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INTERIM CORRECTIVE ACTION PLAN

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# Property Identification:

1630 Park Street Alameda, California

AEI Project No. 298931 ACEHD Fuel Leak Case No. RO0000008

# Prepared for:

Foley Street Investments Attn: Mr. John Buestad 2533 Clement Avenue Alameda, CA 94501

# Prepared by:

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APPENDIX B	2008 BLYMER DOCUMENT (CUMULATIVE SITE DATA AND SITE PLANS)
APPENDIX C	Costs Estimate Summaries



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September 26, 2011

Foley Street Investments Attn: Mr. John Buestad 2533 Clement Avenue Alameda, CA 94501

**Subject:** Interim Corrective Action Plan

1630 Park Street Alameda, California AEI Project No. 298931

ACEHD Fuel Leak Case No. RO0000008

Dear Mr. Buestad:

AEI Consultants (AEI) has prepared this Interim Corrective Action Plan (ICAP) on behalf of Foley Street Investments, developer of the subject site (See Figure 1 and Figure 2). The subject of this ICAP is the leaking underground storage tank (LUST) case located at the property 1630 Park Street, known as the Good Chevrolet site. This property is part of a larger redevelopment site which also includes the property to the south with the address of 1600 to 1618 Park Street. Foley Street Investments plans to redevelop these properties with two commercial buildings and associated parking areas. This ICAP has been prepared following discussion with the Alameda County Environmental Health Department (ACEHD) which is the agency with regulatory oversight of the LUST case. This ICAP includes the following components:

- o A summary of the property history and prior environmental investigations,
- o An evaluation of known current conditions associated with the petroleum release and summary of apparent data gaps,
- o An evaluation of potentially viable remedial alternatives, and
- o Recommendations and outline of actions that will be undertaken in the near future.

# 1.0 Property Overview

# 1.1 Property Description

The development site consisting of 1600 to 1630 Park Street is an irregularly shaped property totaling approximately 1.46 acres, of which the northern portion is the 1630 Park Street site. The site is bound by Park Street to the northwest, 1650 Park Street to the northeast, Foley Street to the Southeast, and Tilden Way to the southwest in a mixed commercial and residential area of Alameda, California. Hereinafter, unless otherwise stated, the "site" will refer to the 1630 Park Street property.

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The site is currently improved with a two-story showroom and office building totaling approximately 11,264 square feet and parking lot which was until approximately 2008 occupied by Good Chevrolet. Good Chevrolet also occupied the 1600 to 1618 property to the south, which is also vacant. Refer to Figure 2 for the property layout and major site features.

# 1.2 Planned Development Project

Foley Street Investments plans to demolish the existing buildings and construct two commercial buildings. The northern building is planned for the area of the existing Good Chevrolet building along Park Street. The remainder of the development site will be improved with paved parking areas and landscaping. The development schedule calls for construction to begin no later than June 2012. Refer to Appendix A for the planned location of the buildings.

# 2.0 Site History

Based on historical research performed during a Phase I Environmental Site Assessment (ESA) conducted in June 2011, the current building at the site was constructed in the 1940s for use as an auto garage and showroom. Good Chevrolet occupied the site from the early 1960s through 2008.

#### 2.1 Prior Environmental Work

According to records on file with the ACEHD, one 300-gallon waste-oil underground storage tank (UST) and one 500-gallong gasoline UST were removed from adjacent to the northern side of the building in 1986 at which time a release of petroleum hydrocarbons, primarily gasoline, was discovered. Due to the discovery of a release, a case was opened with the ACEHD. Following is a summary of investigation activities that followed.

- In 1987, Groundwater Technologies installed three groundwater monitoring wells (MW-1 to MW-3) and drilled two soil borings (SB-4 and SB-5) to investigate soil and groundwater conditions around the former UST hold.
- In October 1993, Geoplexus collected and analyzed soil and groundwater samples from seven soil boring (EB1 to SB7) drilled around the UST hold along with up-gradient and down-gradient of the release. It should be noted that documents indicate that two other borings (HP-1 and HP-2) were drilled up-gradient of the release area in April 1993, however details are not available. Geoplexus installed monitoring wells MW-4 and MW-5 in April 1994 in Park Street to investigate the down-gradient extent of the hydrocarbon plume.
- o In January 1997, Geoplexus drilled an additional eight soil borings (EB8 to EB12 and P1 to P3) onsite around and down-gradient of the former UST hold. Soil samples were analyzed from EB8 to EB12 and groundwater samples were analyzed for all eight borings.
- In November 1998, Geoplexus collected three soil gas samples from three borings (AGP-1 to AGP-3) in the release are and within the adjacent building. Geoplexus presented an argument for "low risk" closure however case closure was not granted.
- o In April 2008, Blymer Engineers collected soil and groundwater samples from 24 soil borings (GP1 to GP24) on and offsite to characterize the extent of soil and groundwater pollution. It should be noted that AEI was not able to locate a formal report of these

activities, only tables of soil and groundwater data and figures have been located. A copy of this information is included as Appendix B.

o Groundwater monitoring was conducted approximately quarterly from 1992 through 1995, then sporadically through 2003, once in 2008, and most recently by AEI in June 2011.

Based on the reports available to AEI, no remedial activities have been performed at the site since removal of the USTs. Site data is presented in Tables 1 to 3, on Figures 4 to 7, and in Appendix B. Reports relating the historical investigation work are referenced in Section 8.0.

### 2.2 Recent Site Assessments

Following the Phase I ESA and in preparation for development of the site and property to the south (1600 to 1618 Park Street), AEI was retained by Foley Street Investments to perform a Phase II subsurface investigation of the property, relating to potential environmental issues aside from the Good Chevrolet LUST case. The areas of concern investigated include five former and five existing underground hydraulic lifts, several floor drains, three existing USTs (1 550-gallon waste-oil UST, 1 10,000 gallon 1 4,000 gallon gasoline UST), and a former gasoline station identified on the southern end of the development site at the intersection of Park Street and Tilden Way. A total of 19 soil borings (AEI-1 to AEI-19) were drilled for soil and groundwater sampling.

Results of the investigation are summarized in the August 16, 2011 *Phase II Subsurface Investigation Report*, prepared by AEI. The only significant release identified during this investigation was in the area of several former (removed) underground hydraulic lifts in the northern section of the 1630 Park Street building, just south of and on the other side of the building wall from the fuel release area (Refer to Figure 3). Significant concentrations of total petroleum hydrocarbons (TPH) as gasoline (TPH-g), as diesel (TPH-d), and motor oil (TPH-mo) were detected in borings AEI-3, AEI-4, and AEI-6 to AEI-8. Based on the presence of benzene, toluene, ethyl-benzene, and xylenes (BTEX) and TPH-g in several of the samples, it is apparent that the fuel release has migrated beneath the building. In addition, the high concentrations TPH-d and TPH-mo are consistent with a release of hydraulic oil from several of the former lifts. PCBs were not detected. In this area, the hydraulic oil and gasoline have commingled.

# 3.0 Conceptual Site Model

The following section presents a conceptual model of the release occurrence, including a discussion of the physical setting of the site, distribution of contaminants of concern (COCs), potential exposure pathways, and data gaps that may exist in the understanding of the release.

## 3.1 Geologic Setting and Hydrology

The site is located on Alameda Island. The near surface sediments of the area are mapped as Holocene and Pleistocene Merritt Sands (Qms) deposits (Helley, et al). Depth to bedrock is estimated at 300 to 800 feet below land surface (Norfleet Consultants, 1998). According to information obtained from the U.S Geological Survey (USGS), the site is located at between 20 and 25 feet above mean sea level (amsl) with the local topography sloping gently to the northeast. The nearest surface water body is the tidal canal located approximately 1500 to 2000 feet to the northeast.

During the recent drilling conducted by AEI in July 2011, groundwater was first observed in the temporary direct push borings at depths of approximately 9 to 11 feet bgs and stabilized at between approximately 7.5 to 8.5 feet bgs. The depth to water in the groundwater monitoring wells has generally ranged from approximately 7.5 to 9.5 feet bgs since the wells were installed. Based on the groundwater monitoring conducted at the site, groundwater flows fairly consistently in a northwesterly direction at an approximate hydraulic gradient of 1x10<sup>-2</sup> to 2x10<sup>-2</sup> ft/ft and exists as an unconfined aquifer. Based on the logs of soil borings drilled at the site, sediments across the site are fairly consistent; consisting primarily of poorly graded fine to medium sand with varying clay and silt content. Refer to Figures 4 and 5 for fence diagrams, based on logs of borings at the site, which depict the sediments across the release area.

### 3.2 Release Occurrence

The release of TPH-g, BTEX, and other gasoline constituents originated from the former 500 gallon gasoline UST system removed in 1986 from near the northern side of the existing building. The exact cause of the release is not known, though typically such releases occur from failures fo the UST itself or the associated piping and pump system. The volume of fuel released or the duration and timing of the release is not known.

The source of the heavier range hydrocarbons present in samples recently collected within the building appears to have occurred from at least several of the five former hydraulic lifts at the northern end of the building. Again, the timing or duration of the oil release or total volume released is not known.

#### 3.3 Contaminants of Concern

The primary contaminants of concern at the site consist of gasoline range hydrocarbons and gasoline constituents and oil range hydrocarbons released from the former hydraulic lifts in the northeastern area of the existing building. The following exhibit presents a summary of the maximum concentrations of the more significant contaminants of concern in soil and groundwater.

	Maximu	m Concentratio	n in Soil	Maximum Concentration in Groundwater			
Contaminant	mg/kg	Date	Sample ID	μg/l	Date	Sample ID	
TPH-g	15,000	10/15/93	EB2-2S	200,000*	7/25/11	AEI-4-W	
Benzene	84	10/15/93	EB2-2S	21,000*	7/25/11	AEI-4-W	
Toluene	710	10/15/93	EB2-2S	30,000*	7/25/11	AEI-4-W	
Ethyl benzene	260	10/15/93	EB2-2S	4,300	5/1/08	GP8W	
Xylenes	1400	10/15/93	EB2-2S	21,000*	5/1/08	GP8W	
MTBE	9.3	1/21/97	EB10-S1	110	1/21/97	EB12-WS1	
TPH-d	10,000	7/25/11	AEI-6-7'	120,000*	7/25/11	AEI-6-W	
TPH-mo	24,000	7/25/11	AEI-6-7'	300,000*	7/25/11	AEI-6-W	

<sup>\*</sup> These concentrations likely represent analysis of sheen on the groundwater rather than dissolved concentrations

#### 3.4 Soil Contamination

Gasoline impacted soil is centered on the former UST and extends laterally in each direction, primarily toward the north and northwest to beneath Park Street. To the east, south, and east, impacted soil extends approximately 20 to 40 feet from the former UST hold and approximately 100 feet to the north. The lateral extent of gasoline impacted soil is reasonably well defined in each direction (Figure 7). Oil impacted soil was identified adjacent to several former lifts in the northeastern corner of the existing building. No further investigation following the discovery of the release at the hydraulic lifts has been performed, therefore the lateral extent of oil impacted soil has not been defined; however is expected to be limited based on the relatively low volume of oils released from such lifts.

The vertical extent of impacted soil has been generally well defined by past investigations. Vertically, the top of the impacted zone is at approximately 7 to 8 feet bgs and ends between approximately 12 to 14 feet bgs. The impacted thickness of the approximately 4 to 8 feet corresponds to just above the water table (capillary fringe) to several feet below the average water table.

#### 3.5 Groundwater Contamination

The dissolved phase plume is also centered on the former UST hold and spreads generally in a northwesterly direction. The 2008 Blymyer investigation was the most thorough attempt to define the full extent of the plume, the data from which does define the leading edge of the plume as being under Park Street (Figure 7). It should be noted that the majority of the data is from "grab" groundwater samples from temporary soil borings, which tends to be biased high relative to true dissolved phase concentration data from monitoring wells (Figure 8). The most recent groundwater data collected by AEI indicates that the concentrations of gasoline compounds extending under Park Street are low. However, the limits of the plume are not defined northeast of the property boundary or southwest of the recent AEI sampling. Based on groundwater monitoring data, concentrations have generally decreased over the last 10 years.

# 3.6 Receptors and Exposure Pathways

Human and environmental exposure pathways refer to the routes by which environmental receptors can be exposed to contaminants. Human receptors include on site occupants of a property and offsite persons who could be exposed to impacted soils, soil vapor, or groundwater. Environmental receptors include resources such as surface or groundwater waters and the flora and fauna of an area. Groundwater exposure pathways to humans include direct contact and ingestion of impacted water and pathways to environmental receptors include discharge to surface waters. Soil exposure pathways include direct contact with impacted soil, based on the land use of the property and surround area, and leaching of contaminants from soil into groundwater. In addition, the vapor inhalation (vapor intrusion) exposure pathway for humans is potentially complete where volatile contaminants are present in shallow soils beneath an occupied structure. Given the apparent extent of the dissolved phase plume and distance to the nearest surface waters, impact to surface water is not considered a complete pathway. Due to the urbanized nature of the area, exposure to flora and fauna is also not evaluated.

### 3.7 Data Gaps

Data gaps are identified based on prior assessments where information is needed to better understand the nature of a release, its fate and transport, or its possible impacts. Based on review of prior reports, there are several aspects of this release that have not been fully understood, including the following:

- A January 16, 2008 directive letter approves performing a preferential pathway study to assess the effects of underground utilities on the migration of contaminants proposed in an earlier Blymer workplan. There is no documentation of this study; therefore, it is assumed that it was not completed.
- o Based on the documents reviewed by AEI, there has not been a well survey of the area performed.
- Only limited assessment of the potential for vapor intrusion was performed in 1998. Prior to case closure an investigation of the potential for vapor intrusion will likely be required. However, given the current site conditions, such an investigation should be performed following implementation of active remediation.
- Based on review of the 2008 Blymer data, the extent of impacted groundwater has not been fully defined to the northeast of the release area. Although much of the Blymer data is based on "grab" groundwater samples which can be biased high, there data suggests that the plume may have migrated between wells MW-1 and MW-2.

These gaps are not expected to have a significant impact on the need to perform active remediation at the site. However, a well survey and preferential pathway study could be implemented in the near future. The need for additional groundwater investigation to the northeast of the release area will be reviewed with ACEH; if needed, such work can be implemented in conjunction with remedial action.

# 4.0 ICAP Objectives

The ultimate remedial objectives for the site are to be protective of groundwater quality and human health. Interim corrective action is proposed to remove a significant portion of the remaining source material present in the soil both above and below the water table that is present around the former tank hold and to reduce the most significant concentrations of dissolved phase contaminants. The primary objective of the interim action is to remove source mass that may pose a threat to human health and act as a source for further groundwater impact. A secondary objective is to reduce the impact to groundwater and control migration of the dissolved petroleum hydrocarbon plume. By limiting further impact to groundwater and treating significantly impacted groundwater around the release area, natural attenuation processes of residual dissolved phase contaminants is more likely to proceed.

Given the need to remediate the source area and to avoid later delays in the planned development, interim corrective action is proposed at this time so that progress can be made toward closure while data gaps are filled and the feasibility of corrective action methods is evaluated in more detail.

#### 5.0 Remedial Alternatives

A discussion and evaluation of potentially feasible and effective remedial alternatives considered for interim corrective action is presented in this section. Remediation of groundwater and soils impacted with petroleum hydrocarbons are broadly categorized into *in situ* and *ex situ* approaches and mass removal and diffusion-controlled technologies. In situ or onsite treatment involves either the removal of contaminants without excavation or extraction of the soil and groundwater or by destroying the hydrocarbon in place either biologically or chemically. Ex situ or offsite treatment involves the physical removal of the soil or groundwater for either above ground treatment or offsite disposal. Mass removal technologies remove source materials and may include: soil excavation, soil vapor extraction, and free product recovery. Diffusion-controlled technologies are limited by mass transfer and degradation mechanisms and may include: passive bioremediation, air sparging / biosparging, bioventing, oxygen diffusion, and in situ chemical oxidation (ISCO).

The developer of the site is planning to have major remedial actions completed during the first half of 2012. This schedule does not include post remediation monitoring, the need for post-remediation natural attenuation, or obtaining final case closure but does anticipate major onsite activities being completed so that construction of the proposed commercial building can begin. Based on this schedule, the three active remedial options considered in detail below were selected because they could reasonably be expected to either be completed prior to the beginning of construction or because installation could occur prior to construction and implementation occur with minimal disruption during and following development.

Active remediation methods are rarely, if ever, completely successful at removing all contaminants from the subsurface. Particularly with petroleum hydrocarbon contaminants, on which natural attenuation processes are well documented and their occurrence is widely accepted, active remedial action is designed to remove the majoring source material, after which the concentrations of residual contaminants are monitored to demonstrate that the site will meet the cleanup goals and remedial objectives within reasonable time frames. Therefore the remediation methods discussed below have been selected based on their likelihood to meet the client's objectives to begin construction no later than mid-2012 with the understanding that ongoing natural attenuation monitoring would be required prior to case closure once the development project has been completed. The methods presented below include the following:

- o Excavation and disposal of impacted soils with dewatering and on-site treatment and disposal (sewer or storm discharge) of contaminated groundwater.
- o High-vacuum dual phase extraction (HVDPE) extraction.
- Installation of ISCO system via ozone spaging coupled with vacuum vapor control system prior to construction of the commercial building to operate during and following construction of the commercial building.

# 5.1 Soil Excavation

Soil excavation consists of the physical removal or excavation of impacted soil to the water table, but can often extend below the water table if soil conditions allow. This option was selected for consideration since it has a high degree of certainty of removal and, given the

clients time constraints on the project, is one of the quicker remedial options. Once above ground, soils can either be treated onsite (if space and time allow) or transported offsite to an appropriate disposal facility.

A relatively significant amount of soil beneath the site is impacted by the petroleum hydrocarbons from the gasoline release as well as in the lift area. An excavation area of approximately 5225 square feet to a depth of 12 to 14 feet would remove the majority of significant onsite impacted soil. It is expected that the top 5 to 7 feet of soil may be clean and possibly suitable for reuse. Based on this approximately 2515 cubic yards (cy) of soil would be excavation, approximately 40% of which is expected to be clean overburden (approximately 1005 cy) and 1510 cy would require disposal. This corresponds to approximately 2200 tons of soil (assuming a density of 1.45 tons/cy). The following project-specific conditions impact the cost and feasibility of this approach:

- Much of the impacted soil is within the capillary fringe and beneath the water table.
  Dewatering efforts may be significant, the costs of which are difficult to estimate as no study has been performed on hydraulic properties of the aquifer. Excavation of saturated sediments can result in increase soil weight, due to water content, and can slow excavating, soil handling, and backfilling.
- The sediments beneath the site are primarily sandy; therefore, shoring is expected to be required along the northwestern edge of the excavation at the sidewalk. Other walls of the excavation could likely be sloped to provide adequate safety and stability.
- Three of the monitoring wells (MW-1 to MW-3) would need to be properly decommissioned prior to excavation and additional wells reinstalled at a later time.
- Impacted soil beneath the sidewalk or street would remain. Although this limitation is common, the residual soil could increase the natural attenuation and case closure timeframe.
- The volume of soil to be removed are based on available data, however typically field observations and screening are utilized to determine excavation boundaries; therefore the final volume of soil removed may be more (or less) than estimated.

Based on the scope of excavation outlined above, the cost for remedial action is estimated at \$491,325 and the total cost to closure is estimated at \$596,355.

### 5.2 High Vacuum Dual Phase Extraction

High vacuum dual phase extraction (HVDPE) utilizes vacuum pumps capable of achieving relatively high applied vacuum [typically ~ 20 inches of mercury (in Hg)] to the subsurface via extraction wells. This approach is a commonly applied variant on traditional soil vapor extraction (SVE) with the added advantage of extracting groundwater and lowering the water table to allow for removal of adsorbed or "trapped" volatile organics from beneath the water table. Water is treated with an air-stripper and/or activated carbon prior to discharge to the sewer or storm drain and vapor phase contaminants typically burned in a thermal or catalytic oxidizer. HVDPE is commonly supplemented with air sparging (injection of air below the contaminant mass below the water table) to mobilize sorbed contaminants below the water table and transfer dissolved phase contaminants to the vapor phase for removal. HVDPE is a well proven approach for removal of volatile contaminants including gasoline and under some

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conditions heavier range petroleum. HVDPE can be implemented by installing fixed equipment or utilizing mobile equipment. Given the time constraints on implementing remedial action as well as the field-flexibility and lower capital costs of mobile equipment, the discussion below is based on utilizing mobile HVDPE equipment.

HVDPE is more successful in relatively course soils where acceptable air and water flow rates can be achieved; both conditions are present at this site, making HVDPE a potential viable option. Following are several project-specific considerations for evaluating HVDPE:

• No pilot testing of HVDPE or any other extraction method has been performed at the site. Given the site conditions, HVPDE is expected to be feasible; however, due to the lack of prior pilot testing, removal rates, radius of vacuum influence, and water table draw-down are not known. Therefore, the proposal and cost estimate include a phased approach to implementation whereby several extraction wells and a sparge well are installed for immediate implementation of HVDPE and evaluation of extraction parameters, followed by the installation of a larger network of remediation wells to treat the larger target area.

Based on 4 months of extraction of up to 16 extraction wells and 5 sparge wells, the total cost of HVDPE is \$357,000. The total cost to closure, including excavation and disposal of approximately 515 tons of soil from the hydraulic lift release area, is estimated at \$505,090.

### 5.3 In Situ Chemical Oxidation

In situ chemical oxidation (ISCO) involves the use of an oxidant such as permanganate, ozone, hydrogen peroxide, or the hydroxyl radical (Fenton's reagent) to chemically destroy the hydrocarbons. The selected oxidant must be injected into the impacted soils and groundwater to be in direct contact with the contaminant. The effectiveness of chemical oxidation is dependent on the nature of the contaminants, soil type, permeability, organic carbon and mineral content, heterogeneity or homogeneity of the soil matrix, distribution of contaminants, and the presence of free product. ISCO utilizing ozone sparging is considered a potentially viable option for this site. Ozone (O<sub>3</sub>), with an electrochemical potential of 2.07V, is one of the most powerful oxidants available for ISCO and has become a widely used method for Ozone sparging involves the injection of highly concentrated ozone hydrocarbon treatment. (up to 6% by weight) blended with air below the water table using sparge wells. In addition to direct oxidation of hydrocarbons, ozone sparging shares many similarities with air sparging by increasing volatilization, supplying oxygen for aerobic biodegradation, and promoting some degree of groundwater mixing. The gasoline contaminants at the site are highly favorable to ozone sparging and oil range hydrocarbons are moderately favorable to such treatment. An ozone system has the advantage of relatively low operation and maintenance costs compared to other fixed equipment remediation system (such as SVE and groundwater pump and treat) if treatment must continue for longer than estimated. Several project specific conditions are considered during the evaluation of this approach:

• Pilot testing of ISCO methods, including ozone sparging would be required to evaluate the radius of influence of sparge wells (for optimum well network design) and to assess whether problematic reaction by-products, such as chromium VI, would be produced.

- Ozone treatment would be expected to require 18 to 36 months to treat the source area and adequately reduce dissolved contaminant conversation. This would require installation of sparge points and conduit during redevelopment of the property, with operation of treatment system to continue after development completion.
- Operation of a sparging system beneath and around a commercial building would require vapor control to mitigate risk of increased vapor intrusion. A vapor control system would consist of horizontal piping beneath the structure connected to a small blower and appropriate abatement devise (likely activated carbon). Such a system would be designed to maintain a negative pressure gradient beneath the structure to remove and treat any fugitive created by the sparging process rather than as a mass removal system (as would be the design of traditional SVE system).

Estimated costs for installation and operation of an ozone sparging system for 30 months is \$365,050 and total cost to closure estimated at \$518,450.

### 5.4 Alternative Evaluation

The remedial alternatives are evaluated based on likely feasibility of implementation, an evaluation of likely effectiveness, and costs.

# 5.4.1 Feasibility

Each of the three methods is based on proven methods and each are technical feasible. For excavation and disposal, dewatering and groundwater handling is the most significant unknown. Complications caused by excessive water infiltration could be significant when excavating up to 7 feet below the water table, including slope stability of unshored sidewalls, soft ground for equipment, and handling of saturated sandy soils. Installation of ozone sparging and vapor control system prior to construction of the building runs the risk of complicating construction and damage remediation system wells and piping during construction; however with adequate site control, is a risk that could be mitigated. HVDPE extraction well installation and operations face no significant feasibility limitations if implemented prior to or following demolition activities to avoid disruptions to operations or damage to wells.

#### 5.4.2 Effectiveness Evaluation

Excavation and disposal of soil is expected to have the highest likelihood of being effective, assuming impacted soils do no extend beyond the known limits of the release. In the event that additional removal is needed, extending the excavation laterally is relatively simple, to the extent that such additional removal does not extend toward a property boundary of sidewalk. The effectiveness of HVDPE and ozone sparging are highly dependent on the ability to move liquids and gas through the subsurface. With either method, radii of influence and extraction rates will not be known until pilot testing and/or implementation begin. There is risk that higher well density or longer treatment times could be required if influence and extraction rates are lower than effective. HVDPE utilizing mobile equipment includes the inherent flexibility to focus energy on well(s) that require additional treatment without the need for system redesign or additional installations. By installing ozone system for operation following construction of the planned development, if increase treatment times are required, operation and

maintenance costs are relatively low and system operation can continue as needed for extended periods of time with little additional disruption to the property. Ozone sparging is less effective on oil contamination compared to excavation and therefore could require longer treatment times in that area.

#### 5.4.3 Cost Effectiveness

The cost estimates for each of the three options includes implementation of each option plus the costs of other tasks which may be expected to be necessary to achieve case closure, such as filling data gaps, groundwater monitoring, and closure tasks and decommissioning. However a contingency multiplier has not been applied. Based on the costs estimated for these three options, the cost of HVDPE and ozone sparging are similar, at \$505,090 and \$518,450, respectively, to achieve case closure. Excavation and disposal has the highest estimated cost, at \$596,355. The most significant variable in the cost of HVDPE is the time necessary to perform adequate removal. This estimate is includes 4 months of extraction; based on an estimate prepared by CalClean, Inc that 3 months of treatment would be required to treat the site with one month added to the estimate as an operational contingency. Each additional month of treatment could increase costs by approximately \$70,000, based on the CalClean estimate. sparging has the lowest incremental cost if additional treatment is required of approximately \$ 3100 per month. Excavation costs could increase if additional shoring is necessary or due to complications cased by shallow groundwater conditions. addition, the cost estimate assumes that the top 40% of soils are suitable for reuse. If such soils cannot be reused due to the presence of contamination or its use is limited (reuse of soils within 5 feet of the water table can be limited by regulation), costs could increase for additional transportation and disposal and backfill material. In all cases, if upon filling the identified data gaps, additional areas require treatment, costs would likely increase.

#### 6.0 Recommended Interim Method

Based on the above discussion, all methods are technically feasible however HVDPE and excavation have the highest likelihood of success. Based on the required timing of remedial implementation and other factors outlined above, HVDPE has been selected for further consideration as the remedial option for the site.

To implement the remedial action within the planned development schedule, a pilot test will be implemented immediately. It is planned that three dual phase extraction wells and one air sparge well will be installed in early October 2011 followed immediately by mobilization of HVDPE equipment. A pilot test of HVDPE of up to 30 days will be performed. The test will include an evaluation of whether air sparging increases hydrocarbon recovery. If successful, HVDPE will likely continue as the selected interim remedial method and additional remediation wells may be added.

During implementation of the pilot test, a regular groundwater monitoring schedule should be reinstated to gather data on current groundwater conditions and to document improvements to groundwater quality.

Following review of this document by the ACEHD and with their concurrence, efforts should be made to fill the remaining data gaps. Once data gaps are filled and during or following completion of interim corrective action, a Corrective Action Plan will likely be prepared to establish cleanup goals and other closure criteria.

#### 7.0 Planned Activities

### 7.1 Remediation Well Installation

Three (3) dual phase extraction (DPE) wells (DPE-1 to DPE-3) and one (1) air sparge well (AS-1) will be installed. The proposed locations of the wells are shown on Figure 9. Prior to mobilizing, well construction permits will be obtained from Alameda County Public Works Agency (ACPWA), the site will be marked and underground service alert north (USAN) will be notified, and a private utility locating service retained to clear the planned drilling locations.

The drilling and well installation will be performed with a combination direct push / hollow stem auger drilling rig. Borings will be continuously cored to log soil and determine the exact interval of the well screens. It is planned that DPE wells will be screened from approximately 6 to 14 feet bgs, although exact screen intervals will be determined in the field; DPE wells will be constructed of 4" diameter flush threaded and factory slotted (0.010) well casing. The sparge well will be placed below the hydrocarbon impacted interval, within permeable sediments, estimated at approximately 20 or 25 feet bgs. The sparge well will be constructed of 2" diameter flush threaded and factory slotted (0.020) well casing. The annulus of each well will be filled with sand to above the screen interval, with 1 to 2 feet of bentonite above the sand interval, and sealed to the surface with cement grout in accordance with ACPWA permitting conditions and remediation standard well construction practices. The tops of each well will be affixed with a locking, expanding well cap and a traffic-rated well box.

Upon completion of the wells, Department of Water Resources (DWR) well registration forms (DWR 188 forms) will be filed.

### 7.2 HVDPE Pilot Testing

No less than 3 days after setting the well seals, the HVDPE pilot test will begin. It is expected that the pilot test will run for a minimum of 10 to 15 days and up to 30 days, during which time data will continuously be analyzed and a determination made as to whether HVDPE should continue beyond the pilot test. The pilot testing will be performed by CalClean, Inc. under the observation of AEI professional staff. Prior to beginning the pilot test, CalClean will ensure compliance of the thermal oxidizer vapor phase abatement equipment with Bay Area Air Quality Management District (BAAQMD) requirements and obtain a discharge permit for treated water to either the sanitary sewer or storm drain through the appropriate permitting agency.

The pilot test will consist of single well and multiple well extraction testing. During the testing, the following measurements will be made: applied vacuums, induced vacuum at nearby wells, air and water extraction rates, drawdown in nearby monitoring and extraction wells, and concentrations of volatile organics in the vapor phase. Data loggers (MiniTroll® or similar) will be placed in one or more monitoring wells (MW-1, MW-2, and/or MW-3) to record water level changes for drawdown evaluation. Influent vapor phase contaminant concentrations will be

AEI Project No. 298931 September 28, 2011 Page 13 of 15

measured for individual wells with a PID or FID and samples collected, as needed, for laboratory analyses. Air samples will be collected into Tedlar bags for analyses for TPH-g, BTEX, and MBTE by EPA method 8015 and 8021. Mass removal rates in the vapor phase will be estimated from vapor flow rates and detected concentrations. Mass removal rates in groundwater will be estimated from flow rates and concentrations. Water samples will also be collected from the extracted groundwater to estimate dissolved phase mass removal rates.

Following extraction on one or more of the DPE wells, air sparging will be implemented to evaluate whether sparging increases hydrocarbon recovery rates. Initially, without applying vacuum to the DPE wells, the sparge compressor will be connected to the sparge well and applied pressure at breakthrough and pressure at constant flow will be measured along with pressure buildup in nearby wells. Following this, vacuum will be applied to one or more of the DPE wells. Flow rates and hydrocarbon recovery rates before and after implementing sparging will be compared to evaluate whether sparging increases hydrocarbon recovery.

Data will be interpreted to estimate hydrocarbon recovery rates with and without sparging from each of the extraction wells, effective radii of influence of vacuum extraction and sparging, and cone of depression around extraction wells. These estimates will be used to determine the likely success of HVDPE, with or without sparging, and to design additional remediation wells if HVDPE is to be implemented for longer term operation.

# 8.0 Reporting

The ACEHD will be provided regular updates on the progress and results of testing. A well installation and pilot test report will be submitted which will include recommendations as to whether HVPDE will continue or an alternative method proposed. Assuming HVPDE is to continue, the report will include details of additional remediation wells that may be installed. Although HVDPE is expected to be successful, if an alternative approach is considered, the ACEHD will be contacted. Routine quarterly groundwater monitoring and remediation progress reports will be submitted. All work will be performed under the direction of and reports prepared under the seal of a California licensed professional geologist or engineer and reporting uploaded to the GeoTracker database and ACEHD electronic data portal.

Although the well installation and pilot testing outlined above is planned to start immediately, upon review of this document by ACEHD, a workplan can be prepared, if required by ACEHD, to address the identified data gaps.

### 9.0 Schedule

Remediation well installation work is expected to be completed in early October 2011 and the pilot testing activities will start shortly thereafter. Pilot test progress will be communicated to the ACEHD as data becomes available and recommendations reported once they have been determined. Assuming timely review of this document by ACEHD, it is expected that data gaps investigation and reporting can be completed in by November or December 2011, concurrent with making a final determination as to whether HVDPE will continue as the selected interim remedial method.

#### 10.0 Selected References

AEI Consultants, August 16, 2011, Phase II Subsurface Investigation, 1600 to 1630 Park Street, Alameda, California

GeoPlexus Incorporated, October 28, 1993, Supplemental Site Characterization, Good Chevrolet 1630 Park Street, Alameda, CA

GeoPlexus Incorporated, April 30, 1997, Phase II Remedial Investigation Report, Good Chevrolet 1630 Park Street, Alameda, CA

GeoPlexus Incorporated, December 18, 1998, Preliminary Remedial Risk Assessment for Good Chevrolet 1630 Park Street, Alameda, CA

Groundwater Technology, Inc. April 29, 1987, Report Subsurface investigation Good Chevrolet 1630 Park Street, Alameda, CA

Helley, E.J. and R.W. Graymer, 1997. "Quaternary Geology of Alameda County and Surrounding Areas, California: Derived from the Digital Database Open-File 97-97", 1997

Norfleet Consultants, 1998. "Groundwater Study and Water Supply History of the East Bay Plain, Alameda and Contra Costa Counties, California". Prepared for the Friends of the San Francisco Estuary, P.O. Box 791, Oakland, California, and dated June 15, 1998.

# 11.0 Report Limitations

This report has been prepared by AEI Consultants relating to the property located at 1630 Park Street, in the City of Alameda, Alameda County, California. This report includes a summary of site conditions and relies heavily on information obtained from public records and other resources; AEI makes no warrantee that the information summarized in this report includes consideration of all possible resources or information available for the site, whether referenced on not. Material samples have been collected and analyzed, and where appropriate conclusions drawn and recommendations made based on these analyses and other observations. This report may not reflect subsurface variations that may exist between sampling points. These variations cannot be fully anticipated, nor could they be entirely accounted for, in spite of exhaustive additional testing. This document should not be regarded as a guarantee that no further contamination, beyond that which could have been detected within the scope of past investigations is present beneath the property or that all contamination present at the site will be identified, treated, or removed. Undocumented, unauthorized releases of hazardous material(s) and petroleum products, the remains of which are not readily identifiable by visual inspection and/or are of different chemical constituents, are difficult and often impossible to detect within the scope of a chemical specific investigation and may or may not become apparent at a later time. This document contains estimates of costs for various activities that could be implemented at the site. These estimates are based on reasonably expected costs for similar activities; however, AEI provides no guarantee implicit or explicit that costs will not be significantly higher or lower than those estimated. All specified work has been performed in accordance with generally accepted practices in environmental engineering, geology, and

AEI Project No. 298931 September 28, 2011 Page 15 of 15

hydrogeology and performed under the direction of appropriate California registered professionals.

Should you have any questions, please contact us (925) 746-6000.

Sincerely,

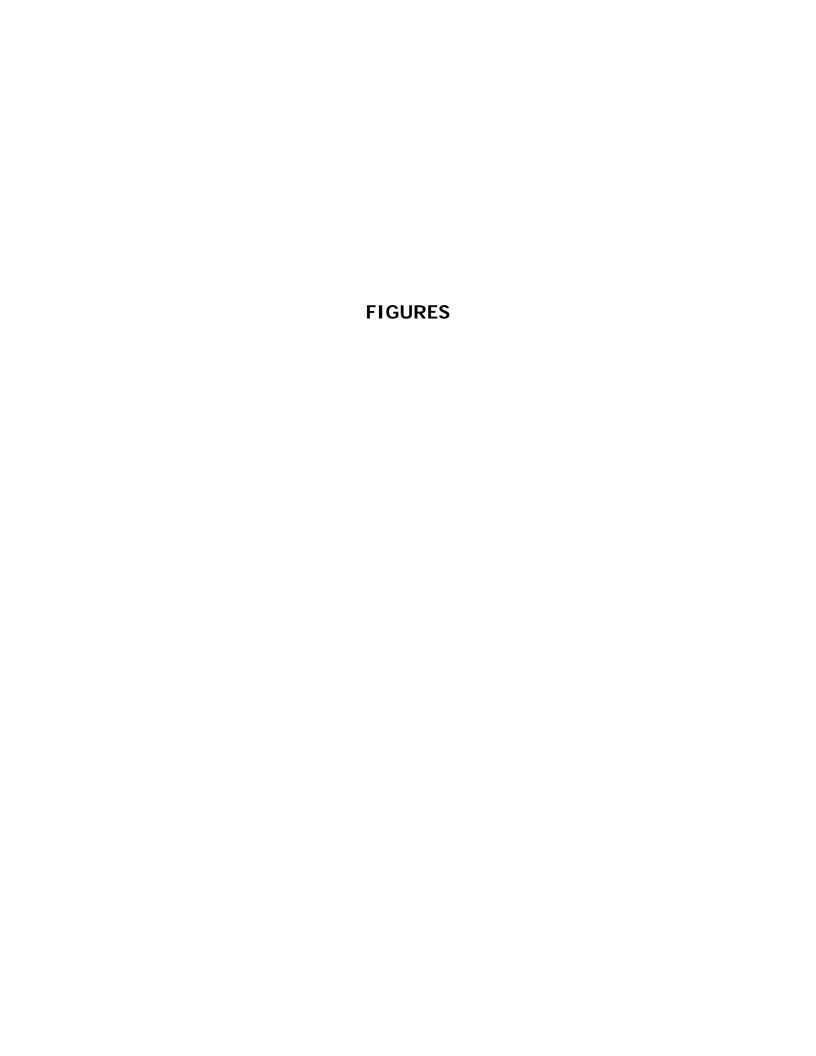
**AEI Consultants** 

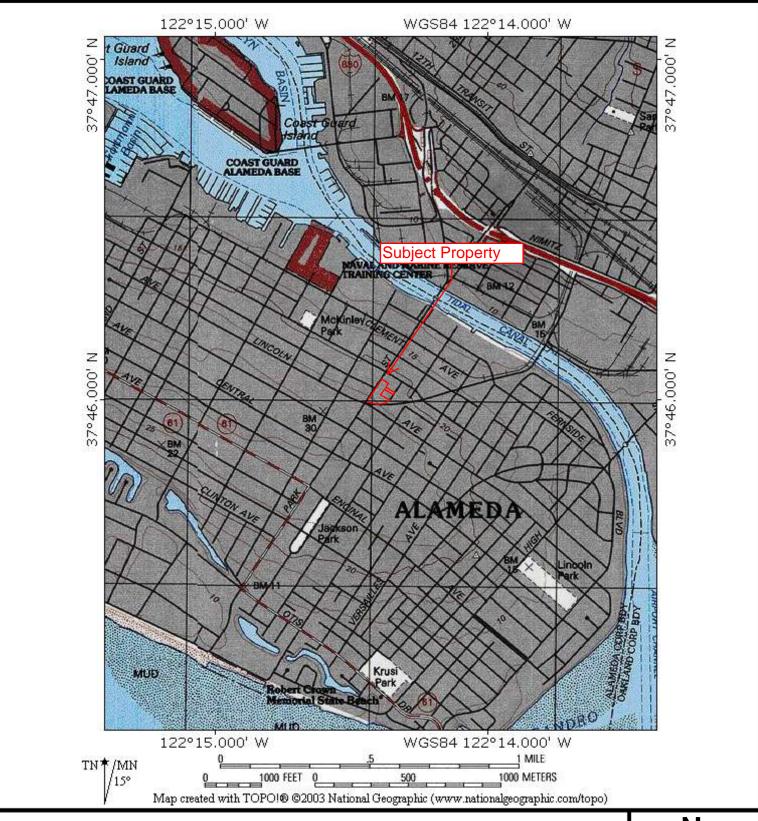
Adrian Angel Project Manager Peter J. McIntyre, PG, REA

Sr. Vice President, Geologist

Distribution:

John Buestad, Foley Street Investments Barbara Jakub, Alameda County Environmental Health Department GeoTracker





# **SITE LOCATION MAP**

1600-1650 Park Street Alameda, California 94501



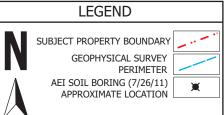
FIGURE 1

Project Number: 298931



Source: USGS





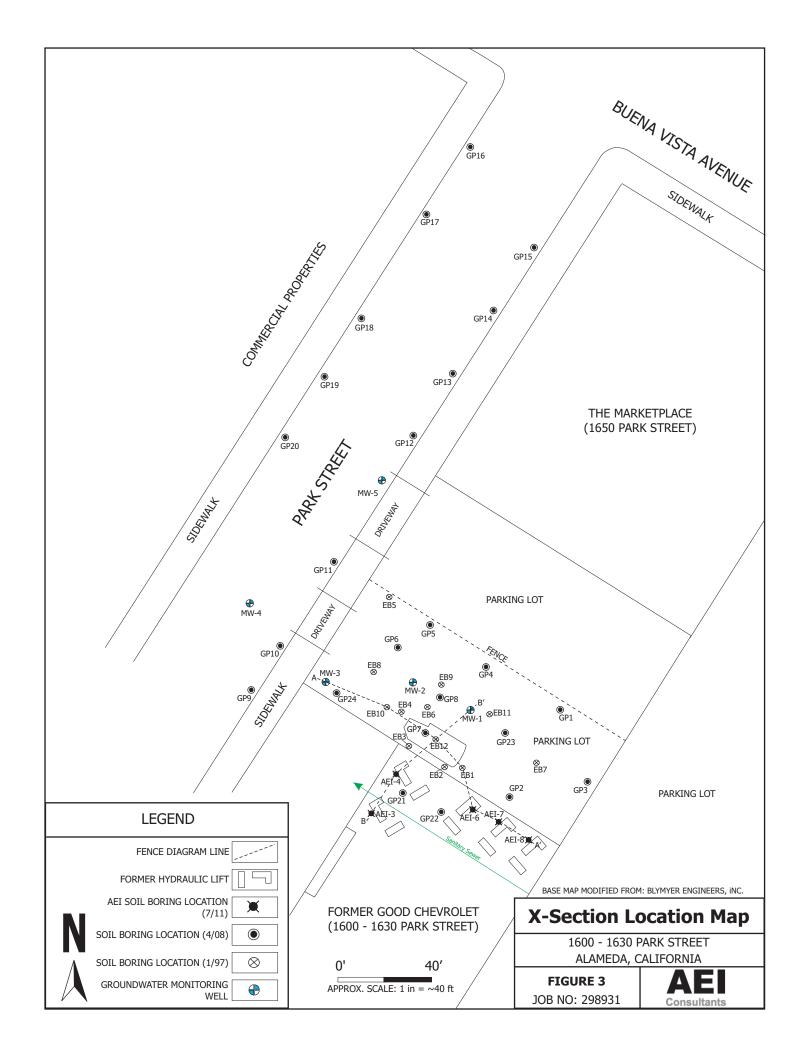
0' 110' APPROX. SCALE: 1 in = ~110 ft

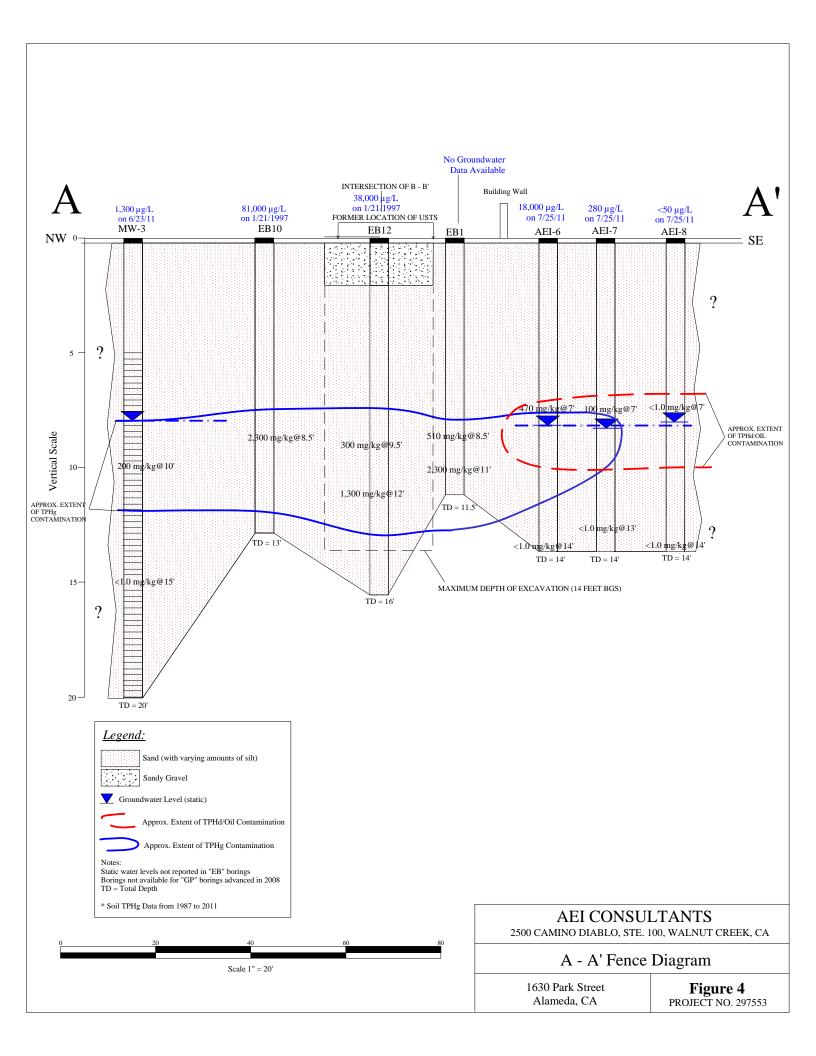
# **SITE LAYOUT MAP**

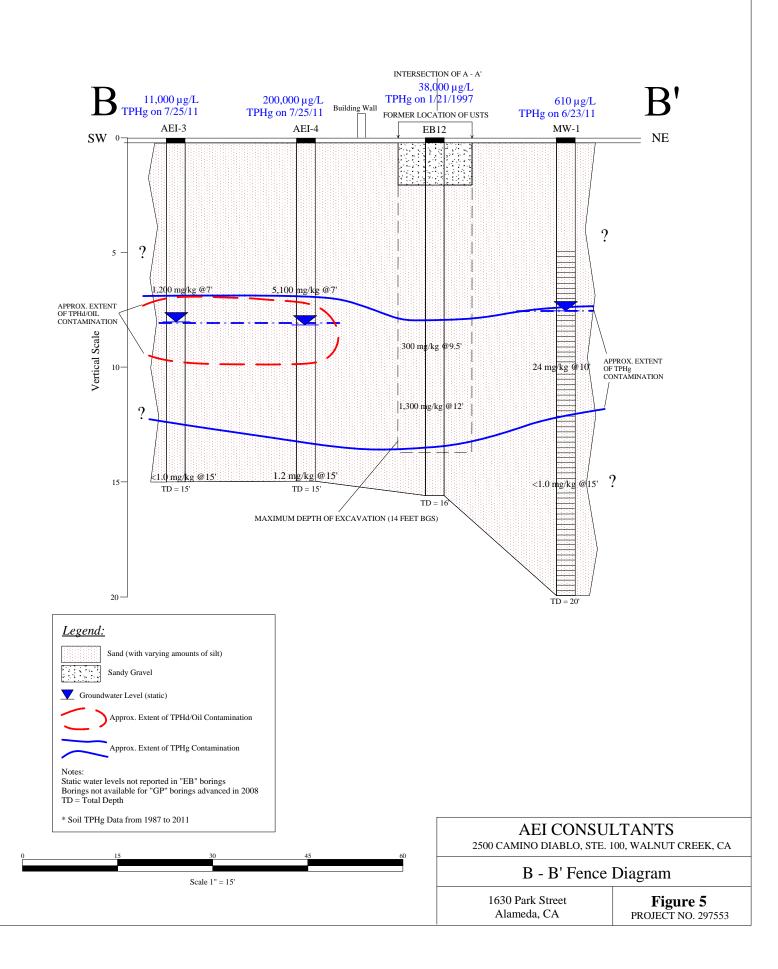
1600-1630 PARK STREET
ALAMEDA, CALIFORNIA

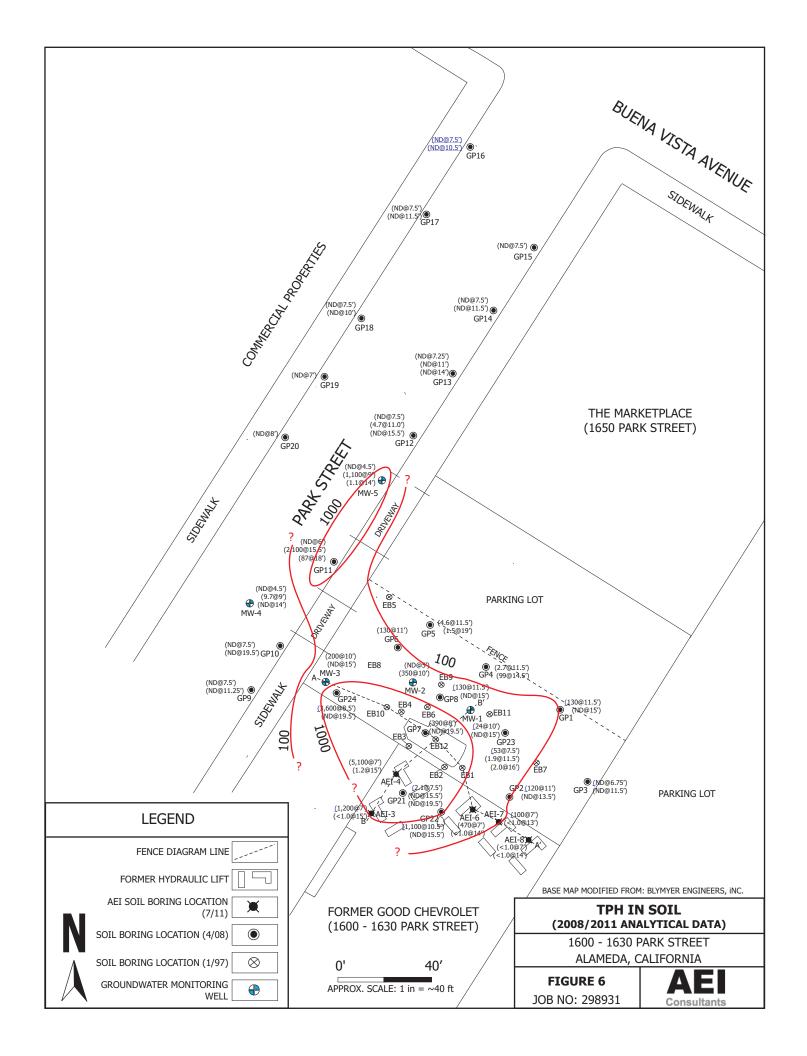
**FIGURE 2** JOB NO: 298931

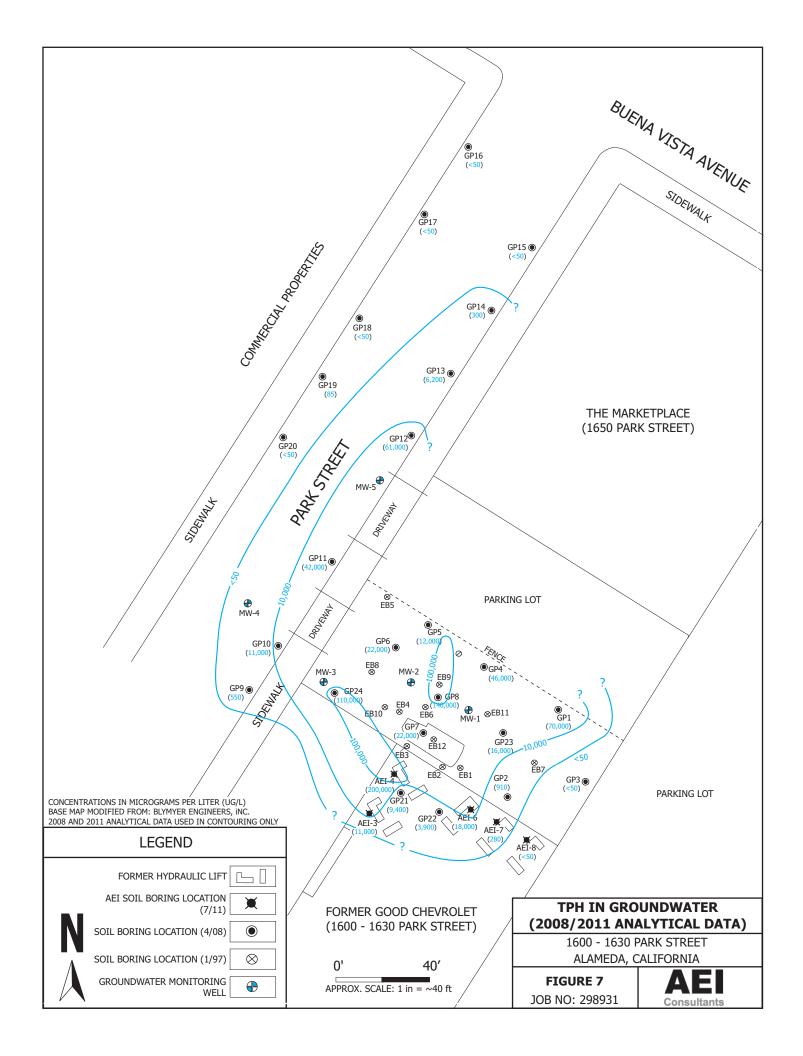
**AEI**Consultants

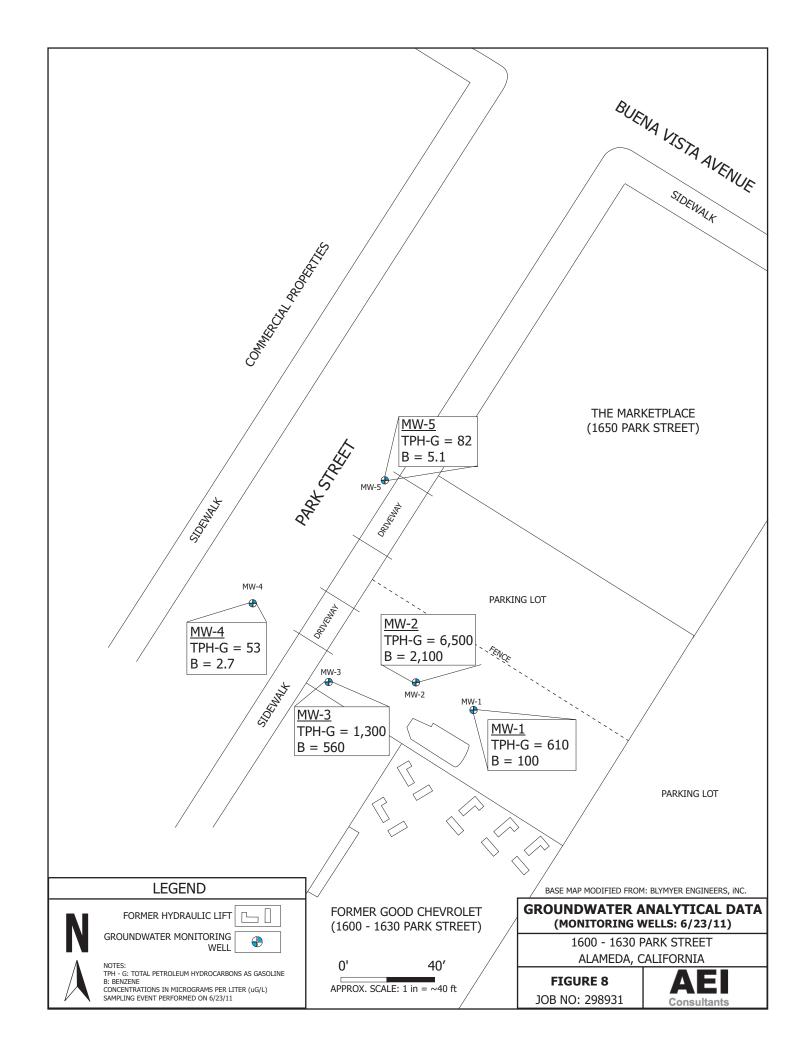


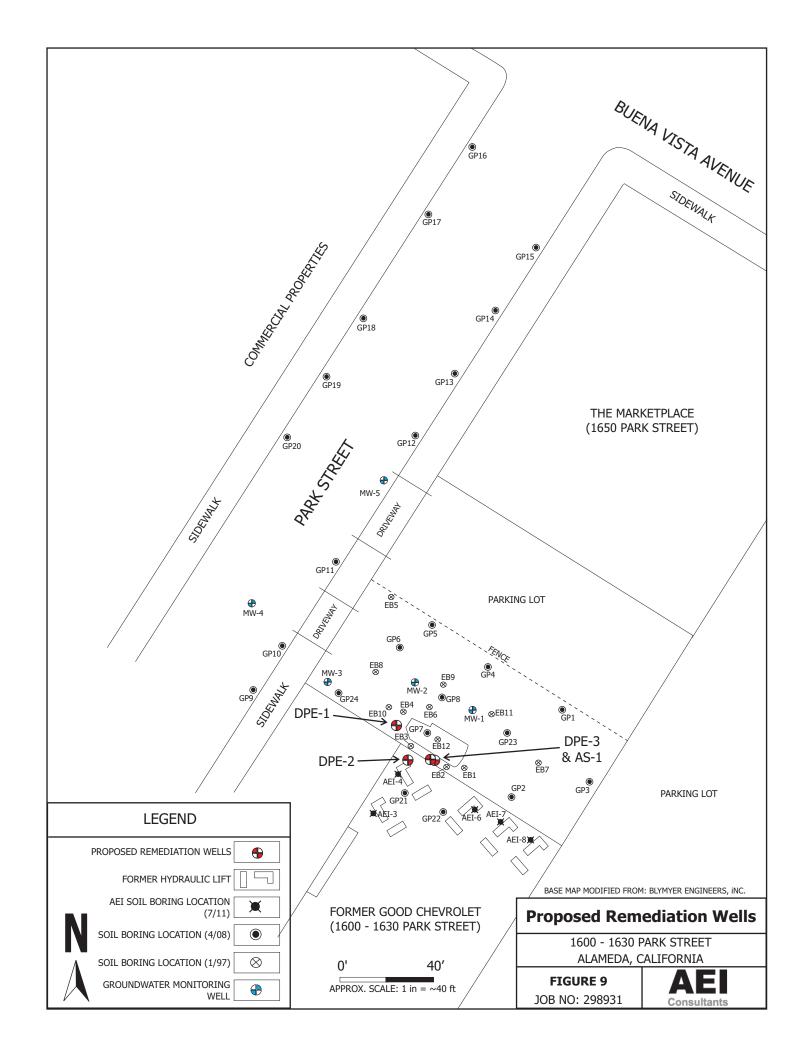














#### Table 1 Soil Sample Analytical Data TPH, MBTEX and POG

AEI Project No. 298931, 1600 - 1630 Park Street, Alameda, CA

Sample	Date	Approx. Depth	ТРН-д	TPH-d*	TPH-mo*	MTBE	BTEX**	POG
ID	Collected	(feet)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)
				EPA N	Method SW8021B/801.	5B/m		EPA Method SM5520E/F
AEI-3-7'	7/25/2011	7	1,200	1,700	4,000	<10	2.6 / 25 / 10 / 48	
AEI-3-7 AEI-3-15'	7/25/2011	15	<1.0	1,700	4,000 <5.0	<10	2.6 / 25 / 10 / 48 All<0.005	-
ALI 3 13	1/23/2011	15	(1.0	1.0	٥.0	<10	7111 < 0.005	
AEI-4-7'	7/25/2011	7	5,100	2,100	710	< 50	6.2 / 83 / 54 / 280	-
AEI-4-15'	7/25/2011	15	1.2	1.3	< 5.0	< 0.05	0.029 / 0.071 / 0.031 / 0.17	-
AEI-6-7'	7/25/2011	7	470	10,000	24,000	<5.0	All<0.50	
AEI-6-14'	7/25/2011	14	<1.0	1.4	<5.0	<5.0	All<0.50	- -
AEI-7-7'	7/25/2011	7	100	6,300	14,000	-	-	-
AEI-7-13'	7/25/2011	13	<1.0	3.7	7.4	< 5.0	All<0.50	-
AEI-8-7'	7/25/2011	7	<1.0	720	2,900	_	_	
AEI-8-14'	7/25/2011	14	<1.0	<1.0	<5.0	<5.0	All<0.50	- -
AEI-10-8'	7/26/2011	8	<1.0	1.2	< 5.0	< 5.0	All<0.50	-
AEI-11-3'	7/26/2011	3	<1.0	2.2	8.5			
AEI-11-3	7/20/2011	3	<1.0	2.2	6.3	-	-	-
AEI-12-3'	7/26/2011	3	<1.0	2.6	< 5.0	-	-	-
AEI-13-3'	7/26/2011	3	<1.0	4.2	<5.0	-	-	-
AEI-14-7'	7/26/2011	7	<1.0	_	-	< 0.05	All<0.005	
ALI-14-7	7/20/2011	, '	<1.0			<0.03	All<0.003	-
AEI-15-7'	7/26/2011	7	<1.0	-	-	< 0.05	All<0.005	=
		_						
AEI-16-7'	7/26/2011	7	<1.0	1.4	<5.0	-	-	<50
AEI-17-8'	7/26/2011	8	<1.0	1.1	<5.0	< 0.05	All<0.005	_
1121 17 0	7720/2011		110	***		10.05	111 (0.000	
AEI-18-8'	7/26/2011	8	<1.0	<1.0	< 5.0	< 0.05	All<0.005	-
A EX. 10.01	7/2//2011		1.0	1.0	5.0	0.05	411 0 005	
AEI-19-8'	7/26/2011	8	<1.0	<1.0	<5.0	< 0.05	All<0.005	=
ESLs - Res	-	-	83	83	370	0.023	varies	370
ESLs - C/I	-	-	83	83	2,500	0.023	varies	2,500
RL	-	-	1.0	1.0	5.0	0.05	0.005	50

mg/kg = milligrams per kilogram (equivalent to parts per million)

RL= reporting limit (with no dilution)- see laboratory reports for sample specific dilution factors

ESL - Res = Environmental Screening Level California Regional Water Quality Control Board,

May 2008 (Residential Use where GW is current/potential water source, Table A)

ESLs = Environmental Screening Levels, California Regional Water Quality Control Board,

May 2008 (residential and commercial/industrial land use, where GW is current/potential water source, Table A)

Res = residential, C/I = commercial/industrial

 $\begin{aligned} & MDL = \text{method detection limit} & POG = \text{petroleum oil and grease} \\ & TPH = \text{total petroleum hydrocarbons} & MBTE = \text{methyl butyl tertiary ethyl} \end{aligned}$ 

TPH-g = TPH as gasoline BTEX soil detections reported as benzene / toluene / ethylbenzene / total xylenes

TPH-d = TPH as diesel "\*" = with silica gel cleanup

TPH-mo = TPH as motor oil "\*\*" = benzene, toluene, ethylbenzene, xylenes

"<" = less than

#### Table 2 Soil Sample Analytical Data VOCs, Fuel Oxygenates, SVOCs, and PCBs

AEI Project No. 298931, 1600 - 1630 Park Street, Alameda, CA

Sample ID	Date Collected	Approx. Depth (feet)	1,4-Dioxane (mg/kg) EPA Method SW8260	All target VOCs (mg/kg) EPA Method SW8260	Fuel Oxygenates^ (mg/kg) EPA Method SW8260B	All target SVOCs (mg/kg) EPA Method 8270	All other target PCBs (mg/kg) EPA Method SW8082
AEI-3-10'	7/25/2011	10	-	-	-	-	<1.0
AEI-4-10'	7/25/2011	10	-	-	-	-	<0.25
AEI-6-10'	7/25/2011	10	-	-	-	-	< 0.05
AEI-7-11'	7/25/2011	11	-	-	-	-	<0.50
AEI-8-11'	7/25/2011	11	-	-	-	-	< 0.05
AEI-11-3'	7/26/2011	3	-	<mdl< td=""><td>-</td><td>-</td><td>-</td></mdl<>	-	-	-
AEI-12-3'	7/26/2011	3	-	<mdl< td=""><td>-</td><td>-</td><td>-</td></mdl<>	-	-	-
AEI-13-3'	7/26/2011	3	-	<mdl< td=""><td>-</td><td>-</td><td>-</td></mdl<>	-	-	-
AEI-14-7'	7/26/2011	7	-	-	<mdl< td=""><td>-</td><td>-</td></mdl<>	-	-
AEI-15-7'	7/26/2011	7	-	-	<mdl< td=""><td>-</td><td>-</td></mdl<>	-	-
AEI-16-7'	7/26/2011	7	<0.02	<mdl< td=""><td><mdl< td=""><td><mdl< td=""><td>&lt; 0.05</td></mdl<></td></mdl<></td></mdl<>	<mdl< td=""><td><mdl< td=""><td>&lt; 0.05</td></mdl<></td></mdl<>	<mdl< td=""><td>&lt; 0.05</td></mdl<>	< 0.05
ESLs - Res ESLs - C/I RL	- - -	- - -	0.0018 0.0018 0.02	varies varies varies	varies varies varies	varies varies varies	varies varies 0.05

mg/kg = milligrams per kilogram (equivalent to parts per million)

RL= reporting limit (with no dilution)- see laboratory reports for sample specific dilution factors

ESL - Res = Environmental Screening Level California Regional Water Quality Control Board,

May 2008 (Residential Use where GW is current/potential water source, Table A)

ESLs = Environmental Screening Levels, California Regional Water Quality Control Board,

May 2008 (residential and commercial/industrial land use, where GW is current/potential water source, Table A)

Res = residential, C/I = commercial/industrial

"^" = fuel oxygenates tert-amyl methyl ether (TAME), t-butyl alcohol (TBA)

MDL = method detection limit VOCs = volatile organic compounds 1,2-dibromomethane (EDB), 1,2-dichloroethane (1,2-DCA), diisopropyl ether (DIPE)

SVOCs = semi-volatile organic compounds

ethanol, and ethyl tert-butyl ether (ETBE)

PCBs = polychlorinated biphenyls

"<" = less than

#### Table 3 **Groundwater Sample Analytical Data** TPH, MBTEX and TRPH

AEI Project No. 298931, 1600 - 1630 Park Street, Alameda, CA

Sample ID	Date Collected	TPH-g (μg/L)	TPH-d* (μg/L)	TPH-mo* (µg/L) EPA Method SW8021B/801	MTBE (μg/L) 15Bm	BTEX** (µg/L)	TRPH (mg/L) EPA Method E418.1
AEI-1-W	7/25/2011	<50	<50	<250	-	-	-
AEI-2-W	7/25/2011	<50	<50	<250	-	-	-
AEI-3-W	7/25/2011	11,000	12,000	29,000	<50	1,100 / 1,900 / 210 / 860	-
AEI-4-W	7/25/2011	200,000	25,000	19,000	<500	21,000 / 30,000 / 3,600 / 16,000	-
AEI-5-W	7/25/2011	<50	<50	<250	-	-	-
AEI-6-W	7/25/2011	18,000	120,000	300,000	<50	<5.0 / 7.7 / <5.0 / 28	-
AEI-7-W	7/25/2011	280	11,000	28,000	-	-	-
AEI-8-W	7/25/2011	<50	1,600	3,800	-	-	-
AEI-9-W	7/25/2011	<50	<50	<250	-	-	-
AEI-10-W	7/26/2011	<50	<50	400	-	-	-
AEI-14-W	7/26/2011	<50	-	-	<5.0	<0.5	-
AEI-15-W	7/26/2011	<50	-	-	<5.0	<0.5	-
AEI-16-W	7/26/2011	<50	<50	<250	<0.5	<0.5	<1.0
AEI-17-W	7/26/2011	<50	89	590	<5.0	<0.5	-
AEI-18-W	7/26/2011	<50	<100	<500	<5.0	<0.5	-
AEI-19-W	7/26/2011	<50	<100	<500	<5.0	<0.5	-
ESLs - DW ESLs - NDW RL	- - -	100 210 50	100 210 50	100 210 250	5.0 1,800 5.0	varies varies 0.5	0.1 0.21 1.0

 $\mu g/L = micrograms \ per \ liter$ 

TPH = total petroleum hydrocarbons

TPH-g = TPH as gasoline

TPH-d = TPH as diesel

TPH-mo = TPH as motor oil

MTBE = methyl tertiary butyl ether

"<" = less than

MDL = method detection limit

TRPH = total recoverable petroleum hydrocarbons

RL= reporting limit (with no dilution)- see laboratory reports for sample specific dilution factors

MTBE and BTEX analysis for AEI-16-W performed by EPA Method SW8260B

BTEX soil detections reported as benzene / toluene / ethylbenzene / total xylenes

"\*" = with silica gel cleanup

"\*\*" = benzene, toluene, ethylbenzene, total xylenes

RL= reporting limit (with no dilution)- see laboratory reports for sample specific dilution factors

ESLs - DW = Environmental Screening Levels, California Regional Water Quality Control Board,

May 2008 (where GW is current/potential water source, Table A)

ESLs - NDW = Environmental Screening Levels, California Regional Water Quality Control Board,

May 2008 (where GW is not a current/potential water source, Table B)

### Table 4 **Groundwater Sample Analytical Data** VOCs, Fuel Oxygenates, SVOCs, and PCBs

AEI Project No. 298931, 1600 - 1630 Park Street, Alameda, CA

Sample ID	Date Collected	1,4-Dioxane (µg/L) EPA Method SW8260B	All target VOCs (µg/L) EPA Method SW8260B	Fuel Oxygenates^ (µg/L) EPA Method SW8260B	All target SVOCs (µg/L) EPA Method 8270	All target PCBs (µg/L) EPA Method SW8082
AEI-14-W	7/26/2011	_	_	<mdl< td=""><td>_</td><td>_</td></mdl<>	_	_
AEI-15-W	7/26/2011	-	-	<mdl< td=""><td>-</td><td>-</td></mdl<>	-	-
AEI-16-W	7/26/2011	<2.0	<mdl< td=""><td><mdl< td=""><td><mdl< td=""><td>&lt;0.5</td></mdl<></td></mdl<></td></mdl<>	<mdl< td=""><td><mdl< td=""><td>&lt;0.5</td></mdl<></td></mdl<>	<mdl< td=""><td>&lt;0.5</td></mdl<>	<0.5
ESLs - DW	-	3.0	varies	varies	varies	varies
ESLs - NDW	-	50,000	varies	varies	varies	varies
RL	i ! -	2.0	varies	varies	varies	0.5

mg/kg = milligrams per kilogram (equivalent to parts per million)

RL= reporting limit (with no dilution)- see laboratory reports for sample specific dilution factors

MDL = method detection limit

VOCs = volatile organic compounds

SVOCs = semi-volatile organic compounds

PCBs = polychlorinated biphenyls

"<" = less than

ESLs - DW = Environmental Screening Levels, California Regional Water Quality Control Board, May 2008 (where GW is current/potential water source, Table A)

ESLs - NDW = Environmental Screening Levels, California Regional Water Quality Control Board, May 2008 (where GW is not a current/potential water source, Table B)

^ = fuel oxygenates tert-amyl methyl ether (TAME), t-butyl alcohol (TBA)

1,2-dibromomethane (EDB), 1,2-dichloroethane (1,2-DCA), diisopropyl ether (DIPE) ethanol, and ethyl tert-butyl ether (ETBE)

Table 5
Soil Sample Analytical Data
Metals

AEI Project No. 298931, 1600 - 1630 Park Street, Alameda, CA

Sample ID	Date Collected	Approx. Depth (feet)	Cd	Cr (total)*	Pb	Ni	Zn
			mg/kg	mg/kg <i>EPA</i>	mg/kg A <i>Method SW60101</i>	mg/kg B	mg/kg
AEI-11-3'	7/26/2011	3	<1.5	60	<5.0	24	16
AEI-12-3'	7/26/2011	3	<1.5	31	<5.0	15	10
AEI-13-3'	7/26/2011	3	<1.5	29	<5.0	14	9.7
AEI-14-7'	7/26/2011	7	-	-	<5.0	-	-
AEI-15-7'	7/26/2011	7	-	-	<5.0	-	-
AEI-16-7'	7/26/2011	7	<1.5	54	<5.0	48	27
AEI-17-8'	7/26/2011	8	-	-	<5.0	-	-
AEI-18-8'	7/26/2011	8	-	-	<5.0	-	-
AEI-19-8'	7/26/2011	8	-	-	<5.0	-	-
ESL - Res	-	-	1.7	-	200	150	600
ESL - C/I	-	-	7.4	-	750	150	600
CHHSL - Res	-	-	1.7	-	80	1,600	23,000
CHHSL - C/I	-	-	7.5	-	320	16,000	100,000
RL	-	-	1.5	1.5	5.0	1.5	5.0

#### Notes:

mg/kg = milligrams per kilogram

ND = not detected above the laboratory reporting limit

MDL = method detection limit

ESLs = Environmental Screening Levels, California Regional Water Quality Control Board,

May 2008 (residential and commercial/industrial land use, where GW is current/potential water source, Table A)

CHHSLs - Res = California Human Health Screening Levels, Residential Land Use, January 2005 (Lead revised Sept. 2009)

Res = residential, C/I = commercial/industrial

"\*" = no CHHSL or ESL value for total chromium has been set

 $\begin{aligned} & Cd = Cadmium & Ni = Nickel \\ & Cr = Chromium & Zn = Zinc \end{aligned}$ 

Pb = Lead

Table 6
Groundwater Sample Analytical Data
Metals

AEI Project No. 298931, 1600 - 1630 Park Street, Alameda, CA

Sample ID	Date Collected	Cd µg/L	Cr (total)* µg/L <i>EF</i>	<b>Pb</b> μg/L PA Method E200.8	<b>Ni</b> µg/L	<b>Zn</b> μg/L
AEI-14-W**	7/26/2011	-	-	21	-	-
AEI-15-W**	7/26/2011	-	-	66	-	-
AEI-16-W***	7/26/2011	< 0.25	<0.5	<0.5	8.7	< 5.0
ESL - DW ESL - NDW	- -	0.25 0.25	- -	2.5 2.5	8.2 8.2	81 81
RL	-	0.25	0.5	0.5	0.5	5.0

#### **Notes:**

 $\mu$ g/L = micrograms per liter

ND = not detected above the laboratory reporting limit

MDL = method detection limit

ESLs - DW = Environmental Screening Levels, California Regional Water Quality Control Board, May 2008 (where GW is current/potential water source, Table A)

ESLs - NDW = Environmental Screening Levels, California Regional Water Quality Control Board, May 2008 (where GW is not a current/potential water source, Table B)

"\*" = no ESL value for total chromium has been set

"\*\*" = total

"\*\*\*" = dissolved

Cd = Cadmium Ni = Nickel Cr = Chromium Zn = Zinc

Pb =Lead

Table 7: Groundwater Elevation Data 1630 Park Street, Alameda, California

Collected   Elevation   Water   Elevation   (ft amst)   (ft)   (ft amst)	Well ID	Date	Well	Depth to	Groundwater
MW-1 Jul-89 104.76 8.93 95.83 (5 - 20 feet bgs) Apr-91 7.59 97.17 Jul-92 8.72 96.04 Aug-92 9.09 95.67 Sep-92 9.25 95.51 Oct-92 9.34 95.42 Nov-92 9.21 95.55 Dec-92 9.26 95.50 Jan-93 7.81 96.95 Feb-93 7.32 97.44 Mar-93 7.20 97.56 Apr-93 7.31 97.45 May-93 8.29 96.47 Jul-93 8.30 96.46 Oct-93 9.38 95.38 Jan-94 8.80 95.96 Apr-94 8.15 96.61 Jul-94 8.70 96.66 Jan-97 7.03 97.73 Nov-98 8.10 96.66 Jan-97 7.03 97.73 Nov-98 8.10 96.66 Jan-97 7.03 Apr-08 25.42 7.13 18.29 Jul-03 Apr-08 25.42 7.13 18.29 Jul-11 7.54 17.88 MW-2 Jul-99 104.86 9.24 95.62 Apr-91 8.01 96.68 Sep-92 9.46 95.50 Oct-92 9.34 95.52 Sep-92 9.46 95.39 Jan-93 8.29 9.46 95.39 Jan-97 7.03 97.73 Nov-98 8.10 96.66 Jan-01 7.70 97.06 Jan-02 7.30 97.46 Nov-02 8.14 96.62 Feb-03 Apr-08 25.42 7.13 18.29 Jun-11 7.54 17.88 MW-2 Jul-99 104.86 9.24 95.62 Apr-91 8.01 96.85 Sep-92 9.46 95.40 Oct-92 9.34 95.52 Sep-92 9.46 95.40 Oct-92 9.34 95.52 Sep-92 9.46 95.40 Oct-92 9.52 95.34 Nov-92 9.42 95.44 Nov-92 9.42 95.44 95.52 Jan-93 7.85 97.01 Apr-08 3.70 96.66 Jul-93 3.70 97.09 Apr-93 7.86 97.00 Apr-93 7.86 97.00 Apr-93 7.86 97.00 Apr-93 7.86 97.00 Apr-93 9.86 97.00 Apr-94 9.59 95.27 Jan-94 9.91 9.92 95.94 Apr-94 9.59 95.27 Jan-94 9.91 9.92 95.94 Apr-94 9.92 95.94 Apr-94 9.92 95.94 Apr-94 9.92 95.94 Apr-94 9.90 95.99 95.27 Jan-94 9.91 9.92 95.99 95.27 Jan-99 95.99 95.97 95.99 95.97 95.97 95.97 95.97 95.97 95.97 95.97 95.97 95.97 95.97 95.97 95.97 95.97 95.97 95.97 95.97 95.97 95.97 95.97 95.97 95.99 95.97 95.97 95.90 95.90 95.90 95.90 95.90 95.90 95.90 95.90	(Screen Interval)	Collected		Water	
(5 - 20 feet bgs)			(ft amsl)	(ft)	(ft amsl)
(5 - 20 feet bgs)	N/N/ 1	lul 90	104.76	8 03	05.93
Aug-92 9.09 95.67 Sep-92 9.25 95.51 Oct-92 9.34 95.42 Nov-92 9.21 9.55 Dec-92 9.26 95.50 Jan-93 7.81 96.95 Feb-93 7.32 97.44 Mar-93 7.20 97.56 Apr-93 8.30 96.47 Jul-93 8.30 96.46 Oct-93 9.38 95.38 Jan-94 8.80 95.96 Apr-94 8.15 96.61 Jul-94 9.37 95.39 Jan-97 7.03 97.73 Nov-98 8.10 96.66 Jan-01 7.70 97.06 Nov-02 8.14 96.62 Feb-03 1.07.54 17.88  MW-2 Jul-89 104.86 9.24 95.62 Sep-92 9.34 95.52 Sep-92 9.46 95.40 Oct-92 9.52 95.34 Apr-93 8.30 96.86 Mar-93 7.03 97.71 Mar-93 8.30 96.66 Jan-01 7.70 97.06 Jan-05 7.71 Apr-08 25.42 7.13 18.29 Jun-11 7.54 17.88  MW-2 Jul-89 104.86 9.24 95.62 Sep-92 9.34 95.52 Sep-92 9.34 95.52 Sep-92 9.34 95.52 Sep-92 9.34 95.52 Sep-92 9.46 95.40 Oct-92 9.52 95.34 Aug-92 9.33 95.83 Aug-93 7.77 97.09 Apr-93 8.25 96.61 Jul-93 8.25 96.61 Jul-93 8.25 96.61 Jul-93 8.72 95.44 Apr-94 8.56 97.00 Apr-93 8.786 97.01 Mar-93 7.86 97.00 Apr-94 9.52 95.34 Apr-95 9.44 9.12 95.44 Apr-94 9.59 95.22 Jan-94 9.12 95.74 Apr-95 9.64 95.90 Oct-93 9.64 95.22 Jan-94 9.12 95.74 Apr-95 7.40 97.95 Jan-97 7.55 97.31			104.70		
Aug-92 9.09 95.67 Sep-92 9.25 95.51 Oct-92 9.34 95.42 Nov-92 9.21 95.55 Dec-92 9.26 95.50 Jan-93 7.81 96.95 Feb-93 7.32 97.44 Mar-93 7.20 97.56 Apr-93 7.31 97.45 May-93 8.29 96.47 Jul-93 8.30 96.46 Oct-93 9.38 95.38 Jan-94 8.80 95.96 Apr-94 8.15 96.61 Jul-94 8.70 96.06 Oct-94 9.37 95.39 Jan-94 7.18 97.58 Apr-95 6.76 98.00 Jan-97 7.03 97.73 Nov-98 8.10 96.66 Jan-01 7.70 97.06 Jun-02 7.30 97.46 Nov-02 8.14 96.62 Feb-03 6.87 97.89 Jun-03 7.05 97.71 Apr-08 25.42 7.13 18.29 Jun-11 7.54 17.88  MW-2 Jul-89 104.86 9.24 95.62 (5 - 20 feet bgs) Apr-91 8.01 96.85 Apr-93 9.34 95.52 Sep-92 9.46 95.40 Oct-92 9.52 95.34 Aug-92 9.33 95.83 Aug-93 7.85 97.01 Apr-08 25.42 7.13 18.29 Jun-11 7.54 17.88  MW-2 Jul-89 104.86 9.24 95.62 (5 - 20 feet bgs) Apr-91 8.01 96.85 Apr-93 7.85 97.01 Apr-94 9.52 9.52 95.34 Aug-92 9.34 95.52 Sep-92 9.46 95.40 Oct-92 9.52 9.54 95.40 Oct-92 9.52 9.54 95.40 Oct-94 9.59 9.52 95.34 Aug-93 7.86 97.00 May-93 8.25 96.61 Feb-93 7.86 97.00 May-93 8.20 96.66 Jul-94 9.59 95.27 Jan-94 9.12 95.74 Apr-94 8.56 96.30 Jul-94 9.12 95.74 Apr-95 7.40 97.46 Jan-94 9.12 95.74 Apr-95 7.40 97.46 Jan-97 7.55 97.31 Nov-98 8.49 96.37 Jan-97 7.55 97.31 Jan-99 96.36	(5 - 20 feet bys)				
Sep-92					
Oct-92 Nov-92 Nov-92 P.21 S.55 Dec-92 P.26 S.55 S.50 Jan-93 P.81 S.69 S.69 S.732 P.74 Mar-93 P.720 P.7.56 Apr-93 P.7.31 P.7.45 May-93 P.7.31 P.7.45 May-93 P.7.31 P.7.45 May-93 P.7.31 P.7.45 May-93 P.7.31 P.7.45 P.7.46 P.7.47 P.7.47 P.7.47 P.7.46 P.7.47 P.7.47 P.7.46 P.7.47 P.7.47 P.7.46 P.7.47 P.7					
Nov-92		•			
Dec-92					
Jan-93   7.81   96.95     Feb-93   7.32   97.44     Mar-93   7.20   97.56     Apr-93   7.31   97.45     May-93   8.29   96.47     Jul-93   8.30   96.46     Oct-93   9.38   95.38     Jan-94   8.80   95.96     Apr-94   8.15   96.61     Jul-94   8.70   96.06     Oct-94   9.37   95.39     Jan-94   7.18   97.58     Apr-95   6.76   98.00     Jan-97   7.03   97.73     Nov-98   8.10   96.66     Jan-01   7.70   97.06     Jun-02   7.30   97.46     Nov-02   8.14   96.62     Feb-03   6.87   97.89     Jun-11   7.54   17.88      MW-2   Jul-89   104.86   9.24   95.62     Sep-92   9.46   95.40     Oct-94   9.52   9.52     Aug-92   9.34   95.52     Sep-92   9.46   95.40     Oct-92   9.42   95.44     Dec-92   9.47   95.39     Jan-93   8.25   96.61     Feb-93   7.85   97.01     Mar-93   7.86   97.00     May-93   8.20   96.66     Jul-93   3.8.25   96.61     Feb-93   7.85   97.01     Mar-93   7.86   97.00     May-93   8.20   96.66     Jul-94   9.02   95.84     Oct-94   9.59   95.27     Jan-94   9.12   95.74     Apr-95   7.40   97.46     Jul-94   9.02   95.84     Oct-94   9.59   95.27     Jan-97   7.55   97.31     Nov-98   8.49   96.37     Jan-97   7.55   97.31     Nov-98   8.49   96.37     Jan-97   7.55   97.31     Nov-98   8.49   96.37     Jan-91   9.00     Jul-92   7.77   97.09     Nov-92   8.49   96.36     Jul-94   9.02   95.84     Oct-94   9.59   95.27     Jan-97   7.55   97.31     Nov-98   8.49   96.37     Jan-91   9.00   96.36     Jul-92   7.77   97.09     Nov-92   8.49   96.37     Jan-91   9.00   96.36     Jul-92   7.77   97.09     Nov-92   8.49   96.37     Jan-91   9.00   96.36     Jul-92   7.77   97.09     Nov-92   8.49   96.37     Jan-91   9.00   96.36     Jul-92   7.77   97.09     Nov-92   9.48   8.49   96.37     Jun-02   7.77   97.09     Nov-92   8.50   96.36					
Feb-93 7.32 97.44  Mar-93 7.20 97.56  Apr-93 7.31 97.45  May-93 8.29 96.47  Jul-93 8.30 96.46  Oct-93 9.38 95.38  Jan-94 8.80 95.96  Apr-94 8.75 96.61  Jul-94 9.37 95.39  Jan-94 7.18 97.58  Apr-95 6.76 98.00  Jan-01 7.70 97.03  Jun-02 7.30 97.46  Nov-02 8.14 96.62  Feb-03 6.87 97.89  Jun-03 7.05 97.71  Apr-08 25.42 7.13 18.29  Jun-11 7.54 17.88  MW-2 Jul-89 104.86 9.24 95.62  (5 - 20 feet bgs) Apr-91 8.01 96.85  Aug-92 9.34 95.52  Sep-92 9.46 95.40  Oct-92 9.52 95.34  Nov-92 9.42 95.44  Dec-92 9.47 95.39  Jan-93 8.25 96.61  Feb-93 7.85 97.01  Mar-93 7.85 97.01  Mar-93 7.86 97.00  May-93 9.64 95.22  Jan-94 9.12 9.574  Apr-94 9.59 9.52  Jan-94 9.12 9.574  Apr-94 9.59 9.52  Jan-94 9.12 9.574  Apr-94 9.59 9.52  Jan-94 9.12 9.574  Apr-95 7.40 97.46  Oct-94 9.59 95.27  Jan-97 7.55 97.31  Nov-98 8.49 9.637  Jan-91 8.08 96.78  Jun-02 7.77 97.09  Nov-02 8.50 96.36					
Mar-93 7.20 97.56 Apr-93 7.31 97.45 May-93 8.29 96.47 Jul-93 8.30 96.46 Oct-93 9.38 95.38 Jan-94 8.80 95.96 Apr-94 8.15 96.61 Jul-94 8.70 96.06 Oct-94 9.37 95.39 Jan-94 7.18 97.58 Apr-95 6.76 98.00 Jan-97 7.03 97.73 Nov-98 8.10 96.66 Jan-01 7.70 97.06 Jun-02 7.30 97.46 Nov-02 8.14 96.62 Feb-03 6.87 97.89 Jun-11 7.54 17.88  MW-2 Jul-89 104.86 9.24 95.62 (5 - 20 feet bgs) Apr-91 8.01 96.85 Aug-92 9.34 95.52 Sep-92 9.46 95.40 Oct-92 9.52 Sep-92 9.46 95.40 Oct-92 9.52 Sep-92 9.46 95.40 Oct-92 9.47 95.39 Jan-93 8.25 96.61 Feb-93 7.86 97.01 Mar-93 7.77 97.09 Apr-93 7.86 97.01 Mar-93 7.77 97.09 Apr-93 7.86 97.01 Mar-93 7.77 97.09 Apr-94 8.56 96.30 Jul-93 8.20 96.66 Jul-93 9.62 Oct-94 9.55 96.31 Apr-94 9.12 95.74 Apr-95 7.40 97.46 Oct-94 9.59 95.27 Jan-94 9.12 95.74 Apr-95 7.40 97.46 Oct-94 9.59 95.27 Jan-97 7.55 97.31 Nov-98 8.49 96.37 Jan-97 7.55 97.31 Nov-98 8.49 96.37 Jan-97 7.55 97.31 Nov-98 8.49 96.37 Jan-01 8.08 96.78 Jan-01 8.08 96.78 Jan-01 8.08 96.78					
Apr-93					
May-93 8.29 96.47 Jul-93 8.30 96.46 Oct-93 9.38 95.38 Jan-94 8.80 95.96 Apr-94 8.15 96.61 Jul-94 8.70 96.06 Oct-94 9.37 95.39 Jan-94 7.18 97.58 Apr-95 6.76 98.00 Jan-97 7.03 97.73 Nov-98 8.10 96.66 Jan-01 7.70 97.06 Jun-02 7.30 97.46 Nov-02 8.14 96.62 Feb-03 6.87 97.89 Jun-11 7.54 17.88  MW-2 Jul-89 104.86 9.24 95.62 (5 - 20 feet bgs) Apr-91 8.01 96.85 Apr-92 9.34 95.52 Sep-92 9.46 95.40 Oct-92 9.52 95.34 Nov-92 9.42 95.44 Dec-92 9.47 95.39 Jan-93 7.86 97.01 Nov-92 9.42 95.44 Dec-92 9.47 95.39 Jan-93 7.86 97.01 Mar-93 7.77 97.09 Apr-93 7.86 97.01 Mar-93 7.786 97.01 Mar-93 7.786 97.01 Mar-93 7.86 97.00 May-93 9.64 95.22 Jan-94 9.12 95.74 Apr-94 8.56 96.30 Jul-94 9.12 95.74 Apr-94 9.12 95.74 Apr-94 9.12 95.74 Apr-95 7.40 97.46 Oct-93 9.64 95.22 Jan-94 9.12 95.74 Apr-94 9.12 95.74 Apr-94 9.12 95.74 Apr-95 7.40 97.46 Oct-93 9.64 95.22 Jan-94 9.12 95.74 Apr-95 7.40 97.46 Oct-94 9.59 95.27 Jan-94 7.71 97.15 Apr-95 7.40 97.46 Jan-97 7.55 97.31 Nov-98 8.49 96.37 Jan-97 7.55 97.31 Nov-98 8.49 96.37 Jan-01 8.08 96.78					
Jul-93 Oct-93 Jan-94 B.80 95.96 Apr-94 Jul-94 8.70 96.61 Jul-94 8.70 96.66 Oct-94 9.37 95.39 Jan-94 Apr-95 Apr-95 6.76 98.00 Jan-97 7.03 97.73 Nov-98 8.10 96.62 Feb-03 Jun-01 7.70 97.06 Apr-91 Apr-08 25.42 7.13 18.29 Jun-11 7.54 17.88  MW-2 Jul-89 104.86 9.24 95.62 (5 - 20 feet bgs) Apr-91 Jul-92 9.03 97.83 Aug-92 9.34 95.52 Sep-92 9.46 95.40 Oct-92 9.47 95.39 Jan-93 Apr-93 Apr-94 Apr-94 Apr-94 Apr-94 Apr-94 Apr-94 Apr-94 Apr-94 Apr-95 Jan-97 Nov-98 Apr-95 Jan-97 Nov-98 Apr-97 Apr-95 Jan-94 Apr-94 Apr-94 Apr-94 Apr-95 Jan-97 Nov-98 Apr-95 Jan-97 Nov-98 Apr-95 Jan-97 Nov-98 Apr-95 Jan-97 Nov-98 Apr-97 Apr-98 Apr-99 Apr					
Oct-93     Jan-94     Jan-94     Apr-94     Apr-94     Apr-94     Jul-94     Oct-94     Jul-94     Oct-94     Jan-97     Jan-97     Jan-97     Apr-95     Jan-97     Apr-95     Jan-97     Nov-98     Jan-01     Jun-02     Jan-01     Jun-02     Jun-03     Apr-08     Jun-03     Apr-08     Jun-03     Apr-08     Jun-03     Apr-08     Jun-11     T.54     T.88  MW-2     Jul-89     May-91     Jul-92     Jul-92     Aug-92     Sep-92     9.34     Aug-92     Sep-92     9.46     Oct-92     9.52     Sep-92     9.46     95.52     Sep-92     9.46     95.40     Oct-92     9.52     9.52     95.34     Nov-92     Jul-93     Jun-93     Apr-93     Apr-93     Apr-93     Apr-93     Apr-93     Apr-93     Apr-93     Apr-93     Apr-94     Apr-94     Apr-94     Apr-94     Apr-95     Jan-94     Apr-95     Jan-94     Apr-95     Jan-97     Nov-98     Rate     Pot-80     Pot-80					
Jan-94 Apr-94 Apr-94 Apr-94 B.15 96.61 Jul-94 Oct-94 9.37 95.39 Jan-94 Apr-95 Apr-95 Apr-97 7.03 7.73 Nov-98 Apr-02 Apr-03 Apr-03 Apr-08 Apr-08 Apr-08 Apr-91 Jul-92 Sep-92 Aug-92 Sep-92 Aug-94 Aug-93 Aug-94 Aug-94 Aug-94 Aug-94 Aug-95 Aug-95 Aug-95 Aug-95 Aug-95 Aug-95 Aug-95 Aug-95 Aug-96 Aug-9					
Apr-94 Jul-94 Jul-94 S.70 96.61 Jul-94 8.70 96.06 Oct-94 9.37 95.39 Jan-94 7.18 97.58 Apr-95 6.76 98.00 Jan-97 7.03 97.73 Nov-98 8.10 96.66 Jan-01 7.70 97.06 Jun-02 7.30 97.46 Nov-02 8.14 96.62 Feb-03 7.05 97.71 Apr-08 Apr-91 Jun-11 7.54 17.88  MW-2 Jul-89 104.86 9.24 95.62 (5 - 20 feet bgs) Apr-91 Jul-92 9.03 Aug-92 9.34 95.52 Sep-92 9.46 95.40 Oct-92 9.52 Nov-92 9.42 95.44 Dec-92 9.47 95.39 Jan-93 8.25 96.61 Feb-93 Nov-92 9.42 95.44 Dec-92 9.47 95.39 Jan-93 8.25 96.61 Feb-93 7.85 97.01 Mar-93 7.77 97.09 Apr-93 Apr-93 Apr-93 Apr-94 Apr-94 Jul-94 9.02 95.84 Oct-94 Jul-97 7.55 97.31 Nov-98 8.49 96.37 Jan-97 7.55 97.31 Nov-98 8.49 96.37 Jan-01 Jun-02 7.77 97.09 Nov-02 8.50					
Jul-94 Oct-94 Oct-94 Jan-97 Jan-97 Jan-97 Nov-98 Jan-01 Jun-02 Feb-03 Jun-03 Jun-03 Apr-08 Jun-11 Apr-08 Jun-11 Apr-08 Jul-91 Jul-92 Jul-92 9.03 Apr-91 Jul-92 9.03 Apr-91 Jul-92 9.03 Apr-92 Aug-92 9.34 Aug-92 9.35 Aug-92 9.46 Oct-92 9.52 Aug-93 Aug-93 Aug-93 Aug-93 Aug-93 Aug-93 Aug-93 Apr-93 Apr-93 Apr-93 Apr-93 Apr-93 Apr-93 Apr-93 Apr-93 Apr-93 Apr-94 Apr-95 Apr-97 Apr-98					
Oct-94     Jan-94     Jan-94     Jan-95     Apr-95     Apr-95     Apr-97     Apr-97     Apr-97     Apr-98     B 10     Apr-97     Apr-98     B 10     Apr-97     Apr-98     B 10     Apr-97     Apr-98     Apr-97     Apr-98     Apr-97     Apr-98     Apr-98     Apr-98     Apr-98     Apr-98     Apr-98     Apr-91     Apr-98     Apr-91     Apr-92     Apr-91     Apr-92     Apr-92     Apr-92     Apr-93     Apr-93     Apr-93     Apr-93     Apr-93     Apr-93     Apr-94     Apr-94     Apr-94     Apr-94     Apr-94     Apr-94     Apr-95     Apr-95     Apr-97     Apr-94     Apr-94     Apr-94     Apr-95     Apr-95     Apr-97     Apr-97     Apr-98     Apr-99     Apr-99     Apr-91     Apr-91     Apr-93     Apr-93     Apr-94     Apr-94     Apr-94     Apr-94     Apr-94     Apr-94     Apr-94     Apr-95     Apr-97     Apr-98     Apr-99     Apr-99     Apr-99     Apr-99     Apr-90     Apr-90		•			
Jan-94 7.18 97.58 Apr-95 6.76 98.00 Jan-97 7.03 97.73 Nov-98 8.10 96.66 Jan-01 7.70 97.06 Jun-02 7.30 97.46 Nov-02 8.14 96.62 Feb-03 6.87 97.89 Jun-03 7.05 97.71 Apr-08 25.42 7.13 18.29 Jun-11 7.54 17.88  MW-2 Jul-89 104.86 9.24 95.62 (5 - 20 feet bgs) Apr-91 8.01 96.85 Jul-92 9.03 95.83 Aug-92 9.34 95.52 Sep-92 9.46 95.40 Oct-92 9.52 95.34 Nov-92 9.42 95.44 Dec-92 9.47 95.39 Jan-93 8.25 96.61 Feb-93 7.85 97.01 Mar-93 7.85 97.01 Mar-93 7.86 97.00 May-93 8.20 96.66 Jul-93 8.72 96.14 Oct-94 9.12 95.74 Apr-94 8.56 96.30 Jul-94 9.12 95.74 Apr-94 8.56 96.30 Jul-94 9.12 95.74 Apr-94 8.56 96.30 Jul-94 9.02 95.84 Oct-94 9.59 95.27 Jan-94 9.12 95.74 Apr-94 8.56 96.30 Jul-94 9.02 95.84 Oct-94 9.59 95.27 Jan-94 9.12 95.74 Apr-95 7.40 97.46 Jan-97 7.55 97.31 Nov-98 8.49 96.37 Jan-97 7.55 97.31 Nov-98 8.49 96.37 Jun-02 7.77 97.09 Nov-02 8.50 96.36					
Apr-95 Jan-97 Jan-97 Jan-97 Jan-97 Apr-98 Abro-98 Abro-98 Abro-98 Abro-99 Apr-91 Apr-98 Apr-98 Apr-91 Aug-92 Aug-92 Aug-92 Aug-92 Aug-92 Aug-92 Aug-92 Aug-92 Aug-93 Aug-94 Apr-94 Apr-93 Apr-94 Apr-95 Apr-95 Apr-95 Apr-97 Apr-95 Apr-97 Apr-97 Nov-98 Apr-97 Apr-97 Apr-97 Apr-95 Apr-97 Apr-94 Apr-94 Apr-94 Apr-94 Apr-94 Apr-94 Apr-94 Apr-94 Apr-95 Apr-95 Apr-95 Apr-95 Apr-95 Apr-97 Apr-95 Apr-97 Apr-95 Apr-97 Apr-97 Apr-97 Apr-97 Apr-97 Apr-97 Apr-97 Apr-97 Apr-97 Apr-95 Apr-97 Apr-95 Apr-97 Apr-98 Apr-97 Apr-97 Apr-97 Apr-98 Apr-97 Apr-97 Apr-97 Apr-98 Apr-97 Apr-97 Apr-97 Apr-98 Apr-9					
Jan-97 Nov-98 Nov-98 Nov-98 Nov-98 Nov-98 Nov-98 Nov-02 Nov-02 Nov-02 Nov-02 Nov-02 Nov-03 Nov-03 Nov-04 Nov-05 Nov-05 Nov-05 Nov-08 Nov-11 Nov-98 Nov-92 Nov-93 Nov-93 Nov-94 Nov-93 Nov-93 Nov-94 Nov-94 Nov-95 Nov-94 Nov-95 Nov-95 Nov-95 Nov-96 Nov-96 Nov-96 Nov-97 Nov-98 Nov-99 Nov-02 No					
Nov-98					
Jan-01 7.70 97.06 Jun-02 7.30 97.46 Nov-02 8.14 96.62 Feb-03 6.87 97.89 Jun-03 7.05 97.71 Apr-08 25.42 7.13 18.29 Jun-11 7.54 17.88  MW-2 Jul-89 104.86 9.24 95.62 (5 - 20 feet bgs) Apr-91 8.01 96.85 Jul-92 9.03 95.83 Aug-92 9.34 95.52 Sep-92 9.46 95.40 Oct-92 9.52 95.34 Nov-92 9.42 95.44 Dec-92 9.42 95.44 Dec-92 9.47 95.39 Jan-93 8.25 96.61 Feb-93 7.85 97.01 Mar-93 7.86 97.00 May-93 8.20 96.66 Jul-93 8.72 96.14 Oct-93 9.64 95.22 Jan-94 9.12 95.74 Apr-94 8.56 96.30 Jul-94 9.02 95.84 Oct-94 9.59 95.27 Jan-94 9.12 95.74 Apr-94 8.56 96.30 Jul-94 9.02 95.84 Oct-94 9.59 95.27 Jan-94 7.71 97.15 Apr-95 7.40 97.46 Jan-97 7.55 97.31 Nov-98 8.49 96.37 Jan-01 8.08 96.78 Jun-02 7.77 97.09 Nov-02 8.50 96.36					
Jun-02 Nov-02 Reb-03 Nov-03 Reb-03 Reb-03 Reb-03 Reb-08 Re					
Nov-02 Feb-03 Jun-03 Apr-08 Jun-11 Apr-08 Jun-11 Apr-08 Jun-11 Apr-08 Apr-11 Jun-11 Apr-11 Apr-12 Apr-13 Apr-14 Apr-15 Apr-16 Apr-17 Apr-17 Apr-17 Apr-18 Apr-18 Apr-18 Apr-19 Apr-18 Apr-19 Apr-1 Apr-19 Apr-10 Apr					
Feb-03 Jun-03 Jun-03 Feb-08 Apr-08 Apr-08 Below September 1 Apr-08 Apr-08 Apr-08 Below September 2 Apr-08 Apr-08 Apr-08 Below September 2 Apr-08 Apr-09 Ap					
Jun-03					
Apr-08 Jun-11  Apr-08 Jun-11  Apr-08 Jun-11  Apr-7.54  Apr-98  MW-2  (5 - 20 feet bgs)  Apr-91  Apr-91  Aug-92  Sep-92  Oct-92  Sep-92  Apr-91  Apr-93  Apr-94  Apr-94  Apr-94  Apr-94  Apr-94  Apr-94  Apr-94  Apr-95  Jan-94  Apr-95  Jan-97  Nov-98  Apr-97  Nov-98  Apr-97  Nov-98  Apr-97  Nov-98  Apr-90  Nov-02  Apr-04  Apr-109  Apr-109					
MW-2 Jul-89 104.86 9.24 95.62 (5 - 20 feet bgs) Apr-91 8.01 96.85 Jul-92 9.03 95.83 Aug-92 9.34 95.52 Sep-92 9.46 95.40 Oct-92 9.52 95.34 Nov-92 9.42 95.44 Dec-92 9.47 95.39 Jan-93 8.25 96.61 Feb-93 7.85 97.01 Mar-93 7.77 97.09 Apr-93 7.86 97.00 May-93 8.20 96.66 Jul-93 8.72 96.14 Oct-93 9.64 95.22 Jan-94 9.12 95.74 Apr-94 9.12 95.74 Apr-94 9.12 95.74 Apr-94 9.02 95.84 Oct-94 9.59 95.27 Jan-94 7.71 97.15 Apr-95 7.40 97.46 Jan-97 7.55 97.31 Nov-98 8.49 96.37 Jan-97 7.55 97.31 Nov-98 8.49 96.37 Jan-01 8.08 96.78 Jan-01 8.08 96.78 Jan-02 Nov-02 8.50 96.36			25.42		
MW-2 Jul-89 104.86 9.24 95.62 (5 - 20 feet bgs) Apr-91 8.01 96.85 Jul-92 9.03 95.83 Aug-92 9.34 95.52 Sep-92 9.46 95.40 Oct-92 9.52 95.34 Nov-92 9.42 95.44 Dec-92 9.47 95.39 Jan-93 8.25 96.61 Feb-93 7.85 97.01 Mar-93 7.77 97.09 Apr-93 7.86 97.00 May-93 8.20 96.66 Jul-93 8.72 96.14 Oct-93 9.64 95.22 Jan-94 9.12 95.74 Apr-94 8.56 96.30 Jul-94 9.02 95.84 Oct-94 9.59 95.27 Jan-94 9.02 95.84 Oct-94 9.59 95.27 Jan-94 7.71 97.15 Apr-95 7.40 97.46 Jan-97 7.55 97.31 Nov-98 8.49 96.37 Jan-01 8.08 96.78 Jan-01 Nov-02 8.50 96.36		•	23.42		
(5 - 20 feet bgs) Apr-91		Juli-11		7.54	17.00
(5 - 20 feet bgs) Apr-91 Jul-92 Aug-92 Sep-92 Oct-92 P.52 Sep-92 P.46 Nov-92 P.52 Sep-92 P.47 Dec-92 P.47 P.53 P.85 P.90 P.47 P.53 P.85 P.701 Mar-93 P.777 P.709 Apr-93 Apr-93 Apr-93 P.86 P.90 May-93 P.86 P.91 P.93 P.86 P.90 P.94 P.95 P.94 P.95 P.96 P.96 P.97 P.98 P.98 P.98 P.99 P.99 P.99 P.99 P.99	MW-2	Jul-89	104.86	9.24	95.62
Jul-92       9.03       95.83         Aug-92       9.34       95.52         Sep-92       9.46       95.40         Oct-92       9.52       95.34         Nov-92       9.42       95.44         Dec-92       9.47       95.39         Jan-93       8.25       96.61         Feb-93       7.85       97.01         Mar-93       7.77       97.09         Apr-93       7.86       97.00         May-93       8.20       96.66         Jul-93       8.72       96.14         Oct-93       9.64       95.22         Jan-94       9.12       95.74         Apr-94       8.56       96.30         Jul-94       9.02       95.84         Oct-94       9.59       95.27         Jan-94       7.71       97.15         Apr-95       7.40       97.46         Jan-97       7.55       97.31         Nov-98       8.49       96.37         Jan-01       8.08       96.78         Jun-02       7.77       97.09         Nov-02       8.50       96.36	(5 - 20 feet bgs)	Apr-91		8.01	96.85
Aug-92       9.34       95.52         Sep-92       9.46       95.40         Oct-92       9.52       95.34         Nov-92       9.42       95.44         Dec-92       9.47       95.39         Jan-93       8.25       96.61         Feb-93       7.85       97.01         Mar-93       7.77       97.09         Apr-93       7.86       97.00         May-93       8.20       96.66         Jul-93       8.72       96.14         Oct-93       9.64       95.22         Jan-94       9.12       95.74         Apr-94       8.56       96.30         Jul-94       9.02       95.84         Oct-94       9.59       95.27         Jan-94       7.71       97.15         Apr-95       7.40       97.46         Jan-97       7.55       97.31         Nov-98       8.49       96.37         Jan-01       8.08       96.78         Jun-02       7.77       97.09         Nov-02       8.50       96.36					
Sep-92       9.46       95.40         Oct-92       9.52       95.34         Nov-92       9.42       95.44         Dec-92       9.47       95.39         Jan-93       8.25       96.61         Feb-93       7.85       97.01         Mar-93       7.77       97.09         Apr-93       7.86       97.00         May-93       8.20       96.66         Jul-93       8.72       96.14         Oct-93       9.64       95.22         Jan-94       9.12       95.74         Apr-94       8.56       96.30         Jul-94       9.02       95.84         Oct-94       9.59       95.27         Jan-94       7.71       97.15         Apr-95       7.40       97.46         Jan-97       7.55       97.31         Nov-98       8.49       96.37         Jan-01       8.08       96.78         Jun-02       7.77       97.09         Nov-02       8.50       96.36		Aug-92		9.34	95.52
Oct-92       9.52       95.34         Nov-92       9.42       95.44         Dec-92       9.47       95.39         Jan-93       8.25       96.61         Feb-93       7.85       97.01         Mar-93       7.77       97.09         Apr-93       7.86       97.00         May-93       8.20       96.66         Jul-93       8.72       96.14         Oct-93       9.64       95.22         Jan-94       9.12       95.74         Apr-94       8.56       96.30         Jul-94       9.02       95.84         Oct-94       9.59       95.27         Jan-94       7.71       97.15         Apr-95       7.40       97.46         Jan-97       7.55       97.31         Nov-98       8.49       96.37         Jan-01       8.08       96.78         Jun-02       7.77       97.09         Nov-02       8.50       96.36				9.46	95.40
Dec-92       9.47       95.39         Jan-93       8.25       96.61         Feb-93       7.85       97.01         Mar-93       7.77       97.09         Apr-93       7.86       97.00         May-93       8.20       96.66         Jul-93       8.72       96.14         Oct-93       9.64       95.22         Jan-94       9.12       95.74         Apr-94       8.56       96.30         Jul-94       9.02       95.84         Oct-94       9.59       95.27         Jan-94       7.71       97.15         Apr-95       7.40       97.46         Jan-97       7.55       97.31         Nov-98       8.49       96.37         Jan-01       8.08       96.78         Jun-02       7.77       97.09         Nov-02       8.50       96.36					
Jan-93       8.25       96.61         Feb-93       7.85       97.01         Mar-93       7.77       97.09         Apr-93       7.86       97.00         May-93       8.20       96.66         Jul-93       8.72       96.14         Oct-93       9.64       95.22         Jan-94       9.12       95.74         Apr-94       8.56       96.30         Jul-94       9.02       95.84         Oct-94       9.59       95.27         Jan-94       7.71       97.15         Apr-95       7.40       97.46         Jan-97       7.55       97.31         Nov-98       8.49       96.37         Jan-01       8.08       96.78         Jun-02       7.77       97.09         Nov-02       8.50       96.36		Nov-92		9.42	95.44
Feb-93       7.85       97.01         Mar-93       7.77       97.09         Apr-93       7.86       97.00         May-93       8.20       96.66         Jul-93       8.72       96.14         Oct-93       9.64       95.22         Jan-94       9.12       95.74         Apr-94       8.56       96.30         Jul-94       9.02       95.84         Oct-94       9.59       95.27         Jan-94       7.71       97.15         Apr-95       7.40       97.46         Jan-97       7.55       97.31         Nov-98       8.49       96.37         Jan-01       8.08       96.78         Jun-02       7.77       97.09         Nov-02       8.50       96.36		Dec-92		9.47	95.39
Mar-93       7.77       97.09         Apr-93       7.86       97.00         May-93       8.20       96.66         Jul-93       8.72       96.14         Oct-93       9.64       95.22         Jan-94       9.12       95.74         Apr-94       8.56       96.30         Jul-94       9.02       95.84         Oct-94       9.59       95.27         Jan-94       7.71       97.15         Apr-95       7.40       97.46         Jan-97       7.55       97.31         Nov-98       8.49       96.37         Jan-01       8.08       96.78         Jun-02       7.77       97.09         Nov-02       8.50       96.36		Jan-93		8.25	96.61
Apr-93       7.86       97.00         May-93       8.20       96.66         Jul-93       8.72       96.14         Oct-93       9.64       95.22         Jan-94       9.12       95.74         Apr-94       8.56       96.30         Jul-94       9.02       95.84         Oct-94       9.59       95.27         Jan-94       7.71       97.15         Apr-95       7.40       97.46         Jan-97       7.55       97.31         Nov-98       8.49       96.37         Jan-01       8.08       96.78         Jun-02       7.77       97.09         Nov-02       8.50       96.36		Feb-93		7.85	97.01
May-93       8.20       96.66         Jul-93       8.72       96.14         Oct-93       9.64       95.22         Jan-94       9.12       95.74         Apr-94       8.56       96.30         Jul-94       9.02       95.84         Oct-94       9.59       95.27         Jan-94       7.71       97.15         Apr-95       7.40       97.46         Jan-97       7.55       97.31         Nov-98       8.49       96.37         Jan-01       8.08       96.78         Jun-02       7.77       97.09         Nov-02       8.50       96.36		Mar-93		7.77	97.09
Jui-93       8.72       96.14         Oct-93       9.64       95.22         Jan-94       9.12       95.74         Apr-94       8.56       96.30         Jul-94       9.02       95.84         Oct-94       9.59       95.27         Jan-94       7.71       97.15         Apr-95       7.40       97.46         Jan-97       7.55       97.31         Nov-98       8.49       96.37         Jan-01       8.08       96.78         Jun-02       7.77       97.09         Nov-02       8.50       96.36		Apr-93		7.86	97.00
Oct-93       9.64       95.22         Jan-94       9.12       95.74         Apr-94       8.56       96.30         Jul-94       9.02       95.84         Oct-94       9.59       95.27         Jan-94       7.71       97.15         Apr-95       7.40       97.46         Jan-97       7.55       97.31         Nov-98       8.49       96.37         Jan-01       8.08       96.78         Jun-02       7.77       97.09         Nov-02       8.50       96.36		May-93		8.20	96.66
Jan-94       9.12       95.74         Apr-94       8.56       96.30         Jul-94       9.02       95.84         Oct-94       9.59       95.27         Jan-94       7.71       97.15         Apr-95       7.40       97.46         Jan-97       7.55       97.31         Nov-98       8.49       96.37         Jan-01       8.08       96.78         Jun-02       7.77       97.09         Nov-02       8.50       96.36		Jul-93		8.72	96.14
Apr-94       8.56       96.30         Jul-94       9.02       95.84         Oct-94       9.59       95.27         Jan-94       7.71       97.15         Apr-95       7.40       97.46         Jan-97       7.55       97.31         Nov-98       8.49       96.37         Jan-01       8.08       96.78         Jun-02       7.77       97.09         Nov-02       8.50       96.36		Oct-93		9.64	95.22
Apr-94       8.56       96.30         Jul-94       9.02       95.84         Oct-94       9.59       95.27         Jan-94       7.71       97.15         Apr-95       7.40       97.46         Jan-97       7.55       97.31         Nov-98       8.49       96.37         Jan-01       8.08       96.78         Jun-02       7.77       97.09         Nov-02       8.50       96.36					
Jul-949.0295.84Oct-949.5995.27Jan-947.7197.15Apr-957.4097.46Jan-977.5597.31Nov-988.4996.37Jan-018.0896.78Jun-027.7797.09Nov-028.5096.36					
Oct-94       9.59       95.27         Jan-94       7.71       97.15         Apr-95       7.40       97.46         Jan-97       7.55       97.31         Nov-98       8.49       96.37         Jan-01       8.08       96.78         Jun-02       7.77       97.09         Nov-02       8.50       96.36		•			
Jan-947.7197.15Apr-957.4097.46Jan-977.5597.31Nov-988.4996.37Jan-018.0896.78Jun-027.7797.09Nov-028.5096.36					
Apr-957.4097.46Jan-977.5597.31Nov-988.4996.37Jan-018.0896.78Jun-027.7797.09Nov-028.5096.36					97.15
Jan-977.5597.31Nov-988.4996.37Jan-018.0896.78Jun-027.7797.09Nov-028.5096.36				7.40	
Nov-98       8.49       96.37         Jan-01       8.08       96.78         Jun-02       7.77       97.09         Nov-02       8.50       96.36					
Jan-018.0896.78Jun-027.7797.09Nov-028.5096.36					
Jun-027.7797.09Nov-028.5096.36					
Nov-02 8.50 96.36		Jun-02			

Table 7: Groundwater Elevation Data 1630 Park Street, Alameda, California

Well ID (Screen Interval)	Date Collected	Well Elevation	Depth to Water	Groundwater Elevation
,		(ft amsl)	(ft)	(ft amsl)
				27.00
	Jun-03	05.50	7.57	97.29
	Apr-08	25.52	7.67	17.85
	Jun-11		7.35	18.17
MW-3	Jul-89	104.52	9.00	95.52
(5 - 20 feet bgs)	Apr-91		8.06	96.46
	Jul-92		8.82	95.70
	Aug-92		9.05	95.47
	Sep-92		9.09	95.43
	Oct-92		9.15	95.37
	Nov-92		9.05	95.47
	Dec-92		9.12	95.40
	Jan-93		8.18	96.34
	Feb-93		7.98	96.54
	Mar-93		7.94	96.58
	Apr-93		8.02	96.50
	May-93		7.69	96.83
	Jul-93		8.65	95.87
	Oct-93		9.32	NC
	Jan-94		8.93	NC
	Apr-94		8.52	96.00
	Jul-94		8.86	95.66
	Oct-94		9.25	95.27
	Jan-94		7.85	96.67
	Apr-95		7.64	96.88
	Jan-97		7.75	96.77
	Nov-98		8.38	96.14
	Jan-01		8.00	96.52
	Jun-02		7.81	96.71
	Nov-02		8.37	96.15
	Feb-03		7.48	97.04
	Jun-03		7.67	96.85
	Apr-08	25.17	7.74	17.43
	Jun-11	20.17	7.50	17.67
		10101		a= ==
MW-4	Apr-94	104.86	9.29	95.57
(8 - 23 feet bgs)	Jul-94		9.55	95.31
	Oct-94		9.83	95.03
	Jan-94		8.88	95.98
	Apr-95		8.80	96.06
	Jan-97		NM	NM
	Nov-98		NM	NM
	Jan-01		NM	NM
	Jun-02		NM	NM
	Nov-02		NM	NM
	Feb-03		NM	NM
	Jun-03	25.52	NM 0.73	NM 17, 00
	Apr-08	25.53	8.73	16.80
	Jun-11		8.52	17.01
MW-5	Apr-94	103.62	8.27	95.35
(7 - 22 feet bgs)	Jul-94		8.50	95.12
. 5,	Oct-94		8.92	94.70
	Jan-94		7.61	96.01
	Apr-95		8.48	95.14
	Jan-97		6.79	96.83
	Jan-97 Nov-98		6.79 8.12	96.83 95.50

Table 7: Groundwater Elevation Data 1630 Park Street, Alameda, California

Well ID (Screen Interval)	Date Collected	Well Elevation (ft amsl)	Depth to Water (ft)	Groundwater Elevation (ft amsl)
	l 02	( * * * * /	, ,	
	Jun-02 Nov-02		7.61 8.01	96.01 95.61
	Feb-03		7.22	96.40
	Jun-03		7.43	96.19
	Apr-08	24.31	7.36	16.95
	Jun-11		7.43	16.88

ft amsl = feet above mean sea level

All water level depths are measured from the top of casing

NM = Not measured

NC = Not calculated

bgs = below ground surface

Table 8: Groundwater Monitoring Analytical Data 1630 Park Street, Alameda, California

MW-1 1/21/1987 21,020 1,148 8,627 1,792 6,012 NA	Sample ID	Date	TPH-g		Benzene	Toluene	Ethyl- benzene	-	МТВЕ	MTBE (8260)	TAME	ТВА	EDB	1,2-DCA	DIPE	Ethanol	ETBE	Methanol	Lead
1/11/1989	NAVA / 1	1/21/1007	21 020		1 140	9 627	1 702	6.012	NA	NA	NΙΔ	NA	NA	NIA	NA	NIA	NA	NIA	NIA.
7/12/1989	INIAA-T																	NA NA	NA NA
4/9/1991   850   260   10   15   12   NA   NA   NA   NA   NA   NA   NA   N																		NA NA	NA
7/14/1992 13,000 2,300 1,200 1,200 1,200 NA						_												NA NA	NA
10/7/1992   3,600																		NA	NA
1/11/1993																		NA	NA
4/23/1993			•															NA	NA
10/15/1993   3/700   a   1/400   43   94   36   NA   NA   NA   NA   NA   NA   NA   N			-	a	720	180		150	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1/25/1994		7/8/1993	3,200	a	1,200	110	97	100	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4/28/1994   6,100   a 1,900   380   250   340   NA   NA   NA   NA   NA   NA   NA   N			3,700	а	1,400	43	94	36	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
7/27/1994   6,000   a 1,800   510   220   450   NA   NA   NA   NA   NA   NA   NA   N			,	a														NA	NA
10/27/1994   3,000 a 1,100   79   82   87   NA   NA   NA   NA   NA   NA   NA   N			,															NA	NA
1/26/1995			- /		,													NA	NA
4/13/1995   3,800   a   1,200   270   120   260   NA   NA   NA   NA   NA   NA   NA   N			•			_												NA	NA
7/21/1995 5,200 a 1,500 450 190 400 NA																		NA	NA
10/25/1995			-															NA	NA
1/21/1998																		NA	NA
11/12/1998         1,000         a         280         3         3.3         7.9         <30         NA         S.0         5.0         <5.0         <5.0         <5.0         <5.0         <5.0         <5.0         <5.0         <5.0         <5.0         <5.0         <5.0         <5.0         <5.0         <5.0         <5.0         <5.0         <5.0         <5.0         <5.0         <5.0         <5.0         <5.0         <5.0         <5.0         <5.0         <5.0         <5.0         <5.0         <5.0         <5.0         <5.0         <5.0         <5.0         <5.0         <5.0         <5.0         <5.0         <5.0         <5.0         <5.0         <5.0         <5.0 </td <td></td> <td>NA</td> <td>NA</td>																		NA	NA
1/16/2001			,		,													NA NA	NA NA
6/27/2002   5,900   a   230   7.7   <5   1,500   NA   <5   <5.0   <5.0   <5.0   <5.0   <5.0   <5.0   <5.0   <5.0   <5.0   <5.0   <5.0   <5.0   <5.0   <5.0   <5.0   <5.0   <5.0   <5.0   <5.0   <5.0   <5.0   <5.0   <5.0   <5.0   <5.0   <5.0   <5.0   <5.0   <5.0   <5.0   <5.0   <5.0   <5.0   <5.0   <5.0   <5.0   <5.0   <5.0   <5.0   <5.0   <5.0   <5.0   <5.0   <5.0   <5.0   <5.0   <5.0   <5.0   <5.0   <5.0   <5.0   <5.0   <5.0   <5.0   <5.0   <5.0   <5.0   <5.0   <5.0   <5.0   <5.0   <5.0   <5.0   <5.0   <5.0   <5.0   <5.0   <5.0   <5.0   <5.0   <5.0   <5.0   <5.0   <5.0   <5.0   <5.0   <5.0   <5.0   <5.0   <5.0   <5.0   <5.0   <5.0   <5.0   <5.0   <5.0   <5.0   <5.0   <5.0   <5.0   <5.0   <5.0   <5.0   <5.0   <5.0   <5.0   <5.0   <5.0   <5.0   <5.0   <5.0   <5.0   <5.0   <5.0   <5.0   <5.0   <5.0   <5.0   <5.0   <5.0   <5.0   <5.0   <5.0   <5.0   <5.0   <5.0   <5.0   <5.0   <5.0   <5.0   <5.0   <5.0   <5.0   <5.0   <5.0   <5.0   <5.0   <5.0   <5.0   <5.0   <5.0   <5.0   <5.0   <5.0   <5.0   <5.0   <5.0   <5.0   <5.0   <5.0   <5.0   <5.0   <5.0   <5.0   <5.0   <5.0   <5.0   <5.0   <5.0   <5.0   <5.0   <5.0   <5.0   <5.0   <5.0   <5.0   <5.0   <5.0   <5.0   <5.0   <5.0   <5.0   <5.0   <5.0   <5.0   <5.0   <5.0   <5.0   <5.0   <5.0   <5.0   <5.0   <5.0   <5.0   <5.0   <5.0   <5.0   <5.0   <5.0   <5.0   <5.0   <5.0   <5.0   <5.0   <5.0   <5.0   <5.0   <5.0   <5.0   <5.0   <5.0   <5.0   <5.0   <5.0   <5.0   <5.0   <5.0   <5.0   <5.0   <5.0   <5.0   <5.0   <5.0   <5.0   <5.0   <5.0   <5.0   <5.0   <5.0   <5.0   <5.0   <5.0   <5.0   <5.0   <5.0   <5.0   <5.0   <5.0   <5.0   <5.0   <5.0   <5.0   <5.0   <5.0   <5.0   <5.0   <5.0   <5.0   <5.0   <5.0   <5.0   <5.0   <5.0   <5.0   <5.0   <5.0   <5.0   <5.0   <5.0   <5.0   <5.0   <5.0   <5.0   <5.0   <5.0   <5.0   <5.0   <5.0   <5.0   <5.0   <5.0   <5.0   <5.0   <5.0   <5.0   <5.0   <5.0   <5.0   <5.0   <5.0   <5.0   <5.0   <5.0   <5.0   <5.0   <5.0   <5.0   <5.0   <5.0   <5.0   <5.0   <5.0   <5.0   <5.0   <5.0   <5.0   <5.0   <5.0   <5.0   <5.0   <5.0   <5.0   <5.0   <5.0																		NA NA	NA NA
11/18/2002 3,100 a 890 12 310 28 NA <2.5 NA NA <2.5 <2.5 NA NA NA A NA NA NA NA NA NA NA NA NA N					,													NA NA	NA NA
2/20/2003 260 d 100 0.72 <0.5 <0.5 NA			-															NA NA	NA
6/11/2003 3,100 a 480 6.7 220 420 NA <2.5 NA NA <2.5 < 2.5 NA NA NA A A A A A A A A A A A A A A A			,															NA NA	NA
4/3/2008         2,700         a         280         21         130         230         <25         <1.0         <1.0         <1.0         <1.0         <1.0         <1.0         <1.0         <1.0         <1.0         <1.0         <1.0         <1.0         <1.0         <1.0         <1.0         <1.0         <1.0         <1.0         <1.0         <1.0         <1.0         <1.0         <1.0         <1.0         <1.0         <1.0         <1.0         <1.0         <1.0         <1.0         <1.0         <1.0         <1.0         <1.0         <1.0         <1.0         <1.0         <1.0         <1.0         <1.0         <1.0         <1.0         <1.0         <1.0         <1.0         <1.0         <1.0         <1.0         <1.0         <1.0         <1.0         <1.0         <1.0         <1.0         <1.0         <1.0         <1.0         <1.0         <1.0         <1.0         <1.0         <1.0         <1.0         <1.0         <1.0         <1.0         <1.0         <1.0         <1.0         <1.0         <1.0         <1.0         <1.0         <1.0         <1.0         <1.0         <1.0         <1.0         <1.0         <1.0         <1.0         <1.0         <1.0         <1.0         <1.																		NA	NA
MW-2         1/21/1987         5,018         386         1,981         285         1,432         NA         NA<																		<1,000	<0.5
1/11/1989 10,000 3,000 410 240 190 NA			•														<2.5	NA	NA
7/12/1989 7,600 2,700 540 250 320 NA	MW-2	1/21/1987	5,018		386	1,981	285	1,432	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4/9/1991       4,900       910       210       130       200       NA       NA </td <td></td> <td>, ,</td> <td>- /</td> <td></td> <td>,</td> <td></td> <td>NA</td> <td>NA</td>		, ,	- /		,													NA	NA
7/14/1992 13,000 4,400 1,500 610 1,100 NA			-															NA	NA
10/7/1992       11,000       5,200       1,500       500       1,200       NA		, ,	,															NA	NA
1/11/1993 17,000 940 1,100 480 930 NA						,												NA	NA
4/23/1993 52,000 a 13,000 8,400 1,700 5,300 NA			,			,												NA	NA
7/8/1993 6,400 a 2,500 470 280 530 NA		1/11/1993				,												NA	NA
10/15/1993 17,000 a 3,900 870 500 940 NA		4/23/1993				,	,											NA	NA
			-															NA NA	NA
TAN AN AN AN AN AN AN AN AN UICL UPO LIPO DE LOU NA NA NA NA NA NA NA NA NA																		NA NA	NA NA
			-															NA NA	NA NA
4/28/1994 15,000 a 4,00 910 480 1,200 NA			,		-													NA NA	NA NA
10/27/1994 9,500 a 2,700 230 320 640 NA								•										NA NA	NA
1/26/1995 5,900 a 1,900 290 230 500 NA																		NA NA	NA

Table 8: Groundwater Monitoring Analytical Data 1630 Park Street, Alameda, California

Sample	Date	TPH-g		Benzene	Toluene	_	_	MTBE	MTBE	TAME	ТВА	EDB	1,2-DCA	DIPE	Ethanol	ETBE	Methanol	Lead
ID						benzene	1		(8260)		_							
										μg/	L							
	4/13/1995	10,000	а	3,300	620	360	930	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	7/21/1995	9,900	а	3,300	320	390	830	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	10/25/1995	13,000	а	4,900	400	580	990	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	1/21/1997	7,600	а	2,600	310	330	660	<20	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	11/12/1998	31,000	a	11,000	750	1,500	2,300	<900	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	1/16/2001	23,000	a	8,200	260	1,000	820	<30	NA	<30	<150	<30	<30	<30	NA	<30	NA	NA
	6/27/2002	39,000	a	7,000	1,800	690	4,000	NA	<5 -13	< 5.0	< 5.0	<5.0	6.1	< 5.0	NA	< 5.0	NA	NA
	11/18/2002	15,000	a	5,700	76	1,000	150	NA	<12	NA	NA	<12	<12	NA	NA	NA	NA	NA
	2/20/2003	26,000	a	6,300	1,100	1,300	1,900	NA	< 5.0	NA	NA	<5.0	<5.0	NA	NA	NA	NA	NA
	6/11/2003	37,000	a	7,100	2,300	2,000	3,600	NA 4F0	<25	NA 12 F	NA 110	<25	<25	NA 12 F	NA <250	NA 12 F	NA 12. E00	NA <0.5
	4/3/2008	4,100	a	760 2.100	96	250 <b>560</b>	130	<50	<2.5	<2.5	<10	<2.5	<2.5	<2.5		<2.5	<2,500	
	6/23/2011	6,500	а	2,100	210.0	560	310	NA	<50	<50	<200	NA	NA	<50	NA	<50	NA	NA
MW-3	1/21/1987	10,287		1,428	3,281	610	2,761	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	1/11/1989	5,300		1,800	340	150	160	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	7/12/1989	7,800		3,100	900	300	480	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	4/9/1991	9,400		1,400	730	200	510	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	7/14/1992	17,000		3,500	390	390	260	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	10/7/1992	9,200		4,300	470	390	610	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	1/11/1993	2,000		740	29	58	28	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	4/23/1993	6,500	a	2,600	280	260	190	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	7/8/1993	5,200	a	2,100	260	250	180	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	10/15/1993	11,000	а	3,500	580	430	370	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	1/25/1994	6,200	а	2,500	270	160	28	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	4/28/1994	5,300	а	1,700	190	210	180	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	7/27/1994	5,900	а	2,000	360	260	330	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	10/27/1994	8,000	а	2,200	580	260	170	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	1/26/1995	3,700	а	1,200	150	150	190	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	4/13/1995	4,000	а	1,400	200	180	210	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	7/21/1995	5,700	а	2,000	280	270	280	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	10/25/1995	11,000	а	3,500	1,100	460	680	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	1/21/1997	2,200	a	860	63	71	80	<5 -20	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	11/12/1998	180	d	44	0.51	ND .o.F	0.92	<20	NA	NA	NA .E.O	NA .1.0	NA	NA	NA	NA	NA	NA
	1/16/2001	64	а	11	0.77	< 0.5	< 0.5	NA	<5 -0.5	<1.0	< 5.0	<1.0	1.4	<1.0	NA	<1.0	NA	NA
	6/27/2002	<50	_	< 0.5	<0.5	< 0.5	< 0.5	NA	< 0.5	< 0.5	< 5.0	< 0.5	< 0.5	< 0.5	NA	< 0.5	NA	NA
	11/18/2002	110	a	21	1	< 0.5	<0.5	NA	< 0.5	NA	NA	< 0.5	< 0.5	NA	NA	NA	NA	NA
	2/20/2003	<50 <50		2.5	< 0.5	<0.5 <0.5	<0.5 <0.5	NA	<0.5 <0.5	NA	NA	< 0.5	<0.5	NA	NA NA	NA	NA NA	NA
	6/11/2003 4/3/2008	<50 7,600	_	<0.5 2,400	<0.5 58	<0.5 250	<0.5 170	NA <100	<0.5 <5.0	NA <5.0	NA <20	<0.5 <5.0	<0.5 <5.0	NA <5.0	NA <500	NA <5.0	NA <5,000	NA <0.5
	6/23/2011	1,300	а <b>а</b>	<b>560</b>	21	250 <b>86</b>	170 <b>150</b>	< 100 <b>NA</b>	<5.0 <b>&lt;12</b>	<5.0 <b>&lt;12</b>	< <b>50</b>	< 5.0 <b>NA</b>	<5.0 <b>NA</b>	<5.0 <b>&lt;12</b>	<500 <b>NA</b>	<5.0 <b>&lt;12</b>	<5,000 <b>NA</b>	<0.5 <b>NA</b>
					2.2	<b>.</b> .	2 .											
MW-4	4/28/1994	190	b,c	3.8	2.9	2.1	3.1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	7/27/1994	180	a	15	9.2	7.6	28	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	10/27/1994	130	а	8.6	6.6	4.5	17	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Table 8: Groundwater Monitoring Analytical Data 1630 Park Street, Alameda, California

Sample ID	Date	TPH-g		Benzene	Toluene	Ethyl- benzene	Xylenes	MTBE	MTBE (8260)	TAME	TBA	EDB	1,2-DCA	DIPE	Ethanol	ETBE	Methanol	Lead
										μg/	L							
	1/26/1995	110		6.5	1.2	1.8	11	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	4/13/1995	82		3.9	ND	ND	2.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	7/21/1995	130		8.8	1.3	4.5	7.6	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	10/25/1995	95		6.6	1.7	4.3	7	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	1/21/1997	NS		NS	NS	NS	NS	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	11/12/1998	NS		NS	NS	NS	NS	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	1/16/2001	NA		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	6/27/2002	NA		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	11/18/2002	NA		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	2/20/2003	NA		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	6/11/2003	NS		NS	NS	NS	NS	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	4/3/2008	130		1.6	< 0.5	0.89	0.85	<5.0	< 0.5	< 0.5	<2.0	< 0.5	< 0.5	< 0.5	<50	< 0.5	<500	< 0.5
	6/23/2011	53	а	2.7	<0.5	1.0	1.7	NA	<0.5	<0.5	<2.0	NA	NA	<0.5	NA	<0.5	NA	NA
MW-5	4/28/1994	30,000	а	4,000	3,000	810	3,500	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	7/27/1994	9,300	а	2,000	800	290	940	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	10/27/1994	15,000	a	2,700	1,300	420	1,100	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	1/26/1995	7,900	a	2,100	680	240	860	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	4/13/1995	7,900	a	2,400	580	340	630	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	7/21/1995	11,000	a	3,400	760	610	1,200	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	10/25/1995	13,000	a	2,900	830	570	1,100	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	1/21/1997	2,600	a	750	65	1,860	280	<5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	11/12/1998	<50		< 0.5	< 0.5	< 0.5	< 0.5	<5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	1/16/2001	<50		11	< 0.5	< 0.5	0.82	NA	<5	<1.0	<5.0	<1.0	<1.0	<1.0	NA	<1.0	NA	NA
	6/27/2002	<50		< 0.5	< 0.5	< 0.5	< 0.5	NA	< 0.5	< 0.5	<5.0	< 0.5	< 0.5	< 0.5	NA	< 0.5	NA	NA
	11/18/2002	130	a	17	3.8	2.1	16	NA	< 0.5	NA	NA	< 0.5	< 0.5	NA	NA	NA	NA	NA
	2/20/2003	<50		5.6	0.51	< 0.5	0.68	NA	< 0.5	NA	NA	< 0.5	<0.5	NA	NA	NA	NA	NA
	6/11/2003	170	a	48	< 0.5	< 0.5	1.4	NA	< 0.5	NA	NA	< 0.5	< 0.5	NA	NA	NA	NA	NA
	4/3/2008	31,000	a	490	3,400	1,600	5,300	<250	<10	<10	<40	<10	<10	<10	<1,000	<10	<10,000	< 0.5
	6/23/2011	82	а	5.1	<0.5	12.0	8.4	NA	<0.5	<0.5	<2.0	NA	NA	<0.5	NA	<0.5	NA	NA

TPH-g= total petroleum hydrocarbons as gasoline MTBE = Methyl tertiary butyl ether TAME = Tertiary amyl methyl ether

TBA = Tertiary butyl alcohol EDB = 1,2-Dibromoethane

1,2-DCA = 1,2-Dichloroethane

DIPE = Diisopropyl ether

ETBE = Ethyl tertiary butyl ether

 $\mu$ g/L = micrograms per liter (ppb) NA = Not analyzed

NS = Not sampled

ND= not detected

# Table 8: Groundwater Monitoring Analytical Data 1630 Park Street, Alameda, California

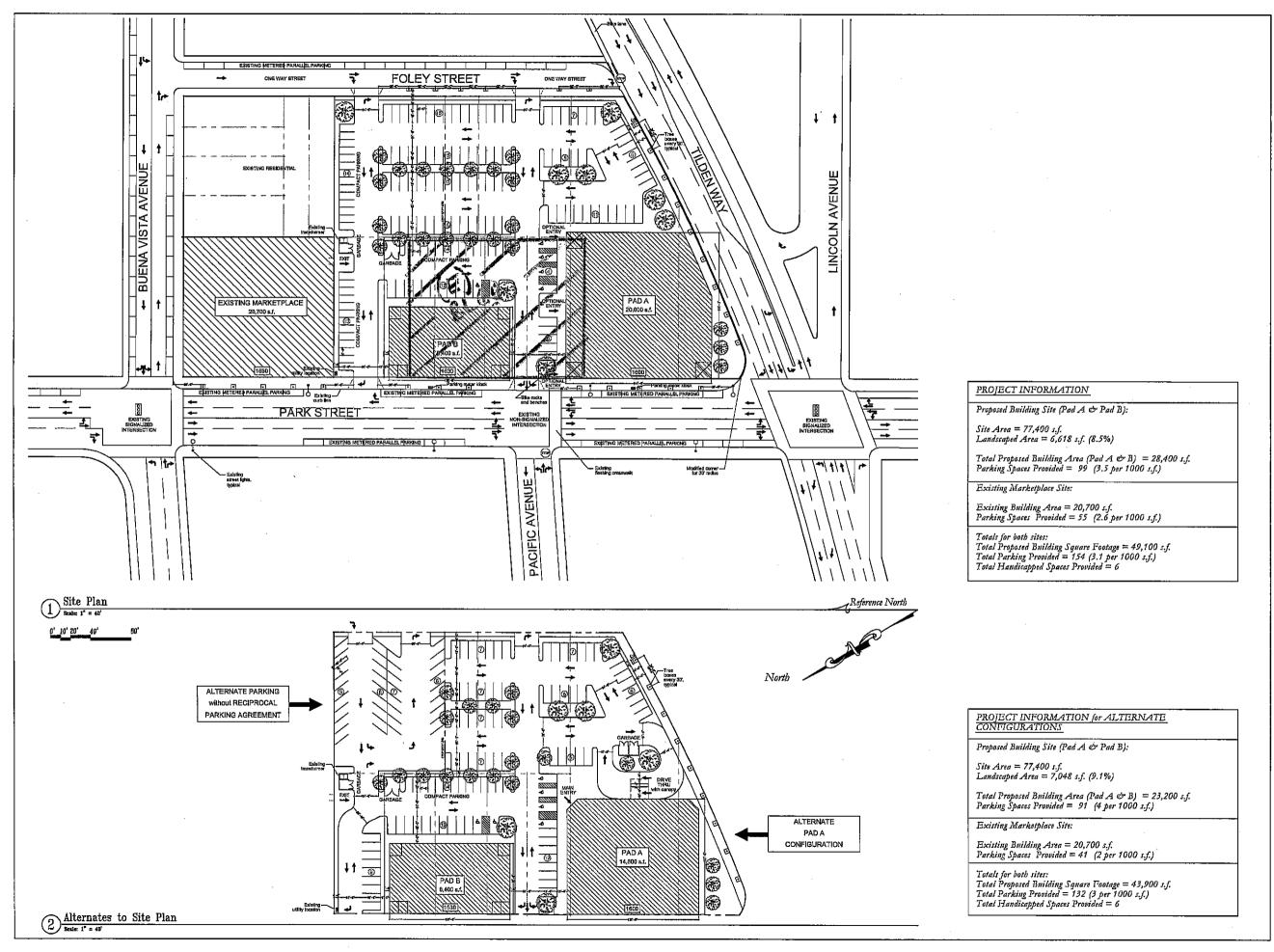
Sample	Date	TPH-g	Benzene To	oluene I	Ethyl-	Xylenes	MTBE	MTBE	TAME	TBA	EDB	1,2-DCA	DIPE	Ethanol	ETBE	Methanol	Lead
ID				be	enzene	<b>:</b>		(8260)									
									μg/L								

a = Laboratory note indicates the unmodified or weakly modified gasoline is significant.
 b = Laboratory note indicates heavier gasoline range compounds are significant (aged gas?).
 c = Laboratory note indicates gasoline range compounds are significant with no recognizable pattern.

d = Laboratory note indicates that lighter gasoline range coounds (the most mobile fraction) are significant.

e = Laboratory note indicates that one to a few isloated non-targed peaks are present.

# APPENDIX A PLANNED DEVELOPMENT LAYOUT



JOHN MALICK

A SSOCIATES



Architecture . Planning

1195 Park Ave., Suite 102 Emeryville, California 94608 Tel: 510.595.8042 Fex: 510.595.8365



6/23/
7/12/
*

### Foley Street Investments LLC

Tilden Way and Park Street Alameda, CA

Stale Plan

Scale 1"-40'
Drawn By AG/GK.

Job Nutriber 456,1
Drawing Kumber

A101

# **APPENDIX B**

# 2008 BLYMER DOCUMENT (CUMULATIVE SITE DATA AND SITE PLANS)

Well ID	Date	TOC Elevation (feet)	Depth to Water (feet)	Water Surface Elevation (feet)
MW-1	8/11/1989	104.76	8.93	95.83
١	4/9/1991		7.59	97.17
	7/14/1992		8.72	96.04
	8/31/1992		9.09	95.67
	9/28/1992		9.25	95.51
	10/7/1992		9.34	95.42
	11/17/1992		9.21	95.55
	12/15/1992	]	9.26	95.50
	1/11/1993		7.81	96.95
•	2/5/1993	1	7.32	97.44
	3/19/1993	1	7.20	97.56
	4/23/1993	Ī	7.31	97.45
	May-93	1	8.29	96.47
	7/8/1993	7	8.30	96.46
	10/15/1993		9.38	95.38
	1/25/1994		8.80	95.96
	4/28/1994	7	8.15	96.61
	7/27/1994	1	8.70	96.06
	10/27/1994	<u>.</u>	9.37	95.39
	1/26/1995		7.18	97.58
	4/13/1995	7	6.76	98.00
	7/21/1995	7	7.73	97.03
	10/25/1995		9.08	95.68
	1/21/1997		7.03	97.73
	11/12/1998		8.10	96.66
	1/16/2001	7	7.70	97.06
	6/27/2002		7.30	97.46
	11/18/2002		8.14	96.62
	2/20/2003		6.87	97.89
	6/11/2003	7	7.05	97.71
	4/4/2008 *	25.42	7.13	18.29

Well ID		TOC Elevation	Depth to Water	Water Surface Elevation (feet)
2 (11 0	Date	(feet) 104.86	(feet)	
MW-2	8/11/1989	104.00	9.24	95.62
,	4/9/1991		8.01	96.85
	7/14/1992		9.03	95.83
	8/31/1992		9.34	95.52
	9/28/1992		9.46	95.40
	10/7/1992		9.52	95.34
	11/17/1992		9.42	95.44
	12/15/1992		9.47	95.39
	1/11/1993	·	8.25	96.61
	2/5/1993		7.85	97.01
	3/19/1993	<u>'</u>	7.77	97.09
	4/23/1993	]	7.86	97.00
	May-93		8.20	96.66
	7/8/1993		8.72	96.14
	10/15/1993	1	9.64	95.22
	1/25/1994		9.12	95.74
	4/28/1994		8.56	96.30
	7/27/1994	7	9.02	95.84
	10/27/1994	1	9.59	95.27
	1/26/1995	1	7.71	97.15
	4/13/1995		7.40	97.46
	7/21/1995	7	8.22	96.64
	10/25/1995		9.35	95.51
	1/21/1997	7	7.55	97.31
	11/12/1998	7	8.49	96.37
	1/16/2001		8.08	96.78
	6/27/2002		7.77	97.09
	11/18/2002		8.50	96.36
	2/20/2003		7.38	97.48
	6/11/2003	7	7.57	97.29
	4/4/2008 *	25.52	7.67	17.85

Well ID		TOC Elevation	Depth to Water	Water Surface Elevation
1 4377 2	Date	(feet)	(feet)	(feet)
MW-3	8/11/1989	104.52	9.00	95.52
	4/9/1991	ļ	8.06	96,46
	7/14/1992		8.82	95.70
	8/31/1992		9.05	95.47
	9/28/1992	]	9.09	95.43
	10/7/1992		9.15	95.37
	11/17/1992		9.05	95.47
	12/15/1992		9.12	95.40
	1/11/1993		8.18	96.34
	2/5/1993		7.98	96.54
	3/19/1993		7.94	96.58
	4/23/1993		8.02	96.50
	May-93		7.69	96.83
	7/8/1993		8.65	95.87
	10/15/1993		9.32	95.20
	1/25/1994	]	8.93	95.59
	4/28/1994		8.52	96.00
	7/27/1994		8.86	95.66
	10/27/1994		9.25	95.27
	1/26/1995	1	7.85	96.67
	4/13/1995	1	7.64	96.88
	7/21/1995		8.26	96.26
	10/25/1995	1	9.05	95.47
	1/21/1997		7.75	96.77
	11/12/1998	•	8.38	96.14
	1/16/2001		8.00	96.52
	6/27/2002	1	7.81	96.71
	11/18/2002	1	8.37	96.15
	2/20/2003	1	7.48	97.04
	6/11/2003	1	7.67	96.85
	4/4/2008 *	25.17	7.74	17.43

Well ID		TOC Elevation	Depth to Water	Water Surface Elevation
	Date	(feet)	(feet)	(feet)
MW-4	4/28/1994	104.86	9.29	95.57
*	7/27/1994		9.55	95.31
	10/27/1994		9.83	95.03
	1/26/1995		8.88	95.98
	4/13/1995	l '	8.80	96.06
	7/21/1995		9.18	95.68
	10/25/1995		9.70	95.16
	1/21/1997		NM_	NM
	11/12/1998		NM	NM
	1/16/2001		NM	NM
	6/27/2002		NM	NM
	11/18/2002		NM	NM
	2/20/2003		NM	NM
	6/11/2003		NM	NM
	4/4/2008 *	25.53	8.73	16.80
MW-5	4/28/1994	103.62	8.27	95.35
	7/27/1994		8.50	95.12
	10/27/1994		8.92	94.70
	1/26/1995		7.61	96.01
	4/13/1995		8.48	95.14
	7/21/1995		8.00	95.62
	10/25/1995		8.72	94.90
	1/21/1997		6.79	96.83
	11/12/1998		8.12	95.50
	1/16/2001		7.67	95.95
	6/27/2002		7.61	96.01
	11/18/2002		8.01	95.61
	2/20/2003		7.22	96.40
	6/11/2003		7.43	96.19
	4/4/2008 *	24.31	7.36	16.95

Well ID		TOC Elevation	Depth to Water	Water Surface Elevation
	Date	(feet)	(feet)	(feet)

Notes:

TOC = Top of Casing

\* = Initial data set collected under direction of Blymyer Engineers, Inc.
 \* = Resurveyed on April 4, 2008 by CSS Environmental Services, Inc.

NM = Not measured

Elevations in feet above mean sea level

Well ID	Sample Date	Modified EPA Method 8015 (μg/L)		EPA Met	hod 8020, 8021 (μg/L)	B, or 8260B		EPA Method E200.8
		TPH as Gasoline	Benzene	Toluene	Ethylbenzene	Total Xylenes	MTBE	Lead
	MCL	N/A	1	150	700	1,750	13	15
Drinking l	Water Source 1	100	1 .	40	30	20	5	15
MW-1	1/21/1987 2	21,020	1,148	8,627	1,792	6,012	NA	NA
	1/11/1989	1,400	74	10	13	5	NA	NA
	7/12/1989	1,200	470	49	45	33	NA	NA
	4/9/1991 3	850	260	10	15	12	NA	NA
	7/14/1992 4	13,000	2,300	1,200	1,200	1,200	NA	NA
	10/7/1992	3,600	1,600	80	120	120	NA	NA
	1/11/1993	1,200	410	16	23	19	NA/	NA
	4/23/1993	2,200 a	720	180	82	150	NA	NA
	7/8/1993	3,200 a	1,200	110	97	100	NA	- NA
	10/15/1993	3,700 a	1,400	43	94	36	NA	NA
	1/25/1994	1,600 a	680	16	41	35	NA	NA
	4/28/1994	6,100 <sup>n</sup>	1,900	380	250	340	NA	NA
	7/27/1994	6,000 <sup>a</sup>	1,800	510	220	450	NA	NA
	10/27/1994	3,000 a	1,100	79	82	87	NA	NA
	1/26/1995	1,600 a	660	100	82	87	NA	NA
	4/13/1995	3,800 a	1,200	270	120	260	NA	NA
	7/21/1995	5,200 <sup>a</sup>	1,500	450	190	400	NA	NA
	10/25/1995	5,900 a	1,800	450	210	400	NA	NA
	1/21/1997	3,100 <sup>n</sup>	1,100	87	160	180	<7.3	NA
	11/12/1998	1,000 a	280	3.0	3.3	7.9	<30	NA
	1/16/2001	4,700 a	1,20	18	150	49	<5 <sup>e</sup>	NA
	6/27/2002	5,900 <sup>n</sup>	230	7.7	<5	1,500	<5 °	NA
	11/18/2002	3,100 a	890	12	310	28	<2.5 °	NA
	2/20/2003	260 <sup>d</sup>	100	0.72	<0.5	<0.5	<0.5 <sup>e</sup>	NA
	6/11/2003	3,100 <sup>a</sup>	480	6.7	220	420	<2.5 °	NA
	4/3/2008 <sup>5</sup>	2,700 a	280	21	130	230	<25	<0.5

Well ID	Sample Date	Modified EPA Method 8015 (μg/L)		EPA Me	thod 8020, 8021 (μg/L)	B, or 8260B		EPA Method E200.8
		TPH as Gasoline	Benzene	Toluene	Ethylbenzene	Total Xylenes	MTBE	Lead
	MCL	N/A	1	150	700	1,750	13	15
Drinking \	Water Source 1	100	1	40	30	20	5	15
MW-2	1/21/1987 2	5,018	386	1,981	285	1,432	NA	NA
	1/11/1989	10,000	3,000	410	240	190	NA	NA
	7/12/1989	7,600	2,700	540	250	320	NA	NA
	4/9/1991 <sup>3</sup>	4,900	910	210	130	200	NA	NA
	7/14/1992 4	13,000	4,400	1,500	610	1,100	NA	NA
	10/7/1992	11,000	5,200	1,500	500	1,200	NA	NA
	1/11/1993	17,000	940	1,100	480	930	NA.	NA
	4/23/1993	52,000 a	13,000	8,400	1,700	5,300	. NA	NA
	7/8/1993	6,400 a	2,500	470	280	530	NA.	NA
	10/15/1993	17,000 <sup>a</sup>	3,900	870	500	940	NA	NA
	1/25/1994	16,000 a	5,400	1,140	640	1,500	NA	NA
	4/28/1994	15,000 <sup>a</sup>	4,000	910	480	1,200	NA	NA
	7/27/1994	18,000 <sup>a</sup>	6,000	760	630	1,600	NA	NA
	10/27/1994	9,500 °	2,700	230	320	640	NA	NA
	1/26/1995	5,900 a	1,900	290	230	500	NA	NA
	4/13/1995	10,000 <sup>a</sup>	3,300	620	360	930	NA	NA
	7/21/1995	9,900 <sup>n</sup>	3,300	320	390	830	NA	NA
	10/25/1995	13,000 a	4,900	400	580	990	NA	NA
	1/21/1997	7,600 <sup>n</sup>	2,600	310	330	660	<20	NA
	11/12/1998	31,000 a	11,000	750	1,500	2,300	<900	NA
	1/16/2001	23,000 a	8,200	260	1,000	820	<30	NA
	6/27/2002	39,000 <sup>a</sup>	7,000	1,800	690	4,000	<5 °	NA
	11/18/2002	15,000 a	5,700	76	1,000	150	<12 °	NA
	2/20/2003	26,000 a	6,300	1,100	1,300	1,900	<5.0 °	NA
	6/11/2003	37,000 a	7,100	2,300	2,000	3,600	<25 <sup>e</sup>	NA
	4/3/2008 5	4,100 a	760	96	250	130	<50	<0.5

Well ID	Sample Date	Modified EPA Method 8015 (μg/L)		EPA Me	thod 8020, 8021 (µg/L)	B, or 8260B		EPA Method E200.8
		TPH as Gasoline	Benzene	Toluene	Ethylbenzene	Total Xylenes	MTBE	Lead
	MCL	N/A	1	150	700	1,750	13	15
Drinking \	Water Source 1	100	1	40	30	20	5	15
MW-3	1/21/1987 2	10,287	1,428	3,281	610	2,761	NA	NA
	1/11/1989	5,300	1,800	340	150	160	NA	NA
	7/12/1989	7,800	3,100	900	300	480	NA	NA
	4/9/1991 <sup>3</sup>	9,400	1,400	730	200	510	NA	NA
	7/14/1992 4	17,000	3,500	390	390	260	NA	NA
	10/7/1992	9,200	4,300	470	390	610	NA	NA
	1/11/1993	2,000	740	29	58	28	NA.	NA
	4/23/1993	6,500 a	2,600	280	260	190	NA	. NA
	7/8/1993	5,200 a	2,100	260	250	180	NA	NA
	10/15/1993	11,000°	3,500	580	430	370	NA	NA
	1/25/1994	6,200 a	2,500	270	160	28	NA	NA
	4/28/1994	5,300 a	1,700	190	210	180	NA	NA
	7/27/1994	5,900 a	2,000	360	260	330	NA	NA
	10/27/1994	8,000 a	2,200	580	260	170	NA	NA
	1/26/1995	3,700 <sup>a</sup>	1,200	150	150	190	NA	NA
	4/13/1995	4,000 a	1,400	200	180	210	NA	NA
	7/21/1995	5,700 <sup>a</sup>	2,000	280	270	280	NA.	NA
	10/25/1995	11,000 <sup>a</sup>	3,500	1,100	460	680	NA	NA
	1/21/1997	2,200 ª	860	63	71	80	<5	NA
	11/12/1998	180 <sup>d</sup>	44	0.51	ND	0.92	<20	NA
	1/16/2001	64 a	11	0.77	<0.5	<0.5	<5°	NA
	6/27/2002	<50	<0.5	<0.5	<0.5	<0.5	<0.5 °	NA
	11/18/2002	110 <sup>a</sup>	21	1.0	<0.5	<0.5	<0.5 e	NA
	2/20/2003	<50	2.5	<0.5	<0.5	<0.5	<0.5°	NA
	6/11/2003	<50	<0.5	<0.5	<0.5	<0.5	<0.5 °	NA
	4/3/2008 5	7,600 <sup>a</sup>	2,400	58	250	170	<100	<0.5

Well ID	Sample Date	Modified EPA Method 8015 (μg/L)	<u> </u>	EPA Met	hod 8020, 8021 (μg/L)	B, or 8260B		EPA Method E200.8
		TPH as Gasoline	Benzene	Toluene	Ethylbenzene	Total Xylenes	MTBE	Lead
1	MCL	N/A	1	150	700	1,750	13	15
Drinking V	Vater Source 1	100	1	40	30	20	5	15
MW-4	4/28/1994	190 b, c	3.8	2.9	2.1	3.1	NA	NA
	7/27/1994	180 <sup>a</sup>	15	9.2	7.6	28	NA	NA
	10/27/1994	130 a	8.6	6.6	4.5	17	NA	NA
	1/26/1995	110	6.5	1.2	1.8	11	NA	NA
	4/13/1995	82	3.9	ND	ND	2.5	NA	NA
i	7/21/1995	130	8.8	1.3	4.5	7.6	NA	NA.
	10/25/1995	95	6.6	1.7	4.3	7.0	NA	NA
	1/21/1997	NS	NS	NS	NS	NS	NS	NA
	11/12/1998	NS	NS	NS	NS	NS	NS	NA NA
	1/16/2001	NA	NA	NA	NA	NA	NA	NA
	6/27/2002	NA	NA	NA.	NA	NA	NA	NA
	11/18/2002	NA	NA	NA.	NA	NA	NA	NA
	2/20/2003	NA	NA	NA	NA	NA	NA	NA
	6/11/2003	NS	NS	NS	NS	NS	NS	NA
	4/3/2008 5	130 <sup>f</sup>	1.6	<0.5	0.89	0.85	<5.0	<0.5

Well ID	Sample Date	Modified EPA Method 8015 (µg/L)		EPA Me	thod 8020, 8021 (µg/L)	B, or 8260B		EPA Method E200.8
		TPH as Gasoline	Benzene	Toluene	Ethylbenzene	Total Xylenes	MTBE	Lead
	MCL	N/A	1	150	700	1,750	13	15
	Water Source 1	100	1	40	30	20	5	15
MW-5	4/28/1994	30,000 <sup>a</sup>	4,000	3,000	810	3,500	NA	NA.
	7/27/1994	9,300 <sup>a</sup>	2,000	800	290	940	NA_	NA
	10/27/1994	15,000 a	2,700	1,300	420	1,100	NA	NA
	1/26/1995	7,900 a	2,100	680	240	860	NA	NA
	4/13/1995	7,900°	2,400	580	340	630	NA	NA
•	7/21/1995	11,000 <sup>a</sup>	3,400	760	610	1,200	NA	NA
	10/25/1995	13,000 a	2,900	830	570	1,100	NA	NA
	1/21/1997	2,600 a	750	65	1,860	280	<5	NA
	11/12/1998	<50	<0.5	<0.5	<0.5	<0.5	<5.	NA
	1/16/2001	<50	11	<0.5	<0.5	0.82	<5 °	NA
	6/27/2002	<50	<0.5	<0.5	<0.5	<0.5	<0.5 <sup>e</sup>	NA
	11/18/2002	130 °	17	3.8	2.1	16	<0.5 °	NA
	2/20/2003	<50	5.6	0.51	<0.5	0.68	<0.5 <sup>e</sup>	NA
	6/11/2003	170 a	48	<0.5	<0.5	1.4	<0.5 e	NA
	4/3/2008 5	31,000 <sup>a</sup>	490	3,400	1,600	5,300	<250	<0.5

Well ID	Sample Date	Modified EPA Method 8015 (μg/L)	<u> </u>	EPA Me	thod 8020, 8021 (µg/L)	B, or 8260B	:	EPA Method E200.8		
,,	:	TPH as Gasoline	Benzene Toluene Ethylbenzene Total Xylenes MTBE							
	MCL	N/A	1	150	700	1,750	13	15		
Drinking )	Water Source 1	100	i	40	30	20	5	15		

Notes:

ug/L = micrograms per liter

TPH = Total Petroleum Hydrocarbons

EPA = Environmental Protection Agency

MTBE = Methyl tert -Butyl Ether

- <sup>1</sup> = From Table A; RWQCB Environmental Screening Levels (ESLs); Groundwater IS a Current or Potential Source of Drinking Water
- <sup>2</sup>= Initial sampling and reporting by Groundwater Technology, Inc.
- <sup>3</sup> = Initial sampling and reporting by Environmental Science & Engineering, Inc.
- <sup>4</sup> = Initial sampling and reporting by Geo Plexus, Inc.
- <sup>5</sup> = Initial sampling and reporting by Blymyer Engineers, Inc.

N/A = Not applicable

NA = Not analyzed

NS = Not sampled

- < x = Analyte not detected at reporting limit x
- <sup>a</sup> = Laboratory note indicates the unmodified or weakly modified gasoline is significant.
- b = Laboratory note indicates heavier gasoline range compounds are significant (aged gas?).
- c = Laboratory note indicates gasoline range compounds are significant with no recognizable pattern.
- <sup>d</sup> = Laboratory note indicates that lighter gasoline range coounds (the most mobile fraction) are significant.
- <sup>e</sup> = Analysis conducted by EPA Method 8260. See also Table III.
- f = Laboratory note indicates that one to a few isolated non-target peaks are present.

Bold results indicate detectable analyte concentrations.

Note: Shaded cell indicates that detected concentration exceeds *Drinking Water* ESL

					EPA Me	thod 8260B	(ug/L)			
Well ID	Sample Date	TAME	TBA	EBD	EDC	DIPE	Ethanol	ETBE	Methanol	MTBE
Drinking	Water Source	NV	12	0.05	0.5	NV	50,000	NV.	NV	5
MW-1	1/16/2001	<5.0	<25	<5.0	<5.0	<5.0	NA	<5.0	NA	<5.0
	6/27/2002	<5.0	<50	<5.0	<5.0	<5.0	NA	<5.0	NA	<u>&lt;5.0</u>
	11/18/2002	NA	NA	<2.5	<2.5	NA	NA	NA	NA	<2.5
	2/20/2003	NA	NA	<0.5	<0.5	NA	NA	NA	NA	<0.5
	6/11/2003	NA	NA	<2.5	<2.5	NA	NA	NA	NA	<2.5
	4/4/2008	<1.0	<4.0	<1.0	<1.0	<1.0	<100	<1.0	<1,000	<1.0
MW-2	1/16/2001	<30	<150	<30	<30	<30	NA	<30	NA	<30
	6/27/2002	<5.0	<5.0	<5.0	6.1	<5.0	NA	<5.0	NA	<5.0
	11/18/2002	NA	NA	<12	<12	NA	NA	NA	NA	<2.5
	2/20/2003	NA	NA	<5.0	<5.0	NA	NA	NA	NA	<5.0
	6/11/2003	NA	NA	<25	<25	NA	NA	NA	NA	<25
	4/4/2008	<2.5	<10	<2.5	<2.5	<2.5	<250	<2.5	<2,500	<2.5
MW-3	1/16/2001	<1.0	<5.0	<1.0	1.4	<1.0	NA	<1.0	NA	<1.0
	6/27/2002	<0.5	. <5.0	<0.5	<0.5	<0.5	NA	<0.5	NA	<sup>*</sup> <0.5
	11/18/2002	NA	NA	<0.5	<0.5	NA	NA	NA	NA	<0.5
	2/20/2003	NA	NA	<0.5	<0.5	NA	NA	NA	NA	<0.5
	6/11/2003	NA	NA	<0.5	<0.5	NA	NA	NA	NA	<0.5
	4/4/2008	<5.0	<20	<5.0	<5.0	<5.0	<500	<5.0	<5,000	<5.0
MW-4	4/4/2008	<0.5	<2.0	<0.5	<0.5	<0.5	<50	<0.5	<500	<0.5

		EPA Method 8260B (ug/L)											
Well ID	Sample Date	TAME	TBA	EBD	EDC	DIPE	Ethanol	ETBE	Methanol	MTBE			
Drinking	Water Source 1	NV	12	0.05	0.5	NV	50,000	NV	NV	5			
MW-5	1/16/2001	<1.0	<5.0	<1.0	<1.0	<1.0	NA	<1.0	NA	<1.0			
:	6/27/2002	<0.5	<5.0	<0.5	<0.5	<0.5	NA	<0.5	NA	<0.5			
	11/18/2002	NA	NA	<0.5	<0.5	NA	NA	NA	NA	<0.5			
	2/20/2003	NA	NA	<0.5	<0.5	NA	NA	NA	NA	<0.5			
	6/11/2003	NA	NA	<0.5	<0.5	NA	NA	NA	NA	<0.5			
	4/4/2008	<10	<40	<10	<10	<10	<1,000	<10	<10,000	<10			

Notes: TAME = Methyl tert-Amyl Ether

TBA = tert-Butyl Alcohol

EDB = 1,2-Dibromoethane

EDC or 1,2-DCA = 1,2-Dichloroethane

DIPE = Di-isopropyl ether

ETBE = Ethyl tert-butyl ether

MTBE = Methly tert-butyl ether

 $(\mu g/L)$  = Micrograms per liter

NV = No value

NA = Not analyzed

Bold results indicate detectable analyte concentrations.

<sup>&</sup>lt;sup>1</sup> = From Table A; RWQCB Environmental Screening Levels (ESLs); Groundwater IS a Current or Potential Source of Drinking Water

Well ID	Sample Date	Modified EPA Method 8015 (μg/L)		EPA	Method 8020 c (μg/L)	or 8021B	
		TPH as Gasoline	Benzene	Toluene	Ethylbenzene	Total Xylenes	MTBE
	MCL	N/A	1	150	700	1,750	13
	ESLs for Current Drinking Water	100	1	40	30	20	5
HP-1	4/23/1993	<50	<0.5	<0.5	<0.5	<0.5	NA
HP-2	4/23/1993	<50	<0.5	<0.5	<0.5	<0.5	NA
EB3-WSIA	10/15/1993	120,000 a	9,600	20,000	3,400	14,000	NA
EB5-WSIA	10/15/1993	83,000 a	3,900	15,000	3,100	13,000	NA
EB8-WS1	1/21/1997	25,000 a	2,600	3,200	780	3,600	<80
EB10-WS1	1/21/1997	81,000 <sup>a, b</sup>	13,000	12,000	3,300	8,000	<370
EB11-WS1	1/21/1997	49,000 1	6,900	6,000	2,100	4,600	<180
EB12-WS1	1/21/1997	38,000 <sup>4, c</sup>	1,400	1,400	1,800	7,400	110
P1-WS1	1/21/1997	74,000 a, c	1,100	5,800	3,800	18,000	<78
P2-WS1	1/21/1997	6,800 a	2,200	290	310	560	<10
P3-WS1	1/21/1997	220 <sup>a</sup>	1.9	17	10	49	<5.0
GP1W	4/29/2008	70,000 <sup>c, d</sup>	6,800	6,600	2,300	12,000	<500
GP2W	4/29/2008	910 <sup>a, d, f</sup>	0.69	2.9	30	64	<5.0
GP3W	4/29/2008	<50	<0.5	<0.5	<0.5	<0.5	<5.0
GP4W	4/29/2008	46,000 <sup>c, d</sup>	570	3,200	1,500	7,500	<500
GP5W	4/29/2008	12,000 <sup>c, d</sup>	140	480	270	1,100	<60
GP6W	4/29/2008	22,000 <sup>c, d</sup>	920	1,600	900	3,500	<170
GP7W	4/30/2008	22,000 <sup>9 d</sup>	2,600	320	810	2,600	<180
GP8W	5/1/2008	140,000 <sup>c, d, e</sup>	9,000	20,000	4,300	21,000	<650
GP9W	5/1/2008	550 <sup>c, d</sup>	53	0.52	2.1	25	<5.0
GP10W	4/30/2008	11,000 <sup>c, d</sup>	1,900	490	480	770	<100
GP11W	4/30/2008	42,000 <sup>c, d</sup>	1,900	4,200	1,700	7,600	<452
GP12W	4/30/2008	61,000 <sup>c, d</sup>	4,500	11,000	1,700	7,700	<500
GP13W	4/30/2008	6,200 <sup>c, d</sup>	220	53	150	440	<10
GP14W	4/30/2008	300 <sup>c, d</sup>	46	1.9	19	11	<5.0
GP15W	4/30/2008	<50 <sup>d</sup>	<0.5	0.69	<0.5	1.1	<5.0
GP16W	5/1/2008	<50 <sup>d</sup>	<0.5	<0.5	<0.5	<0.5	<5.0
GP17W	5/1/2008	<50 d	<0.5	1.7	<0.5	2	<5.0

Well ID	Sample Date	Modified EPA Method 8015 (μg/L)			. Method 8020 α (μg/L)	or 8021B	
		TPH as Gasoline	Benzene	Toluene	Ethylbenzene	Total Xylenes	MTBE
	MCL	N/A	1	1 150 700		1,750	13
Make sufficient as followed as a final	ESLs for Current. I Drinking Water	100		40'	30	20	, <b>,</b> , , , , , , , , , , , , , , , , ,
GP18W	5/1/2008	<50 <sup>d</sup>	<0.5	2.1	0.79	4	<5.0
GP19W	5/1/2008	85 <sup>d, g</sup>	<0.5	0.80	<0.5	<0.5	<5.0
GP20W	5/1/2008	<50 d	<0.5	<0.5	<0.5	<0.5	<5.0
GP21W	5/2/2008	9,400 <sup>c ji</sup>	560	1,400	260	1,300	<50
GP22W	5/2/2008	3,900 <sup>c, a</sup>	369	160	120	610	<25
GP23W	5/2/2008	16,000 <sup>£ d</sup>	, 830	1,900	540	2,600	<90
GP24W	5/2/2008	110,000 <sup>c,a,</sup> e	-6,500	4,200	3,100	13,000	<450

Notes:

ug/L = micrograms per liter

TPH = Total Petroleum Hydrocarbons

EPA = Environmental Protection Agency

MTBE = Methyl tert - Butyl Ether

RWQCB = California Regional Water Quality Control Board, San Francisco Bay Region

ESL = Environmental Screening Level

N/A = Not applicable

NA = Not analyzed

RBSL = Risk Based Screening Level

 $\langle x \rangle$  = Analyte not detected at reporting limit x

- <sup>a</sup> = Laboratory note indicates that heavier gasoline range compounds are significant (aged gasoline?).
- b = Laboratory note indicates no recognizable pattern..
- <sup>c</sup> = Laboratory note indicates unmodified or weakly modified gasoline is significant.
- d= Laboratory note indicates the liquid sample contains greater than ~1% sediment.
- <sup>e</sup> = Laboratory note indicates a lighter than water immiscible sheen / product is present.
- f = Laboratory note indicates no recognizable pattern.
- Laboratory note indicates that one to a few isolated non-target peaks are present (Pers. com. May 19, 2008 is predominately PCE then TCE).

Bold results indicate detectable analyte concentrations.

Note: Shaded cell indicates that detected concentration exceeds ESL

# Table V, Summary of Grab Groundwater Sample Fuel Oxygenate Analytical Results BEI Job No. 207055, Good Chevrolet 1630 Park Street, Alameda, California

	,				EPA Me	EPA Method 8260B (ug/L)	(ug/L)			
Well ID	Sample Date	TAME	TBA	EBD	EDC	DIPE	Ethanol	ETBE	Methanol	MTBE
TABLE A. E	TABLE A. ESLs; Groundwater IS a				) )			7177	7177	<b>A</b>
Current or Pot	Current or Potential Source of Drinking Water	NN	12	0.05	0.5	NV	50,000	NY	Ŋ	Ú
GPIW <sup>a, b</sup>	4/29/2008	<5.0	<20	<5.0	<5.0	<5.0	<500	<5.0	<5,000	<5.0
GP2W <sup>a</sup>	4/29/2008	<0.5	<2.0	<0.5	<0.5	<0.5	<50	<0.5	<500	<0.5
GP3W <sup>a</sup>	4/29/2008	<0.5	<2.0	<0.5	<0.5	<0.5	<50	<0.5	<500	<0.5
GP4W a, b	4/29/2008	<5.0	<20	<5.0	<5.0	<5.0	<500	<5.0	<5,000	<5.0
GP5W <sup>a</sup>	4/29/2008	<0.5	<2.0	<0.5	<0.5	<0.5	<50	<0.5	<500	<0.5
GP6W <sup>a</sup>	4/29/2008	<5.0	24	<5.0	<5.0	<5.0	<500	<5.0	<5,000	<5.0
GP7W a, b	4/30/2008	<5.0	<20	<5.0	<5.0	<5.0	<500	\$5.0	<5,000	<5.0
GP8W a, b, c	5/1/2008	<5.0	<20	<5.0	<5.0	<5.0	<500	<5.0	<5,000	\$.0
GP9W a	5/1/2008	<0.5	7.7	<0.5	1.1	<0.5	<50	<0.5	<500	1.2
GP10Wab	4/30/2008	<5.0	<20	<5.0	<5.0	<5.0	<500	<5.0	<5,000	\$.0
GP11Wa,b	4/30/2008	<5.0	<20	<5.0	<5.0	<5.0	<500	<5.0	<5,000	\$.0
GP12W a, b	4/30/2008	<5.0	<20	<5.0	<5.0	<5.0	<500	<5.0	<5,000	\$.0
GP13W <sup>a</sup>	4/30/2008	<0.5	8.9	<0.5	<0.5	<0.5	<50	<0.5	<500	40.5
GP14W <sup>a</sup>	4/30/2008	. <0.5	<2.0	<0.5	<0.5	<0.5	\$0	<0.5	<500	<0.5
GP15W <sup>a</sup>	4/30/2008	<0.5	<2.0	<0.5	<0.5	<0.5	<50	<0.5	<500	\$0.5
GP16W <sup>a</sup>	5/1/2008	<0.5	<2.0	<0.5	<0.5	<0.5	\$50	<0.5	<500	<0.5
GP17W <sup>a</sup>	5/1/2008	<0.5	<2.0	<0.5	<0.5	<0.5	<50	<0.5	<500	<0.5
GP18W <sup>a</sup>	5/1/2008	<0.5	<2.0	<0.5	<0.5	<0.5	\$	<0.5	<500	.0.5
GP19W <sup>a</sup>	5/1/2008	<0.5	<2.0	<0.5	<0.5	<0.5	<50	<0.5	<500	<0.5

### Table V, Summary of Grab Groundwater Sample Fuel Oxygenate Analytical Results BEI Job No. 207055, Good Chevrolet 1630 Park Street, Alameda, California

Well ID	Sample Date				EPA Me	ethod 8260E	(ug/L)			<u> </u>
	•	TAME	TBA	EBD	EDC	DIPE	Ethanol	ETBE	Methanol	MTBE
The second of th	SLs; Groundwater IS a ential Source of Drinking Water	NV	12	0.05	0.5	NV	50,000	ΝV	ΝV	5
GP20W a.	5/1/2008	<0.5	<2.0	<0.5	<0.5	<0.5	<50	<0.5	<500	<0.5
GP21W a	5/2/2008	<0.5	<2.0	0,65	<0.5	<0.5	<50	<0.5	<500	<0.5
GP22W a	5/2/2008	<0.5	<2.0	<0.5	<0.5	<0.5	<50	<0.5	<500	<0.5
GP23W <sup>a, b</sup>	5/2/2008	<5.0	<20	<5.0	<5.0	<5.0	<500	<5.0	<5,000	<5.0
GP24W <sup>a, c</sup>	5/2/2008	<5.0	4 <b>7</b> 54	<5.0	<5.0	<5.0	<500	<5.0	<5,000	<5.0

Notes:

ESLs = Environmental Screening Levels

TAME = Methyl tert-Amyl Ether

TBA = tert-Butyl Alcohol

EDB = 1,2-Dibromoethane

EDC or 1,2-DCA = 1,2-Dichloroethane

DIPE = Di-isopropyl ether

ETBE = Ethyl tert-butyl ether

MTBE = Methly tert-butyl ether

 $(\mu g/L) = Micrograms per liter$ 

NV = No value

NA = Not analyzed

Bold results indicate detectable analyte concentrations.

Note: Shaded cell indicates that detected concentration exceeds ESL

<sup>&</sup>lt;sup>a</sup> = Laboratory note indicates the liquid sample contains greater than ~1% sediment.

b = Laboratory note indicates an analyte was detected below the quantitation limits

<sup>&</sup>lt;sup>c</sup> = Laboratory note indicates a lighter than water immiscible sheen / product is present.

Well ID	Depth (ft)	Sample Date	Modified EPA Method 8015 (mg/Kg)		EPA	Method 8020 c (mg/Kg)	or 8021B	
	(11)	Date	TPH as Gasoline	Benzene	Toluene	Ethylbenzene	Total Xylenes	MTBE
		s (≤m); Commercial / tential Drinking Water	100	0.044	2.9	3.3	2.3	0.023
그는 동자들이 얼마가 바꾸면 바람은 얼굴을 바다면다.	Antikalı türliğik işili ili ili in inleşt <del>i bişi</del> bişirindeştiri işi çiye	(>3m); Commercial / tential Drinking Water	100	0.044	2.9	33	2.3	0.023
MW-1-10	10	1/15/1987	24	2.9	3.6	NA	1.8	NA
MW-1-15	15	1/15/1987	<1.0	<0.1	<0.1	NA	<0.1	NA.
MW-2-5	5	1/15/1987	<1.0	<0.1	<0.1	NA	<0.1	NA
MW-2-10	10	1/15/1987	350	14	22	NA	23	NA
MW-3-10	10	1/15/1987	200	9.8	16	NA	- 16	NA
MW-3-15	15	1/15/1987	<1.0	<0.1	<0.1	NA	<0.1	NA
SB-5-10	10	1/15/1987	6.5	<0.1	0.22	NA	<0.1	NA
EB1-S2	8.5	10/15/1993	510 <sup>b</sup>	0.89	10	5.8	41	NA
EB1-S3	11	10/15/1993	2,300 <sup>b</sup>	22	190	57	280	NA
EB2-2S	10	10/15/1993	15,000 *	84	710	260	1,400	NA
EB2-S3	11.5	10/15/1993	200 <sup>a</sup>	4.3	15	3.9	20	NA
EB3-S2	10	10/15/1993	2,200 a	9.4	11.	42	200	NA
EB3-S3	12.5	10/15/1993	610 <sup>-b, c</sup>	1.2	3.2	4.5	2.9	NA
EB4-S2	8	10/15/1993	4,900 a	32	230	84	. 440 .	NA
EB4-S3	10.5	10/15/1993	7,600 1	→ 60	390	130	630	NA
EB5-S2	9	10/15/1993	1,800 b	<2.5	22	27	140	NA
EB5-S3	11.5	10/15/1993	14 <sup>b</sup>	0.021	1.5	0.49	2.5	NA
EB6-S2	8.5	10/15/1993	6,800 a	20	230	100	590	NA
EB7-S2	6.5	10/15/1993	<50	<0.5	<0.5	<0.5	<0.5	NA
EB7-S3	8.5	10/15/1993	1,000 b	3.8	45	21	110	NA
MW4-S1	4.5	4/20/1994	<50 b	<0.5	<0.5	<0.5	0.013	NA
MW4-S2	9	4/20/1994	9.7 <sup>a</sup>	1.1	0.82	0.42	1.3	NA
MW4-S3	14	4/20/1994	<50 b	<0.5	0.008	<0.5	0.022	NA
MW5-S1	4.5	4/20/1994	<50	<0.5	<0.5	<0.5	<0.5	NA
MW5-S2	9	4/20/1994	1,100 <sup>b, c</sup>	12	.43	20 ,	93	NA
MW5-S3	14	4/20/1994	1.1 b, c	0.033	0.17	0.044	0.22	NA
EB8-S2	9.5	1/21/1997	2,000 a	8.4	83	44	210	<4
EB8-S3	13.5	1/21/1997	18 ª	3.2	1.2	0.47	1.7	0.10
EB9-S1	6.5	1/21/1997	1.8 a	0.071	0.052	0.026	0.074	<5

Well ID	Depth	Sample	Modified EPA Method 8015 (mg/Kg)		EPA	Method 8020 o (mg/Kg)	r 8021B	
,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	(ft)	Date	TPH as Gasoline	Benzene	Toluene	Ethylbenzene	Total Xylenes	МТВЕ
TABLE A. ESLs	for Shallow Soil	s (<3m); Commercial /	100	0.044	2.9	3.3	2.3	0.023
Industrial Land U	se; Current or Po	tential Drinking Water (>3m); Commercial /						0.000
Industrial Land U	Is for Deep Sons Ise: Current or Po	tential Drinking Water	100	0.044	2.9	3.3	2.3	0.023
EB9-S2	9.5	1/21/1997	1,300 a	7.1	54	29	130	<4
EB10-S1	8.5	1/21/1997	2,300 *	9.1	100	50	190	9.3
EB11-S1	9.5	1/21/1997	3,800 b, d	8.8	190	97	510	<9
EB11-S2	12	1/21/1997	13 <sup>a</sup>	1.1	1.6	0.47	1.4	<0.1
EB12-S1	9.5	1/21/1997	300 b, d	0.95	0.59	3.5	18	<0.6
EB12-S2	12	1/21/1997	1,300 <sup>a</sup>	9.4	23	35	130	6.2
GP1-11.5	11.5	4/29/2008	130 <sup>e, f</sup>	<0.10	0.29	<0.10	0.42	<0.005
GP1-15	15	4/29/2008	<1.0	<0.005	0.0081	0.0065	0.028	<0.005
GP2-11	11	4/29/2008	120 b, f	<0.050	0.87	0.43	1.2	<0.010
GP2-13.5	13.5	4/29/2008	<1.0	<0.005	<0.005	<0.005	<0.005	< 0.005
GP3-6.75	6.75	4/29/2008	<1.0	<0.005	<0.005	<0.005	<0.005	<0.005
GP3-11.5	11.5	4/29/2008	<1.0	<0.005	<0.005	<0.005	<0.005	<0.005
GP4-11.5	11.5	4/29/2008	2.7 a	0.14	0.052	0.072	0.17	<0.005
GP4-14.5	14.5	4/29/2008	99 b, f	0.48	1.4	1.0	4.5	<0.020
GP5-11.5	11.5	4/29/2008	4.6 <sup>n</sup>	0.12	0.078	0.14	0.48	<0.005
GP5-19	19	4/29/2008	1.5 b	<0.005	0.022	0.0069	0.032	<0.005
GP6-11	11	4/29/2008	130 b, f	0.11	1.0	1.1	5.4	<0.10
GP7-8	8	4/30/2008	390 b, f	0.84	2.2	4.3	18	<0.050
GP7-19.5	19.5	4/30/2008	<1.0	<0.005	<0.005	<0.005	<0.005	<0.005
GP8-8.5	8.5	5/1/2008	1,100 b, f	<0.10	3.2	7.3	45	<0.050
GP8-19.5	19.5	5/1/2008	5.8 b,f	0.0091	0.067	0.048	0.21	<0.005
GP9-7.5	7.5	5/1/2008	<1.0	<0.005	<0.005	<0.005	<0.005	<0.005
GP9-11.25	11.25	5/1/2008	<1.0	<0.005	<0.005	<0.005	<0.005	<0.005
GP9-11.23 GP10-7.5	7.5	4/30/2008	<1.0	<0.005	<0.005	<0.005	<0.005	<0.005
GP10-7.3	19.5	4/30/2008	<1.0	<0.005	<0.005	< 0.005	<0.005	<0.005
GP10-19.3	6	4/30/2008	<1.0	<0.005	0.011	0.0053	0.026	<0.005
GP11-15.5	15.5	4/30/2008	2,100 h, f	5.7	71	38	180	<0.10
	18	4/30/2008	87 b, f	0.059	0.93	0.67	4.2	<0.020
GP11-18	7.5	4/30/2008	<1.0	<0.005		5 <0.005	<0.005	<0.005
GP12-7.5	1 /.3	7/30/2000						

Well ID	Depth	Sample Date	Modified EPA Method 8015 (mg/Kg)	· · · · · · · · · · · · · · · · · · ·	EPA	Method 8020 o (mg/Kg)	r 8021B	
·	(ft)	Date	TPH as Gasoline	Benzene	Toluene	Ethylbenzene	Total Xylenes	MTBE
Industrial Land U	se; Current or Po	s (<3m); Commercial / tential Drinking Water	100	0.044	2.9	3.3	2.3	0.023
TABLE C. ESL Industrial Land U	s for <b>Deep Soils</b> se; Current or Po	(>3m); Commercial / tential Drinking Water	100	0.044	2.9	3.3	2.3	0.023
GP12-11	11	4/30/2008	4.7 b, f	0.015	0.21	0.067	0.32	<0.005
GP12-15.5	15.5	4/30/2008	<1.0	<0.005	0.0071	0.0051	0.025	<0.005
GP13-7.25	7.25	4/30/2008	<1.0	<0.005	<0.005	<0.005	<0.005	<0.005
GP13-11	11	4/30/2008	<1.0	<0.005	<0.005	<0.005	<0.005	<0.005
GP13-14	14	4/30/2008	<1.0	<0.005	<0.005	<0.005	<0.005	<0.005
GP14-7.5	7.5	4/30/2008	<1.0	<0.005	<0.005	<0.005	<0.005	<0.005
GP14-11	11	4/30/2008	<1.0	<0.005	<0.005	<0.005	<0.005	<0.005
GP15-7.5	7.5	4/30/2008	<1.0	<0.005	<0.005	<0.005	<0.005	<0.005
GP16-7.5	7.5	5/1/2008	<1.0	<0.005	<0.005	<0.005	<0.005	<0.005
GP16-10.5	10.5	5/1/2008	<1.0	<0.005	<0.005	<0.005	<0.005	<0.005
GP17-7.5	7.5	5/1/2008	<1.0	<0.005	<0.005	<0.005	<0.005	<0.005
GP17-11.5	11.5	5/1/2008	<1.0	<0.005	<0.005	<0.005	<0.005	<0.005
GP18-7.5	7.5	5/1/2008	<1.0	<0.005	<0.005	<0.005	<0.005	<0.005
GP18-10	10	5/1/2008	<1.0	<0.005	<0.005	<0.005	<0.005	<0.005
GP19-7	7	5/1/2008	<1.0	<0.005	<0.005	<0.005	<0.005	<0.005
GP20-8	8	5/1/2008	<1.0	<0.005	<0.005	<0.005	<0.005	<0.005
GP21-7.5	7.5	5/2/2008	2.1 b, f	0.006	0.028	0.012	0.065	<0.005
GP21-15.5	15.5	5/2/2008	<1.0	0.0064	0.022	0.0057	0.027	<0.005
GP21-19.5	19.5	5/2/2008	<1.0	<0.005	0.0092	<0.005	0.023	<0.005
GP22-10.5	10.5	5/2/2008	1,100 c, f	0.67	13	15	70	<0.20
GP22-15.5	15.5	5/2/2008	<1.0	<0.005	<0.005	<0.005	<0.005	<0.005
GP23-7.5	7.5	5/2/2008	53 <sup>e, f</sup>	<0.050	0.13	<0.050	0.37	<0.005
GP23-11.5	11.5	5/2/2008	1.9 <sup>a</sup>	0.062	0.041	0.043	0.18	<0.005
GP23-16	16	5/2/2008	2.0 b	<0.005	0.027	0.018	0.099	<0.005
GP24-8.5	8.5	5/2/2008	3,600 b, f	1.2	32	62	410	<1.0
GP24-19.5	19.5	5/2/2008	<1.0	<0.005	<0.005	<0.005	<0.005	<0.005

# Table VI, Summary of Soil Sample Hydrocarbon Analytical Results BEI Job No. 207055, Good Chevrolet

1630 Park Street, Alameda, California

Well ID	Depth (ft)	Sample Date	Modified EPA Method 8015 (mg/Kg)	Method EPA Method 8020 or 8021B (mg/Kg)					
			TPH as Gasoline	Benzene	Toluene	Ethylbenzene	Total Xylenes	MTBE	
		s (<3m). Commercial / tential Drinking Water.	100	0.044	2.9	33	23	0.023	
		(>3m); Commercial/ tential Drinking Water	100	0.044	2.9	3.3	23	0.023	

Notes:

ft = feet

mg/Kg = Milligrams per kilogram TPH = Total Petroleum Hydrocarbons MTBE = Methyl tert -Butyl Ether

NA = Not analyzed

RWQCB = California Regional Water Quality Control Board, San Francisco Bay Region

ESL = Environmental Screening Level

 $\langle x \rangle = \text{Analyte not detected at reporting limit } x$ 

Bold results indicate detectable analyte concentrations.

Note: Shaded cell indicates that detected concentration exceeds ESL

<sup>&</sup>lt;sup>a</sup> = Laboratory note indicates the unmodified or weakly modified gasoline is significant.

b = Laboratory note indicates heavier gasoline range compounds are significant (aged gas?).

<sup>&</sup>lt;sup>c</sup>= Laboratory note indicates that lighter gasoline range compounds (the most mobile fraction) are significant.

d = Laboratory note indicates gasoline range compounds have broad chromatographic peaks; biologically altered gasoline?

e=Laboratory note indicates strongly aged gasoline or diesel range compounds are significant.

f = Laboratory note indicates no recognizable pattern.

## Table VII, Summary of Soil Sample Fuel Oxygenate Analytical Results BEI Job No. 207055, Good Chevrolet 1630 Park Street, Alameda, California

Well ID	Depth	91- D-t-				EPA M	ethod 8260	3 (mg/L)		<u> </u>	
Well ID	(ft)	Sample Date	TAME	TBA	EBD	EDC	DIPE	Ethanol	ETBE	Methanol	MTBE
TABLE A, ES	Ls; Groundwater Source of Drinki	IS a Current or Potential ng Water	NV	<b>12</b>	0.05	0.5	NV	50,000	NV	NV	5
GP1-11.5	11.5	4/29/2008	<0.005	<0.05	<0.004	<0.004	<0.005	<0.25	<0.005	<2.5	<0.005
GP1-15	15	4/29/2008	<0.005	<0.05	<0.004	<0.004	<0.005	< 0.25	<0.005	<2.5	<0.005
GP2-11	11	4/29/2008	<0.010	< 0.01	<0.008	<0.008	<0.010	<0.50	<0.010	<5.0	<0.010
GP2-13.5	13.5	4/29/2008	<0.005	<0.05	< 0.004	<0.004	<0.005	<0.25	<0.005	<2.5	<0.005
GP3-6.75	6.75	4/29/2008	<0.005	<0.05	< 0.004	<0.004	<0.005	<0.25	<0.005	<2.5	<0.005
GP3-11.5	11.5	4/29/2008	<0.005	<0.05	<0.004	<0.004	<0.005	< 0.25	<0.005	<2.5	<0.005
GP4-11.5	11.5	4/29/2008	<0.005	<0.05	<0.004	<0.004	<0.005	<0.25	<0.005	<2.5	<0.005
GP4-14.5	14.5	4/29/2008	<0.020	<0.20	<0.016	<0.016	<0.020	<1.0	<0.020	<10	<0.020
GP5-11.5	11.5	4/29/2008	<0.005	<0.05	<0.004	<0.004	<0.005	<0.25	<0.005	<2.5	<0.005
GP5-19	19	4/29/2008	<0.005	<0.05	<0.004	<0.004	<0.005	<0.25	<0.005	<2.5	<0.005
GP6-11	11	4/29/2008	<0.10	<1.0	<0.080	<0.080	<0.10	<5.0	<0.10	<50	<0.10
GP7-8	8	4/30/2008	<0.050	<0.50	<0.040	<0.040	<0.050	<2.5	<0.050	<25	<0.050
GP7-19.5	19.5	4/30/2008	<0.005	<0.05	<0.004	<0.004	<0.005	<0.25	<0.005	<2.5	<0.005
GP8-8.5	8.5	5/1/2008	<0.050	<0.50	<0.040	<0.040	<0.050	<2.5	<0.050	<25	<0.050
GP8-19.5	19.5	5/1/2008	<0.005	<0.05	<0.004	< 0.004	<0.005	<0.25	<0.005	<2.5	<0.005
GP9-7.5	7.5	5/1/2008	<0.005	<0.05	<0.004	<0.004	<0.005	< 0.25	<0.005	<2.5	<0.005
GP9-11.25	11.25	5/1/2008	<0.005	<0.05	<0.004	<0.004	<0.005	<0.25	<0.005	<2.5	<0.005
GP10-7.5	7.5	4/30/2008	<0.005	<0.05	<0.004	<0.004	<0.005	<0.25	<0.005	<2.5	<0.005
GP10-19.5	19.5	4/30/2008	<0.005	<0.05	<0.004	<0.004	<0.005	<0.25	<0.005	<2.5	<0.005
GP11-6	6	4/30/2008	<0.005	<0.05	<0.004	<0.004	<0.005	<0.25	<0.005	<2.5	<0.005

# Table VII, Summary of Soil Sample Fuel Oxygenate Analytical Results BEI Job No. 207055, Good Chevrolet 1630 Park Street, Alameda, California

	Depth					EPA M	ethod <b>8</b> 2601	B (mg/L)			
Well ID	(ft)	Sample Date	TAME	TBA	EBD	EDC	DIPE	Ethanol	ETBE	Methanol	MTBE
TABLE A. ES	Ls; Groundwater Source of Drinki	IS a Current or Potential ng Water	NV	12	0.05	0.5	NV	50,000	NV	NV	5
GP11-15.5	15.5	4/30/2008	< 0.10	<1.0	<0.080	<0.080	<0.10	<5.0	<0.10	<50	<0.10
GP11-18	18	4/30/2008	<0.020	<0.20	<0.016	<0.016	<0.020	<1.0	<0.020	<10	<0.020
GP12-7.5	7.5	4/30/2008	<0.005	<0.05	<0.004	<0.004	<0.005	<0.25	<0.005	<2.5	<0.005
GP12-11	11	4/30/2008	<0.005	<0.05	<0.004	<0.004	<0.005	<0.25	<0.005	<2.5	<0.005
GP12-15.5	15.5	4/30/2008	<0.005	<0.05	<0.004	<0.004	<0.005	<0.25	<0.005	<2.5	<0.005
GP13-7.25	7.25	4/30/2008	<0.005	<0.05	<0.004	<0.004	<0.005	<0.25	<0.005	<2.5	<0.005
GP13-11	11	4/30/2008	<0.005	<0.05	<0.004	<0.004	<0.005	<0.25	<0.005	<2.5	<0.005
GP13-14	14	4/30/2008	<0.005	<0.05	<0.004	<0.004	<0.005	<0.25	<0.005	<2.5	<0.005
GP14-7.5	7.5	4/30/2008	<0.005	<0.05	<0.004	<0.004	<0.005	<0.25	<0.005	<2.5	<0.005
GP14-11	11	4/30/2008	<0.005	<0.05	<0.004	<0.004	<0.005	<0.25	<0.005	<2.5	<0.005
GP15-7.5	7.5	4/30/2008	<0.005	<0.05	<0.004	< 0.004	<0.005	<0.25	<0.005	<2.5	<0.005
GP16-7.5	7.5	5/1/2008	<0.005	<0.05	<0.004	<0.004	<0.005	<0.25	<0.005	<2.5	<0.005
GP16-10.5	10.5	5/1/2008	<0.005	<0.05	<0.004	<0.004	<0.005	<0.25	<0.005	<2.5	<0.005
GP17-7.5	7.5	5/1/2008	<0.005	<0.05	<0.004	< 0.004	<0.005	<0.25	<0.005	<2.5	<0.005
GP17-11.5	11.5	5/1/2008	<0.005	<0.05	<0.004	< 0.004	<0.005	<0.25	<0.005	<2.5	<0.005
GP18-7.5	7.5	5/1/2008	<0.005	<0.05	<0.004	<0.004	<0.005	<0.25	<0.005	<2.5	<0.005
GP18-10	10	5/1/2008	<0.005	<0.05	<0.004	<0.004	<0.005	<0.25	<0.005	<2.5	<0.005
GP19-7	7	5/1/2008	<0.005	<0.05	<0.004	<0.004	<0.005	<0.25	<0.005	<2.5	<0.005
GP20-8	8	5/1/2008	<0.005	<0.05	<0.004	<0.004	<0.005	<0.25	<0.005	<2.5	<0.005
GP21-7.5	7.5	5/2/2008	<0.005	<0.05	<0.004	<0.004	<0.005	<0.25	<0.005	<2.5	<0.005

# Table VII, Summary of Soil Sample Fuel Oxygenate Analytical Results BEI Job No. 207055, Good Chevrolet 1630 Park Street, Alameda, California

	Depth					EPA M	ethod 8260)	3 (mg/L)			
Well ID	(ft)	Sample Date	TAME	TBA	EBD	EDC	DIPE	Ethanol	ETBE	Methanol	MTBE
TABLE A. ES	FABLE A. ESLs; Groundwater IS a Current or Potential Source of Drinking Water		Ŵ	12	0.05	0.5	74	50,000	NV	NΔ	5
GP21-15.5	15.5	5/2/2008	<0.005	<0.05	<0.004	<0.004	<0.005	<0.25	<0.005	<2.5	<0.005
GP21-19.5	19.5	5/2/2008	< 0.005	<0.05	<0.004	<0.004	<0.005	<0.25	<0.005	<2.5	<0.005
GP22-10.5	10.5	5/2/2008	<0.20	<2.0	<0.16	<0.16	<0.20	<10	<0.20	<100	<0.20
GP22-15.5	15.5	5/2/2008	<0.005	<0.05	<0.004	<0.004	<0.005	<0.25	<0.005	<2.5	<0.005
GP23-7.5	7.5	5/2/2008	<0.005	<0.05	<0.004	<0.004	<0.005	<0.25	<0.005	<2.5	<0.005
GP23-11.5	11.5	5/2/2008	<0.005	<0.05	<0.004	<0.004	<0.005	<0.25	<0.005	<2.5	<0.005
GP23-16	16	5/2/2008	<0.005	<0.05	<0.004	<0.004	<0.005	<0.25	<0.005	<2.5	<0.005
GP24-8.5	8.5	5/2/2008	<1.0	<10	<0.80	<0.80	<1.0	<50	<1.0	<500	<1.0
GP24-19.5	19.5	5/2/2008	<0.005	<0.05	<0.004	<0.004	<0.005	<0.25	<0.005	<2.5	<0.005

Notes:

ESLs = Environmental Screening Levels

TAME = Methyl tert-Amyl Ether

TBA = tert-Butyl Alcohol

EDB = 1,2-Dibromoethane

EDC or 1,2-DCA = 1,2-Dichloroethane

DIPE = Di-isopropyl ether

ETBE = Ethyl tert-butyl ether

MTBE = Methly tert-butyl ether

(μg/L) = Micrograms per liter

NV = No value

NA = Not analyzed

Bold results indicate detectable analyte concentrations.

Note: Shaded cell indicates that detected concentration exceeds ESL

# Table B-1, Summary of Groundwater Well Construction Details BEI Job No. 207055, Good Chevrolet 1630 Park Street, Alameda, California

Well ID	Installation Date	Bore Depth (feet, bgs)	Well Completion Depth (feet, bgs)	Screen Interval (feet, bgs)	Casing Diameter / Slot Size (inches)	Measured Depth (April 3, 2008) *	Intallation Consultant
MW-1	1/15/1987	20	20	5 - 20	2 / 0.020	15.63 / 16.03	GTI
MW-2	1/15/1987	20	20	5 - 20	2 / 0.020	18.22 / 18.22	GTI
MW-3	1/15/1987	20	20	5 - 20	2 / 0.020	15.10 / 15.16	GTI
MW-4	4/20/1994	23	23	8 - 23	2/0.010	22.48 / 22.50	GP
MW-5	4/20/1994	22	22	7 - 22	2 / 0.010	20.55 / 21.60	GP

Notes:

bgs = Below grade surface

GTI = Groundwater Technology, Inc.

GP = GeoPlexus, Inc.

\* = Pre-/Post-redevelopment.

Hard bottoms are reported for all wells. No previous total depth measurements are available.

## JoAnn Stewart - Good Chevrolet

Mark Detterman [MDetterman@blymyer.com] From:

Thursday, June 05, 2008 11:30 AM Sent:

JoAnn Stewart - Good Chevrolet To:

Subject: Additional Data - Lab Results

JoAnn.

I thought it best to also send you the analytical data generated during the last couple of months, on which the figures just sent are based. Tables II and IV are perhaps the key tables, although all are pertinent to understanding the site. At the top of these two tables are listed the "generic" goal for groundwater beneath the site to give you an idea of the relative difference between the existing concentrations and generic goals. All results are bolded if detected, and shaded if over the generic goal for the chemical compound. We can review these in more detail later, but please note that "grab" groundwater samples are always notoriously high, and are not comparable to data collected from wells. They are a quick reconnaissance tool and give a quick understanding of groundwater at that location, but must always be followed up by wells to refine the actual chemical concentrations.

Mark Detterman Senior Geologist PG, CEG mdetterman@blymyer.com

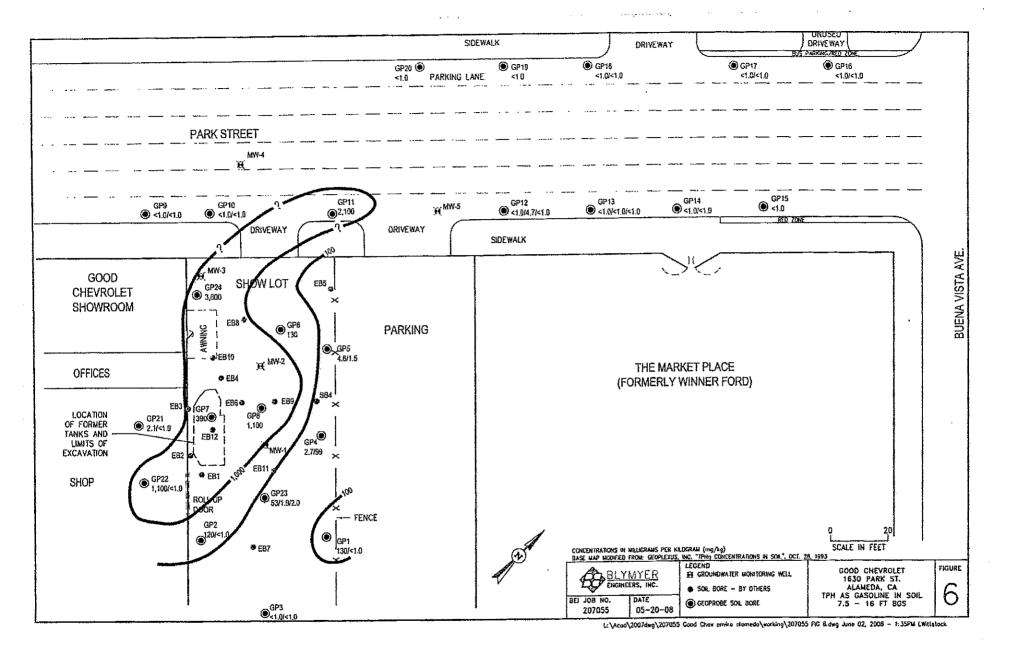
Blymyer Engineers, Inc. 1829 Clement Ave.

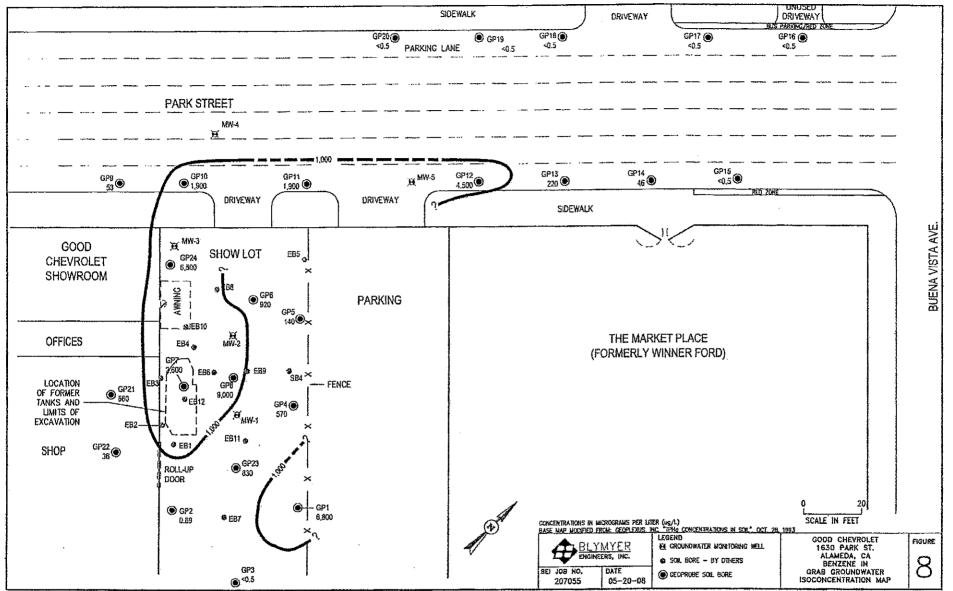
Alameda, CA 94501 Direct: 510.747.3068

Office: 510.521.3773

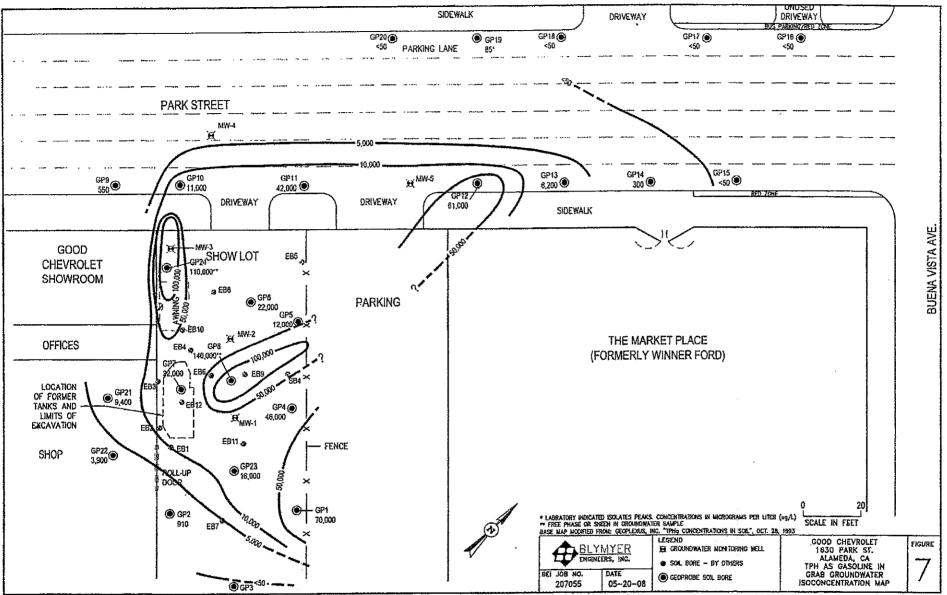
800.753.3773

Fax: 510.865.2594





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L: \Acod\2007dwg\207055 Good Chev envira alameda\working\207055 FIG 7.dwg June 02, 2008 — 1:35PM LWittstock

# APPENDIX C COST ESTIMATE SUMMARIES

### Appendic C Remedial Option Cost Estimates

Excavation and disposal (5225 sq ft by 12 ft deep)			
Shoring (20 ft along sidewalk), installation, 3 weeks rental, removal	\$ 33,500.00	1 \$	33,500.00
Monitoring well decommissioning	\$ 8,000.00	1 \$	8,000.00
Dewatering system installation	\$ 94,000.00	1 \$	94,000.00
Excavate approximately 3650 tons, soil handling and stockpiling, backfilling	\$ 49.50	3650 \$	180,675.00
Transportation and disposal of impacted soils	\$ 68.25	2200 \$	150,150.00
Sample analyses (sidewall re-use) and reporting	\$ 25,000.00	1 \$	25,000.00
Other tasks		\$	491,325.00
Data gaps investigation (well, conduit survey; vapor survey, add'l MWs)	\$ 28,000.00	1 \$	28,000.00
Groundwater Monitoring (quarterly for 1 year, semi-annual for 2 additional years)	\$ 4,250.00	8 \$	34,000.00

Closure tasks (report, well & system decommissioning)

Estimated total: \$ 596,325.00

1 \$

43,000.00 105,000.00

43,000.00

### Appendic C Remedial Option Cost Estimates

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Install initial 3 extraction wells & 1 sparge well	\$ 17,500.00	1	\$ 17,500.00
HVDPE equipment and operation*	\$ 190,000.00	1	\$ 190,000.00
Data analysis and scale-up design	\$ 12,500.00	1	\$ 12,500.00
Additional remediation wells (12 extraction & 4 sparge wells estimated)	\$ 51,000.00	1	\$ 51,000.00
Monthly monitoring, data analysis, optimization	\$ 6,500.00	4	\$ 26,000.00
4th month of HVDPE system operation	\$ 60,000.00	1	\$ 60,000.00
			\$ 357,000.00
Other tasks			
Data gaps investigation (well, conduit survey; vapor survey, add'l MWs)	\$ 28,000.00	1	\$ 28,000.00
Excavation and disposal of oil impacted soil (515 tons estimated)	\$ 106.00	515	\$ 54,590.00
Groundwater Monitoring (quarterly for 1 year, semi-annual for 2 additional years)	\$ 4,250.00	8	\$ 34,000.00
Closure tasks (report, well & system decommissioning)	\$ 32,000.00	1	\$ 32,000.00
			\$ 148,590.00

Estimated total: \$ 505,590.00

 $<sup>^{\</sup>ast}$  Quote from CalClean, Inc: includes mobilization, operation for 3 months, water & vapor treatment, AQMD permitting and sampling

### Appendic C Remedial Option Cost Estimates

Ozone sparge system with vapor control			
Field pilot test for ROI determination	\$ 14,000.00	1 \$	14,000.00
Laboratory bench pilot test	\$ 18,000.00	1 \$	18,000.00
System design, engineering, drafting and project coordination	\$ 10,000.00	1 \$	10,000.00
20 point sparge system package unit	\$ 68,000.00	1 \$	68,000.00
Install sparge wells	\$ 2,700.00	19 \$	51,300.00
Conduit, line, and compound installation	\$ 24,500.00	1 \$	24,500.00
Vapor control piping and system installation	\$ 20,000.00	1 \$	20,000.00
Vapor control blower system (permitting, blower package, abatement)	\$ 31,500.00	1 \$	31,500.00
System startup and optimimization	\$ 16,000.00	1 \$	16,000.00
Monthly routine O&M	\$ 3,100.00	30 \$	93,000.00
Annual non-routine maintenance and replacement	\$ 7,500.00	2.5 \$	18,750.00
		\$	365,050.00
Other tasks			
Data gaps investigation (well, conduit survey; vapor survey, add'l MWs)	\$ 28,000.00	1 \$	28,000.00
Groundwater Monitoring (quarterly to 1 year after operation, semi-annual for 2 additional years	\$ 5,150.00	16 \$	82,400.00
Closure tasks (report, well & system decommissioning)	\$ 43,000.00	1 \$	43,000.00
		\$	153,400.00

Estimated total: \$ 518,450.00