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**Semi-annual 2009 Groundwater Monitoring Report for  
Fuel Leak Case No. RO0000324, Livermore Gas and Mini Mart  
160 Holmes Street, Livermore, California**

*Date:*  
October 26, 2009

*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

Phone: (831) 425-2608  
Fax: (831) 425-2609  
<http://www.allterraenv.com>



October 26, 2009

*Project No.: 160*

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

**SUBJECT: Semi-annual 2009 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 second semi-annual 2009 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, and presents conclusions and recommendations regarding groundwater conditions at the Site.

### **Site Location and Description**

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

### **Groundwater Monitoring**

Groundwater monitoring activities are completed on a semi-annual basis in order to evaluate groundwater quality beneath and downgradient of the Site over time. There are fifteen on-site and off-site groundwater monitoring wells (MW-1A through MW-9B) and three on-site extraction wells associated with the Site. This monitoring event, completed on September 24 and 25, 2009, included monitoring of fifteen groundwater monitoring wells, eight of which were dry.

### Groundwater Monitoring Field Activities

Groundwater monitoring activities included measuring the depth to static groundwater in wells MW-1A through MW-9B relative to the top of well casings (TOC), evaluating groundwater in each well for the presence of petroleum hydrocarbon odor and sheen, and purging and sampling groundwater from wells for laboratory analysis. During this monitoring event, water levels in eight monitoring wells were too low to collect samples; therefore, only seven monitoring wells were sampled for laboratory analysis (MW-1B, MW-5B, MW-6, MW-7B, MW-7C, MW-8B, and MW-9B). Groundwater monitoring field activities were completed in accordance with Alameda County Environmental Health Services (ACEHS), Regional Water Quality Control Board (RWQCB) guidelines, and Allterra protocols presented in Appendix A. Data and

observations gathered during this monitoring event were recorded in Groundwater Sampling Field Logs, which are included in Appendix B.

### Laboratory Analysis of Groundwater Samples

Groundwater samples from monitoring wells were submitted under chain-of-custody documentation to McCampbell Analytical, Inc., of Pacheco, California, a State of California certified laboratory (ELAP #1644). The samples were analyzed for total petroleum hydrocarbons as gasoline (TPHg) by EPA method 8015C, and for benzene, toluene, ethylbenzene, xylenes (BTEX) and methyl tert-butyl ether (MTBE) by EPA Method 8021B. The samples were also analyzed for ethyl tert-butyl ether (ETBE), tert-amyl methyl ether (TAME), di-isopropyl ether (DIPE), tert-butyl alcohol (TBA), methanol, ethanol, 1,2-dibromoethane (EDB), and 1,2-dichloroethane (1,2-DCA) by EPA Method 8260B. A copy of the chain-of-custody documentation for the samples and the certified analytical report, including quality assurance and quality control (QA/QC) data, are included in Appendix C.

### Purge Water

Purge water generated during purging of the groundwater monitoring wells was stored on-site in Department of Transportation (DOT) approved 55-gallon drums pending disposal.

## **Groundwater Monitoring Results**

### Groundwater Elevation and Gradient Results

On September 24, 2009, Allterra personnel measured and recorded depths to groundwater from the top of well casings (TOC) for monitoring wells MW-1A through MW-9B. Recorded depths to groundwater ranged from 37.76 to 39.73 feet. Groundwater elevation data is summarized in Table 1 and is depicted in Figure 3. For the September 2009 groundwater monitoring event, eight monitoring wells were dry; therefore, there was an insufficient number of wells to calculate a groundwater flow direction and gradient. Historically, groundwater flow is toward the northwest at gradients of less than 0.01 feet per foot (ft/ft).

### Analytical Results

Fuel-related compounds were at or above detection limits in four of the seven wells sampled. MTBE was detected in four wells at concentrations ranging from 1.1 micrograms per liter ( $\mu\text{g/L}$ ) in well MW-1B to 220  $\mu\text{g/L}$  in well MW-7B. Dissolved TPHg was not detected in any of the seven sampled wells. Aside from toluene in well MW-7B (1.8  $\mu\text{g/L}$ ), no other BTEX compounds were detected. Groundwater analytical results from well samples are presented in Table 2 and in Appendix C. Concentrations of dissolved TPHg, benzene, and MTBE in monitoring wells are presented in Figure 4.

### Conclusions

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

- Due to continued low water table conditions, eight monitoring wells were dry and were not sampled.
- For the September 2009 monitoring event, fuel-related compounds were detected at or above laboratory detection limits in four of the seven wells sampled.
- Wells MW-1A and MW-7A (wells screened to 30 feet bgs) have historically had high levels of contaminants; however, due to the depressed water table, these wells have not been sampled since April 2007.

### Recommendations

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

- Continue with the semi-annual groundwater monitoring program at the Site.
- Implement the Work Plan for Pilot Scale Vapor Extraction System during the fourth quarter of 2009.

### Limitations

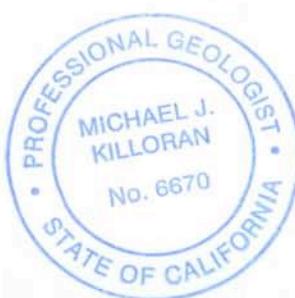
Allterra prepared this report for the use of Livermore Gas and Mini Mart, ACEHS and RWQCB in evaluating groundwater quality at selected on-site locations at the time of this study. Statements, conclusions, and recommendations in this report are based solely on the field observations and analytical results 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.



Nathaniel Allen  
Project Manager



Michael Killoran, P.G. 6670  
Senior Geologist

**ALLTERRA**

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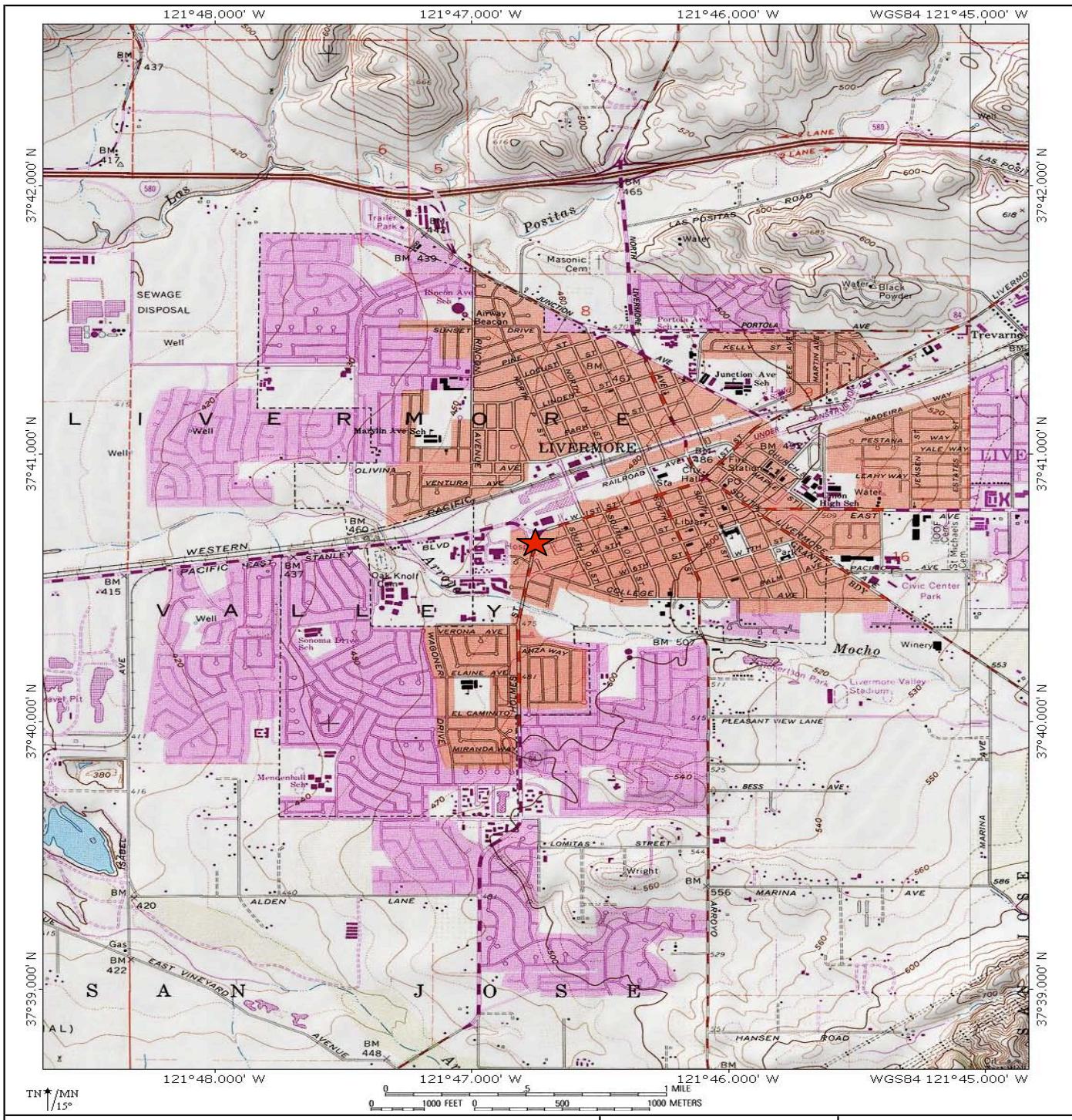
Appendix A, Groundwater Monitoring Field Protocol

Appendix B, Groundwater Sampling Field Logs

Appendix C, Certified Analytical Reports and Chain of Custody

cc: Jerry Wickam, ACEHS

## FIGURES 1-4



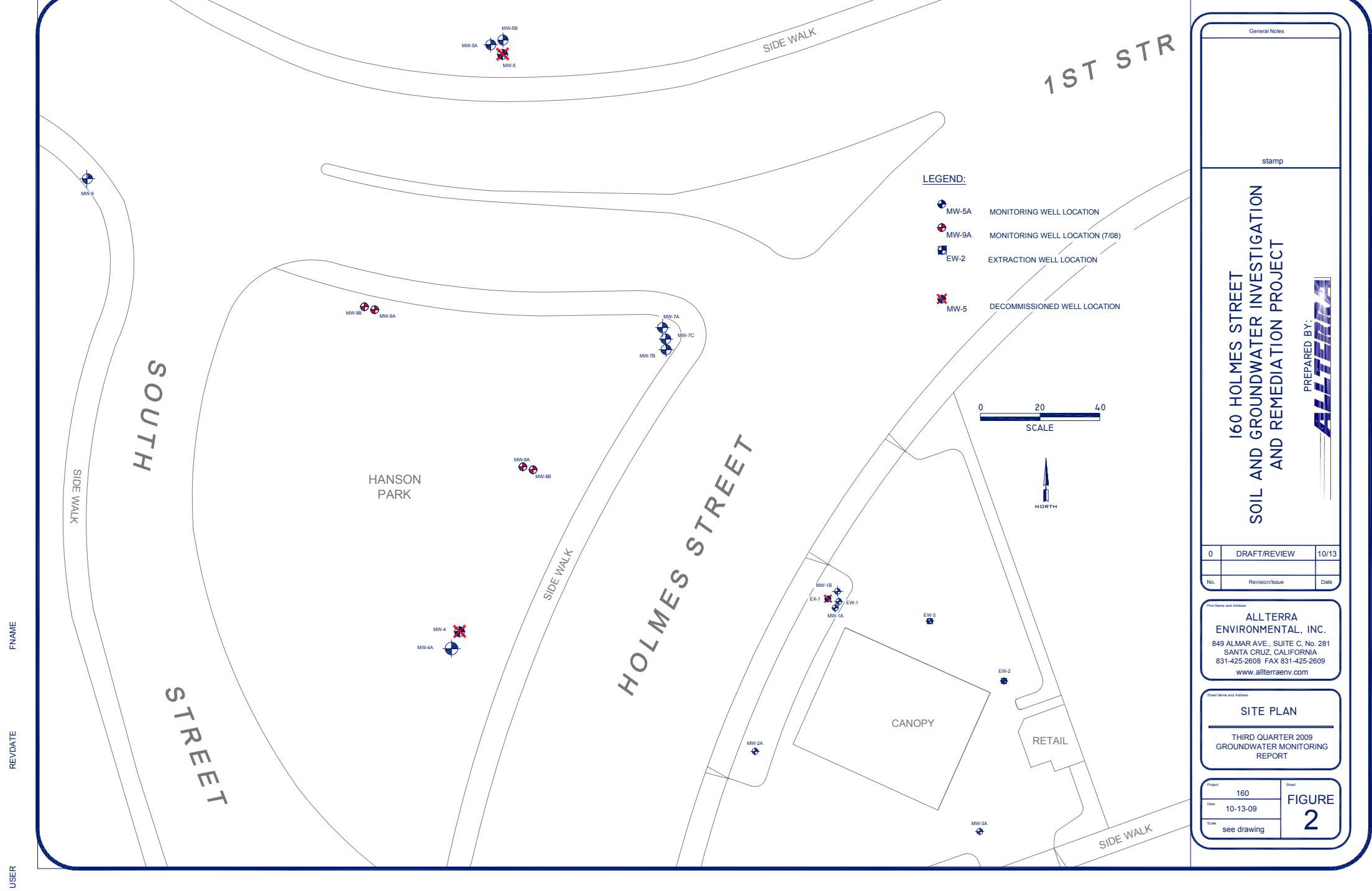
## Site Vicinity Map

Livermore Gas and Minimart  
160 Holmes Street  
Livermore, California

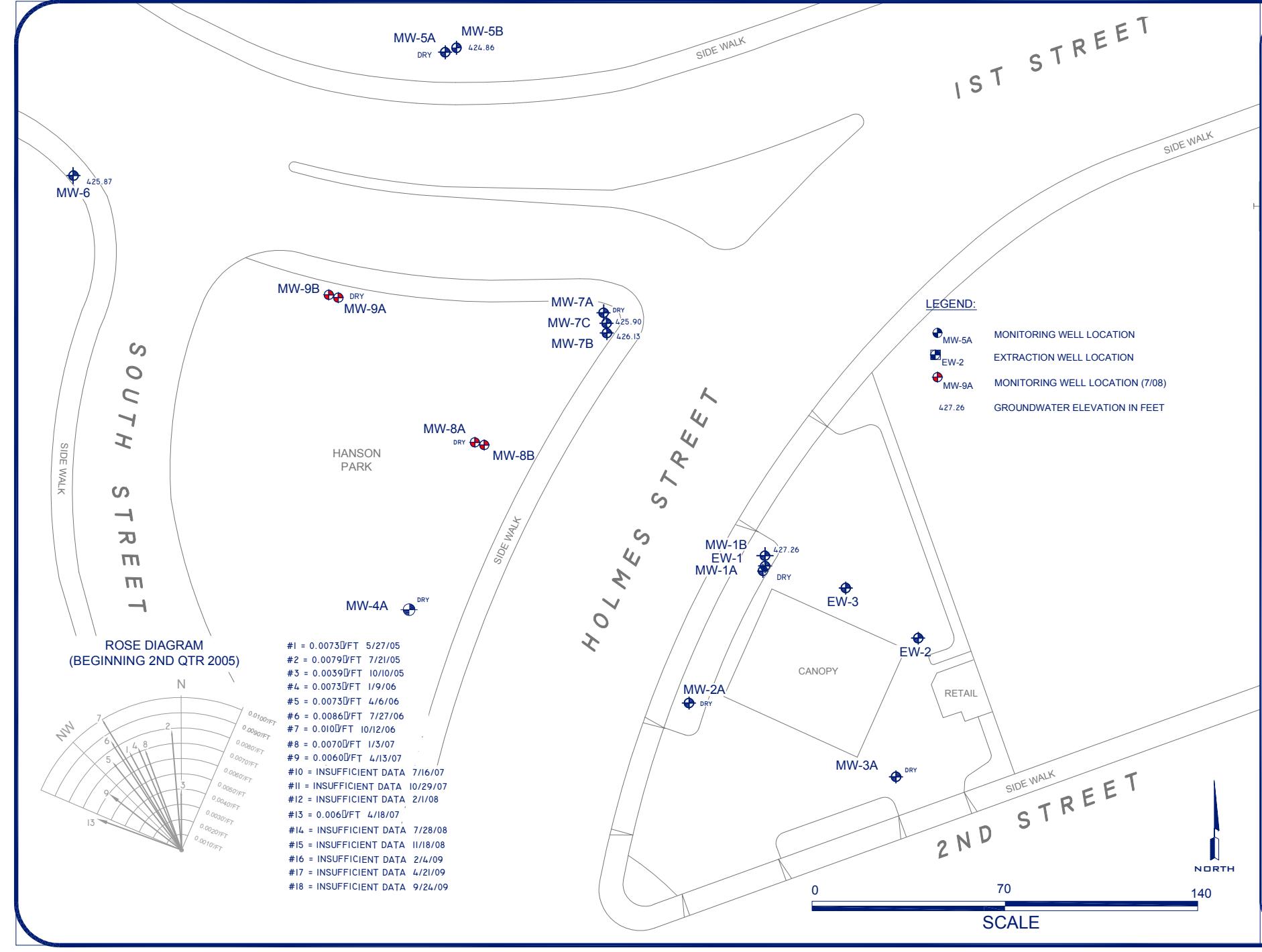
Figure 1

10/19/09

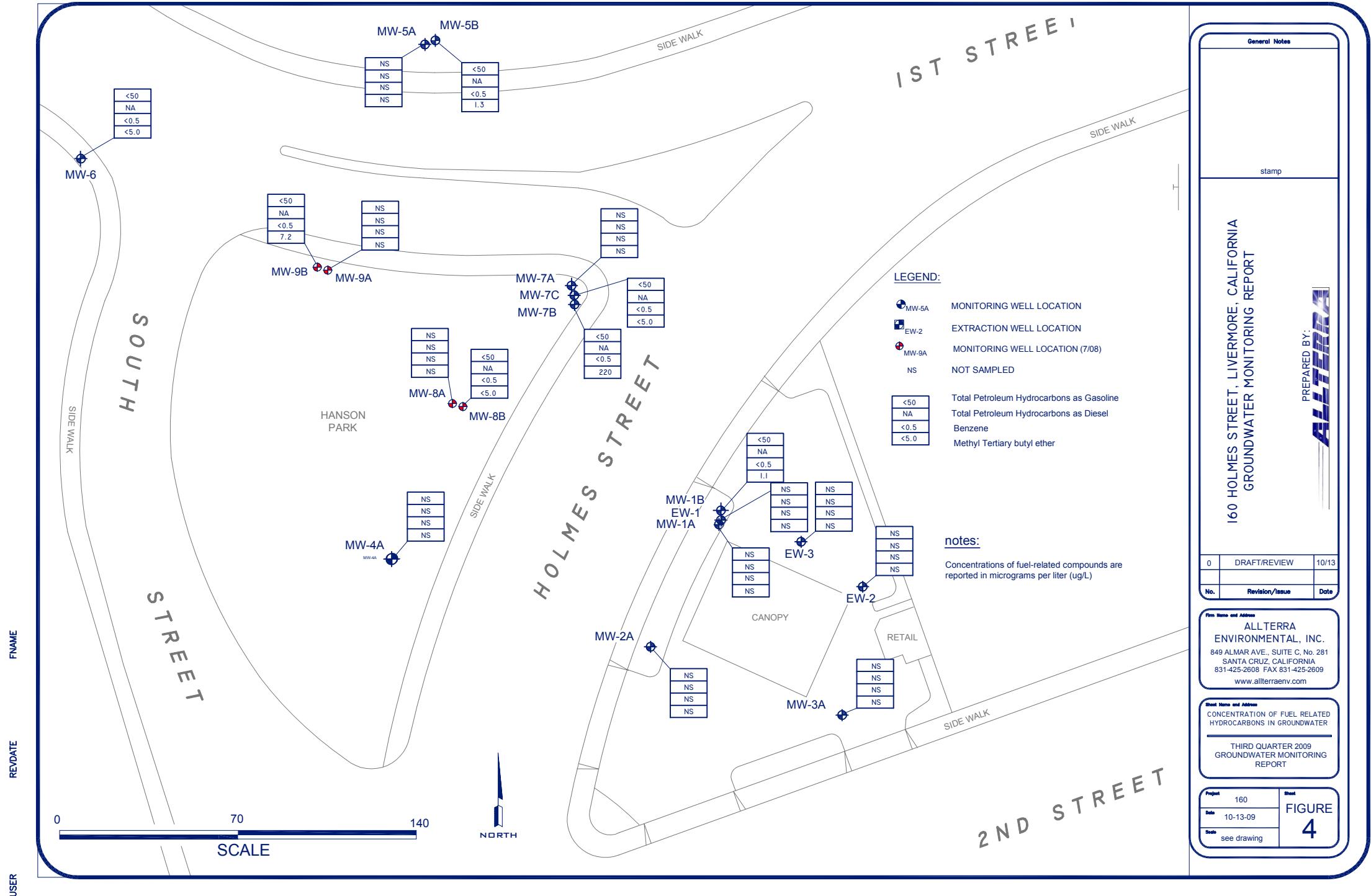
**ALLTERRA**  
849 Almar Avenue, Suite C, No. 281  
Santa Cruz, California  
<http://www.allterraenv.com>



FRAME  
REV DATE  
USER



General Notes	
stamp	
160 HOLMES STREET, LIVERMORE, CALIFORNIA GROUNDWATER MONITORING REPORT	
PREPARED BY: <b>ALL TERRA</b>	
DRAFT/REVIEW 10/13	
No. Revision/Issue Date	
Firm Name and Address ALL TERRA ENVIRONMENTAL, INC. 849 ALMAR AVE., SUITE C, NO. 281 SANTA CRUZ, CALIFORNIA 95060 831-425-2608 FAX 831-425-2609 www.allterraenv.com	
Sheet Name and Address GROUNDWATER ELEVATIONS MAP FOR 9/24/09	
THIRD QUARTER 2009 GROUNDWATER MONITORING REPORT	
Project 160	Sheet FIGURE 3
Date 10-13-09	Scale see drawing



## TABLES 1-2

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

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		21.94	443.09
	2/22/01	465.03		22.91	442.12
	5/30/01	465.03		Dry	NC
	11/14/01	465.03		Dry	NC
	5/7/02	465.03		Dry	NC
	9/11/02	465.03		26.16	438.87
	12/1/02	465.03		27.55	437.48
	3/14/03	465.03		22.63	442.40
	6/25/03	465.03		22.10	442.93
	9/16/03	465.03		24.91	440.12
	12/22/03	465.03		21.75	443.28
	3/10/04	465.03		17.45	447.58
	6/15/04	465.03		22.38	442.65
	9/17/04	465.03		25.61	439.42
	12/10/04	465.03		22.18	442.85
	3/2/05	465.03		16.95	448.08
	5/27/05	465.03		18.42	446.61
	7/21/05	465.03		21.38	443.65
	10/10/05	465.03		22.49	442.54
	1/9/06	465.03		18.05	446.98
MW-1A*	4/6/06	465.03	15-30	15.60	449.43
	7/27/06	465.03		22.42	442.61
	10/12/06	465.03		23.46	441.57
	1/3/07	465.03		21.00	444.03
	4/13/07	465.03		23.24	441.79
	7/16/07	465.03		Dry	NC
	10/29/07	465.03		Dry	NC
	2/1/08	465.03		Dry	NC
	4/18/08	465.03		27.34	437.69
	7/28/08	465.03		Dry	NC
	11/18/08	465.03		Dry	NC
	2/4/09	465.03		Dry	NC
	4/21/09	465.03		Dry	NC
	<b>9/24/09</b>	<b>465.03</b>		<b>Dry</b>	<b>NC</b>
MW-1B**	4/6/06	465.02	50-55	15.59	449.43
	7/27/06	465.02		22.47	442.55
	10/12/06	465.02		23.51	441.51
	1/3/07	465.02		21.04	443.98
	4/13/07	465.02		23.30	441.72
	7/16/07	465.02		35.57	429.45
	10/29/07	465.02		47.32	417.70
	2/1/08	465.02		33.90	431.12
	4/18/08	465.02		27.35	437.67
	7/28/08	465.02		44.03	420.99
	11/18/08	465.02		48.50	416.52
	2/4/09	465.02		46.83	418.19
	4/21/09	465.02		37.10	427.92
	<b>9/24/09</b>	<b>465.02</b>		<b>37.76</b>	<b>427.26</b>
MW-2	8/11/00	464.94	15-30	NM	NC
	10/19/00	464.94		21.80	443.14
	2/22/01	464.94		22.87	442.07
	5/30/01	464.94		Dry	NC
	11/14/01	464.94		Dry	NC
	5/7/02	464.94		26.70	438.24
	9/11/02	464.94		25.96	438.98
	12/11/02	464.94		27.56	437.38
	3/14/03	464.94		22.41	442.53
	6/25/03	464.94		21.97	442.97
	9/16/03	464.94		24.70	440.24
	12/22/03	464.94		21.58	443.36

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

Monitoring Well ID	Date	Top of Casing Elevation* (feet, msl)	Screen Interval (feet, bgs)	Depth to Groundwater (feet)	Groundwater Elevation (feet, msl)
MW-2 (cont.)	3/10/04	464.94		17.31	447.63
	6/15/04	464.94		22.18	442.76
	9/17/04	464.94		25.44	439.50
	12/10/04	464.94		22.00	442.94
	3/2/05	464.94		16.75	448.19
	5/27/05	464.94		18.29	446.65
	7/21/05	464.94		20.46	444.48
	10/10/05	464.94		22.30	442.64
	1/9/06	464.94		17.67	447.27
MW-2A	4/6/06	464.94	15-30	15.47	449.47
	7/27/06	464.94		22.27	442.67
	10/12/06	464.94		23.35	441.59
	1/3/07	464.94		20.90	444.04
	4/13/07	464.94		23.16	441.78
	7/16/07	464.94		Dry	NC
	10/29/07	464.94		Dry	NC
	2/1/08	464.94		Dry	NC
	4/18/08	464.94		27.26	437.68
	7/28/08	464.94		Dry	NC
	11/18/08	464.94		Dry	NC
	2/4/09	464.94		Dry	NC
	4/21/09	464.94		Dry	NC
	<b>9/24/09</b>	<b>464.94</b>		<b>Dry</b>	<b>NC</b>
MW-3	8/11/00	465.84	15-30	NM	NC
	10/19/00	465.84		22.45	443.39
	2/22/01	465.84		23.51	442.33
	5/30/01	465.84		Dry	NC
	11/14/01	465.84		Dry	NC
	5/7/02	465.84		Dry	NC
	9/11/02	465.84		26.61	439.23
	12/11/02	465.84		28.18	437.66
	3/14/03	465.84		23.04	442.80
	6/25/03	465.84		22.59	443.25
	9/16/03	465.84		25.33	440.51
	12/22/03	465.84		22.37	443.47
	3/10/04	465.84		17.88	447.96
	6/15/04	465.84		22.82	443.02
	9/17/04	465.84		26.09	439.75
	12/10/04	465.84		22.65	443.19
	3/5/05	465.84		17.33	448.51
	5/27/05	465.84		18.89	446.95
	7/21/05	465.84		21.10	444.74
	10/10/05	465.84		22.94	442.90
	1/9/06	465.84		18.24	447.60
MW-3A					Well Destroyed
	4/6/06	465.84	15-30	16.02	449.82
	7/27/06	465.84		22.90	442.94
	10/12/06	465.84		23.99	441.85
	1/3/07	465.84		21.52	444.32
	4/13/07	465.84		23.78	442.06
	7/16/07	465.84		Dry	NC
	10/29/07	465.84		Dry	NC
	2/1/08	465.84		Dry	NC
	4/18/08	465.84		27.86	437.98
	7/28/08	465.84		Dry	NC
	11/18/08	465.84		Dry	NC
	2/4/09	465.84		Dry	NC
	4/21/09	465.84		Dry	NC
	<b>9/24/09</b>	<b>465.84</b>		<b>Dry</b>	<b>NC</b>

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

Monitoring Well ID	Date	Top of Casing Elevation* (feet, msl)	Screen Interval (feet, bgs)	Depth to Groundwater (feet)	Groundwater Elevation (feet, msl)
MW-4***	11/14/01	465.15	15-30	33.84	431.31
	5/7/02	465.15		26.75	438.40
	9/11/02	465.15		26.66	438.49
	12/11/02	465.15		28.39	436.76
	3/14/03	465.15		23.14	442.01
	6/25/03	465.15		22.72	442.43
	9/16/03	465.15		25.39	439.76
	12/22/03	465.15		22.42	442.73
	3/4/04	465.15		18.20	446.95
	6/15/04	465.15		22.95	442.20
	9/17/04	465.15		26.12	439.03
	12/10/04	465.15		22.73	442.42
	3/2/05	465.15		17.60	447.55
	5/27/05	465.15		19.14	446.01
	7/21/05	465.15		21.25	443.90
	10/10/05	465.15		22.85	442.30
	1/9/06	465.15		18.54	446.61
MW-4A**	4/6/06	464.96	15-30	16.19	448.77
	7/27/06	464.96		22.87	442.09
	10/12/06	464.96		23.90	441.06
	1/3/07	464.96		21.52	443.44
	4/13/07	464.96		23.78	441.18
	7/16/07	464.96		Dry	NC
	10/29/07	464.96		Dry	NC
	2/1/08	464.96		Dry	NC
	4/18/08	464.96		27.91	437.05
	7/28/08	464.96		Dry	NC
	11/18/08	464.96		Dry	NC
	2/4/09	464.96		Dry	NC
	9/24/09	464.96		Dry	NC
	<b>4/21/09</b>	<b>464.96</b>		<b>Dry</b>	<b>NC</b>
MW-5***	11/14/01	464.65	20-50	34.94	429.71
	5/7/02	464.65		27.90	436.75
	9/11/02	464.65		27.99	436.66
	12/11/02	464.65		29.50	435.15
	3/14/03	464.65		24.26	440.39
	6/25/03	464.65		24.01	440.64
	9/16/03	464.65		26.83	437.82
	12/22/03	464.65		23.68	440.97
	3/10/04	464.65		19.22	445.43
	6/15/04	464.65		24.20	440.45
	9/17/04	464.65		27.68	436.97
	12/10/04	464.65		23.93	440.72
	3/2/05	464.65		18.56	446.09
	5/27/05	464.65		20.15	444.50
	7/21/05	464.65		22.55	442.10
	10/10/05	464.65		23.35	441.30
	1/9/06	464.65		19.53	445.12

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

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		24.40	440.24
	10/12/06	464.64		25.58	439.06
	1/3/07	464.64		22.53	442.11
	4/13/07	464.64		24.77	439.87
	7/16/07	464.64		Dry	NC
	10/29/07	464.64		Dry	NC
	2/1/08	464.64		34.03	430.61
	4/18/08	464.64		28.13	436.51
	7/28/08	464.64		Dry	NC
	11/18/08	464.64		33.82	430.82
	2/4/09	464.64		Dry	NC
	4/21/09	464.64		Dry	NC
	<b>9/24/09</b>	<b>464.64</b>		<b>Dry</b>	<b>NC</b>
MW-5B**	4/6/06	464.59	50-55	17.44	447.15
	7/27/06	464.59		24.09	440.50
	10/12/06	464.59		25.17	439.42
	1/3/07	464.59		22.44	442.15
	4/13/07	464.59		25.33	439.26
	7/16/07	464.59		36.50	428.09
	10/29/07	464.59		47.90	416.69
	2/1/08	464.59		33.25	431.34
	4/18/08	464.59		28.77	435.82
	7/28/08	464.59		44.76	419.83
	11/18/08	464.59		51.65	412.94
	2/4/09	464.59		47.63	416.96
	4/21/09	464.59		37.00	427.59
	<b>9/24/09</b>	<b>464.59</b>		<b>39.73</b>	<b>424.86</b>
MW-6	11/14/01	464.13	20-50	33.88	430.25
	5/7/02	464.13		27.01	437.12
	9/11/02	464.13		27.03	437.10
	12/11/02	464.13		28.77	435.36
	3/14/03	464.13		23.46	440.67
	6/25/03	464.13		23.08	441.05
	9/16/03	464.13		25.77	438.36
	12/22/03	464.13		22.59	441.54
	3/10/04	464.13		18.65	445.48
	6/15/04	464.13		23.31	440.82
	9/17/04	464.13		26.56	437.57
	12/10/04	464.13		23.09	441.04
	3/2/05	464.13		18.04	446.09
	5/27/05	464.13		19.57	444.56
	7/21/05	464.13		21.60	442.53
	10/10/05	464.13		22.21	441.92
	1/9/06	464.13		18.99	445.14
	4/6/06	464.13		17.00	447.13
	7/27/06	464.13		23.45	440.68
	10/12/06	464.13		24.36	439.77
	1/3/07	464.13		22.03	442.10
	4/13/07	464.13		24.40	439.73
	7/16/07	464.13	Well obstructed	NM	NC
	10/29/07	464.13		Dry	NC
	2/1/08	464.13		33.05	431.08
	4/18/08	464.13		28.20	435.93
	7/28/08	464.13		Dry	NC
	11/18/08	464.13		Dry	NC
	2/4/09	464.13		Dry	NC
	4/21/09	464.13		38.71	425.42
	<b>9/24/09</b>	<b>464.13</b>		<b>38.26</b>	<b>425.87</b>

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

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		23.40	441.92
	10/12/06	465.32		24.50	440.82
	1/3/07	465.32		21.80	443.52
	4/13/07	465.32		24.05	441.27
	7/16/07	465.32		Dry	NC
	10/29/07	465.32		Dry	NC
	2/1/08	465.32		Dry	NC
	4/18/08	465.32		28.16	437.16
	7/28/08	465.32		Dry	NC
	11/18/08	465.32		Dry	NC
	2/4/09	465.32		Dry	NC
	4/21/09	465.32		Dry	NC
	<b>9/24/09</b>	<b>465.32</b>		<b>Dry</b>	<b>NC</b>
MW-7B**	4/6/06	465.39	45-50	16.85	448.54
	7/27/06	465.39		23.72	441.67
	10/12/06	465.39		24.74	440.65
	1/3/07	465.39		22.18	443.21
	4/13/07	465.39		24.41	440.98
	7/16/07	465.39		36.40	428.99
	10/29/07	465.39		Dry	NC
	2/1/08	465.39		33.84	431.55
	4/18/08	465.39		28.52	436.87
	7/28/08	465.39		44.92	420.47
	11/18/08	465.39		Dry	NC
	2/4/09	465.39		46.65	418.74
	4/21/09	465.39		36.83	428.56
	<b>9/24/09</b>	<b>465.39</b>		<b>39.26</b>	<b>426.13</b>
MW-7C**	4/6/06	465.39	65-70	17.18	448.21
	7/27/06	465.39		24.15	441.24
	10/12/06	465.39		24.74	440.65
	1/3/07	465.39		22.53	442.86
	4/13/07	465.39		24.73	440.66
	7/16/07	465.39		36.70	428.69
	10/29/07	465.39		48.25	417.14
	2/1/08	465.39		34.00	431.39
	4/18/08	465.39		28.75	436.64
	7/28/08	465.39		45.00	420.39
	11/18/08	465.39		49.62	415.77
	2/4/09	465.39		47.89	417.50
	4/21/09	465.39		36.98	428.41
	<b>9/24/09</b>	<b>465.39</b>		<b>39.49</b>	<b>425.90</b>
EW-1**	4/6/06	465.45	15-40	15.99	449.46
	7/27/06	465.45		23.85	441.60
	10/12/06	465.45		23.51	441.94
	1/3/07	465.45		21.45	444.00
	4/13/07	465.45		23.69	441.76
	10/29/07	465.45		NM	NC
	2/1/08	465.45		NM	NC
	4/18/08	465.45		27.83	437.62
	7/28/08	465.45		NM	NC
	11/18/08	465.45		Dry	NC
	2/4/09	465.45		Dry	NC
	4/21/09	465.45		Dry	NC
	<b>9/24/09</b>	<b>465.45</b>		<b>Dry</b>	<b>NC</b>

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

Monitoring Well ID	Date	Top of Casing Elevation* (feet, msl)	Screen Interval (feet, bgs)	Depth to Groundwater (feet)	Groundwater Elevation (feet, msl)
EW-2**	4/6/06	465.99	15-40	16.20	449.79
	7/27/06	465.99		23.10	442.89
	10/12/06	465.99		21.48	444.51
	1/3/07	465.99		21.66	444.33
	4/13/07	465.99		23.93	442.06
	10/29/07	465.99		Dry	NC
	2/1/08	465.99		NM	NC
	4/18/08	465.99		28.04	437.95
	7/28/08	465.99		NM	NC
	11/18/08	465.99		Dry	NC
	2/4/09	465.99		Dry	NC
	4/21/09	465.99		Dry	NC
	<b>9/24/09</b>	<b>465.99</b>		<b>Dry</b>	<b>NC</b>
EW-3	11/18/08	NC		Dry	NC
	2/4/09	NC		33.80	NC
	4/21/09	NC		Dry	NC
	<b>9/24/09</b>	<b>NC</b>		<b>Dry</b>	<b>NC</b>
MW-8A	7/28/08	NC	16-36	Dry	NC
	11/18/08	NC		35.40	NC
	2/4/09	NC		Dry	NC
	4/21/09	NC		Dry	NC
	<b>9/24/09</b>	<b>NC</b>		<b>Dry</b>	<b>NC</b>
MW-8B	7/28/08	NC	46-51	44.90	NC
	11/18/08	NC		49.85	NC
	2/4/09	NC		47.95	NC
	4/21/09	NC		38.75	NC
	<b>9/24/09</b>	<b>NC</b>		<b>38.47</b>	<b>NC</b>
MW-9A	7/28/08	NC	14-36	Dry	NC
	11/18/08	NC		48.97	NC
	2/4/09	NC		Dry	NC
	4/21/09	NC		Dry	NC
	<b>9/24/09</b>	<b>NC</b>		<b>Dry</b>	<b>NC</b>
MW-9B	7/28/08	NC	47-52	44.05	NC
	11/18/08	NC		38.28	NC
	2/4/09	NC		47.03	NC
	4/21/09	NC		35.94	NC
	<b>9/24/09</b>	<b>NC</b>		<b>37.93</b>	<b>NC</b>
EX-1***	11/14/01	465.30	30-55	33.41	431.89
	5/7/02	465.30		27.58	437.72
	9/11/02	465.30		NM	NC
	12/11/02	465.30		27.98	437.32
	3/14/03	465.30		23.02	442.28
	6/25/03	465.30		22.41	442.89
	9/16/03	465.30		24.65	440.65
	3/10/04	465.30		17.99	447.31
	6/15/04	465.30		22.48	442.82
	9/17/04	465.30		25.91	439.39
	12/10/04	465.30		NM	NC
	3/2/05	465.30		NM	NC
	5/27/05	465.30		18.68	446.62
	7/21/05	465.30		21.55	443.75
	10/10/05	465.30		22.73	442.57
	1/9/06	465.30		18.05	447.25

MSL: Mean sea level

bgs: Below ground surface

NC: elevation not calculated

NA: well not accessible

NM: well not measured

\* = Well MW-1 renamed MW-1A

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

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

**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-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	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	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	NA
	5/30/01	NC	not sampled - well dry							NA	NA	NA	NA	NA	NA	NA	NA	NA
	11/14/01	NC	not sampled - well dry							NA	NA	NA	NA	NA	NA	NA	NA	NA
	5/7/02	NC	not sampled - well dry							NA	NA	NA	NA	NA	NA	NA	NA	NA
	9/11/02	438.87	130,000	NA	7,700	1,100	NS	1,500	<5000	NA	NA	NA	NA	NA	NA	NA	NA	NA
	12/1/02	437.48	NS	NS	NS	NS	NS	NS	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA
	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	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	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	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	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	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	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	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	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	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	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	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	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	<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	<2,500
	7/27/06	442.61	24,000	2,400	2,100	350	3,400	5,300	130,000	<5000	<50,000	<5000	<5000	160,000	NA	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	NA
	1/3/07	444.03	27,000	2,300	1,300	53	2,500	1,900	120,000	<1,700	<1,7000	<1,700	<1,700	110,000	<170,000	<1,700,000	<1,700	<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	<5,000
	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	437.69	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	430.03	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
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	NA	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	<500	<0.5	<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

**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- 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	not sampled - well dry							NA	NA	NA	NA	NA	NA	NA	NA	NA
	11/14/01	NC	not sampled - well dry							NA	NA	NA	NA	NA	NA	NA	NA	NA
	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
	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	<1000	<10,000	<10	<10
	4/7/06	449.47	110	160	0.61	0.80	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	<5000	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	0.60	<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
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	not sampled - well dry							NA	NA	NA	NA	NA	NA	NA	NA	NA
	11/14/01	NC	not sampled - well dry							NA	NA	NA	NA	NA	NA	NA	NA	NA
	5/7/02	NC	not sampled - well dry							NA	NA	NA	NA	NA	NA	NA	NA	NA
	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	<50	<50	<0.5	<0.5	<0.5	<5.0	NA	NA	NA	NA	NA	NA	NA	NA	NA
	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

**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.)	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	<0.5	<0.5	<0.5
	4/7/06	449.82	<50	<50	<0.5	<0.5	<0.5	<0.5	<5.0	<0.5	<5.0	<0.5	<5.0	<0.5	<500	<0.5	<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	<5.0	<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	<5.0	<0.5	<500	NA	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	<5.0	<0.5	<500	<0.5	<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	<5.0	<0.5	<500	<0.5	<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
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	<5.0	37	NA	NA	NA	NA	NA	NA	NA	NA
	6/15/04	442.20	<50	<50	<0.5	<0.5	<0.5	<0.5	<5.0	7.4	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	<5.0	14	NA	NA	NA	NA	NA	NA	NA	NA
	5/27/05	446.01	<50	<50	<0.5	<0.5	<0.5	<0.5	<5.0	9.6	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	<5.0	<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	<5.0	0.70	<500	<0.5	<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
	4/18/08	437.05	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

**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-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	3.5	<0.5	2.6	1500	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	1100	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	0.61	<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	<50	<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	
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	<5.0	48	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

**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-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	
	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	
	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	
	12/1/02	435.36	<50	<50	<0.5	<0.5	<0.5	<0.5	<1.0	NA	NA	NA	NA	NA	NA	NA	NA	
	3/14/03	440.67	<50	<50	<0.5	<0.5	<0.5	<1.0	<1.0	NA	NA	NA	NA	NA	NA	NA	NA	
	6/25/03	441.05	<50	<50	<0.5	<0.5	<0.5	<1.0	<1.0	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	
	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	
	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	
	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	
	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	
	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	
	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	
	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	
	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	
	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	
	1/9/06	445.14	<50	<50	<0.5	<0.5	<0.5	<0.5	<0.5	<5.0	<0.5	<0.5	<0.5	0.86	<50	<500	<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	<0.5	<0.5	<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	<0.5	<0.5	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	<0.5	<0.5	<500	<500	NA	
	1/4/07	442.10	<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	
	4/16/07	439.73	<50	<50	<0.5	<0.5	<0.5	<0.5	<5.0	<0.5	<5.0	<0.5	<0.5	<0.5	<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	431.08	<50	<50	<0.5	<0.5	<0.5	0.91	<5.0	<0.5	<2.0	<0.5	<0.5	<0.5	<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	<500	<0.5	<0.5	
	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	
	4/22/09	425.42	<50	NS	<0.5	<0.5	<0.5	<0.5	<5.0	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	<500	<0.5	<0.5	
MW-7A	3/13/06	445.85	6,200	1,800	140	21	200	560	6,900	<100	4400	<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	<1700	<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	<5000	<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	
	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	437.16	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		
***	MW-7B	3/13/06	445.64	230	<50	1.8	4.7	<0.5	2.2	1,500	<50	7300	<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	<5000	<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	<5000	<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	4000	<25	<25	49	<2500	<25,000	<25	<25	
		4/18/08	436.87	650	100	3.4	15	8.3	<0.5	150	<25	3800	<25	<25	140	<2500	<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	<5000	<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	<5000	<5.0	<5.0	
***	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	<5.0	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	<50	<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	<5.0	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	<90	<1.0	<4.0	<1.0	<1.0	<1.0	<100	<1000	<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	
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	
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	<50	<500	<0.5	<0.5	<0.5	
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	
MW-9B		7/29/08	NC	<50	63	<0.5	<0.5	<0.5	<0.5	100	<10	2,800	<10	<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	7.5	<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	NA	
		4/22/09	NC	<50	NA	<0.5	<0.5	<0.5	<0.5	470	NA	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	<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
EX-1**	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	NA
	5/7/02	437.72	7,700	560	320	<25	66	150	6,200	NA	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	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	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	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	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	NA
	3/10/04	447.31	NS	NS	NS	NS	NS	NS	NS	NA	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	NA
	9/17/04	439.39	NS	NS	NS	NS	NS	NS	NS	NA	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	NA
	3/2/05	NC	NS	NS	NS	NS	NS	NS	NS	NA	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	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	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	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	<170
EW-1	3/13/06	446.47	210	120	5.0	4.1	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	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	437.62	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
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	<1200	<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	<5000	<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

**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
EW-3	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
B1	2/2/01	30	650,000	13,000	6,300	10000.0	<2,500	12,000	290,000	NA	NA	NA	NA	NA	NA	NA	NA
B2	2/2/01	30	56	<0.5	<0.5	<0.5	<0.5	<0.5	47	NA	NA	NA	NA	NA	NA	NA	NA
B3	2/2/01	30	6,200	NA	<50	<50	<50	<50	3,800	NA	NA	NA	NA	NA	NA	NA	NA
B4	2/2/01	30	12,000	NA	<50	<50	<50	<50	6,000	NA	NA	NA	NA	NA	NA	NA	NA
B5	2/2/01	30	<25,000	960	<250	<250	<250	<250	16,000	NA	NA	NA	NA	NA	NA	NA	NA
MB-1-A	11/10/01	28	21,000	4,300	970	<25	3,300	1200	NA	<2,500	<25,000	<2,500	<2,500	100,000	NA	NA	NA
MB-1-B	11/10/01	50	470	210	7.8	0.97	31	48	NA	<25	<250	<25	<25	1,500	NA	NA	NA
MB-1-C	11/10/01	70	990	NA	17	1.3	89	160	NA	<25	<250	<25	<25	1,200	NA	NA	NA
MB-2-A	11/9/01	28	<50	<50	<0.5	<0.5	<0.5	<0.5	NA	<0.5	<5.0	<0.5	<0.5	<0.5	NA	NA	NA
MB-2-B	11/10/01	50	<50	<50	<0.5	<0.5	<0.5	<0.5	NA	<0.5	<5.0	<0.5	<0.5	<0.5	NA	NA	NA
MB-3-A	11/10/01	28	40,000	41,000	120	130	1,700	2,800	NA	<50	2,500	<50	<50	<4,500	NA	NA	NA
MB-3-B	11/13/01	50	1,400	210	0.93	9.3	14	27	NA	<50	6,200	<50	<50	190	NA	NA	NA
MB-3-C	11/13/01	70	930	260	1.7	3.8	33	100	NA	<100	16,000	<100	<100	330	NA	NA	NA
DB-1-A	11/9/01	28	160	NA	<0.5	<0.5	<0.5	<0.5	NA	<1.7	<17	<1.7	<1.7	86	NA	NA	NA
DB-2-A	11/10/01	28	<50	<50	<0.5	<0.5	<0.5	<0.5	NA	<0.5	<5.0	<0.5	<0.5	<0.5	NA	NA	NA
DB-3-A	11/13/01	28	<50	51	<0.5	<0.5	<0.5	<0.5	NA	<0.5	<5.0	<0.5	<0.5	<0.5	NA	NA	NA
DB-4-A	11/13/01	28	<50	57	<0.5	<0.5	<0.5	<0.5	NA	<0.5	<5.0	<0.5	<0.5	<0.5	NA	NA	NA
DB-5-A	11/10/01	28	<50	910	<0.5	<0.5	<0.5	<0.5	NA	<0.5	<5.0	<0.5	<0.5	<0.5	NA	NA	NA
B-1-A	11/9/01	28	<50	230	<0.5	<0.5	<0.5	<0.5	NA	<0.5	<5.0	<0.5	<0.5	28	NA	NA	NA
B-2-A	11/9/01	28	25,000	6,200	900	<50	2,000	2,600	NA	<1,700	<17,000	<1,700	<1,700	80,000	NA	NA	NA
B-3-A	11/9/01	28	42,000	14,000	530	140	2,400	7,800	NA	<500	<5,000	<500	<500	19,000	NA	NA	NA
HP-1-A	11/13/01	28	<50	NA	<0.5	<0.5	<0.5	0.80	NA	<50	24	<50	<50	12	NA	NA	NA
GP-1	1/10/07	28	270	--	<0.5	<0.5	2.6	0.85	61	--	--	--	--	--	--	--	--
GP-2	1/10/07	28	2,000	--	61	46	93	280	2,600	--	--	--	--	--	--	--	--
GP-3	1/10/07	28	11,000	--	38	27	1,100	980	37,000	--	--	--	--	--	--	--	--
GP-4	1/10/07	28	20,000	--	\$20	260	1,400	3,200	35,000	--	--	--	--	--	--	--	--
GP-5	1/10/07	28	4,100	--	64	6.6	13	550	780	--	--	--	--	--	--	--	--
GP-6	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
GP-6A	1/11/07	28	11,000	--	360	150	1,500	480	6,100	--	--	--	--	--	--	--	--
GP-7	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
GP-8	1/10/07	28	61,000	--	2,800	490	2,600	4,400	190,000	--	--	--	--	--	--	--	--
GP-9	1/10/07	28	100,000	--	5,600	3,400	3,500	24,000	260,000	--	--	--	--	--	--	--	--
GP-10	1/10/07	28	44,000	--	2,400	590	3,600	3,300	92,000	--	--	--	--	--	--	--	--
GP-11	1/11/07	28	550	--	1.4	1.3	2.1	36	110	--	--	--	--	--	--	--	--
GP-12	1/11/07	28	15,000	--	68	20	1,800	94	6,600	--	--	--	--	--	--	--	--
GP-13	1/11/07	28	88,000	--	5,100	<50	5,500	7,400	87,000	--	--	--	--	--	--	--	--
GP-14	1/11/07	28	210,000	--	11,000	26,000	4,600	21,000	1,500,000	--	--	--	--	--	--	--	--
GP-15	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
GP-16	1/11/07	28	160	--	5.2	3.2	18	7.5	210	--	--	--	--	--	--	--	--
GP-17	1/11/07	28	460	--	7.7	4.8	8.0	7.4	790	--	--	--	--	--	--	--	--
GP-18	1/11/07	28	35,000	--	250	72	2,800	380	13,000	--	--	--	--	--	--	--	--
GP-19	1/11/07	28	430	--	8.9	1.6	24	31	430	--	--	--	--	--	--	--	--

**Notes:**

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

µg/L = micrograms per liter

MTBE = methyl tertiary butyl ether

NA = Not Analyzed

DIPE = Di-isopropyl Ether

EDB = 1,2-Dibromoether

ETBE = Ethyl tert-Butyl Ether

NS = Not Sampled

TAME = tert-Amyl Methyl Ether

1,2-DCA = 1,2-Dichloroethane

TBA = tert-Butanol

\* = 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.

**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	9/24/25
Project Number		Field Personnel	NA EA

## Monitoring Well Information

Monitoring Well ID	MW-1A	Monitoring Well Diameter (inches)
Depth to Water (feet)		Water Column (feet)
Total Depth (feet)	35.0	80% Recharge Depth (feet)
Depth to Product (feet)		1 Well Volume (gallons)

Comments

## Field Measurements and Observations

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

Total Purge Volume	Comments
--------------------	----------

## Groundwater Sampling Information

Sample ID	Sample Time
Sample Containers (Number/Type)	
Comments	

## Groundwater Sampling Field Log

Site Address	Date
Project Number	Field Personnel

## Monitoring Well Information

Monitoring Well ID	MW-1B	Monitoring Well Diameter (inches)
Depth to Water (feet)	37.76	Water Column (feet)
Total Depth (feet)	55.00	80% Recharge Depth (feet)
Depth to Product (feet)		1 Well Volume (gallons)

Comments

## Field Measurements and Observations

Time	Depth to Water	Purge Volume	Conductivity	Temperature	pH	Turbidity	Color	Odor
	37.76	2.9	571	19.8	7.64	low	clear	none
		2.9	528	19.6	7.52	low	brown	none
		2.9	530	19.6	7.41	low	brown	none

Total Purge Volume	Comments
--------------------	----------

## Groundwater Sampling Information

Sample ID	Sample Time
Sample Containers (Number/Type)	
Comments	

## Groundwater Sampling Field Log

Site Address	160 Holmes	Date	9/24/25
Project Number		Field Personnel	NA EA
Monitoring Well Information			
Monitoring Well ID	MW-12A	Monitoring Well Diameter (inches)	
Depth to Water (feet)		Water Column (feet)	
Total Depth (feet)	35.0	80% Recharge Depth (feet)	
Depth to Product (feet)		1 Well Volume (gallons)	
Comments			

## Field Measurements and Observations

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

Total Purge Volume	Comments
--------------------	----------

## Groundwater Sampling Information

Sample ID	Sample Time
Sample Containers (Number/Type)	
Comments	

## Groundwater Sampling Field Log

Site Address	Date		
Project Number	Field Personnel		
Monitoring Well Information			
Monitoring Well ID	MW-3A	Monitoring Well Diameter (inches)	
Depth to Water (feet)		Water Column (feet)	
Total Depth (feet)		80% Recharge Depth (feet)	
Depth to Product (feet)		1 Well Volume (gallons)	
Comments			

## Field Measurements and Observations

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

Total Purge Volume	Comments
--------------------	----------

## Groundwater Sampling Information

Sample ID	Sample Time
Sample Containers (Number/Type)	
Comments	



**ALLTERRA****Groundwater Sampling Field Log**

Site Address	160 Holmes St.	Date	9/24/25
Project Number		Field Personnel	NA EA
<b>Monitoring Well Information</b>			
Monitoring Well ID	MW-SB	Monitoring Well Diameter (inches)	2.0
Depth to Water (feet)	39.73	Water Column (feet)	14.27
Total Depth (feet)	54.0	80% Recharge Depth (feet)	
Depth to Product (feet)		1 Well Volume (gallons)	2.4
Comments			

**Field Measurements and Observations**

Time	Depth to Water	Purge Volume	Conductivity	Temperature	pH	Turbidity	Color	Odor
		574	20.4	7.56	med	brown	none	
		598	20.3	7.55	med	brown	none	
		604	20.7	7.54	med	brown	none	

Total Purge Volume	Comments
--------------------	----------

**Groundwater Sampling Information**

Sample ID	MW-5B	Sample Time
Sample Containers (Number/Type)		
Comments		

**Groundwater Sampling Field Log**

Site Address	Date		
Project Number	Field Personnel		
<b>Monitoring Well Information</b>			
Monitoring Well ID	MW-6	Monitoring Well Diameter (inches)	2.0
Depth to Water (feet)	38.26	Water Column (feet)	11.74
Total Depth (feet)	50.0	80% Recharge Depth (feet)	
Depth to Product (feet)		1 Well Volume (gallons)	2.0
Comments			

**Field Measurements and Observations**

Time	Depth to Water	Purge Volume	Conductivity	Temperature	pH	Turbidity	Color	Odor
	2.0	665	19.1	7.40	light	brown	none	
	2.0	670	19.1	7.36	light	brown	none	
	2.0	649	19.1	7.35	light	brown	none	

Total Purge Volume	Comments
--------------------	----------

**Groundwater Sampling Information**

Sample ID	MW-6	Sample Time
Sample Containers (Number/Type)		
Comments		

## Groundwater Sampling Field Log

Site Address 160 Holmes St

Date 9/24/25

Project Number

Field Personnel NA EA

## Monitoring Well Information

Monitoring Well ID MW-7A

Monitoring Well Diameter (inches)

Depth to Water (feet)

Water Column (feet)

Total Depth (feet)

80% Recharge Depth (feet)

Depth to Product (feet)

1 Well Volume (gallons)

Comments

## Field Measurements and Observations

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

Total Purge Volume

Comments

## Groundwater Sampling Information

Sample ID

Sample Time

Sample Containers (Number/Type)

Comments

## Groundwater Sampling Field Log

Site Address

Date

Project Number

Field Personnel

## Monitoring Well Information

Monitoring Well ID MW-7B

Monitoring Well Diameter (inches) 2.0

Depth to Water (feet) 39.26

Water Column (feet) 10.74

Total Depth (feet) 50

80% Recharge Depth (feet)

Depth to Product (feet)

1 Well Volume (gallons) 10.74 1.8

Comments

## Field Measurements and Observations

Time	Depth to Water	Purge Volume	Conductivity	Temperature	pH	Turbidity	Color	Odor
	1.8	780	20.8	7.82	low	brown	none	
	1.8	739	20.5	7.78	low	brown	none	
	1.8	739	20.1	7.73	low	brown	none	

Total Purge Volume

Comments

## Groundwater Sampling Information

Sample ID MW-7B

Sample Time

Sample Containers (Number/Type)

Comments

## Groundwater Sampling Field Log

Site Address 160 Holmes

Date 9/24/25

Project Number

Field Personnel NA EA

## Monitoring Well Information

Monitoring Well ID MW-7C

Monitoring Well Diameter (inches) 2.0

Depth to Water (feet) 39.49

Water Column (feet) 35.5

Total Depth (feet) 75.00

80% Recharge Depth (feet)

Depth to Product (feet)

1 Well Volume (gallons) 6.0

Comments

## Field Measurements and Observations

Time	Depth to Water	Purge Volume	Conductivity	Temperature	pH	Turbidity	Color	Odor
	6.0	494		20.8	7.88	clear	clear	none
	6.0	524		20.4	7.87	clear	clear	none
	6.0	526		20.2	7.85	clear	clear	none

Total Purge Volume

Comments

## Groundwater Sampling Information

Sample ID MW-7C

Sample Time

Sample Containers (Number/Type)

Comments

## Groundwater Sampling Field Log

Site Address

Date

Project Number

Field Personnel

## Monitoring Well Information

Monitoring Well ID MW-8A

Monitoring Well Diameter (inches)

Depth to Water (feet)

Water Column (feet)

Total Depth (feet)

80% Recharge Depth (feet)

Depth to Product (feet)

1 Well Volume (gallons)

Comments

## Field Measurements and Observations

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

Total Purge Volume

Comments

## Groundwater Sampling Information

Sample ID

Sample Time

Sample Containers (Number/Type)

Comments

## Groundwater Sampling Field Log

Site Address	160 Holmes	Date	9/24/25
Project Number		Field Personnel	NA EA
<b>Monitoring Well Information</b>			
Monitoring Well ID	MW - 8B	Monitoring Well Diameter (inches)	2.0
Depth to Water (feet)	38.41	Water Column (feet)	11.53
Total Depth (feet)	50.0	80% Recharge Depth (feet)	
Depth to Product (feet)		1 Well Volume (gallons)	2.0
Comments			

**Field Measurements and Observations**

Time	Depth to Water	Purge Volume	Conductivity	Temperature	pH	Turbidity	Color	Odor
	2.0	628	19.7	7.96	light	brown	none	
	2.0	624	19.7	7.90	light	brown	none	
	2.0	623	19.8	7.89	light	brown	none	

Total Purge Volume	Comments
--------------------	----------

**Groundwater Sampling Information**

Sample ID	MW - 8B	Sample Time
Sample Containers (Number/Type)		
Comments		

**Groundwater Sampling Field Log**

Site Address	Date		
Project Number	Field Personnel		
<b>Monitoring Well Information</b>			
Monitoring Well ID	MW - 9A	Monitoring Well Diameter (inches)	
Depth to Water (feet)		Water Column (feet)	
Total Depth (feet)		80% Recharge Depth (feet)	
Depth to Product (feet)		1 Well Volume (gallons)	
Comments			

**Field Measurements and Observations**

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

DRY

Total Purge Volume	Comments
--------------------	----------

**Groundwater Sampling Information**

Sample ID	Sample Time
Sample Containers (Number/Type)	
Comments	

## Groundwater Sampling Field Log

Site Address 160 Holmes St.

Date 9/24/25

Project Number

Field Personnel NA EA

## Monitoring Well Information

Monitoring Well ID MW-9B

Monitoring Well Diameter (inches) 2.0

Depth to Water (feet) 37.93

Water Column (feet) 12.07

Total Depth (feet) 50.0

80% Recharge Depth (feet)

Depth to Product (feet)

1 Well Volume (gallons) 2.0

Comments

## Field Measurements and Observations

Time	Depth to Water	Purge Volume	Conductivity	Temperature	pH	Turbidity	Color	Odor
	2.0	763	20.3	7.38	med	brown	none	
	2.0	805	20.2	7.33	med	brown	none	
	2.0	805	20.0	7.32	med	brown	none	

Total Purge Volume

Comments

## Groundwater Sampling Information

Sample ID MW-9B

Sample Time

Sample Containers (Number/Type)

Comments

## Groundwater Sampling Field Log

Site Address

Date

Project Number

Field Personnel

## Monitoring Well Information

Monitoring Well ID

Monitoring Well Diameter (inches)

Depth to Water (feet)

Water Column (feet)

Total Depth (feet)

80% Recharge Depth (feet)

Depth to Product (feet)

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

Sample Time

Sample Containers (Number/Type)

Comments

**APPENDIX C**  
**Certified Analytical Reports and Chain of Custody**



## McCampbell Analytical, Inc.

"When Quality Counts"

1534 Willow Pass Road, Pittsburg, CA 94565-1701  
Web: [www.mccampbell.com](http://www.mccampbell.com) E-mail: [main@mccampbell.com](mailto:main@mccampbell.com)  
Telephone: 877-252-9262 Fax: 925-252-9269

Allterra Environmental, Inc  849 Almar Ave, Ste. C #281  Santa Cruz, CA 95060	Client Project ID: 160 Holmes	Date Sampled: 09/24/09
		Date Received: 09/28/09
	Client Contact: James Allen	Date Reported: 10/05/09
	Client P.O.:	Date Completed: 10/01/09

**WorkOrder: 0909766**

October 05, 2009

Dear James:

Enclosed within are:

- 1) The results of the 7 analyzed samples from your project: **160 Holmes**,
- 2) A QC report for the above samples,
- 3) A copy of the chain of custody, and
- 4) An invoice for analytical services.

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.

**ALLTERRA**

849 Almar Avenue, Suite C, #281

Santa Cruz, California 95060

Website: [www.allterraeny.com](http://www.allterraeny.com)

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

## **Chain of Custody Record**

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

ANSWER

( )

10310

6020

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110/2

3

Report and Bill to: Allterra Environmental, Inc.

Project Number:

Project Location: 169 Holmes

Project Name:

Project Name:

Field Point Name / Sample ID	Sample Collection		Sample Containers		Matrix			Preservation		TPHg/ BTEX/ M BTEX (EPA 801)	TPHd (EPA 801)	5-fuel oxy (EPA 801)	Ethanol and Met Lead Scavengers	Total HVOCS (EPA 801)	Hardness/ Total C CAM-17 Metals	LUFT 5 Metals	PAH's/ PNA's (EPA 801)	Fish Toxicity/Bio Lead (EPA 601)	EDF required
	Date	Time	Number of Containers	Container Type	Air	Water	Soil	Sludge	Other										
MW-1B	9/24/09	3 / 1	VOA/Amber	X				X X		X								X	
MW-5B	9/24/09	3 / 1	VOA/Amber	X				X X		X								X	
MW-6	9/24/09	3 / 1	VOA/Amber	X				X X		X								X	
MW-7B	9/24/09	3 / 1	VOA/Amber	X				X X		X								X	
MW-7C	9/24/09	3 / 1	VOA/Amber	X				X X		X								X	
MW-8B	9/24/09	3 / 1	VOA/Amber	X				X X		X								X	
MW-9B	9/24/09	3 / 1	VOA/Amber	X				X X		X	X	X	X	X				X	

Sampled By:  Date: 9/24/09 Time: Received By: *LeVall 9/26/09  
10:05 am* Comments: ICE 14° 22.6°C  
GOOD CONDITION ✓ APPROPRIATE  
HEAD SPACE ABSENT ✓ CONTAINERS ✓  
DECHLORINATED IN LAB PRESERVED IN LAB  
PRESERVATION VOAS O & G METALS OTHER ✓

Received By: Date: Time: Received By:

Received By: Date: Time: Received By:

REC'D SEALED & INTACT VIA CJO 9/28/09

# McCampbell Analytical, Inc.

 1534 Willow Pass Rd  
Pittsburg, CA 94565-1701  
(925) 252-9262

# CHAIN-OF-CUSTODY RECORD

Page 1 of 1

WaterTrax  WriteOn  EDF  Excel  Fax  Email  HardCopy  ThirdParty  J-flag

Report to:	Email: allterraenvironmental@yahoo.com, mic	Bill to:	Requested TAT:
James Allen Allterra Environmental, Inc 849 Almar Ave, Ste. C #281 Santa Cruz, CA 95060 831-425-2608 FAX 831-425-2609	cc: PO: ProjectNo: 160 Holmes	Accounts Payable Allterra Environmental 849 Almar Ave, Ste. C #281 Santa Cruz, CA 95060 micah@allterraenv.com	5 days
			Date Received: 09/28/2009
			Date Printed: 09/28/2009

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
0909766-001	MW-1B	Water	9/24/2009	<input type="checkbox"/>	C	A	A	B								
0909766-002	MW-5B	Water	9/24/2009	<input type="checkbox"/>	C	A		B								
0909766-003	MW-6	Water	9/24/2009	<input type="checkbox"/>	C	A		B								
0909766-004	MW-7B	Water	9/24/2009	<input type="checkbox"/>	C	A		B								
0909766-005	MW-7C	Water	9/24/2009	<input type="checkbox"/>	C	A		B								
0909766-006	MW-8B	Water	9/24/2009	<input type="checkbox"/>	C	A		B								
0909766-007	MW-9B	Water	9/24/2009	<input type="checkbox"/>	C	A		B								

### Test Legend:

1	9-OXYS_W	2	G-MBTEX_W	3	PREDF REPORT	4	TPH(D)_W	5	
6		7		8		9		10	
11		12							

Prepared by: Melissa Valles

### 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.

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## Sample Receipt Checklist

Client Name: **Allterra Environmental, Inc**Date and Time Received: **9/28/2009 10:32:41 AM**Project Name: **160 Holmes**Checklist completed and reviewed by: **Melissa Valles**WorkOrder N°: **0909766** Matrix WaterCarrier: CA OverNight

### Chain of Custody (COC) Information

- Chain of custody present? Yes  No
- Chain of custody signed when relinquished and received? Yes  No
- Chain of custody agrees with sample labels? Yes  No
- Sample IDs noted by Client on COC? Yes  No
- Date and Time of collection noted by Client on COC? Yes  No
- Sampler's name noted on COC? Yes  No

### Sample Receipt Information

- Custody seals intact on shipping container/cooler? Yes  No  NA
- Shipping container/cooler in good condition? Yes  No
- Samples in proper containers/bottles? Yes  No
- Sample containers intact? Yes  No
- Sufficient sample volume for indicated test? Yes  No

### Sample Preservation and Hold Time (HT) Information

- All samples received within holding time? Yes  No
- Container/Temp Blank temperature Cooler Temp: 22.6°C NA
- Water - VOA vials have zero headspace / no bubbles? Yes  No  No VOA vials submitted
- Sample labels checked for correct preservation? Yes  No
- Metal - pH acceptable upon receipt (pH<2)? Yes  No  NA
- Samples Received on Ice? Yes  No

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

-----

Client contacted:

Date contacted:

Contacted by:

Comments:



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Allterra Environmental, Inc  849 Almar Ave, Ste. C #281  Santa Cruz, CA 95060	Client Project ID: 160 Holmes	Date Sampled: 09/24/09
		Date Received: 09/28/09
	Client Contact: James Allen	Date Extracted: 09/29/09
	Client P.O.:	Date Analyzed: 09/29/09

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

Extraction Method: SW5030B

Analytical Method: SW8260B

Work Order: 0909766

Lab ID	0909766-001C	0909766-002C	0909766-003C	0909766-004C	Reporting Limit for DF =1	
Client ID	MW-1B	MW-5B	MW-6	MW-7B		
Matrix	W	W	W	W		
DF	1	1	1	10	S	W
Compound	Concentration				ug/kg	μg/L
tert-Amyl methyl ether (TAME)	ND	ND	ND	ND<5.0	NA	0.5
t-Butyl alcohol (TBA)	ND	ND	ND	470	NA	2.0
1,2-Dibromoethane (EDB)	ND	ND	ND	ND<5.0	NA	0.5
1,2-Dichloroethane (1,2-DCA)	ND	ND	ND	ND<5.0	NA	0.5
Diisopropyl ether (DIPE)	ND	ND	ND	ND<5.0	NA	0.5
Ethanol	ND	ND	ND	ND<500	NA	50
Ethyl tert-butyl ether (ETBE)	ND	ND	ND	ND<5.0	NA	0.5
Methanol	ND	ND	ND	ND<5000	NA	500
Methyl-t-butyl ether (MTBE)	1.1	1.3	ND	220	NA	0.5

## Surrogate Recoveries (%)

%SS1:	74	73	72	91	
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; N/A means analyte not applicable to this analysis.

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



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Allterra Environmental, Inc  849 Almar Ave, Ste. C #281  Santa Cruz, CA 95060	Client Project ID: 160 Holmes	Date Sampled: 09/24/09
		Date Received: 09/28/09
	Client Contact: James Allen	Date Extracted: 09/29/09
	Client P.O.:	Date Analyzed: 09/29/09

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

Extraction Method: SW5030B

Analytical Method: SW8260B

Work Order: 0909766

Lab ID	0909766-005C	0909766-006C	0909766-007C		Reporting Limit for DF =1
Client ID	MW-7C	MW-8B	MW-9B		
Matrix	W	W	W		
DF	1	1	1		S W
Compound	Concentration			ug/kg	μg/L
tert-Amyl methyl ether (TAME)	ND	ND	ND		NA 0.5
t-Butyl alcohol (TBA)	ND	ND	ND		NA 2.0
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
Ethanol	ND	ND	ND		NA 50
Ethyl tert-butyl ether (ETBE)	ND	ND	ND		NA 0.5
Methanol	ND	ND	ND		NA 500
Methyl-t-butyl ether (MTBE)	ND	ND	7.2		NA 0.5

## Surrogate Recoveries (%)

%SS1:	74	104	104		
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; N/A means analyte not applicable to this analysis.

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



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Telephone: 877-252-9262 Fax: 925-252-9269

Allterra Environmental, Inc 849 Almar Ave, Ste. C #281 Santa Cruz, CA 95060	Client Project ID: 160 Holmes	Date Sampled:	09/24/09
		Date Received:	09/28/09
	Client Contact: James Allen	Date Extracted:	09/29/09-10/01/09
	Client P.O.:	Date Analyzed:	09/29/09-10/01/09

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

Extraction method: SW5030B

Analytical methods: SW8021B/8015Bm

Work Order: 0909766

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 ug/L, soil/sludge/solid samples in mg/kg, wipe samples in  $\mu\text{g}/\text{wipe}$ , 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.

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



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Allterra Environmental, Inc  849 Almar Ave, Ste. C #281  Santa Cruz, CA 95060	Client Project ID: 160 Holmes	Date Sampled: 09/24/09
		Date Received: 09/28/09
	Client Contact: James Allen	Date Extracted: 09/28/09
	Client P.O.:	Date Analyzed 09/28/09-09/29/09

## Total Extractable Petroleum Hydrocarbons\*

Extraction method: SW3510C

Analytical methods: SW8015B

Work Order: 0909766

Lab ID	Client ID	Matrix	TPH-Diesel (C10-C23)	DF	% SS	Comments
0909766-001B	MW-1B	W	ND	1	96	
0909766-002B	MW-5B	W	ND	1	96	
0909766-003B	MW-6	W	ND	1	95	
0909766-004B	MW-7B	W	ND	1	97	
0909766-005B	MW-7C	W	ND	1	97	
0909766-006B	MW-8B	W	ND	1	98	
0909766-007B	MW-9B	W	ND	1	99	

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.

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

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 Angela Rydelius, Lab Manager



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## QC SUMMARY REPORT FOR SW8015B

W.O. Sample Matrix: Water

QC Matrix: Water

BatchID: 46095

WorkOrder: 0909766

EPA Method SW8015B		Extraction SW3510C								Spiked Sample ID: N/A			
Analyte	Sample	Spiked	MS	MSD	MS-MSD	LCS	LCSD	LCS-LCSD	Acceptance Criteria (%)				
	µg/L	µg/L	% Rec.	% Rec.	% RPD	% Rec.	% Rec.	% RPD	MS / MSD	RPD	LCS/LCSD	RPD	
TPH-Diesel (C10-C23)	N/A	1000	N/A	N/A	N/A	103	103	0	N/A	N/A	70 - 130	30	
%SS:	N/A	2500	N/A	N/A	N/A	93	92	0.725	N/A	N/A	70 - 130	30	

All target compounds in the Method Blank of this extraction batch were ND less than the method RL with the following exceptions:

NONE

### BATCH 46095 SUMMARY

Lab ID	Date Sampled	Date Extracted	Date Analyzed	Lab ID	Date Sampled	Date Extracted	Date Analyzed
0909766-004B	09/24/09	09/28/09	09/28/09 9:42 PM	0909766-005B	09/24/09	09/28/09	09/28/09 10:50 PM
0909766-006B	09/24/09	09/28/09	09/28/09 11:59 PM	0909766-007B	09/24/09	09/28/09	09/29/09 5:40 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.

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 SW8021B/8015Bm

W.O. Sample Matrix: Water

QC Matrix: Water

BatchID: 46119

WorkOrder: 0909766

EPA Method SW8021B/8015Bm		Extraction SW5030B								Spiked Sample ID: 0909766-005A			
Analyte	Sample	Spiked	MS	MSD	MS-MSD	LCS	LCSD	LCS-LCSD	Acceptance Criteria (%)				
	µg/L	µg/L	% Rec.	% Rec.	% RPD	% Rec.	% Rec.	% RPD	MS / MSD	RPD	LCS/LCSD	RPD	
TPH(btex) <sup>f</sup>	ND	60	108	112	3.68	117	118	1.11	70 - 130	20	70 - 130	20	
MTBE	ND	10	113	112	1.04	89.7	94.9	5.66	70 - 130	20	70 - 130	20	
Benzene	ND	10	113	115	1.66	113	115	1.28	70 - 130	20	70 - 130	20	
Toluene	ND	10	102	106	3.88	112	115	2.02	70 - 130	20	70 - 130	20	
Ethylbenzene	ND	10	104	101	2.73	110	112	1.92	70 - 130	20	70 - 130	20	
Xylenes	ND	30	118	117	1.15	119	119	0	70 - 130	20	70 - 130	20	
%SS:		113	10	103	107	3.11	104	102	1.78	70 - 130	20	70 - 130	20

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

### BATCH 46119 SUMMARY

Lab ID	Date Sampled	Date Extracted	Date Analyzed	Lab ID	Date Sampled	Date Extracted	Date Analyzed
0909766-001A	09/24/09	10/01/09	10/01/09 5:00 PM	0909766-002A	09/24/09	09/29/09	09/29/09 5:14 PM
0909766-003A	09/24/09	09/29/09	09/29/09 6:44 PM	0909766-004A	09/24/09	09/29/09	09/29/09 7:43 PM
0909766-005A	09/24/09	09/29/09	09/29/09 11:38 AM	0909766-006A	09/24/09	09/29/09	09/29/09 12:11 PM
0909766-007A	09/24/09	09/29/09	09/29/09 12:44 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.

<sup>f</sup> 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.



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## QC SUMMARY REPORT FOR SW8015B

W.O. Sample Matrix: Water

QC Matrix: Water

BatchID: 46120

WorkOrder: 0909766

EPA Method SW8015B		Extraction SW3510C								Spiked Sample ID: N/A			
Analyte	Sample	Spiked	MS	MSD	MS-MSD	LCS	LCSD	LCS-LCSD	Acceptance Criteria (%)				
	µg/L	µg/L	% Rec.	% Rec.	% RPD	% Rec.	% Rec.	% RPD	MS / MSD	RPD	LCS/LCSD	RPD	
TPH-Diesel (C10-C23)	N/A	1000	N/A	N/A	N/A	99.6	99.5	0.107	N/A	N/A	70 - 130	30	
%SS:	N/A	2500	N/A	N/A	N/A	92	92	0	N/A	N/A	70 - 130	30	

All target compounds in the Method Blank of this extraction batch were ND less than the method RL with the following exceptions:

NONE

### BATCH 46120 SUMMARY

Lab ID	Date Sampled	Date Extracted	Date Analyzed	Lab ID	Date Sampled	Date Extracted	Date Analyzed
0909766-001B	09/24/09	09/28/09	09/28/09 6:17 PM	0909766-002B	09/24/09	09/28/09	09/28/09 7:25 PM
0909766-003B	09/24/09	09/28/09	09/28/09 8:34 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 SW8260B

W.O. Sample Matrix: Water

QC Matrix: Water

BatchID: 46121

WorkOrder: 0909766

EPA Method SW8260B			Extraction SW5030B								Spiked Sample ID: 0909766-005C			
Analyte	Sample	Spiked	MS	MSD	MS-MSD	LCS	LCSD	LCS-LCSD	Acceptance Criteria (%)					
	µg/L	µg/L	% Rec.	% Rec.	% RPD	% Rec.	% Rec.	% RPD	MS / MSD	RPD	LCS/LCSD	RPD		
tert-Amyl methyl ether (TAME)	ND	10	86	84.6	1.58	83.9	84.7	0.903	70 - 130	30	70 - 130	30		
t-Butyl alcohol (TBA)	ND	50	86.1	84.1	2.31	100	98.9	1.37	70 - 130	30	70 - 130	30		
1,2-Dibromoethane (EDB)	ND	10	101	101	0	99.5	103	3.81	70 - 130	30	70 - 130	30		
1,2-Dichloroethane (1,2-DCA)	ND	10	96.5	94.8	1.74	99	104	4.94	70 - 130	30	70 - 130	30		
Diisopropyl ether (DIPE)	ND	10	113	115	1.49	102	104	1.93	70 - 130	30	70 - 130	30		
Ethyl tert-butyl ether (ETBE)	ND	10	99.3	98.2	1.18	98.1	98.2	0.191	70 - 130	30	70 - 130	30		
Methyl-t-butyl ether (MTBE)	ND	10	93.3	92	1.33	108	103	4.63	70 - 130	30	70 - 130	30		
%SS1:		74	25	74	72	3.04	98	94	3.69	70 - 130	30	70 - 130	30	

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

### BATCH 46121 SUMMARY

Lab ID	Date Sampled	Date Extracted	Date Analyzed	Lab ID	Date Sampled	Date Extracted	Date Analyzed
0909766-001C	09/24/09	09/29/09	09/29/09 3:32 AM	0909766-002C	09/24/09	09/29/09	09/29/09 4:16 AM
0909766-003C	09/24/09	09/29/09	09/29/09 4:59 AM	0909766-004C	09/24/09	09/29/09	09/29/09 5:23 PM
0909766-005C	09/24/09	09/29/09	09/29/09 6:27 AM	0909766-006C	09/24/09	09/29/09	09/29/09 12:28 AM
0909766-007C	09/24/09	09/29/09	09/29/09 1:11 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.

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.