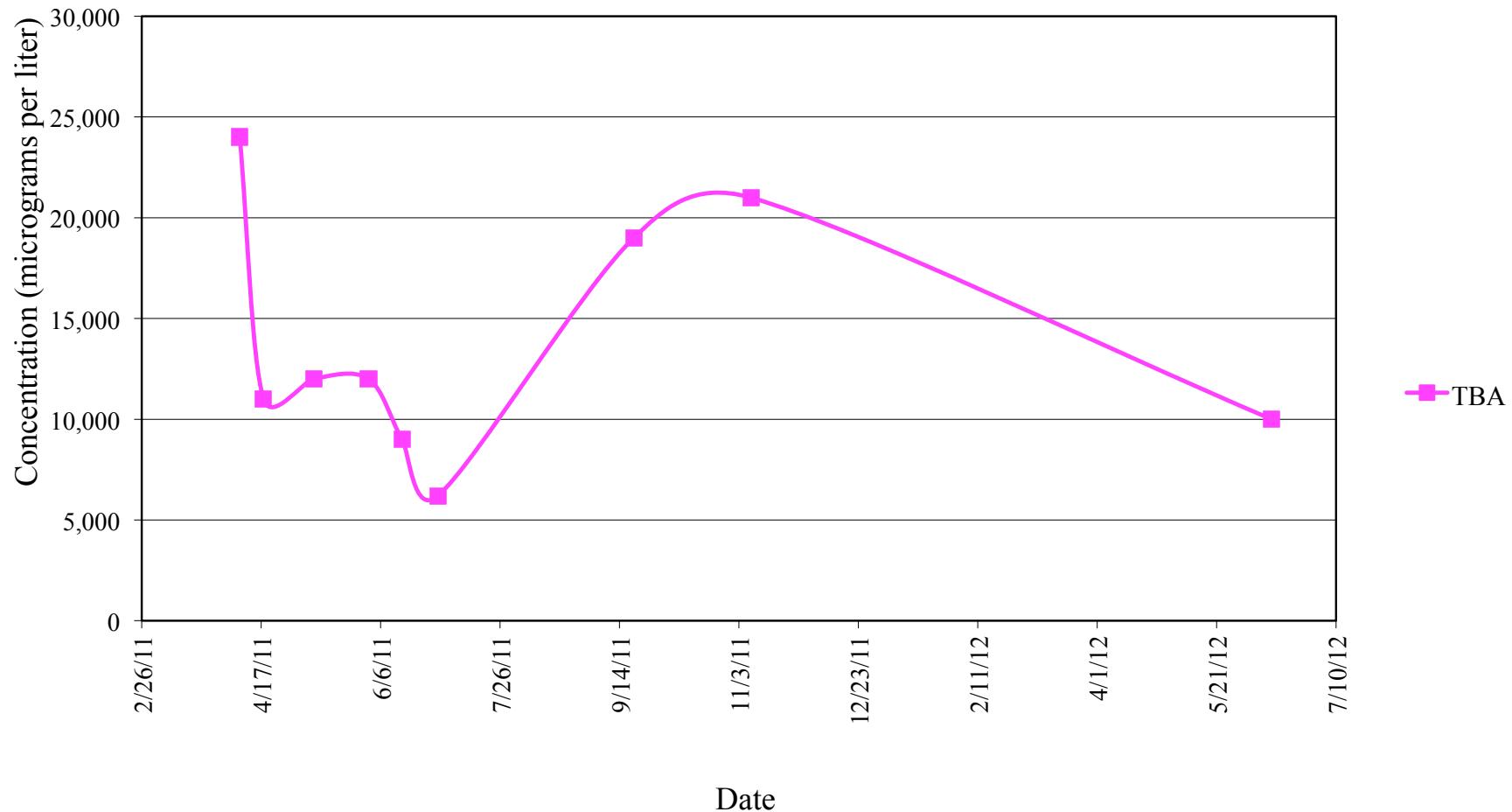


Figure 11
EW-1 TPHg Concentrations in Groundwater Over Time

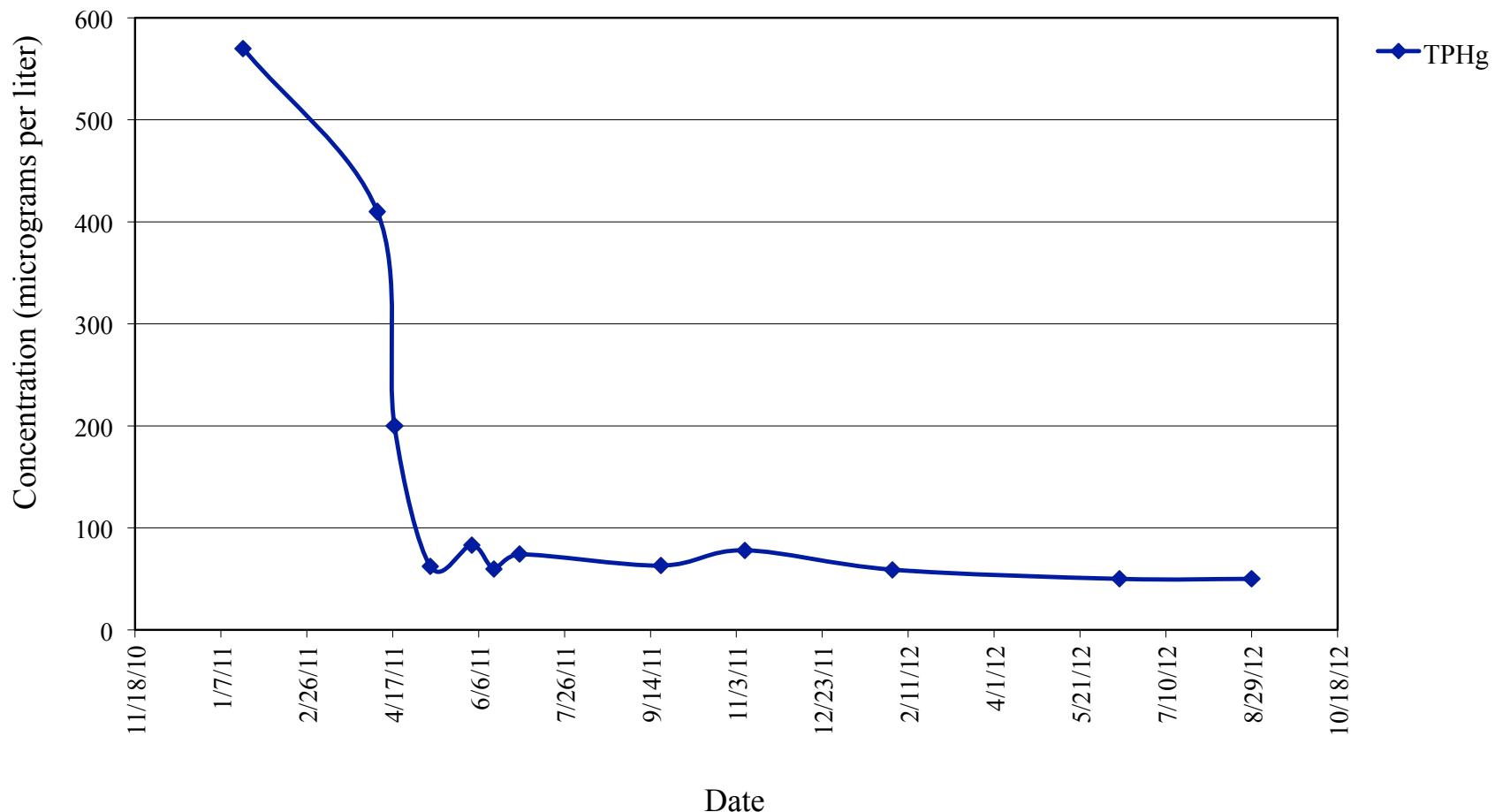


Figure 12
EW-1 MTBE Concentrations in Groundwater Over Time

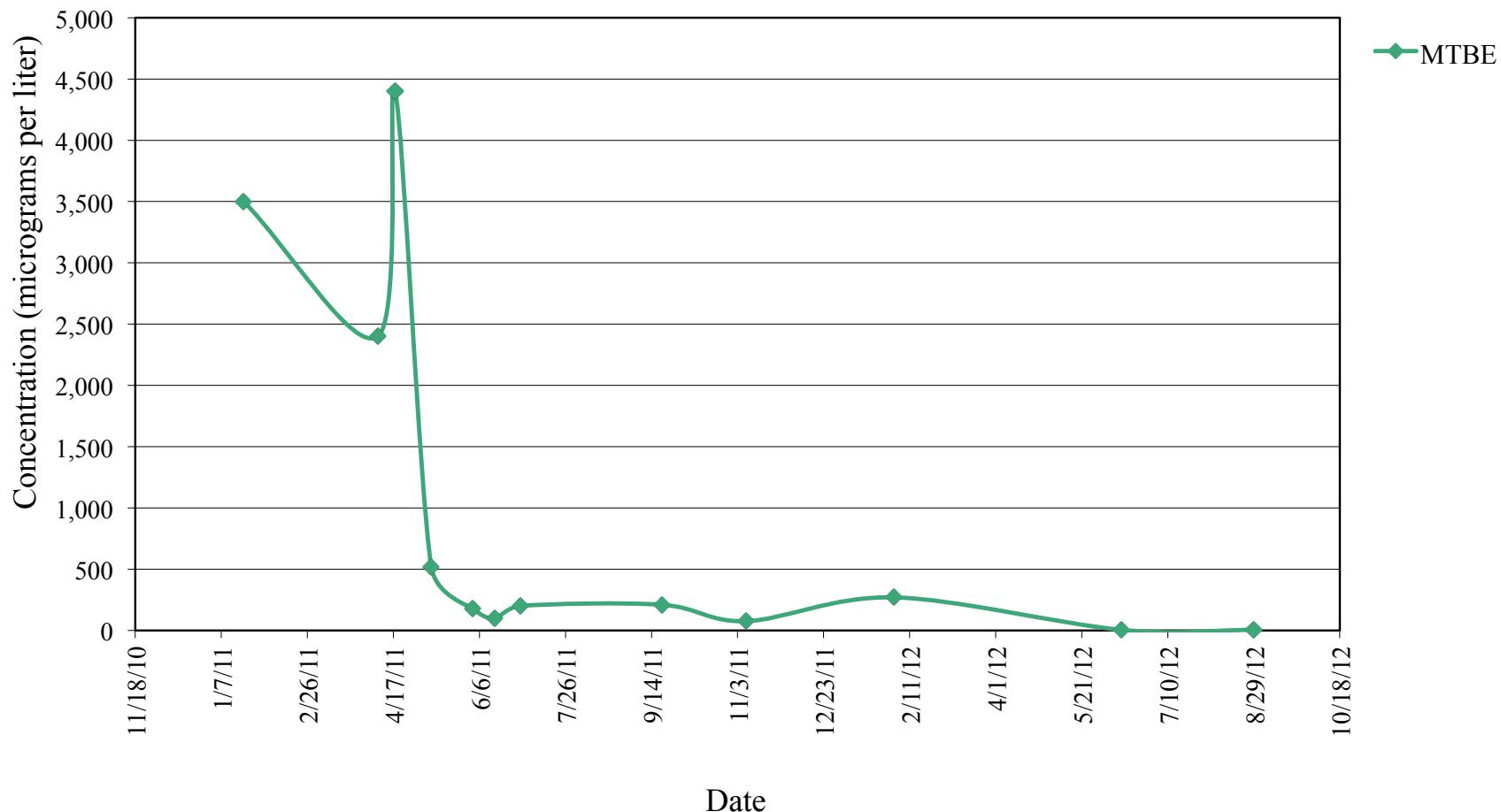


Figure 13
EW-1 TBA Concentrations in Groundwater Over Time

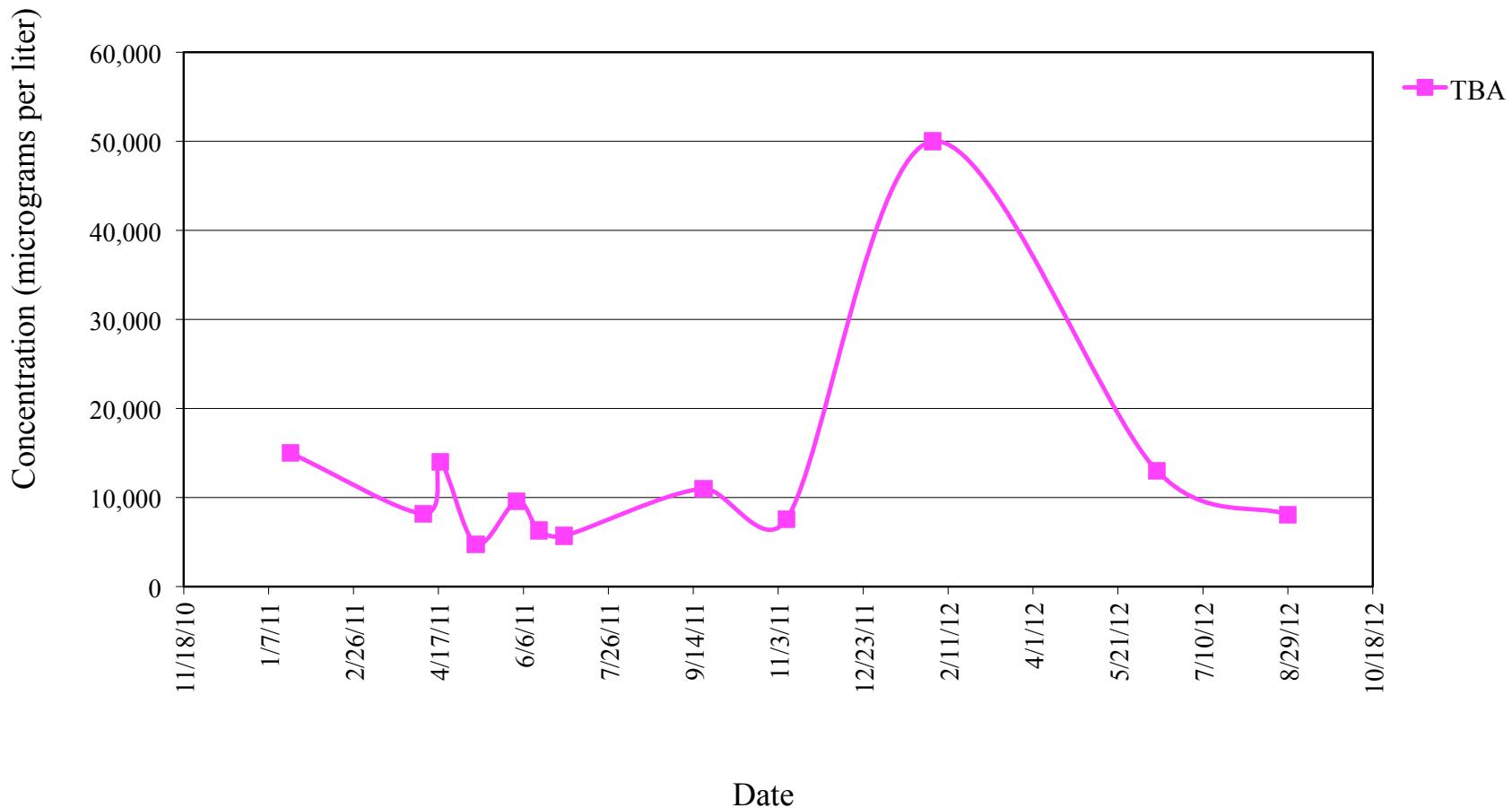


Figure 14
EW-3 TPHg Concentrations in Groundwater Over Time

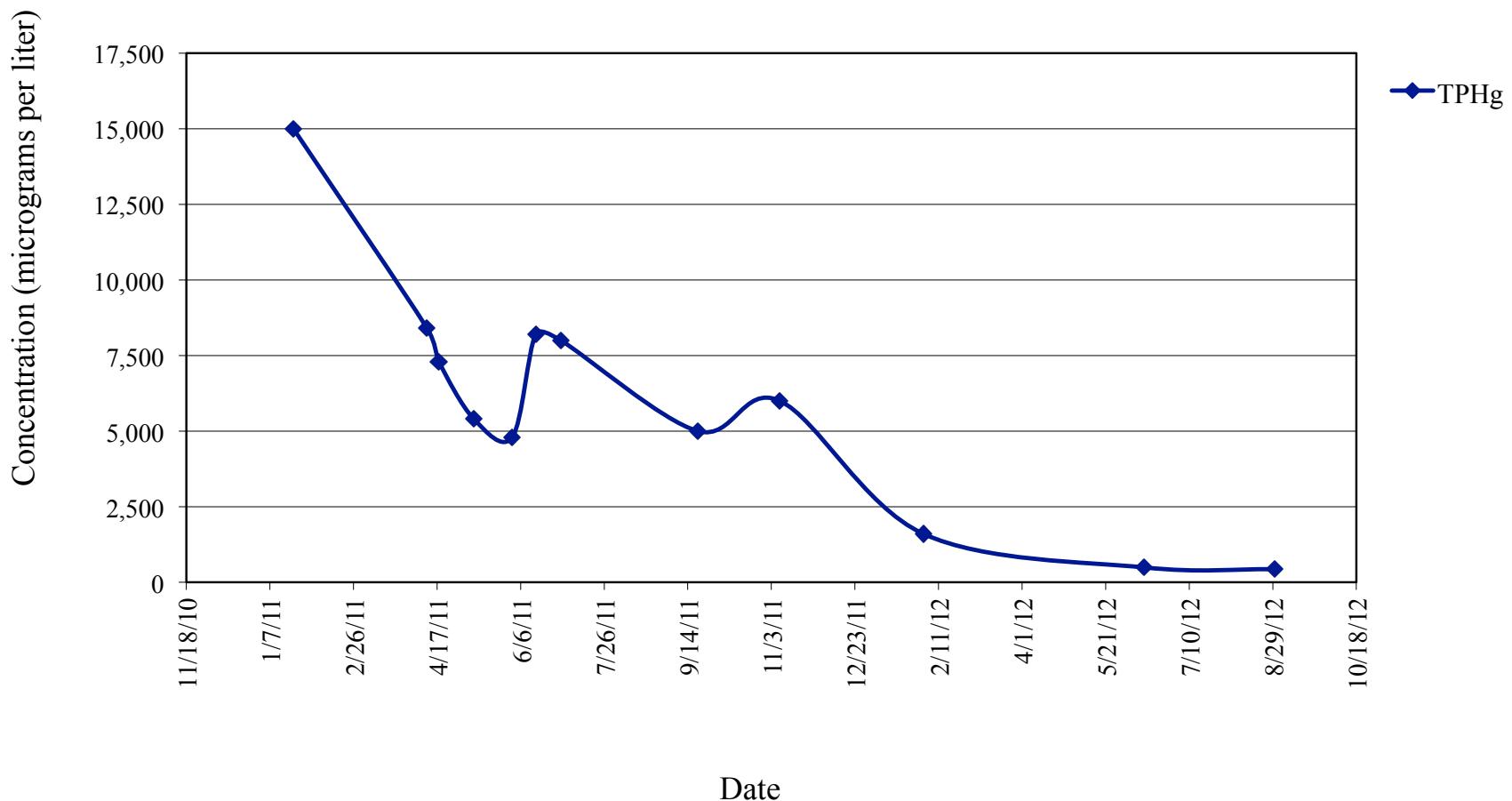
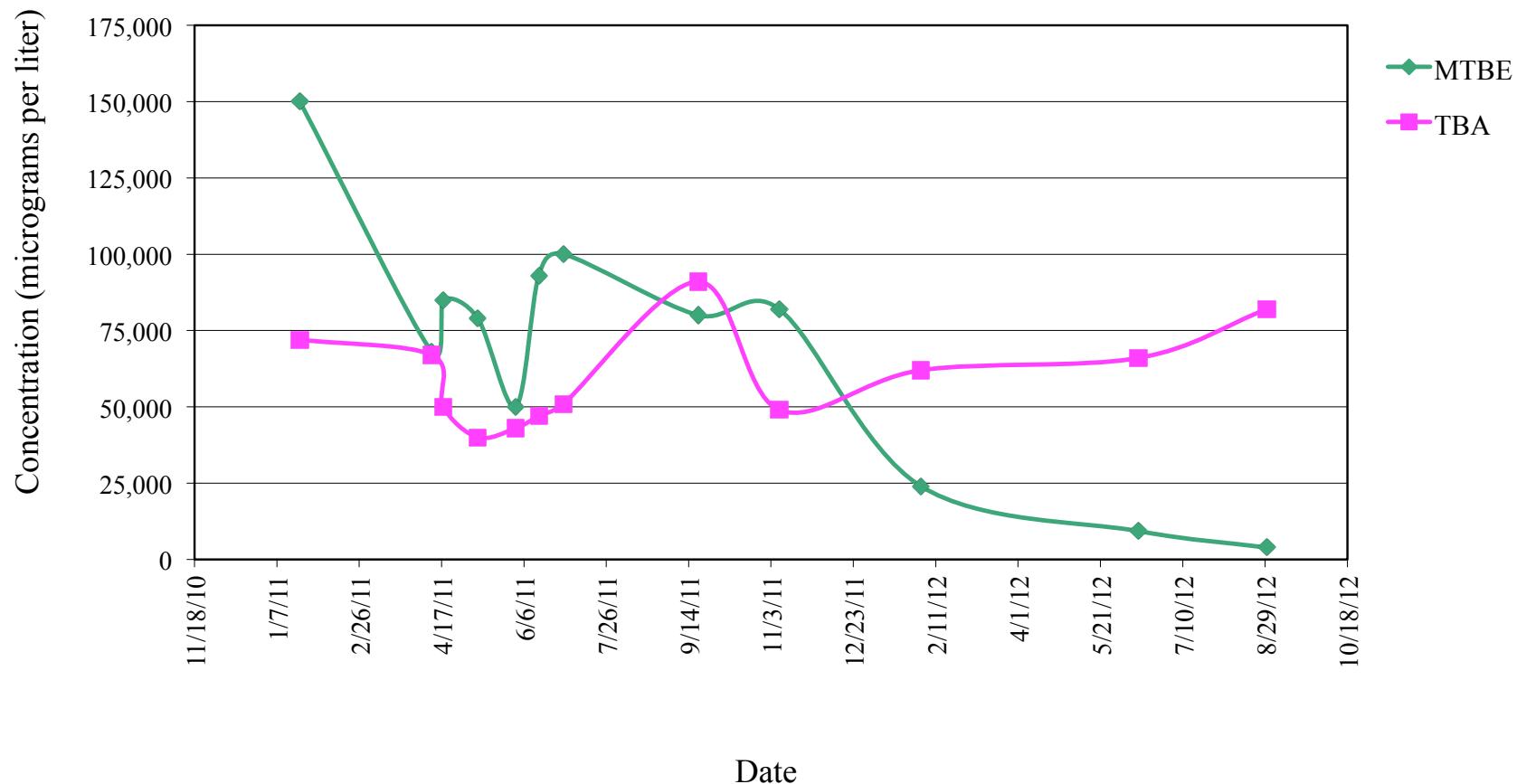


Figure 15
EW-3 MTBE and TBA Concentrations in Groundwater Over Time



TABLES 1 – 3

Table 1
Groundwater Elevation Data
160 Holmes Street, Livermore, California

Monitoring Well ID	Date	Top of Casing Elevation* (feet, msl)	Screen Interval (feet, bgs)	Depth to Groundwater (feet)	Groundwater Elevation (feet, msl)
MW-1*	8/11/00	465.03	15-30	NM	NC
	10/19/00	465.03	15-30	21.94	443.09
	2/22/01	465.03	15-30	22.91	442.12
	5/30/01	465.03	15-30	Dry	NC
	11/14/01	465.03	15-30	Dry	NC
	5/7/02	465.03	15-30	Dry	NC
	9/11/02	465.03	15-30	26.16	438.87
	12/1/02	465.03	15-30	27.55	437.48
	3/14/03	465.03	15-30	22.63	442.40
	6/25/03	465.03	15-30	22.10	442.93
	9/16/03	465.03	15-30	24.91	440.12
	12/22/03	465.03	15-30	21.75	443.28
	3/10/04	465.03	15-30	17.45	447.58
	6/15/04	465.03	15-30	22.38	442.65
	9/17/04	465.03	15-30	25.61	439.42
	12/10/04	465.03	15-30	22.18	442.85
	3/2/05	465.03	15-30	16.95	448.08
	5/27/05	465.03	15-30	18.42	446.61
	7/21/05	465.03	15-30	21.38	443.65
	10/10/05	465.03	15-30	22.49	442.54
	1/9/06	465.03	15-30	18.05	446.98
MW-1A*	4/6/06	465.03	15-30	15.60	449.43
	7/27/06	465.03	15-30	22.42	442.61
	10/12/06	465.03	15-30	23.46	441.57
	1/3/07	465.03	15-30	21.00	444.03
	4/13/07	465.03	15-30	23.24	441.79
	7/16/07	465.03	15-30	Dry	NC
	10/29/07	465.03	15-30	Dry	NC
	2/1/08	465.03	15-30	Dry	NC
	4/18/08	465.03	15-30	27.34	437.69
	7/28/08	465.03	15-30	Dry	NC
	11/18/08	465.03	15-30	Dry	NC
	2/4/09	465.03	15-30	Dry	NC
	4/21/09	465.03	15-30	Dry	NC
	9/24/09	465.03	15-30	35.00	430.03
	3/4/10	465.03	15-30	28.05	436.98
	7/19/10	465.03	15-30	23.85	441.18
	1/19/11	465.03	15-30	23.12	441.91
	4/6/11	465.03	15-30	18.40	446.63
	4/18/11	465.03	15-30	18.70	446.33
	5/9/11	465.03	15-30	19.26	445.77
	6/1/11	465.03	15-30	20.10	444.93
	6/15/11	465.03	15-30	20.44	444.59
	6/30/11	465.03	15-30	20.73	444.30
	9/19/11	465.03	15-30	22.91	442.12
	11/4/11	465.03	15-30		#VALUE!
	2/1/12	465.03	15-30	Dry	NC
	6/13/12	465.03	15-30	26.90	438.13
	8/28/12	465.03	15-30	Dry	NC

Table 1
Groundwater Elevation Data
160 Holmes Street, Livermore, California

Monitoring Well ID	Date	Top of Casing Elevation* (feet, msl)	Screen Interval (feet, bgs)	Depth to Groundwater (feet)	Groundwater Elevation (feet, msl)
MW-1B**	4/6/06	465.02	50-55	15.59	449.43
	7/27/06	465.02	50-55	22.47	442.55
	10/12/06	465.02	50-55	23.51	441.51
	1/3/07	465.02	50-55	21.04	443.98
	4/13/07	465.02	50-55	23.30	441.72
	7/16/07	465.02	50-55	35.57	429.45
	10/29/07	465.02	50-55	47.32	417.70
	2/1/08	465.02	50-55	33.90	431.12
	4/18/08	465.02	50-55	27.35	437.67
	7/28/08	465.02	50-55	44.03	420.99
	11/18/08	465.02	50-55	48.50	416.52
	2/4/09	465.02	50-55	46.83	418.19
	4/21/09	465.02	50-55	37.10	427.92
	9/24/09	465.02	50-55	37.76	427.26
	3/4/10	465.02	50-55	27.41	437.61
	7/19/10	465.02	50-55	NM	NC
	1/19/11	465.02	50-55	23.10	441.92
	4/6/11	465.02	50-55	18.40	446.62
	4/18/11	465.02	50-55	18.60	446.42
	5/9/11	465.02	50-55	19.11	445.91
	6/1/11	465.02	50-55	20.10	444.92
	6/15/11	465.02	50-55	20.44	444.58
	6/30/11	465.02	50-55	20.74	444.28
	9/19/11	465.02	50-55	22.92	442.10
	11/4/11	465.02	50-55	22.95	442.07
	2/2/12	465.02	50-55	33.00	432.02
	6/13/12	465.02	50-55	26.99	438.03
	8/28/12	465.02	50-55	29.51	435.51
MW-2*	8/11/00	464.94	15-30	NM	NC
	10/19/00	464.94	15-30	21.80	443.14
	2/22/01	464.94	15-30	22.87	442.07
	5/30/01	464.94	15-30	Dry	NC
	11/14/01	464.94	15-30	Dry	NC
	5/7/02	464.94	15-30	26.70	438.24
	9/11/02	464.94	15-30	25.96	438.98
	12/11/02	464.94	15-30	27.56	437.38
	3/14/03	464.94	15-30	22.41	442.53
	6/25/03	464.94	15-30	21.97	442.97
	9/16/03	464.94	15-30	24.70	440.24
	12/22/03	464.94	15-30	21.58	443.36
	3/10/04	464.94	15-30	17.31	447.63
	6/15/04	464.94	15-30	22.18	442.76
	9/17/04	464.94	15-30	25.44	439.50
	12/10/04	464.94	15-30	22.00	442.94
	3/2/05	464.94	15-30	16.75	448.19
	5/27/05	464.94	15-30	18.29	446.65
	7/21/05	464.94	15-30	20.46	444.48
	10/10/05	464.94	15-30	22.30	442.64
	1/9/06	464.94	15-30	17.67	447.27

Table 1
Groundwater Elevation Data
160 Holmes Street, Livermore, California

Monitoring Well ID	Date	Top of Casing Elevation* (feet, msl)	Screen Interval (feet, bgs)	Depth to Groundwater (feet)	Groundwater Elevation (feet, msl)
MW-2A*	4/6/06	464.94	15-30	15.47	449.47
	7/27/06	464.94	15-30	22.27	442.67
	10/12/06	464.94	15-30	23.35	441.59
	1/3/07	464.94	15-30	20.90	444.04
	4/13/07	464.94	15-30	23.16	441.78
	7/16/07	464.94	15-30	Dry	NC
	10/29/07	464.94	15-30	Dry	NC
	2/1/08	464.94	15-30	Dry	NC
	4/18/08	464.94	15-30	27.26	437.68
	7/28/08	464.94	15-30	Dry	NC
	11/18/08	464.94	15-30	Dry	NC
	2/4/09	464.94	15-30	Dry	NC
	4/21/09	464.94	15-30	Dry	NC
	9/24/09	464.94	15-30	Dry	NC
	3/4/10	464.94	15-30	25.12	439.82
	7/20/10	464.94	15-30	25.90	439.04
	1/19/11	464.94	15-30	25.30	439.64
	4/6/11	464.94	15-30	18.30	446.64
	9/19/11	464.94	15-30	22.45	442.49
MW-3*	11/4/11	464.94	15-30	22.77	442.17
	2/1/12	464.94	15-30	Dry	NC
	6/12/12	464.94	15-30	26.79	438.15
	8/28/12	464.94	15-30	NS	NC
MW-3*	8/11/00	465.84	15-30	NM	NC
	10/19/00	465.84	15-30	22.45	443.39
	2/22/01	465.84	15-30	23.51	442.33
	5/30/01	465.84	15-30	Dry	NC
	11/14/01	465.84	15-30	Dry	NC
	5/7/02	465.84	15-30	Dry	NC
	9/11/02	465.84	15-30	26.61	439.23
	12/11/02	465.84	15-30	28.18	437.66
	3/14/03	465.84	15-30	23.04	442.80
	6/25/03	465.84	15-30	22.59	443.25
	9/16/03	465.84	15-30	25.33	440.51
	12/22/03	465.84	15-30	22.37	443.47
	3/10/04	465.84	15-30	17.88	447.96
	6/15/04	465.84	15-30	22.82	443.02
	9/17/04	465.84	15-30	26.09	439.75
	12/10/04	465.84	15-30	22.65	443.19
	3/5/05	465.84	15-30	17.33	448.51
	5/27/05	465.84	15-30	18.89	446.95
	7/21/05	465.84	15-30	21.10	444.74
	10/10/05	465.84	15-30	22.94	442.90
	1/9/06	465.84	15-30	18.24	447.60

Table 1
Groundwater Elevation Data
160 Holmes Street, Livermore, California

Monitoring Well ID	Date	Top of Casing Elevation* (feet, msl)	Screen Interval (feet, bgs)	Depth to Groundwater (feet)	Groundwater Elevation (feet, msl)
MW-3A*	4/6/06	465.84	15-30	16.02	449.82
	7/27/06	465.84	15-30	22.90	442.94
	10/12/06	465.84	15-30	23.99	441.85
	1/3/07	465.84	15-30	21.52	444.32
	4/13/07	465.84	15-30	23.78	442.06
	7/16/07	465.84	15-30	Dry	NC
	10/29/07	465.84	15-30	Dry	NC
	2/1/08	465.84	15-30	Dry	NC
	4/18/08	465.84	15-30	27.86	437.98
	7/28/08	465.84	15-30	Dry	NC
	11/18/08	465.84	15-30	Dry	NC
	2/4/09	465.84	15-30	Dry	NC
	4/21/09	465.84	15-30	Dry	NC
	9/24/09	465.84	15-30	Dry	NC
	3/4/10	465.84	15-30	27.95	437.89
	7/19/10	465.84	15-30	26.55	439.29
	1/19/11	465.84	15-30	23.63	442.21
	4/6/11	465.84	15-30	18.90	446.94
	9/19/11	465.85	15-30	23.40	442.45
	11/4/11	465.85	15-30	23.60	442.25
	2/1/12	465.85	15-30	Dry	NC
	6/12/12	465.85	15-30	27.47	438.38
	8/28/12	465.85	15-30	NM	NC
MW-4***	11/14/01	465.15	15-30	33.84	431.31
	5/7/02	465.15	15-30	26.75	438.40
	9/11/02	465.15	15-30	26.66	438.49
	12/11/02	465.15	15-30	28.39	436.76
	3/14/03	465.15	15-30	23.14	442.01
	6/25/03	465.15	15-30	22.72	442.43
	9/16/03	465.15	15-30	25.39	439.76
	12/22/03	465.15	15-30	22.42	442.73
	3/4/04	465.15	15-30	18.20	446.95
	6/15/04	465.15	15-30	22.95	442.20
	9/17/04	465.15	15-30	26.12	439.03
	12/10/04	465.15	15-30	22.73	442.42
	3/2/05	465.15	15-30	17.60	447.55
	5/27/05	465.15	15-30	19.14	446.01
	7/21/05	465.15	15-30	21.25	443.90
	10/10/05	465.15	15-30	22.85	442.30
	1/9/06	465.15	15-30	18.54	446.61

Table 1
Groundwater Elevation Data
160 Holmes Street, Livermore, California

Monitoring Well ID	Date	Top of Casing Elevation* (feet, msl)	Screen Interval (feet, bgs)	Depth to Groundwater (feet)	Groundwater Elevation (feet, msl)
MW-4A**	4/6/06	464.96	15-30	16.19	448.77
	7/27/06	464.96	15-30	22.87	442.09
	10/12/06	464.96	15-30	23.90	441.06
	1/3/07	464.96	15-30	21.52	443.44
	4/13/07	464.96	15-30	23.78	441.18
	7/16/07	464.96	15-30	Dry	NC
	10/29/07	464.96	15-30	Dry	NC
	2/1/08	464.96	15-30	Dry	NC
	4/18/08	464.96	15-30	27.91	437.05
	7/28/08	464.96	15-30	Dry	NC
	11/18/08	464.96	15-30	Dry	NC
	2/4/09	464.96	15-30	Dry	NC
	9/24/09	464.96	15-30	Dry	NC
	4/21/09	464.96	15-30	Dry	NC
	3/4/10	464.96	15-30	25.66	439.30
	7/20/10	464.96	15-30	24.25	440.71
	1/19/11	464.96	15-30	23.64	441.32
	4/6/11	464.96	15-30	18.90	446.06
	9/19/11	464.96	15-30	23.43	441.53
MW-5***	11/4/11	464.96	15-30	23.40	441.56
	2/1/12	464.96	15-30	Dry	NC
	6/12/12	464.96	15-30	27.27	437.69
	8/28/12	464.96	15-30	NM	NC
	11/14/01	464.65	20-50	34.94	429.71
	5/7/02	464.65	20-50	27.90	436.75
	9/11/02	464.65	20-50	27.99	436.66
	12/11/02	464.65	20-50	29.50	435.15
	3/14/03	464.65	20-50	24.26	440.39
	6/25/03	464.65	20-50	24.01	440.64
	9/16/03	464.65	20-50	26.83	437.82
	12/22/03	464.65	20-50	23.68	440.97
	3/10/04	464.65	20-50	19.22	445.43
	6/15/04	464.65	20-50	24.20	440.45
	9/17/04	464.65	20-50	27.68	436.97
	12/10/04	464.65	20-50	23.93	440.72
	3/2/05	464.65	20-50	18.56	446.09
	5/27/05	464.65	20-50	20.15	444.50
	7/21/05	464.65	20-50	22.55	442.10
	10/10/05	464.65	20-50	23.35	441.30
	1/9/06	464.65	20-50	19.53	445.12

Table 1
Groundwater Elevation Data
160 Holmes Street, Livermore, California

Monitoring Well ID	Date	Top of Casing Elevation* (feet, msl)	Screen Interval (feet, bgs)	Depth to Groundwater (feet)	Groundwater Elevation (feet, msl)
MW-5A**	4/6/06	464.64	20-35	17.35	447.29
	7/27/06	464.64	20-35	24.40	440.24
	10/12/06	464.64	20-35	25.58	439.06
	1/3/07	464.64	20-35	22.53	442.11
	4/13/07	464.64	20-35	24.77	439.87
	7/16/07	464.64	20-35	Dry	NC
	10/29/07	464.64	20-35	Dry	NC
	2/1/08	464.64	20-35	34.03	430.61
	4/18/08	464.64	20-35	28.13	436.51
	7/28/08	464.64	20-35	Dry	NC
	11/18/08	464.64	20-35	33.82	430.82
	2/4/09	464.64	20-35	Dry	NC
	4/21/09	464.64	20-35	Dry	NC
	9/24/09	464.64	20-35	Dry	NC
	3/4/10	464.64	20-35	28.77	435.87
	7/20/10	464.64	20-35	24.57	440.07
	1/19/11	464.64	20-35	24.52	440.12
	4/6/11	464.64	20-35	19.98	444.66
	9/19/11	464.64	20-35	24.62	440.02
	11/4/11	464.64	20-35	24.50	440.14
	2/1/12	464.64	20-35	Dry	NC
	6/12/12	464.64	20-35	28.39	436.25
	8/28/12	464.64	20-35	31.10	433.54
MW-5B**	4/6/06	464.59	50-55	17.44	447.15
	7/27/06	464.59	50-55	24.09	440.50
	10/12/06	464.59	50-55	25.17	439.42
	1/3/07	464.59	50-55	22.44	442.15
	4/13/07	464.59	50-55	25.33	439.26
	7/16/07	464.59	50-55	36.50	428.09
	10/29/07	464.59	50-55	47.90	416.69
	2/1/08	464.59	50-55	33.25	431.34
	4/18/08	464.59	50-55	28.77	435.82
	7/28/08	464.59	50-55	44.76	419.83
	11/18/08	464.59	50-55	51.65	412.94
	2/4/09	464.59	50-55	47.63	416.96
	4/21/09	464.59	50-55	37.00	427.59
	9/24/09	464.59	50-55	39.73	424.86
	3/4/10	464.59	50-55	28.97	435.62
	7/19/10	464.59	50-55	25.40	439.19
	1/19/11	464.59	50-55	24.52	440.07
	4/6/11	464.59	50-55	20.05	444.54
	9/19/11	464.59	50-55	24.50	440.09
	11/4/11	464.59	50-55	24.40	440.19
	2/1/12	464.59	50-55	33.96	430.63
	6/12/12	464.59	50-55	28.65	435.94
	8/28/12	464.59	50-55	31.22	433.37

Table 1
Groundwater Elevation Data
160 Holmes Street, Livermore, California

Monitoring Well ID	Date	Top of Casing Elevation* (feet, msl)	Screen Interval (feet, bgs)	Depth to Groundwater (feet)	Groundwater Elevation (feet, msl)
MW-6	11/14/01	464.13	20-50	33.88	430.25
	5/7/02	464.13	20-50	27.01	437.12
	9/11/02	464.13	20-50	27.03	437.10
	12/11/02	464.13	20-50	28.77	435.36
	3/14/03	464.13	20-50	23.46	440.67
	6/25/03	464.13	20-50	23.08	441.05
	9/16/03	464.13	20-50	25.77	438.36
	12/22/03	464.13	20-50	22.59	441.54
	3/10/04	464.13	20-50	18.65	445.48
	6/15/04	464.13	20-50	23.31	440.82
	9/17/04	464.13	20-50	26.56	437.57
	12/10/04	464.13	20-50	23.09	441.04
	3/2/05	464.13	20-50	18.04	446.09
	5/27/05	464.13	20-50	19.57	444.56
	7/21/05	464.13	20-50	21.60	442.53
	10/10/05	464.13	20-50	22.21	441.92
	1/9/06	464.13	20-50	18.99	445.14
	4/6/06	464.13	20-50	17.00	447.13
	7/27/06	464.13	20-50	23.45	440.68
	10/12/06	464.13	20-50	24.36	439.77
	1/3/07	464.13	20-50	22.03	442.10
	4/13/07	464.13	20-50	24.40	439.73
	7/16/07	464.13	20-50	NM	NC
	10/29/07	464.13	20-50	Dry	NC
	2/1/08	464.13	20-50	33.05	431.08
	4/18/08	464.13	20-50	28.20	435.93
	7/28/08	464.13	20-50	Dry	NC
	11/18/08	464.13	20-50	Dry	NC
	2/4/09	464.13	20-50	Dry	NC
	4/21/09	464.13	20-50	38.71	425.42
	9/24/09	464.13	20-50	38.26	425.87
	3/4/10	464.13	20-50	26.02	438.11
	7/19/10	464.13	20-50	24.65	439.48
	1/19/11	464.13	20-50	24.00	440.13
	4/6/11	464.13	20-50	21.76	442.37
	9/19/11	464.13	20-50	23.76	440.37
	11/4/11	464.13	20-50	23.00	441.13
	2/1/12	464.13	20-50	33.43	430.70
	6/12/12	464.13	20-50	27.62	436.51
	8/28/12	464.13	20-50	30.17	433.96

Table 1
Groundwater Elevation Data
160 Holmes Street, Livermore, California

Monitoring Well ID	Date	Top of Casing Elevation* (feet, msl)	Screen Interval (feet, bgs)	Depth to Groundwater (feet)	Groundwater Elevation (feet, msl)
MW-7A**	4/6/06	465.32	15-30	16.61	448.71
	7/27/06	465.32	15-30	23.40	441.92
	10/12/06	465.32	15-30	24.50	440.82
	1/3/07	465.32	15-30	21.80	443.52
	4/13/07	465.32	15-30	24.05	441.27
	7/16/07	465.32	15-30	Dry	NC
	10/29/07	465.32	15-30	Dry	NC
	2/1/08	465.32	15-30	Dry	NC
	4/18/08	465.32	15-30	28.16	437.16
	7/28/08	465.32	15-30	Dry	NC
	11/18/08	465.32	15-30	Dry	NC
	2/4/09	465.32	15-30	Dry	NC
	4/21/09	465.32	15-30	Dry	NC
	9/24/09	465.32	15-30	Dry	NC
	3/4/10	465.32	15-30	26.30	439.02
	7/19/10	465.32	15-30	24.78	440.54
	1/19/11	465.32	15-30	23.60	441.72
	4/6/11	465.32	15-30	19.35	445.97
	4/18/11	465.32	15-30	19.59	445.73
	5/9/11	465.32	15-30	21.15	444.17
	6/1/11	465.32	15-30	21.01	444.31
	6/15/11	465.32	15-30	21.45	443.87
	6/30/11	465.32	15-30	21.87	443.45
	9/19/11	465.32	15-30	23.96	441.36
	11/4/11	465.32	15-30	23.45	441.87
	2/1/12	465.32	15-30	Dry	NC
	6/13/12	465.32	15-30	27.93	437.39
	8/28/12	465.32	15-30	Dry	NC
MW-7B**	4/6/06	465.39	45-50	16.85	448.54
	7/27/06	465.39	45-50	23.72	441.67
	10/12/06	465.39	45-50	24.74	440.65
	1/3/07	465.39	45-50	22.18	443.21
	4/13/07	465.39	45-50	24.41	440.98
	7/16/07	465.39	45-50	36.40	428.99
	10/29/07	465.39	45-50	Dry	NC
	2/1/08	465.39	45-50	33.84	431.55
	4/18/08	465.39	45-50	28.52	436.87
	7/28/08	465.39	45-50	44.92	420.47
	11/18/08	465.39	45-50	Dry	NC
	2/4/09	465.39	45-50	46.65	418.74
	4/21/09	465.39	45-50	36.83	428.56
	9/24/09	465.39	45-50	39.26	426.13
	3/4/10	465.39	45-50	28.63	436.76
	7/19/10	465.39	45-50	25.05	440.34
	1/19/11	465.39	45-50	24.15	441.24

Table 1
Groundwater Elevation Data
160 Holmes Street, Livermore, California

Monitoring Well ID	Date	Top of Casing Elevation* (feet, msl)	Screen Interval (feet, bgs)	Depth to Groundwater (feet)	Groundwater Elevation (feet, msl)
MW-7B cont.	4/6/11	465.39	45-50	21.78	443.61
	4/18/11	465.39	45-50	19.75	445.64
	5/9/11	465.39	45-50	20.40	444.99
	6/1/11	465.39	45-50	21.25	444.14
	6/15/11	465.39	45-50	21.45	443.94
	6/30/11	465.39	45-50	21.65	443.74
	9/19/11	465.39	45-50	24.10	441.29
	11/4/11	465.39	45-50	24.10	441.29
	2/2/12	465.39	45-50	33.91	431.48
	6/13/12	465.39	45-50	28.14	437.25
	8/28/12	465.39	45-50	30.67	434.72
MW-7C**	4/6/06	465.39	65-70	17.18	448.21
	7/27/06	465.39	65-70	24.15	441.24
	10/12/06	465.39	65-70	24.74	440.65
	1/3/07	465.39	65-70	22.53	442.86
	4/13/07	465.39	65-70	24.73	440.66
	7/16/07	465.39	65-70	36.70	428.69
	10/29/07	465.39	65-70	48.25	417.14
	2/1/08	465.39	65-70	34.00	431.39
	4/18/08	465.39	65-70	28.75	436.64
	7/28/08	465.39	65-70	45.00	420.39
	11/18/08	465.39	65-70	49.62	415.77
	2/4/09	465.39	65-70	47.89	417.50
	4/21/09	465.39	65-70	36.98	428.41
	9/24/09	465.39	65-70	39.49	425.90
	3/4/10	465.39	65-70	26.66	438.73
	7/19/10	465.39	65-70	25.38	440.01
	1/19/11	465.39	65-70	24.50	440.89
	4/6/11	465.39	65-70	19.88	445.51
	9/19/11	465.39	65-70	23.50	441.89
	11/4/11	465.39	65-70	24.40	440.99
	2/2/12	465.39	65-70	34.14	431.25
	6/13/12	465.39	65-70	28.54	436.85
	8/28/12	465.39	65-70	31.07	434.32
EW-1**	4/6/06	465.45	15-40	15.99	449.46
	7/27/06	465.45	15-40	23.85	441.60
	10/12/06	465.45	15-40	23.51	441.94
	1/3/07	465.45	15-40	21.45	444.00
	4/13/07	465.45	15-40	23.69	441.76
	10/29/07	465.45	15-40	NM	NC
	2/1/08	465.45	15-40	NM	NC
	4/18/08	465.45	15-40	27.83	437.62
	7/28/08	465.45	15-40	NM	NC
	11/18/08	465.45	15-40	Dry	NC
	2/4/09	465.45	15-40	Dry	NC
	4/21/09	465.45	15-40	Dry	NC
	9/24/09	465.45	15-40	Dry	NC
	3/4/10	465.45	15-40	27.87	NC
Page 9 of 13	7/20/10	465.45	15-40	24.35	441.00
	1/19/11	465.45	15-40	23.58	441.87

Table 1
Groundwater Elevation Data
160 Holmes Street, Livermore, California

Monitoring Well ID	Date	Top of Casing Elevation* (feet, msl)	Screen Interval (feet, bgs)	Depth to Groundwater (feet)	Groundwater Elevation (feet, msl)
EW-1	4/6/11	465.45	15-40	18.85	446.60
cont.	4/18/11	465.45	15-40	19.70	445.75
	5/9/11	465.45	15-40	19.69	445.76
	6/1/11	465.45	15-40	20.52	444.93
	6/15/11	465.45	15-40	21.11	444.34
	6/30/11	465.45	15-40	21.41	444.04
	9/19/11	465.45	15-40	22.35	443.10
	11/4/11	465.45	15-40	23.35	442.10
	2/2/12	465.45	15-40	33.38	432.07
	6/13/12	465.45	15-40	27.38	438.07
	8/28/12	465.45	15-40	29.90	435.55
EW-2**	4/6/06	465.99	15-40	16.20	449.79
	7/27/06	465.99	15-40	23.10	442.89
	10/12/06	465.99	15-40	21.48	444.51
	1/3/07	465.99	15-40	21.66	444.33
	4/13/07	465.99	15-40	23.93	442.06
	10/29/07	465.99	15-40	Dry	NC
	2/1/08	465.99	15-40	NM	NC
	4/18/08	465.99	15-40	28.04	437.95
	7/28/08	465.99	15-40	NM	NC
	11/18/08	465.99	15-40	Dry	NC
	2/4/09	465.99	15-40	Dry	NC
	4/21/09	465.99	15-40	Dry	NC
	9/24/09	465.99	15-40	Dry	NC
	3/4/10	465.99	15-40	25.89	NC
	7/20/10	465.99	15-40	24.45	441.54
	1/19/11	465.99	15-40	23.72	442.27
	4/6/11	465.99	15-40	19.00	446.99
	4/18/11	465.99	15-40	19.19	446.80
	5/9/11	465.99	15-40	19.67	446.32
	6/1/11	465.99	15-40	20.71	445.28
	6/15/11	465.99	15-40	21.00	444.99
	6/30/11	465.99	15-40	21.31	444.68
	9/19/11	465.99	15-40	23.55	442.44
	11/4/11	465.99	15-40	23.60	442.39
	2/2/12	465.99	15-40	33.66	432.33
	6/13/12	465.99	15-40	27.64	438.35
	8/28/12	465.99	15-40	NM	NC

Table 1
Groundwater Elevation Data
160 Holmes Street, Livermore, California

Monitoring Well ID	Date	Top of Casing Elevation* (feet, msl)	Screen Interval (feet, bgs)	Depth to Groundwater (feet)	Groundwater Elevation (feet, msl)
EW-3 ^(a)	11/18/08	NC	25-30	Dry	NC
	2/4/09	NC	25-30	33.80	NC
	4/21/09	NC	25-30	Dry	NC
	9/24/09	NC	25-30	Dry	NC
	3/4/10	NC	25-30	28.02	NC
	7/20/10	NC	25-30	NM	NC
	1/19/11	NC	25-30	23.50	NC
	4/6/11	NC	25-30	18.30	NC
	4/18/11	NC	25-30	19.40	NC
	5/9/11	NC	25-30	19.67	NC
	6/1/11	NC	25-30	20.72	NC
	6/15/11	NC	25-30	20.92	NC
	6/30/11	NC	25-30	21.11	NC
	9/19/11	NC	25-30	23.25	NC
	11/4/11	NC	25-30	23.30	NC
	2/2/12	NC	25-30	28.76	NC
	6/13/12	NC	25-30	27.31	NC
	8/28/12	NC	25-30	28.87	NC
MW-8A	7/28/08	NC	16-36	Dry	NC
	11/18/08	NC	16-36	35.40	NC
	2/4/09	NC	16-36	Dry	NC
	4/21/09	NC	16-36	Dry	NC
	9/24/09	NC	16-36	Dry	NC
	3/4/10	NC	16-36	26.33	NC
	7/20/10	NC	16-36	25.00	NC
	1/19/11	NC	16-36	24.30	NC
	4/6/11	NC	16-36	19.22	NC
	9/19/11	NC	16-36	24.05	NC
	11/4/11	NC	16-36	24.10	NC
	2/2/12	NC	16-36	33.99	NC
	6/12/12	NC	16-36	28.01	NC
	8/28/12	NC	16-36	30.53	NC
MW-8B	7/28/08	NC	46-51	44.90	NC
	11/18/08	NC	46-51	49.85	NC
	2/4/09	NC	46-51	47.95	NC
	4/21/09	NC	46-51	38.75	NC
	9/24/09	NC	46-51	38.47	NC
	3/4/10	NC	46-51	28.24	NC
	7/20/10	NC	46-51	24.70	NC
	1/19/11	NC	46-51	24.05	NC
	4/6/11	NC	46-51	19.42	NC
	9/19/11	NC	46-51	23.80	NC
	11/4/11	NC	46-51	23.50	NC
	2/2/12	NC	46-51	33.73	NC
	6/13/12	NC	46-51	27.75	NC
	8/28/12	NC	46-51	30.28	NC

Table 1
Groundwater Elevation Data
160 Holmes Street, Livermore, California

Monitoring Well ID	Date	Top of Casing Elevation* (feet, msl)	Screen Interval (feet, bgs)	Depth to Groundwater (feet)	Groundwater Elevation (feet, msl)
MW-9A	7/28/08	NC	14-36	Dry	NC
	11/18/08	NC	14-36	48.97	NC
	2/4/09	NC	14-36	Dry	NC
	4/21/09	NC	14-36	Dry	NC
	9/24/09	NC	14-36	Dry	NC
	3/4/10	NC	14-36	27.86	NC
	7/20/10	NC	14-36	24.15	NC
	1/19/11	NC	14-36	23.40	NC
	4/6/11	NC	14-36	21.50	NC
	9/19/11	NC	14-36	23.25	NC
	11/4/11	NC	14-36	23.50	NC
	2/1/12	NC	14-36	33.10	NC
	6/12/12	NC	14-36	27.30	NC
	8/28/12	NC	14-36	29.72	NC
MW-9B	7/28/08	NC	47-52	44.05	NC
	11/18/08	NC	47-52	38.28	NC
	2/4/09	NC	47-52	47.03	NC
	4/21/09	NC	47-52	35.94	NC
	9/24/09	NC	47-52	37.93	NC
	3/4/10	NC	47-52	27.68	NC
	7/20/10	NC	47-52	24.30	NC
	1/19/11	NC	47-52	23.55	NC
	4/6/11	NC	47-52	21.21	NC
	9/19/11	NC	47-52	23.12	NC
	11/4/11	NC	47-52	23.35	NC
	2/1/12	NC	47-52	33.13	NC
	6/12/12	NC	47-52	27.19	NC
	8/28/12	NC	47-52	29.82	NC

Table 1
Groundwater Elevation Data
160 Holmes Street, Livermore, California

Monitoring Well ID	Date	Top of Casing Elevation* (feet, msl)	Screen Interval (feet, bgs)	Depth to Groundwater (feet)	Groundwater Elevation (feet, msl)
EX-1***	11/14/01	465.30	30-55	33.41	431.89
	5/7/02	465.30	30-55	27.58	437.72
	9/11/02	465.30	30-55	NM	NC
	12/11/02	465.30	30-55	27.98	437.32
	3/14/03	465.30	30-55	23.02	442.28
	6/25/03	465.30	30-55	22.41	442.89
	9/16/03	465.30	30-55	24.65	440.65
	3/10/04	465.30	30-55	17.99	447.31
	6/15/04	465.30	30-55	22.48	442.82
	9/17/04	465.30	30-55	25.91	439.39
	12/10/04	465.30	30-55	NM	NC
	3/2/05	465.30	30-55	NM	NC
	5/27/05	465.30	30-55	18.68	446.62
	7/21/05	465.30	30-55	21.55	443.75
	10/10/05	465.30	30-55	22.73	442.57
	1/9/06	465.30	30-55	18.05	447.25

Notes:

msl: mean sea level

bgs: below ground surface

NA: well not accessible

NC: elevation not calculated

NM: well not measured

* = Well MW-1, 2, and 3 renamed MW-1A, 2A, and 3A respectively

** = Well installed on 2/22/06-2/28/06

*** = Well destroyed on 2/22/06-2/28/06

(a) = Well EW-3 is 35 feet deep with a screen interval from 25 to 30 feet bgs.

Table 2
Groundwater Analytical Results
 160 Holmes Street, Livermore, California

Well ID	Date Collected	Groundwater Elevation (feet above MSL)	Total Petroleum Hydrocarbons ($\mu\text{g/L}$)		Aromatic Volatile Organic Compounds ($\mu\text{g/L}$)				Oxygenated Volatile Organics ($\mu\text{g/L}$)						Lead Scavengers ($\mu\text{g/L}$)		
			Gasoline	Diesel	Benzene	Toluene	Ethyl-benzene	Total Xylenes	MTBE (8021B)	TAME	TBA	DIPE	ETBE	MTBE	Ethanol	Methanol	EDB
MW-1A*	8/11/00	NC	170,000	57,000	6,400	7,600	4,200	9,700	320,000	NA	NA	NA	NA	NA	NA	NA	NA
	10/19/00	443.09	170,000	17,000	8,400	3,200	2,700	10,000	200,000	NA	NA	NA	NA	NA	NA	NA	NA
	2/22/01	442.12	82,000	11,000	5,100	1,000	13,000	8,700	190,000	NA	NA	NA	NA	NA	NA	NA	NA
	5/30/01	NC	NS	NS	not sampled - well dry				NS	NS	NS	NS	NS	NS	NS	NS	NS
	11/14/01	NC	NS	NS	not sampled - well dry				NS	NS	NS	NS	NS	NS	NS	NS	NS
	5/7/02	NC	NS	NS	not sampled - well dry				NS	NS	NS	NS	NS	NS	NS	NS	NS
	9/11/02	438.87	130,000	NA	7,700	1,100	NS	1,500	<5000	NA	NA	NA	NA	NA	NA	NA	NA
	12/1/02	437.48	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	3/14/03	442.40	180,000	3,800	7,100	3,200	4,300	6,000	220,000	NA	NA	NA	NA	NA	NA	NA	NA
	6/25/03	442.93	71,000	3,100	7,500	4,700	4,800	8,900	210,000	NA	NA	NA	NA	NA	NA	NA	NA
	9/16/03	440.12	37,000	3,600	4,600	220	3,600	930	150,000	NA	NA	NA	NA	NA	NA	NA	NA
	12/22/03	443.28	44,000	4,000	6,800	1,500	4,000	3,800	180,000	NA	NA	NA	NA	NA	NA	NA	NA
	3/10/04	447.58	72,000	3,100	6,000	11,000	3,900	10,000	260,000	NA	NA	NA	NA	NA	NA	NA	NA
	6/15/04	442.65	42,000	4,300	5,000	1,800	3,700	6,000	210,000	NA	NA	NA	NA	NA	NA	NA	NA
	9/17/04	439.42	24,000	2,900	2,800	<33	2,900	500	83,000	NA	NA	NA	NA	NA	NA	NA	NA
	12/10/04	442.85	31,000	2,700	4,600	190	4,400	2,800	200,000	NA	NA	NA	NA	NA	NA	NA	NA
	3/2/05	448.08	58,000	2,800	4,000	2,500	4,500	7,800	230,000	NA	NA	NA	NA	NA	NA	NA	NA
	5/27/05	446.61	79,000	4,600	4,300	6,200	5,100	13,000	240,000	NA	NA	NA	NA	NA	NA	NA	NA
	7/21/05	443.65	80,000	NS	4,300	5,300	5,400	14,000	300,000	NA	NA	NA	NA	NA	NA	NA	NA
	10/10/05	442.54	58,000	NS	4,300	240	5,600	8,300	170,000	NA	NA	NA	NA	NA	NA	NA	NA
	1/9/06	446.98	47,000	3,700	3,100	1,100	4,400	5,900	180,000	<2,500	<25,000	<2,500	<2,500	240,000	<250,000	<2,500,000	<2,500
	4/6/06	449.43	18,000	1,900	1,200	280	2,400	2,200	110,000	<2,500	<25,000	<2,500	<2,500	87,000	<250,000	<2,500,000	<2,500
	7/27/06	442.61	24,000	2,400	2,100	350	3,400	5,300	130,000	<5000	<5000	<5000	<5000	160,000	NA	NA	NA
	10/12/06	441.57	19,000	1,700	1,000	26	2,000	1,000	68,000	<1,200	<12,000	<1,200	<1,200	84,000	<120,000	<1,200,000	NA
	1/3/07	444.03	27,000	2,300	1,300	53	2,500	1,900	120,000	<1,700	<1,700	<1,700	<1,700	110,000	<170,000	<1,700,000	<1,700
	4/13/07	441.79	28,000	3,000	1,600	74	3,700	1,800	190,000	<5,000	<50,000	<5,000	<5,000	200,000	<500,000	<5,000,000	<5,000
	7/16/07	NC	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	10/29/07	NC	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	2/1/08	NC	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	4/18/08	437.69	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	7/28/08	NC	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	11/18/08	NC	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	2/4/09	NC	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	4/21/09	NC	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	9/24/09	430.03	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	3/4/10	436.98	1,300	NA	140	<5.0	26	6.0	16,000	NA	NA	NA	NA	NA	NA	NA	NA
	7/19/10	441.18	400	NA	1.2	1.3	<0.5	0.76	880	NA	NA	NA	NA	NA	NA	NA	NA
	1/20/11	441.91	150	130	1.4	0.6	<0.5	1.4	300	<250	40,000	<250	<250	330	NA	NA	<250
	4/8/11	442.37	200	180	2.0	1.9	<0.5	4.4	1,300	<120	24,000	<120	<120	2,300	NA	NA	<120
	4/18/11	446.33	140	130	0.56	<0.5	<0.5	4.2	1,500	<50	11,000	<50	<50	1,200	NA	NA	<50
	5/9/11	445.77	<50	<50	<0.5	<0.5	<0.5	<0.5	880	<50	12,000	<50	<50	1,000	NA	NA	<50
	6/1/11	444.93	<50	52	<0.5	<0.5	<0.5	<0.5	350	<50	12,000	<50	<50	480	NA	NA	<50
	6/15/11	444.59	<50	70	<0.5	<0.5	<0.5	<0.5	310	<100	9,000	<100	<100	330	NA	NA	<100
	6/30/11	444.30	<50	54	<0.5	<0.5	<0.5	<0.5	150	<50	6,200	<50	<50	170	NA	NA	<50
	9/20/11	442.12	96	200	<0.5	0.6	<0.5	0.55	140	<120	19,000	<120	<120	150	NA	NA	<120
	11/8/11	442.03	100	150	1.3	0.99	<0.5	1.1	110	<100	21,000	<100	<100	150	NA	NA	<100
	2/1/12	NC	NS	NS	not sampled - well dry				NS	NS	NS	NS	NS	NS	NS	NS	NA
	6/13/12	438.13	65	300	0.96	0.70	<0.5	<0.5	5.5	<50	10,000	<50	<50	<50	NA	NA	<0.5
	8/28/12	NC	NS	NS	not sampled - well dry				NS	NS	NS	NS	NS	NS	NS	NS	NS

Table 2
Groundwater Analytical Results
160 Holmes Street, Livermore, California

Well ID	Date Collected	Groundwater Elevation (feet above MSL)	Total Petroleum Hydrocarbons ($\mu\text{g/L}$)		Aromatic Volatile Organic Compounds ($\mu\text{g/L}$)					Oxygenated Volatile Organics ($\mu\text{g/L}$)						Lead Scavengers ($\mu\text{g/L}$)		
			Gasoline	Diesel	Benzene	Toluene	Ethylbenzene	Total Xylenes	MTBE (8021B)	TAME	TBA	DIPE	ETBE	MTBE	Ethanol	Methanol	EDB	1,2-DCA
MW-1B	3/13/06	446.44	<50	<50	<0.5	<0.5	<0.5	<0.5	8.2	<0.5	<5.0	<0.5	<0.5	7.9	<50	<500	<0.5	<0.5
	4/6/06	449.43	<50	<50	<0.5	<0.5	<0.5	<0.5	<5.0	<0.5	<5.0	<0.5	<0.5	1.0	<50	<500	<0.5	<0.5
	7/27/06	442.55	<50	<50	<0.5	<0.5	<0.5	<0.5	<5.0	<0.5	<5.0	<0.5	<0.5	<0.5	NA	NA	NA	NA
	10/12/06	441.51	<50	<50	<0.5	<0.5	<0.5	<0.5	<5.0	<0.5	<5.0	<0.5	<0.5	<0.5	<50	<500	NA	NA
	1/3/07	443.98	<50	<50	<0.5	<0.5	<0.5	<0.5	<5.0	<0.5	<5.0	<0.5	<0.5	<0.5	<50	<500	<0.5	<0.5
	4/13/07	441.72	<50	<50	<0.5	<0.5	<0.5	<0.5	<5.0	<0.5	<5.0	<0.5	<0.5	<0.5	<50	<500	<0.5	<0.5
	7/16/07	429.45	<50	<50	<0.5	<0.5	<0.5	<0.5	<5.0	<0.5	<5.0	<0.5	<0.5	<0.5	NA	NA	NA	NA
	10/29/07	417.70	<50	<50	<0.5	<0.5	<0.5	<0.5	<5.0	<0.5	<5.0	<0.5	<0.5	<0.5	<50	<500	<0.5	<0.5
	2/1/08	431.12	<50	<50	<0.5	<0.5	<0.5	<0.5	<5.0	<0.5	<2.0	<0.5	<0.5	<0.5	<50	<500	<0.5	<0.5
	4/18/08	437.67	<50	<50	<0.5	<0.5	<0.5	<0.5	<5.0	<0.5	<2.0	<0.5	<0.5	<0.5	<50	<500	<0.5	<0.5
	7/29/08	420.99	<50	<50	<0.5	<0.5	<0.5	<0.5	<5.0	<0.5	<2.0	<0.5	<0.5	<0.5	<50	<500	<0.5	<0.5
	11/18/08	NC	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	2/4/09	418.19	<50	NA	<0.5	<0.5	<0.5	<0.5	<5.0	NA	NA	NA	NA	NA	NA	NA	NA	NA
	4/21/09	427.92	<50	NA	<0.5	<0.5	<0.5	<0.5	<5.0	NA	NA	NA	NA	NA	NA	NA	NA	NA
	9/24/09	427.26	<50	NA	<0.5	<0.5	<0.5	<0.5	<5.0	NA	NA	NA	NA	1.1	NA	NA	NA	NA
	3/4/10	437.61	<50	NA	<0.5	<0.5	<0.5	<0.5	<5.0	NA	NA	NA	NA	NA	NA	NA	NA	NA
	7/19/10	NC	<50	NA	<0.5	<0.5	<0.5	<0.5	<5.0	NA	NA	NA	NA	NA	NA	NA	NA	NA
	1/20/11	441.92	<50	130	<0.5	<0.5	<0.5	<0.5	<5.0	<250	40,000	<250	<250	330	NA	NA	<250	<250
	4/8/11	446.62	<50	<50	<0.5	<0.5	<0.5	<0.5	<5.0	<0.5	<2.0	<0.5	<0.5	<0.5	NA	NA	<0.5	<0.5
	4/18/11	446.42	<50	<50	<0.5	<0.5	<0.5	<0.5	<5.0	<0.5	<2.0	<0.5	<0.5	<0.5	NA	NA	<0.5	<0.5
	5/9/11	445.91	<50	<50	<0.5	<0.5	<0.5	<0.5	<5.0	<0.5	<2.0	<0.5	<0.5	<0.5	NA	NA	<0.5	<0.5
	6/1/11	444.92	<50	<50	<0.5	<0.5	<0.5	<0.5	<5.0	<0.5	<2.0	<0.5	<0.5	<0.5	NA	NA	<0.5	<0.5
	6/15/11	444.58	<50	<50	<0.5	<0.5	<0.5	<0.5	<5.0	<0.5	<2.0	<0.5	<0.5	<0.5	NA	NA	<0.5	<0.5
	6/30/11	444.28	<50	<50	<0.5	<0.5	<0.5	<0.5	<5.0	<0.5	<2.0	<0.5	<0.5	<0.5	NA	NA	<0.5	<0.5
	9/20/11	442.10	<50	<50	<0.5	<0.5	<0.5	<0.5	<5.0	<0.5	<2.0	<0.5	<0.5	<0.5	NA	NA	<0.5	<0.5
	11/8/11	442.07	<50	<50	<0.5	<0.5	<0.5	<0.5	<5.0	<0.5	<2.0	<0.5	<0.5	<0.5	NA	NA	<0.5	<0.5
	2/2/12	432.02	<50	<50	<0.5	<0.5	<0.5	<0.5	<5.0	<0.5	<2.0	<0.5	<0.5	<0.5	NA	NA	<0.5	<0.5
	6/13/12	438.03	<50	<50	<0.5	<0.5	<0.5	<0.5	<5.0	<0.5	<2.0	<0.5	<0.5	<0.5	NA	NA	<0.5	<0.5
	8/28/12	435.51	<50	<50	<0.5	<0.5	<0.5	<0.5	<5.0	<0.5	<2.0	<0.5	<0.5	<0.5	NA	NA	<0.5	<0.5
MW- 2A*	8/11/00	NC	4,500	1,900	220	52	160	170	3,000	NA	NA	NA	NA	NA	NA	NA	NA	NA
	10/19/00	443.14	3,400	1,300	150	21	100	70	1,900	NA	NA	NA	NA	NA	NA	NA	NA	NA
	2/22/01	442.07	7,600	880	25	<10	69	25	2,200	NA	NA	NA	NA	NA	NA	NA	NA	NA
	5/30/01	NC	NS	NS	not sampled - well dry					NS	NS	NS	NS	NS	NS	NS	NS	NS
	11/14/01	NC	NS	NS	not sampled - well dry					NS	NS	NS	NS	NS	NS	NS	NS	NS
	5/7/02	438.24	400	86	5.4	<0.5	1.9	2.3	230	NA	NA	NA	NA	NA	NA	NA	NA	NA
	9/11/02	438.98	260	NA	1.3	<0.5	0.57	0.77	200	NA	NA	NA	NA	NA	NA	NA	NA	NA
	12/1/02	437.38	250	120	7.9	1.6	13	9.9	180	NA	NA	NA	NA	NA	NA	NA	NA	NA
	3/14/03	442.53	830	110	56	<0.5	<0.5	<1.0	1,200	NA	NA	NA	NA	NA	NA	NA	NA	NA
	6/25/03	442.97	260	180	0.92	2.9	3.1	8.1	2,000	NA	NA	NA	NA	NA	NA	NA	NA	NA
	9/16/03	440.24	420	260	3.6	3.4	5.2	2.4	1,300	NA	NA	NA	NA	NA	NA	NA	NA	NA
	12/22/03	443.36	240	120	0.82	3.1	7.8	3.9	1,400	NA	NA	NA	NA	NA	NA	NA	NA	NA
	3/10/04	447.63	280	210	9.4	4.2	14	11	1,400	NA	NA	NA	NA	NA	NA	NA	NA	NA
	6/15/04	442.76	150	150	2.1	2.4	2.2	1.3	1,500	NA	NA	NA	NA	NA	NA	NA	NA	NA
	9/17/04	439.50	61	70	<0.5	1.0	<0.5	<0.5	730	NA	NA	NA	NA	NA	NA	NA	NA	NA

Table 2
Groundwater Analytical Results
 160 Holmes Street, Livermore, California

Well ID	Date Collected	Groundwater Elevation (feet above MSL)	Total Petroleum Hydrocarbons ($\mu\text{g/L}$)		Aromatic Volatile Organic Compounds ($\mu\text{g/L}$)					Oxygenated Volatile Organics ($\mu\text{g/L}$)						Lead Scavengers ($\mu\text{g/L}$)		
			Gasoline	Diesel	Benzene	Toluene	Ethylbenzene	Total Xylenes	MTBE (8021B)	TAME	TBA	DIPE	ETBE	MTBE	Ethanol	Methanol	EDB	1,2-DCA
MW-2A cont.	12/10/04	442.94	84	110	<0.5	1.2	<0.5	1.5	1,300	NA	NA	NA	NA	NA	NA	NA	NA	NA
	3/2/05	448.19	63	91	0.55	<0.5	0.63	0.51	1,000	NA	NA	NA	NA	NA	NA	NA	NA	NA
	5/27/05	446.65	270	59	14	3.9	19	6.8	1,100	NA	NA	NA	NA	NA	NA	NA	NA	NA
	7/21/05	444.48	280	NS	8.6	2.5	17	2.5	1,500	NA	NA	NA	NA	NA	NA	NA	NA	NA
	10/10/05	442.64	<50	NS	<.5	<.5	<.5	<.5	680	NA	NA	NA	NA	NA	NA	NA	NA	NA
	1/9/06	447.27	1,700	890	4.4	1.3	120	18	530	<10	330	<10	<10	590	<1,000	<10,000	<10	<10
	4/7/06	449.47	110	160	0.61	0.8	4.1	<0.5	270	<5.0	660	<5.0	<5.0	240	<500	<5,000	<5.0	<5.0
	7/27/06	442.67	<50	120	<0.5	0.84	<0.5	<0.5	87	<5.0	870	<5.0	<5.0	110	NA	NA	NA	NA
	10/12/06	441.59	<50	70	<0.5	<0.5	<0.5	<0.5	29	<5.0	480	<5.0	<5.0	30	<500	<5,000	NA	NA
	1/3/07	444.04	55	60	0.57	<0.5	<0.5	<0.5	8.5	<2.5	590	<2.5	<2.5	7.8	<250	<2,500	<2.5	<2.5
	4/13/07	441.78	86	130	<0.5	0.6	<0.5	<0.5	16	<5.0	740	<5.0	<5.0	16	<500	<5,000	<5.0	<5.0
	7/16/07	NC	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	10/29/07	NC	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	2/1/08	NC	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	4/18/08	437.68	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	7/28/08	NC	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	11/18/08	NC	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	2/4/09	NC	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	4/21/09	NC	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	9/24/09	NC	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	3/4/10	439.82	<50	NA	<0.5	<0.5	<0.5	<0.5	<5.0	NA	NA	NA	NA	NA	NA	NA	NA	NA
	7/20/10	439.09	<50	NA	<0.5	<0.5	<0.5	<0.5	<5.0	NA	NA	NA	NA	NA	NA	NA	NA	NA
	1/21/11	439.64	<50	<50	<0.5	<0.5	<0.5	<0.5	2.8	<5.0	<5.0	<5.0	<5.0	2.8	NA	NA	<5.0	<5.0
	4/8/11	446.64	<50	<50	<0.5	0.77	<0.5	6.2	<5.0	<0.5	15	<0.5	<0.5	3.3	NA	NA	<0.5	<0.5
	9/20/11	442.49	<50	<50	<0.5	<0.5	<0.5	<0.5	<5.0	<0.5	7.9	<0.5	<0.5	2.8	NA	NA	<0.5	<0.5
	11/8/11	442.17	<50	<50	<0.5	<0.5	<0.5	<0.5	<5.0	<0.5	<2.0	<0.5	<0.5	2.3	NA	NA	<0.5	<0.5
	2/1/12	NC	NS	NS	not sampled - well dry					NS	NS	NS	NS	NS	NS	NS	NS	NS
	6/12/12	438.15	<50	<50	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	5.4	<0.5	<0.5	1.1	NA	NA	<0.5	<0.5
	8/30/12	NC	NS	NS	not sampled					NS	NS	NS	NS	NS	NS	NS	NS	NS
MW- 3A*	8/11/00	NC	59	260	<0.5	<0.5	<0.5	<0.5	<5.0	NA	NA	NA	NA	NA	NA	NA	NA	NA
	10/19/00	443.39	<50	<65	<0.5	<0.5	<0.5	<0.5	<5.0	NA	NA	NA	NA	NA	NA	NA	NA	NA
	2/22/01	442.33	<50	100	<0.5	<0.5	<0.5	<0.5	<5.0	NA	NA	NA	NA	NA	NA	NA	NA	NA
	5/30/01	NC	NS	NS	not sampled - well dry					NS	NS	NS	NS	NS	NS	NS	NS	NS
	11/14/01	NC	NS	NS	not sampled - well dry					NS	NS	NS	NS	NS	NS	NS	NS	NS
	5/7/02	NC	NS	NS	not sampled - well dry					NS	NS	NS	NS	NS	NS	NS	NS	NS
	9/11/02	439.23	<50	NA	<0.5	<0.5	<0.5	<0.5	<5.0	NA	NA	NA	NA	NA	NA	NA	NA	NA
	12/1/02	437.66	NS	NS	not sampled - well dry					NS	NS	NS	NS	NS	NS	NS	NS	NS
	3/14/03	442.80	<50	<50	<0.5	<0.5	<0.5	<0.5	<5.0	NA	NA	NA	NA	NA	NA	NA	NA	NA
	6/25/03	443.25	<50	<50	<0.5	<0.5	<0.5	<0.5	<5.0	NA	NA	NA	NA	NA	NA	NA	NA	NA
	9/16/03	440.51	<50	<50	<0.5	<0.5	<0.5	<0.5	<5.0	NA	NA	NA	NA	NA	NA	NA	NA	NA
	12/22/03	443.47	<50	69	<0.5	<0.5	<0.5	<0.5	<5.0	NA	NA	NA	NA	NA	NA	NA	NA	NA
	3/10/04	447.96	<50	<50	<0.5	<0.5	<0.5	<0.5	<5.0	NA	NA	NA	NA	NA	NA	NA	NA	NA
	6/15/04	443.02	<50	<50	<0.5	<0.5	<0.5	<0.5	<5.0	NA	NA	NA	NA	NA	NA	NA	NA	NA
	9/17/04	439.75	<50	<50	<0.5	<0.5	<0.5	<0.5	<5.0	NA	NA	NA	NA	NA	NA	NA	NA	NA
	12/10/04	443.19	<50	<50	<0.5	<0.5	<0.5	<0.5	7.6	NA	NA	NA	NA	NA	NA	NA	NA	NA
	3/2/05	448.51	<50	<50	<0.5	<0.5	<0.5	<0.5	<5.0	NA	NA	NA	NA	NA	NA	NA	NA	NA
	5/27/05	446.95	<50	<50	<0.5	<0.5	<0.5	<0.5	<5.0	NA	NA	NA	NA	NA	NA	NA	NA	NA
	7/21/05	444.74	<50	NS	<0.5	<0.5	<0.5	<0.5	<5.0	NA	NA	NA	NA	NA	NA	NA	NA	NA
	10/10/05	442.90	<50	NS	<0.5	<0.5	<0.5	<0.5	<5.0	NA	NA	NA	NA	NA	NA	NA	NA	NA
	1/9/06	447.60	<50	<50	<0.5	<0.5	<0.5	<0.5	<5.0	<0.5	<5.0	<0.5	<5.0	<0.5	<500	<500	<0.5	<0.5

Table 2
Groundwater Analytical Results
160 Holmes Street, Livermore, California

Well ID	Date Collected	Groundwater Elevation (feet above MSL)	Total Petroleum Hydrocarbons (µg/L)		Aromatic Volatile Organic Compounds (µg/L)					Oxygenated Volatile Organics (µg/L)						Lead Scavengers (µg/L)		
			Gasoline	Diesel	Benzene	Toluene	Ethylbenzene	Total Xylenes	MTBE (8021B)	TAME	TBA	DIPE	ETBE	MTBE	Ethanol	Methanol	EDB	1,2-DCA
MW-3A cont.	4/7/06	449.82	<50	<50	<0.5	<0.5	<0.5	<0.5	<5.0	<0.5	<5.0	<0.5	<0.5	<0.5	<50	<500	<0.5	<0.5
	7/27/06	442.94	<50	<50	<0.5	<0.5	<0.5	<0.5	<5.0	<0.5	<5.0	<0.5	<0.5	<0.5	NA	NA	NA	NA
	10/12/06	441.85	<50	<50	<0.5	<0.5	<0.5	<0.5	<5.0	<0.5	<5.0	<0.5	<0.5	<0.5	<50	<500	NA	NA
	1/3/07	444.32	<50	<50	<0.5	<0.5	<0.5	<0.5	<5.0	<0.5	<5.0	<0.5	<0.5	<0.5	<50	<500	<0.5	<0.5
	4/13/07	442.06	<50	<50	<0.5	<0.5	<0.5	<0.5	<5.0	<0.5	<5.0	<0.5	<0.5	<0.5	<50	<500	<0.5	<0.5
	7/16/07	NC	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	10/29/07	NC	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	2/1/08	NC	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	4/18/08	437.98	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	7/28/08	NC	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	11/18/08	NC	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	2/4/09	NC	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	4/21/09	NC	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	9/24/09	NC	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	3/4/10	437.89	<50	NA	<0.5	<0.5	<0.5	<0.5	<5.0	NA	NA	NA	NA	NA	NA	NA	NA	NA
	7/19/20	439.29	<50	NA	<0.5	<0.5	<0.5	<0.5	<5.0	NA	NA	NA	NA	NA	NA	NA	NA	NA
	1/20/21	442.21	<50	NA	<0.5	<0.5	<0.5	<0.5	<5.0	NA	NA	NA	NA	NA	NA	NA	NA	NA
	4/8/11	446.94	<50	NA	<0.5	<0.5	<0.5	<0.5	<5.0	NA	NA	NA	NA	NA	NA	NA	NA	NA
	9/20/11	442.45	<50	NA	<0.5	<0.5	<0.5	<0.5	<5.0	NA	NA	NA	NA	NA	NA	NA	NA	NA
	11/8/11	442.25	<50	NA	<0.5	<0.5	<0.5	<0.5	<5.0	NA	NA	NA	NA	NA	NA	NA	NA	NA
	2/1/12	NC	NS	NS	not sampled - well dry					NS	NS	NS	NS	NS	NS	NS	NA	NA
	6/12/12	438.38	<50	NS	<0.5	<0.5	<0.5	<0.5	<5.0	NA	NA	NA	NA	NA	NA	NA	NA	NA
	8/28/12	NC	NS	NS	not sampled					NS	NS	NS	NS	NS	NS	NS	NS	NS
MW-4**	11/14/01	431.31	510	90	4.0	<0.5	<0.5	<0.5	14	NA	NA	NA	NA	NA	NA	NA	NA	NA
	5/7/02	438.40	150	<50	3.5	0.5	<0.5	<0.5	48	NA	NA	NA	NA	NA	NA	NA	NA	NA
	9/11/02	438.49	<50	NA	<0.5	<0.5	<0.5	<0.5	15	NA	NA	NA	NA	NA	NA	NA	NA	NA
	12/1/02	436.76	<50	<50	<0.5	<0.5	<0.5	<0.5	24	NA	NA	NA	NA	NA	NA	NA	NA	NA
	3/14/03	442.01	<50	<50	<0.5	<0.5	<0.5	<0.5	<1.0	NA	NA	NA	NA	NA	NA	NA	NA	NA
	6/25/03	442.43	<50	<50	<0.5	<0.5	<0.5	<0.5	<1.0	NA	NA	NA	NA	NA	NA	NA	NA	NA
	9/16/03	439.76	<50	<50	<0.5	<0.5	<0.5	<0.5	<5.0	NA	NA	NA	NA	NA	NA	NA	NA	NA
	12/22/03	442.73	<50	69	<0.5	<0.5	<0.5	<0.5	<5.0	NA	NA	NA	NA	NA	NA	NA	NA	NA
	3/10/04	446.95	<50	<50	<0.5	<0.5	<0.5	<0.5	37	NA	NA	NA	NA	NA	NA	NA	NA	NA
	6/15/04	442.20	<50	<50	<0.5	<0.5	<0.5	<0.5	7.4	NA	NA	NA	NA	NA	NA	NA	NA	NA
	9/17/04	439.03	<50	<50	<0.5	<0.5	<0.5	<0.5	<5.0	NA	NA	NA	NA	NA	NA	NA	NA	NA
	12/10/04	442.42	<50	<50	<0.5	<0.5	<0.5	<0.5	<5.0	NA	NA	NA	NA	NA	NA	NA	NA	NA
	3/2/05	447.55	<50	<50	<0.5	<0.5	<0.5	<0.5	14	NA	NA	NA	NA	NA	NA	NA	NA	NA
	5/27/05	446.01	<50	<50	<0.5	<0.5	<0.5	<0.5	9.6	NA	NA	NA	NA	NA	NA	NA	NA	NA
	7/21/05	443.90	<50	NS	<0.5	<0.5	<0.5	<0.5	<5.0	NA	NA	NA	NA	NA	NA	NA	NA	NA
	10/10/05	442.30	<50	NS	<0.5	<0.5	<0.5	<0.5	<5.0	NA	NA	NA	NA	NA	NA	NA	NA	NA
	1/9/06	446.61	<50	<50	<0.5	<0.5	<0.5	<0.5	0.86	<0.5	<5.0	<0.5	<5.0	0.86	<50	<500	<5.0	<5.0
MW-4A	3/13/06	445.87	<50	<50	<0.5	<0.5	<0.5	<0.5	<5.0	<0.5	<5.0	<0.5	<0.5	0.70	<50	<500	<0.5	<0.5
	4/7/06	448.77	<50	<50	<0.5	<0.5	<0.5	<0.5	<5.0	<0.5	<5.0	<0.5	<5.0	1.1	<50	<500	<0.5	<0.5
	7/28/06	442.09	<50	<50	<0.5	<0.5	<0.5	<0.5	<5.0	<0.5	<5.0	<0.5	<5.0	3.0	NA	NA	NA	NA
	10/13/06	441.06	<50	<50	<0.5	<0.5	<0.5	<0.5	<5.0	<0.5	<5.0	<0.5	<5.0	2.0	<50	<500	NA	NA
	1/4/07	443.44	<50	<50	<0.5	<0.5	<0.5	<0.5	<5.0	<0.5	<5.0	<0.5	<5.0	0.79	<50	<500	<0.5	<0.5
	4/16/07	441.18	<50	<50	<0.5	<0.5	<0.5	<0.5	<5.0	<0.5	<5.0	<0.5	<5.0	0.51	<50	<500	<0.5	<0.5
	7/16/07	NC	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	10/29/07	NC	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	2/1/08	NC	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS

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Groundwater Analytical Results
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Well ID	Date Collected	Groundwater Elevation (feet above MSL)	Total Petroleum Hydrocarbons (µg/L)		Aromatic Volatile Organic Compounds (µg/L)				Oxygenated Volatile Organics (µg/L)						Lead Scavengers (µg/L)		
			Gasoline	Diesel	Benzene	Toluene	Ethyl-benzene	Total Xylenes	MTBE (8021B)	TAME	TBA	DIPE	ETBE	MTBE	Ethanol	Methanol	EDB
MW-4A cont.	4/18/08	437.05	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	7/28/08	NC	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	11/18/08	NC	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	2/4/09	NC	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	4/21/09	NC	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	9/24/09	NC	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	3/4/10	439.30	<50	NA	<0.5	<0.5	<0.5	<0.5	<5.0	NA	NA	NA	NA	NA	NA	NA	NA
	7/20/10	440.71	<50	NA	<0.5	<0.5	<0.5	<0.5	<5.0	NA	NA	NA	NA	NA	NA	NA	NA
	1/20/11	441.32	<50	NA	<0.5	<0.5	<0.5	<0.5	<5.0	NA	NA	NA	NA	NA	NA	NA	NA
	4/7/11	436.16	<50	NA	<0.5	<0.5	<0.5	<0.5	<5.0	NA	NA	NA	NA	NA	NA	NA	NA
	9/19/11	441.53	<50	NA	<0.5	<0.5	<0.5	<0.5	<5.0	NA	NA	NA	NA	NA	NA	NA	NA
	11/7/11	441.56	<50	NA	<0.5	<0.5	<0.5	<0.5	<5.0	NA	NA	NA	NA	NA	NA	NA	NA
	2/1/12	NC	NS	NS	not sampled - well dry			NS		NS	NS	NS	NS	NS	NS	NS	NS
	6/12/12	437.69	<50	NA	<0.5	<0.5	<0.5	<0.5	<5.0	NA	NA	NA	NA	NA	NA	NA	NA
	8/28/12	NC	NS	NS	not sampled			NS		NS	NS	NS	NS	NS	NS	NS	NS
MW-5**	11/14/01	429.71	<50	<66	<0.5	<0.5	<0.5	<0.5	8.2	NA	NA	NA	NA	NA	NA	NA	NA
	5/7/02	436.75	140	<50	<0.5	<0.5	<0.5	<0.5	110	NA	NA	NA	NA	NA	NA	NA	NA
	9/11/02	436.66	<50	NA	<0.5	<0.5	<0.5	<0.5	6.3	NA	NA	NA	NA	NA	NA	NA	NA
	12/1/02	435.15	73	<50	<0.5	<0.5	<0.5	<0.5	160	NA	NA	NA	NA	NA	NA	NA	NA
	3/14/03	440.39	110	<50	<0.5	<0.5	<0.5	<0.5	170	NA	NA	NA	NA	NA	NA	NA	NA
	6/25/03	440.64	<50	<50	<0.5	<0.5	<0.5	<0.5	89	NA	NA	NA	NA	NA	NA	NA	NA
	9/16/03	437.82	630	<50	<0.5	3.50	<0.5	2.6	1,500	NA	NA	NA	NA	NA	NA	NA	NA
	12/22/03	440.97	<0.5	<50	<0.5	<0.5	<0.5	<0.5	630	NA	NA	NA	NA	NA	NA	NA	NA
	3/10/04	445.43	57	<50	<0.5	<0.5	<0.5	<0.5	1,100	NA	NA	NA	NA	NA	NA	NA	NA
	6/15/04	440.45	<50	<50	<0.5	<0.5	<0.5	<0.5	750	NA	NA	NA	NA	NA	NA	NA	NA
	9/17/04	436.97	<50	<50	<0.5	<0.5	<0.5	<0.5	780	NA	NA	NA	NA	NA	NA	NA	NA
	12/10/04	440.72	<50	<50	<0.5	<0.5	<0.5	<0.5	120	NA	NA	NA	NA	NA	NA	NA	NA
	3/2/05	446.09	<50	<50	<0.5	<0.5	<0.5	<0.5	320	NA	NA	NA	NA	NA	NA	NA	NA
	5/27/05	444.50	<50	<50	<0.5	<0.5	<0.5	<0.5	120	NA	NA	NA	NA	NA	NA	NA	NA
	7/21/05	442.10	<50	NS	<0.5	<0.5	<0.5	<0.5	97	NA	NA	NA	NA	NA	NA	NA	NA
	10/10/05	441.30	<50	NS	<0.5	<0.5	<0.5	<0.5	41	NA	NA	NA	NA	NA	NA	NA	NA
	1/9/06	445.12	<50	<50	<0.5	<0.5	<0.5	<0.5	37	<0.5	<5.0	<0.5	<5.0	<5.0	<500	<0.5	<0.5
MW-5A	3/13/06	444.48	<50	<50	<0.5	<0.5	<0.5	<0.5	<5.0	<0.5	<5.0	<0.5	<0.5	<0.5	<500	<0.5	<0.5
	4/7/06	447.29	<50	<50	<0.5	<0.5	<0.5	<0.5	<5.0	<0.5	<5.0	<0.5	<0.5	<0.5	<500	<0.5	<0.5
	7/28/06	440.24	<50	62	<0.5	<0.5	<0.5	<0.5	<5.0	<0.5	<5.0	<0.5	<0.5	<0.5	NA	NA	NA
	10/13/06	439.06	<50	<50	<0.5	<0.5	<0.5	<0.5	<5.0	<0.5	6.3	<0.5	<0.5	<0.5	<500	NA	NA
	1/4/07	442.11	<50	320	<0.5	<0.5	<0.5	<0.5	<5.0	<0.5	<5.0	<0.5	<0.5	<0.5	<500	<0.5	<0.5
	4/16/07	439.87	<50	<50	<0.5	<0.5	<0.5	<0.5	<5.0	<0.5	<5.0	<0.5	<0.5	<0.5	<500	<0.5	<0.5
	7/16/07	NC	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	10/29/07	NC	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	2/1/08	430.61	<50	<50	<0.5	<0.5	<0.5	<0.5	<5.0	<0.5	<2.0	<0.5	<0.5	1.3	<500	<0.5	<0.5
	4/18/08	436.51	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	7/28/08	NC	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	11/18/08	464.64	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	2/4/09	NC	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	4/21/09	NC	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	9/24/09	NC	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	3/4/10	435.87	<50	NA	<0.5	<0.5	<0.5	<0.5	<5.0	NA	NA	NA	NA	NA	NA	NA	NA
	7/20/10	440.07	<50	NA	<0.5	<0.5	<0.5	<0.5	<5.0	NA	NA	NA	NA	NA	NA	NA	NA
	1/19/11	440.12	<50	NA	<0.5	<0.5	<0.5	<0.5	<5.0	NA	NA	NA	NA	NA	NA	NA	NA

Table 2
Groundwater Analytical Results
 160 Holmes Street, Livermore, California

Well ID	Date Collected	Groundwater Elevation (feet above MSL)	Total Petroleum Hydrocarbons ($\mu\text{g/L}$)		Aromatic Volatile Organic Compounds ($\mu\text{g/L}$)					Oxygenated Volatile Organics ($\mu\text{g/L}$)						Lead Scavengers ($\mu\text{g/L}$)		
			Gasoline	Diesel	Benzene	Toluene	Ethylbenzene	Total Xylenes	MTBE (8021B)	TAME	TBA	DIPE	ETBE	MTBE	Ethanol	Methanol	EDB	1,2-DCA
MW-5A cont.	4/7/11	436.16	<50	NA	<0.5	<0.5	<0.5	<0.5	<5.0	NA	NA	NA	NA	NA	NA	NA	NA	NA
	9/19/11	440.02	<50	NA	<0.5	<0.5	<0.5	<0.5	<5.0	NA	NA	NA	NA	NA	NA	NA	NA	NA
	11/7/11	440.14	<50	NA	<0.5	<0.5	<0.5	<0.5	<5.0	NA	NA	NA	NA	NA	NA	NA	NA	NA
	2/1/12	NC	NS	NS	not sampled - well dry					NS	NS	NS	NS	NS	NS	NS	NS	NS
	6/12/12	436.25	<50	NA	<0.5	<0.5	<0.5	<0.5	<5.0	<0.5	<2.0	<0.5	<0.5	<0.5	NA	NA	NA	NA
	8/29/12	433.54	<50	NA	<0.5	<0.5	<0.5	<0.5	<5.0	<0.5	<2.0	<0.5	<0.5	<0.5	NA	NA	NA	NA
MW-5B	3/13/06	444.46	<50	<50	<0.5	<0.5	<0.5	<0.5	<5.0	<0.5	<5.0	<0.5	<0.5	0.69	<50	<500	<0.5	<0.5
	4/7/06	447.15	<50	<50	<0.5	<0.5	<0.5	<0.5	<5.0	<0.5	<5.0	<0.5	<0.5	0.98	<50	<500	<0.5	<0.5
	7/28/06	440.50	<50	<50	<0.5	<0.5	<0.5	<0.5	6.8	<0.5	6.3	<0.5	<0.5	0.61	NA	NA	NA	NA
	10/13/06	439.42	<50	<50	<0.5	<0.5	<0.5	<0.5	<5.0	<0.5	<5.0	<0.5	<0.5	3.6	<50	<500	NA	NA
	1/4/07	442.15	<50	89	<0.5	<0.5	<0.5	<0.5	<5.0	<0.5	<5.0	<0.5	<0.5	1.3	<50	<500	<0.5	<0.5
	4/16/07	439.26	<50	<50	<0.5	<0.5	<0.5	<0.5	<5.0	<0.5	<5.0	<0.5	<0.5	1.5	<50	<500	<0.5	<0.5
	7/17/07	428.09	<50	<50	<0.5	<0.5	<0.5	<0.5	<5.0	<0.5	<5.0	<0.5	<0.5	1.4	NA	NA	NA	NA
	10/29/07	416.69	<50	<50	<0.5	<0.5	<0.5	<0.5	<5.0	<0.5	<5.0	<0.5	<0.5	<0.5	<50	<500	<0.5	<0.5
	2/1/08	431.34	<50	<50	<0.5	<0.5	<0.5	<0.5	<5.0	<0.5	<2.0	<0.5	<0.5	1.9	<50	<500	<0.5	<0.5
	4/18/08	435.82	<50	<50	<0.5	<0.5	<0.5	<0.5	<5.0	<0.5	<2.0	<0.5	<0.5	1.5	<50	<500	<0.5	<0.5
	7/29/08	419.83	<50	<50	<0.5	<0.5	<0.5	<0.5	<5.0	<0.5	<2.0	<0.5	<0.5	<0.5	<50	<500	<0.5	<0.5
	11/18/08	412.94	<50	<50	<0.5	<0.5	<0.5	<0.5	<5.0	<0.5	<2.0	<0.5	<0.5	1.2	<50	<500	<0.5	<0.5
	2/4/09	416.96	<50	NA	<0.5	<0.5	<0.5	<0.5	<5.0	NA	NA	NA	NA	NA	NA	NA	NA	NA
	4/22/09	427.59	<50	NA	<0.5	<0.5	<0.5	<0.5	48	NA	NA	NA	NA	NA	NA	NA	NA	NA
	9/24/09	424.86	<50	NA	<0.5	<0.5	<0.5	<0.5	<5.0	<0.5	<2.0	<0.5	<0.5	1.3	<50	<500	<0.5	<0.5
	3/4/10	435.62	<50	NA	<0.5	<0.5	<0.5	<0.5	<5.0	NA	NA	NA	NA	NA	NA	NA	NA	NA
	7/19/10	439.19	<50	NA	<0.5	<0.5	<0.5	<0.5	<5.0	NA	NA	NA	NA	NA	NA	NA	NA	NA
	1/19/11	440.07	<50	NA	<0.5	<0.5	<0.5	<0.5	<5.0	NA	NA	NA	NA	NA	NA	NA	NA	NA
	4/6/11	444.66	<50	NA	<0.5	<0.5	<0.5	<0.5	<5.0	NA	NA	NA	NA	NA	NA	NA	NA	NA
	9/19/11	440.09	<50	NA	<0.5	<0.5	<0.5	<0.5	<5.0	NA	NA	NA	NA	NA	NA	NA	NA	NA
	11/7/11	440.19	<50	NA	<0.5	<0.5	<0.5	<0.5	<5.0	NA	NA	NA	NA	NA	NA	NA	NA	NA
	2/1/12	430.63	<50	NA	<0.5	<0.5	<0.5	<0.5	<5.0	NA	NA	NA	NA	NA	NA	NA	NA	NA
	6/12/12	435.94	<50	NA	<0.5	<0.5	<0.5	<0.5	<5.0	<0.5	<2.0	<0.5	<0.5	<0.5	NA	NA	NA	NA
	8/29/12	433.37	<50	NA	<0.5	<0.5	<0.5	<0.5	<5.0	<0.5	<2.0	<0.5	<0.5	<0.5	NA	NA	NA	NA
MW-6	11/14/01	430.25	<50	<50	<0.5	<0.5	<0.5	<0.5	<5.0	NA	NA	NA	NA	NA	NA	NA	NA	NA
	5/7/02	437.12	<50	<67	<0.5	<0.5	<0.5	<0.5	<5.0	NA	NA	NA	NA	NA	NA	NA	NA	NA
	9/11/02	437.10	<50	NA	<0.5	<0.5	<0.5	<0.5	<5.0	NA	NA	NA	NA	NA	NA	NA	NA	NA
	12/1/02	435.36	<50	<50	<0.5	<0.5	<0.5	<0.5	<5.0	NA	NA	NA	NA	NA	NA	NA	NA	NA
	3/14/03	440.67	<50	<50	<0.5	<0.5	<0.5	<0.5	<1.0	NA	NA	NA	NA	NA	NA	NA	NA	NA
	6/25/03	441.05	<50	<50	<0.5	<0.5	<0.5	<0.5	<1.0	NA	NA	NA	NA	NA	NA	NA	NA	NA
	9/16/03	438.36	<50	<50	<0.5	<0.5	<0.5	<0.5	<5.0	NA	NA	NA	NA	NA	NA	NA	NA	NA
	12/22/03	441.54	<50	<50	<0.5	<0.5	<0.5	<0.5	<5.0	NA	NA	NA	NA	NA	NA	NA	NA	NA
	3/10/04	445.48	<50	<50	<0.5	<0.5	<0.5	<0.5	<5.0	NA	NA	NA	NA	NA	NA	NA	NA	NA
	6/15/04	440.82	<50	<50	<0.5	<0.5	<0.5	<0.5	<5.0	NA	NA	NA	NA	NA	NA	NA	NA	NA
	9/17/04	437.57	<50	<50	<0.5	<0.5	<0.5	<0.5	<5.0	NA	NA	NA	NA	NA	NA	NA	NA	NA
	12/10/04	441.04	<50	<50	<0.5	<0.5	<0.5	<0.5	<5.0	NA	NA	NA	NA	NA	NA	NA	NA	NA
	3/2/05	446.09	<50	<50	<0.5	<0.5	<0.5	<0.5	<5.0	NA	NA	NA	NA	NA	NA	NA	NA	NA
	5/27/05	444.56	<50	<50	<0.5	<0.5	<0.5	<0.5	<5.0	NA	NA	NA	NA	NA	NA	NA	NA	NA
	7/21/05	442.53	<50	NS	<0.5	<0.5	<0.5	<0.5	<5.0	NA	NA	NA	NA	NA	NA	NA	NA	NA
	10/10/05	441.92	<50	NS	<0.5	<0.5	<0.5	<0.5	<5.0	NA	NA	NA	NA	NA	NA	NA	NA	NA
	1/9/06	445.14	<50	<50	<0.5	<0.5	<0.5	<0.5	<5.0	<0.5	<5.0	<0.5	<5.0	0.86	<50	<500	<0.5	<0.5
	4/6/06	447.13	<50	<50	<0.5	<0.5	<0.5	<0.5	<5.0	<0.5	<5.0	<0.5	<5.0	<0.5	<50	<500	<0.5	<0.5
	7/28/06	440.68	<50	<50	<0.5	<0.5	<0.5	<0.5	<5.0	<0.5	<5.0	<0.5	<5.0	<0.5	NA	NA	NA	NA
	10/13/06	439.77	<50	<50	<0.5	<0.5	<0.5	<0.5	<5.0	<0.5	<5.0	<0.5	<5.0	<0.5	<50	<500	NA	NA
	1/4/07	442.10	<50	<50	<0.5	<0.5	<0.5	<0.5	<5.0	<0.5	<5.0	<0.5	<5.0	<0.5	<50	<500	<0.5	<0.5

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 160 Holmes Street, Livermore, California

Well ID	Date Collected	Groundwater Elevation (feet above MSL)	Total Petroleum Hydrocarbons ($\mu\text{g/L}$)		Aromatic Volatile Organic Compounds ($\mu\text{g/L}$)					Oxygenated Volatile Organics ($\mu\text{g/L}$)						Lead Scavengers ($\mu\text{g/L}$)		
			Gasoline	Diesel	Benzene	Toluene	Ethylbenzene	Total Xylenes	MTBE (8021B)	TAME	TBA	DIPE	ETBE	MTBE	Ethanol	Methanol	EDB	1,2-DCA
MW-6 cont.	4/16/07	439.73	<50	<50	<0.5	<0.5	<0.5	<0.5	<5.0	<0.5	<5.0	<0.5	<0.5	<0.5	<50	<500	<0.5	<0.5
	7/16/07	NC	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	10/29/07	NC	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	2/1/08	431.08	<50	<50	<0.5	<0.5	<0.5	0.91	<5.0	<0.5	<2.0	<0.5	<0.5	<0.5	<50	<500	<0.5	<0.5
	4/18/08	435.93	<50	<50	<0.5	<0.5	<0.5	0.91	<5.0	<0.5	<2.0	<0.5	<0.5	<0.5	<50	<500	<0.5	<0.5
	7/28/08	NC	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	11/18/08	NC	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	2/4/09	NC	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	4/22/09	425.42	<50	NS	<0.5	<0.5	<0.5	<0.5	<5.0	NA	NA	NA	NA	NA	NA	NA	NA	NA
	9/24/09	425.87	<50	NA	<0.5	<0.5	<0.5	<0.5	<5.0	<0.5	<2.0	<0.5	<0.5	<0.5	<50	<500	<0.5	<0.5
	3/4/10	438.11	<50	NA	<0.5	<0.5	<0.5	<0.5	<5.0	NA	NA	NA	NA	NA	NA	NA	NA	NA
	7/19/20	439.48	<50	NA	<0.5	<0.5	<0.5	<0.5	<5.0	NA	NA	NA	NA	NA	NA	NA	NA	NA
	1/19/21	440.13	<50	NA	<0.5	<0.5	<0.5	<0.5	<5.0	NA	NA	NA	NA	NA	NA	NA	NA	NA
	4/6/11	442.37	<50	NA	<0.5	<0.5	<0.5	<0.5	<5.0	NA	NA	NA	NA	NA	NA	NA	NA	NA
	9/19/11	440.37	<50	NA	<0.5	<0.5	<0.5	<0.5	<5.0	NA	NA	NA	NA	NA	NA	NA	NA	NA
	11/7/11	441.13	<50	NA	<0.5	<0.5	<0.5	<0.5	<5.0	NA	NA	NA	NA	NA	NA	NA	NA	NA
	2/1/12	430.70	<50	NA	<0.5	<0.5	<0.5	<0.5	<5.0	NA	NA	NA	NA	NA	NA	NA	NA	NA
	6/12/12	436.51	<50	NA	<0.5	<0.5	<0.5	<0.5	<5.0	<0.5	<2.0	<0.5	<0.5	<0.5	NA	NA	NA	NA
	8/29/12	433.96	<50	NA	<0.5	<0.5	<0.5	<0.5	<5.0	<0.5	<2.0	<0.5	<0.5	<0.5	NA	NA	NA	NA
MW-7A	3/13/06	445.85	6,200	1,800	140	21	200	560	6,900	<100	4,400	<100	<100	6,300	<10,000	<100,000	<100	<100
	4/7/06	448.71	5,300	1,700	130	26	330	420	5,900	<100	7,500	<100	<100	6,600	<10,000	<100,000	<100	<100
	7/28/06	441.92	2,200	470	28	18	60	0.85	240	<25	4,700	<25	<25	240	NA	NA	NA	NA
	10/12/06	440.82	6,500	2,400	83	38	300	160	980	<17	4,700	<10	<17	1200	<1,700	<17,000	NA	NA
	11/21/06	NM	1,400	NA	25	17	65	<0.5	45	<10	1,400	<10	<10	42	<1,000	<10,000	<10	<10
	1/4/07	443.52	1,000	440	12	18	48	8.3	75	<5.0	1,100	<5.0	<5.0	73	<500	<5,000	<5.0	<5.0
	4/16/07	441.27	520	470	17	5.6	2.6	0.88	140	<12	2,500	<12	<12	170	<1,200	<12,000	<12	<12
	7/16/07	NC	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	10/29/07	NC	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	2/1/08	NC	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	4/18/08	437.16	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	7/28/08	NC	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	11/18/08	NC	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	2/4/09	NC	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	4/21/09	NC	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	9/24/09	NC	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	3/4/10	439.02	83	NA	<0.5	0.81	<0.5	<0.5	<5.0	NA	NA	NA	NA	NA	NA	NA	NA	NA
	7/19/10	440.54	680	NA	<0.5	10	4.9	4.5	<5.0	NA	NA	NA	NA	NA	NA	NA	NA	NA
	1/20/11	441.72	580	310	<0.5	7.3	7.2	1.5	<5.0	<2.5	490	<2.5	<2.5	5.8	NA	NA	<2.5	<2.5
	4/11/11	445.97	140	<50	<0.5	1.7	<0.5	<0.5	<5.0	<2.5	540	<2.5	<2.5	5.8	NA	NA	<2.5	<2.5
	4/18/11	445.73	91	90	<0.5	0.94	<0.5	<0.5	8.5	400	400	<2.5	<2.5	5.8	NA	NA	<2.5	<2.5
	5/9/11	444.17	<50	69	<0.5	<0.5	<0.5	<0.5	<5.0	<1.7	350	<1.7	<1.7	5.9	NA	NA	<1.7	<1.7
	6/1/11	444.31	58	77	<0.5	0.76	0.79	0.97	5.2	<1.7	250	<1.7	<1.7	5.5	NA	NA	<1.7	<1.7
	6/15/11	443.87	<50	80	<0.5	<0.5	<0.5	<0.5	<5.0	<1.0	190	<1.0	<1.0	3.8	NA	NA	<1.0	<1.0
	6/30/11	443.45	<50	<50	<0.5	<0.5	<0.5	<0.5	<5.0	<0.5	81	<0.5	<0.5	2.5	NA	NA	<0.5	<0.5
	9/19/11	441.36	<50	<50	<0.5	<0.5	<0.5	<0.5	<5.0	<0.5	4.4	<0.5	<0.5	<0.5	NA	NA	<0.5	<0.5
	11/7/11	441.87	<50	<50	<0.5	0.64	<0.5	<0.5	<5.0	<0.5	3.3	<0.5	<0.5	0.67	NA	NA	<0.5	<0.5
	2/1/12	NC	NS	NS	NS	not sampled - well dry				NS	NS	NS	NS	NS	NS	NS	NA	NA
	6/13/12	437.39	390	1,200	<0.5	9.9	<0.5	<0.5	<5.0	<0.5	4.6	<0.5	<0.5	<0.5	NA	NA	<0.5	<0.5
	8/29/12	NC	NS	NS	not sampled - well dry				NS	NS	NS	NS	NS	NS	NS	NS	NS	NS

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			Gasoline	Diesel	Benzene	Toluene	Ethylbenzene	Total Xylenes	MTBE (8021B)	TAME	TBA	DIPE	ETBE	MTBE	Ethanol	Methanol	EDB	1,2-DCA
MW-7B	3/13/06	445.64	230	<50	1.8	4.7	<0.5	2.2	1,500	<50	7,300	<50	<50	1,300	<5,000	<50,000	<50	<50
	4/7/06	448.54	81	<50	1.9	1.6	1.1	0.58	1,000	<50	9,200	<50	<50	930	<5,000	<50,000	<50	<50
	7/28/06	441.67	150	<50	<0.5	1.9	<0.5	<0.5	1,500	<50	16,000	<50	<50	1,900	NA	NA	NA	NA
	10/12/06	440.65	110	<50	<0.5	1.3	<0.5	<0.5	900	<17	15,000	<17	<17	860	<1700	<17,000	NA	NA
	11/21/06	NM	61	NA	<0.5	0.76	<0.5	<0.5	740	<50	10,000	<50	<50	680	<5,000	<50,000	<50	<50
	1/4/07	443.21	91	<50	<0.5	2.1	<0.5	<0.5	200	<50	11,000	<50	<50	180	<5,000	<50,000	<50	<50
	4/16/07	440.98	94	<50	<0.5	2.6	<0.5	<0.5	35	<50	10,000	<50	<50	<50	<5,000	<50,000	<50	<50
	7/17/07	428.99	<50	<50	0.61	0.63	<0.5	<0.5	13	<17	4,000	<17	<17	<17	NA	NA	NA	NA
	10/29/07	NC	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	2/1/08	431.55	420	<50	0.77	17	<0.5	0.97	45	<25	4,000	<25	<25	49	<2,500	<25,000	<25	<25
	4/18/08	436.87	650	100	3.4	15	8.3	<0.5	150	<25	3,800	<25	<25	140	<2,500	<25,000	<25	<25
	7/28/08	420.47	<50	<50	<0.5	0.56	<0.5	<0.5	17	<5.0	760	<5.0	<5.0	22	<500	<5,000	<5.0	<5.0
	11/18/08	NC	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	2/4/09	418.74	620	NA	<0.5	23	<0.5	2.7	<5.0	NA	NA	NA	NA	NA	NA	NA	NA	NA
	4/21/09	428.56	170	NA	2.1	5.8	<0.5	0.78	190	NA	NA	NA	NA	NA	NA	NA	NA	NA
	9/24/09	426.13	<50	NA	<0.5	1.8	<0.5	<0.5	210	<5.0	470	<5.0	<5.0	220	<500	<5,000	<5.0	<5.0
	3/4/10	436.76	140	NA	<0.5	2.1	<0.5	<0.5	25	NA	NA	NA	NA	NA	NA	NA	NA	NA
	7/19/10	440.34	74	NA	<0.5	1.3	<0.5	<0.5	<5.0	NA	NA	NA	NA	NA	NA	NA	NA	NA
	1/20/11	441.24	190	69	<0.5	4.1	<0.5	<0.5	<5.0	<25.0	4,400	<25.0	<25.0	<25.0	NA	NA	<25.0	<25.0
	4/11/11	443.61	110	<50	<0.5	2.7	<0.5	<0.5	<5.0	<17	2,900	<17	<17	<17	NA	NA	<17	<17
	4/18/11	445.64	160	<50	<0.5	4.3	<0.5	0.6	<5.0	<17	3,300	<17	<17	<17	NA	NA	<17	<17
	5/9/11	444.99	79	<50	<0.5	2.0	<0.5	<0.5	<5.0	<17	3,000	<17	<17	<17	NA	NA	<17	<17
	6/1/11	444.14	72	<50	<0.5	1.9	<0.5	<0.5	<5.0	<50	3,100	<50	<50	<50	NA	NA	<50	<50
	6/15/11	443.94	100	<50	<0.5	2.2	<0.5	<0.5	<5.0	<50	2,700	<50	<50	<50	NA	NA	<50	<50
	6/30/11	443.74	100	<50	<0.5	2.4	<0.5	<0.5	<5.0	<25	2,900	<25	<25	<25	NA	NA	<25	<25
	9/19/11	441.29	<50	56	<0.5	1.1	<0.5	<0.5	<5.0	<17	3,300	<17	<17	<17	NA	NA	<17	<17
	11/8/11	465.39	98	<50	<0.5	2.6	<0.5	<0.5	<5.0	<12	1,600	<12	<12	<12	NA	NA	<12	<12
	2/2/12	431.48	74	<50	<0.5	1.8	<0.5	<0.5	<5.0	<12	1,800	<12	<12	<12	NA	NA	<12	<12
	6/13/12	437.25	<50	<50	<0.5	<0.5	<0.5	<0.5	<5.0	<12	2,400	<12	<12	<12	NA	NA	<12	<12
	8/29/12	434.72	<50	<50	<0.5	0.73	<0.5	<0.5	<5.0	<12	2,000	<12	<12	<12	NA	NA	<12	<12
MW-7C	3/13/06	445.34	<50	<50	<0.5	<0.5	<0.5	<0.5	<5.0	<0.5	<5.0	<0.5	<0.5	0.60	<50	<500	<0.5	<0.5
	4/7/06	448.21	<50	<50	<0.5	<0.5	<0.5	<0.5	<5.0	<0.5	<5.0	<0.5	<0.5	<0.5	<50	<500	<0.5	<0.5
	7/28/06	441.24	<50	<50	<0.5	<0.5	<0.5	<0.5	<5.0	<0.5	<5.0	<0.5	<0.5	<0.5	NA	NA	NA	NA
	10/13/06	440.65	89	<50	<0.5	1.4	<0.5	<0.5	900	<17	12,000	<17	<17	820	<1700	<17,000	NA	NA
	11/21/06	NM	<50	NA	<0.5	<0.5	<0.5	<0.5	<5.0	<0.5	24	<0.5	<0.5	<0.5	<50	<500	<0.5	<0.5
	1/4/07	442.86	<50	<50	<0.5	<0.5	<0.5	<0.5	<5.0	<0.5	24	<0.5	<0.5	<0.5	<50	<500	<0.5	<0.5
	4/16/07	440.66	<50	<50	<0.5	<0.5	<0.5	<0.5	<5.0	<0.5	<5.0	<0.5	<0.5	<0.5	<500	<500	<0.5	<0.5
	7/17/07	428.69	<50	<50	<0.5	<0.5	<0.5	<0.5	<5.0	<0.5	<5.0	<0.5	<0.5	<0.5	NA	NA	NA	NA
	10/29/07	417.14	<50	<50	<0.5	<0.5	<0.5	<0.5	<5.0	<0.5	<5.0	<0.5	<0.5	<0.5	<50	<500	<0.5	<0.5
	2/1/08	431.39	<50	<50	<0.5	<0.5	<0.5	<0.5	<5.0	<0.5	<2.0	<0.5	<0.5	<0.5	<50	<500	<0.5	<0.5
	4/18/08	436.64	<50	<50	<0.5	<0.5	<0.5	<0.5	<5.0	<0.5	<2.0	<0.5	<0.5	<0.5	<50	<500	<0.5	<0.5
	7/28/08	420.39	<50	<50	<0.5	<0.5	<0.5	<0.5	<5.0	<0.5	<2.0	<0.5	<0.5	<0.5	<50	<500	<0.5	<0.5
	11/18/08	415.77	97	<50	<0.5	<0.5	<0.5	<0.5	<5.0	<1.0	<4.0	<1.0	<1.0	<1.0	<100	<1,000	<1.0	<1.0
	2/4/09	417.50	<50	NA	<0.5	<0.5	<0.5	<0.5	<5.0	NA	NA	NA	NA	NA	NA	NA	NA	NA
	4/22/09	428.41	<50	NA	<0.5	<0.5	<0.5	<0.5	<5.0	NA	NA	NA	NA	NA	NA	NA	NA	NA
	9/24/09	425.90	<50	NA	<0.5	<0.5	<0.5	<0.5	<5.0	<0.5	<2.0	<0.5	<0.5	<0.5	<50	<500	<0.5	<0.5
	3/4/10	438.73	<50	NA	<0.5	<0.5	<0.5	<0.5	<5.0	NA	NA	NA	NA	NA	NA	NA	NA	NA
	7/19/10	440.01	<50	NA	<0.5	<0.5	<0.5	<0.5	<5.0	NA	NA	NA	NA	NA	NA	NA	NA	NA

Table 2
Groundwater Analytical Results
 160 Holmes Street, Livermore, California

Well ID	Date Collected	Groundwater Elevation (feet above MSL)	Total Petroleum Hydrocarbons ($\mu\text{g/L}$)		Aromatic Volatile Organic Compounds ($\mu\text{g/L}$)					Oxygenated Volatile Organics ($\mu\text{g/L}$)						Lead Scavengers ($\mu\text{g/L}$)			
			Gasoline	Diesel	Benzene	Toluene	Ethylbenzene	Total Xylenes	MTBE (8021B)	TAME	TBA	DIPE	ETBE	MTBE	Ethanol	Methanol	EDB	1,2-DCA	
MW-7C cont.	1/20/11	440.89	<50	<50	<0.5	<0.5	<0.5	<0.5	<5.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	
	4/7/11	445.51	<50	<50	<0.5	<0.5	<0.5	<0.5	<5.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	
	9/20/11	441.89	<50	<50	<0.5	<0.5	<0.5	<0.5	<5.0	<0.5	<2.0	<0.5	<0.5	<0.5	NA	NA	<0.5	<0.5	
	11/8/11	440.99	<50	<50	<0.5	<0.5	<0.5	<0.5	<5.0	<0.5	<2.0	<0.5	<0.5	<0.5	NA	NA	<0.5	<0.5	
	2/2/12	431.25	<50	<50	<0.5	<0.5	<0.5	<0.5	<5.0	<0.5	<2.0	<0.5	<0.5	<0.5	NA	NA	<0.5	<0.5	
	6/13/12	436.85	<50	<50	<0.5	<0.5	<0.5	<0.5	<5.0	<0.5	<2.0	<0.5	<0.5	<0.5	NA	NA	<0.5	<0.5	
	8/30/12	434.32	<50	<50	<0.5	<0.5	<0.5	<0.5	<5.0	<0.5	<2.0	<0.5	<0.5	<0.5	NA	NA	NA	NA	
MW-8A	7/28/08	NC	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	
	11/18/08	NC	67	<50	<0.5	2.6	<0.5	1.6	<5.0	<0.5	<2.0	<0.5	<0.5	4.9	<50	<500	<0.5	<0.5	
	2/4/09	NC	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	
	4/21/09	NC	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	
	9/24/09	NC	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	
	3/4/10	NC	<50	NA	<0.5	<0.5	<0.5	<0.5	<5.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	
	7/20/10	NC	<50	NA	<0.5	<0.5	<0.5	<0.5	<5.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	
	1/20/11	NC	<50	NA	<0.5	<0.5	<0.5	<0.5	<5.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	
	4/7/11	NC	<50	NA	<0.5	<0.5	<0.5	<0.5	<5.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	
	9/19/11	NC	<50	NA	<0.5	<0.5	<0.5	<0.5	5.3	NA	NA	NA	NA	NA	NA	NA	NA	NA	
	11/7/11	NC	<50	NA	<0.5	<0.5	<0.5	<0.5	<5.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	
	2/2/12	NC	<50	NA	<0.5	<0.5	<0.5	<0.5	9.7	NA	NA	NA	NA	NA	NA	NA	NA	NA	
	6/12/12	NC	<50	NA	<0.5	<0.5	<0.5	<0.5	<5.0	<0.5	<2.0	<0.5	<0.5	<0.5	NA	NA	NA	NA	
	8/29/12	NC	<50	NA	<0.5	<0.5	<0.5	<0.5	<5.0	<0.5	<2.0	<0.5	<0.5	3.0	NA	NA	NA	NA	
MW-8B	7/28/08	NC	<50	<50	<0.5	<0.5	<0.5	<0.5	<5.0	<0.5	<2.0	<0.5	<0.5	2.5	<50	<500	<0.5	<0.5	
	11/18/08	NC	<50	120	<0.5	<0.5	<0.5	<0.5	<5.0	<0.5	<2.0	<0.5	<0.5	5.1	<50	<500	<0.5	<0.5	
	2/4/09	NC	<50	NA	<0.5	<0.5	<0.5	<0.5	<5.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	
	4/22/09	NC	50	NA	<0.5	<0.5	<0.5	<0.5	1300	NA	NA	NA	NA	NA	NA	NA	NA	NA	
	9/24/09	NC	<50	NA	<0.5	<0.5	<0.5	<0.5	<5.0	<0.5	<2.0	<0.5	<0.5	<0.5	<50	<500	<0.5	<0.5	
	3/4/10	NC	<50	NA	<0.5	<0.5	<0.5	<0.5	<5.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	
	7/20/10	NC	<50	NA	<0.5	<0.5	<0.5	<0.5	<5.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	
	1/20/11	NC	<50	NA	<0.5	<0.5	<0.5	<0.5	<5.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	
	4/7/11	NC	<50	NA	<0.5	<0.5	<0.5	<0.5	<5.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	
	9/19/11	NC	<50	NA	<0.5	<0.5	<0.5	<0.5	<5.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	
	11/7/11	NC	<50	NA	<0.5	<0.5	<0.5	<0.5	<5.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	
	2/2/12	NC	<50	NA	<0.5	<0.5	<0.5	<0.5	<5.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	
	6/13/12	NC	<50	NA	<0.5	<0.5	<0.5	<0.5	<5.0	<0.5	<2.0	<0.5	<0.5	<0.5	NA	NA	NA	NA	
	8/30/12	NC	<50	NA	<0.5	<0.5	<0.5	<0.5	<5.0	<0.5	<2.0	<0.5	<0.5	<0.5	NA	NA	NA	NA	
MW-9A	7/28/08	NC	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	
	11/18/08	NC	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	
	2/4/09	NC	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	
	4/21/09	NC	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	
	9/24/09	NC	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	
	3/4/10	NC	<50	NA	<0.5	<0.5	<0.5	<0.5	<5.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	
	7/20/10	NC	<50	NA	<0.5	<0.5	<0.5	<0.5	<5.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	
	1/20/11	NC	<50	<50	<0.5	<0.5	<0.5	<0.5	<5.0	<0.5	74	<0.5	<0.5	1.1	<50	<500	<0.5	<0.5	
	4/7/11	NC	<50	<50	<0.5	<0.5	<0.5	<0.5	<5.0	<0.5	65	<0.5	<0.5	0.74	NA	NA	<0.5	<0.5	
	9/19/11	NC	<50	<50	<0.5	<0.5	<0.5	<0.5	<5.0	<0.5	120	<0.5	<0.5	1.6	NA	NA	<0.5	<0.5	
	11/7/11	NC	<50	<50	<0.5	<0.5	<0.5	<0.5	<5.0	<0.5	2.9	<0.5	<0.5	<0.5	<0.5	NA	NA	<0.5	<0.5
	2/1/12	NC	<50	<50	<0.5	<0.5	<0.5	<0.5	<5.0	<1.0	200	<1.0	<1.0	1.2	NA	NA	<1.0	<1.0	
	6/12/12	NC	<50	<50	<0.5	<0.5	<0.5	<0.5	<5.0	<0.5	<2.0	<0.5	<0.5	<0.5	NA	NA	<0.5	<0.5	
	8/30/12	NC	<50	<50	<0.5	<0.5	<0.5	<0.5	<5.0	<0.5	<2.0	<0.5	<0.5	<0.5	NA	NA	<0.5	<0.5	

Table 2
Groundwater Analytical Results
 160 Holmes Street, Livermore, California

Well ID	Date Collected	Groundwater Elevation (feet above MSL)	Total Petroleum Hydrocarbons (µg/L)		Aromatic Volatile Organic Compounds (µg/L)					Oxygenated Volatile Organics (µg/L)						Lead Scavengers (µg/L)		
			Gasoline	Diesel	Benzene	Toluene	Ethylbenzene	Total Xylenes	MTBE (8021B)	TAME	TBA	DIPE	ETBE	MTBE	Ethanol	Methanol	EDB	1,2-DCA
MW-9B	7/29/08	NC	<50	63	<0.5	<0.5	<0.5	<0.5	100	<10	2,800	<10	160	<1,000	<10,000	<10	<10	
	11/18/08	NC	<50	1000	<0.5	<0.5	<0.5	<0.5	7.0	<0.5	4.6	<0.5	<0.5	<50	<500	<0.5	<0.5	
	2/4/09	NC	<50	NA	<0.5	<0.5	<0.5	<0.5	5.0	NA	NA	NA	NA	NA	NA	NA	NA	
	4/22/09	NC	<50	NA	<0.5	<0.5	<0.5	<0.5	470	NA	NA	NA	NA	NA	NA	NA	NA	
	9/24/09	NC	<50	NA	<0.5	<0.5	<0.5	<0.5	5.4	<0.5	<2.0	<0.5	<0.5	7.2	<50	<500	<0.5	
	3/4/10	NC	<50	NA	<0.5	<0.5	<0.5	<0.5	5.0	NA	NA	NA	NA	NA	NA	NA	NA	
	7/20/10	NC	<50	NA	<0.5	<0.5	<0.5	<0.5	5.0	NA	NA	NA	NA	NA	NA	NA	NA	
	1/20/11	NC	<50	<50	<0.5	<0.5	<0.5	<0.5	5.0	<0.5	8.9	<0.5	<0.5	0.65	<50	<500	<0.5	
	4/7/11	NC	<50	<50	<0.5	<0.5	<0.5	<0.5	5.0	<0.5	22	<0.5	<0.5	1.2	NA	NA	<0.5	
	9/19/11	NC	<50	<50	<0.5	<0.5	<0.5	<0.5	5.0	<0.5	<2.0	<0.5	<0.5	1.2	NA	NA	<0.5	
	11/7/11	NC	<50	<50	<0.5	<0.5	<0.5	<0.5	5.0	<0.5	<2.0	<0.5	<0.5	1.7	NA	NA	<0.5	
	2/1/12	NC	<50	<50	<0.5	<0.5	<0.5	<0.5	5.0	<0.5	89	<0.5	<0.5	3.3	NA	NA	<0.5	
	6/12/12	NC	<50	<50	<0.5	<0.5	<0.5	<0.5	5.0	<0.5	<2.0	<0.5	<0.5	1.6	NA	NA	<0.5	
	8/30/12	NC	<50	<50	<0.5	<0.5	<0.5	<0.5	5.0	<0.5	<2.0	<0.5	<0.5	0.55	NA	NA	<0.5	
EX-I**	11/14/01	431.89	13,000	2,000	180	1,000	330	3,200	2,200	NA	NA	NA	NA	NA	NA	NA	NA	
	5/7/02	437.72	7,700	560	320	<25	66	150	6,200	NA	NA	NA	NA	NA	NA	NA	NA	
	9/11/02	NC	2,800	NA	32	<13	14	<13	2,500	NA	NA	NA	NA	NA	NA	NA	NA	
	12/1/02	437.32	3,000	100	81	<0.5	44	<1.0	4,800	NA	NA	NA	NA	NA	NA	NA	NA	
	3/14/03	442.28	750	50	<0.5	<0.5	7.7	13	1,200	NA	NA	NA	NA	NA	NA	NA	NA	
	6/25/03	442.89	120	<50	3.2	3.7	4.2	7.6	260	NA	NA	NA	NA	NA	NA	NA	NA	
	9/16/03	440.65	170	<50	0.5	1.5	<0.5	0.9	1,600	NA	NA	NA	NA	NA	NA	NA	NA	
	3/10/04	447.31	NS	NS	NS	NS	NS	NS	NS	NA	NA	NA	NA	NA	NA	NA	NA	
	6/15/04	442.82	NS	NS	NS	NS	NS	NS	NS	NA	NA	NA	NA	NA	NA	NA	NA	
	9/17/04	439.39	NS	NS	NS	NS	NS	NS	NS	NA	NA	NA	NA	NA	NA	NA	NA	
	12/10/04	NC	NS	NS	NS	NS	NS	NS	NS	NA	NA	NA	NA	NA	NA	NA	NA	
	3/2/05	NC	NS	NS	NS	NS	NS	NS	NS	NA	NA	NA	NA	NA	NA	NA	NA	
	5/27/05	446.62	NS	NS	NS	NS	NS	NS	NS	NA	NA	NA	NA	NA	NA	NA	NA	
	7/21/05	443.75	<50	NS	<0.5	<0.5	<0.5	<0.5	610	NA	NA	NA	NA	NA	NA	NA	NA	
	10/10/05	442.57	<50	NS	<0.5	<0.5	<0.5	<0.5	31	NA	NA	NA	NA	NA	NA	NA	NA	
	1/9/06	447.25	580	55	40	25	45	43	4,200	<170	<1,700	<170	<170	5,200	<170,000	<17,000	<170	
EW-1	3/13/06	446.47	210	120	5.0	4.10	7.5	12	3,400	<50	<100	<50	<50	2,300	<5,000	<50,000	<50	<50
	4/7/06	449.46	1,900	190	66	170	110	380	7,900	<100	<1000	<100	<100	6,400	<10,000	<100,000	<100	<100
	7/27/06	441.60	280	100	7.4	5.5	12	28	8,400	<500	<5,000	<500	<500	12,000	NA	NA	NA	NA
	10/12/06	441.94	2,100	130	86	19	100	310	2,400	<50	1,400	<50	<50	2,800	<5,000	180,000	NA	NA
	1/4/07	444.00	1,600	150	56	27	110	240	5,000	<50	2,900	<50	<50	4,900	<5,000	<50,000	<50	<50
	4/13/07	441.76	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	
	7/16/07	NC	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	
	10/29/07	NC	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	
	2/1/08	NC	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	
	4/18/08	437.62	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	
	7/28/08	NC	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	
	11/18/08	NC	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	
	2/4/09	NC	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	
	4/21/09	NC	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	
	9/24/09	NC	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	

Table 2
Groundwater Analytical Results
160 Holmes Street, Livermore, California

Well ID	Date Collected	Groundwater Elevation (feet above MSL)	Total Petroleum Hydrocarbons (µg/L)		Aromatic Volatile Organic Compounds (µg/L)					Oxygenated Volatile Organics (µg/L)						Lead Scavengers (µg/L)		
			Gasoline	Diesel	Benzene	Toluene	Ethylbenzene	Total Xylenes	MTBE (8021B)	TAME	TBA	DIPE	ETBE	MTBE	Ethanol	Methanol	EDB	1,2-DCA
EW-1 cont.	3/4/10	NC	4,400	NA	460	<25	380	<25	31,000	NA	NA	NA	NA	NA	NA	NA	NA	NA
	7/20/10	441.10	400	NA	4.4	6.6	1.8	4.4	590	NA	NA	NA	NA	NA	NA	NA	NA	NA
	1/20/11	441.87	570	190	21	6.4	14	57	3,500	<50	15,000	<50	<50	3,300	NA	NA	<50	<50
	4/8/11	446.60	410	220	11	4.2	3.1	43	2,400	<50	8,200	<50	<50	3,300	NA	NA	<50	<50
	4/18/11	445.75	200	130	<0.5	1.7	1.1	3.0	4,400	<50	14,000	<50	<50	3,600	NA	NA	<50	<50
	5/9/11	445.76	62	<50	1.2	1.4	<0.5	<0.5	520	<25	4,800	<25	<25	390	NA	NA	<25	<25
	6/2/11	444.93	83	<50	1.3	2.1	<0.5	0.6	180	<100	9,600	<100	<100	240	NA	NA	<100	<100
	6/15/11	444.34	60	<50	<0.5	1.8	<0.5	<0.5	97	<100	6,300	<100	<100	100	NA	NA	<100	<100
	6/30/11	444.04	74	<50	<0.5	2.0	<0.5	<0.5	200	<50	5,700	<50	<50	200	NA	NA	<50	<50
	9/20/11	443.10	63	52	<0.5	2.1	<0.5	<0.5	210	<50	11,000	<50	<50	190	NA	NA	<50	<50
	11/8/11	442.10	78	<50	<0.5	1.8	<0.5	<0.5	76	<50	7,600	<50	<50	97	NA	NA	<50	<50
	2/2/12	432.07	59	57	<0.5	1.1	<0.5	<0.5	270	<500	50,000	<500	<500	<500	NA	NA	<500	<500
	6/13/12	438.07	<50	<50	<0.5	<0.5	<0.5	<0.5	<5.0	<50	13,000	<50	<50	<50	NA	NA	<50	<50
	8/29/12	435.55	<50	<50	<0.5	0.62	<0.5	<0.5	<5.0	<50	8,100	<50	<50	<50	NA	NA	<50	<50
EW-2	3/13/06	446.81	<250	69	<2.5	<2.5	<2.5	<2.5	5,400	<100	<1,000	<100	<100	5,100	<10,000	<100,000	<100	<100
	4/7/06	449.79	470	160	15	2.5	24	13	2,000	<50	<500	<50	<50	1,800	<5,000	<50,000	<50	<50
	7/27/06	442.89	260	350	2.2	1.7	6.1	3.0	8,700	<500	<5,000	<500	<500	12,000	NA	NA	NA	NA
	10/12/06	444.51	110	<50	2.0	1.0	3.1	3.9	620	<12	<120	<12	<12	680	<1,200	<12,000	NA	NA
	1/4/07	444.33	<500	<50	5.3	<5.0	16	7.1	4,500	<50	<500	<50	<50	4,200	<5,000	<50,000	<50	<50
	4/13/07	442.06	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	7/16/07	NC	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	10/29/07	NC	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	2/1/08	NC	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	4/18/08	437.95	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	7/28/08	NC	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	11/18/08	NC	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	2/4/09	NC	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	4/21/09	NC	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	9/24/09	NC	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	3/4/10	NC	<50	NA	<0.5	<0.5	<0.5	<0.5	<5.0	NA	NA	NA	NA	NA	NA	NA	NA	NA
	7/20/10	441.54	<50	NA	<0.5	<0.5	<0.5	<0.5	<5.0	NA	NA	NA	NA	NA	NA	NA	NA	NA
	1/21/11	442.27	<50	<50	<0.5	<0.5	<0.5	<0.5	<5.0	<0.5	2.8	<0.5	<0.5	2.1	NA	NA	<0.5	<0.5
	4/11/11	446.99	<50	<50	<0.5	<0.5	<0.5	<0.5	<5.0	<0.5	2.1	<0.5	<0.5	0.65	NA	NA	<0.5	<0.5
	4/18/11	446.80	<50	<50	<0.5	<0.5	<0.5	<0.5	<5.0	<0.5	<2.0	<0.5	<0.5	0.7	NA	NA	<0.5	<0.5
	5/9/11	446.32	<50	<50	<0.5	<0.5	<0.5	<0.5	15	<0.5	2.8	<0.5	<0.5	12	NA	NA	<0.5	<0.5
	6/2/11	445.28	<50	<50	<0.5	<0.5	<0.5	<0.5	<5.0	<0.5	12	<0.5	<0.5	6.2	NA	NA	<0.5	<0.5
	6/15/11	444.99	<50	<50	<0.5	<0.5	<0.5	<0.5	<5.0	<0.5	<2.0	<0.5	<0.5	2.3	NA	NA	<0.5	<0.5
	6/30/11	444.68	<50	<50	<0.5	<0.5	<0.5	<0.5	<5.0	<0.5	<2.0	<0.5	<0.5	2.4	NA	NA	<0.5	<0.5
	9/20/11	441.44	<50	<50	<0.5	<0.5	<0.5	<0.5	<5.0	<0.5	<2.0	<0.5	<0.5	1.3	NA	NA	<0.5	<0.5
	11/8/11	442.39	<50	<50	<0.5	<0.5	<0.5	<0.5	<5.0	<0.5	<2.0	<0.5	<0.5	1.0	NA	NA	<0.5	<0.5
	2/2/12	432.33	<50	<50	<0.5	<0.5	<0.5	<0.5	<5.0	<5.0	490	<5.0	<5.0	<5.0	NA	NA	<5.0	<5.0
	6/13/12	438.35	<50	<50	<0.5	<0.5	<0.5	<0.5	<5.0	<5.0	<2.0	<5.0	<5.0	0.89	NA	NA	<5.0	<5.0
	8/28/12	NC	NS	NS	Not Sampled					NS	NS	NS	NS	NS	NS	NS	NS	NS

Table 2
Groundwater Analytical Results
 160 Holmes Street, Livermore, California

Well ID	Date Collected	Groundwater Elevation (feet above MSL)	Total Petroleum Hydrocarbons (µg/L)		Aromatic Volatile Organic Compounds (µg/L)				Oxygenated Volatile Organics (µg/L)						Lead Scavengers (µg/L)			
			Gasoline	Diesel	Benzene	Toluene	Ethyl-benzene	Total Xylenes	MTBE (8021B)	TAME	TBA	DIPE	ETBE	MTBE	Ethanol	Methanol	EDB	1,2-DCA
EW-3 ^(a)	11/18/08	NC	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	
	2/4/09	NC	<10,000	NA	<100	<100	<100	<100	420,000	NA	NA	NA	NA	NA	NA	NA	NA	
	4/21/09	NC	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	
	9/24/09	NC	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	
	3/4/10	NC	140,000	NA	240	900	320	28,000	340,000	NA	NA	NA	NA	NA	NA	NA	NA	
	7/20/10	NC	23,000	NA	240	940	760	3,100	150,000	NA	NA	NA	NA	NA	NA	NA	NA	
	1/21/11	NC	15,000	5,200	230	93	1,100	1,900	150,000	<2,500	72,000	<2,500	<2,500	150,000	NA	NA	<2,500	<2,500
	4/11/11	NC	8,400	590	110	37	690	820	68,000	<2,500	67,000	<2,500	<2,500	79,000	NA	NA	<2,500	<2,500
	4/18/11	NC	7,300	1,300	81	100	350	870	85,000	<1,700	50,000	<1,700	<1,700	72,000	NA	NA	<1,700	<1,700
	5/9/11	NC	5,400	2,200	56	<50	160	350	79,000	<1,000	40,000	<1,000	<1,000	62,000	NA	NA	<1,000	<1,000
	6/1/11	NC	4,800	3,700	53	<25	170	300	50,000	<1,000	43,000	<1,000	<1,000	76,000	NA	NA	<1,000	<1,000
	6/15/11	NC	8,200	2,200	66	<50	270	360	93,000	<2,500	47,000	<2,500	<2,500	85,000	NA	NA	<2,500	<2,500
	6/30/11	NC	8,000	1,900	64	<50	260	260	100,000	<2,500	51,000	<2,500	<2,500	100,000	NA	NA	<2,500	<2,500
	9/20/11	NC	<5,000 ["]	1,700	<50 ["]	64	74	100	80,000	<2,500	91,000	<2,500	<2,500	78,000	NA	NA	<2,500	<2,500
	11/8/11	NC	<6,000 ["]	860	<50 ["]	<50	60	130	82,000	<2,500	49,000	<2,500	<2,500	67,000	NA	NA	<2,500	<2,500
	2/2/12	NC	1,600	510	<5.0 ["]	13	10	35	24,000	<500	62,000	<500	<500	26,000	NA	NA	<500	<500
	6/13/12	NC	490	870	<0.5	2.3	3.0	7.9	8,600	<250	66,000	<250	<250	9,300	NA	NA	<250	<250
	8/30/12	NC	430	580	<1.7	<1.7	5.7	20	3,900	<500	82,000	<500	<500	3,900	NA	NA	<500	<500

Notes:

Samples analyzed for TPHg and TPHd by EPA Method 8015Bm, BTEX by EPA Method 8021B, MTBE by EPA Method 8021B and/or 8260B, and the fuel oxygenates TBA, DIPE, ETBE, TAME, EDB, 1,2-DCA, ethanol, and methanol by EPA Method 8260.

µg/L = micrograms per liter

⁼ High concentrations of MTBE caused very high detection limits, both TPHg and Benzene were estimated just below the listed detection limits by McCampbell Analytical

NS = Not Sampled

NA = Not Analyzed

EDB = 1,2-Dibromoether

1,2-DCA = 1,2-Dichloroethane

MTBE = methyl tertiary butyl ether

DIPE =Di-isopropyl Ether

ETBE = Ethyl tert-Butyl Ether

TAME - tert-Amyl Methyl Ether

TBA = tert-Butanol

["] = High concentrations of MTBE resulted in high reporting limits, both TPHg and benzene were estimated just below the listed reporting limits by laboratory

* = Well MW-1 renamed MW-1A, well MW-2 renamed MW-2A, Well MW-3 renamed MW-3A in February 2006

** = Well destroyed in February 2006

*** = Anomalous data observed in MW-7C from October 12, 2006 sample. Therfore, wells MW-7A, MW-7B, and MW-7C were resampled on November 21, 2006.

(a) = Well EW-3 is 35 feet deep with a screen interval from 25 to 30 feet bgs.

Table 3
Remedial Groundwater Analytical Results
 160 Holmes St, Livermore, California

Sample ID	Date Collected	Monitoring Event	Metals		Hexachrome	Inorganic Anions	Total and Speciated Alkalinity as Calcium Carbonate				Alkali Metals			Dissolved Oxygen	Ferrous Iron	Carbon Dioxide	Methane	Total Dissolved Solids	
			Arsenic	Chromium			Sulfate	Total	Carbonate	Biocarbonate	Hydroxide	Iron	Manganese	Sodium					
			Units:	µg/L	µg/L	µg/L	mg/L	mg/L	mg/L	mg/L	mg/L	µg/L	µg/L	µg/L	mg/L	µg/L	µg/L	mg/L	
		Analytical Method:	E200.8	E200.8	E218.6	E300.1	2320B	2320B	2320B	2320B	2320B	E200.7	E200.7	E200.7	4500OG	3500-Fe B4c	RSK174/175	RSK174/175	SM2540C
		Units:	µg/L	µg/L	µg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	µg/L	µg/L	µg/L	mg/L	µg/L	µg/L	µg/L	mg/L
MW-1A	4/8/11	BL	6.1	11	<0.2	73	541	<1.0	541	<1.0	5,000	4,000	45,000	1.19 @ 19.7C	1,300	370,000	13	634	
	4/18/11	E1	150	160	<10	680	8,810	6,540	2,270	<1.0	71,000	3,100	4,200,000	26.44 @ 20.7C	<50	1,700	1.1	11,100	
	5/9/11	E2	88	36	5.6	220	1,844	234	1,610	<1.0	15,000	590	1,200,000	24.70 @ 6.78C	68	880,000	3.2	2,490	
	6/1/11	E3	70	6.4	1.3	190	1,370	<1.0	1,370	<1.0	2,500	480	1,000,000	9.37 @ 10.6C	190	790,000	2.5	2,470	
	6/15/11	BW1	40	5.1	0.66	140	1,180	<1.0	11,180	<1.0	3,500	970	880,000	8.12 @ 22.4C	<50	490,000	1.3	1,550	
	6/30/11	BW2	22	4.2	0.54	150	1,090	<1.0	1,090	<1.0	3,900	700	650,000	5.66 @ 26.0C	840	550,000	1.6	1,970	
	8/28/12	3.12												Not Sampled Well Dry					
MW-1B	4/8/11	BL	0.56	58	2.5	53	225	<1.0	225	<1.0	1,400	42	43,000	7.42 @ 19.8C	<50	110,000	<0.4	361	
	4/18/11	E1	0.59	6.6	2.4	46	217	<1.0	217	<1.0	1,700	44	47,000	7.26 @ 20.0C	<50	210,000	<0.4	330	
	5/9/11	E2	0.99	6.7	2.4	43	218	<1.0	218	<1.0	2,300	560	46,000	7.49 @ 12.7C	<50	370,000	<0.4	374	
	6/1/11	E3	<0.5	2.5	1.4	48	216	<1.0	216	<1.0	250	<20	44,000	8.21 @ 9.31C	<50	200,000	<0.4	386	
	6/15/11	BW1	<0.5	5.1	1.8	49	220	<1.0	220	<1.0	200	<20	45,000	6.87 @ 17.8C	<50	130,000	<0.4	354	
	6/30/11	BW2	<0.5	4.4	2.1	46	220	<1.0	220	<1.0	1,000	31	50,000	6.51 @ 25.0C	<50	130,000	<0.4	386	
	8/28/12	3.12	<0.5	3.7	1.6	36	208	<1.0	208	<1.0	1,000	35	43,000	6.87 @ 15.1C	<50	NA	<0.4	315	
	9/5/12	3.12	NA	NA	2.0	NA	NA	NA	NA	NA	NA	NA	NA	7.40 @ 15.5C	<50	NA	NA	NA	
MW-2A	4/8/11	BL	1.8	5.3	<0.2	640	333	<1.0	333	<1.0	2,300	14,000	49,000	1.62 @ 17.8C	430	330,000	<0.4	1,250	
	4/18/11	E1	2.7	18	<0.2	330	349	<1.0	349	<1.0	8,200	10,000	47,000	1.48 @ 19.8C	99	51,000	0.54	836	
	5/9/11	E2	4.9	7.9	<0.2	140	376	<1.0	376	<1.0	4,300	2,800	59,000	3.57 @ 6.93C	<50	450,000	1.6	594	
	6/1/11	E3	3.4	28	<0.2	99	382	<1.0	382	<1.0	12,000	4,700	41,000	3.65 @ 12.6C	83	370,000	0.91	574	
	6/15/11	BW1	1.4	1.8	<0.2	99	366	<1.0	366	<1.0	1,100	3,900	39,000	2.53 @ 22.2C	<50	250,000	1.2	681	
	6/30/11	BW2	2.7	15	<0.2	500	356	<1.0	356	<1.0	7,200	5,200	44,000	2.02 @ 24.7C	90	240,000	2.5	561	
	8/28/12	3.12												Not Sampled					
EW-1	4/8/11	BL	2.6	5.8	<0.2	61	437	<1.0	437	<1.0	2,700	3,300	46,000	1.58 @ 19.0C	62	290,000	32	559	
	4/18/11	E1	32	30	6.1	120	1,250	243	1,010	<1.0	12,000	2,600	550,000	16.08 @ 20.2C	<50	630,000	9.2	1,660	
	5/9/11	E2	1.2	8.1	<50	50	367	<1.0	367	<1.0	3,200	7,000	44,000	3.39 @ 12.1C	120	570,000	30	549	
	6/1/11	E3	5.7	4.2	<0.2	50	352	<1.0	352	<1.0	2,400	2,800	63,000	6.50 @ 12.5 C	180	320,000	16	512	
	6/15/11	BW1	6.6	32	<0.2	50	315	<1.0	315	<1.0	15,000	4,700	56,000	3.43 @ 19.8C	360	200,000	34	550	
	6/30/11	BW2	7.4	42	<0.2	42	299	<1.0	299	<1.0	20,000	4,500	52,000	1.96 @ 16.5C	300	260,000	30	462	
	8/29/12	3.12	8.6	31	<0.2	36	276	<1.0	276	<1.0	14,000	2,300	44,000	4.18 @ 15.1C	570	NA	5.3	394	
	9/5/12	3.12	NA	NA	<0.2	NA	NA	NA	NA	NA	NA	NA	NA	3.28 @ 10.9C	490	NA	NA	NA	
EW-2	4/11/11	BL	2.0	18	0.65	51	250	<1.0	250	<1.0	5,900	1,700	47,000	4.35 @ 7.72C	<50	140,000	<0.4	575	
	4/18/11	E1	3.0	24	0.51	42	256	<1.0	256	<1.0	9,500	1,400	47,000	4.36 @ 19.6C	<50	230,000	<0.4	433	
	5/9/11	E2	<0.5	2.7	0.70	46	251	<1.0	251	<1.0	330	<20	50,000	5.08 @ 10.3 C	<50	290,000	<0.4	469	
	6/2/11	E3	16	18	14	75	470	357	<1.0	113	2,100	1,300	250,000	28.86 @ 15.2C	<50	240,000	<0.4	694	
	6/15/11	BW1	9.3	6.5	5.4	57	553	189	364	<1.0	910	2,200	120,000	19.20 @ 20.8C	<50	240,000	<0.4	589	
	6/30/11	BW2	8.5	19	2.3	53	477	62.4	415	<1.0	6,500	3,200	100,000	9.93 @ 24.8C	55	360,000	<0.4	637	
	8/28/12	3.12												Not Sampled					
EW-3	4/11/11	BL	23	1.9	<0.2	52	747	<1.0	747	<1.0	12,000	4,400	82,000	1.96 @ 8.21C	10,000	520,000	290	934	
	4/18/11	E1	23	30	0.35	100	1,140	<1.0	1,140	<1.0	15,000	2,500	320,000	13.26 @ 19.9C	1,100	300,000	86	1,350	
	5/9/11	E2	43	6.3	7.0	220	2,672	422	2,250	<1.0	1,700	540	990,000	20.22 @ 13.6C	240	760,000	22	3,290	
	6/2/11	E3	310	190	160	640	9,620	6,700	<1.0	2,910	2,800	100	840,000	27.78 @ 15.1C	<50	160	8.6	10,900	
	6/15/11	BW1	230	150	180	440	4,980	2,230	<1.0	2,750	7,200	370	2,400,000	22.11 @ 21.5C	<50	50	8.3	5,770	
	6/30/11	BW2	49	77	110	280	2,800	721	<1.0	2,080	4,700	1,500	1,600,000	27.54 @ 24.9C	<50	330	16	3,440	
*	8/30/12	3.12	^	^	^	^	^	^	^	^	^	^	^	580	NA	1.7	^		

Table 3
Remedial Groundwater Analytical Results
 160 Holmes St, Livermore, California

Sample ID	Date Collected	Monitoring Event	Metals		Hexachrome	Inorganic Anions	Total and Speciated Alkalinity as Calcium Carbonate				Alkali Metals			Dissolved Oxygen	Ferrous Iron	Carbon Dioxide	Methane	Total Dissolved Solids
			Arsenic	Chromium			Sulfate	Total	Carbonate	Biocarbonate	Hydroxide	Iron	Manganese	Sodium				
			Units:	µg/L		mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	µg/L	µg/L	µg/L	mg/L	µg/L	µg/L	mg/L
		Analytical Method:	E200.8	E200.8	E218.6	E300.1	2320B	2320B	2320B	2320B	E200.7	E200.7	E200.7	4500OG	3500-Fe B4c	RSK174/175	RSK174/175	SM2540C
		Units:	µg/L	µg/L	µg/L	mg/L	mg/L	mg/L	mg/L	mg/L	µg/L	µg/L	µg/L	mg/L	µg/L	µg/L	µg/L	mg/L
MW-7A	4/11/11	BL	4.9	69	<0.2	83	367	<1.0	367	<1.0	27,000	5,100	57,000	1.96 @ 9.58C	66	340,000	6.7	781
	4/18/11	E1	4.2	48	<0.2	81	385	<1.0	385	<1.0	21,000	4,800	61,000	1.38 @ 20.2C	<50	330,000	5.8	555
	5/9/11	E2	1.4	<0.5	<0.2	76	372	<1.0	372	<1.0	680	3,000	47,000	2.68 @ 12.0 C	<50	540,000	6.6	574
	6/1/11	E3	3.0	35	<0.2	89	369	<1.0	369	<1.0	14,000	3,900	57,000	4.24 @ 9.16C	54	340,000	5.8	567
	6/15/11	BW1	0.97	2.3	<0.2	86	353	<1.0	353	<1.0	830	3,800	54,000	1.78 @ 23.2C	67	210,000	6.1	645
	6/30/11	BW2	1.3	0.79	<0.2	87	320	<1.0	320	<1.0	730	2,900	49,000	1.89 @ 24.9C	55	230,000	5.0	575
	8/28/12	3.12												Not Sampled Well Dry				
MW-7B	4/11/11	BL	1.5	1.9	<0.2	34	386	<1.0	386	<1.0	1,300	3,100	45,000	2.55 @ 7.72C	400	350,000	0.68	636
	4/18/11	E1	1.7	0.7	<0.2	29	415	<1.0	415	<1.0	1,000	3,600	47,000	1.96 @ 19.8C	560	330,000	12	543
	5/9/11	E2	2.2	17	<0.2	33	382	<1.0	382	<1.0	6,700	4,200	52,000	2.36 @ 16.3 C	470	350,000	13	478
	6/1/11	E3	1.4	0.90	<0.2	39	369	<1.0	369	<1.0	720	2,700	43,000	5.13 @ 11.1C	440	320,000	14	428
	6/15/11	BW1	1.4	<0.5	<0.2	40	374	<1.0	374	<1.0	600	2,800	44,000	2.23 @ 22.8C	460	260,000	20	564
	6/30/11	BW2	3.7	47	<0.2	36	372	<1.0	372	<1.0	21,000	4,500	52,000	2.32 @ 25.2C	370	270,000	23	493
	8/29/12	3.12	1.7	3.3	<0.2	34	285	<1.0	285	<1.0	2,100	1,800	43,000	5.12 @ 14.9C	<50	NA	6.1	367
	9/5/12	3.12	NA	NA	<0.2	NA	NA	NA	NA	NA	NA	NA	NA	3.89 @ 10.4C	52	NA	NA	NA

Notes:

mg/L = milligrams per Liter

µg/L = micrograms per liter

BL = Base line monitoring event

E1 = First remedial monitoring event

E2 = Second remedial monitoring event

E3 = Third remedial monitoring event

BW1 = First bi-weekly monitoring event

BW2 = Second bi-weekly monitoring event

3.12 = Third quarter 2012

The symbol "<" (less than) indicates that the analyte was not detected at a concentration above the laboratory detection limit specified.

APPENDIX A
Groundwater Monitoring Field Protocol

Appendix A

Groundwater Monitoring Protocol

Well Monitoring and Sample Collection

A Teflon bailer or submersible pump was used to purge a minimum of three well volumes of groundwater from each well. After each well volume is purged, field parameters such as pH, temperature, and conductivity are recorded. Wells are purged until field parameters have stabilized or a maximum of ten (10) well volumes of groundwater have been removed. When possible, purge rates will not exceed the recharge rate for the well. However, if the well yield is low and the well was dewatered, the well is allowed to recharge to 80% of its original volume prior to sample collection. Field parameter measurements and pertinent qualitative observations, such as groundwater color and odor, are recorded in Groundwater Sampling Field Logs. Groundwater samples are collected in appropriate bottles and stored on ice for delivery, under chain-of-custody documentation, to a state-certified laboratory for analysis.

Equipment Decontamination

All drilling, sampling, and well development equipment was cleaned in a solution of laboratory grade detergent and distilled water or steam cleaned before use at each sampling point.

Field Personnel

During groundwater sampling activities, sampling personnel will wear pertinent attire to minimize risks to health and safety. Field personnel will also use a pair of clean, powderless, surgical gloves for each successive sampling point. Used surgical gloves will be placed into waste barrels for future disposal.

Waste Disposal

Water generated during well purging and sampling activities will be placed into DOT-approved 55-gallon waste drums. Waste drums will be temporarily stored on-site pending proper disposal of wastewater to an approved transport, storage, and disposal (TSD) facility.

APPENDIX B
Groundwater Sampling Field Logs



Groundwater Sampling Field Log

Site Address: 160 Holmes	Date: 8/28							
Project Number: 160	Field Personnel: JB							
Monitoring Well Information								
Monitoring Well ID: MW-1A	Monitoring Well Diameter (in): 2" CC							
Depth to Water (ft): DRY	Water Column (feet): (.17) =							
Total Depth (ft): 28.50	80% Recharge Depth (ft):							
Depth to Product (ft):	1 Well Volume (gallons):							
Comments:								
Field Measurements and Observations								
Time	Depth to Water	Purge Volume	Conductivity	Temperature	pH	Turbidity	Color	Odor
Total Purge Volume:		Comments:						
Groundwater Sampling Information								
Sample ID:	MW-1A			Sample Time:				
Sample Containers (#/Type):	(8) VOA (2) VOA EXTRA HCL (1) Amber UP (1) Amber HCl (1) 225 ml HNO3 (4) 225 ml Unpreserved Poly							
Comments:								

Groundwater Sampling Field Log								
Site Address: 160 Holmes	Date: 8/28							
Project Number: 160	Field Personnel: JB							
Monitoring Well Information								
Monitoring Well ID: MW-1B	Monitoring Well Diameter (in): 2" CC							
Depth to Water (ft): 29.51	Water Column (feet): 24.99 (.17) = 4.25							
Total Depth (ft): 54.50	80% Recharge Depth (ft):							
Depth to Product (ft):	1 Well Volume (gallons): 4.25 x 3 = 12.75							
Comments:								
Field Measurements and Observations								
Time	Depth to Water	Purge Volume	Conductivity	Temperature	pH	Turbidity	Color	Odor
Total Purge Volume:		Comments:						
Groundwater Sampling Information								
Sample ID:	MW-1B			Sample Time: 3:00				
Sample Containers (#/Type):	(8) VOA (2) VOA EXTRA HCL (1) Amber UP (1) Amber HCl (1) 225 ml HNO3 (4) 225 ml Unpreserved Poly							
Comments:								



Groundwater Sampling Field Log

Site Address: 160 Holmes		Date:						
Project Number: 160		Field Personnel:						
Monitoring Well Information								
Monitoring Well ID: MW-4A			Monitoring Well Diameter (in): 2" <u>CC</u>					
Depth to Water (ft):			Water Column (feet): (.17) =					
Total Depth (ft): 28.80			80% Recharge Depth (ft):					
Depth to Product (ft):			1 Well Volume (gallons):					
Comments: <i>SAMPLED</i>								
Field Measurements and Observations								
Time	Depth to Water	Purge Volume	Conductivity	Temperature	pH	Turbidity	Color	Odor
Total Purge Volume:			Comments: NOT SAMPLED					
Groundwater Sampling Information								
Sample ID: MW-4A			Sample Time: 8-29					
Sample Containers (#/Type):								
Comments:								
Groundwater Sampling Field Log								
Site Address: 160 Holmes		Date: 8-29						
Project Number: 160		Field Personnel: JB						
Monitoring Well Information								
Monitoring Well ID: MW-5A			Monitoring Well Diameter (in): 2" <u>CC</u>					
Depth to Water (ft): 31.10			Water Column (feet): 2.9 <u>(.17) = 0.5</u>					
Total Depth (ft): 34.00			80% Recharge Depth (ft):					
Depth to Product (ft):			1 Well Volume (gallons): $0.5 \times 3 = 1.5$					
Comments:								
Field Measurements and Observations								
Time	Depth to Water	Purge Volume	Conductivity	Temperature	pH	Turbidity	Color	Odor
	0.5	1211	23.3	7.13	low	light gray	none	
	1.0	1244	23.4	7.19	med	grey	↓	
	1.5	1212	23.4	7.18	↓			
Total Purge Volume:			Comments:					
Groundwater Sampling Information								
Sample ID: MW-5A			Sample Time: 2:30					
Sample Containers (#/Type): (5) VOA								
Comments:								



Groundwater Sampling Field Log

Site Address: 160 Holmes	Date: 8-29
Project Number: 160	Field Personnel: JB
Monitoring Well Information	
Monitoring Well ID: MW-5B	Monitoring Well Diameter (in): 2" CC
Depth to Water (ft): 31.22	Water Column (feet): 21.42 (.17) = 3.5
Total Depth (ft): 52.64	80% Recharge Depth (ft):
Depth to Product (ft):	1 Well Volume (gallons): $3.5 \times 3 = 10.5$

Comments:

Field Measurements and Observations								
Time	Depth to Water	Purge Volume	Conductivity	Temperature	pH	Turbidity	Color	Odor
	3.5	761	21.9	7.13	none	Clear	none	
	7.0	779	21.5	7.10	light	↓	↓	
	10.5	783	21.6	7.07	↓	↓	↓	
Total Purge Volume: 10.5			Comments:					

Groundwater Sampling Information	
Sample ID: MW-5B	Sample Time: 1:45
Sample Containers (#/Type): (5) VOA	
Comments:	

Groundwater Sampling Field Log								
Site Address: 160 Holmes	Date: 8-29							
Project Number: 160	Field Personnel: JB							
Monitoring Well Information								
Monitoring Well ID: MW-6	Monitoring Well Diameter (in): 2" CC							
Depth to Water (ft): 30.17	Water Column (feet): 16.83 (.17) = 2.3							
Total Depth (ft): 47.00	80% Recharge Depth (ft):							
Depth to Product (ft):	1 Well Volume (gallons): $3 \times 3 = 9$							
Comments:								
Field Measurements and Observations								
Time	Depth to Water	Purge Volume	Conductivity	Temperature	pH	Turbidity	Color	Odor
	3	765	20.1	7.14	Medium	Brown	None	
	6	783	19.9	7.04	↓	↓	↓	
	9	796	20.2	7.17	↓	↓	↓	
Total Purge Volume: 9			Comments:					
Groundwater Sampling Information								
Sample ID: MW-6	Sample Time: 1:06							
Sample Containers (#/Type): (5) VOA								
Comments:								



Groundwater Sampling Field Log

Site Address: 160 Holmes	Date: 8/28
Project Number: 160	Field Personnel: JS
Monitoring Well Information	
Monitoring Well ID: MW-7A	Monitoring Well Diameter (in): 2" CC
Depth to Water (ft): 29.34 DRY	Water Column (feet): (.17) =
Total Depth (ft): 29.00	80% Recharge Depth (ft):
Depth to Product (ft):	1 Well Volume (gallons):
Comments:	

Field Measurements and Observations								
Time	Depth to Water	Purge Volume	Conductivity	Temperature	pH	Turbidity	Color	Odor
Total Purge Volume:			Comments: DRY					
Groundwater Sampling Information								
Sample ID:	MW-7A	Sample Time:						
Sample Containers (#/Type):	(8) VOA (2) VOA EXTRA HCL (1) Amber UP (1) Amber HCl (1) 225 ml HNO3 (4) 225 ml Unpreserved Poly							
Comments:								

Groundwater Sampling Field Log								
Site Address: 160 Holmes	Date: 8/29							
Project Number: 160	Field Personnel: JS							
Monitoring Well Information								
Monitoring Well ID: MW-7B	Monitoring Well Diameter (in): 2" CC							
Depth to Water (ft): 30.67	Water Column (feet): 17.83 (.17) = 3							
Total Depth (ft): 48.50	80% Recharge Depth (ft):							
Depth to Product (ft):	1 Well Volume (gallons): $3 \times 3 = 9$							
Comments:								
Field Measurements and Observations								
Time	Depth to Water	Purge Volume	Conductivity	Temperature	pH	Turbidity	Color	Odor
		3	753	20.5	7.12	None	clear	None
		6	843	20.2	7.02	↓	↓	↓
		9	851	19.9	7.01	↓	↓	↓
Total Purge Volume: 9			Comments:					
Groundwater Sampling Information								
Sample ID:	MW-7B	Sample Time: 3:00						
Sample Containers (#/Type):	(8) VOA (2) VOA EXTRA HCL (1) Amber UP (1) Amber HCl (1) 225 ml HNO3 (4) 225 ml Unpreserved Poly							
Comments:								



Groundwater Sampling Field Log

Site Address: 160 Holmes	Date: 8-30
Project Number: 160	Field Personnel: JB
Monitoring Well Information	
Monitoring Well ID: MW-7C	Monitoring Well Diameter (in): 2" CC
Depth to Water (ft): 31.07	Water Column (feet): 37.43 (.17) = 6
Total Depth (ft): 68.50	80% Recharge Depth (ft):
Depth to Product (ft):	1 Well Volume (gallons): $6 \times 3 = 18$
Comments:	

Field Measurements and Observations

Time	Depth to Water	Purge Volume	Conductivity	Temperature	pH	Turbidity	Color	Odor
	6	614	21.1	7.23	None	clear	None	
	12	737	20.7	7.17	↓			
	18	744	20.3	7.12	↓			

Total Purge Volume: 18 Comments:

Groundwater Sampling Information

Sample ID: MW-7C Sample Time: 12:00

Sample Containers (#/Type): (5) VOA (1) Amber

Comments:

Groundwater Sampling Field Log								
Site Address: 160 Holmes	Date: 8-29							
Project Number: 160	Field Personnel: JB							
Monitoring Well Information								
Monitoring Well ID: MW-8A	Monitoring Well Diameter (in): 2" CC							
Depth to Water (ft): 30.53	Water Column (feet): 4.97 (.17) = 1							
Total Depth (ft): 35.50	80% Recharge Depth (ft):							
Depth to Product (ft):	1 Well Volume (gallons): $1 \times 3 = 3$							
Comments:								
Field Measurements and Observations								
Time	Depth to Water	Purge Volume	Conductivity	Temperature	pH	Turbidity	Color	Odor
	1	964	21.0	6.93	med	brown	none	
	2	981	20.6	6.91	↓			
	3	981	20.2	6.94	↓			

Total Purge Volume: 3 Comments:

Groundwater Sampling Information

Sample ID: MW-8A Sample Time: 4:00

Sample Containers (#/Type): (5) VOA

Comments:

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Groundwater Sampling Field Log

Site Address: 160 Holmes	Date: 8-30 SB
Project Number: 160	Field Personnel:
Monitoring Well Information	
Monitoring Well ID: MW-8B	Monitoring Well Diameter (in): 2" CC
Depth to Water (ft): 30.28	Water Column (feet): 20.22 (.17) = 3.5
Total Depth (ft): 50.50	80% Recharge Depth (ft):
Depth to Product (ft):	1 Well Volume (gallons): $3.5 \times 3 = 10.5$
Comments:	

Field Measurements and Observations								
Time	Depth to Water	Purge Volume	Conductivity	Temperature	pH	Turbidity	Color	Odor
		3.5	737	20.7	7.21	None	clear	wave
		7.0	735	20.3	7.08	slight	light brown	↓
		10.5	737	20.3	7.06	↓	↓	↓
Total Purge Volume: 10.5			Comments:					

Groundwater Sampling Information									
Sample ID:	MW-8B	Sample Time:	2:30						
Sample Containers (#/Type):	(5) VOA								
Comments:									

Groundwater Sampling Field Log								
Site Address: 160 Holmes	Date: 8-30							
Project Number: 160	Field Personnel: JB							
Monitoring Well Information								
Monitoring Well ID: MW-9A	Monitoring Well Diameter (in): 2" CC							
Depth to Water (ft): 29.72	Water Column (feet): 9.78 (.17) = 1.5							
Total Depth (ft): 39.50	80% Recharge Depth (ft):							
Depth to Product (ft):	1 Well Volume (gallons): $1.5 \times 3 = 4.5$							
Comments:								

Field Measurements and Observations								
Time	Depth to Water	Purge Volume	Conductivity	Temperature	pH	Turbidity	Color	Odor
		1.5	756	21.0	7.22	None	clear	no odor
		3.0	747	20.5	7.17	↓	↓	↓
		4.5	751	20.5	7.06	↓	↓	↓
Total Purge Volume: 4.5			Comments:					

Groundwater Sampling Information									
Sample ID:	MW-9A	Sample Time:	1:30						
Sample Containers (#/Type):	(5) VOA (1) Amber								
Comments:									



Groundwater Sampling Field Log

Site Address: 160 Holmes	Date: 8/30
Project Number: 160	Field Personnel: SB
Monitoring Well Information	
Monitoring Well ID: MW-9B	Monitoring Well Diameter (in): 2" CC
Depth to Water (ft): 29.82	Water Column (feet): 21.18 (.17) = 3.5
Total Depth (ft): 51.00	80% Recharge Depth (ft):
Depth to Product (ft):	1 Well Volume (gallons): $3.5 \times 3 = 10.5$
Comments:	

Field Measurements and Observations								
Time	Depth to Water	Purge Volume	Conductivity	Temperature	pH	Turbidity	Color	Odor
	3.5	983	20.7	6.66	low	light brown	none	
	4.0	1041	20.3	6.79	↑	↓	↓	↓
	10.5	1074	20.3	6.69	✓	↓	↓	↓
Total Purge Volume:	10.5							

Groundwater Sampling Information	
Sample ID:	MW-9B
Sample Containers (#/Type):	(5) VOA (1) Amber
Comments:	

Groundwater Sampling Field Log								
Site Address: 160 Holmes		Date: 8-29						
Project Number: 160		Field Personnel: SB						
Monitoring Well Information								
Monitoring Well ID: EW-1		Monitoring Well Diameter (in): 4" CC						
Depth to Water (ft): 29.90'		Water Column (feet): 9.1 (.66) = 6						
Total Depth (ft): 39.00		80% Recharge Depth (ft):						
Depth to Product (ft):		1 Well Volume (gallons): $6 \times 3 = 18$						
Comments:								
Field Measurements and Observations								
Time	Depth to Water	Purge Volume	Conductivity	Temperature	pH	Turbidity	Color	Odor
	6	806	20.3	6.90	light	light brown	slight	
	12	841	20.2	6.92	↑	↓	↓	
	18	849	19.8	6.92	↓	↓	↓	
Total Purge Volume:	18							
Groundwater Sampling Information								
Sample ID:	EW-1	Sample Time: 12:00						
Sample Containers (#/Type):	(8) VOA (2) VOA EXTRA HCL (1) Amber UP (1) Amber HCl (1) 225 ml HNO3 (4) 225 ml Unpreserved Poly							
Comments:								



Groundwater Sampling Field Log

Site Address: 160 Holmes	Date:
Project Number: 160	Field Personnel:
Monitoring Well Information	
Monitoring Well ID: EW-2	Monitoring Well Diameter (in): 4" <u>CC</u>
Depth to Water (ft):	Water Column (feet): (.66) =
Total Depth (ft): 37.00	80% Recharge Depth (ft):
Depth to Product (ft):	1 Well Volume (gallons):
Comments:	

Field Measurements and Observations

Time	Depth to Water	Purge Volume	Conductivity	Temperature	pH	Turbidity	Color	Odor

Total Purge Volume: Comments: NOT SAMPLED

Groundwater Sampling Information

Sample ID:	EW-2	Sample Time:
Sample Containers (#/Type):	(5) VOA (1) Amber	
Comments:		

Groundwater Sampling Field Log

Site Address: 160 Holmes	Date: 8/30
Project Number: 160	Field Personnel: JB
Monitoring Well Information	
Monitoring Well ID: EW-3	Monitoring Well Diameter (in): 4" <u>CC</u>
Depth to Water (ft): 28.87	Water Column (feet): 5.13 (.66) = 3.4
Total Depth (ft): 34.00	80% Recharge Depth (ft):
Depth to Product (ft):	1 Well Volume (gallons): $3.4 \times 3 = 10.2$
Comments:	

Field Measurements and Observations

Time	Depth to Water	Purge Volume	Conductivity	Temperature	pH	Turbidity	Color	Odor
	3.4	3420	19.8	7.15	None	1/1 brown	Strong	
	6.8							
	10.2							

Total Purge Volume: Comments: Only 1 purge slow recharge

Groundwater Sampling Information

Sample ID:	EW-3	Sample Time: 11:00
Sample Containers (#/Type):	(8) VOA (2) VOA EXTRA HCL (1) Amber UP (1) Amber HCl (1) 225 ml HNO3 (4) 225 ml Unpreserved Poly	
Comments:		

APPENDIX C
Certified Analytical Report and Chain-of-Custody



Analytical Report

Allterra Environmental 849 Almar Ave, Ste. C #281 Santa Cruz, CA 95060	Client Project ID: #160; 160 Holmes	Date Sampled: 08/28/12-08/30/12
		Date Received: 08/30/12
	Client Contact: James Allen	Date Reported: 09/07/12
	Client P.O.:	Date Completed: 09/07/12

WorkOrder: 1208788

September 07, 2012

Dear James:

Enclosed within are:

- 1) The results of the 12 analyzed samples from your project: **#160; 160 Holmes**,
- 2) QC data for the above samples, and
- 3) A copy of the chain of custody.

All analyses were completed satisfactorily and all QC samples were found to be within our control limits.

If you have any questions or concerns, please feel free to give me a call. Thank you for choosing
McCampbell Analytical Laboratories for your analytical needs.

Best regards,

Angela Rydelius
Laboratory Manager
McCampbell Analytical, Inc.

The analytical results relate only to the items tested.

ALLTERRA

849 Almar Avenue, Suite C, #281

Santa Cruz, California 95060

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1205788

Chain of Custody Record

 Turn Around Time (circle one) RUSH 24HR 48HR 72HR **5 Day**

Field Point Name / Sample ID	Sample Collection		Sample Containers		Matrix		Preservation		TPHg/ BTEX/ MTBE (EPA 8015/8021)	TPHd (EPA 8015)	S-fuel oxy (EPA 8260)	Lead Scavengers (8260)	Dissolved Oxygen	Carbon Dioxide	Methane	Total Dissolved Solids	Arsenic, Total Chromium, Total iron, Manganese, Sodium	Hexachrome	Ferrous Iron	Alkalinity	Sulfate	EDF required
	Date	Time	Number of Containers	Container Type	Air	Water	Soil	Sludge	Other	Ice	HCl	HNO ₃	Other									
MW-1A			17	(49) VARIOUS	x					x	x	x		x	x	x	x	x	x	x	x	x
MW-1B	8/28	3:06	17	(49) VARIOUS	x					x	x	x		x	x	x	x	x	x	x	x	x
MW-7A			17	(49) VARIOUS	x					x	x	x		x	x	x	x	x	x	x	x	x
MW-7B	8/29	3:06	17	(49) VARIOUS	x					x	x	x		x	x	x	x	x	x	x	x	x
EW-1	8/29	12:00	17	(49) VARIOUS	x					x	x	x		x	x	x	x	x	x	x	x	x
EW-3	8/30	11:00	17	(49) VARIOUS	x					x	x	x		x	x	x	x	x	x	x	x	x
MW-9A	8/30	1:36	6	(5) VOA (1) AMBER	x					x	x			x	x	x						x
MW-9B	8/30	1:00	6	(5) VOA (1) AMBER	x					x	x			x	x	x						x
MW-7C	8/30	12:06	6	(5) VOA (1) AMBER	x					x	x			x	x	x						x
MW-8A	8/29	4:00	5	VOA	x					x	x			x		x						x
MW-8B	8/30	2:36	5	VOA	x					x	x			x		x						x
MW-5A	8/29	2:30	5	VOA	x					x	x			x		x						x
MW-5B	8/29	1:45	5	VOA	x					x	x			x		x						x
MW-6	8/29	1:00	5	VOA	x					x	x			x		x						x
Sampled By:	Joseph Bryan	Date: 8/30	Time: 1545	Received By:	<i>Bry</i>		Comments: ICE/ 0.8 GOOD CONDITION _____ HEAD SPACE ABSENT _____ DECHLORINATED IN LAB _____ PRESERVATION _____ VOAS O&G METALS OTHER															
Received By:	<i>Bry</i>	Date: 8/30	Time: 1039	Received By:																		
Received By:		Date:	Time:	Received By:																		

 *set up what was possible
with voads

 * We will contact you about samples to
analyze

CHAIN-OF-CUSTODY RECORD

Page 1 of 1

 WaterTrax WriteOn EDF Excel EQuIS Email HardCopy ThirdParty J-flag

Report to:

James Allen
Allterra Environmental
849 Almar Ave, Ste. C #281
Santa Cruz, CA 95060
831-425-2608 FAX: 831-425-2609

Email: allterraenvironmental@yahoo.com; micah
cc:
PO:
ProjectNo: #160; 160 Holmes

Bill to:

Accounts Payable
Allterra Environmental
849 Almar Ave, Ste. C #281
Santa Cruz, CA 95060
micah@allterraenv.com

Requested TAT:

5 days**Date Received:** 08/30/2012**Date Printed:** 08/30/2012

Lab ID	Client ID	Matrix	Collection Date	Hold	Requested Tests (See legend below)											
					1	2	3	4	5	6	7	8	9	10	11	12
1208788-001	MW-1B	Water	8/28/2012 15:00	<input type="checkbox"/>	E	F		B	G	I	K	D	A	I	C	H
1208788-002	MW-7B	Water	8/29/2012 15:00	<input type="checkbox"/>	E	F		B	G	I	K	D	A	I	C	H
1208788-003	EW-1	Water	8/29/2012 12:00	<input type="checkbox"/>	E	F		B	G	I	K	D	A	I	C	H
1208788-004	EW-3	Water	8/29/2012 11:00	<input type="checkbox"/>				B				D	A		C	
1208788-005	MW-9A	Water	8/30/2012 13:30	<input type="checkbox"/>				B					A			
1208788-006	MW-9B	Water	8/30/2012 13:00	<input type="checkbox"/>				B					A			
1208788-007	MW-7C	Water	8/30/2012 12:00	<input type="checkbox"/>				B					A			
1208788-008	MW-8A	Water	8/29/2012 16:00	<input type="checkbox"/>			B						A			
1208788-009	MW-8B	Water	8/30/2012 14:30	<input type="checkbox"/>			B						A			
1208788-010	MW-5A	Water	8/29/2012 14:30	<input type="checkbox"/>			B						A			
1208788-011	MW-5B	Water	8/29/2012 13:45	<input type="checkbox"/>			B						A			
1208788-012	MW-6	Water	8/29/2012 13:00	<input type="checkbox"/>			B						A			

Test Legend:

1	218_6_W	2	300_1_W	3	5-OXYS_W	4	5-OXYS+PBSCV_W	5	Alka(spe)_W
6	ALKIMET_W	7	DO_W	8	FE2_W	9	G-MBTEX_W	10	METALSMS_W
11	RSK174_W	12	TDS_W						

Prepared by: Zoraida Cortez**Comments:**

NOTE: Soil samples are discarded 60 days after results are reported unless other arrangements are made (Water samples are 30 days).
Hazardous samples will be returned to client or disposed of at client expense.

CHAIN-OF-CUSTODY RECORD

Page 1 of 1

 WaterTrax WriteOn EDF Excel EQuIS Email HardCopy ThirdParty J-flag

Report to:

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Allterra Environmental
849 Almar Ave, Ste. C #281
Santa Cruz, CA 95060
831-425-2608 FAX: 831-425-2609

Email: allterraenvironmental@yahoo.com; micah
cc:
PO:
ProjectNo: #160; 160 Holmes

Bill to:

Accounts Payable
Allterra Environmental
849 Almar Ave, Ste. C #281
Santa Cruz, CA 95060
micah@allterraenv.com

Requested TAT: 5 days

Date Received: 08/30/2012

Date Printed: 08/30/2012

Lab ID	Client ID	Matrix	Collection Date	Hold	Requested Tests (See legend below)											
					13	14	15	16	17	18	19	20	21	22	23	24
1208788-001	MW-1B	Water	8/28/2012 15:00	<input type="checkbox"/>	J											
1208788-002	MW-7B	Water	8/29/2012 15:00	<input type="checkbox"/>	J											
1208788-003	EW-1	Water	8/29/2012 12:00	<input type="checkbox"/>	J											
1208788-004	EW-3	Water	8/29/2012 11:00	<input type="checkbox"/>	E											
1208788-005	MW-9A	Water	8/30/2012 13:30	<input type="checkbox"/>	C											
1208788-006	MW-9B	Water	8/30/2012 13:00	<input type="checkbox"/>	C											
1208788-007	MW-7C	Water	8/30/2012 12:00	<input type="checkbox"/>	C											
1208788-008	MW-8A	Water	8/29/2012 16:00	<input type="checkbox"/>												
1208788-009	MW-8B	Water	8/30/2012 14:30	<input type="checkbox"/>												
1208788-010	MW-5A	Water	8/29/2012 14:30	<input type="checkbox"/>												
1208788-011	MW-5B	Water	8/29/2012 13:45	<input type="checkbox"/>												
1208788-012	MW-6	Water	8/29/2012 13:00	<input type="checkbox"/>												

Test Legend:

13	TPH(D)_W
18	
23	

14	
19	
24	

15	
20	

16	
21	

17	
22	

Prepared by: Zoraida Cortez

Comments:

NOTE: Soil samples are discarded 60 days after results are reported unless other arrangements are made (Water samples are 30 days).
Hazardous samples will be returned to client or disposed of at client expense.



Sample Receipt Checklist

Client Name: **Allterra Environmental**

Date and Time Received: **8/30/2012 8:04:08 PM**

Project Name: **#160; 160 Holmes**

Login Reviewed by: **Zoraida Cortez**

WorkOrder N°: **1208788**

Matrix: Water

Carrier: Benjamin Yslas (MAI Courier)

Chain of Custody (COC) Information

- | | | |
|---|---|-----------------------------|
| Chain of custody present? | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> |
| Chain of custody signed when relinquished and received? | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> |
| Chain of custody agrees with sample labels? | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> |
| Sample IDs noted by Client on COC? | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> |
| Date and Time of collection noted by Client on COC? | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> |
| Sampler's name noted on COC? | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> |

Sample Receipt Information

- | | | | |
|--|---|-----------------------------|--|
| Custody seals intact on shipping container/cooler? | Yes <input type="checkbox"/> | No <input type="checkbox"/> | NA <input checked="" type="checkbox"/> |
| Shipping container/cooler in good condition? | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> | |
| Samples in proper containers/bottles? | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> | |
| Sample containers intact? | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> | |
| Sufficient sample volume for indicated test? | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> | |

Sample Preservation and Hold Time (HT) Information

- | | | | |
|---|--|--|---|
| All samples received within holding time? | Yes <input type="checkbox"/> | No <input checked="" type="checkbox"/> | |
| Container/Temp Blank temperature | Cooler Temp: 0.8°C NA <input type="checkbox"/> | | |
| Water - VOA vials have zero headspace / no bubbles? | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> | No VOA vials submitted <input type="checkbox"/> |
| Sample labels checked for correct preservation? | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> | |
| Metal - pH acceptable upon receipt (pH<2)? | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> | NA <input type="checkbox"/> |
| Samples Received on Ice? | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> | |

(Ice Type: WET ICE)

* NOTE: If the "No" box is checked, see comments below.

Comments: Ferrous Iron received out of hold time for MW-1B. DO and Hexachrome was received out of hold time for MW-1B, MW-7B and EW-1.



McCampbell Analytical, Inc.
"When Quality Counts"

1534 Willow Pass Road, Pittsburg, CA 94565-1701
Toll Free Telephone: (877) 252-9262 / Fax: (925) 252-9269
<http://www.mccampbell.com> / E-mail: main@mccampbell.com

Allterra Environmental 849 Almar Ave, Ste. C #281 Santa Cruz, CA 95060	Client Project ID: #160; 160 Holmes	Date Sampled: 08/28/12-08/29/12
		Date Received: 08/30/12
	Client Contact: James Allen	Date Extracted: 08/31/12
	Client P.O.:	Date Analyzed: 08/31/12

Hexachrome by IC*

Analytical Method: E218.6

Work Order: 1208788

Reporting Limit for DF = 1; ND means not detected at or above the reporting limit	W	0.2 µg/L	
	S	NA	

* water samples are reported in $\mu\text{g/L}$.

N/A means surrogate not applicable to this analysis; # means surrogate diluted out of range or surrogate coelutes with another peak.

%SS = Percent Recovery of Surrogate Standard
DF = Dilution Factor



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Allterra Environmental 849 Almar Ave, Ste. C #281 Santa Cruz, CA 95060	Client Project ID: #160; 160 Holmes	Date Sampled: 08/29/12-08/30/12
		Date Received: 08/30/12
	Client Contact: James Allen	Date Extracted: 09/05/12
	Client P.O.:	Date Analyzed: 09/05/12

Oxygenated Volatile Organics by P&T and GC/MS*

Extraction Method: SW5030B

Analytical Method: SW8260B

Work Order: 1208788

Lab ID	1208788-008B	1208788-009B	1208788-010B	1208788-011B	Reporting Limit for DF = 1	
Client ID	MW-8A	MW-8B	MW-5A	MW-5B		
Matrix	W	W	W	W		
DF	1	1	1	1		
Compound	Concentration				ug/kg	μg/L
tert-Amyl methyl ether (TAME)	ND	ND	ND	ND	NA	0.5
t-Butyl alcohol (TBA)	ND	ND	ND	ND	NA	2.0
Diisopropyl ether (DIPE)	ND	ND	ND	ND	NA	0.5
Ethyl tert-butyl ether (ETBE)	ND	ND	ND	ND	NA	0.5
Methyl-t-butyl ether (MTBE)	3.0	ND	ND	ND	NA	0.5
Surrogate Recoveries (%)						
%SS1:	95	95	109	108		
Comments	b1					

* water and vapor samples are reported in μg/L, soil/sludge/solid samples in mg/kg, product/oil/non-aqueous liquid samples and all TCLP & SPLP extracts are reported in mg/L, wipe samples in μg/wipe.

ND means not detected above the reporting limit/method detection limit; N/A means analyte not applicable to this analysis; %SS = Percent Recovery of Surrogate Standard; DF = Dilution Factor

surrogate diluted out of range or surrogate coelutes with another peak.

b1) aqueous sample that contains greater than ~1 vol. % sediment



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		Date Received: 08/30/12
	Client Contact: James Allen	Date Extracted: 09/05/12
	Client P.O.:	Date Analyzed: 09/05/12

Oxygenated Volatile Organics by P&T and GC/MS*

Extraction Method: SW5030B

Analytical Method: SW8260B

Work Order: 1208788

Lab ID	1208788-012B				Reporting Limit for DF =1
Client ID	MW-6				
Matrix	W				
DF	1				S W
Compound	Concentration				ug/kg µg/L
tert-Amyl methyl ether (TAME)	ND				NA 0.5
t-Butyl alcohol (TBA)	ND				NA 2.0
Diisopropyl ether (DIPE)	ND				NA 0.5
Ethyl tert-butyl ether (ETBE)	ND				NA 0.5
Methyl-t-butyl ether (MTBE)	ND				NA 0.5
Surrogate Recoveries (%)					
%SS1:	108				
Comments					

* water and vapor samples are reported in µg/L, soil/sludge/solid samples in mg/kg, product/oil/non-aqueous liquid samples and all TCLP & SPLP extracts are reported in mg/L, wipe samples in µg/wipe.

ND means not detected above the reporting limit/method detection limit; N/A means analyte not applicable to this analysis; %SS = Percent Recovery of Surrogate Standard; DF = Dilution Factor

surrogate diluted out of range or surrogate coelutes with another peak.

b1) aqueous sample that contains greater than ~1 vol. % sediment



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Allterra Environmental 849 Almar Ave, Ste. C #281 Santa Cruz, CA 95060	Client Project ID: #160; 160 Holmes	Date Sampled: 08/28/12-08/30/12
		Date Received: 08/30/12
	Client Contact: James Allen	Date Extracted: 09/04/12-09/06/12
	Client P.O.:	Date Analyzed: 09/04/12-09/06/12

Oxygenated Volatile Organics + EDB and 1,2-DCA by P&T and GC/MS*

Extraction Method: SW5030B

Analytical Method: SW8260B

Work Order: 1208788

Lab ID	1208788-001B	1208788-002B	1208788-003B	1208788-004B	Reporting Limit for DF =1	
Client ID	MW-1B	MW-7B	EW-1	EW-3		
Matrix	W	W	W	W	S	W
DF	1	25	100	1000		

Compound	Concentration				ug/kg	μg/L
tert-Amyl methyl ether (TAME)	ND	ND<12	ND<50	ND<500	NA	0.5
Benzene	ND	ND<12	ND<50	ND<500	NA	0.5
t-Butyl alcohol (TBA)	ND	2000	8100	82,000	NA	2.0
Chlorobenzene	ND	ND<12	ND<50	ND<500	NA	0.5
1,2-Dibromoethane (EDB)	ND	ND<12	ND<50	ND<500	NA	0.5
1,2-Dichloroethane (1,2-DCA)	ND	ND<12	ND<50	ND<500	NA	0.5
Diisopropyl ether (DIPE)	ND	ND<12	ND<50	ND<500	NA	0.5
Ethyl tert-butyl ether (ETBE)	ND	ND<12	ND<50	ND<500	NA	0.5
Methyl-t-butyl ether (MTBE)	ND	ND<12	ND<50	3900	NA	0.5
Toluene	ND	ND<12	ND<50	ND<500	NA	0.5
Trichloroethene	ND	ND<12	ND<50	ND<500	NA	0.5
Xylenes, Total	ND	ND<12	ND<50	ND<500	NA	0.5

Surrogate Recoveries (%)

%SS1:	92	109	112	110	
Comments					

* water and vapor samples are reported in μg/L, soil/sludge/solid samples in mg/kg, product/oil/non-aqueous liquid samples and all TCLP & SPLP extracts are reported in mg/L, wipe samples in μg/wipe.

ND means not detected above the reporting limit/method detection limit; N/A means analyte not applicable to this analysis; %SS = Percent Recovery of Surrogate Standard; DF = Dilution Factor

surrogate diluted out of range or coelutes with another peak; &) low surrogate due to matrix interference.



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		Date Received: 08/30/12
	Client Contact: James Allen	Date Extracted: 09/04/12-09/06/12
	Client P.O.:	Date Analyzed: 09/04/12-09/06/12

Oxygenated Volatile Organics + EDB and 1,2-DCA by P&T and GC/MS*

Extraction Method: SW5030B

Analytical Method: SW8260B

Work Order: 1208788

Lab ID	1208788-005B	1208788-006B	1208788-007B		Reporting Limit for DF =1
Client ID	MW-9A	MW-9B	MW-7C		
Matrix	W	W	W		
DF	1	1	1		

Compound	Concentration			ug/kg	µg/L
tert-Amyl methyl ether (TAME)	ND	ND	ND	NA	0.5
Benzene	ND	ND	ND	NA	0.5
t-Butyl alcohol (TBA)	ND	ND	ND	NA	2.0
Chlorobenzene	ND	ND	ND	NA	0.5
1,2-Dibromoethane (EDB)	ND	ND	ND	NA	0.5
1,2-Dichloroethane (1,2-DCA)	ND	ND	ND	NA	0.5
Diisopropyl ether (DIPE)	ND	ND	ND	NA	0.5
Ethyl tert-butyl ether (ETBE)	ND	ND	ND	NA	0.5
Methyl-t-butyl ether (MTBE)	ND	0.55	ND	NA	0.5
Toluene	ND	ND	ND	NA	0.5
Trichloroethene	ND	ND	ND	NA	0.5
Xylenes, Total	ND	ND	ND	NA	0.5

Surrogate Recoveries (%)

%SS1:	95	94	92		
Comments					

* water and vapor samples are reported in µg/L, soil/sludge/solid samples in mg/kg, product/oil/non-aqueous liquid samples and all TCLP & SPLP extracts are reported in mg/L, wipe samples in µg/wipe.

ND means not detected above the reporting limit/method detection limit; N/A means analyte not applicable to this analysis; %SS = Percent Recovery of Surrogate Standard; DF = Dilution Factor

surrogate diluted out of range or coelutes with another peak; &) low surrogate due to matrix interference.



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Allterra Environmental 849 Almar Ave, Ste. C #281 Santa Cruz, CA 95060	Client Project ID: #160; 160 Holmes	Date Sampled:	08/28/12-08/29/12
		Date Received:	08/30/12
	Client Contact: James Allen	Date Extracted:	08/31/12
	Client P.O.:	Date Analyzed:	08/31/12

Total & Speciated Alkalinity as Calcium Carbonate*

Extraction method: SM2320B

Analytical methods: SM2320B

Work Order: 1208788

Reporting Limit for DF=1; ND means not detected at or above the reporting limit	W	1.0	1.0	1.0	1.0	mg CaCO ₃ /L
	S	NA	NA	NA	NA	mg/Kg

*water samples are reported in mg calcium carbonate/L. Hydroxide, Carbonate & Bicarbonate alkalinity measure @ end-point of pH = 8.3 & 4.5 per SM2320B.

| DF = Dilution Factor

DHS ELAP Certification 1644

 Angela Rydelius, Lab Manager



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		Date Received:	08/30/12
	Client Contact: James Allen	Date Extracted:	08/30/12
	Client P.O.:	Date Analyzed:	08/31/12

Alkali Metals by ICP*

Extraction method: E200 7

Analytical methods: E200 7

Work Order: 1208788

Reporting Limit for DF = 1; ND means not detected at or above the reporting limit	W	TOTAL	20	20	500	µg/L
	S	TOTAL	NA	NA	NA	NA

*water samples are reported in ug/L, product/oil/non-aqueous liquid samples and all TCLP / STLC / DISTLC / SPLP extracts are reported in mg/L, soil/sludge/solid samples in mg/kg, wipe samples in ug/wipe, filter samples in ug/filter.

means surrogate recovery outside of acceptance range due to matrix interference; & means low or no surrogate due to matrix interference; ND means not detected above the reporting limit/method detection limit; N/A means not applicable to this sample or instrument; %SS = Percent Recovery of Surrogate Standard; DF = Dilution Factor.

TOTAL = Hot acid digestion of a representative sample aliquot.

TRM = Total recoverable metals is the "direct analysis" of a sample aliquot taken from its acid-preserved container.

TRM = Total recoverable metals is the "direct analysis" of a sample aliquot taken from the acidified sample.

DHS E-LAP Certification 1644

 Angela Rydelius, Lab Manager



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	Client Contact: James Allen	Date Extracted: 08/30/12
	Client P.O.:	Date Analyzed: 08/30/12

Dissolved Oxygen

Analytical Method: SM4500OG

Work Order: 1208788

Reporting Limit for DF = 1; ND means not detected at or above the reporting limit	W	1.0 mg DO/L @ °C	
	S	NA	

DF = Dilution Factor

 Angela Rydelius, Lab Manager



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Allterra Environmental 849 Almar Ave, Ste. C #281 Santa Cruz, CA 95060	Client Project ID: #160; 160 Holmes	Date Sampled: 08/28/12-08/29/12
		Date Received: 08/30/12
	Client Contact: James Allen	Date Extracted: 08/30/12
	Client P.O.:	Date Analyzed: 08/30/12

Ferrous Iron*

Analytical Method: SM3500-Fe B4c

Work Order: 1208788

Reporting Limit for DF = 1; ND means not detected at or above the reporting limit	W	50 µg/L	
	S	NA	

*water samples are reported in ug/L; soil samples are reported in mg/kg.

DF = Dilution Factor



Allterra Environmental 849 Almar Ave, Ste. C #281 Santa Cruz, CA 95060	Client Project ID: #160; 160 Holmes	Date Sampled:	08/28/12-08/30/12
		Date Received:	08/30/12
	Client Contact: James Allen	Date Extracted:	08/31/12-09/04/12
	Client P.O.:	Date Analyzed:	08/31/12-09/04/12

Gasoline Range (C6-C12) Volatile Hydrocarbons as Gasoline with BTEX and MTBE*

Extraction method: SW5030B

Analytical methods: SW8021B/8015Bm

Work Order: 1208788

Lab ID	Client ID	Matrix	TPH(g)	MTBE	Benzene	Toluene	Ethylbenzene	Xylenes	DF	% SS	Comments
001A	MW-1B	W	ND	ND	ND	ND	ND	ND	1	104	
002A	MW-7B	W	ND	ND	ND	0.73	ND	ND	1	87	
003A	EW-1	W	ND	ND	ND	0.62	ND	ND	1	90	
004A	EW-3	W	430	3900	ND<1.7	ND<1.7	5.7	20	3.3	90	d1
005A	MW-9A	W	ND	ND	ND	ND	ND	ND	1	102	
006A	MW-9B	W	ND	ND	ND	ND	ND	ND	1	110	
007A	MW-7C	W	ND	ND	ND	ND	ND	ND	1	106	
008A	MW-8A	W	ND	ND	ND	ND	ND	ND	1	106	b1
009A	MW-8B	W	ND	ND	ND	ND	ND	ND	1	105	
010A	MW-5A	W	ND	ND	ND	ND	ND	ND	1	106	
011A	MW-5B	W	ND	ND	ND	ND	ND	ND	1	107	
012A	MW-6	W	ND	ND	ND	ND	ND	ND	1	107	

Reporting Limit for DF = 1; ND means not detected at or above the reporting limit	W	50	5.0	0.5	0.5	0.5	0.5		µg/L
	S	1.0	0.05	0.005	0.005	0.005	0.005		mg/Kg

* water and vapor samples are reported in µg/L, soil/sludge/solid samples in mg/kg, wipe samples in µg/wipe, product/oil/non-aqueous liquid samples and all TCLP & SPLP extracts in mg/L.

cluttered chromatogram; sample peak coelutes w/surrogate peak; low surrogate recovery due to matrix interference. %SS = Percent Recovery of Surrogate Standard; DF = Dilution Factor

The following descriptions of the TPH chromatogram are cursory in nature and McCampbell Analytical is not responsible for their interpretation:

b1) aqueous sample that contains greater than ~1 vol. % sediment

d1) weakly modified or unmodified gasoline is significant



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1534 Willow Pass Road, Pittsburg, CA 94565-1701
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<http://www.mccampbell.com> / E-mail: main@mccampbell.com

Allterra Environmental 849 Almar Ave, Ste. C #281 Santa Cruz, CA 95060	Client Project ID: #160; 160 Holmes	Date Sampled:	08/28/12-08/29/12
		Date Received:	08/30/12
	Client Contact: James Allen	Date Extracted:	08/30/12
	Client P.O.:	Date Analyzed:	08/31/12-09/01/12

Metals*

Extraction method: E200 8

Analytical methods: E200 8

Work Order: 1208788

Reporting Limit for DF =1; ND means not detected at or above the reporting limit	W	TOTAL	0.5	0.5	µg/L
	S	TOTAL	NA	NA	NA

*water samples are reported in µg/L, product/oil/non-aqueous liquid samples and all TCLP / WET / DI WET / SPLP extracts are reported in mg/L, soil/sludge/solid samples in mg/kg, wine samples in µg/wine, filter samples in µg/filter

means surrogate diluted out of range; ND means not detected above the reporting limit/method detection limit; N/A means not applicable to this sample or instrument

TOTAL = Hot acid digestion of a representative sample aliquot

TOTAL = Hot acid digestion of a representative sample aliquot.

TRM = Total recoverable metals is the direct analysis of a sample aliquot taken from DISS = Dissolved metals by direct analysis of 0.45 μm filtered and acidified sample.

% SS = Percent Recovery of Surrogate Standard

%SS = Percent Recovery
DF = Dilution Factor

DHS ELAP Certification 1644

 Angela Rydelius, Lab Manager



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Allterra Environmental 849 Almar Ave, Ste. C #281 Santa Cruz, CA 95060	Client Project ID: #160; 160 Holmes	Date Sampled: 08/28/12-08/29/12
		Date Received: 08/30/12
	Client Contact: James Allen	Date Extracted: 09/06/12
	Client P.O.:	Date Analyzed: 09/06/12

Light Gases*

Extraction method: RSK 174/175

Analytical methods: RSK174/175

Work Order: 1208788

Reporting Limit for DF =1; ND means not detected at or above the reporting limit	W	psia	psia		0.1	µg/L
	S	psia	psia		NA	NA

* water samples are reported in $\mu\text{g/L}$.

%SS = Percent Recovery of Surrogate Standard

N/A = Not applicable to this analysis

DF = Dilution Factor



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Allterra Environmental 849 Almar Ave, Ste. C #281 Santa Cruz, CA 95060	Client Project ID: #160; 160 Holmes	Date Sampled: 08/28/12-08/29/12
		Date Received: 08/30/12
	Client Contact: James Allen	Date Extracted: 09/04/12
	Client P.O.:	Date Analyzed: 09/05/12

Total Dissolved Solids*

Analytical Method: SM2540C

Work Order: 1208788

Reporting Limit for DF = 1; ND means not detected at or above the reporting limit	W	10 mg/L	
	S	NA	

* water samples reported in mg/L.

| DF = Dilution Factor



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Allterra Environmental 849 Almar Ave, Ste. C #281 Santa Cruz, CA 95060	Client Project ID: #160; 160 Holmes	Date Sampled: 08/28/12-08/30/12
		Date Received: 08/30/12
	Client Contact: James Allen	Date Extracted 08/30/12

Total Extractable Petroleum Hydrocarbons*

Extraction method: SW3510C

Analytical methods: SW8015B

Work Order: 1208788

Lab ID	Client ID	Matrix	TPH-Diesel (C10-C23)	DF	% SS	Comments
1208788-001J	MW-1B	W	ND	1	95	
1208788-002J	MW-7B	W	ND	1	97	
1208788-003J	EW-1	W	ND	1	96	
1208788-004E	EW-3	W	580	1	98	e11/e4
1208788-005C	MW-9A	W	ND	1	97	
1208788-006C	MW-9B	W	ND	1	96	
1208788-007C	MW-7C	W	ND	1	97	

Reporting Limit for DF =1; ND means not detected at or above the reporting limit	W	50	µg/L
	S	NA	NA

* water samples are reported in µg/L, wipe samples in µg/wipe, soil/solid/sludge samples in mg/kg, product/oil/non-aqueous liquid samples in mg/L, and all DISTLC / STLC / SPLP / TCLP extracts are reported in µg/L.

cluttered chromatogram resulting in coeluted surrogate and sample peaks, or; surrogate peak is on elevated baseline, or; surrogate has been diminished by dilution of original extract.

%SS = Percent Recovery of Surrogate Standard. DF = Dilution Factor

The following descriptions of the TPH chromatogram are cursory in nature and McCampbell Analytical is not responsible for their interpretation:
 e11) stoddard solvent/mineral spirit (?); and/or e4) gasoline range compounds are significant.

DHS ELAP Certification 1644

 Angela Rydelius, Lab Manager



QC SUMMARY REPORT FOR E218.6

W.O. Sample Matrix: Water

QC Matrix: Water

BatchID: 70361

WorkOrder: 1208788

EPA Method: E218.6		Extraction: E218.6		Spiked Sample ID: 1208746-011C						
Analyte	Sample	Spiked	MS	MSD	MS-MSD	LCS	Acceptance Criteria (%)			
	µg/L	µg/L	% Rec.	% Rec.	% RPD	% Rec.	MS / MSD	RPD	LCS	
Hexachrome	170	25	NR	NR	NR	100	N/A	N/A	90 - 110	

All target compounds in the Method Blank of this extraction batch were ND less than the method RL with the following exceptions:
NONE

BATCH 70361 SUMMARY

Lab ID	Date Sampled	Date Extracted	Date Analyzed	Lab ID	Date Sampled	Date Extracted	Date Analyzed
1208788-001E	08/28/12 3:00 PM	08/31/12	08/31/12 8:19 PM	1208788-002E	08/29/12 3:00 PM	08/31/12	08/31/12 8:38 PM
1208788-003E	08/29/12 12:00 PM	08/31/12	08/31/12 8:56 PM				

MS = Matrix Spike; MSD = Matrix Spike Duplicate; LCS = Laboratory Control Sample; LCSD = Laboratory Control Sample Duplicate; RPD = Relative Percent Deviation.

% Recovery = $100 * (\text{MS-Sample}) / (\text{Amount Spiked})$; RPD = $100 * (\text{MS} - \text{MSD}) / ((\text{MS} + \text{MSD}) / 2)$.

MS / MSD spike recoveries and / or %RPD may fall outside of laboratory acceptance criteria due to one or more of the following reasons: a) the sample is inhomogenous AND contains significant concentrations of analyte relative to the amount spiked, or b) the spiked sample's matrix interferes with the spike recovery.

N/A = not enough sample to perform matrix spike and matrix spike duplicate.

NR = analyte concentration in sample exceeds spike amount for soil matrix or exceeds 2x spike amount for water matrix or sample diluted due to high matrix or analyte content.

DHS ELAP Certification 1644

 QA/QC Officer



QC SUMMARY REPORT FOR E300.1

W.O. Sample Matrix: Water

QC Matrix: Water

BatchID: 70399

WorkOrder: 1208788

EPA Method: E300.1		Extraction: E300.1		Spiked Sample ID: 1208788-003F					
Analyte	Sample	Spiked	MS	MSD	MS-MSD	LCS	Acceptance Criteria (%)		
	mg/L	mg/L	% Rec.	% Rec.	% RPD	% Rec.	MS / MSD	RPD	LCS
Sulfate	36	1	NR	NR	NR	89.4	N/A	N/A	85 - 115
%SS:	---#	0.10	NR	NR	NR	103	N/A	N/A	90 - 115

All target compounds in the Method Blank of this extraction batch were ND less than the method RL with the following exceptions:
NONE

BATCH 70399 SUMMARY

Lab ID	Date Sampled	Date Extracted	Date Analyzed	Lab ID	Date Sampled	Date Extracted	Date Analyzed
1208788-001F	08/28/12 3:00 PM	08/31/12	08/31/12 3:57 PM	1208788-002F	08/29/12 3:00 PM	08/31/12	08/31/12 4:41 PM
1208788-003F	08/29/12 12:00 PM	08/31/12	08/31/12 5:24 PM				

MS = Matrix Spike; MSD = Matrix Spike Duplicate; LCS = Laboratory Control Sample; LCSD = Laboratory Control Sample Duplicate; RPD = Relative Percent Deviation.

% Recovery = $100 * (\text{MS-Sample}) / (\text{Amount Spiked})$; RPD = $100 * (\text{MS} - \text{MSD}) / ((\text{MS} + \text{MSD}) / 2)$.

MS / MSD spike recoveries and / or %RPD may fall outside of laboratory acceptance criteria due to one or more of the following reasons: a) the sample is inhomogenous AND contains significant concentrations of analyte relative to the amount spiked, or b) the spiked sample's matrix interferes with the spike recovery.

N/A = not applicable to this method.

surrogate diluted out of range or surrogate coelutes with another peak.

NR = analyte concentration in sample exceeds spike amount for soil matrix or exceeds 2x spike amount for water matrix or sample diluted due to high matrix or analyte content.



QC SUMMARY REPORT FOR SW8260B

W.O. Sample Matrix: Water

QC Matrix: Water

BatchID: 70388

WorkOrder: 1208788

EPA Method: SW8260B		Extraction: SW5030B		Spiked Sample ID: 1208788-007B					
Analyte	Sample	Spiked	MS	MSD	MS-MSD	LCS	Acceptance Criteria (%)		
	µg/L	µg/L	% Rec.	% Rec.	% RPD	% Rec.	MS / MSD	RPD	LCS
tert-Amyl methyl ether (TAME)	ND	10	104	101	2.55	109	70 - 130	20	70 - 130
t-Butyl alcohol (TBA)	ND	40	100	99.9	0.107	107	70 - 130	20	70 - 130
Diisopropyl ether (DIPE)	ND	10	102	98.6	3.81	109	70 - 130	20	79 - 111
Ethyl tert-butyl ether (ETBE)	ND	10	103	101	2.04	110	70 - 130	20	70 - 130
Methyl-t-butyl ether (MTBE)	ND	10	100	101	0.815	108	70 - 130	20	70 - 130
%SS1:	92	25	97	96	0.682	97	70 - 130	20	70 - 130
All target compounds in the Method Blank of this extraction batch were ND less than the method RL with the following exceptions: NONE									

BATCH 70388 SUMMARY

Lab ID	Date Sampled	Date Extracted	Date Analyzed	Lab ID	Date Sampled	Date Extracted	Date Analyzed
1208788-008B	08/29/12 4:00 PM	09/05/12	09/05/12 10:24 PM	1208788-009B	08/30/12 2:30 PM	09/05/12	09/05/12 11:06 PM

MS = Matrix Spike; MSD = Matrix Spike Duplicate; LCS = Laboratory Control Sample; LCSD = Laboratory Control Sample Duplicate; RPD = Relative Percent Deviation.

% Recovery = $100 * (\text{MS-Sample}) / (\text{Amount Spiked})$; RPD = $100 * (\text{MS} - \text{MSD}) / ((\text{MS} + \text{MSD}) / 2)$.

MS / MSD spike recoveries and / or %RPD may fall outside of laboratory acceptance criteria due to one or more of the following reasons: a) the sample is inhomogenous AND contains significant concentrations of analyte relative to the amount spiked, or b) the spiked sample's matrix interferes with the spike recovery.

N/A = not enough sample to perform matrix spike and matrix spike duplicate.

NR = analyte concentration in sample exceeds spike amount for soil matrix or exceeds 2x spike amount for water matrix or sample diluted due to high matrix or analyte content.

Laboratory extraction solvents such as methylene chloride and acetone may occasionally appear in the method blank at low levels.



QC SUMMARY REPORT FOR SW8260B

W.O. Sample Matrix: Water

QC Matrix: Water

BatchID: 70468

WorkOrder: 1208788

EPA Method: SW8260B		Extraction: SW5030B		Spiked Sample ID: 1208788-012B					
Analyte	Sample	Spiked	MS	MSD	MS-MSD	LCS	Acceptance Criteria (%)		
	µg/L	µg/L	% Rec.	% Rec.	% RPD	% Rec.	MS / MSD	RPD	LCS
tert-Amyl methyl ether (TAME)	ND	10	99.9	97.8	2.11	107	70 - 130	20	70 - 130
t-Butyl alcohol (TBA)	ND	40	115	119	3.68	118	70 - 130	20	70 - 130
Diisopropyl ether (DIPE)	ND	10	94.6	92	2.77	109	70 - 130	20	70 - 130
Ethyl tert-butyl ether (ETBE)	ND	10	99.8	97	2.84	111	70 - 130	20	70 - 130
Methyl-t-butyl ether (MTBE)	ND	10	101	100	0.335	104	70 - 130	20	70 - 130
%SS1:	108	25	110	111	0.653	106	70 - 130	20	70 - 130
All target compounds in the Method Blank of this extraction batch were ND less than the method RL with the following exceptions: NONE									

BATCH 70468 SUMMARY

Lab ID	Date Sampled	Date Extracted	Date Analyzed	Lab ID	Date Sampled	Date Extracted	Date Analyzed
1208788-010B	08/29/12 2:30 PM	09/05/12	09/05/12 10:10 PM	1208788-011B	08/29/12 1:45 PM	09/05/12	09/05/12 10:50 PM
1208788-012B	08/29/12 1:00 PM	09/05/12	09/05/12 4:46 PM				

MS = Matrix Spike; MSD = Matrix Spike Duplicate; LCS = Laboratory Control Sample; LCSD = Laboratory Control Sample Duplicate; RPD = Relative Percent Deviation.

% Recovery = $100 * (\text{MS-Sample}) / (\text{Amount Spiked})$; RPD = $100 * (\text{MS} - \text{MSD}) / ((\text{MS} + \text{MSD}) / 2)$.

MS / MSD spike recoveries and / or %RPD may fall outside of laboratory acceptance criteria due to one or more of the following reasons: a) the sample is inhomogenous AND contains significant concentrations of analyte relative to the amount spiked, or b) the spiked sample's matrix interferes with the spike recovery.

N/A = not enough sample to perform matrix spike and matrix spike duplicate.

NR = analyte concentration in sample exceeds spike amount for soil matrix or exceeds 2x spike amount for water matrix or sample diluted due to high matrix or analyte content.

Laboratory extraction solvents such as methylene chloride and acetone may occasionally appear in the method blank at low levels.



QC SUMMARY REPORT FOR SW8260B

W.O. Sample Matrix: Water

QC Matrix: Water

BatchID: 70388

WorkOrder: 1208788

EPA Method: SW8260B		Extraction: SW5030B		Spiked Sample ID: 1208788-007B					
Analyte	Sample	Spiked	MS	MSD	MS-MSD	LCS	Acceptance Criteria (%)		
	µg/L	µg/L	% Rec.	% Rec.	% RPD	% Rec.	MS / MSD	RPD	LCS
tert-Amyl methyl ether (TAME)	ND	10	104	101	2.55	109	70 - 130	20	70 - 130
Benzene	ND	10	97.6	92.5	5.37	101	70 - 130	20	76 - 106
t-Butyl alcohol (TBA)	ND	40	100	99.9	0.107	107	70 - 130	20	70 - 130
Chlorobenzene	ND	10	100	94.5	5.66	104	70 - 130	20	79 - 105
1,2-Dibromoethane (EDB)	ND	10	97.7	95.1	2.68	100	70 - 130	20	76 - 116
1,2-Dichloroethane (1,2-DCA)	ND	10	97.1	94.6	2.64	106	70 - 130	20	69 - 111
Diisopropyl ether (DIPE)	ND	10	102	98.6	3.81	109	70 - 130	20	79 - 111
Ethyl tert-butyl ether (ETBE)	ND	10	103	101	2.04	110	70 - 130	20	70 - 130
Methyl-t-butyl ether (MTBE)	ND	10	100	101	0.815	108	70 - 130	20	70 - 130
Toluene	ND	10	102	96	6.04	105	70 - 130	20	70 - 130
Trichloroethene	ND	10	105	99.1	5.47	112	70 - 130	20	70 - 130
%SS1:	92	25	97	96	0.682	97	70 - 130	20	70 - 130

All target compounds in the Method Blank of this extraction batch were ND less than the method RL with the following exceptions:
NONE

BATCH 70388 SUMMARY

Lab ID	Date Sampled	Date Extracted	Date Analyzed	Lab ID	Date Sampled	Date Extracted	Date Analyzed
1208788-006B	08/30/12 1:00 PM	09/05/12	09/05/12 9:42 PM	1208788-007B	08/30/12 12:00 PM	09/05/12	09/05/12 4:34 PM

MS = Matrix Spike; MSD = Matrix Spike Duplicate; LCS = Laboratory Control Sample; LCSD = Laboratory Control Sample Duplicate; RPD = Relative Percent Deviation.

% Recovery = 100 * (MS-Sample) / (Amount Spiked); RPD = 100 * (MS - MSD) / ((MS + MSD) / 2).

MS / MSD spike recoveries and / or %RPD may fall outside of laboratory acceptance criteria due to one or more of the following reasons: a) the sample is inhomogenous AND contains significant concentrations of analyte relative to the amount spiked, or b) the spiked sample's matrix interferes with the spike recovery.

N/A = not enough sample to perform matrix spike and matrix spike duplicate.

NR = analyte concentration in sample exceeds spike amount for soil matrix or exceeds 2x spike amount for water matrix or sample diluted due to high matrix or analyte content.

Laboratory extraction solvents such as methylene chloride and acetone may occasionally appear in the method blank at low levels.



QC SUMMARY REPORT FOR SW8260B

W.O. Sample Matrix: Water

QC Matrix: Water

BatchID: 70421

WorkOrder: 1208788

EPA Method: SW8260B	Extraction: SW5030B							Spiked Sample ID: 1208788-001B		
	Analyte	Sample	Spiked	MS	MSD	MS-MSD	LCS	Acceptance Criteria (%)		
		µg/L	µg/L	% Rec.	% Rec.	% RPD	% Rec.	MS / MSD	RPD	LCS
tert-Amyl methyl ether (TAME)		ND	10	99.6	103	3.75	106	70 - 130	20	70 - 130
Benzene		ND	10	93.5	94.9	1.49	97.1	70 - 130	20	70 - 130
t-Butyl alcohol (TBA)		ND	40	101	108	7.20	107	70 - 130	20	70 - 130
Chlorobenzene		ND	10	91.9	91.4	0.585	93.4	70 - 130	20	70 - 130
1,2-Dibromoethane (EDB)		ND	10	97.2	97.3	0.175	98.3	70 - 130	20	70 - 130
1,2-Dichloroethane (1,2-DCA)		ND	10	92.8	94.9	2.30	96.9	70 - 130	20	70 - 130
Diisopropyl ether (DIPE)		ND	10	101	102	1.30	105	70 - 130	20	70 - 130
Ethyl tert-butyl ether (ETBE)		ND	10	102	104	1.53	105	70 - 130	20	70 - 130
Methyl-t-butyl ether (MTBE)		ND	10	100	103	2.63	105	70 - 130	20	70 - 130
Toluene		ND	10	96.4	96.2	0.273	98	70 - 130	20	70 - 130
Trichloroethene		ND	10	97.7	97.9	0.244	99.4	70 - 130	20	70 - 130
%SS1:		92	25	95	96	1.28	97	70 - 130	20	70 - 130

All target compounds in the Method Blank of this extraction batch were ND less than the method RL with the following exceptions:
NONE

BATCH 70421 SUMMARY

Lab ID	Date Sampled	Date Extracted	Date Analyzed	Lab ID	Date Sampled	Date Extracted	Date Analyzed
1208788-001B	08/28/12 3:00 PM	09/04/12	09/04/12 8:40 PM	1208788-002B	08/29/12 3:00 PM	09/06/12	09/06/12 1:22 AM
1208788-003B	08/29/12 12:00 PM	09/06/12	09/06/12 2:01 AM	1208788-004B	08/29/12 11:00 AM	09/06/12	09/06/12 2:40 AM

MS = Matrix Spike; MSD = Matrix Spike Duplicate; LCS = Laboratory Control Sample; LCSD = Laboratory Control Sample Duplicate; RPD = Relative Percent Deviation.

% Recovery = $100 * (\text{MS-Sample}) / (\text{Amount Spiked})$; RPD = $100 * (\text{MS} - \text{MSD}) / ((\text{MS} + \text{MSD}) / 2)$.

MS / MSD spike recoveries and / or %RPD may fall outside of laboratory acceptance criteria due to one or more of the following reasons: a) the sample is inhomogenous AND contains significant concentrations of analyte relative to the amount spiked, or b) the spiked sample's matrix interferes with the spike recovery.

N/A = not enough sample to perform matrix spike and matrix spike duplicate.

NR = analyte concentration in sample exceeds spike amount for soil matrix or exceeds 2x spike amount for water matrix or sample diluted due to high matrix or analyte content.

Laboratory extraction solvents such as methylene chloride and acetone may occasionally appear in the method blank at low levels.



QC SUMMARY REPORT FOR SW8260B

W.O. Sample Matrix: Water

QC Matrix: Water

BatchID: 70521

WorkOrder: 1208788

EPA Method: SW8260B		Extraction: SW5030B		Spiked Sample ID: 1208788-005B						
Analyte	Sample	Spiked	MS	MSD	MS-MSD	LCS	Acceptance Criteria (%)			
	µg/L	µg/L	% Rec.	% Rec.	% RPD	% Rec.	MS / MSD	RPD	LCS	
tert-Amyl methyl ether (TAME)	ND	10	106	103	2.62	112	70 - 130	20	70 - 130	
Benzene	ND	10	99.2	97.4	1.84	104	70 - 130	20	70 - 130	
t-Butyl alcohol (TBA)	ND	40	102	103	1.05	107	70 - 130	20	70 - 130	
Chlorobenzene	ND	10	99	99.7	0.690	107	70 - 130	20	70 - 130	
1,2-Dibromoethane (EDB)	ND	10	95.6	98.3	2.80	106	70 - 130	20	70 - 130	
1,2-Dichloroethane (1,2-DCA)	ND	10	101	99.3	1.63	109	70 - 130	20	70 - 130	
Diisopropyl ether (DIPE)	ND	10	107	106	1.25	113	70 - 130	20	70 - 130	
Ethyl tert-butyl ether (ETBE)	ND	10	106	103	2.60	113	70 - 130	20	70 - 130	
Methyl-t-butyl ether (MTBE)	ND	10	110	107	2.16	112	70 - 130	20	70 - 130	
Toluene	ND	10	100	101	0.831	111	70 - 130	20	70 - 130	
Trichloroethene	ND	10	105	105	0	113	70 - 130	20	70 - 130	
%SS1:	95	25	97	97	0	109	70 - 130	20	70 - 130	

All target compounds in the Method Blank of this extraction batch were ND less than the method RL with the following exceptions:
NONE

BATCH 70521 SUMMARY

Lab ID	Date Sampled	Date Extracted	Date Analyzed	Lab ID	Date Sampled	Date Extracted	Date Analyzed
1208788-005B	08/30/12 1:30 PM	09/06/12	09/06/12 9:30 PM				

MS = Matrix Spike; MSD = Matrix Spike Duplicate; LCS = Laboratory Control Sample; LCSD = Laboratory Control Sample Duplicate; RPD = Relative Percent Deviation.

% Recovery = $100 * (\text{MS-Sample}) / (\text{Amount Spiked})$; RPD = $100 * (\text{MS} - \text{MSD}) / ((\text{MS} + \text{MSD}) / 2)$.

MS / MSD spike recoveries and / or %RPD may fall outside of laboratory acceptance criteria due to one or more of the following reasons: a) the sample is inhomogenous AND contains significant concentrations of analyte relative to the amount spiked, or b) the spiked sample's matrix interferes with the spike recovery.

N/A = not enough sample to perform matrix spike and matrix spike duplicate.

NR = analyte concentration in sample exceeds spike amount for soil matrix or exceeds 2x spike amount for water matrix or sample diluted due to high matrix or analyte content.

Laboratory extraction solvents such as methylene chloride and acetone may occasionally appear in the method blank at low levels.



QC SUMMARY REPORT FOR WET CHEMISTRY TESTS

Test Method: SM2320B (Alkalinity)

Matrix: W

WorkOrder: 1208788

Method Name: SM2320B			Units: mg CaCO ₃ /L		BatchID: 70209	
Lab ID	Sample	DF	Dup / Ser. Dil.	DF	% RPD	Acceptance Criteria (%)
1208788-001G	208	1	209	1	0.48	<20
1208788-002G	285	1	284	1	0.211	<20
1208788-003G	276	1	276	1	0.192	<20

BATCH 70209 SUMMARY

Lab ID	Date Sampled	Date Extracted	Date Analyzed	Lab ID	Date Sampled	Date Extracted	Date Analyzed
1208788-001G	08/28/12 3:00 PM	08/31/12	08/31/12 12:28 PM	1208788-002G	08/29/12 3:00 PM	08/31/12	08/31/12 12:35 PM
1208788-003G	08/29/12 12:00 PM	08/31/12	08/31/12 12:43 PM				

Test Method: SM4500-O G (Dissolved Oxygen)

Matrix: W

WorkOrder: 1208788

Method Name: SM4500OG			Units: mg DO/L @ °C		BatchID: 70342	
Lab ID	Sample	DF	Dup / Ser. Dil.	DF	Precision	Acceptance Criteria
1208788-001K	6.87 @ 15.1°C	1	6.90 @ 15.0°C	1	0.03	0.05
1208788-002K	5.12 @ 14.9°C	1	5.13 @ 14.9°C	1	0.01	0.05
1208788-003K	4.18 @ 15.1°C	1	4.19 @ 15.2°C	1	0.01	0.05

BATCH 70342 SUMMARY

Lab ID	Date Sampled	Date Extracted	Date Analyzed	Lab ID	Date Sampled	Date Extracted	Date Analyzed
1208788-001K	08/28/12 3:00 PM	08/30/12	08/30/12 9:00 PM	1208788-002K	08/29/12 3:00 PM	08/30/12	08/30/12 9:10 PM
1208788-003K	08/29/12 12:00 PM	08/30/12	08/30/12 9:20 PM				

Dup = Duplicate; Ser. Dil. = Serial Dilution; MS = Matrix Spike; RD = Relative Difference; RPD = Relative Percent Deviation.

Precision = Absolute Value (Sample - Duplicate)

RPD = 100 * (Sample - Duplicate) / [(Sample + Duplicate) / 2]

%RPD is calculated using results of up to 10 significant figures, however the reported results are rounded to 2 or 3 significant figures. Therefore there may be a slight discrepancy between the %RPD displayed above and %RPD calculated using the reported results. MAI considers %RPD based upon more significant figures to be more accurate.



QC SUMMARY REPORT FOR E200.7

W.O. Sample Matrix: Water

QC Matrix: Water

BatchID: 70317

WorkOrder: 1208788

EPA Method: E200.7		Extraction: E200.7		Spiked Sample ID: 1208640-005A					
Analyte	Sample	Spiked	MS	MSD	MS-MSD	LCS	Acceptance Criteria (%)		
	µg/L	µg/L	% Rec.	% Rec.	% RPD	% Rec.	MS / MSD	RPD	LCS
Iron	ND	1000	94.3	104	9.64	103	70 - 130	20	85 - 115
Manganese	ND	1000	108	125	14.2	113	70 - 130	20	85 - 115
Sodium	72,000	10000	NR	NR	NR	92	N/A	N/A	85 - 115
%SS:	103	750	91	105	14.0	93	70 - 130	30	70 - 130

All target compounds in the Method Blank of this extraction batch were ND less than the method RL with the following exceptions:
NONE

BATCH 70317 SUMMARY

Lab ID	Date Sampled	Date Extracted	Date Analyzed	Lab ID	Date Sampled	Date Extracted	Date Analyzed
1208788-001I	08/28/12 3:00 PM	08/30/12	08/31/12 4:31 PM	1208788-002I	08/29/12 3:00 PM	08/30/12	08/31/12 4:37 PM
1208788-003I	08/29/12 12:00 PM	08/30/12	08/31/12 4:43 PM				

MS = Matrix Spike; MSD = Matrix Spike Duplicate; LCS = Laboratory Control Sample; LCSD = Laboratory Control Sample Duplicate; RPD = Relative Percent Deviation.

% Recovery = $100 * (\text{MS-Sample}) / (\text{Amount Spiked})$; RPD = $100 * (\text{MS} - \text{MSD}) / ((\text{MS} + \text{MSD}) / 2)$.

* MS / MSD spike recoveries and / or %RPD may fall outside of laboratory acceptance criteria due to one or more of the following reasons: a) the sample is inhomogenous AND contains significant concentrations of analyte relative to the amount spiked, or b) the spiked sample's matrix interferes with the spike recovery.

N/A = not applicable to this method.

NR = analyte concentration in sample exceeds spike amount for soil matrix or exceeds 2x spike amount for water matrix or sample diluted due to high matrix or analyte content.



QC SUMMARY REPORT FOR SM3500 Fe B4c

W.O. Sample Matrix: Water

QC Matrix: Water

BatchID: 70340

WorkOrder: 1208788

EPA Method: SM3500-Fe B4c		Extraction: SM3500-Fe B4c		Spiked Sample ID: 1208788-002D					
Analyte	Sample	Spiked	MS	MSD	MS-MSD	LCS	Acceptance Criteria (%)		
	µg/L	µg/L	% Rec.	% Rec.	% RPD	% Rec.	MS / MSD	RPD	LCS
Ferrous Iron	ND	200	96	112	15.1	106	70 - 130	20	70 - 130
All target compounds in the Method Blank of this extraction batch were ND less than the method RL with the following exceptions: NONE									

BATCH 70340 SUMMARY

Lab ID	Date Sampled	Date Extracted	Date Analyzed	Lab ID	Date Sampled	Date Extracted	Date Analyzed
1208788-001D	08/28/12 3:00 PM	08/30/12	08/30/12 8:45 PM	1208788-002D	08/29/12 3:00 PM	08/30/12	08/30/12 8:56 PM
1208788-003D	08/29/12 12:00 PM	08/30/12	08/30/12 9:29 PM	1208788-004D	08/29/12 11:00 AM	08/30/12	08/30/12 9:40 PM

MS = Matrix Spike; MSD = Matrix Spike Duplicate; LCS = Laboratory Control Sample; LCSD = Laboratory Control Sample Duplicate; RPD = Relative Percent Deviation.

% Recovery = $100 * (\text{MS-Sample}) / (\text{Amount Spiked})$; RPD = $100 * (\text{MS} - \text{MSD}) / ((\text{MS} + \text{MSD}) / 2)$.

MS / MSD spike recoveries and / or %RPD may fall outside of laboratory acceptance criteria due to one or more of the following reasons: a) the sample is inhomogenous AND contains significant concentrations of analyte relative to the amount spiked, or b) the spiked sample's matrix interferes with the spike recovery.

N/A = not applicable to this method.

NR = analyte concentration in sample exceeds spike amount for soil matrix or exceeds 2x spike amount for water matrix or sample diluted due to high matrix or analyte content.

DHS ELAP Certification 1644

 QA/QC Officer



QC SUMMARY REPORT FOR SW8021B/8015Bm

W.O. Sample Matrix: Water

QC Matrix: Water

BatchID: 70384

WorkOrder: 1208788

EPA Method: SW8021B/8015Bm		Extraction: SW5030B		Spiked Sample ID: 1208788-011A					
Analyte	Sample	Spiked	MS	MSD	MS-MSD	LCS	Acceptance Criteria (%)		
	µg/L	µg/L	% Rec.	% Rec.	% RPD	% Rec.	MS / MSD	RPD	LCS
TPH(btex) ^E	ND	60	100	103	2.16	104	70 - 130	20	70 - 130
MTBE	ND	10	88.9	95.8	6.93	103	70 - 130	20	70 - 130
Benzene	ND	10	106	109	2.89	116	70 - 130	20	70 - 130
Toluene	ND	10	106	110	4.03	116	70 - 130	20	70 - 130
Ethylbenzene	ND	10	103	109	5.82	115	70 - 130	20	70 - 130
Xylenes	ND	30	103	110	6.50	115	70 - 130	20	70 - 130
%SS:	107	10	104	102	2.01	103	70 - 130	20	70 - 130

All target compounds in the Method Blank of this extraction batch were ND less than the method RL with the following exceptions:
NONE

BATCH 70384 SUMMARY

Lab ID	Date Sampled	Date Extracted	Date Analyzed	Lab ID	Date Sampled	Date Extracted	Date Analyzed
1208788-001A	08/28/12 3:00 PM	08/31/12	08/31/12 6:05 PM	1208788-002A	08/29/12 3:00 PM	09/04/12	09/04/12 5:22 PM
1208788-003A	08/29/12 12:00 PM	09/04/12	09/04/12 5:53 PM	1208788-004A	08/29/12 11:00 AM	09/04/12	09/04/12 10:31 PM
1208788-004A	08/29/12 11:00 AM	09/04/12	09/04/12 11:01 PM	1208788-005A	08/30/12 1:30 PM	08/31/12	08/31/12 10:02 PM
1208788-006A	08/30/12 1:00 PM	09/01/12	09/01/12 12:30 AM	1208788-007A	08/30/12 12:00 PM	09/01/12	09/01/12 12:59 AM
1208788-008A	08/29/12 4:00 PM	09/01/12	09/01/12 1:29 AM	1208788-009A	08/30/12 2:30 PM	09/01/12	09/01/12 2:28 AM
1208788-010A	08/29/12 2:30 PM	09/01/12	09/01/12 3:26 AM	1208788-011A	08/29/12 1:45 PM	09/01/12	09/01/12 3:56 AM
1208788-012A	08/29/12 1:00 PM	09/01/12	09/01/12 4:25 AM				

MS = Matrix Spike; MSD = Matrix Spike Duplicate; LCS = Laboratory Control Sample; LCSD = Laboratory Control Sample Duplicate; RPD = Relative Percent Deviation.

% Recovery = 100 * (MS-Sample) / (Amount Spiked); RPD = 100 * (MS - MSD) / ((MS + MSD) / 2).

MS / MSD spike recoveries and / or %RPD may fall outside of laboratory acceptance criteria due to one or more of the following reasons: a) the sample is inhomogenous AND contains significant concentrations of analyte relative to the amount spiked, or b) the spiked sample's matrix interferes with the spike recovery.

^E TPH(btex) = sum of BTEX areas from the FID.

cluttered chromatogram; sample peak coelutes with surrogate peak.

N/A = not enough sample to perform matrix spike and matrix spike duplicate.

NR = matrix interference and/or analyte concentration in sample exceeds spike amount for soil matrix or exceeds 2x spike amount for water matrix or sample diluted due to high matrix or analyte content, or inconsistency in sample containers.



QC SUMMARY REPORT FOR E200.8

W.O. Sample Matrix: Water

QC Matrix: Water

BatchID: 70300

WorkOrder: 1208788

EPA Method: E200.8		Extraction: E200.8		Spiked Sample ID: 1208640-005A						
Analyte	Sample	Spiked	MS	MSD	MS-MSD	LCS	Acceptance Criteria (%)			
	µg/L	µg/L	% Rec.	% Rec.	% RPD	% Rec.	MS / MSD	RPD	LCS	
Arsenic	2.3	50	103	104	6.34	95.4	70 - 130	20	85 - 115	
Chromium	ND	50	100	98	9.55	104	70 - 130	20	85 - 115	
%SS:	108	750	109	106	4.82	96	70 - 130	20	85 - 115	
All target compounds in the Method Blank of this extraction batch were ND less than the method RL with the following exceptions: NONE										

BATCH 70300 SUMMARY

Lab ID	Date Sampled	Date Extracted	Date Analyzed	Lab ID	Date Sampled	Date Extracted	Date Analyzed
1208788-001I	08/28/12 3:00 PM	08/30/12	08/31/12 11:51 PM	1208788-002I	08/29/12 3:00 PM	08/30/12	08/31/12 11:58 PM
1208788-003I	08/29/12 12:00 PM	08/30/12	09/01/12 12:05 AM				

MS = Matrix Spike; MSD = Matrix Spike Duplicate; LCS = Laboratory Control Sample; LCSD = Laboratory Control Sample Duplicate; RPD = Relative Percent Deviation.

% Recovery = $100 * (\text{MS-Sample}) / (\text{Amount Spiked})$; RPD = $100 * (\text{MS} - \text{MSD}) / ((\text{MS} + \text{MSD}) / 2)$.

MS / MSD spike recoveries and / or %RPD may fall outside of laboratory acceptance criteria due to one or more of the following reasons: a) the sample is inhomogenous AND contains significant concentrations of analyte relative to the amount spiked, or b) the spiked sample's matrix interferes with the spike recovery.

N/A = not applicable to this method.

NR = matrix interference and/or analyte concentration in sample exceeds spike amount for soil matrix or exceeds 2x spike amount for water matrix or sample diluted due to high matrix or analyte content.



QC SUMMARY REPORT FOR RSK174/175

W.O. Sample Matrix: Water

QC Matrix: Air

BatchID: 70494

WorkOrder: 1208788

EPA Method: RSK174/175		Extraction: RSK 174/175		Spiked Sample ID: N/A					
Analyte	Sample	Spiked	MS	MSD	MS-MSD	LCS	Acceptance Criteria (%)		
	µL/L	µL/L	% Rec.	% Rec.	% RPD	% Rec.	MS / MSD	RPD	LCS
Methane	N/A	10	N/A	N/A	N/A	104	N/A	N/A	80 - 120

All target compounds in the Method Blank of this extraction batch were ND less than the method RL with the following exceptions:
NONE

BATCH 70494 SUMMARY

Lab ID	Date Sampled	Date Extracted	Date Analyzed	Lab ID	Date Sampled	Date Extracted	Date Analyzed
1208788-001C	08/28/12 3:00 PM	09/06/12	09/06/12 2:09 PM	1208788-002C	08/29/12 3:00 PM	09/06/12	09/06/12 2:27 PM
1208788-003C	08/29/12 12:00 PM	09/06/12	09/06/12 2:38 PM	1208788-004C	08/29/12 11:00 AM	09/06/12	09/06/12 2:54 PM

MS = Matrix Spike; MSD = Matrix Spike Duplicate; LCS = Laboratory Control Sample; LCSD = Laboratory Control Sample Duplicate; RPD = Relative Percent Deviation.

% Recovery = $100 * (\text{MS-Sample}) / (\text{Amount Spiked})$; RPD = $100 * (\text{MS} - \text{MSD}) / ((\text{MS} + \text{MSD}) / 2)$.

MS / MSD spike recoveries and / or %RPD may fall outside of laboratory acceptance criteria due to one or more of the following reasons: a) the sample is inhomogenous AND contains significant concentrations of analyte relative to the amount spiked, or b) the spiked sample's matrix interferes with the spike recovery.

N/A = not enough sample to perform matrix spike and matrix spike duplicate.

NR = analyte concentration in sample exceeds spike amount for soil matrix or exceeds 2x spike amount for water matrix or sample diluted due to high matrix or analyte content.

DHS ELAP Certification 1644

 QA/QC Officer



QC SUMMARY REPORT FOR WET CHEMISTRY TESTS

Test Method: **SM2540C (TDS)**

Matrix: **W**

WorkOrder: **1208788**

Method Name: SM2540C			Units: mg/L		BatchID: 70460	
Lab ID	Sample	DF	Dup / Ser. Dil.	DF	% RPD	Acceptance Criteria (%)
1208788-001H	315	1	308	1	2.25	<20
1208788-002H	367	1	367	1	0	<20
1208788-003H	394	1	394	1	0	<20

BATCH 70460 SUMMARY

Lab ID	Date Sampled	Date Extracted	Date Analyzed	Lab ID	Date Sampled	Date Extracted	Date Analyzed
1208788-001H	08/28/12 3:00 PM	09/04/12	09/05/12 6:50 PM	1208788-002H	08/29/12 3:00 PM	09/04/12	09/05/12 7:00 PM
1208788-003H	08/29/12 12:00 PM	09/04/12	09/05/12 7:10 PM				

Dup = Duplicate; Ser. Dil. = Serial Dilution; MS = Matrix Spike; RD = Relative Difference; RPD = Relative Percent Deviation.

Precision = Absolute Value (Sample - Duplicate)

RPD = $100 * (\text{Sample} - \text{Duplicate}) / [(\text{Sample} + \text{Duplicate}) / 2]$

%RPD is calculated using results of up to 10 significant figures, however the reported results are rounded to 2 or 3 significant figures. Therefore there may be a slight discrepancy between the %RPD displayed above and %RPD calculated using the reported results. MAI considers %RPD based upon more significant figures to be more accurate.



QC SUMMARY REPORT FOR SW8015B

W.O. Sample Matrix: Water

QC Matrix: Water

BatchID: 70338

WorkOrder: 1208788

EPA Method: SW8015B		Extraction: SW3510C		Spiked Sample ID: N/A					
Analyte	Sample	Spiked	MS	MSD	MS-MSD	LCS	Acceptance Criteria (%)		
	µg/L	µg/L	% Rec.	% Rec.	% RPD	% Rec.	MS / MSD	RPD	LCS
TPH-Diesel (C10-C23)	N/A	1000	N/A	N/A	N/A	118	N/A	N/A	70 - 130
%SS:	N/A	625	N/A	N/A	N/A	103	N/A	N/A	70 - 130

All target compounds in the Method Blank of this extraction batch were ND less than the method RL with the following exceptions:
NONE

BATCH 70338 SUMMARY

Lab ID	Date Sampled	Date Extracted	Date Analyzed	Lab ID	Date Sampled	Date Extracted	Date Analyzed
1208788-001J	08/28/12 3:00 PM	08/30/12	08/31/12 5:50 PM	1208788-002J	08/29/12 3:00 PM	08/30/12	09/01/12 12:30 AM
1208788-003J	08/29/12 12:00 PM	08/30/12	08/31/12 6:57 PM	1208788-004E	08/29/12 11:00 AM	08/30/12	08/31/12 10:17 PM
1208788-005C	08/30/12 1:30 PM	08/30/12	09/01/12 2:42 AM	1208788-006C	08/30/12 1:00 PM	08/30/12	08/31/12 11:23 PM
1208788-007C	08/30/12 12:00 PM	08/30/12	09/01/12 3:48 AM				

MS = Matrix Spike; MSD = Matrix Spike Duplicate; LCS = Laboratory Control Sample; LCSD = Laboratory Control Sample Duplicate; RPD = Relative Percent Deviation.

% Recovery = $100 * (\text{MS-Sample}) / (\text{Amount Spiked})$; RPD = $100 * (\text{MS} - \text{MSD}) / ((\text{MS} + \text{MSD}) / 2)$.

MS / MSD spike recoveries and / or %RPD may fall outside of laboratory acceptance criteria due to one or more of the following reasons: a) the sample is inhomogenous AND contains significant concentrations of analyte relative to the amount spiked, or b) the spiked sample's matrix interferes with the spike recovery.

N/A = not enough sample to perform matrix spike and matrix spike duplicate.

NR = analyte concentration in sample exceeds spike amount for soil matrix or exceeds 2x spike amount for water matrix or sample diluted due to high matrix or analyte content.

DHS ELAP Certification 1644

 QA/QC Officer



Analytical Report

Allterra Environmental 849 Almar Ave, Ste. C #281 Santa Cruz, CA 95060	Client Project ID: #160; 160 Holmes	Date Sampled: 09/05/12
		Date Received: 09/05/12
	Client Contact: James Allen	Date Reported: 09/12/12
	Client P.O.:	Date Completed: 09/11/12

WorkOrder: 1209047

September 12, 2012

Dear James:

Enclosed within are:

- 1) The results of the **3** analyzed samples from your project: **#160; 160 Holmes**,
- 2) QC data for the above samples, and
- 3) A copy of the chain of custody.

All analyses were completed satisfactorily and all QC samples were found to be within our control limits.

If you have any questions or concerns, please feel free to give me a call. Thank you for choosing
McCampbell Analytical Laboratories for your analytical needs.

Best regards,

Angela Rydelius
Laboratory Manager
McCampbell Analytical, Inc.

The analytical results relate only to the items tested.

ALLTERRA

849 Almar Avenue, Suite C, #281

Santa Cruz, California 95060

Website: www.allterraenv.com

Phone: (831) 425-2608 Facsimile: (831) 425-2609

1209047

Chain of Custody Record

Turn Around Time (circle one)

RUSH

24HR

48HR

72HR

5 Day

Report and Bill to: Allterra Environmental, Inc.

Project Number: 160

Project Location: 160 Holmes

Project Name:

Sampler Signature:

Field Point Name / Sample ID	Sample Collection		Sample Containers		Matrix		Preservation		TPHg/ BTEX/ MTBE (EPA 8015/8021)	TPHd (EPA 8015)	5-fuel oxy (EPA 8260)	Lead Scavengers (8260)	Dissolved Oxygen	Carbon Dioxide	Methane	Total Dissolved Solids	Arsenic, Total Chromium	Hexachrome	Ferrous Iron	Alkalinity	Sulfate	EDF required
	Date	Time	Number of Containers	Container Type	Air	Water	Soil	Sludge	Other	Ice	HCl	HNO ₃	Other									
MW-1B	9/5/2012	12:45	4	(4) Various	x					x	x											
MW-7B	9/5/2012	1:00	4	(4) Various	x					x	x											
EW-1	9/5/2012	12:30	4	(4) Various	x					x	x											
EW-2	9/5/2012	8	8	(8) Various	x					x	x											

Sampled By:

Joseph Bryan

Date:

9/5

Time:

1:30

Received By:

Bob Cuff 1+22

Comments:

ICE/5.3

GOOD CONDITION

HEAD SPACE ABSENT

DECHLORINATED IN LAB

APPROPRIATE

CONTAINERS

PRESERVED IN LAB

VOAS

O&G

METALS

OTHER

PRESERVATION

Received By:

Date:

Time:

Received By:

Received By:

Date:

Time:

Received By:

CHAIN-OF-CUSTODY RECORD

Page 1 of 1

 WaterTrax WriteOn EDF Excel EQuIS Email HardCopy ThirdParty J-flag
Report to:

James Allen
Allterra Environmental
849 Almar Ave, Ste. C #281
Santa Cruz, CA 95060
831-425-2608 FAX: 831-425-2609

Email: allterraenvironmental@yahoo.com; micah
cc:
PO:
ProjectNo: #160; 160 Holmes

Bill to:

Accounts Payable
Allterra Environmental
849 Almar Ave, Ste. C #281
Santa Cruz, CA 95060
micah@allterraenv.com

Requested TAT: 5 days**Date Received:** 09/05/2012**Date Printed:** 09/05/2012

Lab ID	Client ID	Matrix	Collection Date	Hold	Requested Tests (See legend below)											
					1	2	3	4	5	6	7	8	9	10	11	12
1209047-001	MW-1B	Water	9/5/2012 12:45	<input type="checkbox"/>	B	C	A									
1209047-002	MW-7B	Water	9/5/2012 13:00	<input type="checkbox"/>	B	C	A									
1209047-003	EW-1	Water	9/5/2012 12:30	<input type="checkbox"/>	B	C	A									

Test Legend:

1	218_6_W
6	
11	

2	DO_W
7	
12	

3	FE2_W
8	

4	
9	

5	
10	

Prepared by: Zoraida Cortez**Comments:**

NOTE: Soil samples are discarded 60 days after results are reported unless other arrangements are made (Water samples are 30 days).
Hazardous samples will be returned to client or disposed of at client expense.



Sample Receipt Checklist

Client Name: **Allterra Environmental**

Date and Time Received: **9/5/2012 2:29:57 PM**

Project Name: **#160; 160 Holmes**

Login Reviewed by:

Zoraida Cortez

WorkOrder N°: **1209047**

Matrix: Water

Carrier: Client Drop-In

Chain of Custody (COC) Information

- | | | |
|---|---|-----------------------------|
| Chain of custody present? | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> |
| Chain of custody signed when relinquished and received? | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> |
| Chain of custody agrees with sample labels? | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> |
| Sample IDs noted by Client on COC? | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> |
| Date and Time of collection noted by Client on COC? | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> |
| Sampler's name noted on COC? | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> |

Sample Receipt Information

- | | | | |
|---|---|-----------------------------|--|
| Custody seals intact on shipping container/coolier? | Yes <input type="checkbox"/> | No <input type="checkbox"/> | NA <input checked="" type="checkbox"/> |
| Shipping container/coolier in good condition? | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> | |
| Samples in proper containers/bottles? | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> | |
| Sample containers intact? | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> | |
| Sufficient sample volume for indicated test? | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> | |

Sample Preservation and Hold Time (HT) Information

- | | | | |
|---|--|-----------------------------|---|
| All samples received within holding time? | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> | |
| Container/Temp Blank temperature | Cooler Temp: 5.3°C NA <input type="checkbox"/> | | |
| Water - VOA vials have zero headspace / no bubbles? | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> | No VOA vials submitted <input type="checkbox"/> |
| Sample labels checked for correct preservation? | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> | |
| Metal - pH acceptable upon receipt (pH<2)? | Yes <input type="checkbox"/> | No <input type="checkbox"/> | NA <input checked="" type="checkbox"/> |
| Samples Received on Ice? | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> | |

(Ice Type: WET ICE)

* NOTE: If the "No" box is checked, see comments below.

Comments:



McCampbell Analytical, Inc.
"When Quality Counts"

1534 Willow Pass Road, Pittsburg, CA 94565-1701
Toll Free Telephone: (877) 252-9262 / Fax: (925) 252-9269
<http://www.mccampbell.com> / E-mail: main@mccampbell.com

Allterra Environmental 849 Almar Ave, Ste. C #281 Santa Cruz, CA 95060	Client Project ID: #160; 160 Holmes	Date Sampled: 09/05/12
		Date Received: 09/05/12
	Client Contact: James Allen	Date Extracted: 09/05/12
	Client P.O.:	Date Analyzed: 09/05/12

Hexachrome by IC*

Analytical Method: E218.6

Work Order: 1209047

Reporting Limit for DF = 1; ND means not detected at or above the reporting limit	W	0.2 µg/L	
	S	NA	

* water samples are reported in $\mu\text{g/L}$.

N/A means surrogate not applicable to this analysis; # means surrogate diluted out of range or surrogate coelutes with another peak.

%SS = Percent Recovery of Surrogate Standard
DF = Dilution Factor



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Allterra Environmental 849 Almar Ave, Ste. C #281 Santa Cruz, CA 95060	Client Project ID: #160; 160 Holmes	Date Sampled: 09/05/12
		Date Received: 09/05/12
	Client Contact: James Allen	Date Extracted: 09/05/12
	Client P.O.:	Date Analyzed: 09/05/12

Dissolved Oxygen

Analytical Method: SM4500OG

Work Order: 1209047

Reporting Limit for DF = 1; ND means not detected at or above the reporting limit	W	1.0 mg DO/L @ °C	
	S	NA	

DF = Dilution Factor



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"When Quality Counts"

1534 Willow Pass Road, Pittsburg, CA 94565-1701
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Allterra Environmental 849 Almar Ave, Ste. C #281 Santa Cruz, CA 95060	Client Project ID: #160; 160 Holmes	Date Sampled: 09/05/12
		Date Received: 09/05/12
	Client Contact: James Allen	Date Extracted: 09/06/12
	Client P.O.:	Date Analyzed: 09/06/12

Ferrous Iron*

Analytical Method: SM3500-Fe B4c

Work Order: 1209047

Reporting Limit for DF = 1; ND means not detected at or above the reporting limit	W	50 µg/L	
	S	NA	

*water samples are reported in ug/L; soil samples are reported in mg/kg.

| DF = Dilution Factor



QC SUMMARY REPORT FOR E218.6

W.O. Sample Matrix: Water

QC Matrix: Water

BatchID: 70466

WorkOrder: 1209047

EPA Method: E218.6		Extraction: E218.6		Spiked Sample ID: 1209047-003B						
Analyte	Sample	Spiked	MS	MSD	MS-MSD	LCS	Acceptance Criteria (%)			
	µg/L	µg/L	% Rec.	% Rec.	% RPD	% Rec.	MS / MSD	RPD	LCS	
Hexachrome	ND	25	101	102	0.707	107	90 - 110	10	90 - 110	

All target compounds in the Method Blank of this extraction batch were ND less than the method RL with the following exceptions:
NONE

BATCH 70466 SUMMARY

Lab ID	Date Sampled	Date Extracted	Date Analyzed	Lab ID	Date Sampled	Date Extracted	Date Analyzed
1209047-001B	09/05/12 12:45 PM	09/05/12	09/05/12 4:45 PM	1209047-002B	09/05/12 1:00 PM	09/05/12	09/05/12 5:04 PM
1209047-003B	09/05/12 12:30 PM	09/05/12	09/05/12 5:22 PM				

MS = Matrix Spike; MSD = Matrix Spike Duplicate; LCS = Laboratory Control Sample; LCSD = Laboratory Control Sample Duplicate; RPD = Relative Percent Deviation.

% Recovery = $100 * (\text{MS-Sample}) / (\text{Amount Spiked})$; RPD = $100 * (\text{MS} - \text{MSD}) / ((\text{MS} + \text{MSD}) / 2)$.

MS / MSD spike recoveries and / or %RPD may fall outside of laboratory acceptance criteria due to one or more of the following reasons: a) the sample is inhomogenous AND contains significant concentrations of analyte relative to the amount spiked, or b) the spiked sample's matrix interferes with the spike recovery.

N/A = not enough sample to perform matrix spike and matrix spike duplicate.

NR = analyte concentration in sample exceeds spike amount for soil matrix or exceeds 2x spike amount for water matrix or sample diluted due to high matrix or analyte content.

DHS ELAP Certification 1644

 QA/QC Officer



QC SUMMARY REPORT FOR SM3500 Fe B4c

W.O. Sample Matrix: Water

QC Matrix: Water

BatchID: 70470

WorkOrder: 1209047

EPA Method: SM3500-Fe B4c		Extraction: SM3500-Fe B4c		Spiked Sample ID: 1209047-001A					
Analyte	Sample	Spiked	MS	MSD	MS-MSD	LCS	Acceptance Criteria (%)		
	µg/L	µg/L	% Rec.	% Rec.	% RPD	% Rec.	MS / MSD	RPD	LCS
Ferrous Iron	ND	200	114	109	3.80	99.7	70 - 130	20	70 - 130

All target compounds in the Method Blank of this extraction batch were ND less than the method RL with the following exceptions:
NONE

BATCH 70470 SUMMARY

Lab ID	Date Sampled	Date Extracted	Date Analyzed	Lab ID	Date Sampled	Date Extracted	Date Analyzed
1209047-001A	09/05/12 12:45 PM	09/06/12	09/06/12 10:10 AM	1209047-002A	09/05/12 1:00 PM	09/06/12	09/06/12 10:28 AM
1209047-003A	09/05/12 12:30 PM	09/06/12	09/06/12 10:34 AM				

MS = Matrix Spike; MSD = Matrix Spike Duplicate; LCS = Laboratory Control Sample; LCSD = Laboratory Control Sample Duplicate; RPD = Relative Percent Deviation.

% Recovery = $100 * (\text{MS-Sample}) / (\text{Amount Spiked})$; RPD = $100 * (\text{MS} - \text{MSD}) / ((\text{MS} + \text{MSD}) / 2)$.

MS / MSD spike recoveries and / or %RPD may fall outside of laboratory acceptance criteria due to one or more of the following reasons: a) the sample is inhomogenous AND contains significant concentrations of analyte relative to the amount spiked, or b) the spiked sample's matrix interferes with the spike recovery.

N/A = not applicable to this method.

NR = analyte concentration in sample exceeds spike amount for soil matrix or exceeds 2x spike amount for water matrix or sample diluted due to high matrix or analyte content.

DHS ELAP Certification 1644

 QA/QC Officer



QC SUMMARY REPORT FOR WET CHEMISTRY TESTS

Test Method: **SM4500-O G (Dissolved Oxygen)**

Matrix: **W**

WorkOrder: **1209047**

Method Name: SM4500OG			Units: mg DO/L @ °C		BatchID: 70444	
Lab ID	Sample	DF	Dup / Ser. Dil.	DF	Precision	Acceptance Criteria
1209047-001C	7.40 @ 15.5°C	1	7.39 @ 15.4°C	1	0.01	0.05
1209047-002C	3.89 @ 10.4°C	1	3.91 @ 10.3°C	1	0.02	0.05
1209047-003C	3.28 @ 10.9°C	1	3.27 @ 10.8°C	1	0.01	0.05

BATCH 70444 SUMMARY

Lab ID	Date Sampled	Date Extracted	Date Analyzed	Lab ID	Date Sampled	Date Extracted	Date Analyzed
1209047-001C	09/05/12 12:45 PM	09/05/12	09/05/12 2:30 PM	1209047-002C	09/05/12 1:00 PM	09/05/12	09/05/12 2:40 PM
1209047-003C	09/05/12 12:30 PM	09/05/12	09/05/12 2:50 PM				

Dup = Duplicate; Ser. Dil. = Serial Dilution; MS = Matrix Spike; RD = Relative Difference; RPD = Relative Percent Deviation.

Precision = Absolute Value (Sample - Duplicate)

RPD = $100 * (\text{Sample} - \text{Duplicate}) / [(\text{Sample} + \text{Duplicate}) / 2]$

%RPD is calculated using results of up to 10 significant figures, however the reported results are rounded to 2 or 3 significant figures. Therefore there may be a slight discrepancy between the %RPD displayed above and %RPD calculated using the reported results. MAI considers %RPD based upon more significant figures to be more accurate.