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Allterra Environmental, Inc.
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Santa Cruz, California 95060

Client: Manwel and Samira Shuwayhat
Project Location: 160 Holmes Street, Livermore, California
Subject: Work Plan for Additional Remedial Action and Confirmatory
Sampling
Report Date: May 8, 2013

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



**Work Plan for Additional Remedial Action and
Confirmatory Sampling**

**Livermore Gas Mini-Mart, Fuel Leak Case No. RO0000324
160 Holmes Street, Livermore, California**

Date:
May 8, 2013

Prepared For:
Manwel and Samira Shuwayhat
54 Wolfe Canyon Road
Kentfield, California 94904

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May 8, 2013

Manwel and Samira Shuwayhat
54 Wolfe Canyon Road
Kentfield, California 94904

Subject: Work Plan for Additional Remedial Action and Confirmatory Sampling, 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 *Work Plan for Additional Remedial Action and Confirmatory Sampling* for the property located at 160 Holmes Street in Livermore, California (Site). The purpose of the proposed work scope is to further remediate residual petroleum hydrocarbon-impacted groundwater down-gradient of the source area, as well as collect and evaluate confirmatory soil samples to assess the effectiveness of remedial efforts at the Site and satisfy requirements for low-threat case closure. This work plan was prepared pursuant to initial discussions with Alameda County Environmental Health (ACEH) during our June 12, 2012 meeting and during subsequent correspondence. All work will be performed in compliance with guidelines established by ACEH, Zone 7 Water Agency (Zone 7), and Regional Water Quality Control Board (RWQCB), and Allterra's field protocol presented in Appendix A.

Site Location and Description

The Site is located at the northeast intersection of Holmes Street and Second Street in Livermore, California (Figure 1). A gasoline fuel station currently occupies the Site and the surrounding area is primarily residential with scattered retail businesses along 1st and 2nd Streets. The approximate surface elevation at the Site is 465 feet above mean sea level (MSL) and the surface slightly slopes to the northwest. Pertinent site features, including the locations of the former underground storage tanks (USTs), existing monitoring and extraction wells, and previous soil borings, are presented on Figure 2.

Site Geology and Hydrogeology

Subsurface sediments encountered beneath the Site consist of primarily clayey sand and silty clay fill material from surface grade to approximately eight (8) feet below ground surface (bgs), underlain by fine-grained native material consisting of silty clay, sandy silt, and silty sand to approximately 28 feet bgs. A generally continuous coarse-grained deposit consisting of sandy gravel with varying amounts of silt and clay occurs from approximately 28 feet bgs to depths ranging from approximately 54 to 69 feet bgs, where a sandy to silty clay layer exists. The thickness of this clay layer has not been determined; however, a thickness of at least five feet was confirmed in previous boring MW-1B.

First-encountered groundwater beneath the Site has fluctuated between depths of approximately 28 and 44 feet bgs. Historic groundwater elevations are presented in Table 1. The fluctuating groundwater elevation appears to be largely dependent upon regional factors including, but not limited to, regional groundwater pumping, seasonal drought conditions, and government managed groundwater recharge programs. Based on recent quarterly groundwater monitoring data, shallow groundwater generally flows to the northwest at an approximate gradient of 0.0069 feet per foot (ft/ft).

Site Background

Previous Site Investigations

Extensive soil and groundwater investigation work has been performed at the Site since 2000, including the advancement of more than forty-three (43) soil borings and the installation of 19 monitoring wells on- and off-site. Site investigation work has resulted in full characterization of the lateral and vertical extent of petroleum constituents in soil and groundwater beneath and downgradient of the Site. The locations of previous soil borings and monitoring wells are presented on Figures 2 and 3, and associated groundwater and soil analytical data is presented in Tables 2 and 3, respectively.

In addition to characterizing the extent of petroleum impacts, previous site investigation activities have identified a subsurface area of the Site containing the majority of high-level concentrations of petroleum constituents in soil and groundwater. The highest levels of soil and groundwater contamination were detected in samples collected from previous borings advanced in the area between the northwestern fuel dispenser and USTs. This source area is generally located between borings GP-8, GP-9, GP-14, and well EW-3 at depths between approximately 24 and 34 feet bgs. This area of the Site has been the primary target for pilot scale and in-situ remedial efforts conducted at the Site.

Previous Site Remediation

Pilot-Scale Remedial Activities in 2010

During second and fourth quarters of 2010, Allterra completed pilot scale soil vapor extraction (SVE) and groundwater extraction (GWE) using on-site extraction wells EW-1 and EW-3. Pilot-scale remediation activities varied from more SVE focused to GWE focused as groundwater elevations beneath the Site changed and remedial performance data was gathered. Data collected during pilot-scale operations was used to evaluate remedial effectiveness and determine the best approach for completing remediation in this area of the Site. Based on low observed extraction and contaminant recovery rates, pilot-scale remedial activities were discontinued in November 2010. A total of approximately 13 pounds of total petroleum hydrocarbons as gasoline (TPHg) and 45 pounds of methyl tert-butyl ether (MTBE) were removed from the subsurface through SVE and GWE activities in 2010.

In-Situ Remedial Activities in 2011

After SVE and GWE remedial efforts at the Site were no longer effective, Allterra developed an in-situ remedial work scope designed to aggressively treat residual soil and groundwater impacts in the source area. During the second quarter of 2011, Allterra completed in-situ chemical oxidation (ISCO) remedial activities at the Site involving the pressure injection of approximately

4,000 lbs of RegenOx™ and 600 lbs of Oxygen Release Compound Advanced™ (ORC-A™) into the subsurface during three separate injection events. A full description of in-situ remedial activities is presented in Allterra's *In-Situ Soil and Groundwater Remedial Implementation Report* dated August 19, 2011.

Following remedial implementation activities, monitoring data indicates residual contaminants in shallow groundwater beneath and down-gradient of the Site have been significantly reduced and continue to exhibit decreasing trends, with the exception of tert-butyl alcohol (TBA) in select wells. Recent increases in dissolved TBA concentrations are likely attributed to the degradation of MTBE resulting from in-situ remedial efforts as well as natural processes. Although contaminate levels in groundwater in the vicinity of source area well EW-3 have decreased significantly, residual concentrations of MTBE (6,300 µg/L) and TBA (130,000 µg/L) were detected in EW-3 during the first quarter of 2013.

In-Situ Remedial Activities in 2013

Currently, Allterra is performing further ISCO remedial activities at the Site involving the pressure injection of the chemical oxidant RegenOx™ using wells EW-1, EW-3, and EW-3B (newly installed) to further desorb and treat bound and dissolved contaminants in the source area. These remedial efforts are ongoing and are being conducted in accordance with Allterra's *Work Plan for Additional Soil and Groundwater Remediation* dated July 16, 2012 and associated addendum dated October 18, 2012.

Proposed Scope of Work

The following sections provide a detailed discussion of additional in-situ remedial action and confirmatory sampling activities proposed at the Site to further treat residual contaminants in groundwater and saturated soils, stabilize and reduce the size of the residual contaminant plume, minimize future off-site migration of contaminants, and satisfy requirements for low-threat case closure. Active remedial efforts may cease once contaminant concentrations are reduced to levels at which at which natural processes will provide further attenuation of contaminants to the ultimate cleanup goals within a reasonable timeframe. The proposed scope of work is as follows:

- Contact Underground Service Alert (USA) to identify the work area for underground municipal utilities;
- Retain a private utility location contractor to further identify underground utilities at each proposed boring location;
- Advance Geoprobe® borings at approximately 12 locations along the down-gradient boundary of the Site to facilitate the injection of an ORC-A™ enhanced biodegradation barrier.
- Advance Geoprobe® borings at three locations in the source area (CB-1 through CB-3) to total depths of approximately 35 feet bgs for the collection of confirmatory soil samples;
- Analyze confirmatory soil samples for TPHg and total petroleum hydrocarbons as diesel (TPHd) by EPA method 8015C; benzene, toluene, ethylbenzene, and total xylenes (BTEX), and MTBE by EPA Method 8021B/8015B; and fuel oxygenates and lead

scavengers by EPA Method 8260B. Select soil samples will also be analyzed for naphthalene by EPA Method 8260B;

- Evaluate remedial and investigative field data and prepare report; and
- Perform quarterly verification groundwater monitoring to evaluate groundwater quality under varying seasonal conditions and further assess the effectiveness of remedial efforts at the Site.

Additional Remedial Action

Permitting and Underground Utility Locating

Prior to drilling activities, a soil boring permit will be acquired from the Zone 7 Water Agency. A private utility locating contractor will be retained to identify underground utilities at the proposed well location. Additionally, the Underground Service Alert (USA) will be notified at least 48 hours prior to the commencement of drilling activities to identify the public service utilities in the work area. Allterra field personnel will also hand clear each boring location to approximately five feet bgs to reduce the risk of encountering fuel dispenser piping.

Geoprobe[®] Drilling and Injection Activities

To facilitate the installation of an ORC-A[™] enhanced biodegradation barrier, a linear series of borings will be advanced at approximately 15 locations along the down-gradient boundary of the Site (Figure 2). The proposed ORC-A[™] barrier is designed to further treat impacted shallow groundwater as it migrates down-gradient from the source area. Using a truck-mounted Geoprobe[®] rig and direct-injection techniques to ensure thorough distribution across heterogeneous soils, the designed volume of ORC-A[™] (~720 lbs) will be delivered to the subsurface and monitored closely to minimize potential adverse affects at the ground surface (i.e. surfacing, high back pressure). The ORC-A[™] application process enables the product to be mixed with water to create a remedial slurry, and then pressure injected into the target zone and moved out into the aquifer media. A total of approximately 12 injection points spaced 5 feet on center will be advanced during the proposed injection event. ORC-A[™] will be injected into the subsurface at a rate of approximately 5 pounds per vertical foot throughout the twelve-foot treatment zone from approximately 25 to 37 feet bgs to ensure long-term “polishing” of remaining contaminants. Upon completion of drilling and injection activities, the borings will backfilled to surface grade with neat cement containing 5% bentonite. Detailed direct-push injection procedures are presented in Appendix B.

ORC-A[™] is an innovative in-situ product designed to stimulate aerobic bioremediation through controlled release of molecular oxygen within the subsurface. It offers maximum oxygen release for periods up to 12 months on a single injection ensuring long-term destruction of remaining contaminants in groundwater and saturated soils beneath the Site.

Remedial Data Collection and Monitoring

Allterra plans to implement a data collection program to provide information that can be used to evaluate the effectiveness of in-situ remedial efforts. Data that will be collected includes the following:

- Groundwater samples collected during the second quarter 2013 groundwater monitoring event will be used to establish baseline conditions for petroleum constituents in groundwater prior to the proposed remedial implementation. A list of laboratory analytes tested for during monitoring activities is presented in the following section.
- Visual observations at select well locations (EW-1, EW-3, EW-3B, MW-1A/B, and MW-7A/B) will be recorded during injection activities to monitor potential adverse affects prior to proceeding with subsequent tasks. No groundwater samples will be collected for laboratory analysis during injection activities.
- For the first two to three months following remedial implementation, monthly groundwater samples and field parameter measurements (see list of parameters below) will be collected from select monitoring wells (EW-1, EW-3, EW-3B, MW-1A, and MW-7A/B). Samples and field measurements will be collected from all monitoring wells quarterly thereafter. A list of laboratory analytes tested for during monthly and quarterly monitoring activities is presented in the following section.
- The current quarterly groundwater monitoring program will be used to evaluate groundwater quality under varying seasonal conditions and assess the efficiency of remedial efforts at the Site.
- Field parameters measured during remedial monitoring activities will include dissolved oxygen, pH, temperature, specific conductivity, turbidity, and oxidation-reduction potential.

During and following in-situ remedial activities performed in 2011, select monitoring wells were analyzed for additional laboratory parameters not included in the groundwater monitoring program to detect potential adverse affects caused by the injection activities. These samples were submitted to a state-certified laboratory and tested for dissolved oxygen, methane, carbon dioxide, total dissolved solids (TDS), sulfate, sodium, ferrous iron, manganese, total iron, total chromium, hexavalent chromium, arsenic, and alkalinity. Aside from elevated hexavalent chromium detected in EW-3 following ISCO activities, no adverse affects were revealed during any of the previous remedial sampling events; consequently these additional laboratory parameters and sampling frequencies (between injection events) are not included in the currently proposed remedial data collection program. However, we will continue to analyze source area wells for hexavalent chromium prior to and following any ISCO activities performed at the Site.

Laboratory Analysis

Groundwater samples collected during monthly and quarterly remedial monitoring activities will be submitted for chemical testing under chain-of-custody protocol to McCampbell Analytical, Inc., of Pittsburgh, California, a State of California certified laboratory (ELAP #1644). Samples will be analyzed for TPHg by EPA method 8015B, and for BTEX and MTBE by EPA Method 8021B. Additionally, select samples will also be tested for TPHd by EPA method 8015B; fuel oxygenates tert-amyl methyl ether (TAME), di-isopropyl ether (DIPE), ethyl tert-butyl ether (ETBE), TBA, and MTBE, and lead scavengers 1,2-dibromoethane (EDB) and 1,2-dichloroethane (1,2-DCA) by EPA Method 8260B; and hexavalent chromium by EPA Method 218.6.

Confirmatory Sampling Activities

Permitting and Underground Utility Locating

Prior to drilling activities, a soil boring permit will be acquired from the Zone 7 Water Agency. A private utility locating contractor will be retained to identify underground utilities at the proposed well location. Additionally, the Underground Service Alert (USA) will be notified at least 48 hours prior to the commencement of drilling activities to identify the public service utilities in the work area. Allterra field personnel will also hand clear each boring location to approximately five feet bgs to reduce the risk of encountering fuel dispenser piping.

Geoprobe® Borings

To satisfy requirements for low-threat case closure, Geoprobe® borings will be advanced at three locations (CB-1 through CB-3) in the source area to total depths of approximately 35 feet bgs. The proposed borings will be advanced near previous boring locations containing elevated TPHg and MTBE in soil (GP-9, GP-14, and GP-15) to confirm that remedial efforts have removed the secondary source to the greatest extent practicable and to evaluate residual contaminants in shallow soils with respect to potential direct contact and outdoor air exposure scenarios. The confirmatory borings will be advanced using a truck-mounted Geoprobe® rig equipped with 2-inch diameter push core drilling equipment. Upon completion of drilling and sampling activities, the borings will backfilled to surface grade with neat cement containing 5% bentonite. The proposed boring locations are shown on Figure 3.

Soil Classification and Sample Collection

At each boring location, a percussion hammer driven Geoprobe® soil-coring system will be used to collect continuous soil cores, at approximately four-foot intervals, for soil classification purposes. During drilling, soil from the borings will be described and classified using the Unified Soil Classification System (USCS) and will be field screened for petroleum constituents using a photo-ionization detector (PID). Confirmatory soil samples will be collected for laboratory analysis at depths of approximately 2.5, 5.0, 10, 15, 20, 25, 30, and 35 feet bgs. No grab groundwater samples will be collected from these borings since they will be advanced adjacent to current wells EW-3 and EW-3B. Drilling and sampling procedures are described in further detail in Appendix A.

Laboratory Analysis

Soil samples collected during confirmatory sampling activities will be submitted for chemical testing under chain-of-custody protocol to McCampbell Analytical, Inc., of Pittsburgh, California, a State of California certified laboratory (ELAP #1644). All samples will be analyzed for TPHg and TPHd by EPA method 8015C; BTEX and MTBE by EPA Method 8021B; and fuel oxygenates and lead scavengers by EPA Method 8260B. Select soil samples will also be analyzed for naphthalene by EPA Method 8260B.

Waste Disposal

Soil cuttings generated during drilling will be temporarily stored on-site in labeled, DOT-approved 55-gallon drums. Soil drums will be sampled, analyzed, and profiled for disposal under waste manifest at an appropriate disposal facility.

Health and Safety

During drilling and injection field activities, field personnel will wear modified Level D personal protective equipment (PPE) consisting of hardhats, chemical resistant gloves, safety goggles or face shield, NIOSH-approved dust and mist respirator, long sleeve clothing or Tyvek® suit, and steel-toed boots. On-site health and safety issues will be the responsibility of the Project Manager and Site Health and Safety Officer and are summarized in Allterra's Site-Specific Health and Safety Plan. The Site Health and Safety Officer is responsible to inform all field personnel of current health and safety issues and will conduct daily health and safety tailgate meetings.

Reporting

Upon completion of field activities, Allterra will prepare a technical report summarizing completed remedial and investigative activities, the results of remedial verification and confirmatory sampling, and our conclusions and recommendations regarding Site conditions. The report will also include an updated site map, contaminant trend plots, and copies of laboratory analytical reports.

Remedial Report Extension

Allterra is requesting a 30-45 day extension to the current July 9, 2013 report deadline presented in ACEH's January 29, 2013 approval letter. We are presenting this request based on the following:

- ISCO remedial efforts using injection wells EW-1, EW-3, and EW-3B are still ongoing at the Site and more time is needed to adequately assess the effectiveness of these activities.
- A due date extension for the remedial report will also allow us to include a summary of the completed corrective action proposed in this work plan.

Limitations

The data, information, interpretation, and recommendations contained in this Work Plan are presented solely as preliminary to the existing environmental conditions at 160 Holmes Street. Site conditions can change over time; therefore, data, information, interpretation, and recommendations presented in this work plan are only applicable to the timeframe of this study. The conclusions and professional opinions presented herein were developed by Allterra in accordance with environmental principles and practices generally accepted at this time and location, no warranties are expressed or implied.

If you have any questions, please call Allterra at (831) 425-2608.

Sincerely,
Allterra Environmental, Inc.



A circular red seal for a Professional Geologist in the State of California. The seal contains the text "PROFESSIONAL GEOLOGIST" at the top, "AARON POWERS" in the center, and "No. 8977" below it. The words "STATE OF CALIFORNIA" are written along the bottom inner edge of the seal.

Aaron Powers, PG 8977
Project Geologist



A circular red seal for a Professional Geologist in the State of California. The seal contains the text "PROFESSIONAL GEOLOGIST" at the top, "JOSEPH C. MANGINE" in the center, and "No. 8423" below it. The words "STATE OF CALIFORNIA" are written along the bottom inner edge of the seal.

Joe Mangine, PG 8423
Senior Geologist

Attachments:

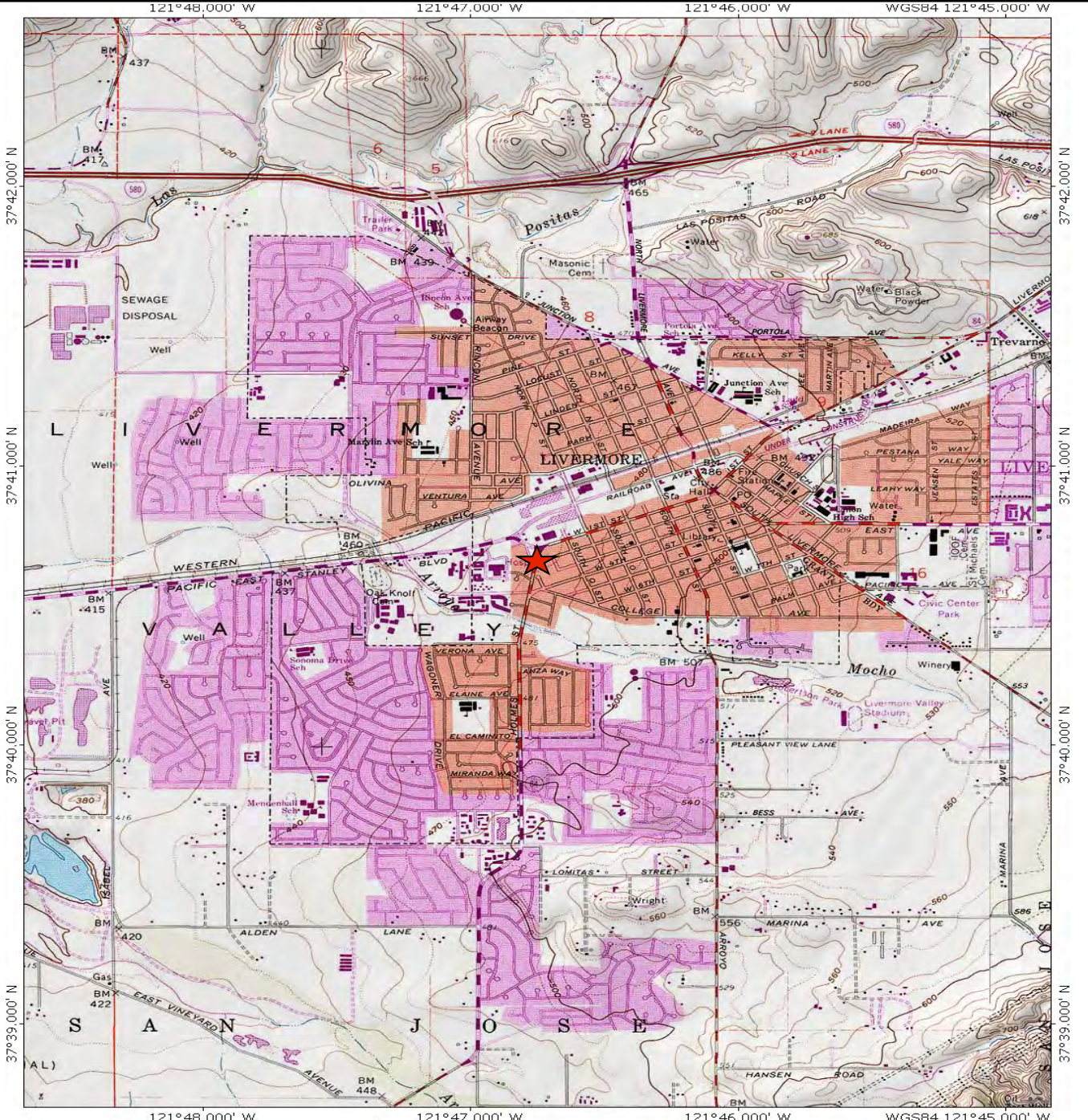
- Figure 1, Site Vicinity Map
- Figure 2, Proposed Treatment Area
- Figure 3, Proposed Confirmatory Sampling Locations

- Table 1, Groundwater Elevation Data
- Table 2, Groundwater Analytical Results
- Table 3, Historical Soil Analytical Data

- Appendix A: Site Investigation Field Protocol
- Appendix B: Regeneration Product Application Procedures

cc: Mr. Jerry Wickham, ACEHS

FIGURES 1 - 3



TN \uparrow MN
15°

121°48.000' W 121°47.000' W 121°46.000' W WGS84 121°45.000' W

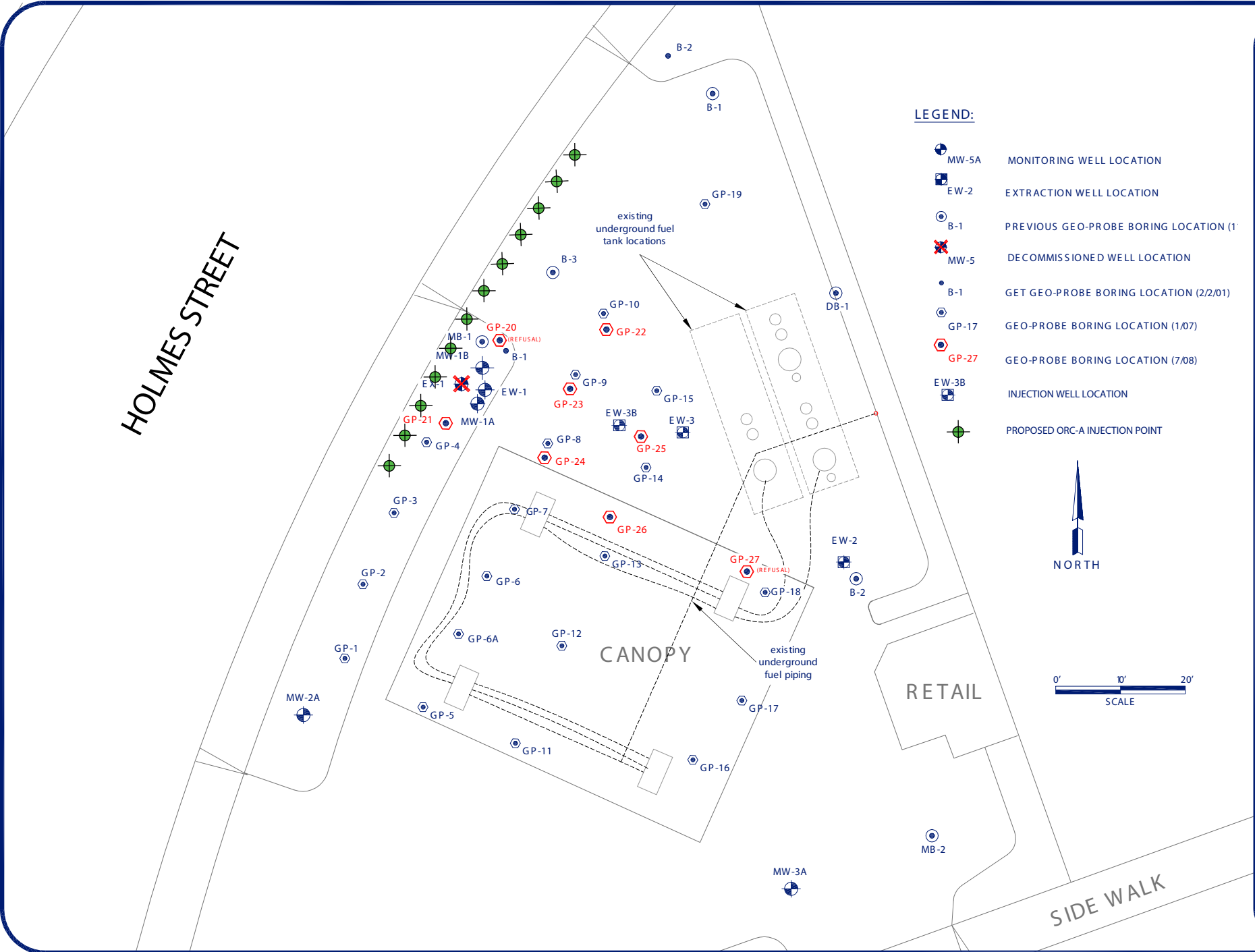
0 1000 FEET 0 500 1000 METERS

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

Figure 1

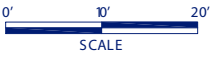
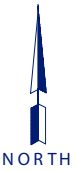
5/6/13

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LEGEND:

- MW-5A MONITORING WELL LOCATION
- EW-2 EXTRACTION WELL LOCATION
- B-1 PREVIOUS GEO-PROBE BORING LOCATION (1')
- MW-5 DECOMMISSIONED WELL LOCATION
- B-1 GET GEO-PROBE BORING LOCATION (2/2/01)
- GP-17 GEO-PROBE BORING LOCATION (1/07)
- GP-27 GEO-PROBE BORING LOCATION (7/08)
- EW-3B INJECTION WELL LOCATION
- PROPOSED ORC-A INJECTION POINT



General Notes

stamp

**160 HOLMES STREET
SOIL AND GROUNDWATER INVESTIGATION
AND REMEDIATION PROJECT**

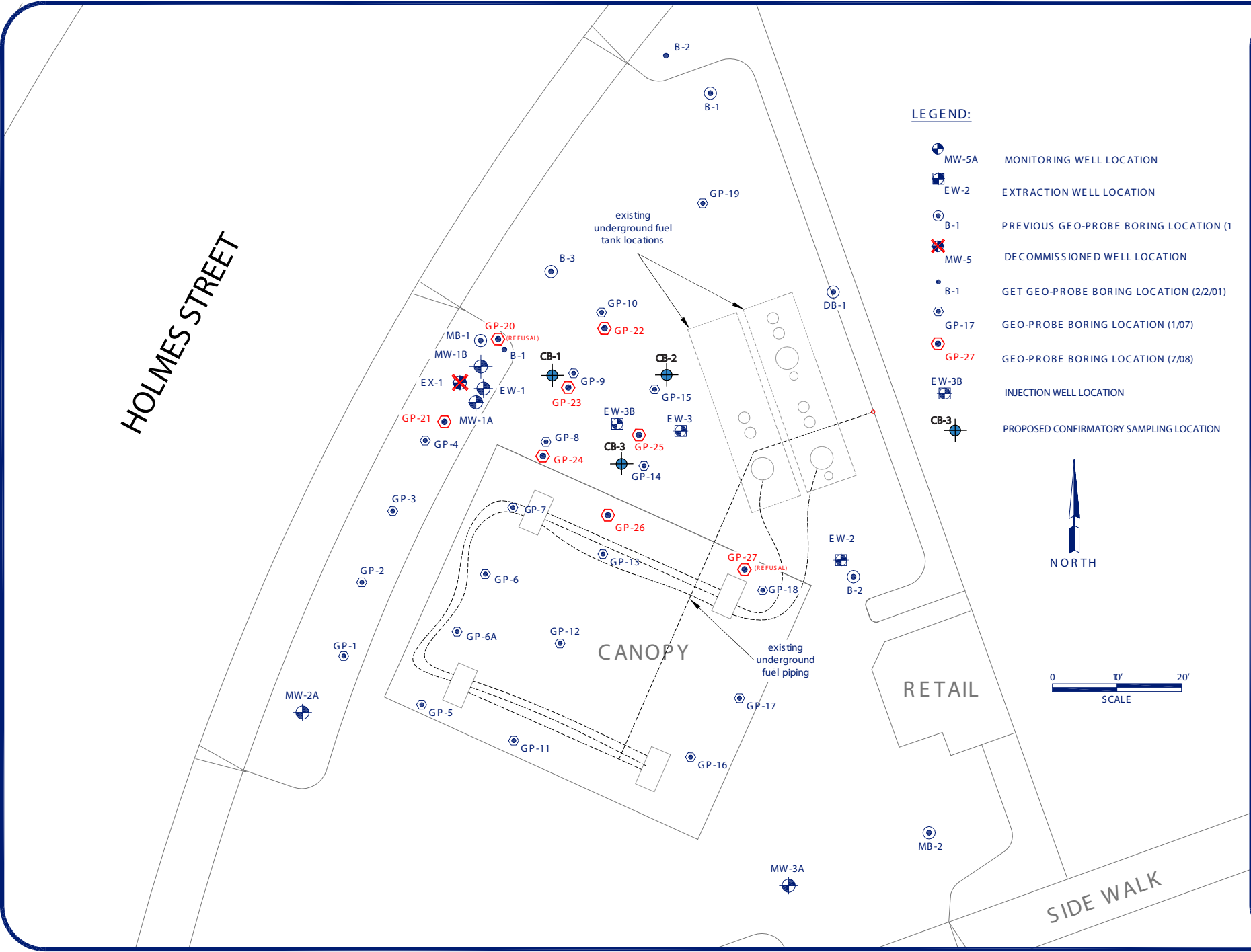


0	DRAFT/REVIEW	5/6
No.	Revision/Issue	Date

Firm Name and Address:
ALLTERRA ENVIRONMENTAL, INC.
 849 ALMAR AVE., SUITE C, No. 281
 SANTA CRUZ, CALIFORNIA
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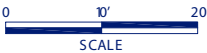
Client Name and Address:
PROPOSED TREATMENT AREA
 160 HOLMES STREET
 LIVERMORE, CALIFORNIA

<small>Project:</small> 160	FIGURE 2
<small>Date:</small> 5-6-13	
<small>Scale:</small> see drawing	



LEGEND:

- MW-5A MONITORING WELL LOCATION
- EW-2 EXTRACTION WELL LOCATION
- B-1 PREVIOUS GEO-PROBE BORING LOCATION (1/07)
- MW-5 DECOMMISSIONED WELL LOCATION
- B-1 GET GEO-PROBE BORING LOCATION (2/2/01)
- GP-17 GEO-PROBE BORING LOCATION (1/07)
- GP-27 GEO-PROBE BORING LOCATION (7/08)
- EW-3B INJECTION WELL LOCATION
- CB-3 PROPOSED CONFIRMATORY SAMPLING LOCATION



General Notes

stamp

**160 HOLMES STREET
SOIL AND GROUNDWATER INVESTIGATION
AND REMEDIATION PROJECT**

PREPARED BY:
ALLTERRA

0	DRAFT/REVIEW	5/6
No.	Revision/Issue	Date

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Client Name and Address:
PROPOSED CONFIRMATORY SAMPLING LOCATIONS
 160 HOLMES STREET
 LIVERMORE, CALIFORNIA

<small>Project:</small> 160	FIGURE 3
<small>Date:</small> 5-6-13	
<small>Scale:</small> see drawing	

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	23.00	442.03	
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	
3/13/13	465.03	15-30	21.94	443.09	

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
3/13/13	465.02	50-55	21.96	443.06	
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
	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
3/13/13	464.94	15-30	21.81	443.13	
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	
3/13/13	465.85	15-30	22.47	443.38	
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
	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	
	3/13/13	464.96	15-30	22.38	442.58
MW-5***	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	
3/13/13	464.64	20-35	23.38	441.26	
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	
3/13/13	464.59	50-55	23.42	441.17	

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	
3/13/13		464.13	20-50	22.72	441.41

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	
3/13/13	465.32	15-30	22.86	442.46	
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
	3/13/13	465.39	45-50	23.05	442.34
	MW-7C**	4/6/06	465.39	65-70	17.18
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	
3/13/13	465.39	65-70	23.34	442.05	
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
	7/20/10	465.45	15-40	24.35	441.10
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 cont.	4/6/11	465.45	15-40	18.85	446.60	
	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	
	3/13/13	465.45	15-40	22.38	443.07	
	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		
3/13/13/	465.99	15-40	22.58	443.41		

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	
	3/13/13	NC	25-30	22.32	NC
EW-3B	3/13/13	NC	24-39	21.73	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
	3/13/13	NC	16-36	23.09	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
	3/13/13	NC	46-51	22.82	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)
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
	3/13/13	NC	14-36	22.20	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
	3/13/13	NC	47-52	22.29	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 (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	
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	NS	NS	not sampled - well dry				NS	NS	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	NS	NS
	5/7/02	NC	NS	NS	not sampled - well dry				NS	NS	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	NA	
	12/1/02	437.48	NS	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	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		
3/4/10	436.98	1,300	NA	140	<5.0	26	6.0	16,000	NA	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	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	<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	<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	<0.5	<50		

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 cont.	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	<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	<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	<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	<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	<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	<100	
	2/1/12	NC	NS	NS	not sampled - well dry				NS	NS	NS	NS	NS	NS	NS	NS	NS	NA	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	<0.5	
	8/28/12	NC	NS	NS	not sampled - well dry				NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	3/14/13	443.09	<50	<50	1.1	<0.5	<0.5	<0.5	<5.0	<50	5,100	<50	<50	<50	<50	<50	<50	<50	<50
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	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	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	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	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	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	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	<0.5	<0.5	<2.0	<0.5	<0.5	<0.5	NA	NA	<0.5	<0.5		
3/14/13	443.06	<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	Ethyl-benzene	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	NS	NS	not sampled - well dry				NS	NS	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	NA
	10/10/05	442.64	<50	NS	<5	<5	<5	<5	680	NA	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	NS
	10/29/07	NC	NS	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	NS
	4/18/08	437.68	NS	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	NS
	11/18/08	NC	NS	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	NS
4/21/09	NC	NS	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	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	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	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	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	NS	NS	
3/13/13	443.13	<50	NA	<0.5	<0.5	<0.5	0.70	<5.0	<0.5	<2.0	<0.5	<0.5	<0.5	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*	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	NA	NA
	11/14/01	NC	NS	NS	not sampled - well dry				NS	NS	NS	NS	NS	NS	NS	NS	NA	NA
	5/7/02	NC	NS	NS	not sampled - well dry				NS	NS	NS	NS	NS	NS	NS	NS	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	NS	not sampled - well dry				NS	NS	NS	NS	NS	NS	NS	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
	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	<50	<500	<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	<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	NS
10/29/07	NC	NS	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-3A cont.	2/1/08	NC	NS	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	NS	
	7/28/08	NC	NS	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	NS	
	2/4/09	NC	NS	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	NS	NS
	9/24/09	NC	NS	NS	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	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	NA	NA
	1/20/11	442.21	<50	NA	<0.5	<0.5	<0.5	<0.5	<5.0	NA	NA	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	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	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	NA	NA
	2/1/12	NC	NS	NS	not sampled - well dry				NS	NS	NS	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	NA	NA
	8/28/12	NC	NS	NS	not sampled				NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	3/13/13	443.38	<50	NA	<0.5	<0.5	<0.5	<0.5	<5.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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			

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-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	<0.5	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	<0.5	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	<0.5	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	<0.5	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	NS
	10/29/07	NC	NS	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	NS
	4/18/08	437.05	NS	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	NS
	11/18/08	NC	NS	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	NS
	4/21/09	NC	NS	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	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	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	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	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	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	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	NA	NA
	2/1/12	NC	NS	NS	not sampled - well dry				NS	NS	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	NA	NA
8/28/12	NC	NS	NS	not sampled				NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	
3/13/13	442.58	<50	NA	<0.5	<0.5	<0.5	<0.5	<5.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	<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	Ethyl-benzene	Total Xylenes	MTBE (8021B)	TAME	TBA	DIPE	ETBE	MTBE	Ethanol	Methanol	EDB	1,2-DCA	
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	<50	<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	<50	<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	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	<50	<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	<50	<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	<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	NS
	10/29/07	NC	NS	NS	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	NS	NS
	7/28/08	NC	NS	NS	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	NS	NS
	2/4/09	NC	NS	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	NS
	9/24/09	NC	NS	NS	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	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	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	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	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	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	NA
	2/1/12	NC	NS	NS	not sampled - well dry					NS	NS	NS	NS	NS	NS	NS	NS	NA	NA
	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	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	NA	
3/13/13	441.26	<50	NA	<0.5	<0.5	<0.5	<0.5	<5.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	

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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	Ethylbenzene	Total Xylenes	MTBE (8021B)	TAME	TBA	DIPE	ETBE	MTBE	Ethanol	Methanol	EDB	1,2-DCA
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
	3/13/13	441.17	<50	NA	<0.5	<0.5	<0.5	<0.5	<5.0	NA	NA	NA	NA	NA	NA	NA	NA	NA

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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	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	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	<1.0	NA	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	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	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	<0.5	<0.5	<5.0	<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	<0.5	<0.5	<0.5	<5.0	<0.5	<0.5	<0.5	<50	<500	<0.5	<0.5
	7/28/06	440.68	<50	<50	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<5.0	<0.5	<0.5	<0.5	NA	NA	NA	NA
	10/13/06	439.77	<50	<50	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<5.0	<0.5	<0.5	<0.5	<50	<500	NA	NA
	1/4/07	442.10	<50	<50	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<5.0	<0.5	<0.5	<0.5	<50	<500	<0.5	<0.5
	4/16/07	439.73	<50	<50	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<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	NS
	10/29/07	NC	NS	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	NS
	11/18/08	NC	NS	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	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	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	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	NA
1/19/11	440.13	<50	NA	<0.5	<0.5	<0.5	<0.5	<5.0	NA	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	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	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	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	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	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	NA	
3/13/13	441.41	<50	NA	<0.5	<0.5	<0.5	<0.5	<5.0	NA	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	Ethyl-benzene	Total Xylenes	MTBE (8021B)	TAME	TBA	DIPE	ETBE	MTBE	Ethanol	Methanol	EDB	1,2-DCA	
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	not sampled - well dry				NS	NS	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	NS
	3/14/13	442.46	79	130	<0.5	1.3	<0.5	<0.5	<5.0	<0.5	130	<0.5	<0.5	0.97	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	Ethyl-benzene	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
	3/14/13	442.34	<50	<50	<0.5	1.60	<0.5	<0.5	<5.0	<17	1,700	<17	<17	<17	NA	NA	<17	<17

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-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	<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	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	<90	<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	
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
	3/14/13	442.05	<50	NA	<0.5	<0.5	<0.5	<0.5	<5.0	NA	NA	NA	NA	NA	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	
3/14/13	NC	<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 (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
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
3/14/13	NC	<50	NA	<0.5	<0.5	<0.5	<0.5	<5.0	NA	NA	NA	NA	NA	NA	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	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
3/13/13	NC	<50	NA	<0.5	<0.5	<0.5	<0.5	<5.0	NA	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-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
	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	8.9	<0.5	<0.5	0.65	<50	<500	<0.5	<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	<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	<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	<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	<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	<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	<0.5
3/13/13	NC	<50	NA	<0.5	<0.5	<0.5	<0.5	<5.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	
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	

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-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	NS	NS
	7/16/07	NC	NS	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	NS
	2/1/08	NC	NS	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	NS
	7/28/08	NC	NS	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	NS
	2/4/09	NC	NS	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	NS
	9/24/09	NC	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	3/4/10	NC	4,400	NA	460	<25	380	<25	31,000	NA	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	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		
3/14/13	443.07	<50	<50	<0.5	<0.5	<0.5	<0.5	<5.0	<25	2,500	<25	<25	<25	NA	NA	<25	<25		

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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-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	NS
	7/16/07	NC	NS	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	NS
	2/1/08	NC	NS	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	NS
	7/28/08	NC	NS	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	NS
	2/4/09	NC	NS	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	NS
	9/24/09	NC	NS	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	<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	<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	<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	<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	<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	<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	<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	<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	<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	<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	<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	<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	<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	NS	
3/14/13	443.41	<50	<50	<0.5	<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	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	NS
	2/4/09	NC	<10,000	NA	<100	<100	<100	<100	420,000	NA	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	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	140,000	NA	240	900	320	28,000	340,000	NA	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	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	
3/14/13	NC	<1000	500	<10	<10	<10	<10	6,300	<500	130,000	<500	<500	6,200	NA	NA	<500	<500	
EW-3B ^(b)	3/14/13	NC	58	110	<0.5	0.64	<0.5	<0.5	13	<50	14,000	<50	<50	<50	NA	NA	<50	<50

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 McCambell 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. Therefore, 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
Historic Soil Analytical Results
160 Holmes Street, Livermore, California

Sample ID	Sample Depth	Sample Date	TPHg	TPHd	Benzene	Toluene	Ethyl-benzene	Total Xylenes	MTBE	Fuel Oxygenates				
										TAME	TBA	DIPE	ETBE	MTBE
T1-West	NA	4/5/99	<20	<1.0	<1.2	<1.2	<1.2	<1.2	24	--	--	--	--	--
T2-West	NA	4/5/99	<100	--	<6.2	<6.2	<6.2	<6.2	47	--	--	--	--	--
T3-West	NA	4/5/99	<200	--	<12	<12	<12	<12	41	--	--	--	--	--
T4-West	NA	4/5/99	<200	--	<12	<12	<12	<12	100	--	--	--	--	--
T1-East	NA	5/6/99	17	<1.0	<0.62	<0.62	<0.62	<0.62	7.7	--	--	--	--	--
T2-East	NA	5/6/99	31	--	<0.62	<0.62	<0.62	<0.62	28	--	--	--	--	--
T3-East	NA	5/6/99	<50	--	<3.1	<3.1	<3.1	<3.1	41	--	--	--	--	--
T4-East	NA	5/6/99	14	--	<0.62	<0.62	<0.62	<0.62	20	--	--	--	--	--
Dispenser 1	NA	5/20/99	49	--	0.015	0.084	0.033	0.041	<0.0050	--	--	--	--	--
Dispenser 2	NA	5/20/99	<1.0	--	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	--	--	--	--	--
Dispenser 3	NA	5/20/99	6,500	--	<31	81	120	940	<31	--	--	--	--	--
Dispenser 4	NA	5/20/99	--	--	--	--	--	--	--	--	--	--	--	--
Dispenser 5	NA	5/20/99	32	--	0.040	0.62	0.29	3.0	<0.0050	--	--	--	--	--
Dispenser 6	NA	5/20/99	<1.0	--	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	--	--	--	--	--
Diesel-D	NA	5/20/99	160	1,300	0.032	0.20	0.089	15	<0.62	--	--	--	--	--
MW-1	15	7/26/00	<10	--	<0.62	<0.62	<0.62	<0.62	0.93	--	--	--	--	--
MW-1	19	7/26/00	800	--	<6.2	36	18	100	21	--	--	--	--	--
MW-2	15	7/26/00	<1.0	--	<0.005	<0.005	<0.005	<0.005	<0.005	--	--	--	--	--
MW-2	20	7/26/00	1.1	--	0.0092	0.013	0.053	0.13	0.11	--	--	--	--	--
MW-3	15	7/26/00	<1.0	--	<0.005	<0.005	<0.005	<0.005	<0.005	--	--	--	--	--
MW-3	20	7/26/00	<1.0	--	<0.005	<0.005	<0.005	<0.005	<0.005	--	--	--	--	--
MB-1	18	11/11/05	<1.0	<1.0	<0.005	<0.005	<0.005	<0.005	<0.05	--	--	--	--	--
MB-1	22	11/11/05	78	23	0.028	0.073	1.0	4.8	2.3	--	--	--	--	--
MB-1	26	11/11/05	110	18	0.27	0.51	2.0	1.7	14	--	--	--	--	--
MB-3	20	11/11/05	<1.0	<1.0	<0.005	<0.005	<0.005	<0.005	<0.05	--	--	--	--	--
MB-3	28	11/11/05	<1.0	<1.0	<0.005	<0.005	<0.005	<0.005	<0.05	--	--	--	--	--
MB-3	32	11/11/05	1,400	100	<0.5	5.0	20	67	<5.0	--	--	--	--	--
B-1	28	11/10/05	<1.0	<1.0	<0.005	<0.005	<0.005	<0.005	<0.05	--	--	--	--	--
B-2	16	11/10/05	<1.0	--	<0.005	<0.005	<0.005	<0.005	<0.05	--	--	--	--	--
B-2	20	11/10/05	<1.0	--	<0.005	<0.005	<0.005	<0.005	<0.05	--	--	--	--	--
B-2	24	11/10/05	5.7	9.5	<0.005	0.018	0.076	0.25	1.7	--	--	--	--	--
B-2	28	11/10/05	11	2.4	0.075	0.073	0.26	0.14	7.2	--	--	--	--	--
B-3	16	11/10/05	<1.0	--	<0.005	<0.005	<0.005	<0.005	<0.05	--	--	--	--	--
B-3	20	11/10/05	<1.0	--	<0.005	0.0058	0.0071	0.024	<0.05	--	--	--	--	--
B-3	24	11/10/05	9.0	1.4	0.077	0.037	0.32	1.1	<1.0	--	--	--	--	--
B-3	28	11/10/05	48	6.1	0.053	0.20	0.53	0.49	<1.0	--	--	--	--	--

Table 3
Historic Soil Analytical Results
160 Holmes Street, Livermore, California

Sample ID	Sample Depth	Sample Date	TPHg	TPHd	Benzene	Toluene	Ethyl-benzene	Total Xylenes	MTBE	Fuel Oxygenates				
										TAME	TBA	DIPE	ETBE	MTBE
DB-1	26	11/10/05	<1.0	<1.0	<0.005	<0.005	<0.005	<0.005	<0.05	--	--	--	--	--
MW-1B	61	2/23/06	<1.0	--	<0.005	<0.005	<0.005	<0.005	<0.05	--	--	--	--	--
MW-5B	55	2/27/06	<1.0	--	<0.005	<0.005	<0.005	<0.005	<0.05	--	--	--	--	--
MW-7C	70	2/27/06	<1.0	--	<0.005	<0.005	<0.005	<0.005	<0.05	--	--	--	--	--
EW-2	41.5	2/24/06	1.4	--	<0.005	<0.005	<0.005	<0.005	0.22	--	--	--	--	--
GP-1	8	1/10/07	<1.0	--	<0.005	<0.005	<0.005	<0.005	<0.05	--	--	--	--	--
GP-1	24	1/10/07	<1.0	--	<0.005	<0.005	<0.005	<0.005	<0.05	--	--	--	--	--
GP-1	28	1/10/07	<1.0	--	<0.005	<0.005	<0.005	<0.005	<0.05	--	--	--	--	--
GP-2	8	1/10/07	<1.0	--	<0.005	<0.005	<0.005	<0.005	<0.05	--	--	--	--	--
GP-2	24	1/10/07	51	--	<0.050	<0.050	0.13	0.20	<0.50	--	--	--	--	--
GP-3	8	1/10/07	<1.0	--	<0.005	<0.005	<0.005	<0.005	<0.05	--	--	--	--	--
GP-3	24	1/10/07	<1.0	--	<0.005	<0.005	<0.005	<0.005	<0.05	--	--	--	--	--
GP-3	28	1/10/07	100	--	<0.050	0.40	2.1	3.2	2.6	--	--	--	--	--
GP-4	8	1/10/07	<1.0	--	<0.005	<0.005	<0.005	<0.005	<0.05	--	--	--	--	--
GP-4	16	1/10/07	<1.0	--	<0.005	<0.005	<0.005	<0.005	<0.05	--	--	--	--	--
GP-4	28	1/10/07	13	--	0.021	0.096	0.24	0.32	4.4	--	--	--	--	--
GP-5	8	1/10/07	<1.0	--	<0.005	<0.005	<0.005	<0.005	<0.05	--	--	--	--	--
GP-5	20	1/10/07	5.0	--	<0.005	<0.005	<0.005	<0.005	<0.05	--	--	--	--	--
GP-5	28	1/10/07	<1.0	--	<0.005	<0.005	<0.005	<0.005	<0.05	--	--	--	--	--
GP-6	8	1/10/07	<1.0	--	<0.005	<0.005	<0.005	<0.005	0.090	--	--	--	--	--
GP-6	18	1/10/07	<1.0	--	<0.005	<0.005	<0.005	<0.005	<0.05	--	--	--	--	--
GP-6	24	1/10/07	<1.0	--	<0.005	<0.005	<0.005	0.013	0.11	--	--	--	--	--
GP-6	28	1/10/07	23	--	0.0057	0.021	0.052	0.16	0.056	--	--	--	--	--
GP-6A	4	1/11/07	11	--	<0.005	<0.005	0.0081	<0.005	<0.10	--	--	--	--	--
GP-6A	8	1/11/07	<1.0	--	<0.005	<0.005	<0.005	0.011	<0.10	--	--	--	--	--
GP-6A	16	1/11/07	<1.0	--	<0.005	<0.005	<0.005	<0.005	<0.05	--	--	--	--	--
GP-6A	20	1/11/07	1.6	--	<0.005	<0.005	0.0052	0.0065	0.066	--	--	--	--	--
GP-6A	24	1/11/07	2.0	--	<0.005	0.013	0.0062	0.015	0.44	--	--	--	--	--
GP-6A	28	1/11/07	17	--	<0.010	<0.010	0.40	0.028	0.34	--	--	--	--	--
GP-7	4	1/11/07	2.0	--	<0.005	0.014	0.0080	0.092	0.086	--	--	--	--	--
GP-7	8	1/11/07	<1.0	--	<0.005	<0.005	<0.005	<0.005	<0.05	--	--	--	--	--
GP-7	14	1/11/07	<1.0	--	<0.005	<0.005	<0.005	<0.005	0.062	--	--	--	--	--
GP-8	8	1/10/07	<1.0	--	<0.005	<0.005	<0.005	<0.005	<0.05	--	--	--	--	--
GP-8	24	1/10/07	30	--	0.030	0.19	0.46	2.4	9.6	--	--	--	--	--

Table 3
Historic Soil Analytical Results
160 Holmes Street, Livermore, California

Sample ID	Sample Depth	Sample Date	TPHg	TPHd	Benzene	Toluene	Ethyl-benzene	Total Xylenes	MTBE	Fuel Oxygenates				
										TAME	TBA	DIPE	ETBE	MTBE
GP-9	8	1/10/07	<1.0	--	<0.005	<0.005	<0.005	<0.005	<0.05	--	--	--	--	--
GP-9	12	1/10/07	<1.0	--	<0.005	<0.005	<0.005	<0.005	<0.05	--	--	--	--	--
GP-9	24	1/10/07	110	--	0.27	1.2	1.6	9.5	22	--	--	--	--	--
GP-10	21	1/10/07	35	--	0.033	0.35	0.56	3.6	1.5	--	--	--	--	--
GP-10	24	1/10/07	2.2	--	0.0081	0.011	0.023	0.12	3.9	--	--	--	--	--
GP-11	8	1/11/07	<1.0	--	<0.005	<0.005	<0.005	<0.005	<0.05	--	--	--	--	--
GP-11	24	1/11/07	<1.0	--	<0.005	<0.005	<0.005	<0.005	<0.05	--	--	--	--	--
GP-11	28	1/11/07	3.7	--	<0.005	<0.005	<0.005	<0.005	0.057	--	--	--	--	--
GP-12	8	1/11/07	<1.0	--	<0.005	<0.005	<0.005	<0.005	0.072	--	--	--	--	--
GP-12	24	1/11/07	15	--	<0.005	<0.005	0.13	0.14	0.092	--	--	--	--	--
GP-12	28	1/11/07	11	--	0.0061	<0.005	0.47	0.014	0.36	--	--	--	--	--
GP-13	8	1/11/07	<1.0	--	<0.005	<0.005	<0.005	<0.005	<0.05	--	--	--	--	--
GP-13	24	1/11/07	9.1	--	<0.005	<0.005	<0.005	0.014	<0.05	--	--	--	--	--
GP-13	28	1/11/07	100	--	0.17	0.39	2.6	6.7	8.9	--	--	--	--	--
GP-14	8	1/11/07	6.4	--	<0.005	<0.005	<0.005	<0.005	<0.05	--	--	--	--	--
GP-14	12	1/11/07	<1.0	--	<0.005	<0.005	<0.005	<0.005	<0.05	--	--	--	--	--
GP-14	16	1/11/07	<1.0	--	<0.005	<0.005	<0.005	<0.005	<0.05	--	--	--	--	--
GP-14	24	1/11/07	320	--	0.43	14	7.0	40	50	--	--	--	--	--
GP-14	28	1/11/07	120	--	0.47	3.3	2.0	11	140	--	--	--	--	--
GP-15	12	1/11/07	<1.0	--	<0.005	<0.005	<0.005	<0.005	0.078	--	--	--	--	--
GP-15	19	1/11/07	1.5	--	<0.005	0.012	0.026	0.054	0.49	--	--	--	--	--
GP-15	24	1/11/07	1.6	--	<0.005	0.0077	0.015	0.11	0.40	--	--	--	--	--
GP-15	28	1/11/07	6.7	--	0.047	0.24	0.13	0.72	9.5	--	--	--	--	--
GP-16	8	1/11/07	<1.0	--	<0.005	<0.005	<0.005	<0.005	0.061	--	--	--	--	--
GP-16	24	1/11/07	<1.0	--	<0.005	<0.005	<0.005	<0.005	0.10	--	--	--	--	--
GP-16	28	1/11/07	<1.0	--	<0.005	<0.005	<0.005	<0.005	<0.05	--	--	--	--	--
GP-17	8	1/11/07	<1.0	--	<0.005	<0.005	<0.005	<0.005	<0.05	--	--	--	--	--
GP-17	24	1/11/07	<1.0	--	<0.005	<0.005	<0.005	<0.005	<0.05	--	--	--	--	--
GP-17	28	1/11/07	<1.0	--	<0.005	<0.005	<0.005	<0.005	<0.05	--	--	--	--	--
GP-18	8	1/11/07	<1.0	--	<0.005	<0.005	<0.005	<0.005	<0.05	--	--	--	--	--
GP-18	16	1/11/07	<1.0	--	<0.005	<0.005	<0.005	<0.005	0.070	--	--	--	--	--
GP-18	24	1/11/07	<1.0	--	<0.005	<0.005	<0.005	<0.005	<0.05	--	--	--	--	--
GP-18	28	1/11/07	110	--	<0.010	0.16	0.37	1.3	0.20	--	--	--	--	--

Table 3
Historic Soil Analytical Results
160 Holmes Street, Livermore, California

Sample ID	Sample Depth	Sample Date	TPHg	TPHd	Benzene	Toluene	Ethyl-benzene	Total Xylenes	MTBE	Fuel Oxygenates				
										TAME	TBA	DIPE	ETBE	MTBE
GP-19	8	1/11/07	<1.0	--	<0.005	<0.005	<0.005	<0.005	<0.05	--	--	--	--	--
GP-19	21	1/11/07	<1.0	--	<0.005	<0.005	<0.005	<0.005	<0.05	--	--	--	--	--
GP-19	24	1/11/07	5.8	--	<0.005	0.0072	0.12	0.23	0.074	--	--	--	--	--
GP-21	32	7/9/08	<1.0	--	<0.005	<0.005	<0.005	<0.005	<0.05	<0.050	4.6	<0.050	<0.050	<0.050
GP-21	36	7/9/08	<1.0	--	<0.005	<0.005	<0.005	<0.005	<0.05	<0.010	1.1	<0.010	<0.010	<0.010
GP-21	40	7/9/08	<1.0	--	<0.005	<0.005	<0.005	<0.005	<0.05	<0.010	0.72	<0.010	<0.010	<0.010
GP-21	44	7/9/08	<1.0	--	<0.005	<0.005	<0.005	<0.005	<0.05	<0.005	<0.05	<0.005	<0.005	<0.005
GP-21	48	7/9/08	<1.0	--	<0.005	<0.005	<0.005	<0.005	<0.05	<0.005	<0.05	<0.005	<0.005	<0.005
GP-21	52	7/9/08	<1.0	--	<0.005	<0.005	<0.005	<0.005	<0.05	<0.005	<0.05	<0.005	<0.005	<0.005
GP-22	32	7/8/08	1.2	--	<0.005	<0.005	0.0059	<0.005	<0.05	<0.025	2.9	<0.025	<0.025	0.051
GP-22	36	7/8/08	<1.0	--	<0.005	<0.005	<0.005	<0.005	<0.05	<0.050	3.6	<0.050	<0.050	<0.050
GP-22	40	7/8/08	<1.0	--	<0.005	<0.005	<0.005	<0.005	<0.05	<0.010	1.3	<0.010	<0.010	<0.010
GP-22	44	7/8/08	<1.0	--	<0.005	<0.005	<0.005	<0.005	<0.05	<0.005	<0.05	<0.005	<0.005	<0.005
GP-22	47	7/8/08	<1.0	--	<0.005	<0.005	<0.005	<0.005	<0.05	<0.005	<0.05	<0.005	<0.005	<0.005
GP-23	32	7/7/08	56	--	0.093	0.089	0.73	0.61	7.0	<0.33	<3.3	<0.33	<0.33	8.5
GP-23	36	7/7/08	<1.0	--	<0.005	<0.005	0.010	0.0067	0.081	<0.050	3.0	<0.050	<0.050	0.063
GP-23	40	7/7/08	<1.0	--	<0.005	<0.005	0.0087	<0.005	<0.05	<0.005	0.34	<0.005	<0.005	0.010
GP-23	44	7/7/08	<1.0	--	<0.005	<0.005	<0.005	<0.005	<0.05	<0.005	<0.05	<0.005	<0.005	0.010
GP-23	50	7/7/08	<1.0	--	<0.005	<0.005	<0.005	<0.005	<0.05	<0.005	<0.05	<0.005	<0.005	<0.005
GP-24	32	7/7/08	<1.0	--	<0.005	<0.005	0.015	<0.005	0.12	<0.010	1.2	<0.010	<0.010	0.23
GP-24	36	7/7/08	<1.0	--	<0.005	<0.005	0.016	<0.005	<0.05	<0.025	1.7	<0.025	<0.025	<0.025
GP-24	40	7/7/08	<1.0	--	<0.005	<0.005	<0.005	<0.005	<0.05	<0.010	0.91	<0.010	<0.010	0.088
GP-24	44	7/7/08	<1.0	--	<0.005	<0.005	<0.005	<0.005	<0.05	<0.005	<0.05	<0.005	<0.005	<0.005
GP-24	48	7/7/08	<1.0	--	<0.005	<0.005	<0.005	<0.005	<0.05	<0.005	<0.05	<0.005	<0.005	<0.005
GP-25	32	7/8/08	4.5	--	0.18	0.015	0.18	<0.005	3.3	<0.25	<2.5	<0.25	<0.25	2.8
GP-25	36	7/8/08	<1.0	--	<0.005	<0.005	<0.005	<0.005	<0.05	<0.010	0.85	<0.010	<0.010	0.85
GP-25	40	7/8/08	<1.0	--	<0.005	<0.005	<0.005	<0.005	<0.05	<0.005	<0.05	<0.005	<0.005	0.014
GP-25	44	7/8/08	<1.0	--	<0.005	<0.005	<0.005	<0.005	<0.05	<0.005	<0.05	<0.005	<0.005	0.012
GP-25	50	7/8/08	<1.0	--	<0.005	<0.005	<0.005	<0.005	<0.05	<0.005	<0.05	<0.005	<0.005	0.015
GP-26	32	7/8/08	3.1	--	0.0074	0.015	0.082	0.012	4.6	<0.33	<3.3	<0.33	<0.33	5.1
GP-26	36	7/8/08	3.4	--	0.023	0.0087	0.053	0.010	1.7	<0.33	<3.3	<0.33	<0.33	2.0
GP-26	40	7/8/08	<1.0	--	<0.005	<0.005	<0.005	<0.005	<0.05	<0.005	<0.05	<0.005	<0.005	0.013
GP-26	44	7/8/08	<1.0	--	<0.005	<0.005	<0.005	<0.005	<0.05	<0.005	<0.05	<0.005	<0.005	0.0061
GP-26	48	7/8/08	<1.0	--	<0.005	<0.005	<0.005	<0.005	<0.05	<0.005	<0.05	<0.005	<0.005	0.010
MW-8B	28	7/16/08	<1.0	--	<0.005	<0.005	<0.005	<0.005	<0.05	--	--	--	--	--
MW-8B	32	7/16/08	<1.0	--	<0.005	<0.005	<0.005	<0.005	<0.05	--	--	--	--	--

Table 3
Historic Soil Analytical Results
 160 Holmes Street, Livermore, California

Sample ID	Sample Depth	Sample Date	TPHg	TPHd	Benzene	Toluene	Ethyl-benzene	Total Xylenes	MTBE	Fuel Oxygenates				
										TAME	TBA	DIPE	ETBE	MTBE

Notes:

All results are in milligrams per kilogram (mg/kg)

-- = not analyzed

NA = not available

TPHg = total petroleum hydrocarbons as gasoline

MTBE = methyl tertiary butyl ether

TAME = tert-amyl methyl ether

TBA = tert-butyl alcohol

DIPE = di-isopropyl ether

ETBE = ethyl tert-butyl ether

TPHg was analyzed by EPA Method 8015CM

BTEX and MTBE were analyzed by EPA Method 8021B

MTBE, TAME, ETBE, TBA, and DIPE were analyzed by EPA Method 8260B

Refusal met in borings GP-20 and GP-27, therefore no samples collected

Data compiled from other consultants was not subject to Allterra's standard of quality control

APPENDIX A
Site Investigation Field Protocol

APPENDIX A

Allterra's Site Investigation Field Protocol

Geoprobe Boring Installations and Sampling: A truck-mounted Geoprobe rig hydraulically pushes a 4-foot steel core barrel (usually 2.5-inch diameter) equipped with an acetate liner into undisturbed soil. Four-foot core soil samples are collected in the acetate liner. The core barrel is extracted from the boring and the liner is removed. Soil samples from the necessary depth is cut from the acetate liner and capped with Teflon® sheets and plastic caps. The sample is labeled and stored on ice in an ice chest. The remainder of the acetate liner is then cut open and examined for lithology according to the Unified Soil Classification System. Job location, boring location, boring name, date, soil types, observations and activities are recorded on the boring logs. A portion of each sample is field screened using portable photo-ionization detector (PID). The core barrel is decontaminated between each boring. If groundwater samples are not necessary, the hole is filled with a cement grout and bentonite mixture from the bottom of the boring to surface grade.

Once the borings are advanced to the necessary depth, water samples are collected using a clean stainless steel bailer. If the boring does not stay open, a temporary well casing and screen is lowered into the boring to aid in water sample collection. Recovered water is transferred into labeled sample containers placed on ice. After the water samples are collected, the temporary well casing and screen are removed from the boring and is filled with a cement grout and bentonite mixture from the bottom of the boring to surface grade.

Soil Gas Probe Installation/Construction: Using a Geoprobe rig or hand auger equipment, approximately 3-inch diameter boreholes are advanced to depths of approximately 5- and 10-feet bgs, depending on site-specific conditions. The soil gas probes are constructed with ¼-inch diameter Teflon® tubing and a screened probe tip emplaced midway within a one (1) foot sand filter pack at the bottom of each borehole. At least one foot of dry granular bentonite will be placed on top of the sand pack to avoid infiltration of hydrated bentonite grout. The probes will be properly marked at the surface to identify their location and depth and will be completed and secured within locked well boxes. The soil gas probes are left for at least 48 hours following installation to facilitate re-equilibration prior to the initial sampling event. Following re-equilibration, leak and purge volume tests will also be performed prior to the initial sampling event. The soil gas probes are constructed in accordance with the DTSC and Cal-EPA Interim Final Guidance for the Evaluation and Mitigation of Subsurface Vapor Intrusion to Indoor Air revised February 7, 2005 and the updated Draft Advisory for Active Soil Gas Investigations dated March 3, 2010.

Soil Gas Sampling: Using permanent soil vapor probes, soil gas samples will be collected by attaching the ¼-inch diameter Teflon® tubing to a flow regulator, vacuum gauge, and then a 1L-Suma® canister. The tubing is initially purged using a designated purge canister; subsequently, the purge canister is closed and the vapors are collected in the sample canister. The internal surfaces of the stainless steel canisters will be passivated using the "Summa" process and are therefore referred to as Summa Canisters. A vacuum gage will be used to measure the initial vacuum of the canister before sampling and the final vacuum upon completion. The gages typically have ranges from 0 to 30 inches of mercury (in. Hg). The canisters vacuums are used to draw the sample, which is referred to as passive sampling (instead of using pumps). After confirming an initial pressure of -30 in. Hg, the canister is left open until the pressure increases to approximately -5 in. Hg. One replicate soil gas sample is also collected during field activities. The filled canister is sealed with a brass cap, placed into the original shipping container, and shipped to a state-certified analytical laboratory, using Chain-of-Custody procedures. Soil gas samples are collected in accordance with the DTSC and Cal-EPA Interim Final Guidance for the Evaluation and Mitigation of Subsurface Vapor Intrusion to Indoor Air revised February 7, 2005 and the updated Draft Advisory for Active Soil Gas Investigations dated March 3, 2010.

Monitoring Well Installation/Construction and Soil Sampling: A truck-mounted, hollow-stem auger drill rig is used to drill boreholes for monitoring wells. The borehole diameter is a minimum of 4-inches larger than the outside diameter of the casing when installing well screen. The hollow-stem auger provides minimal interruption of drilling while permitting soil sampling at desired intervals. An Allterra geologist or engineer will continuously log each borehole during drilling and will constantly check drill cuttings for indications of both the first recognizable

occurrence of groundwater and volatile organic compounds using a portable photoionization detector (PID).

During drilling, soil samples are collected in 2-inch by 6-inch brass sleeves. Three brass tubes are placed in an 18-inch long split-barrel (spoon) sampler of the appropriate inside-diameter. The split-barrel sampler is driven its entire length using a 140-pound hammer, or until refusal. The sampler is extracted from the borehole and the bottom brass sleeve is capped with Teflon® sheets and plastic caps, labeled, and stored on ice. The two other brass sleeves are used for soil lithology classification (according to the Unified Soil Classification System) and field screening using a PID.

All soil borings not converted into monitoring wells are backfilled with a mixture of neat cement with 5% bentonite powder to surface grade.

Monitoring wells are constructed with blank and factory-perforated Schedule 40 polyvinyl chloride (PVC). The perforated interval consists of slotted casing, generally with 0.02-inch wide by 1.5-inch long slots, with 42 slots per foot. A threaded PVC cap is secured to the bottom of the casing. After setting the casing inside the hollow-stem auger, sand or gravel filter material is poured into the annular space to fill from boring bottom to generally 1 to 2 feet above the screened interval. A 1- to 2-foot thick bentonite seal is set above this sand/gravel pack. Neat cement containing approximately 5% bentonite is then tremmied into the annular space from the top of the bentonite plug to approximately 0.5 feet below ground surface. A traffic-rated well box is installed around each wellhead.

Monitoring Well Development: After installation, the wells are thoroughly developed to remove residual drilling materials from the wellbore and fine material from the filter pack. Typically, 10 well volumes are removed from the well and field parameters, such as pH, temperature, and conductivity, are recorded between each well volume. Well development techniques used may include surging, swabbing, bailing, and/or pumping. All development water is collected either in drums or tanks for temporary storage, and properly disposed of pending laboratory analytical results. Following development, the well is typically allowed to stand undisturbed for a minimum of 48 hours before its first sampling.

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 10 well volumes of groundwater have been removed. 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.

Sample Identification and Chain-Of-Custody Procedures: Each sample container submitted for analysis is labeled to identify the job number, date, time of sample collection, a sample number unique to the sample, any in-field measurements made, sampling methodology, name(s) of on-site personnel, and any other pertinent field observations also recorded on the field excavation or boring log. During shipment, the person with custody or the samples will relinquish them to the next person by signing the chain-of-custody form(s) and noting the date and time.

Equipment Decontamination: All drilling, sampling, well construction, and well development equipment is 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 drums for future disposal.

Waste Disposal: Soil generated during drilling will be stored in DOT-approved 55-gallon waste drums pending proper disposal. Water generated during well development, purging, and sampling activities will be placed into DOT-approved 55-gallon waste drums pending disposal and/or permitted discharge to the sanitary sewer.

APPENDIX B
Regenesis Product Application Procedures



REGENESIS

Oxygen Release Compound (ORC[®])

Installation Instructions

(Direct-Injection Slurry Application)

SAFETY:

Pure ORC is shipped to you as a fine powder rated at -325 mesh (passes through a 44 micron screen). It is considered to be a mild oxidizer and as such should be handled with care while in the field. Field personnel should take precautions while applying the pure ORC. Typically, the operator should work upwind of the product as well as use appropriate safety equipment. These would include eye and respiratory protection, and gloves as deemed appropriate by exposure duration and field conditions.

Personnel operating the field equipment utilized during the installation process should have appropriate training, supervision and experience.

GENERAL GUIDELINES:

ORC may be installed in the contaminated saturated zone in the ground utilizing hand augered holes, Geoprobe[®] type hydraulic punch equipment, or hollow stem augers. This set of instructions is specific for Geoprobe equipment. Alternate instructions may be obtained from the RegenesiS Technical Support Department.

For optimum results the ORC slurry installation should span the entire vertical contaminated saturated thickness, including the capillary fringe and “smear zone”.

Two general installation approaches are available. The first is to backfill only the probe hole with slurry. This is a simple approach, in that it is easy, straightforward, and the location of the ORC slurry is precisely known after installation. However, this method requires significantly more probe holes than the alternative, and may take more time for the completion of the remediation process. A separate set of instructions for this method utilizing Geoprobe equipment is available from RegenesiS.

The second method is to inject the slurry through the probe holes into the contaminated saturated zone. This method requires fewer probe holes, is less disruptive to the site, and aids the spread of oxygen by spreading the ORC source material. However, it may be difficult to know the exact, final disposition of the ORC installed with this method. This is the method described in these instructions.

Note: It is important that the installation method and specific ORC slurry point location be established prior to field installation. It is also important that the ORC slurry volume and solids content for each drive point be predetermined. The RegenesiS Technical Service Department is available to discuss these issues, and Helpful Hints at the end of these instructions offers relevant information. RegenesiS also has available Technical Bulletins covering source treatments with ORC.

SPECIFIC INSTALLATION PROCEDURES

1. Identify the location of all underground structures, including utilities, tanks, distribution piping, sewers, drains, and landscape irrigation systems.
2. Identify surface and aerial impediments.
3. Adjust planned installation locations for all impediments and obstacles.
4. Pre-mark the installation grid point locations, noting any that have special depth requirements.
5. Set up the Geoprobe unit over each specific point, following manufacturer recommended procedures. Care should be taken to assure approximate vertical probe holes.
6. Penetrate surface pavement, if necessary, following standard Geoprobe procedures.
7. Drive the 1 1/2" (one-and-one-half inch) pre-probe (part #AT-148B) with the expendable tip (part #AT142B) to the desired maximum depth. Standard 1" (one inch) drive rods (part AT104B) should be used, after the pre-probe. (Hint: Pre-counted drive rods should be positioned prior to the installation driving procedure to assure the desired depth is reached.)
8. Disconnect the drive rods from the expendable tip, following standard Geoprobe procedures.
9. Mix the appropriate quantity of ORC slurry for the current drive point. (See separate "Directions for ORC[®] Slurry Mixing" and Helpful Hints). **Note: Do not mix more slurry than will be used within a 30 minute period.**
10. Set up and operate an appropriate slurry pump according to manufacturer's directions. Based on our experience, a Geoprobe model GS-1000 pump is recommended. Connect the pump to the probe grout pull cap (GS-1054) via a 1 inch diameter delivery hose. The hose is then attached to the 1" drive rod with its quick connector fitting. Upon confirmation of all connections add the ORC slurry to the pump hopper/tank.
11. Withdraw the pre-probe and drive stem 4' (four feet). (Also note Helpful Hints - Operations at end of instructions.)
12. Optional pretreatment step. (See Helpful Hints - Operations at end of instructions). Pump one to two gallons of tap water into the aquifer to enhance dispersion pathways from the probe hole.
13. Pump the predetermined quantity of ORC slurry for the depth interval being injected. Observe pump pressure levels for indications of slurry dispersion or refusal into the aquifer. (Increasing pressure indicates reduced acceptance of material by the aquifer).
14. Remove one 4' section of the 1" drive rod. The drive rod will contain slurry. This slurry should be returned to the ORC bucket for reuse.
15. Repeat steps 11, 13, and 14 until treatment of the entire affected thickness has been achieved. It is generally recommended that the procedure extend to the top of the capillary fringe/smear zone.
16. Install an appropriate seal, such as bentonite, above the ORC slurry through the entire vadose zone. This helps assure that the slurry stays in place and prevents contaminant migration from the surface. Depending on soil conditions and local regulations, a bentonite seal can be pumped through the slurry pump or added via chips or pellets after probe removal.
17. Remove and decontaminate the drive rods and pre-probe.

18. Finish the probe hole at surface as appropriate (concrete or asphalt cap, if necessary).
19. Move to the next probe point, repeating steps 5 through 18.

HELPFUL HINTS:

A. Physical characteristics

A1. Slurry

The ORC slurry is made using the dry ORC powder (rated at -325 mesh). It makes a smooth slurry, with a consistency that depends on the amount of water used.

A thick, but pumpable, slurry that approaches a paste can be made by using 65-67% solids. This material would normally be used for back-filling a bore or probe hole. It is especially useful where maximum density is desired such as where ground water is present in the hole or there are heaving sands.

Thinner slurries can be made by using more water. Typical solids for the thinner slurries content will range from 35% to 62%. Such slurries are useful for injecting through a probe or bore hole into the saturated aquifer.

As a rule, it is best to mix the first batch of slurry at the maximum solids content one would expect to use. It can then be thinned by adding additional water in small increments. By monitoring this process, the appropriate quantities of water for subsequent batches can be determined.

The slurry should be mixed at about the time it is expected to be used. It is best to not hold it for more than 30 minutes. Thinner slurries, especially, can experience a separation upon standing. All ORC slurries have a tendency to form cements when left standing. If a slurry begins to thicken too much, it should be mixed again and additional water added if necessary.

Care should be taken with slurry that may be left standing in a grout pump or hose. Problems can generally be avoided by periodically re-circulating the slurry through the pump and hose back into the pump's mixing or holding tank.

A2. Equipment

Most geotechnical grout pumping equipment has a holding tank with a capacity sufficient for injection.

When applying measured volumes of ORC slurry to probe holes, it is sometimes useful to know the volumes and content of the delivery system lines. The following information may be useful in this regard.

Geoprobe pump: At the end of a pump stroke virtually no deliverable slurry remains in the pump.

5/8" O.D. connecting hose (10 feet long):	0.2 gallons (26 fluid ounces).
Four foot (4') length of 1" drive rod:	.04 gallons (5 fluid ounces).
Three foot (3') length of 1 1/2" pre-probe:	.03 gallons (4 fluid ounces).

Cleaning and maintenance:

Pumping equipment and drive rods can be lightly cleaned by circulating clear water through them. Further cleaning and decontamination (if necessary due to subsurface conditions) should be performed according to the equipment supplier’s standard procedures and local regulatory requirements.

B. Operating characteristics

B1. Operations - General

Judgment will be needed in the field when injecting ORC slurries. In general, it is relatively easy to inject ORC slurries into sandy soils, and this can usually be accomplished at very moderate pressures. Silts and clays require more pressure, and may accept less slurry.

Careful observation of pressure during slurry pumping is the best indication of the effectiveness of the slurry injection. To test the soil’s ability to accept the slurry and to “precondition” the injection point for the slurry, it is sometimes useful to inject a small volume of plain water prior to the slurry. Normally, one-half (0.5) gallons to two (2) gallons would be appropriate.

During injection, increasing pressure and decreasing flow rate are signs of refusal by the soil matrix to accept the slurry. The site geologist should determine whether to increase pressure, and possibly fracture (“frac”) the soil matrix to achieve ORC slurry installation in a tight site that has refused the slurry at lower pressures.

B2. Fill Volumes

Probe hole back-filling

Probe hole capacities:

Per 10' (Ten Foot) Length			
Theoretical		Operating Volume	
(Gallons/Fluid Ounces/Cubic Inches)		(Gallons/Fluid Ounces)	
Sand, Silts & Clay		Sand	Silts & Clay
1" Diameter	.41 gal/52 fl. oz./94.2 cu. in.	.61 gal/78 fl. oz.	.51 gal/65 fl. oz.
1 1/2" Diameter	.92 gal/117 fl. oz./212.0 cu. in.	1.38 gal/176 fl. oz.	1.15 gal/146 fl. oz.
2" Diameter	1.63 gal/209 fl. oz./376.8 cu. in.	2.44 gal/313 fl. oz.	2.04 gal/261 fl. oz.
2 1/4" Diameter	2.06 gal/264 fl. oz./476.9 cu. in.	3.09 gal/396 fl. oz.	2.57 gal/330 fl. oz.

Note that the operating volumes include a 50% excess above the theoretical volume in sands and 25% in clays and silts. This is important to successful treatment. The additional material allows for a small degree of infiltration of the slurry into the surrounding soil and fractures, as well as hole diameter variability. It is important to assure that the entire contaminated saturated zone is treated (including the capillary fringe), since this is often the area of highest pollution concentration. Failure to treat this area due to improper installation can undermine an otherwise successful remediation effort.

For direct assistance or answers to any questions you may have regarding these instructions, contact Regenesis Technical Services at 949-366-8000.

REGENESIS, 2002
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