



# AEI Consultants

Environmental & Engineering Services

February 3, 2012

## CORRECTIVE ACTION PLAN

**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:**

AEI Consultants  
2500 Camino Diablo  
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February 3, 2012

Ms. Karel Detterman  
Alameda County Environmental Health  
1131 Harbor Bay Parkway, Suite 250  
Alameda, California 94502

**Subject: Perjury Statement and Report Transmittal**

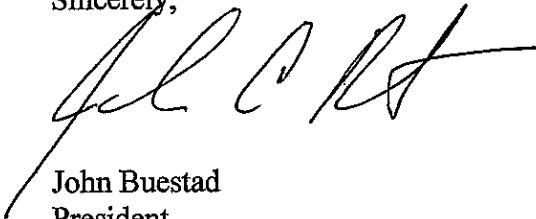
1600 – 1630 Park Street  
Alameda, California 94501  
AEI Project No. 298931  
ACEH RO#0000008

Dear Ms. Detterman:

I declare under penalty of perjury, that the information and/or recommendations contained in the attached report for the above-referenced site are true and correct to the best of my knowledge.

If you have any questions or need additional information, please do not hesitate to call me at (510) 523-1925 or Mr. Peter McIntyre at AEI Consultants, (925) 746-6004.

Sincerely,



John Buestad  
President

JB/pm

Attachment

cc: Mr. Peter McIntyre, AEI Consultants, 2500 Camino Diablo, Walnut Creek, CA 94597

# TABLE OF CONTENTS

<b>1.0 PROPERTY OVERVIEW .....</b>	<b>1</b>
1.1 Property Description.....	1
1.2 Planned Development Project .....	2
<b>2.0 SITE HISTORY .....</b>	<b>2</b>
2.1 Prior Environmental Work.....	2
<b>3.0 CONCEPTUAL SITE MODEL.....</b>	<b>3</b>
3.1 Geologic Setting and Hydrology.....	3
3.2 Release Occurrence .....	4
3.3 Contaminants of Concern .....	4
3.4 Soil Contamination.....	5
3.5 Groundwater Contamination .....	6
3.6 Well Search.....	6
3.7 Preferential Pathway Study.....	6
3.8 Receptors and Exposure Pathways .....	6
<b>4.0 FEASIBILITY STUDY.....</b>	<b>8</b>
4.1 Equipment .....	8
4.2 Fieldwork .....	8
4.3 Vapor Extraction.....	8
4.4 Groundwater Extraction.....	9
<b>5.0 CORRECTIVE ACTION.....</b>	<b>10</b>
5.1 Remedial Goals and Objectives .....	10
5.2 Screening Criteria for Corrective Action Alternatives .....	11
5.3 Planned Site Development .....	12
<b>6.0 REMEDIAL ALTERNATIVES.....</b>	<b>12</b>
6.1 Soil Excavation .....	12
6.2 High Vacuum Dual Phase Extraction .....	13
6.3 In Situ Chemical Oxidation.....	15
6.4 Alternative Evaluation.....	16
<b>7.0 RECOMMENDED METHOD.....</b>	<b>17</b>
<b>8.0 CONTINUED REMEDIAL ACTION.....</b>	<b>17</b>
8.1 Additional Remediation Well Installation.....	18
<b>9.0 REPORTING.....</b>	<b>18</b>
<b>10.0 REFERENCES.....</b>	<b>19</b>
<b>11.0 REPORT LIMITATIONS .....</b>	<b>20</b>

## FIGURES

FIGURE 1	SITE LOCATION MAP
FIGURE 2	SITE LAYOUT MAP
FIGURE 3	SITE MAP
FIGURE 4	FENCE DIAGRAM
FIGURE 5	A – A' FENCE DIAGRAM
FIGURE 6	B – B' FENCE DIAGRAM
FIGURE 7	TPH-G IN SOIL
FIGURE 8	TPH-G IN GROUNDWATER
FIGURE 9	WELL SEARCH LOCATION MAP
FIGURE 10	GROUNDWATER CAPTURE

## TABLES

TABLE 1	SOIL SAMPLE ANALYTICAL DATA, TPH, MBTEX, AND POG
TABLE 2	SOIL SAMPLE ANALYTICAL DATA, VOCs, FUEL OXYGENATES, SVOCs, AND PCBs
TABLE 3	GROUNDWATER SAMPLE ANALYTICAL DATA, TPH, MBTEX AND TRPH
TABLE 4	GROUNDWATER SAMPLE ANALYTICAL RESULTS 2011, VOCs, FUEL OXYGENATES, SVOCs, AND PCBs
TABLE 5	SOIL SAMPLE ANALYTICAL DATA, METALS
TABLE 6	GROUNDWATER SAMPLE ANALYTICAL DATA, METALS
TABLE 7	WELL CONSTRUCTION DETAILS
TABLE 8	GROUNDWATER ELEVATION DATA
TABLE 9	GROUNDWATER MONITORING ANALYTICAL DATA
TABLE 10	HYDROCARBON MASS CALCULATION (TPH-G)
TABLE 11	WELL SEARCH TABLE
TABLE 12	SUMMARY OF SELECT HVDPE EVENT DATA
TABLE 13	VAPOR RADIUS OF INFLUENCE
TABLE 14	PORE EXCHANGE VOLUME CALCULATION
TABLE 15	GROUNDWATER RADIUS OF INFLUENCE
TABLE 16	HYDROCARBON MASS REMOVAL IN GROUNDWATER

## APPENDICES

APPENDIX A	PLANNED DEVELOPMENT LAYOUT
APPENDIX B	CALCLEAN REPORT
APPENDIX C	REMEDIAL COST ESTIMATES



February 3, 2012

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

**Subject: 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 Corrective Action Plan (CAP) on behalf of Foley Street Investments, developer of the subject site (Figures 1 and 2). The subject of this CAP 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 CAP has been prepared following discussion with the Alameda County Environmental Health Department (ACEHD) which is the agency with regulatory oversight of the LUST case.

## 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.

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 (Figures 2 and 3).

## 1.2 Planned Development Project

The developer 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 (AEI 2011a), 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-gallon 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. The 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 (GTI 1987).
- 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 (GeoPlexus 1993). 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.
- 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 (GeoPlexus 1997). 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 1998). GeoPlexus presented an argument for "low risk" closure however case closure was not granted.
- 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.
- In June 2011, a Phase I ESA was conducted for the subject property as detailed in a report dated July 5, 2011 (AEI 2011a).

- In July 2011, a subsurface investigation was conducted at 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* (AEI 2011b) prepared by AEI.
- An *Interim Corrective Action Plan* (ICAP) dated September 28, 2011 (AEI 2011c) was submitted and followed by an *ICAP Comment Letter Response and Pilot Test Workplan Details* dated November 14, 2011 (AEI 2011d). Both documents proposed the performance a high vacuum dual phase extraction (HVDPE) event at the site. A review of multiple remedial options for the site was discussed in these documents and a HVDPE event was considered the most feasible option for the site given the site conditions.
- In November 2011, extraction wells DPE-1 to DPE-3 and air sparge well AS-1 were installed. In early December, three vacuum monitoring points VP-1 to VP-3 were installed and pilot testing began. Results of the HVDPE event were preliminarily provided in the *Investigation and Remedial Action Workplan* dated January 12, 2012 (AEI 2012). The work plan also proposed the advancement of additional borings and the installation of extraction wells. In January 2012, borings AEI-20 through AEI-28 were advanced and wells DPE-4 through DPE-6, and DPE-8 through DPE-11 were installed. In addition, DPE-7 was advanced as a boring instead of being completed as a well. Information from these borings and wells is incorporated in this report. The data has helped to define the extent of impacted soil and groundwater and identify target areas for ongoing remedial action. The submittal of a formal investigation and well installation report under separate cover is planned.
- Groundwater monitoring and sampling was conducted approximately quarterly from 1992 through 1995, then sporadically through 2003, once in 2008, and in 2011 and 2012. Information from groundwater monitoring and sampling events in December 6, 2011 and January 24, 2012 is incorporated in this report. The submittal of groundwater monitoring and sampling reports for these events under separate cover is planned.

Site data is presented in Figures 3 through 8 and in Tables 1 through 9.

### **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 1997). 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 is a tidal canal connected to the San Francisco Bay located approximately 1,800 feet to the northeast of the site.

Based on previous investigations at the site, groundwater is first observed in the temporary direct push borings at depths of approximately 9 to 11 feet below ground surface (bgs) and stabilizes 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  $1 \times 10^{-2}$  to  $2 \times 10^{-2}$  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 through 6 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 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 of 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.



Contaminant	Maximum Concentration in Soil			Maximum Concentration in Groundwater		
	mg/kg	Date	Sample ID	µg/l	Date	Sample ID
TPH-g	15,000	10/15/1993	EB2-2S	200,000	7/25/2011	AEI-4-W
Benzene	84	10/15/1993	EB2-2S	21,000	7/25/2011	AEI-4-W
Toluene	710	10/15/1993	EB2-2S	30,000	7/25/2011	AEI-4-W
Ethyl benzene	260	10/15/1993	EB2-2S	4,400	1/17/2012	AEI-20
Xylenes	1,400	10/15/1993	EB2-2S	21,000	5/1/2008	GP8W
MTBE	9.3	1/21/1997	EB10-S1	110	1/21/1997	EB12-WS1
TPH-d	10,000	7/25/2011	AEI-6-7'	120,000	7/25/2011	AEI-6-W
TPH-mo	24,000	7/25/2011	AEI-6-7'	300,000	7/25/2011	AEI-6-W

TPH-g = Total petroleum hydrocarbons as gasoline

TPH-d = Total petroleum hydrocarbons as diesel

TPH-mo = Total petroleum hydrocarbons as motor oil

MTBE = Methyl tertiary butyl ether

### 3.4 Soil Contamination

Gasoline impacted soil is centered on the former UST hold 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). Based on the results of previous investigations including a subsurface investigation in July 2011 (AEI 2011b), it appears that oil impacts to the subsurface are localized around the former piston areas.

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 (Figures 4 through 6). At distance from the release area, the thickness of impacted soil generally decreases to approximately 3 to 4 feet, as observed in recent borings AEI-22, AEI-23, and AEI-28.

An estimate of the hydrocarbon mass in soil based the data from the site was performed (Table 10). This estimate is inherently inaccurate due to the limitations in estimating values within a complex geologic environmental. As such, this estimate is useful only as estimate of the order of magnitude of the hydrocarbon mass.

### **3.5 Groundwater Contamination**

The dissolved phase plume is also centered on the former UST hold and spreads generally in a northwesterly direction (Figure 8). The higher concentrations of the dissolved phase plume are generally defined in each direction. Based on the dissolved-phase and groundwater sampling from the soil borings, it appears that the length of the plume at this site is no more than approximately 200 feet in length. Based on groundwater monitoring data, concentrations have generally decreased over the last 10 years.

An estimate of the hydrocarbon mass in groundwater based the data from the site was performed (Table 10). This estimate is inherently inaccurate due to the limitations in estimating values within a complex geologic environmental. As such, this estimate is useful only as estimate of the order of magnitude of the hydrocarbon mass.

### **3.6 Well Search**

In January 2012, a 2,000-foot radius well search was requested and received from the Alameda County Department of Public Works (ACDPW). The results of the well search were reviewed and wells which appeared to be associated with monitoring or remediation at other sites or soil borings were excluded from the review. According to the results of the well search, ten (10) wells are located within 2,000 feet of the property (Figure 9 and Table 11).

Based on the dissolved-phase and groundwater sampling from the soil borings, it appears that the length of the plume at the site is no more than approximately 200 feet in length. None of the wells noted in this well search are located within the expected plume length for this site. As such, none of the listed wells are expected to be impacted by the hydrocarbons at the site.

### **3.7 Preferential Pathway Study**

A preferential pathway study is currently underway for the site. A review of a previous utility map for the site was completed along with field work to identify significant utilities in the area of the site. The results of this study will be presented under separate cover.

### **3.8 Receptors and Exposure Pathways**

Potential exposure pathways and receptors were evaluated based on the current site usage. Potentially complete exposure pathways and receptors are identified based on the following criteria:

- A source and mechanism of chemical release;
- One or more retention or transport media;
- A potential exposure point with the media; and
- An exposure route at the point of contact.

The site is currently improved with a two-story showroom and office building. The developer plans to demolish the existing buildings and construct two commercial buildings. The remainder

of the development site will be improved with paved parking areas and landscaping. As such, the potential exposure pathways and receptors were evaluated for the following:

- Commercial workers
- Construction workers
- Sensitive receptors

### **Soil (Near or Subsurface)**

The site has a paved surface. The direct exposure pathway for near surface soil is considered incomplete for commercial workers and potentially complete for construction workers. Commercial workers are not expected to come into contact with subsurface soils whereas construction workers may contact these soils if excavation at the site is performed.

### **Air (Indoor and Outdoor)**

The vapor intrusion pathway from impacted soil and/or groundwater to indoor or outdoor air is potentially complete where volatile contaminants are present in shallow soils beneath a structure which can be occupied.

### **Groundwater**

The direct exposure pathway for impacted groundwater is considered incomplete for commercial workers. According to the East Bay Municipal Utility District (EBMUD) *2010 Annual Water Quality Report*, drinking water is supplied by the EBMUD and the source of the water is the Mokelumne River watershed in the Sierra Nevada.

The direct exposure pathway for impacted groundwater is considered potentially complete for construction workers. Construction workers may contact with groundwater if excavation at the site is performed.

The direct exposure pathway for nearby wells is considered incomplete. None of the nearby wells are expected to be impacted by the site according to the well search (Section 3.6) considering the length of plume discussed in Section 3.5.

### **Surface Water**

The direct exposure pathway from impacted groundwater to surface water is considered incomplete. The nearest surface water is a tidal canal connected to the San Francisco Bay located approximately 1,800 feet to the northeast of the site. Based on the dissolved-phase and groundwater sampling from the soil borings, it appears that the length of the plume at the site is no more than approximately 200 feet in length. Based on the distance to the nearest water body, surface water is not expected to be impacted by the concentrations of hydrocarbons at the site.

## **4.0 Feasibility Study**

From December 5, 2011 to January 9, 2012, CalClean, Inc. (CalClean) of Tustin, California performed a HVDPE event under the oversight of AEI. The work performed was proposed as part of an interim corrective action and feasibility study which was previously proposed (AEI 2011c and AEI 2011d). Preliminary results of this work were previously submitted (AEI 2012). A report from CalClean is included as Appendix B.

DPE is a technique of applying a high vacuum or negative pressure on an extraction well and the formation in order to enhance the liquid recovery of that well and while also increasing the mass removal of volatile and semi volatile contaminants by maximizing dewatering and facilitating volatilization from previously saturated sediments via the increased air movement.

### **4.1 Equipment**

The event was performed using a low-noise truck-mounted 450-CFM high vacuum liquid ring blower and a propane-fired thermal oxidizer. The thermal oxidizer was permitted with the Bay Area Air Quality Management District with a various locations permit.

The extracted groundwater was treated through two 500-pound vessels in series filled with granular activated carbon. The treated groundwater was discharged to the onsite sewer system in accordance with a Special Discharge Permit from the EBMUD.

A Horibia organic vapor analyzer was used to measure the system influent concentrations of hydrocarbons in the field. Vapor samples were collected from the individual extraction wells and from the system inlet and submitted for laboratory analysis. Magnahelic vacuum gauges were used to measure the vacuum readings for the system and for the extraction and observation wells. A totalizer water meter was used to measure the amount of water extracted.

### **4.2 Fieldwork**

During the event, the DPE system was connected to extraction wells DPE-1, DPE-2, DPE-3, and MW-2 individually or in combination. Wells which were not used for extraction were instead used for observation. Additional observation wells included wells MW-1 through MW-3, and VP1 through VP3. Well MW-3 was temporarily connected as an extraction well and well AS-1 was temporarily connected as a sparging well. The DPE activities were conducted for a total of 35 days.

Baseline depth-to-water measurements were obtained from wells AS-1, DPE-1, DPE-2, DPE-3, and MW-1 through MW-3 prior to the event (Table 12).

### **4.3 Vapor Extraction**

During the event, the system parameters were collected and included in the report by CalClean (Appendix B). These system parameters were the system vacuum in inches of Hg, the total system inlet flow in standard cubic feet per minute (scfm), and the influent concentrations in parts per million by volume (ppmv).

The average unit vacuum ranged from 15 to 22 inches of mercury (inches of Hg) and the average total system inlet flow ranged from 89 to 177 scfm (Appendix B, Table 2).

The extraction casing vacuum(s) in inches of Hg were also measured along with the induced vacuum measurements in the observation wells in inches of H<sub>2</sub>O. Field data from the event is included with the report by CalClean (Appendix B). Data from the end of an operation of one or more extraction wells and used for data analysis is summarized in Table 12.

The vapor extraction radius of influence (ROI) is typically defined as the distance corresponding to an induced vacuum of 0.1 inches of H<sub>2</sub>O (EPA 2004). An ROI is estimated as the intersection at 0.1 inches of H<sub>2</sub>O of the line created by the linear regression of the induced vacuum of the observation wells versus the log of the distances from an extraction well to the observation wells. The observed induced vacuum in vapor probes VP-1 through VP-3 and all other observation wells were used separately to calculate the ROIs for the extraction wells. The average of the calculated ROIs for the extraction wells was 19 feet using the vapor probes as observation wells and as 30 feet using all other wells (Table 13).

A pore volume exchange volume calculation was performed based on the information from the event. The exchange rate is calculated by dividing the soil pore space within the treatment zone by the design vapor extraction rate (EPA 2004). The average number of pore volumes exchanged per day was calculated as 10.12 (Table 14). An exchange rate of at least one pore volume per day is considered a minimum for vapor extraction.

The maximum vapor concentrations based on laboratory data in wells DPE-1 through DPE-3 and MW2 were 7,500 ppmv, 4,000 ppmv, 15,000 ppmv, and 1,000 ppmv, respectively. The maximum system inlet vapor concentration based on laboratory data was 7,400 ppmv. The total equivalent amount of hydrocarbons recovered through vapor extraction during the event was 6,422.16 pounds based on laboratory data and 4,274.15 pounds based on the Horiba field organic vapor analyzer data with an average of 5,348.16 pounds (approximately 891 gallons assuming a density of 6 pounds per gallon) (Appendix B, Table 1).

#### **4.4 Groundwater Extraction**

The quantity of groundwater extracted was measured at various times during the event. The rate of groundwater extraction was calculated as 0.60 gpm from DPE-1, 0.24 gpm from DPE-2, 0.43 gpm from DPE-3, 0.36 gpm from MW-2, and 0.94 gpm from a combination of wells DPE-1 through DPE-3 (Table 12).

The depth to water level measurements in the observation wells were collected. Data loggers also collected data from the wells. Field data from the event is included with the report by CalClean (Appendix B). Data from the end of an operation of one or more extraction wells and used for data analysis is summarized in Table 12.

The groundwater extraction radius of influence is estimated by examining the depth to water levels in the observation wells during the event. The longest duration extraction occurred when wells DPE-1 through DPE-3 were extracted for a period of 20.8 days which resulted in

drawdowns of 1.22, 1.04, and 0.87 feet, respectively, in wells MW-1 through MW-3 (Table 15). It is clear that the operation of the system at extraction wells DPE-1 through DPE-3 is at least effective in influencing the water levels in wells MW-1 through MW-3. Since well MW-2 is the well which is closest to an extraction well (DPE-1), the distance between MW-2 and DPE-1 of 13 feet is used as an estimate of the ROI for groundwater extraction (Figure 10).

Groundwater sampling of all extraction wells was conducted on December 6, 2011 which was at the beginning of the event and on January 24, 2012 which was after the event. A decrease in the concentrations of TPH-g and benzene in groundwater from the extraction wells was noted after the event (Table 9).

The total volume of groundwater extracted from the event was 43,530 gallons. Using this data, an average concentration and the mass of hydrocarbons removed from the event was estimated. An estimated total of 2.48 pounds of TPH-g, 0.30 pounds of benzene, 0.25 pounds of toluene, 0.10 pounds of ethylbenzene, and 0.39 pounds of xylenes were removed (Table 16).

## **5.0 Corrective Action**

### **5.1 Remedial Goals and Objectives**

Based on the California Code of Regulations, Title 23, Division 3, Chapter 16, Section 2725(g)(1), for waters with current or potential beneficial uses for which numerical objectives have been designated in water quality control plans, the responsible party shall propose at least two alternatives to achieve these objectives. The experience of the environmental industry during cleanup efforts has shown that numerical objectives may not be economically or technically attainable with the technology currently available. Typically, mass removal rates of groundwater remediation reach asymptotic levels prior to reaching numerical objectives. If asymptotic levels are reached during remedial efforts, further active remediation may not significantly reduce groundwater concentrations at rates any greater than natural processes. The reduction of petroleum hydrocarbon contaminants in the subsurface by natural processes is well documented and widely accepted. It is anticipated that following active remedial efforts that remove a large fraction of the source hydrocarbons, that residual contaminants will be monitored to demonstrate that the site will meet the numeric goals and remedial objectives within a reasonable time frame as a result of natural attenuation processes.

The *San Francisco Bay Region (Region 2) Water Quality Control Plan (Basin Plan)* dated December 31, 2010 was reviewed. According to the Basin Plan, the site lies within Basin 2-9.04 which is identified as the Santa Clara Valley Basin, East Bay Plain Sub-basin which is identified with the following existing beneficial uses: Municipal and domestic water supply; industrial process and service water supply; and agricultural water supply. The Maximum Contaminant Levels (MCLs) as specified in the California Code of Regulations are proposed as the numerical objectives for the cleanup of BTEX and MTBE in groundwater. The Environmental Screening Levels (ESLs) issued by the Regional Water Quality Control Board (RWQCB) may be used for chemicals commonly found in groundwater at sites where releases of hazardous chemicals have occurred. The final groundwater ESLs for sites where groundwater is a current or potential

drinking water resource water resource (Table F-1a) are proposed as the numerical objectives for the cleanup of TPH-g and TPH-d in groundwater. The proposed cleanup goals are summarized below:

- TPH-g 100 µg/l
- TPH-d 100 µg/l
- Benzene 1 µg/l
- Toluene 150 µg/l
- Ethylbenzene 300 µg/l
- Xylenes 1,750 µg/l
- MTBE 5 µg/l

The ultimate remedial objectives for the site are to be protective of groundwater quality and human health. Interim corrective action was previously proposed (AEI 2011c and AEI 2011d) and implemented (AEI 2012) in order to begin to remove remaining source material present in the soil both above and below the water table 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-phase 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.

## 5.2 Screening Criteria for Corrective Action Alternatives

The selection of an appropriate remedial alternative for corrective action at the site is based on evaluation of the following criteria:

**Reduction of Mass:** This criterion establishes preference for an alternative that will produce permanent and significant mass reductions. The evaluation focuses on the amount of chemicals to be destroyed or treated, the type and quantity of residual chemicals that will remain after treatment, and the effectiveness of the remedial alternatives.

**Feasibility:** The evaluation focuses on the possibility of implementation given site constraints, reliability of the technology, and the ability to monitor the performance of an alternative. Each alternative requires evaluation against site-specific hydrogeologic conditions.

**Cost:** This criterion is used to assess capital and operation and maintenance (O&M) costs on a conceptual level only. Capital costs include direct costs, such as equipment purchase and site construction/development, and indirect costs, including fees for engineering design and permitting, and startup expenses. O&M costs include ongoing labor, materials, repairs, administrative fees, and reporting costs during the operating and monitoring period.

### **5.3 Planned Site Development**

The developer 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.

The development 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 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. These options were selected with the understanding that ongoing natural attenuation monitoring would be required prior to case closure once the development project has been completed.

### **6.0 Remedial Alternatives**

A discussion and evaluation of potentially feasible and effective remedial alternatives considered for interim corrective action is presented in this section. The methods presented below include the following:

- Excavation and disposal of impacted soils with dewatering and on-site treatment and disposal (sewer or storm discharge) of contaminated groundwater;
- HVDPE extraction; and
- Installation of in situ chemical oxidation (ISCO) system via ozone sparging coupled with vacuum vapor control system prior to construction of the commercial building to operate during and following construction of the commercial building.

#### **6.1 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 more expedient remedial options. Once above ground, soils can either be treated onsite (if space and time allow) or transported offsite to an appropriate disposal facility. Soil excavation can be accomplished in all fine- and coarse-grained soil types.

#### **Reduction of Mass:**

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 5,225 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 1,005 cy) and 1,510 cy would require disposal. This corresponds to approximately 2,200 tons of soil (assuming a density of 1.45 tons/cy).

### **Feasibility:**

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 and property lines. Other walls of the excavation could likely be sloped to provide adequate safety and stability.
- Some of the onsite wells 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.

### **Cost:**

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 (Appendix C).

## **6.2 High Vacuum Dual Phase Extraction**

HVDPE utilizes vacuum pumps capable of achieving relatively high applied vacuum 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 can be 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 conditions heavier range petroleum. HVDPE can be implemented by installing fixed equipment

or utilizing mobile equipment. HVDPE is more successful in relatively coarse soils where acceptable air and water flow rates can be achieved.

### **Reduction of Mass:**

In December 2011 and January 2012, a 35-day HVDPE event was performed as noted in Section 4.0. During the event, the HVDPE was connected to wells DPE-1, DPE-2, DPE-3, and MW-2 individually or in combination. These wells are located within area of greatest soil and groundwater impacts at the site (Figures 7 and 8). Additional nearby observation wells included wells MW-1 through MW-3, and VP1 through VP3.

The operation of HVDPE at the extraction wells was effective in influencing the vacuum levels and groundwater levels of the nearby observation wells at the site. The maximum system inlet vapor concentration based on laboratory data was 7,400 ppmv. The total equivalent amount of hydrocarbons recovered through vapor extraction during the event was an average of 5,348.16 pounds.

While HVDPE was effective in removing hydrocarbons from the vapor stream, it was less effective at removing hydrocarbons from the groundwater stream. The total volume of groundwater extracted from the event was 43,530 gallons. An estimated total of 2.48 pounds of TPH-g and 0.30 pounds of benzene were removed. A decrease in the concentrations of TPH-g and benzene in groundwater from the extraction wells was noted after the event.

### **Feasibility:**

Given the time constraints on implementing remedial action as well as the field-flexibility and lower capital costs of mobile equipment, the implementation of HVDPE is considered more feasible with mobile equipment rather than with a fixed-based system.

Interim corrective action was proposed (AEI 2011c and AEI 2011d) and implemented (AEI 2012) in order to begin 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. In December 2011 and January 2012, wells DPE-1 through DPE-6 and DPE-8 through DPE-11 were installed at the site. These wells are designed as part of a network of remediation wells to treat the larger source area.

It should be noted that HVDPE may be less effective at removing heavier range oils, therefore if sufficient heavier range petroleum cannot be removed and/or the concentrations remaining are not able to meet risk-based objectives, excavation or an alternative method may be required. For the purpose of estimating remedial costs, the excavation and disposal of approximately 355 cy (515 tons) is included in the estimate for HVDPE.

**Cost:**

The total cost of HVDPE is estimated at \$476,090. This includes the cost to closure, including excavation and disposal of approximately 515 tons of soil from the hydraulic lift release area (Appendix C).

**6.3 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, 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 hydrocarbon treatment. Ozone sparging involves the injection of highly concentrated ozone (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.

**Reduction of Mass:**

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.

**Feasibility:**

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).

**Cost:**

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 (Appendix C).

**6.4 Alternative Evaluation**

**Reduction of Mass and Feasibility:**

The excavation and disposal of soil is expected would be expected to be the option with the highest likelihood of directly reducing the hydrocarbon mass in the subsurface assuming that impacted soils do not 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 or sidewalk. 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.

The effectiveness of HVDPE and ozone sparging are highly dependent on the ability to move liquids and gas through the subsurface. The HVDPE event performed showed that HVDPE was effective in removing hydrocarbons from the vapor extraction portion of the event although the removal of hydrocarbons from the groundwater portion was lower. Ozone sparging is expected to be less effective than HVDPE or excavation and disposal due to the fact that it is an in-situ remedial option which does not involve the direct removal of hydrocarbons from the subsurface.

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. 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. 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.

**Cost:**

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 have the lowest costs to achieve case closure while excavation and disposal has the highest estimated cost (Appendix C).

The most significant variable in the cost of HVDPE is the time necessary to perform adequate removal. This estimate includes 4 months of extraction; based on an estimate prepared by CalClean, Inc. Each additional month of treatment could increase costs by approximately \$70,000, based on the CalClean estimate.

Ozone sparging has the lowest incremental cost if additional treatment is required of approximately \$3,100 per month. 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.

Excavation costs could increase if additional shoring is necessary or due to complications caused by shallow groundwater conditions. In 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.

## **7.0 Recommended 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 as the remedial option for the site. Concurrence of HVDPE as the remedial method using a mobile treatment system is requested from the ACEHD.

## **8.0 Continued Remedial Action**

Interim corrective action was proposed (AEI 2011c and AEI 2011d) and implemented (AEI 2012) in order to begin 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. In January 2012, borings AEI-20 through AEI-28 were advanced and wells DPE-4 through DPE-6, and DPE-8 through DPE-11 were installed. In addition, DPE-7 was advanced as a boring instead of being completed as a well. The submittal of a formal investigation and well installation report under separate cover is planned.

The HVDPE system was remobilized to the site and operation restarted on January 25, 2012. It is expected that mobile treatment of the site using HVDPE will continue based on the results of the HVDPE event. The primary objective of resumed HVDPE will be to maximize hydrocarbon recovery rates and reduce the overall mass of petroleum in and around the release area. To maximize rates, the system will be operated on a set of 3 to 4 wells until rates decline, after which that set of wells will be allowed to rebound while a new set of wells will be used for extraction. All vapor and water discharge will be performed under permits obtained by CalClean. Routine data collection will include system and wellhead vacuums, system flow rates, individual and combined total hydrocarbon concentrations (Horiba field measurements and periodic

laboratory analyses), vacuum influence, and water flow rates. Water levels will be recorded in select wells. It is expected that HVDPE may run for 2 to 4 months following the recent remobilization. The ACEHD will be updated on the schedule and provided regular updates on the operations and progress.

## **8.1 Additional Remediation Well Installation**

Based on the results of the HVDPE event, data obtained during recent soil borings and well installation work, the installation of additional extraction wells is proposed. The installation of 3 additional extraction wells is planned. The well locations have been selected to cover areas of documented significant remaining petroleum hydrocarbons (Figure 10).

Prior to mobilizing, well construction permits will be obtained from ACPWA, the site will be marked and underground service alert north 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 hollow stem auger drilling rig. Borings will be cored to log soil and determine the interval of the well screens. It is planned that DPE wells will be screened from approximately 7 to 16 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 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.

Soil samples may be collected during well installation and retained for analyses. It is expected that 1 to 2 soil samples may be analyzed for TPH as gasoline, diesel, or motor oil with silica gel cleanup (for diesel / motor oil analyses) by EPA Method 8015 and for MTBE and benzene, toluene, ethylbenzene, and xylenes by EPA Method 8021.

Upon completion of the wells, Department of Water Resources (DWR) well registration forms (DWR 188 forms) will be filed. Each of the newly installed wells, along with recently installed DPE wells and monitoring points and existing groundwater monitoring wells, will be surveyed relative to each other, mean sea level, and major site features; survey data will be uploaded to the GeoTracker database.

## **9.0 Reporting**

Subsurface investigation, well installation, and 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.

## 10.0 References

AEI Consultants (AEI) 2011a. Phase I Environmental Site Assessment, 1600 – 1650 Park Street, 1600 – 1606 Foley Street, 2329 Pacific Avenue, Alameda, California. July 5, 2011.

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

AEI Consultants (AEI) 2011c. Interim Corrective Action Plan, 1630 Park Street, Alameda, California. September 2011.

AEI Consultants (AEI) 2011d. ICAP Comment Letter Response and Pilot Test Workplan Details, 1630 Park Street, Alameda, California. November 2011.

AEI Consultants (AEI) 2012. Investigation and Remedial Action Workplan, 1630 Park Street, Alameda, California. January 12, 2012.

EPA (United States Environmental Protection Agency). 2004. How to Evaluate Alternative Cleanup Technologies for Underground Storage Tank Sites, A Guide for Corrective Action Plan Reviewers. May 2004.

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

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Helley, E.J. and R.W. Graymer (Helley, et al) 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. June 15, 1998.

## 11.0 Report Limitations

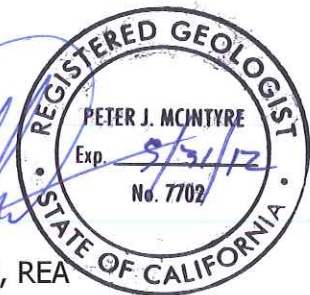
This report has been prepared by AEI Consultants relating to the property located at 1630 Park Street, in the City of Alameda, Alameda County, California. This report includes a summary of site conditions and relies heavily on information obtained from public records and other resources; AEI makes no 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 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**

  
Bryan Campbell, PG  
Program Manager

  
Peter J. McIntyre, PG, REA  
Sr. Vice President, Geologist

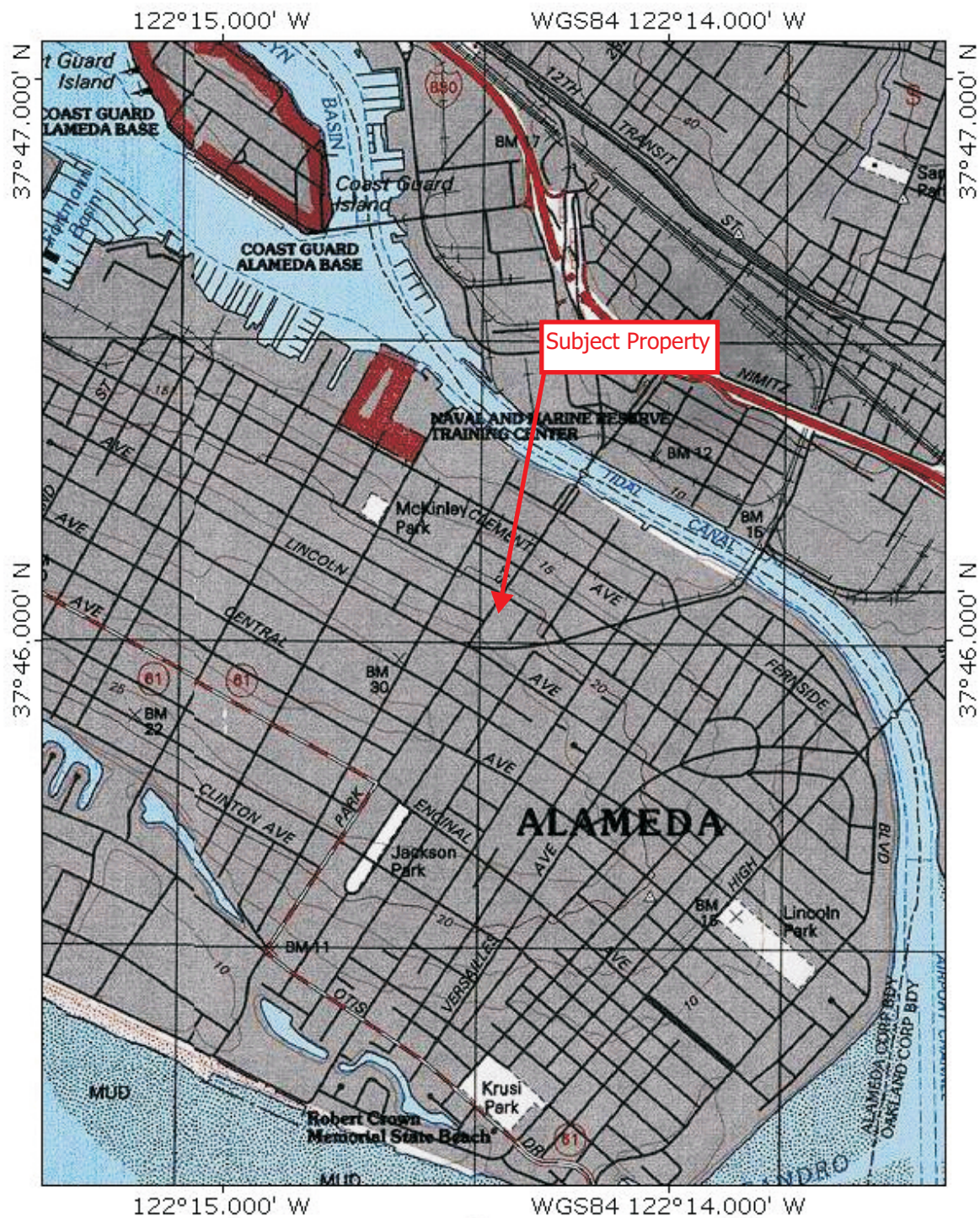


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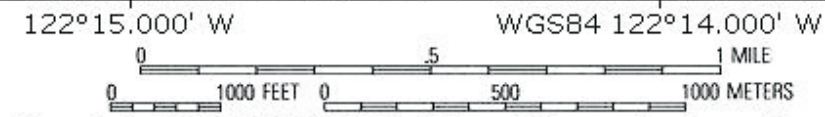
John Buestad, Foley Street Investments  
Karel Detterman, Alameda County Environmental Health Department  
GeoTracker



## FIGURES



TN  
MN  
15°



Map created with TOPO!® ©2003 National Geographic ([www.nationalgeographic.com/topo](http://www.nationalgeographic.com/topo))



WELL

## SITE LOCATION MAP

1630 Park Street, Alameda, California

FIGURE 1

Project Number: 298931

**AEI**  
Consultants



**LEGEND**



- SUBJECT PROPERTY BOUNDARY
- GEOPHYSICAL SURVEY PERIMETER
- AEI SOIL BORING (7/11)
- SOIL BORING (4/08)

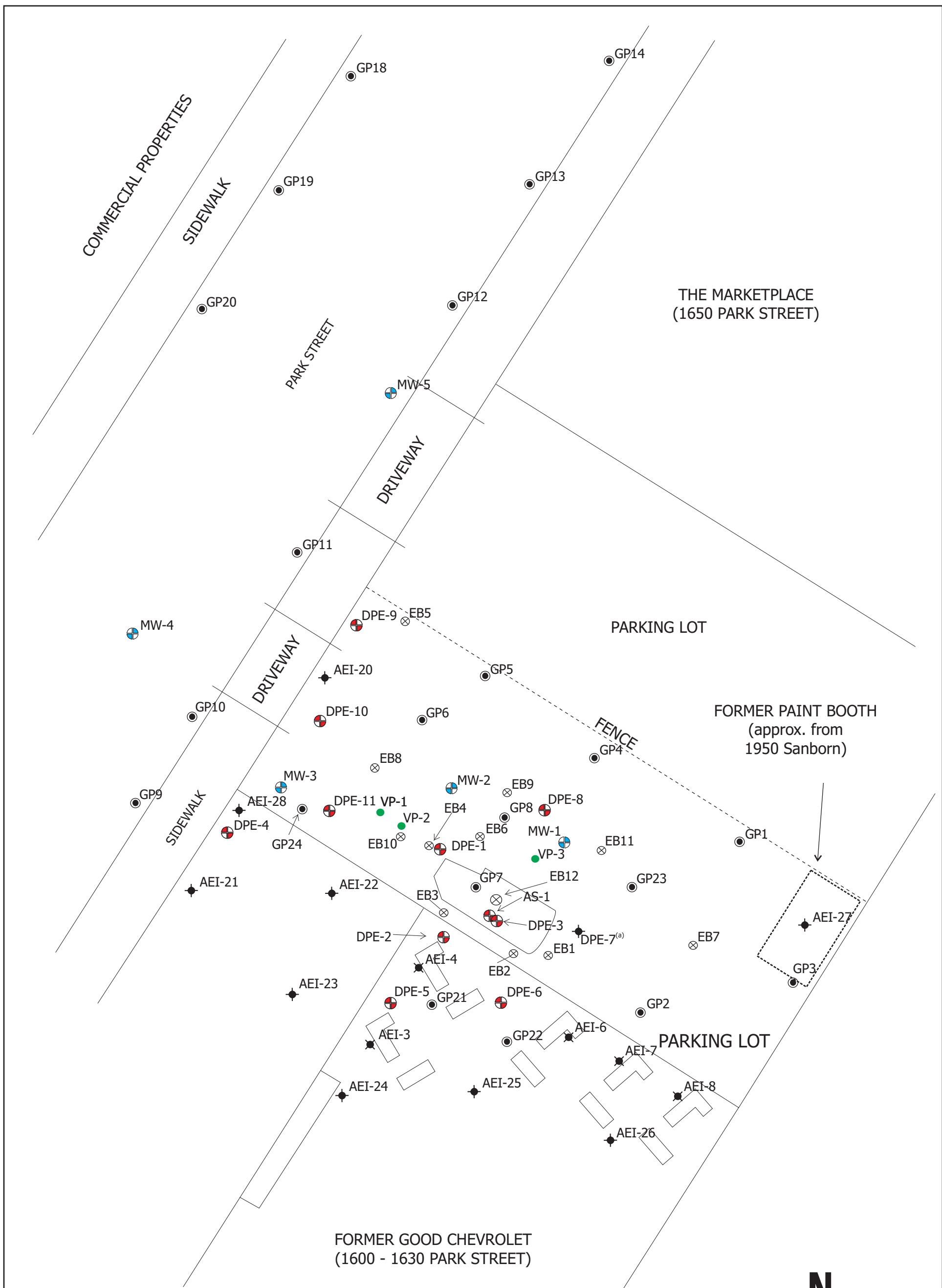
0' 110'  
APPROX. SCALE: 1 in = ~110 ft

**SITE LAYOUT MAP**

1630 PARK STREET  
ALAMEDA, CALIFORNIA


**FIGURE 2**  
JOB NO: 298931






LEGEND	
REMEDIATION WELL (12/11 AND 1/12)	
AEI SOIL BORING (1/12)	
VAPOR PROBE (12/11)	
AEI SOIL BORING (7/11)	
SOIL BORING (4/08)	
SOIL BORING (1/97)	
GROUNDWATER MONITORING WELL	

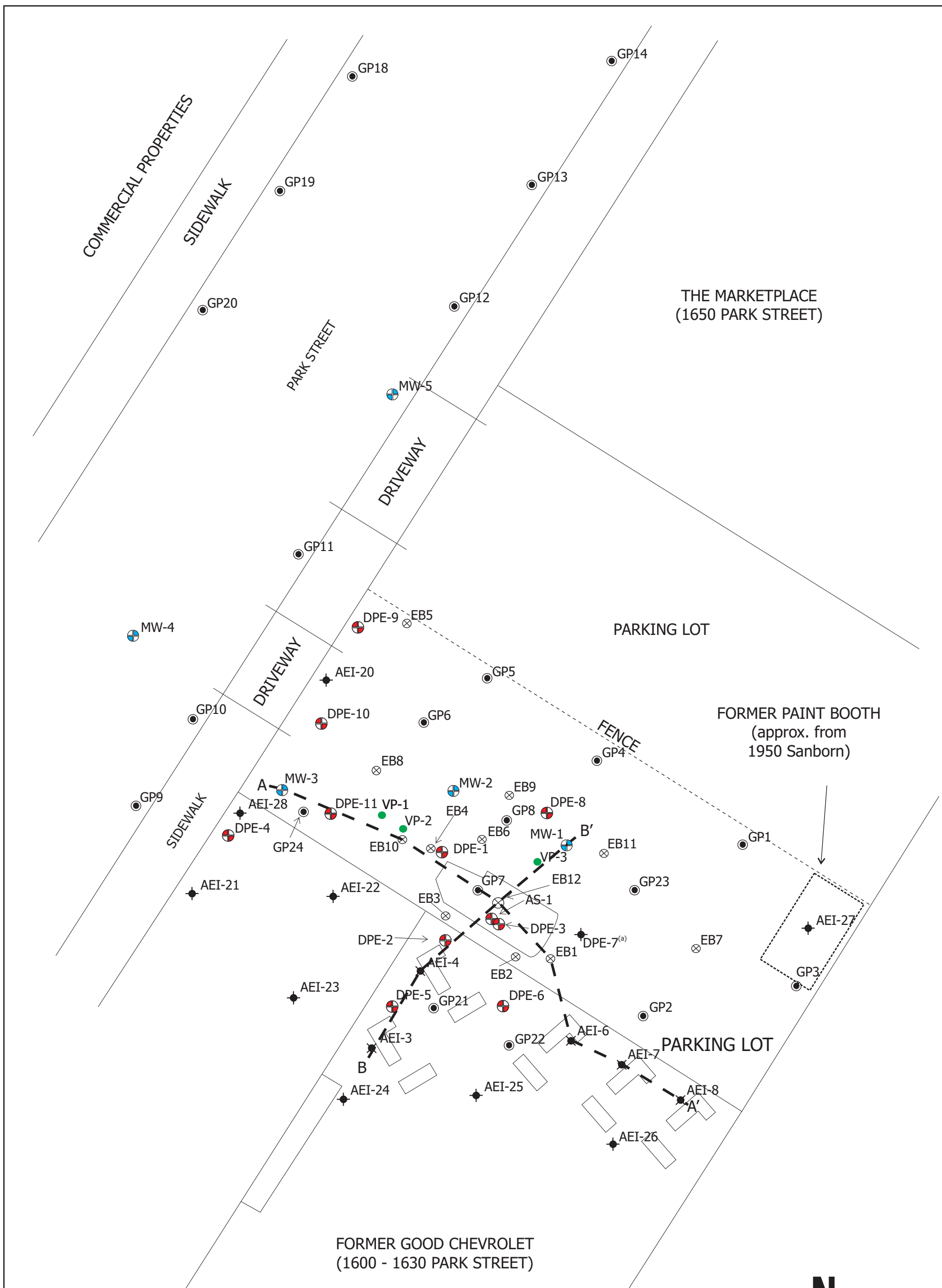
BASE MAP MODIFIED FROM: BLYMYER ENGINEERS, INC  
(a) Proposed well completed as a boring.



0'                      20'


APPROX. SCALE: 1 in = ~20 ft

<b>SITE MAP</b>	
1630 PARK STREET ALAMEDA, CALIFORNIA	
FIGURE 3	
JOB NO: 298931	




LEGEND	
REMEDIATION WELL (12/11 AND 1/12)	
AEI SOIL BORING (1/12)	
VAPOR PROBE (12/11)	
AEI SOIL BORING (7/11)	
SOIL BORING (4/08)	
SOIL BORING (1/97)	
GROUNDWATER MONITORING WELL	

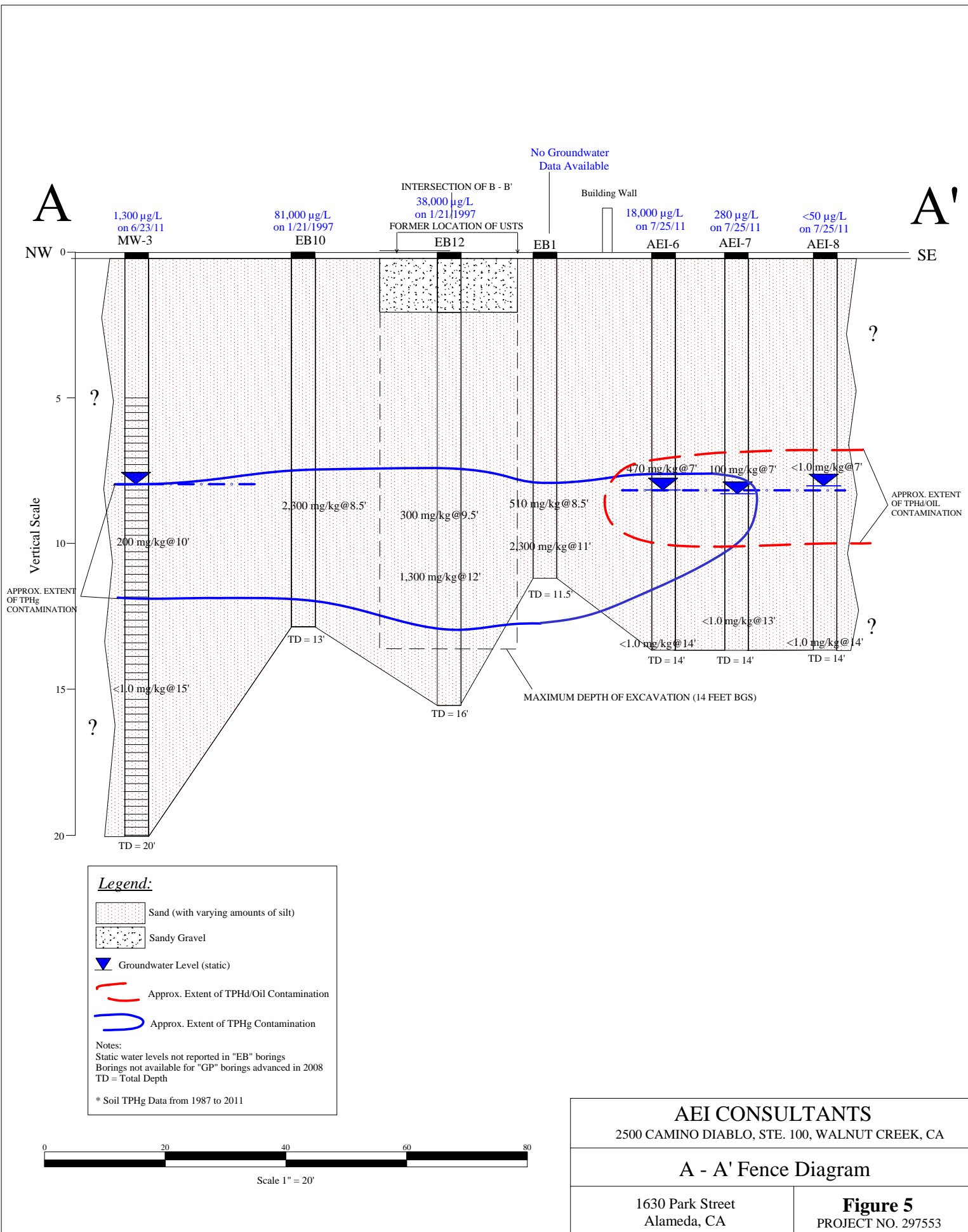
BASE MAP MODIFIED FROM: BLYMYER ENGINEERS, INC  
 (a) Proposed well completed as a boring.



0'                      20'

APPROX. SCALE: 1 in = ~20 ft

<b>FENCE DIAGRAM</b>	
1630 PARK STREET ALAMEDA, CALIFORNIA	
FIGURE 4 JOB NO: 298931	



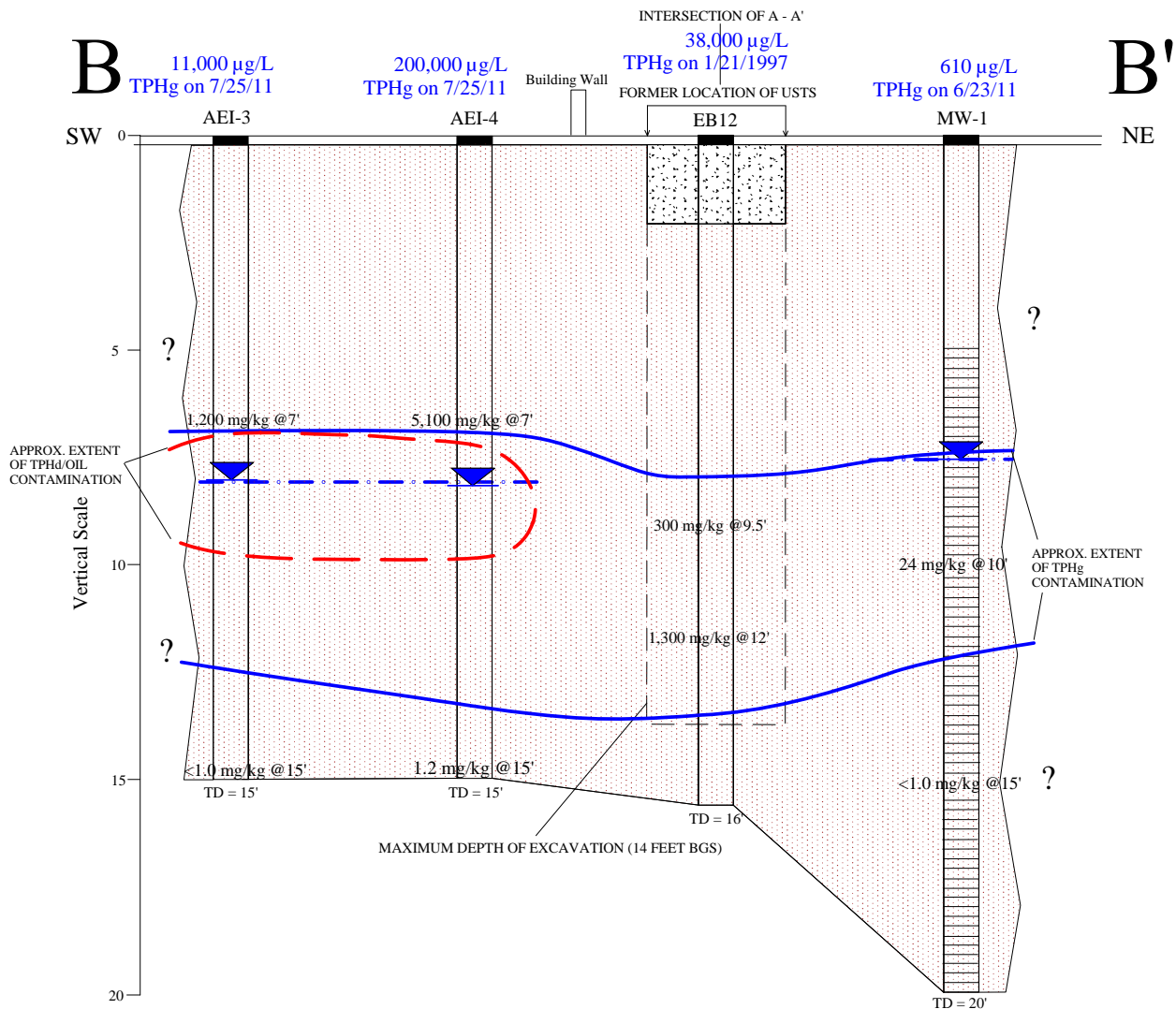
**AEI CONSULTANTS**

2500 CAMINO DIABLO, STE. 100, WALNUT CREEK, CA

**A - A' Fence Diagram**

1630 Park Street  
Alameda, CA

**Figure 5**  
PROJECT NO. 297553

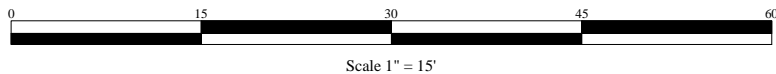


**Legend:**

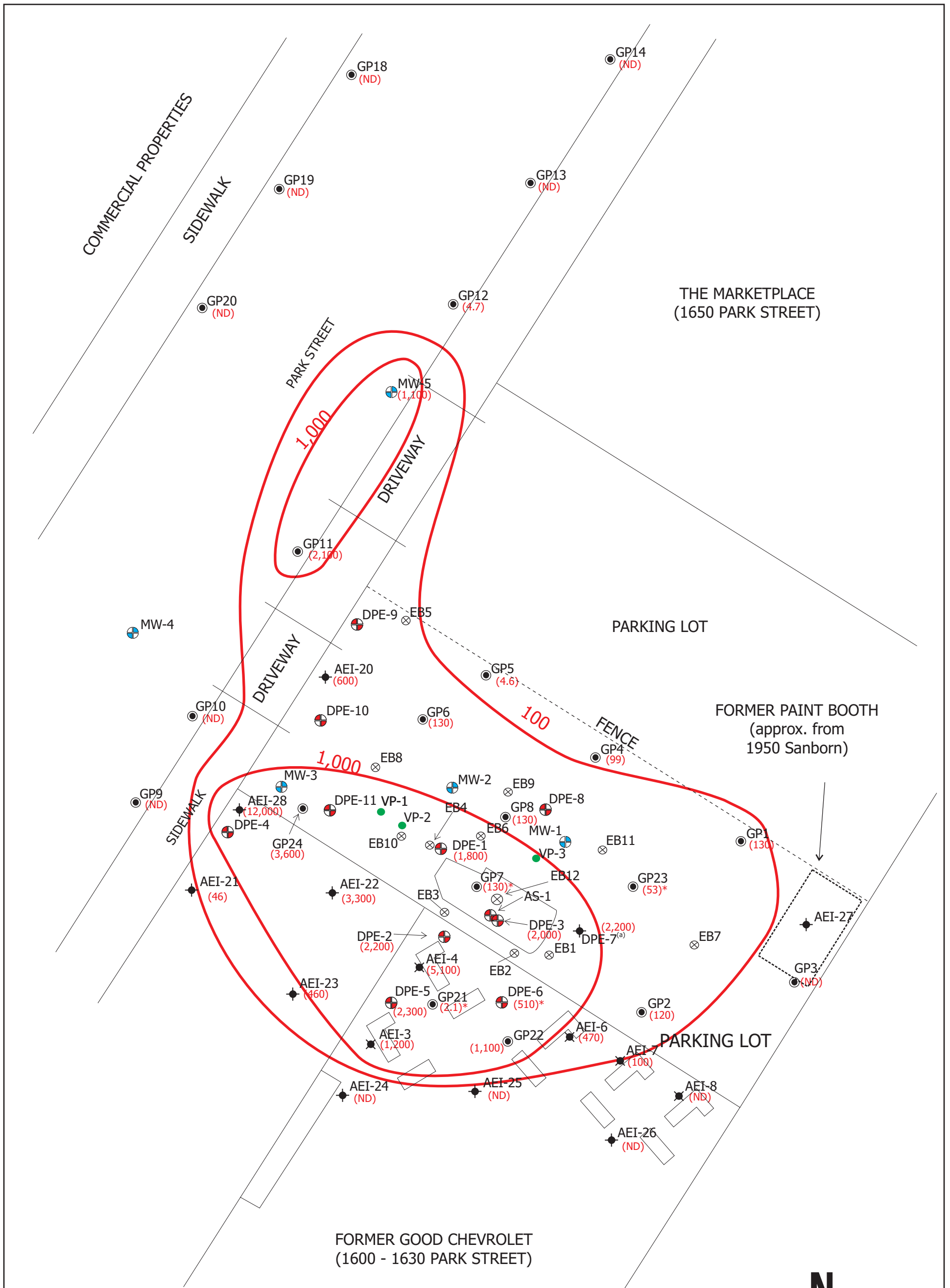
- Sand (with varying amounts of silt)
- Sandy Gravel
- Groundwater Level (static)
- Approx. Extent of TPHd/Oil Contamination
- Approx. Extent of TPHg Contamination

Notes:  
 Static water levels not reported in "EB" borings  
 Borings not available for "GP" borings advanced in 2008  
 TD = Total Depth

\* Soil TPHg Data from 1987 to 2011



<b>AEI CONSULTANTS</b> 2500 CAMINO DIABLO, STE. 100, WALNUT CREEK, CA	
<b>B - B' Fence Diagram</b>	
1630 Park Street Alameda, CA	<b>Figure 6</b> PROJECT NO. 297553



LEGEND	
REMEDIATION WELL (12/11 AND 1/12)	
AEI SOIL BORING (1/12)	
VAPOR PROBE (12/11)	
AEI SOIL BORING (7/11)	
SOIL BORING (4/08)	
SOIL BORING (1/97)	
GROUNDWATER MONITORING WELL	

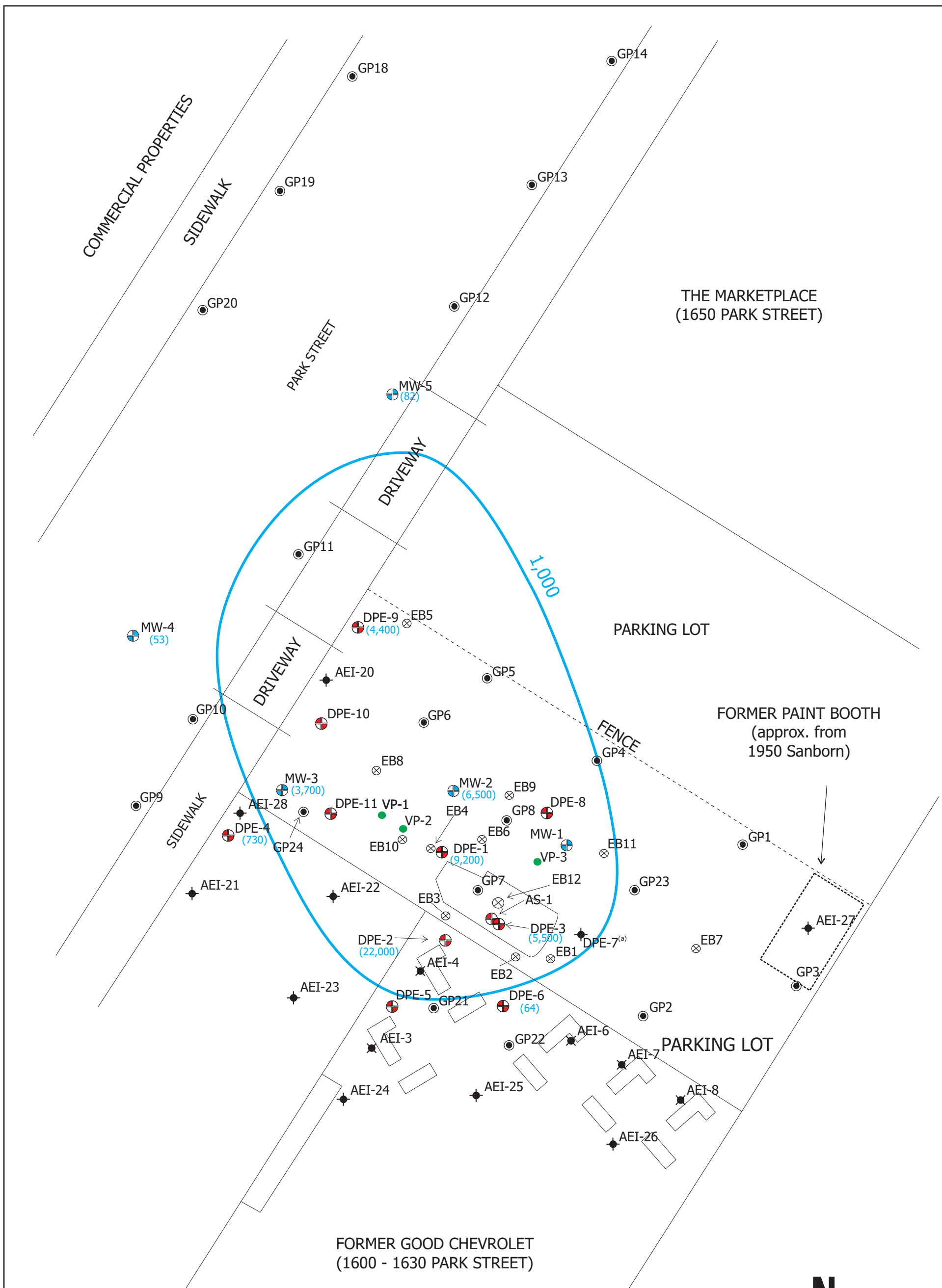
TPH-G Total Petroleum Hydrocarbons  
 Data from 2008 to 2012 shown  
 Maximum concentrations in soil listed in milligrams per kilogram  
 \*Not used for contouring.  
 BASE MAP MODIFIED FROM: BLYMYER ENGINEERS, INC  
 (a) Proposed well completed as a boring.

N

0'      20'  
 APPROX. SCALE: 1 in = ~20 ft

<b>TPH-G IN SOIL</b>	
1630 PARK STREET ALAMEDA, CALIFORNIA	
FIGURE 7	
JOB NO: 298931	





LEGEND	
REMEDIATION WELL (12/11 AND 1/12)	
AEI SOIL BORING (1/12)	
VAPOR PROBE (12/11)	
AEI SOIL BORING (7/11)	
SOIL BORING (4/08)	
SOIL BORING (1/97)	
GROUNDWATER MONITORING WELL	

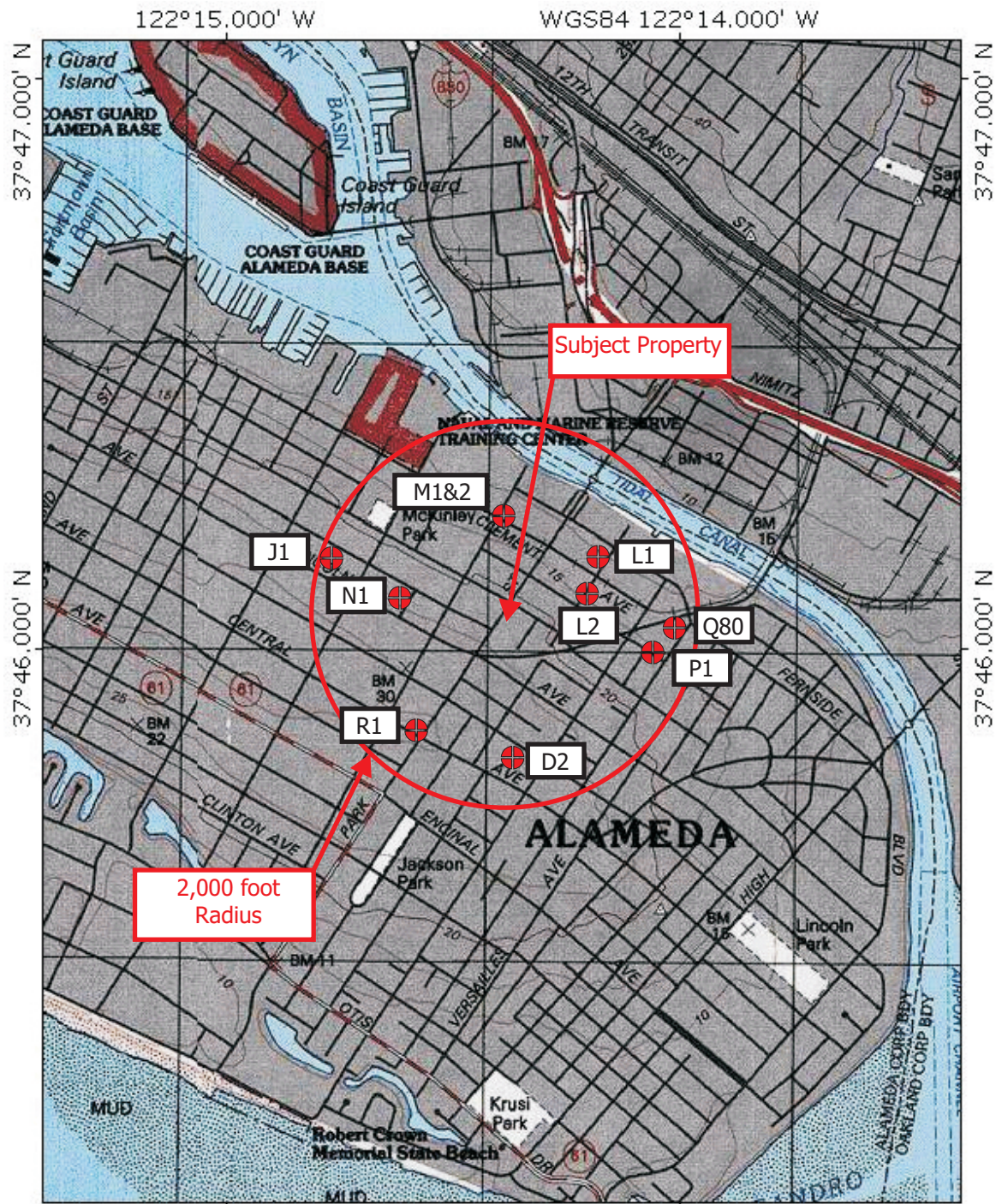
TPH-G Total Petroleum Hydrocarbons  
 Maximum concentrations in dissolved-phase groundwater  
 from the 6/23/2011, 12/6/2011, or 1/24/2012 events.

BASE MAP MODIFIED FROM: BLYMYER ENGINEERS, INC  
 (a) Proposed well completed as a boring.

0'      20'

APPROX. SCALE: 1 in = ~20 ft

<b>TPH-G IN GROUNDWATER</b>	
1630 PARK STREET ALAMEDA, CALIFORNIA	
FIGURE 8	
JOB NO: 298931	



2,000 foot Radius

Subject Property



122°15.000' W WGS84 122°14.000' W



Map created with TOPO!® ©2003 National Geographic (www.nationalgeographic.com/topo)

WELL



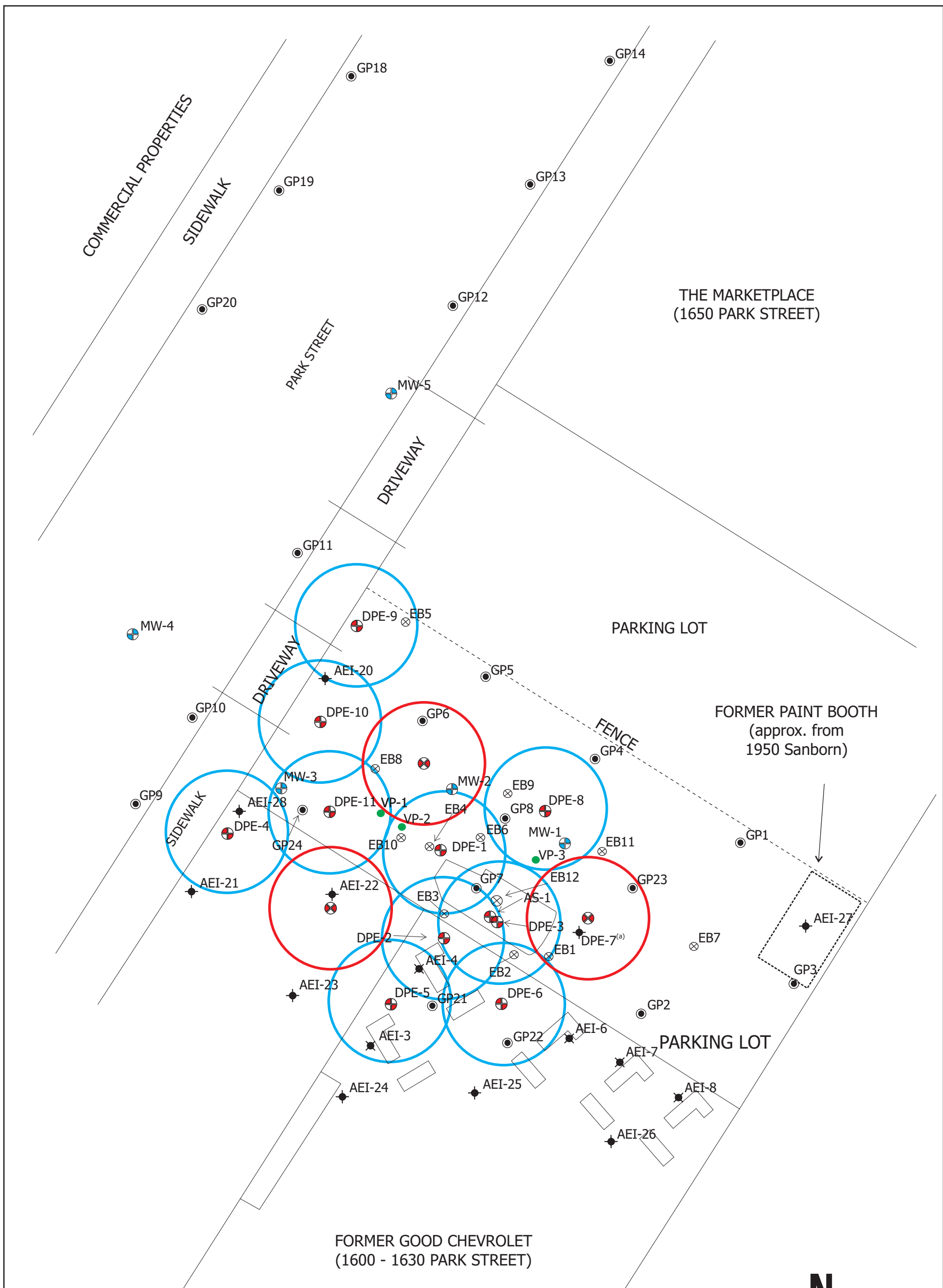
# WELL SEARCH LOCATION MAP

1630 Park Street, Alameda, California

FIGURE 9

Project Number: 298931





LEGEND	
REMEDIATION WELL (12/11 AND 1/12)	
AEI SOIL BORING (1/12)	
VAPOR PROBE (12/11)	
AEI SOIL BORING (7/11)	
SOIL BORING (4/08)	
SOIL BORING (1/97)	
GROUNDWATER MONITORING WELL	

PROPOSED REMEDIATION WELL

BASE MAP MODIFIED FROM: BLYMYER ENGINEERS, INC  
(a) Proposed well completed as a boring.

0' 20'

APPROX. SCALE: 1 in = ~20 ft

<b>GROUNDWATER CAPTURE</b>	
1630 PARK STREET ALAMEDA, CALIFORNIA	
FIGURE 10	
JOB NO: 298931	

## TABLES

**Table 1**  
**Soil Sample Analytical Data**  
**TPH, MBTEX and POG**  
**AEI Project No. 298931, 1630 Park Street, Alameda, California**

Sample ID	Date Collected	Approx. Depth (feet)	TPH-g (mg/kg)	TPH-d* (mg/kg)	TPH-mo* (mg/kg)	MTBE	Benzene	Toluene	Ethylbenzene	Xylenes	POG
						(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)
MW-1-10	1/15/1987	10	24	-	-	-	2.9	3.6	-	1.8	-
MW-1-15	1/15/1987	15	<1.0	-	-	-	<0.1	<0.1	-	<0.1	-
MW-2-5	1/15/1987	5	<1.0	-	-	-	<0.1	<0.1	-	<0.1	-
MW-2-10	1/15/1987	10	350	-	-	-	14	22	-	23	-
MW-3-10	1/15/1987	10	200	-	-	-	9.8	16	-	16	-
MW-3-15	1/15/1987	15	<1.0	-	-	-	<0.1	<0.1	-	<0.1	-
SB-5-10	1/15/1987	10	6.5	-	-	-	<0.1	0.22	-	<0.1	-
EB1-S2	10/15/1993	8.5	510	-	-	-	0.89	10	5.8	41	-
EB1-S3	10/15/1993	11	2,300	-	-	-	22	190	57	280	-
EB2-2S	10/15/1993	10	15,000	-	-	-	84	710	260	1,400	-
EB2-S3	10/15/1993	11.5	200	-	-	-	4.3	15	3.9	20	-
EB3-S2	10/15/1993	10	2,200	-	-	-	9.4	71	42	200	-
EB3-S3	10/15/1993	12.5	610	-	-	-	1.2	3.2	4.5	2.9	-
EB4-S2	10/15/1993	8	4,900	-	-	-	32	230	84	440	-
EB4-S3	10/15/1993	10.5	7,600	-	-	-	60	390	130	630	-
EB5-S2	10/15/1993	9	1,800	-	-	-	<2.5	22	27	140	-
EB5-S3	10/15/1993	11.5	14	-	-	-	0.021	1.5	0.49	2.5	-
EB6-S2	10/15/1993	8.5	6,800	-	-	-	20	230	100	590	-
EB7-S2	10/15/1993	6.5	<50	-	-	-	<0.5	<0.5	<0.5	<0.5	-
EB7-S3	10/15/1993	8.5	1,000	-	-	-	3.8	45	21	110	-
MW4-S1	4/20/1994	4.5	<50	-	-	-	<0.5	<0.5	<0.5	0.013	-
MW4-S2	4/20/1994	9	9.7	-	-	-	1.1	0.82	0.42	1.3	-
MW4-S3	4/20/1994	14	<50	-	-	-	<0.5	0.008	<0.5	0.022	-
MW5-S1	4/20/1994	4.5	<50	-	-	-	<0.5	<0.5	<0.5	<0.5	-
MW5-S2	4/20/1994	9	1,100	-	-	-	12	43	20	93	-
MW5-S3	4/20/1994	14	1.1	-	-	-	0.033	0.17	0.044	0.22	-
EB8-S2	1/21/1997	9.5	2,000	-	-	<4	8.4	83	44	210	-
EB8-S3	1/21/1997	13.5	18	-	-	0.10	3.2	1.2	0.47	1.7	-
EB9-S1	1/21/1997	6.5	1.8	-	-	<5	0.071	0.052	0.026	0.074	-
EB9-S2	1/21/1997	9.5	1,300	-	-	<4	7.1	54	29	130	-
EB10-S1	1/21/1997	8.5	2,300	-	-	9.3	9.1	100	50	190	-
EB11-S1	1/21/1997	9.5	3,800	-	-	<9	8.8	190	97	510	-
EB11-S2	1/21/1997	12	13	-	-	<0.1	1.1	1.6	0.47	1.4	-

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Sample ID	Date Collected	Approx. Depth (feet)	TPH-g (mg/kg)	TPH-d* (mg/kg)	TPH-mo* (mg/kg)	MTBE (mg/kg)	Benzene (mg/kg)	Toluene (mg/kg)	Ethylbenzene (mg/kg)	Xylenes (mg/kg)	POG (mg/kg)
						EPA Method SW8021B/8015B/m					EPA Method SM5520E/F
EB12-S1	1/21/1997	9.5	300	-	-	<0.6	0.95	0.59	3.5	18	-
EB12-S2	1/21/1997	12	1,300	-	-	6.2	9.4	23	35	130	-
GP1-11.5	4/29/2008	11.5	130	-	-	<0.005	<0.10	0.29	<0.10	0.42	-
GP1-15	4/29/2008	15	<1.0	-	-	<0.005	<0.005	0.0081	0.0065	0.028	-
GP2-11	4/29/2008	11	120	-	-	<0.010	<0.050	0.87	0.43	1.2	-
GP2-13.5	4/29/2008	13.5	<1.0	-	-	<0.005	<0.005	<0.005	<0.005	<0.005	-
GP3-6.75	4/29/2008	6.75	<1.0	-	-	<0.005	<0.005	<0.005	<0.005	<0.005	-
GP3-11.5	4/29/2008	11.5	<1.0	-	-	<0.005	<0.005	<0.005	<0.005	<0.005	-
GP4-11.5	4/29/2008	11.5	2.7	-	-	<0.005	0.14	0.052	0.072	0.17	-
GP4-14.5	4/29/2008	14.5	99	-	-	<0.020	0.48	1.4	1.0	4.5	-
GP5-11.5	4/29/2008	11.5	4.6	-	-	<0.005	0.12	0.078	0.14	0.48	-
GP5-19	4/29/2008	19	1.5	-	-	<0.005	<0.005	0.022	0.0069	0.032	-
GP6-11	4/29/2008	11	130	-	-	<0.10	0.11	1.0	1.1	5.4	-
GP7-8	4/30/2008	8	390	-	-	<0.050	0.84	2.2	4.3	18	-
GP7-19.5	4/30/2008	19.5	<1.0	-	-	<0.005	<0.005	<0.005	<0.005	<0.005	-
GP8-8.5	5/1/2008	8.5	1,100	-	-	<0.050	<0.10	3.2	7.3	45	-
GP8-19.5	5/1/2008	19.5	5.8	-	-	<0.005	0.0091	0.067	0.048	0.21	-
GP9-7.5	5/1/2008	7.5	<1.0	-	-	<0.005	<0.005	<0.005	<0.005	<0.005	-
GP9-11.25	5/1/2008	11.25	<1.0	-	-	<0.005	<0.005	<0.005	<0.005	<0.005	-
GP10-7.5	4/30/2008	7.5	<1.0	-	-	<0.005	<0.005	<0.005	<0.005	<0.005	-
GP10-19.5	4/30/2008	19.5	<1.0	-	-	<0.005	<0.005	<0.005	<0.005	<0.005	-
GP11-6	4/30/2008	6	<1.0	-	-	<0.005	<0.005	0.011	0.0053	0.026	-
GP11-15.5	4/30/2008	15.5	2,100	-	-	<0.10	5.7	71	38	180	-
GP11-18	4/30/2008	18	87	-	-	<0.020	0.059	0.93	0.67	4.2	-
GP12-7.5	4/30/2008	7.5	<1.0	-	-	<0.005	<0.005	<0.005	<0.005	<0.005	-
GP12-11	4/30/2008	11	4.7	-	-	<0.005	0.015	0.21	0.067	0.32	-
GP12-15.5	4/30/2008	15.5	<1.0	-	-	<0.005	<0.005	0.0071	0.0051	0.025	-
GP13-7.25	4/30/2008	7.25	<1.0	-	-	<0.005	<0.005	<0.005	<0.005	<0.005	-
GP13-11	4/30/2008	11	<1.0	-	-	<0.005	<0.005	<0.005	<0.005	<0.005	-
GP13-14	4/30/2008	14	<1.0	-	-	<0.005	<0.005	<0.005	<0.005	<0.005	-
GP14-7.5	4/30/2008	7.5	<1.0	-	-	<0.005	<0.005	<0.005	<0.005	<0.005	-
GP14-11	4/30/2008	11	<1.0	-	-	<0.005	<0.005	<0.005	<0.005	<0.005	-
GP15-7.5	4/30/2008	7.5	<1.0	-	-	<0.005	<0.005	<0.005	<0.005	<0.005	-

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GP16-7.5	5/1/2008	7.5	<1.0	-	-	<0.005	<0.005	<0.005	<0.005	<0.005	-
GP16-10.5	5/1/2008	10.5	<1.0	-	-	<0.005	<0.005	<0.005	<0.005	<0.005	-
GP17-7.5	5/1/2008	7.5	<1.0	-	-	<0.005	<0.005	<0.005	<0.005	<0.005	-
GP17-11.5	5/1/2008	11.5	<1.0	-	-	<0.005	<0.005	<0.005	<0.005	<0.005	-
GP18-7.5	5/1/2008	7.5	<1.0	-	-	<0.005	<0.005	<0.005	<0.005	<0.005	-
GP18-10	5/1/2008	10	<1.0	-	-	<0.005	<0.005	<0.005	<0.005	<0.005	-
GP19-7	5/1/2008	7	<1.0	-	-	<0.005	<0.005	<0.005	<0.005	<0.005	-
GP20-8	5/1/2008	8	<1.0	-	-	<0.005	<0.005	<0.005	<0.005	<0.005	-
GP21-7.5	5/2/2008	7.5	2.1	-	-	<0.005	0.006	0.028	0.012	0.065	-
GP21-15.5	5/2/2008	15.5	<1.0	-	-	<0.005	0.0064	0.022	0.0057	0.027	-
GP21-19.5	5/2/2008	19.5	<1.0	-	-	<0.005	<0.005	0.0092	<0.005	0.023	-
GP22-10.5	5/2/2008	10.5	1,100	-	-	<0.20	0.67	13	15	70	-
GP22-15.5	5/2/2008	15.5	<1.0	-	-	<0.005	<0.005	<0.005	<0.005	<0.005	-
GP23-7.5	5/2/2008	7.5	53	-	-	<0.005	<0.050	0.13	<0.050	0.37	-
GP23-11.5	5/2/2008	11.5	1.9	-	-	<0.005	0.062	0.041	0.043	0.18	-
GP23-16	5/2/2008	16	2	-	-	<0.005	<0.005	0.027	0.018	0.099	-
GP24-8.5	5/2/2008	8.5	3,600	-	-	<1.0	1.2	32	62	410	-
GP24-19.5	5/2/2008	19.5	<1.0	-	-	<0.005	<0.005	<0.005	<0.005	<0.005	-
AEI-3-7'	7/25/2011	7	1,200	1,700	4,000	<10	2.6	25	10	48	-
AEI-3-15'	7/25/2011	15	<1.0	1.6	<5.0	<10	<0.005	<0.005	<0.005	<0.005	-
AEI-4-7'	7/25/2011	7	5,100	2,100	710	<50	6.2	83.0	54.0	280.0	-
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	<0.50	<0.50	<0.50	<0.50	-
AEI-6-14'	7/25/2011	14	<1.0	1.4	<5.0	<5.0	<0.50	<0.50	<0.50	<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	<0.50	<0.50	<0.50	<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	<0.50	<0.50	<0.50	<0.50	-
AEI-10-8'	7/26/2011	8	<1.0	1.2	<5.0	<5.0	<0.50	<0.50	<0.50	<0.50	-
AEI-11-3'	7/26/2011	3	<1.0	2.2	8.5	-	-	-	-	-	-
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	-	-	-	-	-	-

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						EPA Method SW8021B/8015B/m					EPA Method SM5520E/F
AEI-14-7'	7/26/2011	7	<1.0	-	-	<0.05	<0.005	<0.005	<0.005	<0.005	-
AEI-15-7'	7/26/2011	7	<1.0	-	-	<0.05	<0.005	<0.005	<0.005	<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	<0.005	<0.005	<0.005	<0.005	-
AEI-18-8'	7/26/2011	8	<1.0	<1.0	<5.0	<0.05	<0.005	<0.005	<0.005	<0.005	-
AEI-19-8'	7/26/2011	8	<1.0	<1.0	<5.0	<0.05	<0.005	<0.005	<0.005	<0.005	-
AEI-20-7.5'	1/17/2012	7.5	8.4	-	-	<0.05	0.0071	0.084	0.069	0.38	-
AEI-20-11'	1/17/2012	11	600	-	-	<0.50	0.89	2.9	10	39	-
AEI-20-15'	1/17/2012	15	3.3	-	-	<0.05	<0.005	0.028	<0.005	0.017	-
AEI-21-7'	1/17/2012	7	<1.0	-	-	<0.05	<0.005	<0.005	<0.005	<0.005	-
AEI-21-11'	1/17/2012	11	46	-	-	<0.05	0.020	0.42	0.27	0.60	-
AEI-21-14'	1/17/2012	14	<1.0	-	-	<0.05	<0.005	<0.005	<0.005	<0.005	-
AEI-22-9'	1/17/2012	9	3,100	-	-	<0.05	3.2	46	62	400	-
AEI-22-11'	1/17/2012	11	8.6	-	-	<0.10	0.71	0.77	0.31	1.3	-
AEI-22-14'	1/17/2012	14	3,300	-	-	<0.05	8.3	84	61	370	-
AEI-23-6'	1/17/2012	6	<1.0	<1.0	<5.0	<0.05	<0.005	<0.005	<0.005	<0.005	-
AEI-23-9.5'	1/17/2012	9.5	7.5	100	180	<0.05	<0.005	0.027	<0.005	0.0055	-
AEI-23-12.5'	1/17/2012	12.5	460	360	270	<5.0	<0.50	1.4	<0.50	0.80	-
AEI-24-7'	1/17/2012	7	<1.0	<1.0	<5.0	<0.05	<0.005	<0.005	<0.005	<0.005	-
AEI-24-10.5'	1/17/2012	10.5	<1.0	<1.0	<5.0	<0.05	<0.005	<0.005	<0.005	<0.005	-
AEI-24-13'	1/17/2012	13	<1.0	<1.0	<5.0	<0.05	<0.005	<0.005	<0.005	<0.005	-
AEI-25-7.5'	1/17/2012	7.5	<1.0	<1.0	<5.0	<0.05	<0.005	<0.005	<0.005	<0.005	-
AEI-25-10'	1/17/2012	10	<1.0	<1.0	<5.0	<0.05	<0.005	<0.005	<0.005	<0.005	-
AEI-25-14'	1/17/2012	14	<1.0	<1.0	<5.0	<0.05	<0.005	<0.005	<0.005	<0.005	-
AEI-26-7.5'	1/17/2012	7.5	<1.0	<1.0	<5.0	<0.05	<0.005	<0.005	<0.005	<0.005	-
AEI-26-10.5'	1/17/2012	10.5	<1.0	<1.0	<5.0	<0.05	<0.005	<0.005	<0.005	<0.005	-
AEI-26-14'	1/17/2012	14	<1.0	<1.0	<5.0	<0.05	<0.005	<0.005	<0.005	<0.005	-
AEI-27-3'	1/17/2012	3	<1.0	3.2	7.9	<0.05	<0.005	<0.005	<0.005	0.013	-
AEI-28-7'	1/17/2012	7	<1.0	<1.0	<5.0	<0.05	<0.005	<0.005	<0.005	<0.005	-
AEI-28-11'	1/17/2012	11	12,000	2,100	44	<10	21	210	210	1,000	-
AEI-28-13'	1/17/2012	13	7.8	2.0	<5.0	<0.05	0.050	0.29	0.31	1.4	-
DPE-1, 7-7.5'	11/15/2011	7	1,800	330	46	<50	9.7	64	29	150	-
DPE-2, 8-8.5'	11/15/2011	8	2,200	280	140	<15	7.6	57	34	170	-



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						(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)
DPE-3, 8-8.5'	11/14/2011	8	2,000	1,000	58	<50	6.7	48	47	240	-
DPE-5, 11'	1/20/2012	11	2,300	-	-	<10	15	99	33	140	-
DPE-5, 14'	1/20/2012	14	1.1	-	-	<0.05	<0.005	0.17	<0.005	0.016	-
DPE-6, 10'	1/20/2012	10	510	-	-	<1.0	<0.10	0.14	0.47	0.96	-
DPE-6, 14'	1/20/2012	14	<1.0	-	-	<0.05	<0.005	<0.005	<0.005	<0.005	-
DPE-7, 10'	1/19/2012	10	2,200	-	-	<5.0	<5.0	16	47	240	-
DPE-7, 14.5'	1/19/2012	14.5	610	-	-	<5.0	<5.0	3.9	9.5	55	-

mg/kg = milligrams per kilogram (equivalent to parts per million)  
MDL = method detection limit      POG = petroleum oil and grease  
TPH = total petroleum hydrocarbons      MTBE = methyl butyl tertiary ethyl  
TPH-g = TPH as gasoline      "<" = less than  
TPH-d = TPH as diesel      "\*=" = with silica gel cleanup  
TPH-mo = TPH as motor oil      "-" = not available

**Table 2**  
**Soil Sample Analytical Data**  
**VOCs, Fuel Oxygenates, SVOCs, and PCBs**  
**AEI Project No. 298931, 1630 Park Street, Alameda, California**

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
GP1-11.5	4/29/2008	11.5	-	-	<MDL	-	-
GP1-15	4/29/2008	15	-	-	<MDL	-	-
GP2-11	4/29/2008	11	-	-	<MDL	-	-
GP2-13.5	4/29/2008	13.5	-	-	<MDL	-	-
GP3-6.75	4/29/2008	6.75	-	-	<MDL	-	-
GP3-11.5	4/29/2008	11.5	-	-	<MDL	-	-
GP4-11.5	4/29/2008	11.5	-	-	<MDL	-	-
GP4-14.5	4/29/2008	14.5	-	-	<MDL	-	-
GP5-11.5	4/29/2008	11.5	-	-	<MDL	-	-
GP5-19	4/29/2008	19	-	-	<MDL	-	-
GP6-11	4/29/2008	11	-	-	<MDL	-	-
GP7-8	4/30/2008	8	-	-	<MDL	-	-
GP7-19.5	4/30/2008	19.5	-	-	<MDL	-	-
GP8-8.5	5/1/2008	8.5	-	-	<MDL	-	-
GP8-19.5	5/1/2008	19.5	-	-	<MDL	-	-
GP9-7.5	5/1/2008	7.5	-	-	<MDL	-	-
GP9-11.25	5/1/2008	11.25	-	-	<MDL	-	-
GP10-7.5	4/30/2008	7.5	-	-	<MDL	-	-
GP10-19.5	4/30/2008	19.5	-	-	<MDL	-	-
GP11-6	4/30/2008	6	-	-	<MDL	-	-
GP11-15.5	4/30/2008	15.5	-	-	<MDL	-	-
GP11-18	4/30/2008	18	-	-	<MDL	-	-
GP12-7.5	4/30/2008	7.5	-	-	<MDL	-	-
GP12-11	4/30/2008	11	-	-	<MDL	-	-
GP12-15.5	4/30/2008	15.5	-	-	<MDL	-	-
GP13-7.25	4/30/2008	7.25	-	-	<MDL	-	-
GP13-11	4/30/2008	11	-	-	<MDL	-	-
GP13-14	4/30/2008	14	-	-	<MDL	-	-
GP14-7.5	4/30/2008	7.5	-	-	<MDL	-	-
GP14-11	4/30/2008	11	-	-	<MDL	-	-
GP15-7.5	4/30/2008	7.5	-	-	<MDL	-	-

**Table 2**  
**Soil Sample Analytical Data**  
**VOCs, Fuel Oxygenates, SVOCs, and PCBs**  
**AEI Project No. 298931, 1630 Park Street, Alameda, California**

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
GP16-7.5	5/1/2008	7.5	-	-	<MDL	-	-
GP16-10.5	5/1/2008	10.5	-	-	<MDL	-	-
GP17-7.5	5/1/2008	7.5	-	-	<MDL	-	-
GP17-11.5	5/1/2008	11.5	-	-	<MDL	-	-
GP18-7.5	5/1/2008	7.5	-	-	<MDL	-	-
GP18-10	5/1/2008	10	-	-	<MDL	-	-
GP19-7	5/1/2008	7	-	-	<MDL	-	-
GP20-8	5/1/2008	8	-	-	<MDL	-	-
GP21-7.5	5/2/2008	7.5	-	-	<MDL	-	-
GP21-15.5	5/2/2008	15.5	-	-	<MDL	-	-
GP21-19.5	5/2/2008	19.5	-	-	<MDL	-	-
GP22-10.5	5/2/2008	10.5	-	-	<MDL	-	-
GP22-15.5	5/2/2008	15.5	-	-	<MDL	-	-
GP23-7.5	5/2/2008	7.5	-	-	<MDL	-	-
GP23-11.5	5/2/2008	11.5	-	-	<MDL	-	-
GP23-16	5/2/2008	16	-	-	<MDL	-	-
GP24-8.5	5/2/2008	8.5	-	-	<MDL	-	-
GP24-19.5	5/2/2008	19.5	-	-	<MDL	-	-
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	-	-	-
AEI-12-3'	7/26/2011	3	-	<MDL	-	-	-
AEI-13-3'	7/26/2011	3	-	<MDL	-	-	-
AEI-14-7'	7/26/2011	7	-	-	<MDL	-	-

**Table 2**  
**Soil Sample Analytical Data**  
**VOCs, Fuel Oxygenates, SVOCs, and PCBs**  
**AEI Project No. 298931, 1630 Park Street, Alameda, California**

<b>Sample ID</b>	<b>Date Collected</b>	<b>Approx. Depth (feet)</b>	<b>1,4-Dioxane (mg/kg) EPA Method SW8260</b>	<b>All target VOCs (mg/kg) EPA Method SW8260</b>	<b>Fuel Oxygenates^ (mg/kg) EPA Method SW8260B</b>	<b>All target SVOCs (mg/kg) EPA Method 8270</b>	<b>All other target PCBs (mg/kg) EPA Method SW8082</b>
AEI-15-7'	7/26/2011	7	-	-	<MDL	-	-
AEI-16-7'	7/26/2011	7	<0.02	<MDL	<MDL	<MDL	<0.05
<b>AEI-27-3'</b>	<b>1/17/2012</b>	<b>3</b>	-	<MDL	-	-	-

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

MDL = method detection limit

VOCs = volatile organic compounds

SVOCs = semi-volatile organic compounds

PCBs = polychlorinated biphenyls

"<" = less than

"-" = not available

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

1,2-dibromomethane (EDB), 1,2-dichloroethane (1,2-DCA), diisopropyl ether (DIPE), methanol, ethanol, ethyl tert-butyl ether (ETBE), methyl tert-butyl ether (MTBE), and 1,2-Dichloroethane (EDC)

**Table 3**  
**Groundwater Sample Analytical Data**  
**TPH, MBTEX and TRPH**  
**AEI Project No. 298931, 1630 Park Street, Alameda, California**

Sample ID	Date Collected	TPH-g (µg/L)	TPH-d* (µg/L)	TPH-mo* (µg/L)	MTBE (µg/L) EPA Method SW8021B/8015Bm	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Xylenes (µg/L)	TRPH (µg/L) EPA Method E418.1
HP-1	4/23/1993	<50	-	-	-	<0.5	<0.5	<0.5	<0.5	-
HP-2	4/23/1993	<50	-	-	-	<0.5	<0.5	<0.5	<0.5	-
EB3-WSIA	10/15/1993	120,000	-	-	-	9,600	20,000	3,400	14,000	-
EB5-WSIA	10/15/1993	83,000	-	-	-	3,900	15,000	3,100	13,000	-
EB8-WS1	1/21/1997	25,000	-	-	<80	2,600	3,200	780	3,600	-
EB10-WS1	1/21/1997	81,000	-	-	<370	13,000	12,000	3,300	8,000	-
EB11-WS1	1/21/1997	49,000	-	-	<180	6,900	6,000	2,100	4,600	-
EB12-WS1	1/21/1997	38,000	-	-	110	1,400	1,400	1,800	7,400	-
P1-WS1	1/21/1997	74,000	-	-	<78	1,100	5,800	3,800	18,000	-
P2-WS1	1/21/1997	6,800	-	-	<10	2,200	290	310	560	-
P3-WS1	1/21/1997	220	-	-	<5.0	1.9	17	10	49	-
GP1W	4/29/2008	70,000	-	-	<500	6,800	6,600	2,300	12,000	-
GP2W	4/29/2008	910	-	-	<5.0	0.69	2.9	30	64	-
GP3W	4/29/2008	<50	-	-	<5.0	<0.5	<0.5	<0.5	<0.5	-
GP4W	4/29/2008	46,000	-	-	<500	570	3,200	1,500	7,500	-
GP5W	4/29/2008	12,000	-	-	<60	140	480	270	1,100	-
GP6W	4/29/2008	22,000	-	-	<170	920	1,600	900	3,500	-
GP7W	4/30/2008	22,000	-	-	<180	2,600	320	810	2,600	-
GP8W	5/1/2008	140,000	-	-	<650	9,000	20,000	4,300	21,000	-
GP9W	5/1/2008	550	-	-	<5.0	53	0.52	2.1	25	-
GP10W	4/30/2008	11,000	-	-	<100	1,900	490	480	770	-
GP11W	4/30/2008	42,000	-	-	<452	1,900	4,200	1,700	7,600	-

**Table 3**  
**Groundwater Sample Analytical Data**  
**TPH, MBTEX and TRPH**  
**AEI Project No. 298931, 1630 Park Street, Alameda, California**

Sample ID	Date Collected	TPH-g (µg/L)	TPH-d* (µg/L)	TPH-mo* (µg/L)	MTBE (µg/L) EPA Method SW8021B/8015Bm	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Xylenes (µg/L)	TRPH (µg/L) EPA Method E418.1
GP12W	4/30/2008	61,000	-	-	<500	4,500	11,000	1,700	7,700	-
GP13W	4/30/2008	6,200	-	-	<10	220	53	150	440	-
GP14W	4/30/2008	300	-	-	<5.0	46	1.9	19	11	-
GP15W	4/30/2008	<50	-	-	<5.0	<0.5	0.69	<0.5	1.1	-
GP16W	5/1/2008	<50	-	-	<5.0	<0.5	<0.5	<0.5	<0.5	-
GP17W	5/1/2008	<50	-	-	<5.0	<0.5	1.7	<0.5	2	-
GP18W	5/1/2008	<50	-	-	<5.0	<0.5	2.1	0.79	4	-
GP19W	5/1/2008	85	-	-	<5.0	<0.5	0.80	<0.5	<0.5	-
GP20W	5/1/2008	<50	-	-	<5.0	<0.5	<0.5	<0.5	<0.5	-
GP21W	5/2/2008	9,400	-	-	<50	560	1,400	260	1,300	-
GP22W	5/2/2008	3,900	-	-	<25	36	160	120	610	-
GP23W	5/2/2008	16,000	-	-	<90	830	1,900	540	2,600	-
GP24W	5/2/2008	110,000	-	-	<450	6,500	4,200	3,100	13,000	-
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	-	-	-	-	-	-

**Table 3**  
**Groundwater Sample Analytical Data**  
**TPH, MBTEX and TRPH**  
**AEI Project No. 298931, 1630 Park Street, Alameda, California**

Sample ID	Date Collected	TPH-g (µg/L)	TPH-d* (µg/L)	TPH-mo* (µg/L)	MTBE (µg/L) EPA Method SW8021B/8015Bm	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Xylenes (µg/L)	TRPH (µg/L) EPA Method E418.1
AEI-10-W	7/26/2011	<50	<50	400	-	-	-	-	-	-
AEI-14-W	7/26/2011	<50	-	-	<5.0	<0.5	<0.5	<0.5	<0.5	-
AEI-15-W	7/26/2011	<50	-	-	<5.0	<0.5	<0.5	<0.5	<0.5	-
AEI-16-W	7/26/2011	<50	<50	<250	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0
AEI-17-W	7/26/2011	<50	89	590	<5.0	<0.5	<0.5	<0.5	<0.5	-
AEI-18-W	7/26/2011	<50	<100	<500	<5.0	<0.5	<0.5	<0.5	<0.5	-
AEI-19-W	7/26/2011	<50	<100	<500	<5.0	<0.5	<0.5	<0.5	<0.5	-
<b>AEI-20</b>	<b>1/17/2012</b>	<b>130,000</b>	-	-	<b>&lt;500</b>	<b>1,200</b>	<b>2,200</b>	<b>4,400</b>	<b>20,000</b>	
<b>AEI-21</b>	<b>1/17/2012</b>	<b>110,000</b>	-	-	<b>&lt;500</b>	<b>160</b>	<b>520</b>	<b>1,200</b>	<b>3,300</b>	
<b>AEI-22</b>	<b>1/17/2012</b>	<b>61,000</b>	-	-	<b>&lt;500</b>	<b>790</b>	<b>4,400</b>	<b>1,500</b>	<b>7,200</b>	
<b>AEI-23</b>	<b>1/17/2012</b>	<b>9,000</b>	<b>8,400</b>	<b>1,500</b>	<b>&lt;50</b>	<b>&lt;5.0</b>	<b>16</b>	<b>12</b>	<b>&lt;5.0</b>	
<b>AEI-24</b>	<b>1/17/2012</b>	<b>&lt;50</b>	<b>&lt;50</b>	<b>&lt;250</b>	<b>&lt;0.5</b>	<b>&lt;0.5</b>	<b>&lt;0.5</b>	<b>&lt;0.5</b>	<b>&lt;0.5</b>	
<b>AEI-25</b>	<b>1/17/2012</b>	<b>&lt;50</b>	<b>&lt;50</b>	<b>&lt;250</b>	<b>&lt;0.5</b>	<b>&lt;0.5</b>	<b>&lt;0.5</b>	<b>&lt;0.5</b>	<b>&lt;0.5</b>	
<b>AEI-26</b>	<b>1/17/2012</b>	<b>&lt;50</b>	<b>&lt;50</b>	<b>&lt;250</b>	<b>&lt;0.5</b>	<b>&lt;0.5</b>	<b>&lt;0.5</b>	<b>&lt;0.5</b>	<b>&lt;0.5</b>	
<b>AEI-27</b>	<b>1/17/2012</b>	<b>&lt;50</b>	<b>&lt;100</b>	<b>&lt;500</b>	<b>&lt;5.0</b>	<b>&lt;0.5</b>	<b>&lt;0.5</b>	<b>&lt;0.5</b>	<b>&lt;0.5</b>	
<b>AEI-28</b>	<b>1/17/2012</b>	<b>16,000</b>	<b>4,500</b>	<b>&lt;250</b>	<b>&lt;100</b>	<b>160</b>	<b>690</b>	<b>540</b>	<b>2,500</b>	

µg/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

"\*" = with silica gel cleanup

"-" = not available

"<" = less than

MDL = method detection limit

TRPH = total recoverable petroleum hydrocarbons

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

**Table 4**  
**Groundwater Sample Analytical Data**  
**VOCs, Fuel Oxygenates, SVOCs, and PCBs**  
**AEI Project No. 298931, 1630 Park Street, Alameda, California**

Sample ID	Date Collected	1,4-Dioxane (µg/L)	TBA (µg/L)	EDB (µg/L)	EDC (µg/L)	MTBE (µg/L)	Fuel Oxygenates^ (µg/L)	All Target VOCs (µg/L)	All Target SVOCs (µg/L)	All Target PCBs (µg/L)
GP1W	4/29/2008	-	<20	<5.0	<5.0	<5.0	<MDL	-	-	-
GP2W	4/29/2008	-	<2.0	<0.5	<0.5	<0.5	<MDL	-	-	-
GP3W	4/29/2008	-	<2.0	<0.5	<0.5	<0.5	<MDL	-	-	-
GP4W	4/29/2008	-	<20	<5.0	<5.0	<5.0	<MDL	-	-	-
GP5W	4/29/2008	-	<2.0	<0.5	<0.5	<0.5	<MDL	-	-	-
GP6W	4/29/2008	-	24	<5.0	<5.0	<5.0	<MDL	-	-	-
GP7W	4/30/2008	-	<20	<5.0	<5.0	<5.0	<MDL	-	-	-
GP8W	5/1/2008	-	<20	<5.0	<5.0	<5.0	<MDL	-	-	-
GP9W	5/1/2008	-	7.7	<0.5	1.1	1.2	<MDL	-	-	-
GP10W	4/30/2008	-	<20	<5.0	<5.0	<5.0	<MDL	-	-	-
GP11W	4/30/2008	-	<20	<5.0	<5.0	<5.0	<MDL	-	-	-
GP12W	4/30/2008	-	<20	<5.0	<5.0	<5.0	<MDL	-	-	-
GP13W	4/30/2008	-	8.9	<0.5	<0.5	<0.5	<MDL	-	-	-
GP14W	4/30/2008	-	<2.0	<0.5	<0.5	<0.5	<MDL	-	-	-
GP15W	4/30/2008	-	<2.0	<0.5	<0.5	<0.5	<MDL	-	-	-
GP16W	5/1/2008	-	<2.0	<0.5	<0.5	<0.5	<MDL	-	-	-
GP17W	5/1/2008	-	<2.0	<0.5	<0.5	<0.5	<MDL	-	-	-
GP18W	5/1/2008	-	<2.0	<0.5	<0.5	<0.5	<MDL	-	-	-
GP19W	5/1/2008	-	<2.0	<0.5	<0.5	<0.5	<MDL	-	-	-
GP20W	5/1/2008	-	<2.0	<0.5	<0.5	<0.5	<MDL	-	-	-
GP21W	5/2/2008	-	<2.0	0.65	<0.5	<0.5	<MDL	-	-	-



**Table 4**  
**Groundwater Sample Analytical Data**  
**VOCs, Fuel Oxygenates, SVOCs, and PCBs**  
**AEI Project No. 298931, 1630 Park Street, Alameda, California**

Sample ID	Date Collected	1,4-Dioxane (µg/L)	TBA (µg/L)	EDB (µg/L)	EDC (µg/L) EPA Method SW8260B	MTBE (µg/L)	Fuel Oxygenates^ (µg/L)	All Target VOCs (µg/L)	All Target SVOCs (µg/L) EPA Method 8270	All Target PCBs (µg/L) EPA Method SW8082
GP22W	5/2/2008	-	<2.0	<0.5	<0.5	<0.5	<MDL	-	-	-
GP23W	5/2/2008	-	<20	<5.0	<5.0	<5.0	<MDL	-	-	-
GP24W	5/2/2008	-	75	<5.0	<5.0	<5.0	<MDL	-	-	-
AEI-14-W	7/26/2011	-	<2.0	<0.5	<0.5	<0.5	<MDL	-	-	-
AEI-15-W	7/26/2011	-	<2.0	<0.5	<0.5	<0.5	<MDL	-	-	-
AEI-16-W	7/26/2011	<2.0	<2.0	<0.5	<0.5	<0.5	<MDL	<MDL	<MDL	<0.5
AEI-27	1/17/2012	-	-	-	-	-	-	<MDL	-	-

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

MDL = method detection limit

VOCs = volatile organic compounds

SVOCs = semi-volatile organic compounds

PCBs = polychlorinated biphenyls

TBA = t-butyl alcohol

EDB = 1,2-dibromomethane

EDC = 1,2-dichloroethane

MTBE = methyl tert-butyl ether

"-" = not available

"<" = less than

"^" = fuel oxygenates tert-amyl methyl ether (TAME),

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

**Table 5**  
**Soil Sample Analytical Data**  
**Metals**  
**AEI Project No. 298931, 1630 Park Street, Alameda, California**

Sample ID	Date Collected	Approx. Depth (feet)	Cd mg/kg	Cr (total)* mg/kg	Pb mg/kg EPA Method SW6010B	Ni mg/kg	Zn 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	-	-
<b>*AEI-27-3'</b>	<b>1/17/2012</b>	<b>3</b>	<b>&lt;0.25</b>	<b>38</b>	<b>140</b>	<b>17</b>	<b>140</b>

**Notes:**

mg/kg = milligrams per kilogram

"-" = not available

Cd = Cadmium

Cr = Chromium

Pb = Lead

Ni = Nickel

Zn = Zinc

\*AEI-27-3' = Antimony - 1.2 mg/kg, Arsenic - 4.0 mg/kg, Barium - 130 mg/kg, Cobalt - 3.7 mg/kg, Copper - 18 mg/kg, Mercury - 0.32 mg/kg and Vanadium - 28 mg/kg by CAM 17 EPA Method SW3050B.

**Table 6**  
**Groundwater Sample Analytical Data**  
**Metals**  
**AEI Project No. 298931, 1630 Park Street, Alameda, California**

Sample ID	Date Collected	Cd µg/L	Cr (total) µg/L	Pb µg/L EPA Method E200.8	Ni µg/L	Zn 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

**Notes:**

µg/L = micrograms per liter

"\*" = total

"\*\*" = dissolved

Cd = Cadmium

Cr = Chromium

Pb =Lead

Ni = Nickel

Zn = Zinc

**Table 7**  
**Well Construction Details**  
**AEI Project No. 298931, 1630 Park Street, Alameda, California**

Well ID Number	Well Installation Date	Elevation TOC (feet)	Casing Material	Total Depth (feet)	Well Depth (feet)	Borehole Diameter (inches)	Casing Diameter (inches)	Screened Interval (feet)	Slot Size (inches)	Filter Pack Interval (feet)	Filter Pack Material
AS-1	11/14/2011	-	PVC	25	25	8	2	20 - 25	0.020	20 - 25	#3 Sand
DPE-1	11/15/2011	-	PVC	16	15	10	4	7 - 15	0.010	6.5 - 16	#2/12 Sand
DPE-2	11/15/2011	-	PVC	16	15	10	4	7 - 15	0.010	6.5 - 16	#2/12 Sand
DPE-3	11/14/2011	-	PVC	16	14	10	4	7 - 14	0.010	6.5 - 16	#2/12 Sand
DPE-4	1/19/2012	-	PVC	17	17	10	4	8 - 17	0.010	7.5 - 17	#2/12 Sand
DPE-5	1/20/2012	-	PVC	18	18	10	4	8 - 18	0.010	7.5 - 18	#2/12 Sand
DPE-6	1/20/2012	-	PVC	18	18	10	4	8 - 18	0.010	7.5 - 18	#2/12 Sand
DPE-8	1/20/2012	-	PVC	18	18	10	4	8 - 18	0.010	7.5 - 18	#2/12 Sand
DPE-9	1/20/2012	-	PVC	18	18	10	4	8 - 18	0.010	7.5 - 18	#2/12 Sand
DPE-10	1/20/2012	-	PVC	17	17	10	4	8 - 17	0.010	7.5 - 17	#2/12 Sand
DPE-11	1/20/2012	-	PVC	18	18	10	4	8 - 18	0.010	7.5 - 18	#2/12 Sand
MW-1	1/15/1987	-	PVC	-	20	8	2	5 - 20	-	-	-
MW-2	1/15/1987	-	PVC	-	20	8	2	5 - 20	-	-	-
MW-3	1/15/1987	-	PVC	-	20	8	2	5 - 20	-	-	-
MW-4	4/20/1994	-	PVC	-	23	8	2	8 - 23	-	-	-
MW-5	4/20/1994	-	PVC	-	22	8	2	7 - 22	-	-	-
VP-1	12/6/2011	-	Stainless Steel	6	6	1.25	1/4	5.1 - 5.6	Mesh	4.7 - 6	#3 Sand
VP-2	12/6/2011	-	Stainless Steel	5.9	5.9	1.25	1/4	5.1-5.6	Mesh	4.7-5.9	#3 Sand
VP-3	12/6/2011	-	Stainless Steel	5.75	5.75	1.25	1/4	5.1-5.6	Mesh	4.7-5.75	#3 Sand

PVC = polyvinyl chloride  
TOC = top of casing  
"-" = not available

**Table 8**  
**Groundwater Elevation Data**  
**AEI Project No. 298931, 1630 Park Street, Alameda, California**

Well ID (Screen Interval)	Date Collected	Well Elevation (ft amsl)	Depth to Water (feet)	Groundwater Elevation (ft amsl)
MW-1 (5 - 20 feet bgs)	Jul-89	104.76	8.93	95.83
	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	96.06
	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		7.13	25.42
	Jun-11	7.54	17.88	
<b>Dec-11</b>	<b>8.02</b>	<b>17.40</b>		
<b>Jan-12</b>	<b>8.08</b>	<b>17.34</b>		
MW-2 (5 - 20 feet bgs)	Jul-89	104.86	9.24	95.62
	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

**Table 8**  
**Groundwater Elevation Data**  
**AEI Project No. 298931, 1630 Park Street, Alameda, California**

Well ID (Screen Interval)	Date Collected	Well Elevation (ft amsl)	Depth to Water (feet)	Groundwater Elevation (ft amsl)
	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-03		7.38	97.48
	Jun-03		7.57	97.29
	Apr-08	25.52	7.67	17.85
	Jun-11		7.35	18.17
	<b>Dec-11</b>		<b>8.41</b>	<b>17.11</b>
	<b>Jan-12</b>		<b>8.43</b>	<b>17.09</b>
MW-3 (5 - 20 feet bgs)	Jul-89	104.52	9.00	95.52
	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		7.50	17.67
	<b>Dec-11</b>		<b>8.25</b>	<b>16.92</b>
	<b>Jan-12</b>		<b>8.25</b>	<b>16.92</b>
MW-4 (8 - 23 feet bgs)	Apr-94	104.86	9.29	95.57
	Jul-94		9.55	95.31
	Oct-94		9.83	95.03

**Table 8**  
**Groundwater Elevation Data**  
**AEI Project No. 298931, 1630 Park Street, Alameda, California**

Well ID (Screen Interval)	Date Collected	Well Elevation (ft amsl)	Depth to Water (feet)	Groundwater Elevation (ft amsl)
	Jan-94		8.88	95.98
	Apr-95		8.80	96.06
	Jan-97		-	-
	Nov-98		-	-
	Jan-01		-	-
	Jun-02		-	-
	Nov-02		-	-
	Feb-03		-	-
	Jun-03		-	-
	Apr-08	25.53	8.73	16.80
	Jun-11		8.52	17.01
	<b>Dec-11</b>		-	-
	<b>Jan-12</b>		-	-
MW-5 (7 - 22 feet bgs)	Apr-94	103.62	8.27	95.35
	Jul-94		8.50	95.12
	Oct-94		8.92	94.70
	Jan-94		7.61	96.01
	Apr-95		8.48	95.14
	Jan-97		6.79	96.83
	Nov-98		8.12	95.50
	Jan-01		7.67	95.95
	Jun-02		7.61	96.01
	Nov-02		8.01	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
	<b>Dec-11</b>		-	-
	<b>Jan-12</b>		-	-
DPE-1 (7 - 15 feet bgs)	<b>Dec-11</b>	-	<b>8.81</b>	-
	<b>Jan-12</b>		<b>8.78</b>	-
DPE-2 (7 - 15 feet bgs)	<b>Dec-11</b>	-	<b>9.29</b>	-
	<b>Jan-12</b>		<b>7.97</b>	-
DPE-3 (7 - 14 feet bgs)	<b>Dec-11</b>	-	<b>7.92</b>	-
	<b>Jan-12</b>		<b>8.98</b>	-
DPE-4 (8 - 17)	<b>Jan-12</b>	-	<b>9.11</b>	
DPE-5 (8 - 18)	<b>Jan-12</b>	-	-	
DPE-6 (8 - 18)	<b>Jan-12</b>	-	<b>8.58</b>	
DPE-8 (8 - 18)	<b>Jan-12</b>	-	-	

**Table 8**  
**Groundwater Elevation Data**  
**AEI Project No. 298931, 1630 Park Street, Alameda, California**

Well ID (Screen Interval)	Date Collected	Well Elevation (ft amsl)	Depth to Water (feet)	Groundwater Elevation (ft amsl)
DPE-9 (8 - 18)	Jan-12	-	8.12	
DPE-10 (8 - 17)	Jan-12	-	-	

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ft amsl = feet above mean sea level  
All water level depths are measured from the top of casing  
"-" = not measured  
bgs = below ground surface



**Table 9**  
**Groundwater Monitoring Analytical Data**  
**AEI Project No. 298931, 1630 Park Street, Alameda, California**

Sample ID	Date	TPH-g (µg/L)	Benzene Toluene Ethylbenzene Xylenes EPA Methods 8020, 8021B, or 8260B				MTBE (µg/L)	MTBE (µg/L)	TAME (µg/L)	TBA (µg/L)	EDB (µg/L)	1,2-DCA DIPE Ethanol EPA Method 8260B			ETBE (µg/L)	Methanol (µg/L)	Lead (µg/L)
			(µg/L)	(µg/L)	(µg/L)	(µg/L)						(µg/L)	(µg/L)	(µg/L)			
MW-1	1/21/1987	21,020	1,148	8,627	1,792	6,012	-	-	-	-	-	-	-	-	-	-	-
	1/11/1989	1,400	74	10	13	5	-	-	-	-	-	-	-	-	-	-	-
	7/12/1989	1,200	470	49	45	33	-	-	-	-	-	-	-	-	-	-	-
	4/9/1991	850	260	10	15	12	-	-	-	-	-	-	-	-	-	-	-
	7/14/1992	13,000	2,300	1,200	1,200	1,200	-	-	-	-	-	-	-	-	-	-	-
	10/7/1992	3,600	1,600	80	120	120	-	-	-	-	-	-	-	-	-	-	-
	1/11/1993	1,200	410	16	23	19	-	-	-	-	-	-	-	-	-	-	-
	4/23/1993	2,200	a 720	180	82	150	-	-	-	-	-	-	-	-	-	-	-
	7/8/1993	3,200	a 1,200	110	97	100	-	-	-	-	-	-	-	-	-	-	-
	10/15/1993	3,700	a 1,400	43	94	36	-	-	-	-	-	-	-	-	-	-	-
	1/25/1994	1,600	a 680	16	41	35	-	-	-	-	-	-	-	-	-	-	-
	4/28/1994	6,100	a 1,900	380	250	340	-	-	-	-	-	-	-	-	-	-	-
	7/27/1994	6,000	a 1,800	510	220	450	-	-	-	-	-	-	-	-	-	-	-
	10/27/1994	3,000	a 1,100	79	82	87	-	-	-	-	-	-	-	-	-	-	-
	1/26/1995	1,600	a 660	100	82	87	-	-	-	-	-	-	-	-	-	-	-
	4/13/1995	3,800	a 1,200	270	120	260	-	-	-	-	-	-	-	-	-	-	-
	7/21/1995	5,200	a 1,500	450	190	400	-	-	-	-	-	-	-	-	-	-	-
	10/25/1995	5,900	a 1,800	450	210	400	-	-	-	-	-	-	-	-	-	-	-
	1/21/1997	3,100	a 1,100	87	160	180	<7.3	-	-	-	-	-	-	-	-	-	-
	11/12/1998	1,000	a 280	3	3.3	7.9	<30	-	-	-	-	-	-	-	-	-	-
	1/16/2001	4,700	a 1,20	18	150	49	-	<5	<5.0	<25	<5.0	<5.0	<5.0	-	<5.0	-	-
	6/27/2002	5,900	a 230	7.7	<5	1,500	-	<5	<5.0	<50	<5.0	<5.0	<5.0	-	<5.0	-	-
	11/18/2002	3,100	a 890	12	310	28	-	<2.5	-	-	<2.5	<2.5	-	-	-	-	-
	2/20/2003	260	d 100	0.72	<0.5	<0.5	-	<0.5	-	-	<0.5	<0.5	-	-	-	-	-
	6/11/2003	3,100	a 480	6.7	220	420	-	<2.5	-	-	<2.5	<2.5	-	-	-	-	-
	4/3/2008	2,700	a 280	21	130	230	<25	<1.0	<1.0	<4.0	<1.0	<1.0	<1.0	<100	<1.0	<1,000	<0.5
	6/23/2011	610	a 100	6.2	46	77	-	<2.5	<2.5	<10	-	-	<2.5	-	<2.5	-	-
	<b>12/6/2011</b>	<b>900</b>	<b>a 160</b>	<b>&lt;5.0</b>	<b>68</b>	<b>76</b>	<b>-</b>	<b>&lt;5.0</b>	<b>&lt;5.0</b>	<b>&lt;20</b>	<b>-</b>	<b>-</b>	<b>&lt;5.0</b>	<b>-</b>	<b>&lt;5.0</b>	<b>-</b>	<b>-</b>
	<b>1/24/2012</b>	<b>190</b>	<b>a 25</b>	<b>&lt;1.0</b>	<b>1.4</b>	<b>4.6</b>	<b>&lt;1.0</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>
MW-2	1/21/1987	5,018	386	1,981	285	1,432	-	-	-	-	-	-	-	-	-	-	-
	1/11/1989	10,000	3,000	410	240	190	-	-	-	-	-	-	-	-	-	-	-
	7/12/1989	7,600	2,700	540	250	320	-	-	-	-	-	-	-	-	-	-	-
	4/9/1991	4,900	910	210	130	200	-	-	-	-	-	-	-	-	-	-	-
	7/14/1992	13,000	4,400	1,500	610	1,100	-	-	-	-	-	-	-	-	-	-	-
	10/7/1992	11,000	5,200	1,500	500	1,200	-	-	-	-	-	-	-	-	-	-	-
	1/11/1993	17,000	940	1,100	480	930	-	-	-	-	-	-	-	-	-	-	-
	4/23/1993	52,000	a 13,000	8,400	1,700	5,300	-	-	-	-	-	-	-	-	-	-	-

**Table 9**  
**Groundwater Monitoring Analytical Data**  
**AEI Project No. 298931, 1630 Park Street, Alameda, California**

Sample ID	Date	TPH-g (µg/L)		Benzene Toluene Ethylbenzene Xylenes EPA Methods 8020, 8021B, or 8260B				MTBE (µg/L)	MTBE (µg/L)	TAME (µg/L)	TBA (µg/L)	EDB (µg/L)	1,2-DCA DIPE Ethanol ETBE EPA Method 8260B				Methanol (µg/L)	Lead (µg/L)
				(µg/L)	(µg/L)	(µg/L)	(µg/L)						(µg/L)	(µg/L)	(µg/L)	(µg/L)		
	7/8/1993	6,400	a	2,500	470	280	530	-	-	-	-	-	-	-	-	-	-	
	10/15/1993	17,000	a	3,900	870	500	940	-	-	-	-	-	-	-	-	-	-	
	1/25/1994	16,000	a	5,400	1,140	640	1,500	-	-	-	-	-	-	-	-	-	-	
	4/28/1994	15,000	a	4,000	910	480	1,200	-	-	-	-	-	-	-	-	-	-	
	7/27/1994	18,000	a	6,000	760	630	1,600	-	-	-	-	-	-	-	-	-	-	
	10/27/1994	9,500	a	2,700	230	320	640	-	-	-	-	-	-	-	-	-	-	
	1/26/1995	5,900	a	1,900	290	230	500	-	-	-	-	-	-	-	-	-	-	
	4/13/1995	10,000	a	3,300	620	360	930	-	-	-	-	-	-	-	-	-	-	
	7/21/1995	9,900	a	3,300	320	390	830	-	-	-	-	-	-	-	-	-	-	
	10/25/1995	13,000	a	4,900	400	580	990	-	-	-	-	-	-	-	-	-	-	
	1/21/1997	7,600	a	2,600	310	330	660	<20	-	-	-	-	-	-	-	-	-	
	11/12/1998	31,000	a	11,000	750	1,500	2,300	<900	-	-	-	-	-	-	-	-	-	
	1/16/2001	23,000	a	8,200	260	1,000	820	<30	<30	<150	<30	<30	<30	-	<30	-	-	
	6/27/2002	39,000	a	7,000	1,800	690	4,000	<5	<5.0	<5.0	<5.0	6.1	<5.0	-	<5.0	-	-	
	11/18/2002	15,000	a	5,700	76	1,000	150	<12	-	-	<12	<12	-	-	-	-	-	
	2/20/2003	26,000	a	6,300	1,100	1,300	1,900	<5.0	-	-	<5.0	<5.0	-	-	-	-	-	
	6/11/2003	37,000	a	7,100	2,300	2,000	3,600	<25	-	-	<25	<25	-	-	-	-	-	
	4/3/2008	4,100	a	760	96	250	130	<50	<2.5	<2.5	<10	<2.5	<2.5	<2.5	<250	<2.5	<2,500	
	6/23/2011	6,500	a	2,100	210.0	560	310	<50	<50	<200	-	-	<50	-	<50	-	-	
	<b>12/6/2011</b>	<b>4,800</b>	<b>a</b>	<b>1,600</b>	<b>&lt;50</b>	<b>260</b>	<b>&lt;50</b>	<b>&lt;50</b>	<b>&lt;50</b>	<b>&lt;200</b>	-	-	<b>&lt;50</b>	-	<b>&lt;50</b>	-	-	
	<b>1/24/2012</b>	<b>2,500</b>	<b>a</b>	<b>100</b>	<b>22</b>	<b>&lt;5.0</b>	<b>410</b>	<b>&lt;5.0</b>	-	-	-	-	-	-	-	-	-	
MW-3	1/21/1987	10,287		1,428	3,281	610	2,761	-	-	-	-	-	-	-	-	-	-	
	1/11/1989	5,300		1,800	340	150	160	-	-	-	-	-	-	-	-	-	-	
	7/12/1989	7,800		3,100	900	300	480	-	-	-	-	-	-	-	-	-	-	
	4/9/1991	9,400		1,400	730	200	510	-	-	-	-	-	-	-	-	-	-	
	7/14/1992	17,000		3,500	390	390	260	-	-	-	-	-	-	-	-	-	-	
	10/7/1992	9,200		4,300	470	390	610	-	-	-	-	-	-	-	-	-	-	
	1/11/1993	2,000		740	29	58	28	-	-	-	-	-	-	-	-	-	-	
	4/23/1993	6,500	a	2,600	280	260	190	-	-	-	-	-	-	-	-	-	-	
	7/8/1993	5,200	a	2,100	260	250	180	-	-	-	-	-	-	-	-	-	-	
	10/15/1993	11,000	a	3,500	580	430	370	-	-	-	-	-	-	-	-	-	-	
	1/25/1994	6,200	a	2,500	270	160	28	-	-	-	-	-	-	-	-	-	-	
	4/28/1994	5,300	a	1,700	190	210	180	-	-	-	-	-	-	-	-	-	-	
	7/27/1994	5,900	a	2,000	360	260	330	-	-	-	-	-	-	-	-	-	-	
	10/27/1994	8,000	a	2,200	580	260	170	-	-	-	-	-	-	-	-	-	-	
	1/26/1995	3,700	a	1,200	150	150	190	-	-	-	-	-	-	-	-	-	-	
	4/13/1995	4,000	a	1,400	200	180	210	-	-	-	-	-	-	-	-	-	-	

**Table 9**  
**Groundwater Monitoring Analytical Data**  
**AEI Project No. 298931, 1630 Park Street, Alameda, California**

Sample ID	Date	TPH-g (µg/L)		Benzene Toluene Ethylbenzene Xylenes EPA Methods 8020, 8021B, or 8260B				MTBE (µg/L)	MTBE (µg/L)	TAME (µg/L)	TBA (µg/L)	EDB (µg/L)	1,2-DCA DIPE Ethanol ETBE EPA Method 8260B				Methanol (µg/L)	Lead (µg/L)
				(µg/L)	(µg/L)	(µg/L)	(µg/L)						(µg/L)	(µg/L)	(µg/L)	(µg/L)		
	7/21/1995	5,700	a	2,000	280	270	280	-	-	-	-	-	-	-	-	-	-	-
	10/25/1995	11,000	a	3,500	1,100	460	680	-	-	-	-	-	-	-	-	-	-	-
	1/21/1997	2,200	a	860	63	71	80	<5	-	-	-	-	-	-	-	-	-	-
	11/12/1998	180	d	44	0.51	<0.5	0.92	<20	-	-	-	-	-	-	-	-	-	-
	1/16/2001	64	a	11	0.77	<0.5	<0.5	-	<5	<1.0	<5.0	<1.0	1.4	<1.0	-	<1.0	-	-
	6/27/2002	<50		<0.5	<0.5	<0.5	<0.5	-	<0.5	<0.5	<5.0	<0.5	<0.5	<0.5	-	<0.5	-	-
	11/18/2002	110	a	21	1	<0.5	<0.5	-	<0.5	-	-	<0.5	<0.5	-	-	-	-	-
	2/20/2003	<50		2.5	<0.5	<0.5	<0.5	-	<0.5	-	-	<0.5	<0.5	-	-	-	-	-
	6/11/2003	<50		<0.5	<0.5	<0.5	<0.5	-	<0.5	-	-	<0.5	<0.5	-	-	-	-	-
	4/3/2008	7,600	a	2,400	58	250	170	<100	<5.0	<5.0	<20	<5.0	<5.0	<5.0	<500	<5.0	<5,000	<0.5
	6/23/2011	1,300	a	560	21	86	150	-	<12	<12	<50	-	-	<12	-	<12	-	-
	<b>12/6/2011</b>	<b>1,800</b>	<b>a</b>	<b>620</b>	<b>28</b>	<b>22</b>	<b>46</b>	<b>-</b>	<b>&lt;17</b>	<b>&lt;17</b>	<b>&lt;67</b>	<b>-</b>	<b>-</b>	<b>&lt;17</b>	<b>-</b>	<b>&lt;17</b>	<b>-</b>	<b>-</b>
	<b>1/24/2012</b>	<b>3,700</b>	<b>a</b>	<b>1,200</b>	<b>68</b>	<b>34</b>	<b>130</b>	<b>&lt;25</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>
MW-4	4/28/1994	190	b,c	3.8	2.9	2.1	3.1	-	-	-	-	-	-	-	-	-	-	-
	7/27/1994	180	a	15	9.2	7.6	28	-	-	-	-	-	-	-	-	-	-	-
	10/27/1994	130	a	8.6	6.6	4.5	17	-	-	-	-	-	-	-	-	-	-	-
	1/26/1995	110		6.5	1.2	1.8	11	-	-	-	-	-	-	-	-	-	-	-
	4/13/1995	82		3.9	<0.5	<0.5	2.5	-	-	-	-	-	-	-	-	-	-	-
	7/21/1995	130		8.8	1.3	4.5	7.6	-	-	-	-	-	-	-	-	-	-	-
	10/25/1995	95		6.6	1.7	4.3	7	-	-	-	-	-	-	-	-	-	-	-
	1/21/1997	-		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	11/12/1998	-		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	1/16/2001	-		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	6/27/2002	-		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	11/18/2002	-		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	2/20/2003	-		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	6/11/2003	-		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	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	a	2.7	<0.5	1.0	1.7	-	<0.5	<0.5	<2.0	-	-	<0.5	-	<0.5	-	-
	<b>12/6/2011</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>
	<b>1/24/2012</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>
MW-5	4/28/1994	30,000	a	4,000	3,000	810	3,500	-	-	-	-	-	-	-	-	-	-	-
	7/27/1994	9,300	a	2,000	800	290	940	-	-	-	-	-	-	-	-	-	-	-
	10/27/1994	15,000	a	2,700	1,300	420	1,100	-	-	-	-	-	-	-	-	-	-	-
	1/26/1995	7,900	a	2,100	680	240	860	-	-	-	-	-	-	-	-	-	-	-
	4/13/1995	7,900	a	2,400	580	340	630	-	-	-	-	-	-	-	-	-	-	-

**Table 9**  
**Groundwater Monitoring Analytical Data**  
**AEI Project No. 298931, 1630 Park Street, Alameda, California**

Sample ID	Date	TPH-g (µg/L)		Benzene Toluene Ethylbenzene Xylenes				MTBE (µg/L)	MTBE (µg/L)	TAME (µg/L)	TBA (µg/L)	EDB (µg/L)	1,2-DCA DIPE Ethanol ETBE				Methanol (µg/L)	Lead (µg/L)
				EPA Methods 8020, 8021B, or 8260B (µg/L)									EPA Method 8260B (µg/L)					
	7/21/1995	11,000	a	3,400	760	610	1,200	-	-	-	-	-	-	-	-	-	-	
	10/25/1995	13,000	a	2,900	830	570	1,100	-	-	-	-	-	-	-	-	-	-	
	1/21/1997	2,600	a	750	65	1,860	280	<5	-	-	-	-	-	-	-	-	-	
	11/12/1998	<50		<0.5	<0.5	<0.5	<0.5	<5	-	-	-	-	-	-	-	-	-	
	1/16/2001	<50		11	<0.5	<0.5	0.82	-	<5	<1.0	<5.0	<1.0	<1.0	<1.0	-	<1.0	-	
	6/27/2002	<50		<0.5	<0.5	<0.5	<0.5	-	<0.5	<0.5	<5.0	<0.5	<0.5	<0.5	-	<0.5	-	
	11/18/2002	130	a	17	3.8	2.1	16	-	<0.5	-	-	<0.5	<0.5	-	-	-	-	
	2/20/2003	<50		5.6	0.51	<0.5	0.68	-	<0.5	-	-	<0.5	<0.5	-	-	-	-	
	6/11/2003	170	a	48	<0.5	<0.5	1.4	-	<0.5	-	-	<0.5	<0.5	-	-	-	-	
	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	
	6/23/2011	82	a	5.1	<0.5	12.0	8.4	-	<0.5	<0.5	<2.0	-	<0.5	-	<0.5	-	-	
	12/6/2011	-		-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	1/24/2012	-		-	-	-	-	-	-	-	-	-	-	-	-	-	-	
DPE-1	12/6/2011	9,200	a	1,800	570	460	1,100	-	<50	<50	<200	-	-	<50	-	<50	-	
	1/24/2012	3,200	a	170	58	<5.0	620	<5.0	-	-	-	-	-	-	-	-	-	
DPE-2	12/6/2011	22,000	a	2,100	3,300	650	3,300	-	<100	<100	<400	-	-	<100	-	<100	-	
	1/24/2012	1,100	a	44	26	11	150	<2.5	-	-	-	-	-	-	-	-	-	
DPE-3	12/6/2011	6,400	a	550	560	180	1,000	-	<17	<17	<67	-	-	<17	-	<17	-	
	1/24/2012	5,500	a	290	240	44	1,000	<5.0	-	-	-	-	-	-	-	-	-	
DPE-4	1/24/2012	730	a	66	6.0	7.1	83	2.5	-	-	-	-	-	-	-	-	-	
DPE-5	1/24/2012	-		-	-	-	-	-	-	-	-	-	-	-	-	-	-	
DPE-6	1/24/2012	64*	a	<0.5	<0.5	<0.5	3.2	<0.5	-	-	-	-	-	-	-	-	-	
DPE-8	1/24/2012	-		-	-	-	-	-	-	-	-	-	-	-	-	-	-	
DPE-9	1/24/2012	4,400	a	160	390	93	1,100	<5.0	-	-	-	-	-	-	-	-	-	
DPE-10	1/24/2012	-		-	-	-	-	-	-	-	-	-	-	-	-	-	-	

TPH-g= total petroleum hydrocarbons as gasoline  
TPH-g= total petroleum hydrocarbons as diesel

**Table 9**  
**Groundwater Monitoring Analytical Data**  
**AEI Project No. 298931, 1630 Park Street, Alameda, California**

Sample ID	Date	TPH-g (µg/L)	Benzene EPA Methods 8020, 8021B, or 8260B (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Xylenes (µg/L)	MTBE (µg/L)	MTBE (µg/L)	TAME (µg/L)	TBA (µg/L)	EDB (µg/L)	1,2-DCA EPA Method 8260B (µg/L)	DIPE (µg/L)	Ethanol (µg/L)	ETBE (µg/L)	Methanol (µg/L)	Lead (µg/L)
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TPH-motor oil = total petroleum hydrocarbons as motor oil

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

µg/L = micrograms per liter

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 compounds (the most mobile fraction) are significant.

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

\* TPH-d = <50, TPH-motor oil = 250

**Table 10**  
**Hydrocarbon Mass Calculation (TPH-g)**  
**AEI Project No. 298931, 1630 Park Street, Alameda, California**

MASS IN SOIL				
Parameter	Area			Source
	1	2	3	
Area (feet <sup>2</sup> )	3,733	707	6,316	Figure 7
Height (feet)	8	8	8	Approximate thickness of impacted zone
Volume (feet <sup>3</sup> )	29,864	5,656	50,528	Calculated as the Area * Height
Volume (m <sup>3</sup> )	845	160	1,430	
Soil Density (kg/m <sup>3</sup> )	1,800	1,800	1,800	Average density for silty sand (Lindeburg 1992).
Soil Weight (kg)	1,521,810	288,218	2,574,806	Calculated as the Volume * Soil Density
Estimated Average Conc. (mg/kg)	2,674	1,600	280	Average of concentrations shown in Figure 7
Mass (mg)	4,069,982,244	461,149,517	722,049,119	Calculated as the Soil Weight * Conc.
Mass (pounds)	8,974	1,017	1,592	

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**Total Mass (pounds)**                      11,583

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MASS IN GROUNDWATER		
Parameter	Area 4	Source
Area (feet <sup>2</sup> )	7,115	Figure 8
Height (feet)	8	Approximate thickness of impacted zone
Volume (feet <sup>3</sup> )	56,920	Calculated as the Area * Height
Porosity	0.40	Assumed value
Pore Space (feet <sup>3</sup> )	22,768	Calculated as the Volume * Porosity
Gallons per feet <sup>3</sup> (gallons/feet <sup>3</sup> )	7.48	
Estimated Average Conc. (ug/L)	8,550	Average of concentrations shown in Figure 7
Grams per ug	0.000001	
Liters / Gallon	3.7854	
Pounds / Gram	0.0022	
Mass (pounds)	12.13	

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Area 1 = The area of concentrations defined by the southern 1,000 mg/kg contour line (Figure 7).  
Area 2 = The area of concentrations defined by the northern 1,000 mg/kg contour line (Figure 7).  
Area 3 = The area of concentrations defined by the 100 mg/kg contour line (Figure 7).  
Area 4 = The area of the concentrations defined by the 1,000 ug/L contour line (Figure 8).

TPH-g = Total petroleum hydrocarbons as gasoline  
Conc. = Concentration  
mg/kg= milligrams per kilogram  
ug/L = micrograms per liter

Reference:  
Michael R. Lindeburg, Civil Engineering Reference Manual, Sixth Edition, P.E. 1992

**Table 11**  
**Well Search Table**  
**AEI Project No. 298931, 1600 - 1630 Park Street, Alameda, California**

<b>Well Designation</b>	<b>Township / Range</b>	<b>Section, Parcel and Number</b>	<b>Direction</b>	<b>Distance (feet)</b>	<b>Address</b>	<b>Total Depth (feet)</b>	<b>Drill Date</b>
L1	2S/3W	7L1	Northeast	1,350	1915 EVERETT ST	90	Unknown
P1	2S/3W	7P1	East	1,750	2623 EAGLE AVE	120	6/76
Q80	2S/3W	7Q80	East	1,900	1823 PEARL ST	11	10/96
D2	2S/3W	18D2	South	1,400	EVERETT & ALAMEDA	120	7/76
R1	2S/4W	12R1	Southwest	1,400	CENTRAL & OAK ST	325	Unknown
M1	2S/3W	7M1	North	1,200	2307 CLEMENT AVE	72	4/77
M2	2S/3W	7M2	North	1,200	2307 CLEMENT AVE	82	4/77
L2	2S/3W	7L2	East	1,100	1819 EVERETT ST	Unknown	/06
N1	2S/3W	7N1	West	1,000	2235 LINCOLN AVE	206	/16
J1	2S/4W	12J1	West	1,950	2138 PACIFIC AVE	29	8/77

**Table 12**  
**Summary of Select HVDPE Event Data**  
**AEI Project No. 298931, 1630 Park Street, Alameda, California**

	Extraction Well(s)	Date	Extraction							Observation Wells														
			Duration (Days)	Casing Vacuum (in. of Hg)	System Vacuum (in. of Hg)	System Flow Rate (cfm)	Influent Conc. (ppmv)	Water Totalizer Readings (gallons)	Calculated Flowrate (gpm)	DPE-1 Induced Vacuum (in. H <sub>2</sub> O)	DPE-1 Depth to Water (feet TOC)	DPE-2 Induced Vacuum (in. H <sub>2</sub> O)	DPE-2 Depth to Water (feet TOC)	DPE-3 Induced Vacuum (in. H <sub>2</sub> O)	DPE-3 Depth to Water (feet TOC)	MW-1 Induced Vacuum (in. H <sub>2</sub> O)	MW-1 Depth to Water (feet TOC)	MW-2 Induced Vacuum (in. H <sub>2</sub> O)	MW-2 Depth to Water (feet TOC)	MW-3 Induced Vacuum (in. H <sub>2</sub> O)	MW-3 Depth to Water (feet TOC)	VP-1 Induced Vacuum (in. H <sub>2</sub> O)	VP-2 Induced Vacuum (in. H <sub>2</sub> O)	VP-3 Induced Vacuum (in. H <sub>2</sub> O)
Baseline	--	12/5/11	--	--	--	--	--	12380	--	--	8.61	--	8.75	--	7.73	--	8.27	--	8.48	--	8.34	--	--	--
Start	DPE-1	12/6/11 8:00	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	DPE-1	12/6/11 11:40	--	--	--	--	--	12410	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Stop	DPE-1	12/7/11 8:00	1.0	10	25	37	6410	13140	0.60	--	--	0.73	9.61	0.39	8.42	0.22	9.19	0.60	9.41	0.03	8.77	0.44	0.78	0.22
Start	DPE-3	12/7/11 9:00	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	DPE-3	12/7/11 20:00	--	--	--	--	--	13450	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Stop	DPE-3	12/8/11 8:00	1.0	8	25	30	9240	13760	0.43	0.48	11.04	1.55	12.28	--	--	0.10	9.97	0.15	9.94	0.00	9.29	0.00	0.01	0.07
Start	DPE-2	12/8/11 8:30	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	DPE-2	12/8/11 20:00	--	--	--	--	--	14020	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Stop	DPE-2	12/9/11 8:00	1.0	8	23	46	2670	14190	0.24	0.30	11.10	--	--	0.00	11.00	0.10	10.07	0.05	10.01	0.00	9.39	0.00	0.01	0.04
Start	DPE-1 to DPE-3	12/9/11 9:00	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	DPE-1 to DPE-3	12/9/11 20:00	--	--	--	--	--	14910	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Stop	DPE-1 to DPE-3	12/30/11 4:00	20.8	7 / 5 / 0	15	177	876	42310	0.94	--	--	--	--	--	--	0.35	--	0.35	--	0.00	--	0.50	0.40	0.35
	DPE-1 to DPE-3	12/30/11 9:30	--	--	--	--	--	--	--	--	--	--	--	--	--	--	9.49	--	9.52	--	9.21	--	--	--
Start	MW-2	12/30/11 12:15	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	MW-2	12/30/11 20:00	--	--	--	--	--	43370	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	MW-2	12/31/11 8:00	--	--	--	--	--	43630	0.36	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Stop	MW-2	12/31/11 12:00	1.0	--	25	36	653	--	--	0.75	--	0.07	--	0.05	--	0.15	--	--	--	0.05	--	0.60	0.50	0.20

Notes:  
in. of Hg Inches of mercury vacuum  
in. H<sub>2</sub>O Inches of water vacuum  
cfm Cubic feet per minute  
ppmv Parts per million by volume  
feet TOC Feet below the top of casing  
gpm Gallons per minute



**Table 13**  
**Vapor Radius of Influence**  
**AEI Project No. 298931, 1630 Park Street, Alameda, California**

Extraction Well DPE-1			Extraction Well DPE-2			Extraction Well DPE-3			Extraction Well MW-2		
Observation Well	Distance (X) (feet)	Induced Vacuum (Y) (in. H <sub>2</sub> O)	Observation Well	Distance (X) (feet)	Induced Vacuum (Y) (in. H <sub>2</sub> O)	Observation Well	Distance (X) (feet)	Induced Vacuum (Y) (in. H <sub>2</sub> O)	Observation Well	Distance (X) (feet)	Induced Vacuum (Y) (in. H <sub>2</sub> O)
VP-1	15	0.44	VP-1	30	0.00	VP-1	34	0.00	VP-1	16	0.60
VP-2	10	0.78	VP-2	25	0.01	VP-2	29	0.01	VP-2	13	0.50
VP-3	20	0.22	VP-3	26	0.04	VP-3	16	0.07	VP-3	23	0.20
ROI	23	0.10	ROI	13	0.10	ROI	12	0.10	ROI	30	0.10
DPE-2	19	0.73	DPE-1	19	0.30	DPE-1	19	0.48	DPE-1	13	--
DPE-3	19	0.39	DPE-3	12	0.00	DPE-2	12	1.55	DPE-2	32	--
MW-1	27	0.22	MW-1	33	0.10	MW-1	22	0.10	DPE-3	30	--
MW-2	13	0.60	MW-2	32	0.05	MW-2	30	0.15	MW-1	27	--
MW-3	36	0.03	MW-3	47	0.00	MW-3	54	0.00	MW-3	36	--
ROI	35	0.10	ROI	21	0.10	ROI	35	0.10	ROI	N/C	--

Average ROI using VP-1 through VP-3 (feet)	19
Average ROI using all other wells (feet)	30

Notes:

ROI calculated as X on a semi-log linear regression trendline for a given value of Y. The trendline has the formula:

$$Y = C * \ln(X) + B, \text{ or } X = e^{(Y - B)/C}$$

in. H<sub>2</sub>O      Inches of water vacuum

N/C            Not calculated

**Table 14**  
**Pore Exchange Volume Calculation**  
**AEI Project No. 298931, 1630 Park Street, Alameda, California**

Parameter	Well			Source
	DPE-1	DPE-2	DPE-3	
Effective Porosity (unitless)	0.3	0.3	0.3	Assumed value
ROI (feet)	35	21	35	Table 13
Thickness (feet)	8	8	8	One half of the thickness of the contaminated zone
Volume (feet <sup>3</sup> )	30,788	11,084	30,788	Calculated as $\pi \cdot \text{ROI}(\text{feet})^2 \cdot \text{Thickness}(\text{feet})$
System Flow Rate (feet <sup>3</sup> per minute)	37	46	30	Table 12
Pore Volume Exchange (minutes)	249.63	72.28	307.88	(Calculated as Effective Porosity * Volume ) / System Flow Rate
Pore Volume Exchange (hours)	4.16	1.20	5.13	1 hour = 60 minutes
Pore Volume Exchange (days)	0.17	0.05	0.21	1 day = 24 hours
Pore Volumes Exchanged per day	5.77	19.92	4.68	1 / Pore Volume Exchange (days)
<b>Average Pore Volumes Exchanged per day</b>		10.12		

cfm = Cubic feet per minute

ROI = Radius of influence

Reference:

EPA (United States Environmental Protection Agency). 2004. How to Evaluate Alternative Cleanup Technologies for Underground Storage Tank Sites, A Guide for Corrective Action Plan Reviewers. May 2004.

**Table 15**  
**Groundwater Radius of Influence**  
**AEI Project No. 298931, 1630 Park Street, Alameda, California**

Observation Well	Initial Depth to Water		Final Depth to Water		Drawdown (feet)	Nearest Ext. Well	Distance to Nearest Ext. Well (feet)
	Date	(feet)	Date	(feet)			
MW-1	12/5/2011	8.27	12/30/2011	9.49	1.22	DPE-3	22
MW-2	12/5/2011	8.48	12/30/2011	9.52	1.04	DPE-1	13
MW-3	12/5/2011	8.34	12/30/2011	9.21	0.87	DPE-1	36

Note:

Initial depth to water measurements were collected at the beginning of the event.

The final depth to wate measurements were collected after the operation of wells DPE-1 through DPE-3.

**Table 16**  
**Hydrocarbon Mass Removal in Groundwater**  
**AEI Project No. 298931, 1630 Park Street, Alameda, California**

Sample ID	Date	TPH-g (µg/L)	Benzene EPA Methods (µg/L)	Toluene 8020, 8021B, or 8260B (µg/L)	Ethylbenzene (µg/L)	Xylenes (µg/L)
MW-2	12/6/2011	4,800	1,600	<50	260	<50
	1/24/2012	2,500	100	22	<5.0	410
DPE-1	12/6/2011	9,200	1,800	570	460	1,100
	1/24/2012	3,200	170	58	<5.0	620
DPE-2	12/6/2011	22,000	2,100	3,300	650	3,300
	1/24/2012	1,100	44	26	11	150
DPE-3	12/6/2011	6,400	550	560	180	1,000
	1/24/2012	5,500	290	240	44	1,000
Average		6,838	832	682	268	1,083

Sample ID	Date	TPH-g (pounds)	Benzene EPA Methods (pounds)	Toluene 8020, 8021B, or 8260B (pounds)	Ethylbenzene (pounds)	Xylenes (pounds)
Average	--	2.48	0.30	0.25	0.10	0.39

Total Gallons Removed = 43,530

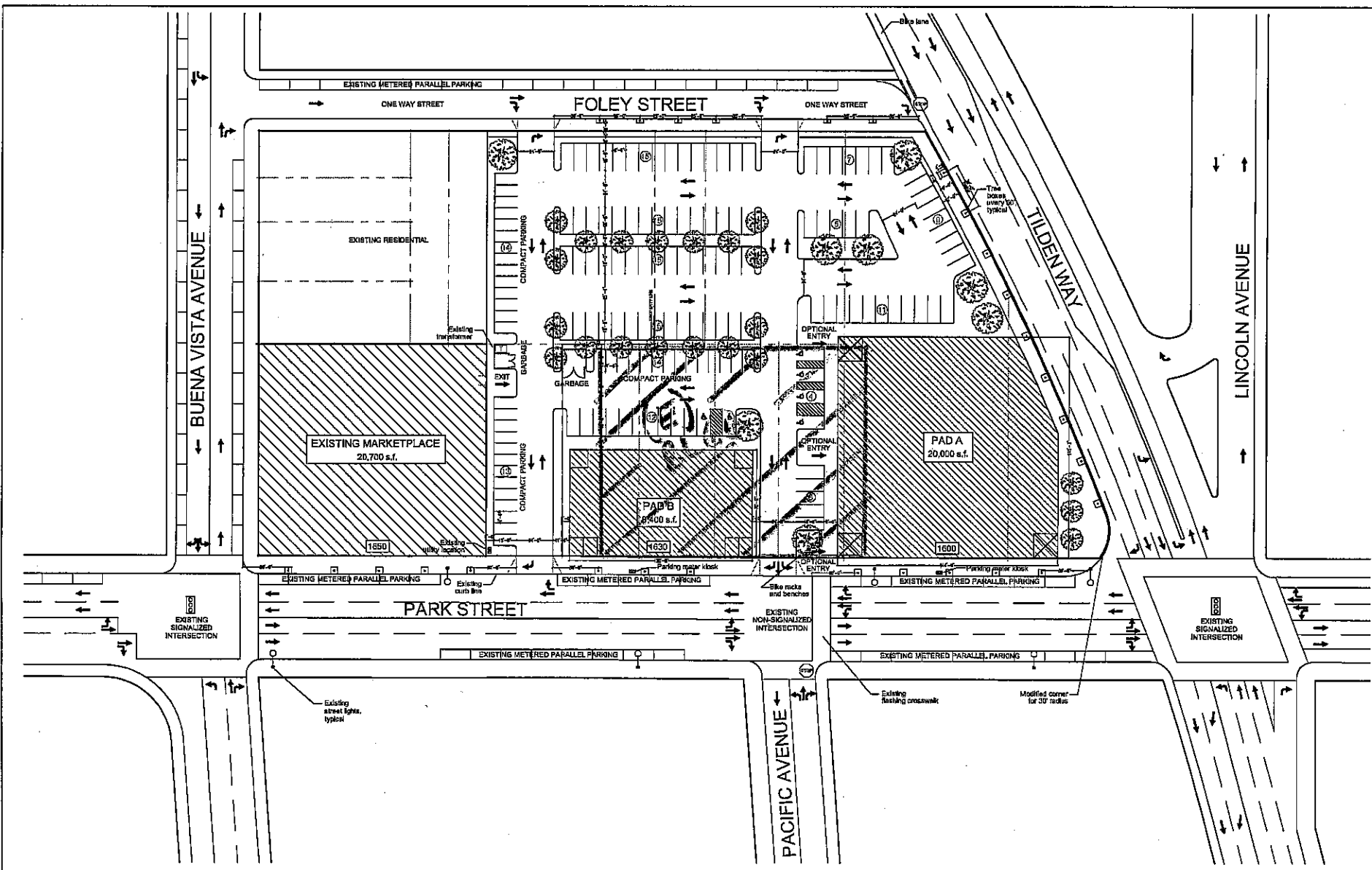
Estimated Mass Removed (pounds) = Average influent concentration (µg/L) \* flow (gallons) \* 11b/454 g \* 1/1,000,000 \* 3.785 L/gallon

TPH-g= total petroleum hydrocarbons as gasoline

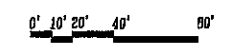
µg/L = micrograms per liter

**APPENDIX A**

**PLANNED DEVELOPMENT LAYOUT**



1 Site Plan  
Scale: 1" = 40'

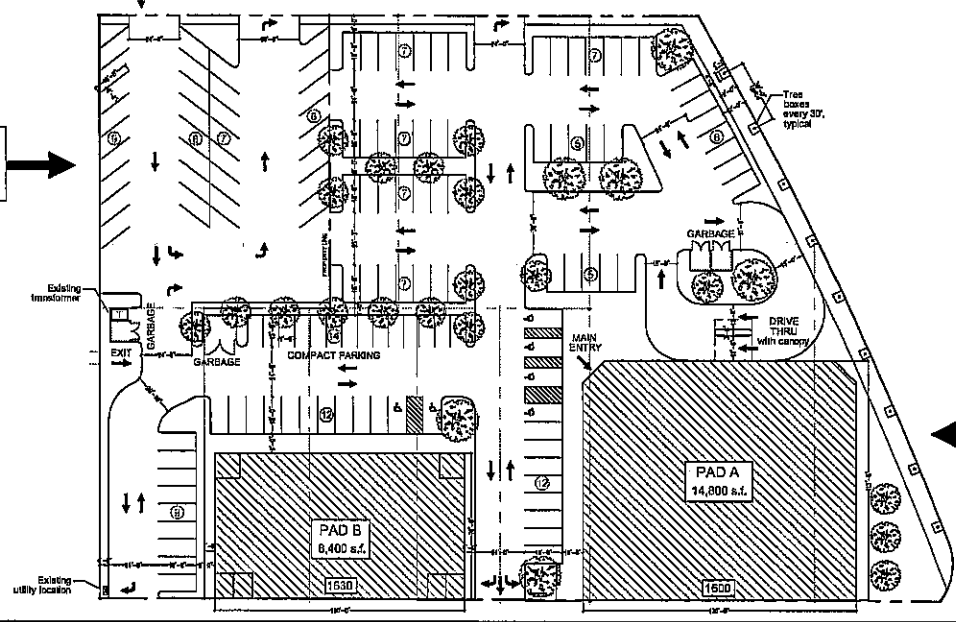


Reference North

North

ALTERNATE PARKING without RECIPROCAL PARKING AGREEMENT

ALTERNATE PAD A CONFIGURATION



2 Alternates to Site Plan  
Scale: 1" = 40'

PROJECT INFORMATION	
<b>Proposed Building Site (Pad A &amp; Pad B):</b>	
Site Area = 77,400 s.f.	Landscaped Area = 6,618 s.f. (8.5%)
Total Proposed Building Area (Pad A & B) = 28,400 s.f.	Parking Spaces Provided = 99 (3.5 per 1000 s.f.)
<b>Existing Marketplace Site:</b>	
Existing Building Area = 20,700 s.f.	Parking Spaces Provided = 55 (2.6 per 1000 s.f.)
<b>Totals for both sites:</b>	
Total Proposed Building Square Footage = 49,100 s.f.	Total Parking Provided = 154 (3.1 per 1000 s.f.)
Total Handicapped Spaces Provided = 6	

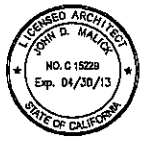
PROJECT INFORMATION for ALTERNATE CONFIGURATIONS	
<b>Proposed Building Site (Pad A &amp; Pad B):</b>	
Site Area = 77,400 s.f.	Landscaped Area = 7,048 s.f. (9.1%)
Total Proposed Building Area (Pad A & B) = 23,200 s.f.	Parking Spaces Provided = 91 (4 per 1000 s.f.)
<b>Existing Marketplace Site:</b>	
Existing Building Area = 20,700 s.f.	Parking Spaces Provided = 41 (2 per 1000 s.f.)
<b>Totals for both sites:</b>	
Total Proposed Building Square Footage = 43,900 s.f.	Total Parking Provided = 132 (3 per 1000 s.f.)
Total Handicapped Spaces Provided = 6	

JOHN MALICK & ASSOCIATES



Architecture • Planning

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



© John Malick & Associates, 2011	
Revisions	Date
Meeting	6/23/11
Revisions	7/12/11

Foley Street Investments LLC  
Tilden Way and Park Street  
Alameda, CA

Drawing Title	
Site Plan	
Scale	1" = 40'
Drawn By	AG/GK
Job Number	456.1
Drawing Number	

A101

**APPENDIX B**

**CALCLEAN REPORT**

January 19, 2012

AEI Consultants  
2500 Camino Diablo, Suite 100  
Walnut Creek, CA

ATTN: MR. PETER MCINTYRE

SITE: GOOD CHEVROLET  
1630 PARK STREET  
ALAMEDA, CA

RE: HIGH VACUUM DUAL PHASE EXTRACTION REPORT

Dear Mr. McIntyre:

CalClean Inc. is submitting this High Vacuum Dual Phase Extraction Report for the above referenced site. This report includes all activities performed during the dates of December 5, 2011 to January 9, 2012.

From December 5, 2011 to January 9, 2012, CalClean performed a 35-day high vacuum dual phase extraction (HVDPE) event on several onsite extraction wells using a low-noise, truck-mounted 450-CFM high-vacuum liquid ring blower along with a Bay Area Air Quality Management District (BAAQMD) various locations permitted propane-fired thermal oxidizer (Plant No. 12568). This technology allows hydrocarbons to be simultaneously removed from the vadose zone, capillary fringe, and saturated soil zone. A high vacuum was applied for vapor extraction and drawdown of the groundwater table around the extraction wells, while vacuum and vapor flow rates were modified to optimize recovery of vapor, free-product (if any) and dissolved-phase hydrocarbons.

During the event, the high vacuum dual phase extraction (HVDPE) system was connected to wells DPE-1, DPE-2, DPE-3, and MW-2 individually or in combination. HVDPE activities were conducted for a total of 35 days during the HVDPE event.

Vapor samples were collected in Tedlar bags during the HVDPE event from the extraction wells. Total Inlet well vapor samples were also collected during the event. The laboratory results, listed in Table 1 and laboratory reports included in Attachment 1, indicate the following:

- The starting Total Petroleum Hydrocarbons as Gasoline (TPH-G) vapor concentrations for wells DPE-1, DPE-2, and DPE-3 were 5,600 ppmv, 4,000 ppmv, and 7,100 ppmv, respectively. The ending TPH-G vapor concentrations were 1,600 ppmv, 1,700 ppmv, and 3,300 ppmv, respectively. The TPH-G vapor concentration for well MW-2 was 1,000 ppmv. The starting and ending Total Inlet TPH-G vapor concentrations were 6,000 ppmv and 1,500 ppmv, respectively.



- The starting Benzene vapor concentrations for wells DPE-1, DPE-2, and DPE-3 were 130 ppmv, 110 ppmv, and 130 ppmv, respectively. The ending Benzene vapor concentrations were 24 ppmv, 28 ppmv, and 62 ppmv, respectively. The Benzene vapor concentration for well MW-2 was 9 ppmv. The starting and ending Total Inlet Benzene vapor concentrations were 110 ppmv and 22 ppmv, respectively.
- The starting Methyl tert-Butyl Ether (MtBE) vapor concentrations for wells DPE-1, DPE-2, and DPE-3 were 280 ppmv, 160 ppmv, and 550 ppmv, respectively. The ending MtBE vapor concentrations were 18 ppmv, 22 ppmv, and 58 ppmv, respectively. The MtBE vapor concentration for well MW-2 was 13 ppmv. The starting and ending Total Inlet MtBE vapor concentrations were 170 ppmv and 18 ppmv, respectively.

The total equivalent amount of hydrocarbons recovered through vapor extraction during the 35-day HVDPE event was 6,422.16 pounds (based on laboratory data), and 4,274.15 pounds (based on the Horiba field organic vapor analyzer data) with an average of 5,348.16 pounds. The cumulative tabulation of recovered hydrocarbons (based on laboratory data) is provided in Table 2. The cumulative tabulation of recovered hydrocarbons (based on the field organic vapor analyzer data) is provided in Table 3.

The total volume of hydrocarbon-affected groundwater recovered from the extraction wells during the HVDPE event was approximately 43,530 gallons. The extracted groundwater was treated through two 500-pound granular activated carbon vessels in series and then discharged periodically to the onsite sewer system in accordance with Special Discharge Permit #36810870 from East Bay Municipal Utility District.

The following attachments are included to document the HVDPE event at the site:

Table 1	Results of Laboratory Analysis of Influent Vapor Samples
Table 2	Hydrocarbon Mass Removal (using Lab Data)
Figure 1	Total Inlet HC Concentrations versus Time (35-Days, Using Lab Data)
Figure 2	Cumulative HC Recovered over 35 Days (using Lab Data)
Table 3	Hydrocarbon Mass Removal (using Horiba Data)
Figure 3	Total Inlet HC Concentrations versus Time (35-Days, Using Horiba Data)
Figure 4	Cumulative HC Recovered over 35 Days (using Horiba and Lab Data)
Attachment 1	Laboratory Reports
Attachment 2	High Vacuum Dual Phase Extraction Field Data Sheets

High Vacuum Dual Phase Extraction Report  
Good Chevrolet, Alameda, CA  
January 19, 2012

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If you have any questions regarding this report, please contact us at (714) 734-9137 or via cell phone at (714) 936-2706.

Sincerely,

A handwritten signature in blue ink, appearing to read "Noel Sheno", with a horizontal line underneath.

CALCLEAN INC.

Noel Sheno  
Principal Engineer

Attachments

Table 1  
**RESULTS OF LABORATORY ANALYSIS OF VAPOR SAMPLES**  
 Good Chevrolet  
 Alameda, CA

Sample ID	Date/Time Sampled	TPH-g (ppmv)	Benzene (ppmv)	Toluene (ppmv)	Ethylbenzene (ppmv)	Total Xylenes (ppmv)	MtBE (ppmv)
DPE-1	12/5/11 1015	5,600	130	56	2.6	14	280
DPE-1	12/6/11 1405	6,900	150	230	26	77	120
DPE-1	12/6/11 2000	7,500	130	250	32	98	84
DPE-1	12/7/11 0400	6,500	120	220	24	72	79
DPE-1	12/30/11 0400	3,300	27	38	12	36	11
DPE-1	1/9/12 1700	1,600	24	120	20	80	18
DPE-2	12/5/11 1030	4,000	110	80	2.4	15	160
DPE-2	12/8/11 0930	2,100	25	64	8.7	27	17
DPE-2	12/8/11 1130	1,800	21	68	5.7	20	41
DPE-2	12/8/11 1600	1,900	22	75	6.3	21	43
DPE-2	12/9/11 0400	2,500	25	95	7.8	26	60
DPE-2	12/30/11 0405	3,100	50	55	15	43	55
DPE-2	1/9/12 1655	1,700	28	130	19	77	22

Table 1  
RESULTS OF LABORATORY ANALYSIS OF VAPOR SAMPLES  
Good Chevrolet  
Alameda, CA

Sample ID	Date/Time Sampled	TPH-g (ppmv)	Benzene (ppmv)	Toluene (ppmv)	Ethylbenzene (ppmv)	Total Xylenes (ppmv)	MtBE (ppmv)
DPE-3	12/5/11 1040	7,100	130	120	5.5	28	550
DPE-3	12/7/11 0905	10,000	180	310	35	100	93
DPE-3	12/7/11 1100	15,000	180	320	49	110	330
DPE-3	12/7/11 1600	9,200	120	330	54	140	210
DPE-3	12/8/11 0400	10,000	120	260	51	130	240
DPE-3	12/30/11 0410	3,300	62	64	20	55	58
MW-2	1/9/12 1645	1,000	9	74	15	61	13

Table 1  
**RESULTS OF LABORATORY ANALYSIS OF VAPOR SAMPLES**  
 Good Chevrolet  
 Alameda, CA

Sample ID	Date/Time Sampled	TPH-g (ppmv)	Benzene (ppmv)	Toluene (ppmv)	Ethylbenzene (ppmv)	Total Xylenes (ppmv)	MtBE (ppmv)
TOTAL INLET	12/5/11 1050	6,000	110	110	5.3	26	170
TOTAL INLET	12/9/11 0900	7,400	44	140	16	56	73
TOTAL INLET	12/10/11 0800	6,100	53	140	17	59	95
TOTAL INLET	12/11/11 0800	6,000	56	140	18	61	33
TOTAL INLET	12/12/11 0800	7,400	61	160	18	65	120
TOTAL INLET	12/22/11 1300	3,800	48	62	27	87	56
TOTAL INLET	12/30/11 0355	4,300	39	36	21	66	12
TOTAL INLET	1/6/12 0800	1,300	17	93	15	59	14
TOTAL INLET	1/9/12 1645	1,500	22	110	19	76	18

## Notes:

ppmv  
 TPH - g

= parts per million by volume  
 = total petroleum hydrocarbons - gasoline

TPH-G/BTEX analyzed by EPA 8015B/8021B

**Table 2**  
**HYDROCARBON MASS REMOVAL (Using Lab Data)**  
 Good Chevrolet, Alameda, CA

TIME	SYSTEM PARAMETERS			Hydrocarbon Recovery		
	Average System Vacuum (in of Hg)	Average Total System Inlet Flow (scfm)	Influent Concentrations Post-dilution* (ppmv)	(lbs)	(gal)	(Cumul. lbs)
12/5/2011 10:50	22	97	6,000	0.00	0.00	0.00
12/9/2011 9:00	21	124	7,400	949.19	151.93	949.19
12/10/2011 8:00	21	123	6,100	261.05	41.78	1,210.23
12/11/2011 8:00	21	126	6,000	246.12	39.40	1,456.36
12/12/2011 8:00	21	124	7,400	273.66	43.80	1,730.02
12/22/2011 13:00	18	89	3,800	1,989.40	318.43	3,719.41
12/30/2011 3:55	15	177	4,300	1,341.46	214.72	5,060.87
1/6/2012 8:00	18	162	1,300	1,111.95	177.98	6,172.82
1/9/2012 16:45	18	162	1,500	249.35	39.91	6,422.16
<b>TOTAL HC RECOVERED* - LAB DATA</b>				<b>6,422.16</b>	<b>1,027.96</b>	
<b>TOTAL HC RECOVERED** - FIELD ANALYZER DATA</b>				<b>4,274.15</b>	<b>684.14</b>	
<b>Average HC Recovered*** (Field Analyzer/Lab Data)</b>				<b>5,348.16</b>	<b>856.05</b>	
<b>TOTAL GROUNDWATER RECOVERED</b>					<b>43,530</b>	

in of Hg = inches of mercury

ppmv = parts per million by volume

scfm = standard cubic feet per minute

gal = gallons

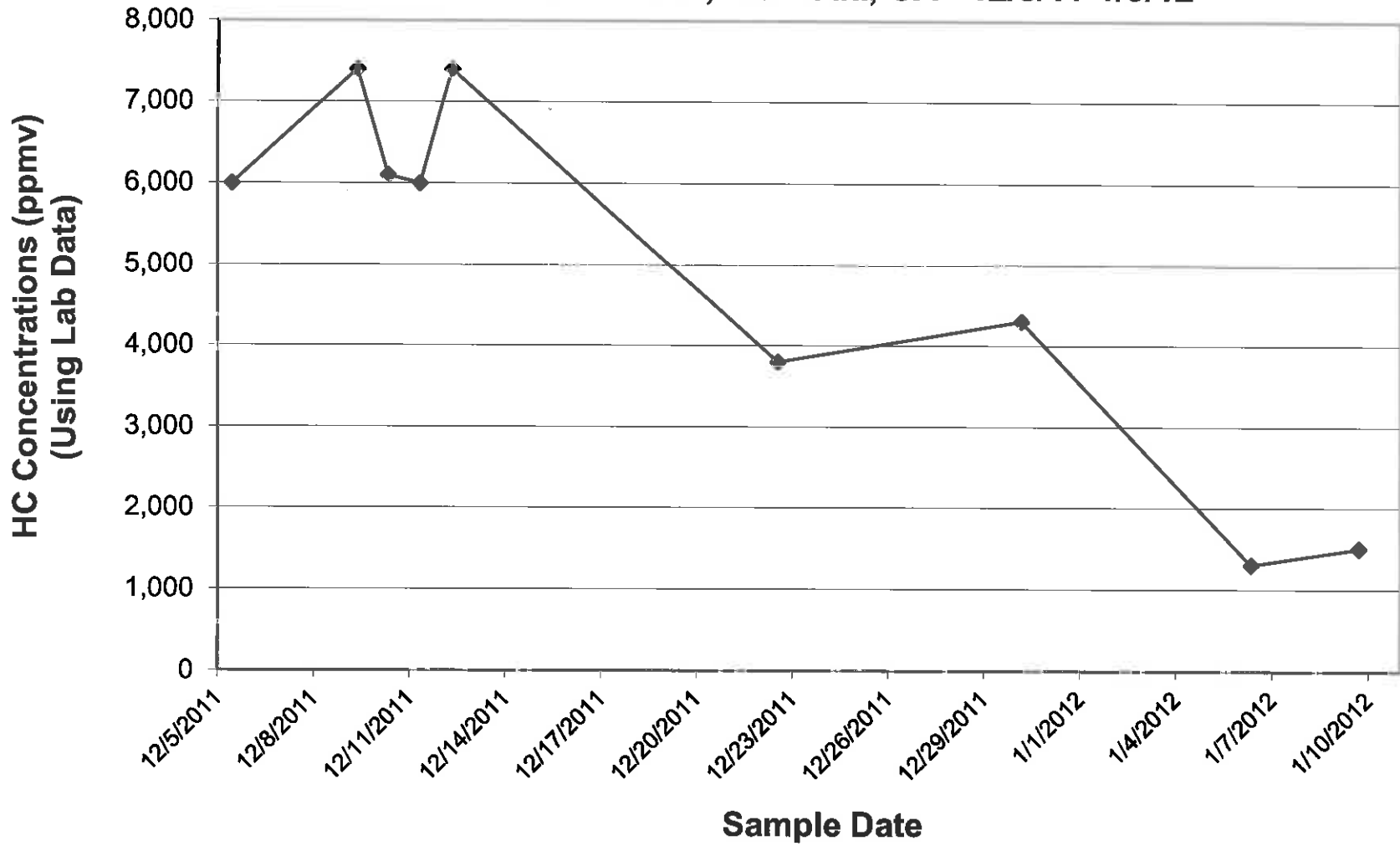
lbs = pounds

\* Concentration data based on laboratory data.

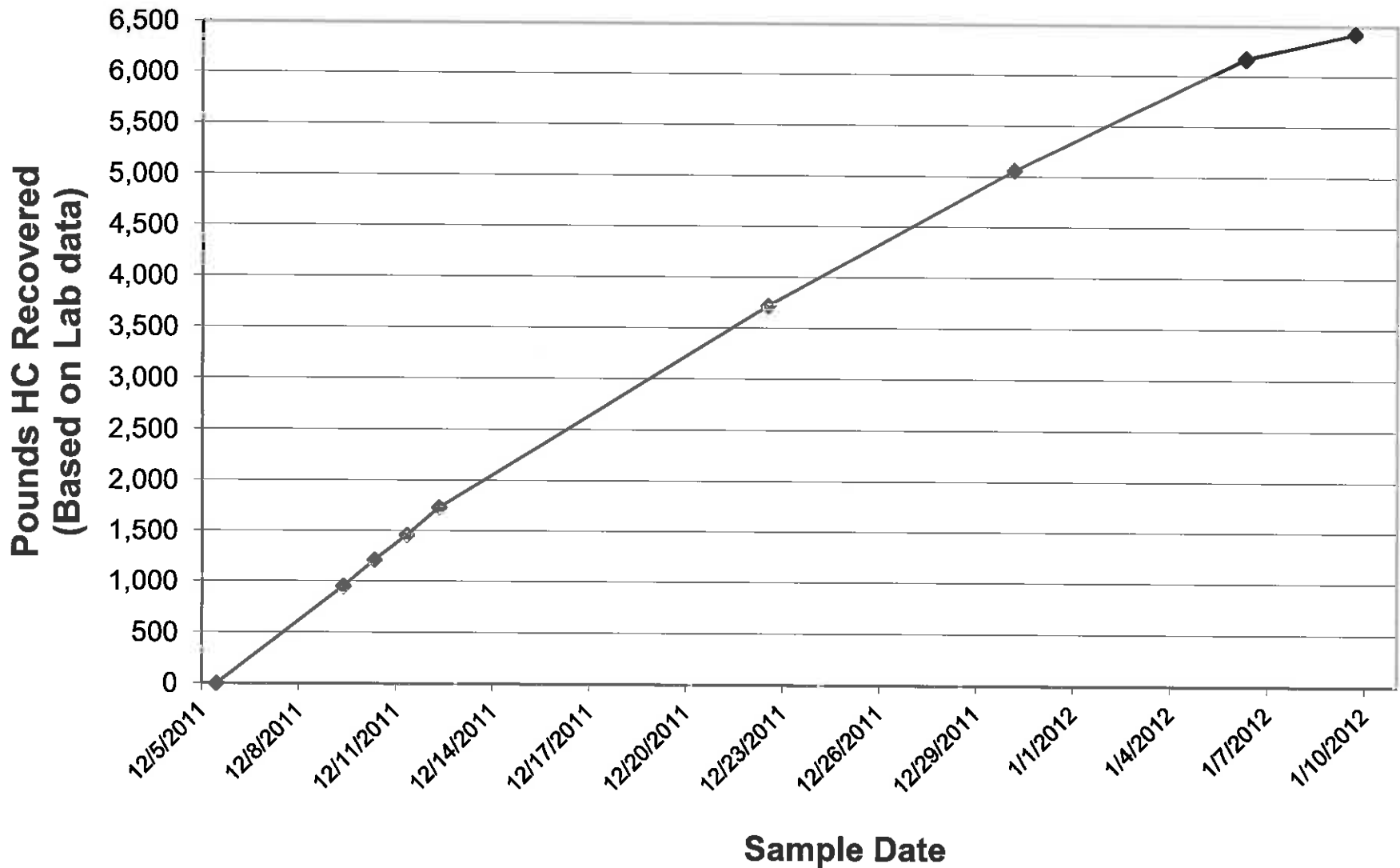
\*\* Based on Horiba field analyzer data.

\*\*\* Average HC Recovered using Laboratory and Horiba data

**Figure 1**  
**Total Inlet HC Concentrations vs Time (35 Days)**  
**Good Chevrolet, Alameda, CA - 12/5/11-1/9/12**



**Figure 2**  
**Cumulative HC Recovered Over 35 Days**  
**Good Chevrolet, Alameda, CA - 12/5/11-1/9/12**





**Table 3  
HYDROCARBON MASS REMOVAL (Using Field Analyzer Data)  
Good Chevrolet, Alameda, CA**

TIME	Extraction Well # DP-1 (Stinger Depth)	Extraction Well # DP-2 (Stinger Depth)	Extraction Well # DP-3 (Stinger Depth)	Extraction Well # MW-2 (Stinger Depth)	Extraction Well # (Stinger Depth)	Extraction Well # (Stinger Depth)	SYSTEM PARAMETERS				Hydrocarbon Recovery (using Horiba Data)			
							System Vacuum (in of Hg)	Total System Inlet Flow (scfm)**	Influent Concentrations (ppmv)*	Effluent Concentrations (ppmv) *	(lbs)	(gal)	(Cumul. lbs)	
12/5/2011 10:15							24	35	11,560	6	0.00	0.00	0.00	
12/5/2011 10:30		During the event, various wells were extracted from as directed by the consultant.						24	37	6,740	3	1.12	0.18	1.12
12/5/2011 10:40							24	36	8,710		0.64	0.10	1.76	
12/5/2011 10:50							22	97	9,510		1.37	0.22	3.14	
12/5/2011 12:00							22	98	9,230		14.51	2.32	17.65	
12/6/2011 11:40							23	31	5,610		154.21	24.68	171.86	
12/6/2011 12:10							25	34	5,040		1.18	0.19	173.04	
12/6/2011 12:30							25	33	5,830		0.83	0.13	173.86	
12/6/2011 13:00							25	30	6,390		1.31	0.21	175.17	
12/6/2011 13:30							25	31	5,920		1.28	0.20	176.45	
12/6/2011 14:00							25	32	7,790		1.47	0.24	177.92	
12/6/2011 14:30							25	34	7,640		1.73	0.28	179.65	
12/6/2011 15:00							25	33	6,930		1.66	0.27	181.32	
12/6/2011 15:30							25	31	6,910		1.51	0.24	182.82	
12/6/2011 16:00							25	31	6,730		1.44	0.23	184.26	
12/6/2011 20:00							25	38	6,810		12.72	2.04	196.98	
12/7/2011 0:01							25	32	6,470		12.71	2.03	209.69	
12/7/2011 4:00							25	36	6,230		11.71	1.87	221.40	
12/7/2011 8:00							25	37	6,410		12.56	2.01	233.96	
12/7/2011 9:00							25	38	8,130		3.71	0.59	237.68	
12/7/2011 9:30							25	34	9,930		2.21	0.35	239.89	
12/7/2011 10:00							25	31	10,670		2.28	0.36	242.17	
12/7/2011 10:30							25	37	10,390		2.44	0.39	244.60	
12/7/2011 11:00							25	33	11,540		2.61	0.42	247.22	
12/7/2011 11:30							25	32	12,810		2.69	0.43	249.91	
12/7/2011 12:00							25	34	11,370		2.72	0.43	252.63	
12/7/2011 12:30							25	31	11,920		2.58	0.41	255.20	
12/7/2011 13:00							25	32	10,730		2.43	0.39	257.63	
12/7/2011 14:00							25	31	10,510		4.55	0.73	262.19	
12/7/2011 15:00							25	32	10,930		4.60	0.74	266.78	

**Table 3**  
**HYDROCARBON MASS REMOVAL (Using Field Analyzer Data)**  
**Good Chevrolet, Alameda, CA**

TIME	Extraction Well # DP-1 (Stinger Depth)	Extraction Well # DP-2 (Stinger Depth)	Extraction Well # DP-3 (Stinger Depth)	Extraction Well # MW-2 (Stinger Depth)	Extraction Well # (Stinger Depth)	Extraction Well # (Stinger Depth)	SYSTEM PARAMETERS				Hydrocarbon Recovery (using Horiba Data)		
							System Vacuum (in of Hg)	Total System Inlet Flow (scfm)**	Influent Concentrations (ppmv)*	Effluent Concentrations (ppmv) *	(lbs)	(gal)	(Cumul lbs)
12/7/2011 16:00							25	34	10,870		4.90	0.78	271.68
12/7/2011 20:00							25	31	10,410		18.83	3.01	290.51
12/8/2011 0:01							25	31	10,110		17.39	2.78	307.91
12/8/2011 4:00							25	33	9,630		17.13	2.74	325.04
12/8/2011 8:00							25	30	9,240		16.19	2.59	341.22
12/8/2011 8:30							25	31	6,370		1.62	0.26	342.84
12/8/2011 9:00							25	30	6,640		1.35	0.22	344.19
12/8/2011 9:30							25	30	6,810		1.37	0.22	345.57
12/8/2011 10:00							25	31	7,340		1.47	0.24	347.04
12/8/2011 10:30							25	32	7,260		1.57	0.25	348.60
12/8/2011 11:00							24	39	7,490		1.78	0.29	350.38
12/8/2011 11:30							24	38	8,230		2.06	0.33	352.44
12/8/2011 12:00							24	36	8,170		2.07	0.33	354.51
12/8/2011 12:30							24	37	7,940		2.00	0.32	356.51
12/8/2011 13:00							24	38	8,340		2.08	0.33	358.59
12/8/2011 14:00							24	37	8,170		4.21	0.67	362.80
12/8/2011 15:00							23	41	7,940		4.28	0.68	367.08
12/8/2011 16:00							23	44	7,530		4.48	0.72	371.56
12/8/2011 20:00							23	43	6,720		16.88	2.70	388.43
12/9/2011 0:01							23	42	5,710		14.44	2.31	402.88
12/9/2011 4:00							23	43	4,930		12.26	1.96	415.14
12/9/2011 8:00							23	46	2,670		9.21	1.47	424.35
12/9/2011 9:00							21	124	5,380		4.66	0.75	429.01
12/9/2011 10:00							21	121	6,140		9.61	1.54	438.62
12/9/2011 11:00							21	123	6,970		10.89	1.74	449.50
12/9/2011 12:00							21	128	7,830		12.64	2.02	462.15
12/9/2011 16:00							21	124	8,270		55.24	8.84	517.39
12/9/2011 20:00							21	129	8,140		56.53	9.05	573.91
12/10/2011 0:01							21	127	8,610		58.62	9.38	632.54
12/10/2011 8:00							21	123	8,530		116.44	18.64	748.97

**Table 3**  
**HYDROCARBON MASS REMOVAL (Using Field Analyzer Data)**  
**Good Chevrolet, Alameda, CA**

TIME	Extraction Well # DP-1 (Stinger Depth)	Extraction Well # DP-2 (Stinger Depth)	Extraction Well # DP-3 (Stinger Depth)	Extraction Well # MW-2 (Stinger Depth)	Extraction Well # (Stinger Depth)	Extraction Well # (Stinger Depth)	SYSTEM PARAMETERS				Hydrocarbon Recovery (using Horiba Data)		
							System Vacuum (in of Hg)	Total System Inlet Flow (scfm)**	Influent Concentrations (ppmv)*	Effluent Concentrations (ppmv) *	(lbs)	(gal)	(Cumul lbs)
12/10/2011 12:00							21	125	8,970		59.09	9.46	808.06
12/10/2011 16:00							21	124	8,410		58.92	9.43	866.98
12/10/2011 20:00							21	128	8,160		56.85	9.10	923.83
12/11/2011 0:01							21	121	7,920		54.74	8.76	978.58
12/11/2011 8:00							21	126	8,230		108.40	17.35	1,086.97
12/11/2011 12:00							21	124	8,040		55.38	8.86	1,142.35
12/11/2011 16:00							21	125	7,980		54.31	8.69	1,196.66
12/11/2011 20:00							21	123	7,530		52.37	8.38	1,249.03
12/12/2011 0:01							21	128	7,410		51.27	8.21	1,300.30
12/12/2011 8:00							21	124	7,230		100.25	16.05	1,400.55
12/12/2011 10:30							23	93	5,930		24.30	3.89	1,424.85
12/12/2011 10:45							23	97	6,170		1.96	0.31	1,426.80
12/12/2011 12:00							23	95	6,020		9.96	1.59	1,436.76
12/12/2011 16:00							21	128	5,970		36.40	5.83	1,473.17
12/12/2011 20:00							21	129	6,240		42.72	6.84	1,515.89
12/13/2011 0:01							20	132	6,510		45.50	7.28	1,561.38
12/13/2011 8:00							19	147	6,830		101.14	16.19	1,662.52
12/13/2011 12:00							19	143	6,670		53.30	8.53	1,715.82
12/13/2011 16:00							19	142	6,510		51.14	8.19	1,766.96
12/13/2011 20:00							19	144	6,380		50.19	8.03	1,817.16
12/14/2011 0:01							19	148	6,110		49.86	7.98	1,867.02
12/14/2011 8:00							19	145	6,920		103.74	16.61	1,970.76
12/14/2011 12:00							19	147	5,730		50.29	8.05	2,021.05
12/14/2011 16:00							19	142	5,570		44.46	7.12	2,065.51
12/14/2011 20:00							19	148	5,140		42.29	6.77	2,107.80
12/15/2011 0:01							18	151	4,930		41.16	6.59	2,148.97
12/15/2011 8:00							18	153	4,410		77.15	12.35	2,226.12
12/15/2011 12:00							18	154	4,230		36.11	5.78	2,262.23
12/15/2011 16:00							18	152	4,370		35.83	5.73	2,298.06
12/15/2011 20:00							21	136	4,920		36.43	5.83	2,334.49

**Table 3  
HYDROCARBON MASS REMOVAL (Using Field Analyzer Data)  
Good Chevrolet, Alameda, CA**

TIME	Extraction Well # DP-1 (Stinger Depth)	Extraction Well # DP-2 (Stinger Depth)	Extraction Well # DP-3 (Stinger Depth)	Extraction Well # MW-2 (Stinger Depth)	Extraction Well # (Stinger Depth)	Extraction Well # (Stinger Depth)	SYSTEM PARAMETERS				Hydrocarbon Recovery (using Horiba Data)		
							System Vacuum (in of Hg)	Total System Inlet Flow (scfm)**	Influent Concentrations (ppmv)*	Effluent Concentrations (ppmv) *	(lbs)	(gal)	(Cumul lbs)
12/16/2011 0:01							19	137	4,930		36.76	5.88	2,371.25
12/16/2011 8:00							20	138	4,890		73.38	11.75	2,444.64
12/16/2011 12:00							20	136	4,840		36.30	5.81	2,480.93
12/16/2011 16:00							20	139	4,840		36.24	5.80	2,517.18
12/16/2011 20:00							19	137	4,710		35.89	5.74	2,553.06
12/17/2011 0:01							18	148	4,530		36.00	5.76	2,589.07
12/17/2011 8:00							18	151	4,250		71.34	11.42	2,660.40
12/17/2011 12:00							18	153	4,290		35.35	5.66	2,695.75
12/17/2011 16:00							18	151	4,310		35.60	5.70	2,731.34
12/17/2011 20:00							18	153	4,230		35.35	5.66	2,766.69
12/18/2011 0:01							18	151	4,190		35.00	5.60	2,801.69
12/18/2011 8:00							18	154	4,120		68.87	11.02	2,870.56
12/18/2011 12:00							18	151	4,160		34.38	5.50	2,904.94
12/18/2011 16:00							18	154	4,070		34.18	5.47	2,939.12
12/18/2011 20:00							18	153	4,010		33.77	5.41	2,972.89
12/19/2011 0:01							18	154	3,930		33.33	5.33	3,006.22
12/19/2011 8:00							18	153	3,870		65.07	10.42	3,071.28
12/19/2011 12:00							18	156	3,750		32.06	5.13	3,103.34
12/19/2011 16:00							18	153	3,630		31.05	4.97	3,134.39
12/19/2011 16:15							14	190	1,820		1.59	0.25	3,135.98
12/19/2011 16:30							14	193	1,808		1.18	0.19	3,137.16
12/19/2011 16:35							14	197	1,820		0.40	0.06	3,137.56
12/19/2011 17:00							14	193	1,770		1.99	0.32	3,139.55
12/19/2011 17:15							14	190	1,760		1.15	0.18	3,140.70
12/19/2011 17:30							14	194	1,710		1.13	0.18	3,141.83
12/19/2011 17:45							14	196	1,730		1.14	0.18	3,142.98
12/19/2011 18:00							14	196	1,680		1.14	0.18	3,144.11
12/19/2011 18:15							14	191	1,710		1.12	0.18	3,145.23
12/19/2011 18:30							14	193	1,740		1.13	0.18	3,146.36
12/19/2011 18:45							14	197	1,780		1.17	0.19	3,147.52

**Table 3**  
**HYDROCARBON MASS REMOVAL (Using Field Analyzer Data)**  
**Good Chevrolet, Alameda, CA**

TIME	Extraction Well # DP-1 (Stinger Depth)	Extraction Well # DP-2 (Stinger Depth)	Extraction Well # DP-3 (Stinger Depth)	Extraction Well # MW-2 (Stinger Depth)	Extraction Well # (Stinger Depth)	Extraction Well # (Stinger Depth)	SYSTEM PARAMETERS				Hydrocarbon Recovery (using Horiba Data)		
							System Vacuum (in of Hg)	Total System Inlet Flow (scfm)**	Influent Concentrations (ppmv)*	Effluent Concentrations (ppmv) *	(lbs)	(gal)	(Cumul. lbs)
12/19/2011 19:00							14	194	1,830		1.20	0.19	3,148.73
12/19/2011 19:15							14	197	1,860		1.23	0.20	3,149.95
12/19/2011 19:30							14	193	1,910		1.25	0.20	3,151.20
12/19/2011 19:45							14	197	1,960		1.28	0.21	3,152.49
12/19/2011 20:00							14	196	1,970		1.31	0.21	3,153.80
12/19/2011 21:00							14	194	1,940		5.19	0.83	3,158.99
12/19/2011 22:00							14	196	1,870		5.06	0.81	3,164.05
12/19/2011 23:00							14	196	1,890		5.02	0.80	3,169.07
12/20/2011 0:00							14	197	1,860		5.02	0.80	3,174.08
12/20/2011 0:01							14	196	1,820		0.08	0.01	3,174.17
12/20/2011 8:00							14	197	1,830		38.98	6.24	3,213.15
12/20/2011 12:00							14	195	1,780		19.27	3.08	3,232.41
12/20/2011 16:00							14	197	1,710		18.63	2.98	3,251.04
12/20/2011 20:00							16	153	2,470		19.92	3.19	3,270.96
12/21/2011 0:01							16	157	2,140		19.54	3.13	3,290.50
12/21/2011 8:00							15	158	1,780		33.55	5.37	3,324.05
12/21/2011 9:30							15	142	1,717		5.36	0.86	3,329.41
12/21/2011 9:45							15	147	1,706		0.84	0.13	3,330.25
12/21/2011 10:00							15	147	1,672		0.85	0.14	3,331.09
12/21/2011 10:15							15	147	1,682		0.84	0.13	3,331.93
12/21/2011 10:30							15	149	1,630		0.83	0.13	3,332.77
12/21/2011 10:45							15	149	1,608		0.82	0.13	3,333.59
12/21/2011 11:00							15	147	1,637		0.82	0.13	3,334.40
12/21/2011 11:15							15	149	1,638		0.82	0.13	3,335.23
12/21/2011 11:30							15	147	1,593		0.81	0.13	3,336.04
12/21/2011 11:45							15	149	1,550		0.79	0.13	3,336.83
12/21/2011 12:00							15	147	1,560		0.78	0.13	3,337.62
12/21/2011 13:00							15	149	1,610		3.19	0.51	3,340.81
12/21/2011 14:00							15	149	1,730		3.39	0.54	3,344.20
12/21/2011 15:00							15	148	1,670		3.44	0.55	3,347.64

**Table 3**  
**HYDROCARBON MASS REMOVAL (Using Field Analyzer Data)**  
**Good Chevrolet, Alameda, CA**

TIME	Extraction Well # DP-1 (Stinger Depth)	Extraction Well # DP-2 (Stinger Depth)	Extraction Well # DP-3 (Stinger Depth)	Extraction Well # MW-2 (Stinger Depth)	Extraction Well # (Stinger Depth)	Extraction Well # (Stinger Depth)	SYSTEM PARAMETERS				Hydrocarbon Recovery (using Horiba Data)		
							System Vacuum (in of Hg)	Total System Inlet Flow (scfm)**	Influent Concentrations (ppmv)*	Effluent Concentrations (ppmv)*	(lbs)	(gal)	(Cumul lbs)
12/21/2011 16:00							15	149	1,640		3.35	0.54	3,350.98
12/21/2011 17:00							15	151	1,650		3.36	0.54	3,354.34
12/21/2011 18:00							15	150	1,620		3.35	0.54	3,357.69
12/21/2011 20:00							15	149	1,630		6.62	1.06	3,364.31
12/21/2011 22:00							15	151	1,610		6.62	1.06	3,370.92
12/22/2011 0:00							15	149	1,590		6.54	1.05	3,377.46
12/22/2011 8:00							15	151	1,470		25.00	4.00	3,402.46
12/22/2011 12:00							15	151	1,410		11.84	1.90	3,414.30
12/22/2011 13:00							18	89	1,380		2.28	0.36	3,416.58
12/22/2011 13:30							18	81	1,420		0.81	0.13	3,417.39
12/22/2011 14:00							18	86	1,470		0.82	0.13	3,418.21
12/22/2011 14:30							18	85	1,490		0.86	0.14	3,419.07
12/22/2011 15:00							18	84	1,530		0.87	0.14	3,419.94
12/22/2011 15:30							18	87	1,570		0.90	0.14	3,420.84
12/22/2011 16:00							18	83	1,620		0.92	0.15	3,421.76
12/22/2011 16:30							18	85	1,610		0.92	0.15	3,422.69
12/22/2011 17:00							18	81	1,610		0.91	0.15	3,423.60
12/22/2011 17:30							18	87	1,593		0.92	0.15	3,424.51
12/22/2011 18:00							18	82	1,542		0.90	0.14	3,425.41
12/22/2011 18:30							18	86	1,579		0.89	0.14	3,426.31
12/22/2011 19:00							18	83	1,528		0.89	0.14	3,427.20
12/22/2011 19:30							18	81	1,552		0.86	0.14	3,428.06
12/22/2011 20:00							18	87	1,513		0.88	0.14	3,428.94
12/23/2011 0:00							18	86	1,437		6.95	1.11	3,435.89
12/23/2011 4:00							16	103	1,371		7.23	1.16	3,443.11
12/23/2011 8:00							14	121	1,293		8.12	1.30	3,451.24
12/23/2011 12:00							14	124	1,281		8.59	1.37	3,459.82
12/23/2011 13:00							15	173	1,497		2.81	0.45	3,462.63
12/23/2011 16:00							15	174	1,578		10.90	1.74	3,473.53
12/23/2011 20:00							15	178	1,632		15.38	2.46	3,488.91

**Table 3**  
**HYDROCARBON MASS REMOVAL (Using Field Analyzer Data)**  
**Good Chevrolet, Alameda, CA**

TIME	Extraction Well # DP-1 (Stinger Depth)	Extraction Well # DP-2 (Stinger Depth)	Extraction Well # DP-3 (Stinger Depth)	Extraction Well # MW-2 (Stinger Depth)	Extraction Well # (Stinger Depth)	Extraction Well # (Stinger Depth)	SYSTEM PARAMETERS				Hydrocarbon Recovery (using Horiba Data)		
							System Vacuum (in of Hg)	Total System Inlet Flow (scfm)**	Influent Concentrations (ppmv)*	Effluent Concentrations (ppmv) *	(lbs)	(gal)	(Cumul lbs)
12/24/2011 0:00							15	177	1,581		15.53	2.49	3,504.44
12/24/2011 4:00							15	175	1,459		14.57	2.33	3,519.01
12/24/2011 8:00							15	171	1,398		13.46	2.15	3,532.47
12/24/2011 12:00							15	176	1,378		13.11	2.10	3,545.58
12/24/2011 16:00							15	173	1,306		12.75	2.04	3,558.33
12/24/2011 20:00							15	171	1,284		12.13	1.94	3,570.47
12/25/2011 0:00							15	178	1,251		12.05	1.93	3,582.51
12/25/2011 4:00							15	175	1,274		12.14	1.94	3,594.65
12/25/2011 8:00							15	174	1,226		11.88	1.90	3,606.53
12/25/2011 12:00							15	173	1,193		11.43	1.83	3,617.95
12/25/2011 20:00							15	177	1,068		21.55	3.45	3,639.50
12/26/2011 0:01							15	171	1,057		10.11	1.62	3,649.61
12/26/2011 4:00							15	175	1,008		9.69	1.55	3,659.30
12/26/2011 8:00							15	173	1,031		9.66	1.55	3,668.96
12/26/2011 12:00							15	174	1,053		9.85	1.58	3,678.81
12/26/2011 16:00							15	177	1,096		10.27	1.64	3,689.08
12/26/2011 20:00							15	176	1,041		10.27	1.64	3,699.35
12/27/2011 0:01							15	178	1,007		9.91	1.59	3,709.26
12/27/2011 4:00							15	176	953		9.41	1.51	3,718.67
12/27/2011 8:00							15	171	978		9.12	1.46	3,727.79
12/27/2011 10:00							20	37	427		1.99	0.32	3,729.78
12/27/2011 10:30							25	24	715		0.12	0.02	3,729.90
12/27/2011 11:00							25	21	793		0.12	0.02	3,730.01
12/27/2011 11:05							24	28	847		0.02	0.00	3,730.03
12/27/2011 11:35							24	29	949		0.17	0.03	3,730.21
12/27/2011 12:05							24	28	973		0.19	0.03	3,730.40
12/27/2011 12:10							23	31	942		0.03	0.01	3,730.43
12/27/2011 12:40							23	33	1,013		0.21	0.03	3,730.64
12/27/2011 13:10							23	32	1,028		0.23	0.04	3,730.87
12/27/2011 13:15							22	39	1,054		0.04	0.01	3,730.91

Table 3  
**HYDROCARBON MASS REMOVAL (Using Field Analyzer Data)**  
**Good Chevrolet, Alameda, CA**

TIME	Extraction Well # DP-1 (Stinger Depth)	Extraction Well # DP-2 (Stinger Depth)	Extraction Well # DP-3 (Stinger Depth)	Extraction Well # MW-2 (Stinger Depth)	Extraction Well # (Stinger Depth)	Extraction Well # (Stinger Depth)	SYSTEM PARAMETERS				Hydrocarbon Recovery (using Horiba Data)		
							System Vacuum (in of Hg)	Total System Inlet Flow (scfm)**	Influent Concentrations (ppmv)*	Effluent Concentrations (ppmv) *	(lbs)	(gal)	(Cumul lbs)
12/27/2011 13:45							22	39	1,059		0.28	0.04	3,731.19
12/27/2011 14:15							22	38	1,077		0.28	0.04	3,731.47
12/27/2011 14:20							25	23	243		0.02	0.00	3,731.49
12/27/2011 14:50							24	26	317		0.05	0.01	3,731.54
12/27/2011 15:20							24	28	343		0.06	0.01	3,731.60
12/27/2011 15:25							23	30	418		0.01	0.00	3,731.61
12/27/2011 15:55							23	32	447		0.09	0.01	3,731.70
12/27/2011 16:25							22	35	496		0.11	0.02	3,731.81
12/27/2011 16:30							21	39	581		0.02	0.00	3,731.83
12/27/2011 17:00							21	40	578		0.16	0.02	3,731.99
12/27/2011 17:30							21	43	721		0.18	0.03	3,732.17
12/27/2011 17:45							17	163	852		0.28	0.04	3,732.45
12/27/2011 20:00							17	162	871		4.29	0.69	3,736.74
12/28/2011 0:01							16	168	864		7.83	1.25	3,744.56
12/28/2011 4:00							16	170	921		8.18	1.31	3,752.74
12/28/2011 8:00							16	171	907		8.49	1.36	3,761.23
12/28/2011 12:00							15	174	923		8.60	1.38	3,769.83
12/28/2011 16:00							15	177	974		9.07	1.45	3,778.89
12/28/2011 20:00							15	178	951		9.30	1.49	3,788.20
12/29/2011 0:01							15	178	928		9.15	1.46	3,797.34
12/29/2011 4:00							15	176	897		8.76	1.40	3,806.10
12/29/2011 8:00							15	173	871		8.40	1.34	3,814.50
12/29/2011 12:00							15	171	855		8.08	1.29	3,822.59
12/29/2011 16:00							15	172	833		7.88	1.26	3,830.47
12/29/2011 20:00							15	174	818		7.78	1.24	3,838.25
12/30/2011 0:01							15	171	841		7.83	1.25	3,846.07
12/30/2011 4:00							15	177	876		8.10	1.30	3,854.17
12/30/2011 12:15							25	33	289		0.00	0.00	3,854.17
12/30/2011 12:30							25	25	241		0.03	0.00	3,854.20
12/30/2011 13:00							25	37	376		0.07	0.01	3,854.26



**Table 3**  
**HYDROCARBON MASS REMOVAL (Using Field Analyzer Data)**  
**Good Chevrolet, Alameda, CA**

TIME	Extraction Well # DP-1 (Stinger Depth)	Extraction Well # DP-2 (Stinger Depth)	Extraction Well # DP-3 (Stinger Depth)	Extraction Well # MW-2 (Stinger Depth)	Extraction Well # (Stinger Depth)	Extraction Well # (Stinger Depth)	SYSTEM PARAMETERS				Hydrocarbon Recovery (using Hciba Data)		
							System Vacuum (in of Hg)	Total System Inlet Flow (scfm)**	Influent Concentrations (ppmv)*	Effluent Concentrations (ppmv) *	(lbs)	(gal)	(Cumul. lbs)
12/30/2011 13:30							25	39	528		0.12	0.02	3,854.38
12/30/2011 14:00							25	38	1,073		0.21	0.03	3,854.59
12/30/2011 14:30							25	39	1,637		0.36	0.06	3,854.95
12/30/2011 16:00							25	38	1,728		1.32	0.21	3,856.27
12/30/2011 20:00							25	37	1,793		3.60	0.58	3,859.86
12/31/2011 0:01							25	35	1,852		3.59	0.57	3,863.45
12/31/2011 4:00							25	37	1,937		3.70	0.59	3,867.15
12/31/2011 8:00							25	39	2,010		4.08	0.65	3,871.23
12/31/2011 12:00							25	36	1,958		4.05	0.65	3,875.29
12/31/2011 13:15							22	57	1,538		1.38	0.22	3,876.67
12/31/2011 14:15							22	58	1,529		1.20	0.19	3,877.87
12/31/2011 15:15							22	56	1,486		1.17	0.19	3,879.04
12/31/2011 16:00							22	55	1,392		0.82	0.13	3,879.86
1/1/2012 4:00							22	57	1,173		11.73	1.88	3,891.59
1/1/2012 8:00							22	59	1,158		3.68	0.59	3,895.27
1/1/2012 12:00							22	56	1,117		3.56	0.57	3,898.83
1/1/2012 16:00							22	55	1,073		3.31	0.53	3,902.14
1/1/2012 20:00							22	59	1,047		3.29	0.53	3,905.43
1/2/2012 0:01							22	59	1,004		3.31	0.53	3,908.74
1/2/2012 4:00							22	60	956		3.16	0.51	3,911.90
1/2/2012 8:00							22	58	928		3.03	0.48	3,914.93
1/2/2012 12:00							22	56	911		2.85	0.46	3,917.79
1/2/2012 16:00							22	124	1,298		5.41	0.87	3,923.20
1/2/2012 20:00							22	132	1,252		8.89	1.42	3,932.09
1/3/2012 0:01							22	137	1,227		9.12	1.46	3,941.20
1/3/2012 4:00							19	148	1,177		9.29	1.49	3,950.49
1/3/2012 8:00							18	164	1,135		9.82	1.57	3,960.31
1/3/2012 11:00							18	163	1,103		7.47	1.20	3,967.79
1/3/2012 15:00							18	164	1,078		9.71	1.55	3,977.50
1/3/2012 16:00							18	163	1,056		2.38	0.38	3,979.87

**Table 3**  
**HYDROCARBON MASS REMOVAL (Using Field Analyzer Data)**  
**Good Chevrolet, Alameda, CA**

TIME	Extraction Well # DP-1 (Stinger Depth)	Extraction Well # DP-2 (Stinger Depth)	Extraction Well # DP-3 (Stinger Depth)	Extraction Well # MW-2 (Stinger Depth)	Extraction Well # (Stinger Depth)	Extraction Well # (Stinger Depth)	SYSTEM PARAMETERS				Hydrocarbon Recovery (using Horiiba Data)		
							System Vacuum (in. of Hg)	Total System Inlet Flow (scfm) <sup>20</sup>	Influent Concentrations (ppmv) <sup>20</sup>	Effluent Concentrations (ppmv) <sup>*</sup>	(lbs)	(gal)	(Cumul. lbs)
1/3/2012 20:00							18	165	1,031		9.32	1.49	3,989.19
1/4/2012 0:01							18	167	1,017		9.30	1.49	3,998.49
1/4/2012 4:00							18	165	977		8.98	1.44	4,007.46
1/4/2012 8:00							18	163	923		8.48	1.36	4,015.95
1/4/2012 12:00							18	168	958		8.48	1.36	4,024.43
1/4/2012 16:00							18	162	971		8.67	1.39	4,033.09
1/4/2012 20:00							18	167	943		8.57	1.37	4,041.67
1/5/2012 0:01							18	163	967		8.62	1.38	4,050.28
1/5/2012 4:00							18	161	928		8.32	1.33	4,058.61
1/5/2012 8:00							18	165	939		8.29	1.33	4,066.89
1/5/2012 12:00							18	167	976		8.66	1.39	4,075.55
1/5/2012 16:00							18	163	952		8.66	1.39	4,084.21
1/5/2012 20:00							18	164	903		8.26	1.32	4,092.47
1/6/2012 0:01							18	165	928		8.24	1.32	4,100.71
1/6/2012 4:00							18	161	952		8.31	1.33	4,109.02
1/6/2012 8:00							18	162	917		8.22	1.32	4,117.24
1/6/2012 12:00							18	163	924		8.15	1.30	4,125.38
1/6/2012 16:00							18	164	893		8.09	1.29	4,133.47
1/6/2012 20:00							18	161	915		8.00	1.28	4,141.47
1/7/2012 0:01							18	165	886		8.03	1.28	4,149.50
1/7/2012 4:00							18	168	892		8.03	1.28	4,157.53
1/7/2012 8:00							18	163	871		7.95	1.27	4,165.47
1/7/2012 12:00							18	165	857		7.72	1.24	4,173.19
1/7/2012 20:00							18	161	882		15.44	2.47	4,188.63
1/8/2012 0:01							18	167	861		7.82	1.25	4,196.44
1/8/2012 4:00							18	164	879		7.81	1.25	4,204.25
1/8/2012 8:00							18	167	852		7.80	1.25	4,212.05
1/8/2012 12:00							18	163	883		7.80	1.25	4,219.85
1/8/2012 20:00							18	161	864		15.41	2.47	4,235.26
1/9/2012 4:00							18	168	821		15.10	2.42	4,250.35

**Table 3  
HYDROCARBON MASS REMOVAL (Using Field Analyzer Data)  
Good Chevrolet, Alameda, CA**

TIME	Extraction Well # DP-1 (Stinger Depth)	Extraction Well # DP-2 (Stinger Depth)	Extraction Well # DP-3 (Stinger Depth)	Extraction Well # MW-2 (Stinger Depth)	Extraction Well # (Stinger Depth)	Extraction Well # (Stinger Depth)	SYSTEM PARAMETERS				Hydrocarbon Recovery (using Horiba Data)		
							System Vacuum (in of Hg)	Total System Inlet Flow (scfm)**	Influent Concentrations (ppmv)*	Effluent Concentrations (ppmv)*	(lbs)	(gal)	(Cumul lbs)
1/9/2012 8:00							18	166	845		7.58	1.21	4,257.93
1/9/2012 12:00							18	165	817		7.49	1.20	4,265.42
1/9/2012 16:00							18	164	827		7.36	1.18	4,272.78
1/9/2012 16:45							18	162	811		1.36	0.22	4,274.15
<b>TOTAL HC RECOVERED</b>											<b>4,274.15</b>	<b>684.14</b>	
<b>TOTAL GROUNDWATER EXTRACTED</b>												<b>43,530</b>	

Comments: Manual dilution was not opened during the event.

in of Hg = inches of mercury

gal = gallons

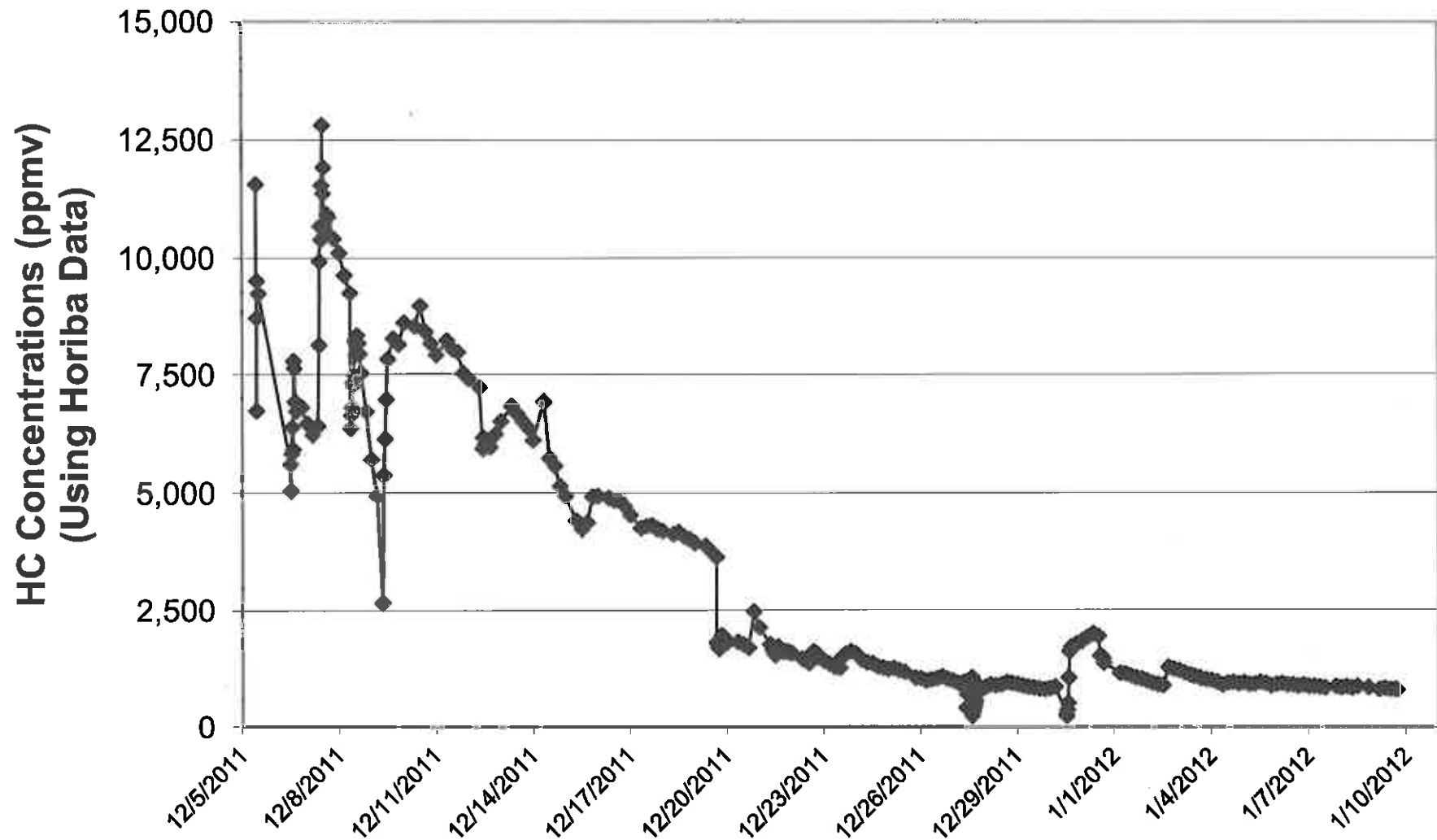
scfm = standard cubic feet per minute

lbs = pounds

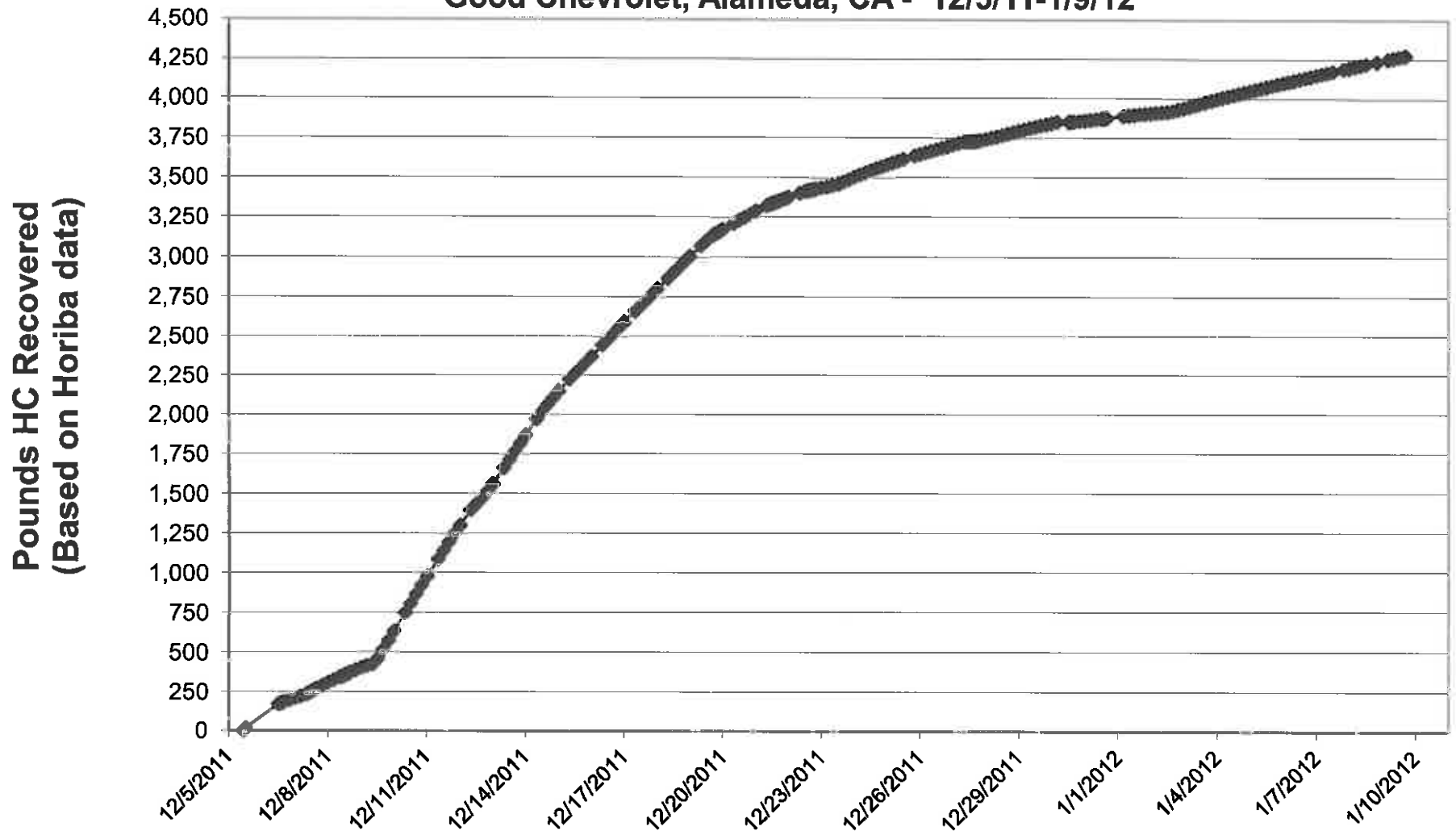
\* Concentrations based on Horiba MEXA 324-JU field organic vapor analyzer, calibrated as hexane

\*\* Inlet flow measured through orifice tube and converted from acfm to reported scfm

**Figure 3**  
**Total Inlet HC Concentrations vs Time (35 Days)**  
**Good Chevrolet, Alameda, CA - 12/5/11-1/9/12**



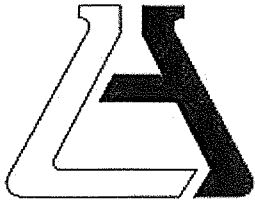
**Figure 4**  
**Cumulative HC Recovered Over 35 Days**  
**Good Chevrolet, Alameda, CA - 12/5/11-1/9/12**



**CalClean Inc.**

**ATTACHMENT 1**

**LABORATORY REPORTS**



## Associated Laboratories

806 N. Batavia - Orange, CA 92868  
Tel (714)771-6900 Fax (714)538-1209  
www.associatedlabs.com  
Info@associatedlabs.com



Client: Calclean  
Address: 3002 Dow Ave.  
#142  
Tustin, CA 92780  
Attn: Noel Sheno

Lab Request: 295822  
Report Date: 12/15/2011  
Date Received: 12/07/2011

Client ID: 9977

Comments: Good Chevrolet  
1630 Park St., Alameda, CA  
Global ID: T0600100655

This laboratory request covers the following listed samples which were analyzed for the parameters indicated on the attached Analytical Result Report. All analyses were conducted using the appropriate methods indicated on the attached report and all NELAC criteria. This cover letter is an integral part of the final report.

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<u>Sample #</u>	<u>Client Sample ID</u>
295822-001	DPE-1
295822-002	DPE-2
295822-003	DPE-3
295822-004	Total Inlet
295822-005	Stack

Thank you for the opportunity to be of service to your company. Please feel free to call if there are any questions regarding this report or if we can be of further service.

ASSOCIATED LABORATORIES by,

Edward Behare  
Lab Director

NOTE: Unless notified in writing, all samples will be discarded by appropriate disposal protocol 45 days from date reported.

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TESTING & CONSULTING  
Chemical  
Microbiological  
Environmental

Sample #: 295822-001 Client: Calclean  
 Matrix: Air Client Sample #: DPE-1  
 Collect Date: 12/05/11 Site:  
 Collect Time: 10:15 AM Collector: client

Compound	Result	DF	RDL	Units	Analysis Date	Analyst
Method: EPA 8015B	Prep Method: Method			QCBatchID: QC1121362		
TPH Gasoline Vppm	5600	100	500	Vppm	12/10/11	sandyw
Method: EPA 8021B	Prep Method: Method			QCBatchID: QC1121363		
Benzene Vppm	130	100	1	Vppm	12/10/11	sandyw
Ethylbenzene Vppm	2.6	100	1	Vppm	12/10/11	sandyw
Methyl-t-butyl Ether (MTBE) Vppm	280	100	10	Vppm	12/10/11	sandyw
Toluene Vppm	56	100	1	Vppm	12/10/11	sandyw
Xylenes (Total) Vppm	14	100	3	Vppm	12/10/11	sandyw

ND = Not Detected or < RDL

RDL = Reporting Detection Limit

DF = Dilution Factor





Sample #: 295822-002 Client: Calclean  
 Matrix: Air Client Sample #: DPE-2  
 Collect Date: 12/05/11 Site:  
 Collect Time: 10:30 AM Collector: client

Compound	Result	DF	RDL	Units	Analysis Date	Analyst
Method: EPA 8015B		Prep Method: Method		QCBatchID: QC1121362		
TPH Gasoline Vppm	4000	50	250	Vppm	12/10/11	sandyw
Method: EPA 8021B		Prep Method: Method		QCBatchID: QC1121363		
Benzene Vppm	110	50	0.5	Vppm	12/10/11	sandyw
Ethylbenzene Vppm	2.4	50	0.5	Vppm	12/10/11	sandyw
Methyl-t-butyl Ether (MTBE) Vppm	160	50	5	Vppm	12/10/11	sandyw
Toluene Vppm	80	50	0.5	Vppm	12/10/11	sandyw
Xylenes (Total) Vppm	15	50	1.5	Vppm	12/10/11	sandyw

ND = Not Detected or < RDL

RDL = Reporting Detection Limit

DF = Dilution Factor



Sample #: 295822-003 Client: Calclean  
 Matrix: Air Client Sample #: DPE-3  
 Collect Date: 12/05/11 Site:  
 Collect Time: 10:40 AM Collector: client

Compound	Result	DF	RDL	Units	Analysis Date	Analyst
Method: EPA 8015B	Prep Method: Method			QCBatchID: QC1121362		
TPH Gasoline Vppm	7100	100	500	Vppm	12/10/11	sandyw
Method: EPA 8021B	Prep Method: Method			QCBatchID: QC1121363		
Benzene Vppm	130	100	1	Vppm	12/10/11	sandyw
Ethylbenzene Vppm	5.5	100	1	Vppm	12/10/11	sandyw
Methyl-t-butyl Ether (MTBE) Vppm	550	250	25	Vppm	12/10/11	sandyw
Toluene Vppm	120	100	1	Vppm	12/10/11	sandyw
Xylenes (Total) Vppm	28	100	3	Vppm	12/10/11	sandyw

ND = Not Detected or < RDL

RDL = Reporting Detection Limit

DF = Dilution Factor

**ASSOCIATED LABORATORIES**

Analytical Results Report

Lab Request 295822 Page 4 of 6



Sample #: 295822-004      Client: Calclean  
 Matrix: Air                      Client Sample #: Total Inlet  
 Collect Date: 12/05/11      Site:  
 Collect Time: 10:50 AM      Collector: client

Compound	Result	DF	RDL	Units	Analysis Date	Analyst
Method: EPA 8015B		Prep Method: Method		QCBatchID: QC1121362		
TPH Gasoline Vppm	6000	100	500	Vppm	12/10/11	sandyw
Method: EPA 8021B		Prep Method: Method		QCBatchID: QC1121363		
Benzene Vppm	110	100	1	Vppm	12/10/11	sandyw
Ethylbenzene Vppm	5.3	100	1	Vppm	12/10/11	sandyw
Methyl-t-butyl Ether (MTBE) Vppm	170	100	10	Vppm	12/10/11	sandyw
Toluene Vppm	110	100	1	Vppm	12/10/11	sandyw
Xylenes (Total) Vppm	26	100	3	Vppm	12/10/11	sandyw

ND = Not Detected or < RDL

RDL = Reporting Detection Limit

DF = Dilution Factor



Sample #: 295822-005 Client: Calclean  
 Matrix: Air Client Sample #: Stack  
 Collect Date: 12/05/11 Site:  
 Collect Time: 11:00 AM Collector: client

Compound	Result	DF	RDL	Units	Analysis Date	Analyst
Method: EPA 8015B		Prep Method: Method		QCBatchID: QC1121362		
TPH Gasoline Vppm	ND	1	5	Vppm	12/10/11	sandyw
Method: EPA 8021B		Prep Method: Method		QCBatchID: QC1121363		
Benzene Vppm	ND	1	0.01	Vppm	12/10/11	sandyw
Ethylbenzene Vppm	ND	1	0.01	Vppm	12/10/11	sandyw
Methyl-t-butyl Ether (MTBE) Vppm	ND	1	0.1	Vppm	12/10/11	sandyw
Toluene Vppm	ND	1	0.01	Vppm	12/10/11	sandyw
Xylenes (Total) Vppm	ND	1	0.03	Vppm	12/10/11	sandyw

ND = Not Detected or < RDL

RDL = Reporting Detection Limit

DF = Dilution Factor



**ASSOCIATED LABORATORIES**

806 North Batavia • Orange, CA 92868  
Phone: (714) 771-6900 • Fax: (714) 538-1209



**Chain of Custody Record**

Lab Job No. 295822  
Page 1 of 1

CUSTOMER INFORMATION		PROJECT INFORMATION	
COMPANY	CalClean Inc.	PROJECT NAME:	GOOD CHEVROLET
SEND REPORT TO:	3002 Dow, #142 Tustin, CA 92780	NUMBER:	
EMAIL:		ADDRESS:	1630 PARK ST ALAMEDA, CA
ADDRESS:	NOEL SHENOI	P.O. #:	
Phone	(714) 734-9137	SAMPLED BY:	
PHONE: Fax	(714) 734-9138		

REQUIRED TURN AROUND TIME: Standard: X

72 Hours: \_\_\_\_\_ 48 Hours: \_\_\_\_\_ 24 Hours: \_\_\_\_\_

Sample ID	Date	Time	Matrix	Container Number/Size	Pres.	ANALYSIS REQUEST	TPH-G (8015)	BTEX/MTBE (8021)	TEST INSTRUCTIONS	Test Instructions & Comments
1 DPE-1	12/5/11	1015	AIR	TEDLAR	NONE	X	X			
2 DPE-2		1030								
3 DPE-3		1040								
4 TOTAL Inlet		1050								
5 Stack		1100								
6										
7										
8										
9										
10										
11										also email K King
12										
13										
14										EDF
15										TO 600100655 AIR = PPMV

Total No. of Samples: 5 Method of Shipment: \_\_\_\_\_ Preservative: 1=Ice 2=HCl 3=HNO<sub>3</sub> 4=H<sub>2</sub>SO<sub>4</sub> 5=NaOH 6=Other

Relinquished by	1.	Received By:	1.	Relinquished by	2.	Received By:	2.	Relinquished by	3.	Received By:	3.
Signature:	<i>Noel Sheno</i>	Signature:	<i>Daniel Lee</i>	Signature:		Signature:		Signature:		Signature:	
Printed Name:	NOEL SHENOI	Printed Name:	Daniel Lee	Printed Name:		Printed Name:		Printed Name:		Printed Name:	
Date:	12/7/11	Date:	12/7/11	Date:		Date:		Date:		Date:	
Time:		Time:	1616	Time:		Time:		Time:		Time:	



# Associated Laboratories

806 N. Batavia - Orange, CA 92868  
Tel (714)771-6900 Fax (714)538-1209  
www.associatedlabs.com  
Info@associatedlabs.com



Client: Calclean  
Address: 3002 Dow Ave.  
#142  
Tustin, CA 92780  
Attn: Noel Sheno

Lab Request: 296186  
Report Date: 12/21/2011  
Date Received: 12/13/2011

Client ID: 9977

Comments: Good Chevrolet  
1630 Park St., Alameda, CA  
Global ID: T0600100655

This laboratory request covers the following listed samples which were analyzed for the parameters indicated on the attached Analytical Result Report. All analyses were conducted using the appropriate methods indicated on the attached report and all NELAC criteria. This cover letter is an integral part of the final report.

<u>Sample #</u>	<u>Client Sample ID</u>
296186-001	DPE-1
296186-002	DPE-1
296186-003	DPE-1
296186-004	DPE-3
296186-005	DPE-3
296186-006	DPE-3
296186-007	DPE-3
296186-008	DPE-2
296186-009	DPE-2
296186-010	DPE-2
296186-011	DPE-2
296186-012	Total Inlet
296186-013	Total Inlet
296186-014	Total Inlet
296186-015	Total Inlet

Thank you for the opportunity to be of service to your company. Please feel free to call if there are any questions regarding this report or if we can be of further service.

ASSOCIATED LABORATORIES by,

Edward S. Behare, Ph.D.  
Lab Director

NOTE: Unless notified in writing, all samples will be discarded by appropriate disposal protocol 45 days from date reported.

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TESTING & CONSULTING  
Chemical  
Microbiological  
Environmental

Sample #: 296186-001      Client: Calclean  
 Matrix: Air                      Client Sample #: DPE-1  
 Collect Date: 12/06/11      Site:  
 Collect Time: 02:05 PM      Collector: client

Compound	Result	DF	RDL	Units	Analysis Date	Analyst
Method: EPA 8015B	Prep Method: Method			QCBatchID: QC1121622		
TPH Gasoline Vppm	6900	100	500	Vppm	12/18/11	sandyw
Method: EPA 8021B	Prep Method: Method			QCBatchID: QC1121621		
Benzene Vppm	150	100	1	Vppm	12/18/11	sandyw
Ethylbenzene Vppm	26	100	1	Vppm	12/18/11	sandyw
Methyl-t-butyl Ether (MTBE) Vppm	120	100	10	Vppm	12/18/11	sandyw
Toluene Vppm	230	100	1	Vppm	12/18/11	sandyw
Xylenes (Total) Vppm	77	100	3	Vppm	12/18/11	sandyw

ND = Not Detected or < RDL

RDL = Reporting Detection Limit      DF = Dilution Factor

**ASSOCIATED LABORATORIES**

Analytical Results Report



Sample #: 296186-002      Client: Calclean  
 Matrix: Air                      Client Sample #: DPE-1  
 Collect Date: 12/06/11      Site:  
 Collect Time: 08:00 PM      Collector: client

Compound	Result	DF	RDL	Units	Analysis Date	Analyst
Method: EPA 8015B		Prep Method: Method		QCBatchID: QC1121622		
TPH Gasoline Vppm	7500	100	500	Vppm	12/18/11	sandyw
Method: EPA 8021B		Prep Method: Method		QCBatchID: QC1121621		
Benzene Vppm	130	100	1	Vppm	12/18/11	sandyw
Ethylbenzene Vppm	32	100	1	Vppm	12/18/11	sandyw
Methyl-t-butyl Ether (MTBE) Vppm	84	100	10	Vppm	12/18/11	sandyw
Toluene Vppm	250	100	1	Vppm	12/18/11	sandyw
Xylenes (Total) Vppm	98	100	3	Vppm	12/18/11	sandyw

ND = Not Detected or < RDL

RDL = Reporting Detection Limit

DF = Dilution Factor





Sample #: 296186-003 Client: Calclean  
 Matrix: Air Client Sample #: DPE-1  
 Collect Date: 12/07/11 Site:  
 Collect Time: 04:00 AM Collector: client

Compound	Result	DF	RDL	Units	Analysis Date	Analyst
Method: EPA 8015B		Prep Method: Method		QCBatchID: QC1121622		
TPH Gasoline Vppm	6500	100	500	Vppm	12/18/11	sandyw
Method: EPA 8021B		Prep Method: Method		QCBatchID: QC1121621		
Benzene Vppm	120	100	1	Vppm	12/18/11	sandyw
Ethylbenzene Vppm	24	100	1	Vppm	12/18/11	sandyw
Methyl-t-butyl Ether (MTBE) Vppm	79	100	10	Vppm	12/18/11	sandyw
Toluene Vppm	220	100	1	Vppm	12/18/11	sandyw
Xylenes (Total) Vppm	72	100	3	Vppm	12/18/11	sandyw

ND = Not Detected or < RDL

RDL = Reporting Detection Limit DF = Dilution Factor



Sample #: 296186-004 Client: Calclean  
 Matrix: Air Client Sample #: DPE-3  
 Collect Date: 12/07/11 Site:  
 Collect Time: 09:05 AM Collector: client

Compound	Result	DF	RDL	Units	Analysis Date	Analyst
Method: EPA 8015B		Prep Method: Method		QCBatchID: QC1121622		
TPH Gasoline Vppm	10000	100	500	Vppm	12/18/11	sandyw
Method: EPA 8021B		Prep Method: Method		QCBatchID: QC1121621		
Benzene Vppm	180	100	1	Vppm	12/18/11	sandyw
Ethylbenzene Vppm	35	100	1	Vppm	12/18/11	sandyw
Methyl-t-butyl Ether (MTBE) Vppm	93	100	10	Vppm	12/18/11	sandyw
Toluene Vppm	310	100	1	Vppm	12/18/11	sandyw
Xylenes (Total) Vppm	100	100	3	Vppm	12/18/11	sandyw

ND = Not Detected or < RDL

RDL = Reporting Detection Limit DF = Dilution Factor



Sample #: 296186-005 Client: Calclean  
 Matrix: Air Client Sample #: DPE-3  
 Collect Date: 12/07/11 Site:  
 Collect Time: 11:00 AM Collector: client

Compound	Result	DF	RDL	Units	Analysis Date	Analyst
Method: EPA 8015B	Prep Method: Method			QCBatchID: QC1121622		
TPH Gasoline Vppm	15000	125	625	Vppm	12/18/11	sandyw
Method: EPA 8021B	Prep Method: Method			QCBatchID: QC1121621		
Benzene Vppm	180	125	1.25	Vppm	12/18/11	sandyw
Ethylbenzene Vppm	49	125	1.25	Vppm	12/18/11	sandyw
Methyl-t-butyl Ether (MTBE) Vppm	330	125	12.5	Vppm	12/18/11	sandyw
Toluene Vppm	320	125	1.25	Vppm	12/18/11	sandyw
Xylenes (Total) Vppm	110	125	3.75	Vppm	12/18/11	sandyw

ND = Not Detected or < RDL

RDL = Reporting Detection Limit

DF = Dilution Factor



Sample #: 296186-006 Client: Calclean  
 Matrix: Air Client Sample #: DPE-3  
 Collect Date: 12/07/11 Site:  
 Collect Time: 04:00 PM Collector: client

Compound	Result	DF	RDL	Units	Analysis Date	Analyst
Method: EPA 8015B		Prep Method: Method		QCBatchID: QC1121622		
TPH Gasoline Vppm	9200	100	500	Vppm	12/18/11	sandyw
Method: EPA 8021B		Prep Method: Method		QCBatchID: QC1121621		
Benzene Vppm	120	100	1	Vppm	12/18/11	sandyw
Ethylbenzene Vppm	54	100	1	Vppm	12/18/11	sandyw
Methyl-t-butyl Ether (MTBE) Vppm	210	100	10	Vppm	12/18/11	sandyw
Toluene Vppm	330	100	1	Vppm	12/18/11	sandyw
Xylenes (Total) Vppm	140	100	3	Vppm	12/18/11	sandyw

ND = Not Detected or < RDL

RDL = Reporting Detection Limit DF = Dilution Factor



Sample #: 296186-007 Client: Calclean  
 Matrix: Air Client Sample #: DPE-3  
 Collect Date: 12/08/11 Site:  
 Collect Time: 04:00 AM Collector: client

Compound	Result	DF	RDL	Units	Analysis Date	Analyst
Method: EPA 8015B	Prep Method: Method			QCBatchID: QC1121622		
TPH Gasoline Vppm	10000	100	500	Vppm	12/18/11	sandyw
Method: EPA 8021B	Prep Method: Method			QCBatchID: QC1121621		
Benzene Vppm	120	100	1	Vppm	12/18/11	sandyw
Ethylbenzene Vppm	51	100	1	Vppm	12/18/11	sandyw
Methyl-t-butyl Ether (MTBE) Vppm	240	100	10	Vppm	12/18/11	sandyw
Toluene Vppm	260	100	1	Vppm	12/18/11	sandyw
Xylenes (Total) Vppm	130	100	3	Vppm	12/18/11	sandyw

ND = Not Detected or < RDL

RDL = Reporting Detection Limit

DF = Dilution Factor

**ASSOCIATED LABORATORIES**

Analytical Results Report



Sample #: 296186-008 Client: Calclean  
 Matrix: Air Client Sample #: DPE-2  
 Collect Date: 12/08/11 Site:  
 Collect Time: 09:30 AM Collector: client

Compound	Result	DF	RDL	Units	Analysis Date	Analyst
Method: EPA 8015B		Prep Method: Method		QCBatchID: QC1121622		
TPH Gasoline Vppm	2100	25	125	Vppm	12/18/11	sandyw
Method: EPA 8021B		Prep Method: Method		QCBatchID: QC1121621		
Benzene Vppm	25	25	0.25	Vppm	12/18/11	sandyw
Ethylbenzene Vppm	8.7	25	0.25	Vppm	12/18/11	sandyw
Methyl-t-butyl Ether (MTBE) Vppm	17	25	2.5	Vppm	12/18/11	sandyw
Toluene Vppm	64	25	0.25	Vppm	12/18/11	sandyw
Xylenes (Total) Vppm	27	25	0.75	Vppm	12/18/11	sandyw

ND = Not Detected or < RDL

RDL = Reporting Detection Limit DF = Dilution Factor



Sample #: 296186-009 Client: Calclean  
 Matrix: Air Client Sample #: DPE-2  
 Collect Date: 12/08/11 Site:  
 Collect Time: 11:30 AM Collector: client

Compound	Result	DF	RDL	Units	Analysis Date	Analyst
Method: EPA 8015B	Prep Method: Method			QCBatchID: QC1121622		
TPH Gasoline Vppm	1800	25	125	Vppm	12/18/11	sandyw
Method: EPA 8021B	Prep Method: Method			QCBatchID: QC1121621		
Benzene Vppm	21	25	0.25	Vppm	12/18/11	sandyw
Ethylbenzene Vppm	5.7	25	0.25	Vppm	12/18/11	sandyw
Methyl-t-butyl Ether (MTBE) Vppm	41	25	2.5	Vppm	12/18/11	sandyw
Toluene Vppm	68	25	0.25	Vppm	12/18/11	sandyw
Xylenes (Total) Vppm	20	25	0.75	Vppm	12/18/11	sandyw

ND = Not Detected or < RDL

RDL = Reporting Detection Limit DF = Dilution Factor



Sample #: 296186-010 Client: Calclean  
 Matrix: Air Client Sample #: DPE-2  
 Collect Date: 12/08/11 Site:  
 Collect Time: 04:00 PM Collector: client

Compound	Result	DF	RDL	Units	Analysis Date	Analyst
Method: EPA 8015B		Prep Method: Method		QCBatchID: QC1121622		
TPH Gasoline Vppm	1900	25	125	Vppm	12/18/11	sandyw
Method: EPA 8021B		Prep Method: Method		QCBatchID: QC1121621		
Benzene Vppm	22	25	0.25	Vppm	12/18/11	sandyw
Ethylbenzene Vppm	6.3	25	0.25	Vppm	12/18/11	sandyw
Methyl-t-butyl Ether (MTBE) Vppm	43	25	2.5	Vppm	12/18/11	sandyw
Toluene Vppm	75	25	0.25	Vppm	12/18/11	sandyw
Xylenes (Total) Vppm	21	25	0.75	Vppm	12/18/11	sandyw

ND = Not Detected or < RDL

RDL = Reporting Detection Limit

DF = Dilution Factor





Sample #: 296186-011 Client: Calclean  
 Matrix: Air Client Sample #: DPE-2  
 Collect Date: 12/09/11 Site:  
 Collect Time: 04:00 AM Collector: client

Compound	Result	DF	RDL	Units	Analysis Date	Analyst
Method: EPA 8015B		Prep Method: Method	QCBatchID: QC1121622			
TPH Gasoline Vppm	2500	50	250	Vppm	12/18/11	sandyw
Method: EPA 8021B		Prep Method: Method	QCBatchID: QC1121621			
Benzene Vppm	25	50	0.5	Vppm	12/18/11	sandyw
Ethylbenzene Vppm	7.8	50	0.5	Vppm	12/18/11	sandyw
Methyl-t-butyl Ether (MTBE) Vppm	60	50	5	Vppm	12/18/11	sandyw
Toluene Vppm	95	50	0.5	Vppm	12/18/11	sandyw
Xylenes (Total) Vppm	26	50	1.5	Vppm	12/18/11	sandyw

ND = Not Detected or < RDL

RDL = Reporting Detection Limit

DF = Dilution Factor



Sample #: 296186-012      Client: Calclean  
 Matrix: Air                      Client Sample #: Total Inlet  
 Collect Date: 12/09/11      Site:  
 Collect Time: 09:00 AM      Collector: client

Compound	Result	DF	RDL	Units	Analysis Date	Analyst
Method: EPA 8015B	Prep Method: Method			QCBatchID: QC1121622		
TPH Gasoline Vppm	7400	100	500	Vppm	12/18/11	sandyw
Method: EPA 8021B	Prep Method: Method			QCBatchID: QC1121621		
Benzene Vppm	44	100	1	Vppm	12/18/11	sandyw
Ethylbenzene Vppm	16	100	1	Vppm	12/18/11	sandyw
Methyl-t-butyl Ether (MTBE) Vppm	73	100	10	Vppm	12/18/11	sandyw
Toluene Vppm	140	100	1	Vppm	12/18/11	sandyw
Xylenes (Total) Vppm	56	100	3	Vppm	12/18/11	sandyw

ND = Not Detected or < RDL

RDL = Reporting Detection Limit

DF = Dilution Factor



Sample #: 296186-013 Client: Calclean  
 Matrix: Air Client Sample #: Total Inlet  
 Collect Date: 12/10/11 Site:  
 Collect Time: 08:00 AM Collector: client

Compound	Result	DF	RDL	Units	Analysis Date	Analyst
Method: EPA 8015B		Prep Method: Method		QCBatchID: QC1121622		
TPH Gasoline Vppm	6100	100	500	Vppm	12/18/11	sandyw
Method: EPA 8021B		Prep Method: Method		QCBatchID: QC1121621		
Benzene Vppm	53	100	1	Vppm	12/18/11	sandyw
Ethylbenzene Vppm	17	100	1	Vppm	12/18/11	sandyw
Methyl-t-butyl Ether (MTBE) Vppm	95	100	10	Vppm	12/18/11	sandyw
Toluene Vppm	140	100	1	Vppm	12/18/11	sandyw
Xylenes (Total) Vppm	59	100	3	Vppm	12/18/11	sandyw

ND = Not Detected or < RDL

RDL = Reporting Detection Limit

DF = Dilution Factor



Sample #: 296186-014 Client: Calclean  
 Matrix: Air Client Sample #: Total Inlet  
 Collect Date: 12/11/11 Site:  
 Collect Time: 08:00 AM Collector: client

Compound	Result	DF	RDL	Units	Analysis Date	Analyst
Method: EPA 8015B		Prep Method: Method	QCBatchID: QC1121622			
TPH Gasoline Vppm	6000	100	500	Vppm	12/18/11	sandyw
Method: EPA 8021B		Prep Method: Method	QCBatchID: QC1121621			
Benzene Vppm	56	100	1	Vppm	12/18/11	sandyw
Ethylbenzene Vppm	18	100	1	Vppm	12/18/11	sandyw
Methyl-t-butyl Ether (MTBE) Vppm	33	100	10	Vppm	12/18/11	sandyw
Toluene Vppm	140	100	1	Vppm	12/18/11	sandyw
Xylenes (Total) Vppm	61	100	3	Vppm	12/18/11	sandyw

ND = Not Detected or < RDL

RDL = Reporting Detection Limit DF = Dilution Factor



Sample #: 296186-015 Client: Calclean  
 Matrix: Air Client Sample #: Total Inlet  
 Collect Date: 12/12/11 Site:  
 Collect Time: 08:00 AM Collector: client

Compound	Result	DF	RDL	Units	Analysis Date	Analyst
Method: EPA 8015B	Prep Method: Method			QCBatchID: QC1121622		
TPH Gasoline Vppm	7400	100	500	Vppm	12/18/11	sandyw
Method: EPA 8021B	Prep Method: Method			QCBatchID: QC1121621		
Benzene Vppm	61	100	1	Vppm	12/18/11	sandyw
Ethylbenzene Vppm	18	100	1	Vppm	12/18/11	sandyw
Methyl-t-butyl Ether (MTBE) Vppm	120	100	10	Vppm	12/18/11	sandyw
Toluene Vppm	160	100	1	Vppm	12/18/11	sandyw
Xylenes (Total) Vppm	65	100	3	Vppm	12/18/11	sandyw

ND = Not Detected or < RDL

RDL = Reporting Detection Limit

DF = Dilution Factor



**ASSOCIATED LABORATORIES**

806 North Batavia • Orange, CA 92868  
Phone: (714) 771-6900 • Fax: (714) 538-1209



**Chain of Custody Record**

Lab Job No. 296186  
Page 1 of 1

CUSTOMER INFORMATION		PROJECT INFORMATION	
COMPANY	CalClean Inc.	PROJECT NAME:	GOOD CHEVROLET
SEND REPORT TO:	3002 Dow, #142 Tustin, CA 92780	NUMBER:	
EMAIL:		ADDRESS:	1630 PARK ST ALAMEDA, CA
ADDRESS:	NOEL SHENOI	P.O. #:	
Phone	(714) 734-9137	SAMPLED BY:	
PHONE: Fax	(714) 734-9138		

REQUIRED TURN AROUND TIME: Standard: X

72 Hours: \_\_\_\_\_ 48 Hours: \_\_\_\_\_ 24 Hours: \_\_\_\_\_

Sample ID	Date	Time	Matrix	Container Number/Size	Pres.	ANALYSIS REQUEST	TPH-G (8015)	BTEX/MTBE (8021)	BTX/PAHs (8005)	Test Instructions & Comments
1 DPE-1	12/06/11	1405	AIR	TEDLAR	NONE	X	X			
2 DPE-1	12/06/11	2000								
3 DPE-1	12/07/11	0400								
4 DPE-3		0905								
5 DPE-3		1100								
6 DPE-3		1600								
7 DPE-3	12/08/11	0400								
8 DPE-3		0930								
9 DPE-2		1130								
10 DPE-2		1600								
11 DPE-2	12/09/11	0400								also email K King
12 Total Inlet		0900								
13 Total Inlet	12/10/11	0800								EDF
14 Total Inlet	12/11/11	0800								TO 600100655
15 Total Inlet	12/12/11	0800								AIR = PPMV

Total No. of Samples: 15 Method of Shipment: \_\_\_\_\_ Preservative: 1=Ice 2=HCl 3=HNO<sub>3</sub> 4=H<sub>2</sub>SO<sub>4</sub> 5=NaOH 6=Other

Relinquished by	1.	Received By:	1.	Relinquished by	2.	Received By:	2.	Relinquished by	3.	Received By:	3.
Signature:	<i>Noel Sheno</i>	Signature:	<i>Daniel Lee</i>	Signature:		Signature:		Signature:		Signature:	
Printed Name:	NOEL SHENOI	Printed Name:	Daniel Lee	Printed Name:		Printed Name:		Printed Name:		Printed Name:	
Date:	12/13/11	Date:	12/13/11	Date:		Date:		Date:		Date:	
Time:		Time:	1233	Time:		Time:		Time:		Time:	



# Associated Laboratories

806 N. Batavia - Orange, CA 92868  
Tel (714)771-6900 Fax (714)538-1209  
www.associatedlabs.com  
Info@associatedlabs.com



Client: Calclean  
Address: 3002 Dow Ave.  
#142  
Tustin, CA 92780  
Attn: Noel Shenoj

Lab Request: 297267  
Report Date: 01/16/2012  
Date Received: 01/04/2012

Client ID: 9977

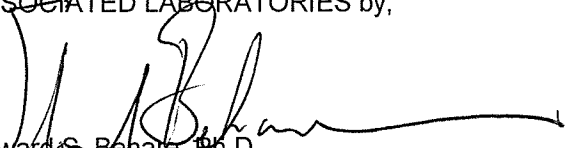
Comments: Good Chevrolet  
1630 Park Street, Alameda  
Global ID: T0600100655

This laboratory request covers the following listed samples which were analyzed for the parameters indicated on the attached Analytical Result Report. All analyses were conducted using the appropriate methods indicated on the attached report and all NELAC criteria. This cover letter is an integral part of the final report.

<u>Sample #</u>	<u>Client Sample ID</u>
297267-001	Total Inlet
297267-002	Total Inlet
297267-003	DPE-1
297267-004	DPE-2
297267-005	DPE-3

Thank you for the opportunity to be of service to your company. Please feel free to call if there are any questions regarding this report or if we can be of further service.

ASSOCIATED LABORATORIES by,

  
Edward G. Behare, Ph.D.  
Lab Director

NOTE: Unless notified in writing, all samples will be discarded by appropriate disposal protocol 45 days from date reported.

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TESTING & CONSULTING  
Chemical  
Microbiological  
Environmental

Sample #: 297267-001 Client: Calclean  
 Matrix: Air Client Sample #: Total Inlet  
 Collect Date: 12/22/11 Site:  
 Collect Time: 01:00 PM Collector: client

Compound	Result	DF	RDL	Units	Analysis Date	Analyst
Method: EPA 8015B	Prep Method: Method			QCBatchID: QC1122272		
TPH Gasoline Vppm	3800	50	250	Vppm	01/07/12	sandyw
Method: EPA 8021B	Prep Method: Method			QCBatchID: QC1122273		
Benzene Vppm	48	50	0.5	Vppm	01/07/12	sandyw
Ethylbenzene Vppm	27	50	0.5	Vppm	01/07/12	sandyw
Methyl-t-butyl Ether (MTBE) Vppm	56	50	5	Vppm	01/07/12	sandyw
Toluene Vppm	62	50	0.5	Vppm	01/07/12	sandyw
Xylenes (Total) Vppm	87	50	1.5	Vppm	01/07/12	sandyw

ND = Not Detected or < RDL

RDL = Reporting Detection Limit

DF = Dilution Factor





Sample #: 297267-002 Client: Calclean  
 Matrix: Air Client Sample #: Total Inlet  
 Collect Date: 12/30/11 Site:  
 Collect Time: 03:55 AM Collector: client

Compound	Result	DF	RDL	Units	Analysis Date	Analyst
Method: EPA 8015B		Prep Method: Method		QCBatchID: QC1122272		
TPH Gasoline Vppm	4300	50	250	Vppm	01/07/12	sandyw
Method: EPA 8021B		Prep Method: Method		QCBatchID: QC1122273		
Benzene Vppm	39	50	0.5	Vppm	01/07/12	sandyw
Ethylbenzene Vppm	21	50	0.5	Vppm	01/07/12	sandyw
Methyl-t-butyl Ether (MTBE) Vppm	12	50	5	Vppm	01/07/12	sandyw
Toluene Vppm	36	50	0.5	Vppm	01/07/12	sandyw
Xylenes (Total) Vppm	66	50	1.5	Vppm	01/07/12	sandyw

ND = Not Detected or < RDL

RDL = Reporting Detection Limit

DF = Dilution Factor



Sample #: 297267-003      Client: Calclean  
 Matrix: Air                      Client Sample #: DPE-1  
 Collect Date: 12/30/11      Site:  
 Collect Time: 04:00 AM      Collector: client

Compound	Result	DF	RDL	Units	Analysis Date	Analyst
Method: EPA 8015B	Prep Method: Method			QCBatchID: QC1122272		
TPH Gasoline Vppm	3300	50	250	Vppm	01/07/12	sandyw
Method: EPA 8021B	Prep Method: Method			QCBatchID: QC1122273		
Benzene Vppm	27	50	0.5	Vppm	01/07/12	sandyw
Ethylbenzene Vppm	12	50	0.5	Vppm	01/07/12	sandyw
Methyl-t-butyl Ether (MTBE) Vppm	11	50	5	Vppm	01/07/12	sandyw
Toluene Vppm	38	50	0.5	Vppm	01/07/12	sandyw
Xylenes (Total) Vppm	36	50	1.5	Vppm	01/07/12	sandyw

ND = Not Detected or < RDL

RDL = Reporting Detection Limit

DF = Dilution Factor

**ASSOCIATED LABORATORIES**

Analytical Results Report

Lab Request 297267 Page 4 of 6



Sample #: 297267-004 Client: Calclean  
 Matrix: Air Client Sample #: DPE-2  
 Collect Date: 12/30/11 Site:  
 Collect Time: 04:05 AM Collector: client

Compound	Result	DF	RDL	Units	Analysis Date	Analyst
Method: EPA 8015B	Prep Method: Method			QCBatchID: QC1122272		
TPH Gasoline Vppm	3100	50	250	Vppm	01/07/12	sandyw
Method: EPA 8021B	Prep Method: Method			QCBatchID: QC1122273		
Benzene Vppm	50	50	0.5	Vppm	01/07/12	sandyw
Ethylbenzene Vppm	15	50	0.5	Vppm	01/07/12	sandyw
Methyl-t-butyl Ether (MTBE) Vppm	55	50	5	Vppm	01/07/12	sandyw
Toluene Vppm	55	50	0.5	Vppm	01/07/12	sandyw
Xylenes (Total) Vppm	43	50	1.5	Vppm	01/07/12	sandyw

ND = Not Detected or < RDL

RDL = Reporting Detection Limit

DF = Dilution Factor

**ASSOCIATED LABORATORIES**

Analytical Results Report

Lab Request 297267 Page 5 of 6



Sample #: 297267-005 Client: Calclean  
 Matrix: Air Client Sample #: DPE-3  
 Collect Date: 12/30/11 Site:  
 Collect Time: 04:10 AM Collector: client

Compound	Result	DF	RDL	Units	Analysis Date	Analyst
Method: EPA 8015B		Prep Method: Method		QCBatchID: QC1122272		
TPH Gasoline Vppm	3300	50	250	Vppm	01/07/12	sandyw
Method: EPA 8021B		Prep Method: Method		QCBatchID: QC1122273		
Benzene Vppm	62	50	0.5	Vppm	01/07/12	sandyw
Ethylbenzene Vppm	20	50	0.5	Vppm	01/07/12	sandyw
Methyl-t-butyl Ether (MTBE) Vppm	58	50	5	Vppm	01/07/12	sandyw
Toluene Vppm	64	50	0.5	Vppm	01/07/12	sandyw
Xylenes (Total) Vppm	55	50	1.5	Vppm	01/07/12	sandyw

ND = Not Detected or < RDL

RDL = Reporting Detection Limit

DF = Dilution Factor



**ASSOCIATED LABORATORIES**

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**Chain of Custody Record**

Lab Job No. 297267  
Page 1 of 1

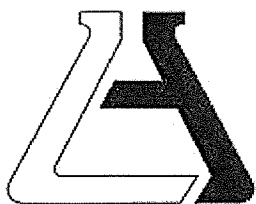
CUSTOMER INFORMATION		PROJECT INFORMATION	
COMPANY	CalClean Inc.	PROJECT NAME:	GOOD CHEVROLET
SEND REPORT TO:	3002 Dow, #142 Tustin, CA 92780	NUMBER:	
EMAIL:		ADDRESS:	1630 PARK ST ALAMEDA, CA
ADDRESS:	NOEL SHENOI	P.O. #:	
PHONE:	Phone (714) 734-9137 Fax (714) 734-9138	SAMPLED BY:	

REQUIRED TURN AROUND TIME: Standard: X  
72 Hours: \_\_\_\_\_ 48 Hours: \_\_\_\_\_ 24 Hours: \_\_\_\_\_

Sample ID	Date	Time	Matrix	Container Number/Size	Pres.	ANALYSIS REQUEST	TPH-G (8015)	BTEX/MTBE (8021)	OTHER (8008)	Test Instructions & Comments
1	12/22/12	1300	AIR	TEDLAR	NONE	X	X			
2	12/30/12	0355								
3		0400								
4		0405								
5		0410								
6										
7										
8										
9										
10										
11										also email K King
12										
13										
14										EDF
15										TO 600100655 AIR = PPMV

Total No. of Samples: 5 Method of Shipment: \_\_\_\_\_ Preservative: 1=Ice 2=HCl 3=HNO<sub>3</sub> 4=H<sub>2</sub>SO<sub>4</sub> 5=NaOH 6=Other

Relinquished by	1. Received By:	Relinquished by	2. Received By:	Relinquished by	3. Received By:
Signature: <u>Noel Sheno</u>	Signature: <u>Mc Elroy</u>	Signature:	Signature:	Signature:	Signature:
Printed Name: <u>NOEL SHENOI</u>	Printed Name:	Printed Name:	Printed Name:	Printed Name:	Printed Name:
Date: <u>1/4/12</u> Time: <u>16:25</u>	Date: <u>01/04/12</u> Time: <u>16:25</u>	Date:	Date:	Date:	Date:



# Associated Laboratories

806 N. Batavia - Orange, CA 92868  
Tel (714)771-6900 Fax (714)538-1209  
www.associatedlabs.com  
Info@associatedlabs.com



Client: Calclean  
Address: 3002 Dow Ave.  
#142  
Tustin, CA 92780  
Attn: Noel Sheno

Lab Request: 297588  
Report Date: 01/16/2012  
Date Received: 01/11/2012

Client ID: 9977

Comments: Good Chevrolet  
1630 Park St., Alameda, CA  
Global ID: T0600100655

This laboratory request covers the following listed samples which were analyzed for the parameters indicated on the attached Analytical Result Report. All analyses were conducted using the appropriate methods indicated on the attached report and all NELAC criteria. This cover letter is an integral part of the final report.

<u>Sample #</u>	<u>Client Sample ID</u>
297588-001	Total Inlet
297588-002	Total Inlet
297588-003	MW-2
297588-004	DPE-2
297588-005	DPE-1

Thank you for the opportunity to be of service to your company. Please feel free to call if there are any questions regarding this report or if we can be of further service.

ASSOCIATED LABORATORIES by,

Edward S. Behare, Ph.D.  
Lab Director

NOTE: Unless notified in writing, all samples will be discarded by appropriate disposal protocol 45 days from date reported.

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TESTING & CONSULTING  
Chemical  
Microbiological  
Environmental

Sample #: 297588-001      Client: Calclean  
 Matrix: Air                      Client Sample #: Total Inlet  
 Collect Date: 01/06/12      Site:  
 Collect Time: 08:00 AM      Collector: client

Compound	Result	DF	RDL	Units	Analysis Date	Analyst
Method: EPA 8015B		Prep Method: Method		QCBatchID: QC1122373		
TPH Gasoline Vppm	1300	25	125	Vppm	01/12/12	sandyw
Method: EPA 8021B		Prep Method: Method		QCBatchID: QC1122377		
Benzene Vppm	17	25	0.25	Vppm	01/12/12	sandyw
Ethylbenzene Vppm	15	25	0.25	Vppm	01/12/12	sandyw
Methyl-t-butyl Ether (MTBE) Vppm	14	25	2.5	Vppm	01/12/12	sandyw
Toluene Vppm	93	25	0.25	Vppm	01/12/12	sandyw
Xylenes (Total) Vppm	59	25	0.75	Vppm	01/12/12	sandyw

ND = Not Detected or < RDL

RDL = Reporting Detection Limit

DF = Dilution Factor

**ASSOCIATED LABORATORIES**

Analytical Results Report

Lab Request 297588 Page 2 of 6



Sample #: 297588-002      Client: Calclean  
 Matrix: Air                      Client Sample #: Total Inlet  
 Collect Date: 01/09/12      Site:  
 Collect Time: 04:45 PM      Collector: client

Compound	Result	DF	RDL	Units	Analysis Date	Analyst
Method: EPA 8015B		Prep Method: Method		QCBatchID: QC1122373		
TPH Gasoline Vppm	1500	25	125	Vppm	01/12/12	sandyw
Method: EPA 8021B		Prep Method: Method		QCBatchID: QC1122377		
Benzene Vppm	22	25	0.25	Vppm	01/12/12	sandyw
Ethylbenzene Vppm	19	25	0.25	Vppm	01/12/12	sandyw
Methyl-t-butyl Ether (MTBE) Vppm	18	25	2.5	Vppm	01/12/12	sandyw
Toluene Vppm	110	25	0.25	Vppm	01/12/12	sandyw
Xylenes (Total) Vppm	76	25	0.75	Vppm	01/12/12	sandyw

ND = Not Detected or < RDL

RDL = Reporting Detection Limit      DF = Dilution Factor





Sample #: 297588-003      Client: Calclean  
 Matrix: Air                      Client Sample #: MW-2  
 Collect Date: 01/06/12      Site:  
 Collect Time: 04:50 PM      Collector: client

Compound	Result	DF	RDL	Units	Analysis Date	Analyst
Method: EPA 8015B		Prep Method: Method		QCBatchID: QC1122373		
TPH Gasoline Vppm	1000	25	125	Vppm	01/12/12	sandyw
Method: EPA 8021B		Prep Method: Method		QCBatchID: QC1122377		
Benzene Vppm	9.0	25	0.25	Vppm	01/12/12	sandyw
Ethylbenzene Vppm	15	25	0.25	Vppm	01/12/12	sandyw
Methyl-t-butyl Ether (MTBE) Vppm	13	25	2.5	Vppm	01/12/12	sandyw
Toluene Vppm	74	25	0.25	Vppm	01/12/12	sandyw
Xylenes (Total) Vppm	61	25	0.75	Vppm	01/12/12	sandyw

ND = Not Detected or < RDL

RDL = Reporting Detection Limit

DF = Dilution Factor



Sample #: 297588-004      Client: Calclean  
 Matrix: Air                      Client Sample #: DPE-2  
 Collect Date: 01/06/12      Site:  
 Collect Time: 04:55 PM      Collector: client

Compound	Result	DF	RDL	Units	Analysis Date	Analyst
Method: EPA 8015B		Prep Method: Method		QCBatchID: QC1122373		
TPH Gasoline Vppm	1700	25	125	Vppm	01/12/12	sandyw
Method: EPA 8021B		Prep Method: Method		QCBatchID: QC1122377		
Benzene Vppm	28	25	0.25	Vppm	01/12/12	sandyw
Ethylbenzene Vppm	19	25	0.25	Vppm	01/12/12	sandyw
Methyl-t-butyl Ether (MTBE) Vppm	22	25	2.5	Vppm	01/12/12	sandyw
Toluene Vppm	130	50	0.5	Vppm	01/12/12	sandyw
Xylenes (Total) Vppm	77	25	0.75	Vppm	01/12/12	sandyw

ND = Not Detected or < RDL

RDL = Reporting Detection Limit      DF = Dilution Factor



Sample #: 297588-005 Client: Calclean  
 Matrix: Air Client Sample #: DPE-1  
 Collect Date: 01/06/12 Site:  
 Collect Time: 05:00 PM Collector: client

Compound	Result	DF	RDL	Units	Analysis Date	Analyst
Method: EPA 8015B		Prep Method: Method		QCBatchID: QC1122373		
TPH Gasoline Vppm	1600	25	125	Vppm	01/12/12	sandyw
Method: EPA 8021B		Prep Method: Method		QCBatchID: QC1122377		
Benzene Vppm	24	25	0.25	Vppm	01/12/12	sandyw
Ethylbenzene Vppm	20	25	0.25	Vppm	01/12/12	sandyw
Methyl-t-butyl Ether (MTBE) Vppm	18	25	2.5	Vppm	01/12/12	sandyw
Toluene Vppm	120	50	0.5	Vppm	01/12/12	sandyw
Xylenes (Total) Vppm	80	25	0.75	Vppm	01/12/12	sandyw

ND = Not Detected or < RDL

RDL = Reporting Detection Limit

DF = Dilution Factor



**ASSOCIATED LABORATORIES**

806 North Batavia • Orange, CA 92868  
Phone: (714) 771-6900 • Fax: (714) 538-1209



**Chain of Custody Record**

Lab Job No. 297588  
Page 1 of 1

CUSTOMER INFORMATION		PROJECT INFORMATION		REQUIRED TURN AROUND TIME: Standard: <u>X</u>	
COMPANY	CalClean Inc.	PROJECT NAME:	GOOD CHEVROLET		
SEND REPORT TO:	3002 Dow, #142	NUMBER:			
	Tustin, CA 92780	ADDRESS:	1630 PARK ST		
EMAIL:			ALAMEDA, CA		
ADDRESS:	NOEL SHENOI	P.O. #:			
Phone	(714) 734-9137	SAMPLED BY:			
PHONE:	Fax (714) 734-9138				

Sample ID	Date	Time	Matrix	Container Number/Size	Pres.	ANALYSIS REQUEST	TPH-G (8015)	BTEX/MTBE (8021)	OTHER	Test Instructions & Comments
1	1/6/12	0800	AIR	TEDLAR	NONE	X	X			
2	1/9/12	1645	↓	↓	↓					
3		1650	↓	↓	↓					
4		1655	↓	↓	↓					
5		1700	↓	↓	↓					
6										
7										
8										
9										
10										
11										also email K King
12										
13										
14										EDF
15										TO 600100655 AIR = PPMV

Total No. of Samples: 5 Method of Shipment: \_\_\_\_\_ Preservative: 1=Ice 2=HCl 3=HNO<sub>3</sub> 4=H<sub>2</sub>SO<sub>4</sub> 5=NaOH 6=Other

Relinquished by	1.	Received By:	1.	Relinquished by	2.	Received By:	2.	Relinquished by	3.	Received By:	3.
Signature:		Signature:		Signature:		Signature:		Signature:		Signature:	
Printed Name:	NOEL SHENOI	Printed Name:		Printed Name:		Printed Name:		Printed Name:		Printed Name:	
Date:	1/19/12	Date:	01/11/12	Date:		Date:		Date:		Date:	
Time:	15:17	Time:	15:17	Time:		Time:		Time:		Time:	

**CalClean Inc.**

**ATTACHMENT 2**

**HIGH VACUUM DUAL PHASE EXTRACTION SYSTEM  
FIELD DATA SHEETS**

Project Location: 1630 PARK STREET

City: ALMEDA

Site #: GOOD CHEVROLET

Date: 12/5/2011

Page 1A of 19

Client: BUESTAD

Operator (s): Nick

EXTRACTION WELLS

Well I.D.				DPE-1			DPE-3			DPE-2									Water Meter Readings	Cumul. Water Extracted			
Screen Interval: From-To (ft)																units	gals						
Initial Depth To Water DTW (ft)				8.101			7.73			8.75													
Time	Unit Vacuum ("Hg.)	Air Flowrate (cfm)	TOX Temp. (degF)	Vapor Inlet Conc. (ppmv)	Off/On (ppmv)	DTW (ft)	Stinger Depth (feet)	Off/On (ppmv)	DTW (ft)	Stinger Depth (feet)	Off/On (ppmv)	DTW (ft)	Stinger Depth (feet)	Off/On (ppmv)	DTW (ft)	Stinger Depth (feet)	Off/On (ppmv)	DTW (ft)	Stinger Depth (feet)				
12/05					ON		13.5	OFF		12	OFF		13								12380		
1015	24	35	1462	11560																		12380	0
1017					OFF			ON															
1030	24	37	1452	6740																			
1032								OFF			ON												
1040	24	36	1458	8710																			
1042					ON			ON															
1050	22	97	1447	9510																			
1200	22	98	1443	9230	OFF			OFF			OFF												
12/06																							
0700						8.81			7.92														
0800					ON	VAC	5-					9.29											
1140	23	31	1452	5610		17			VAC			VAC										12410	20
1210	25	34	1453	5040		16																	
1230	25	33	1451	5830		16																	
1300	25	30	1455	6390		16																	
1330	25	31	1454	5920		16																	
1400	25	32	1449	7790		16																	
1430	25	34	1455	7140		14	13.5																
1500	25	33	1449	6990		14		0.32	7.99		0.24	9.31											
1530	25	31	1447	6910		12		0.76	7.98		0.31	9.37											

Comments: 12/05 - START UP UNIT @ 1000, STARTING H2O METER - 12380. VAPOR SAMPLES TAKEN AS FOLLOWS - DPE-1 @ 1015, DPE-3 @ 1030, DPE-2 @ 1040, TOTAL INLET @ 1050. EFF H2O SAMPLES TAKEN @ 1145. 1200 SHUT UNIT DOWN.  
 12/6 - 1100 START UP UNIT. DPE-1 VAPOR SAMPLE TAKEN @ 1405.

Project Location: 1630 PARK STREET

City: ALMEDA

Site #: GOOD CHEVROLET

Date: 12/6/2011

Page 2A of 19

Client: BUESTAD

Operator (s): NICK

EXTRACTION WELLS																					Water Meter Readings	Cumul. Water Extracted
Well I.D.				DPE-1			DPE-3			DPE-2												
Screen Interval: From-To (ft)																						
Initial Depth To Water DTW (ft)																units	gals					
Time	Unit Vacuum ("Hg.)	Air Flowrate (cfm)	TOX Temp. (degF)	Vapor Inlet Conc. (ppmv)	Off/On (ppmv)	DTW (ft)	Stinger Depth (feet)	Off/On (ppmv)	DTW (ft)	Stinger Depth (feet)	Off/On (ppmv)	DTW (ft)	Stinger Depth (feet)	Off/On (ppmv)	DTW (ft)			Stinger Depth (feet)	Off/On (ppmv)	DTW (ft)	Stinger Depth (feet)	
12/06					ON	VAC	13.5				VAC											
1600	29	31	1447	6730		12		0.31	8.32		0.31	9.42										
2000	25	38	1442	6810		12		0.29	8.37		0.30	9.41										
12/07																						
0001	25	32	1448	6470		10		0.26	8.34		0.25	9.48										
0400	25	36	1449	6236		10		0.27	8.39		0.27	9.51										
0800	25	37	1448	6410		10		0.39	8.42		0.73	9.61							13140	730		
0855					OFF	VAC		ON	VAC	5'												
0900	25	38	1453	8130	0.30				12		0.34											
0930	25	34	1451	9930	0.25				12		0.36											
1000	25	31	1451	10670	0.25				13		0.75											
1030	25	37	1446	10390	0.26				13		0.80											
1100	25	33	1445	11540	0.28				13		0.85											
1130	25	32	1456	12810	0.26	10.73			13	12'	0.92	11.82										
1200	25	34	1451	11370	0.25	10.77			13		0.90	11.85										
1230	25	31	1454	11920	0.28	10.72			13		0.92	11.89										
1300	25	32	1456	10730	0.25	10.77			13		0.94	11.93										
1400	25	31	1451	10510	0.27	10.81			13		0.97	11.94										
1500	25	32	1451	10930	0.29	10.83			12		1.05	11.97										
1600	25	34	1448	10870	0.30	10.84			12		1.11	11.99										
2000	25	31	1447	10410	0.35	10.88			11		1.27	12.03							13450	1070		

Comments: 12/6- DPE-1 VAPOR SAMPLES TAKEN @ 2000.

12/7- VAPOR SAMPLES TAKEN AS FOLLOWS - DPE-1 @ 0400, DPE-3 @ 0905, 1100, 1600.

HIGH VACUUM

SVE or

DPE

FIELD DATA SHEET

CalClean Inc.

Project Location: 1630 PARK STREET

City: ALMEDA

Site #: GOOD CHEVROLET

Date: 12/8/2011

Page 31 of 19

Client: BUESTAD

Operator (s): NECK

EXTRACTION WELLS

Well I.D.		DPE-1			DPE-3			DPE-2									Water Meter Readings	Cumul. Water Extracted				
Screen Interval: From-To (ft)														units	gals							
Initial Depth To Water DTW (ft)																						
Time	Unit Vacuum ("Hg.)	Air Flowrate (cfm)	TOX Temp. (degF)	Vapor Inlet Conc. (ppmv)	Off/On VAL (ppmv)	DTW (ft)	Stinger Depth (feet)	Off/On (ppmv)	DTW (ft)	Stinger Depth (feet)	Off/On VAC (ppmv)	DTW (ft)	Stinger Depth (feet)	Off/On (ppmv)	DTW (ft)	Stinger Depth (feet)	Off/On (ppmv)	DTW (ft)	Stinger Depth (feet)	units	gals	
12/8					OFF			ON			OFF											
0001	25	31	1451	10110	0.31	10.93			10		1.34	12.10										
0400	25	33	1453	9630	0.37	10.99			8		1.45	12.17										
0800	25	30	1451	9240	0.48	11.04			8		1.55	12.28								13760	1380	620
								OFF VAL			ON		5'									
0830	25	31	1452	6370	0.45			1.15			14											
0900	25	30	1451	6640	0.45			1.15			14											
0930	25	30	1451	6810	0.45			1.10			14											
1000	25	31	1450	7340	0.45			1.15			14											
1030	25	32	1454	7260	0.45			1.15			13											
1100	24	39	1451	7490	0.45	11.17		1.15	10.98		12		13'									
1130	24	38	1452	8230	0.45	11.19		1.20	10.99		12											
1200	24	36	1451	8170	0.40	11.11		1.20	11.03		12											
1230	24	37	1447	7940	0.40	11.15		1.15	11.07		12											
1300	24	38	1449	8340	0.40	11.16		1.15	11.09		12											
1400	24	37	1447	8170	0.40	11.19		1.05	11.10		12											
1500	23	41	1451	7940	0.40	11.18		1.05	11.08		12											
1600	23	44	1453	7530	0.35	11.17		1.00	11.07		12											
2000	23	43	1449	6720	0.35	11.16		0.70	11.05		12									14020	1640	570

Comments: 12/8 - VAPOR SAMPLES AS FOLLOWS - DPE-3 @ 0400, DPE-2 @ 0930, 1130, 1600.



Project Location: 1630 PARK STREET

City: ALMEDA

Site #: GOOD CHEVROLET

Date: 12/9/2011

Page 4A of 19

Client: BUESTAD

Operator (s): NICK

EXTRACTION WELLS																						Water Meter Readings	Cumul. Water Extracted
Well I.D.		DPE-1					DPE-3					DPE-2											
Screen Interval: From-To (ft)																							
Initial Depth To Water DTW (ft)																						units	gals
Time	Unit Vacuum ("Hg.)	Air Flowrate (cfm)	TOX Temp. (degF)	Vapor Inlet Conc. (ppmv)	Off/On VAL (ppmv)	DTW (ft)	Stinger Depth (feet)	Off/On VAL (ppmv)	DTW (ft)	Stinger Depth (feet)	Off/On VAL (ppmv)	DTW (ft)	Stinger Depth (feet)	Off/On (ppmv)	DTW (ft)	Stinger Depth (feet)	Off/On (ppmv)	DTW (ft)	Stinger Depth (feet)				
12/9					OFF		13.5	OFF		12	ON		13'								12380		
0001	23	42	1448	5710	0.35	11.19		0.50	11.03		10												
0400	23	43	1451	4930	0.30	11.13		0.25	11.04		8												
0800	23	46	1456	2670	0.30	11.10		0.00	11.00		8										14190	1810	
0830					ON		13.5	ON		12													
0900	21	124	1442	5380																			
1000	21	121	1448	6140																			
1100	21	123	1449	6970																			
1200	21	128	1455	7830		VAL			VAL			VAL											
1400	21	124	1451	8270		12			5			4											
2000	21	129	1452	8140	6590	12		10390	5		6530	4									14910	2530	
12/10																							
0001	21	127	1451	8610		12			5			4											
0800	21	123	1453	8530	6420	12		10210	5		5940	4									15430	3050	
1200	21	125	1457	8970		12			5			4											
1600	21	124	1452	8410		12			5			3											
2000	21	128	1453	8160	6170	12		10110	5		5570	4									16180	3800	
12/11																							
0001	21	121	1451	7920		12			5			3											
0800	21	126	1448	8230	6040	12		10230	4		5140	4									16670	4290	
1200	21	124	1449	8040		12			5			4											

Comments: 12/9 - VAPOR SAMPLES TAKEN AS FOLLOWS - DPE-2 @ 0400, TOTAL INLET @ 0900.  
 12/10 - TOTAL INLET SAMPLE @ 0800.  
 12/11 - TOTAL INLET SAMPLE @ 0800

HIGH VACUUM

SVE or

DPE

FIELD DATA SHEET

CalClean Inc.

Project Location: 1630 PARK STREET

City: ALMEDA

Site #: GOOD CHEVROLET

Date: 12/11/2011

Page 54 of 19

Client: BUESTAD

Operator (s):

NICK

EXTRACTION WELLS																					Water Meter Readings	Cumul. Water Extracted	
Well I.D.					DPE-1			DPE-3			DPE-2												
Screen Interval: From-To (ft)																							
Initial Depth To Water DTW (ft)																units	gals						
Time	Unit Vacuum ("Hg.)	Air Flowrate (cfm)	TOX Temp. (degF)	Vapor Inlet Conc. (ppmv)	Off/On (ppmv)	VAC (ft)	Stinger Depth (feet)	Off/On (ppmv)	VAC (ft)	Stinger Depth (feet)	Off/On (ppmv)	VAC (ft)	Stinger Depth (feet)	Off/On (ppmv)	DTW (ft)			Stinger Depth (feet)	Off/On (ppmv)	DTW (ft)	Stinger Depth (feet)		
12/11					ON	146	13.5	ON	146	12	ON	146	13								12380		
1600	21	125	1443	7980		12			5			4											
2000	21	123	1447	7530	5910	12		10040	5		4910	4									17460	5080	1280
12/12																							
0600	21	128	1451	7410		12			5			4											
0800	21	124	1452	7230	5720	12		9820	5		4460	4									17960	5580	1290
0930					OFF			OFF			OFF												
1030	23	93	1451	5930	ON			ON			ON												
1045	23	97	1455	6170	6140	12		8930	5		4140	3											
1200	23	95	1453	6020	5010	12		8340	5		3970	3											
1600	21	128	1451	5970		11			5			3											
2000	21	129	1452	6240	5170	11		8410	4		4010	3									18530	6150	1070
12/13																							
0001	20	132	1449	6510		10			4			3											
0800	19	147	1447	6830	5540	9		8670	4		3910	3									19100	6720	1140
1200	19	143	1443	6670		9			4			3											
1600	19	142	1448	6510		9			4			3											
2000	19	144	1449	6380	5240	9		8430	4		3520	3									20240	7860	1710
12/14																							
0001	19	148	1453	6110		9			4			3											
0800	19	145	1451	5920	4970	9		8210	4		3110	3									21520	9140	2420

Comments: 12/12 - TOTAL INLET SAMPLE TAKEN @ 0800. SHUT DOWN UNIT @ 0930 FOR GGH. MAINT. START UP UNIT @ 1025.

HIGH VACUUM

SVE or

DPE

FIELD DATA SHEET

CalClean Inc.

Project Location: 1630 PARK STREET

City: ALMEDA

Site #: GOOD CHEVROLET

Date: 12/14/2011

Page 6A of 19

Client: BUESTAD

Operator (s): NICK / DAVIS

EXTRACTION WELLS																					Water Meter Readings	Cumul. Water Extracted
Well I.D.					DPE-1			DPE-3			DPE-2											
Screen Interval: From-To (ft)																						
Initial Depth To Water DTW (ft)																					units	gals
Time	Unit Vacuum ("Hg.)	Air Flowrate (cfm)	TOX Temp. (degF)	Vapor Inlet Conc. (ppmv)	Off/On (ppmv)	<del>ppmv</del> VAL (ft)	Stinger Depth (feet)	Off/On (ppmv)	<del>ppmv</del> VAL (ft)	Stinger Depth (feet)	Off/On (ppmv)	DTW (ft)	Stinger Depth (feet)	Off/On (ppmv)	DTW (ft)	Stinger Depth (feet)	Off/On (ppmv)	DTW (ft)	Stinger Depth (feet)			
12/14					ON	"Hg	13.5	ON	"Hg	12	ON	"Hg	13									
1200	19	147	1449	5730		9			4			2										
1600	19	142	1451	5570		9			4			2										
2000	19	148	1453	5140	4530	9		7640	4		2970	2										
12/15																						
0001	18	151	1451	4930		9			4			2										
0800	18	153	1451	4410	3960	9		6930	4		2610	2										
1200	18	154	1453	4230		9			4			3										
1600	18	152	1457	4370		9			4			3										
2000	20	136	1452	4920	5270	10		6240	5		2230	3										
12/16																						
0001	19	137	1448	4930																		
0800	20	138	1450	4890	5240	10		6700	4		2260	3										
1200	20	136	1451	4830																		
1600	20	139	1455	4840																		
2000	19	137	1455	4710	4820	10		6640	4		2310	3										
12/17																						
0001	19	148	1450	4530																		
0800	18	151	1455	4350	4640	9		6540	4		2190	3										
1200	18	153	1450	4290		9																
1600	18	151	1450	4310		9																

Comments: 12/15 - UNIT OFF FROM 1615 TO 1745 DUE TO POWER CHANGE FROM GEN TO POLE.

HIGH VACUUM

SVE or

DPE

FIELD DATA SHEET

CalClean Inc.

Project Location: 1630 PARK STREET

City: ALMEDA

Site #: GOOD CHEVROLET

Date: 12/17/201

Page 7A of 19

Client: BUESTAD

Operator (s): DAVIS

EXTRACTION WELLS																						Water Meter Readings	Cumul. Water Extracted
Well I.D.				DPE-1			DPE-3			DPE-2			MW-3										
Screen Interval: From-To (ft)																							
Initial Depth To Water DTW (ft)																							
Time	Unit Vacuum ("Hg.)	Air Flowrate (cfm)	TOX Temp. (degF)	Vapor Inlet Conc. (ppmv)	Off/On (ppmv)	DTW VAC (ft)	Stinger Depth (feet)	Off/On (ppmv)	DTW VAC (ft)	Stinger Depth (feet)	Off/On (ppmv)	DTW VAC (ft)	Stinger Depth (feet)	Off/On (ppmv)	DTW VAC (ft)	Stinger Depth (feet)	Off/On (ppmv)	DTW VAC (ft)	Stinger Depth (feet)	units	gals		
12/17					ON		135	ON		12	ON		13	ON		3					12380		
2000	18	153	1455	4230	4570	9		6370	4		2120	3									28165	15785	
12/18																							
0001	18	151	1450	4190		9			4			3											
0800	18	154	1455	4120	4460	9		6210	4		2080	3									28675	16295	
1200	18	151	1450	4160		9			4			3											
1600	18	154	1462	4070		9			5			3											
2000	18	153	1460	4010	4360	9		6170	4		2040	3									29175	16795	
12/19																							
0001	18	154	1449	3930		9			4			3											
0800	18	153	1450	3870	4120	9		5760	3		1980	3									29669	17315	
1200	18	156	1447	3750		9			3			3											
1600	18	153	1450	3630		9			3			3											
1615	14	190	1450	1820		7			3			2		ON	6	3'							
1630	14	193	1459	1808		6			3			1			6								
1645	14	197	1459	1820		6			3			1			5								
1700	14	193	1441	1770		5			2			1			5								
1715	14	190	1450	1750		4			2			1			5								
1730	14	194	1455	1710		4			2			1			5								
1745	14	196	1449	1730		4			2			1			5								
1800	14	196	1450	1680		4			2			1			5	16'							

Comments: Hook up MW-3 @ 1600

HIGH VACUUM

SVE or

DPE

FIELD DATA SHEET

CalClean Inc.

Project Location: 1630 PARK STREET

City: ALMEDA

Site #: GOOD CHEVROLET

Date: 12/19/2011

Page 8A of 19

Client: BUESTAD

Operator (s): DAVES

EXTRACTION WELLS

Well I.D.		DPE-1			DPE-3			DPE-2			MW-3						Water Meter Readings	Cumul. Water Extracted		
Screen Interval: From-To (ft)														units	gals					
Initial Depth To Water DTW (ft)																units	gals			
Time	Unit Vacuum (*Hg.)	Air Flowrate (cfm)	TOX Temp. (degF)	Vapor Inlet Conc. (ppmv)	Off/On (ppmv)	Flow VAC (ft)	Stinger Depth (feet)	Off/On (ppmv)	Flow VAC (ft)	Stinger Depth (feet)	Off/On (ppmv)	Flow VAC (ft)	Stinger Depth (feet)	Off/On (ppmv)	Flow VAC (ft)			Stinger Depth (feet)	DTW (ft)	Stinger Depth (feet)
12/19 1815	14	191	1450	1710	ON	2	13.5	ON	2	12	ON	1	13	ON	3	16'			12380	
1830	14	193	1450	1740		2			2			1			3					
1845	14	197	1445	1780		2			2			1			3					
1900	14	194	1455	1830		2			2			1			3					
1915	14	197	1450	1860		2			2			1			3					
1930	14	193	1450	1910		2			2			1			3					
1945	14	197	1449	1960		2			2			1			3					
2000	14	196	1450	1970	3670	2		4340	2		1710	1		1540	3				30209*	17829
2100	14	194	1450	1940		2			2			1			2					
2200	14	196	1449	1870		2			2			1			2					
2300	14	196	1455	1890		2			2			1			2					
2400	14	197	1450	1860		2			2			1			2					
12/20																				
0001	14	196	1450	1820		2			2			1			2					
0800	14	197	1450	1830	3450	2		4160	2		1520	1		1390	2				30744	18364
1200	14	195	1455	1780		2			1			1			2					
1600	14	197	1450	1710		2			1			1			2	0.82				
2000	16	153	1455	2470		3			1			4							31224	18414
12/21																				
0001	16	157	1450	2140		4	flow		1	F1		4	F1							
0500	15	158	1455	1780	2030	5	57	2740	1	30	1510	4	46						32410	20030

Comments:

# HIGH VACUUM

SVE or

DPE

# FIELD DATA SHEET

CalClean Inc.

Project Location: 1630 PARK STREET

City: ALMEDA

Site #: GOOD CHEVROLET

Date: 12/21/2011

Page 9A of 19

Client: BUESTAD

Operator (s): DAVIS

EXTRACTION WELLS																					Water Meter Readings	Cumul. Water Extracted
Well I.D.					DPE-1			DPE-3			DPE-2			MW-3			units	gals				
Screen Interval: From-To (ft)																						
Initial Depth To Water DTW (ft)																						
Time	Unit Vacuum ("Hg.)	Air Flowrate (cfm)	TOX Temp. (degF)	Vapor Inlet Conc. (ppmv)	Off/On (ppmv)	DTW (ft)	Stinger Depth (feet)	Off/On (ppmv)	DTW (ft)	Stinger Depth (feet)	Off/On (ppmv)	DTW (ft)	Stinger Depth (feet)	Off/On (ppmv)	DTW (ft)	Stinger Depth (feet)	Off/On (ppmv)	DTW (ft)	Stinger Depth (feet)	units	gals	
12/21					0.1			0.1			0.1			off								
0930	15	142	1450	1717					0													
0945	15	147	1449	1706	2040	7	49	2330	0	30	1680	5	61									
1000	15	147	1450	1672	1980	7	47	2130	0	30	1540	5	60									
1015	15	147	1450	1682	1995	7	49	2150	0	30	1490	5	61									
1030	15	149	1450	1630	1980	6	47	2150	0	31	1440	5	60									
1045	15	149	1455	1608	1980	6	49	2130	0	31	1410	5	61									
1100	15	147	1450	1637	1980	6	47	2140	0	30	1420	5	60									
1115	15	149	1451	1638	1980	6	47	2130	0	31	1420	5	61									
1130	15	147	1450	1593	1980	6	47	2140	0	31	1420	5	61									
1145	15	149	1450	1550	1920	6	47	2080	0	31	1380	5	60									
1200	15	147	1450	1560	1810	6	47	1990	0	31	1810	5	60									
1300	15	149	1450	1610	1790	6	49	1860	0	30	1790	5	61									
1400	15	149	1450	1730	1740	6	47	1860	0	30	1740	5	61									
1500	15	148	1455	1670	1690	6	49	1810	0	31	1670	5	63									
1600	15	149	1450	1640	1620	6	49	1780	0	30	1680	5	61									
1700	15	151	1450	1650	1610	6	47	1660	0	31	1540	5	63									
1800	15	150	1455	1620	1620	6	49	1540	0	30	1490	5	63									
2000	15	149	1455	1630	1610	6	49	1550	0	31	1470	5	61									
2200	15	151	1450	1610	1580	6	47	1520	0	31	1430	5	61									
2400	15	149	1449	1590	1530	6	49	1510	0	30	1440	5	63									

Comments:

HIGH VACUUM

SVE or

DPE

FIELD DATA SHEET

CalClean Inc.

Project Location: 1630 PARK STREET

City: ALMEDA

Site #: GOOD CHEVROLET

Date: 12/22/2011

Page 10A of 19

Client: BUESTAD

Operator (s): DAVIS / NICK

EXTRACTION WELLS

Well I.D.				DPE-1			DPE-3			DPE-2			Mw-3			Water Meter Readings	Cumul. Water Extracted					
Screen Interval: From-To (ft)																						
Initial Depth To Water DTW (ft)																						
Time	Unit Vacuum ("Hg.)	Air Flowrate (cfm)	TOX Temp. (degF)	Vapor Inlet Conc. (ppmv)	Off/On (ppmv)	DTW VAC (ft)	Stinger Depth Flow (feet)	Off/On (ppmv)	DTW (ft)	Stinger Depth (feet)	Off/On (ppmv)	DTW (ft)	Stinger Depth (feet)	Off/On (ppmv)	DTW (ft)	Stinger Depth (feet)	Off/On (ppmv)	DTW (ft)	Stinger Depth (feet)	units	gals	
12/22					ON			ON			ON			OFF								
0800	15	151	1450	1470	1530	6	53	1470	0	30	1380	5	63									
1200	15	151	1450	1460	1460	6	51	1380	0	31	1320	5	63									
1300	18	89	1451	1380	1490	7	48	OFF			1374	5	62									
1330	18	81	1451	1420	1490	7	49				1398	5	67									
1400	18	86	1453	1470	1530	7	45				1391	5	64									
1430	18	85	1452	1490	1530	7	44				1422	6	51									
1500	18	84	1449	1530	1550	7	48				1437	6	53									
1530	18	87	1448	1570	1550	7	43				1449	6	54									
1600	18	83	1443	1620	1590	7	44				1468	6	52									
1630	18	85	1451	1610	1580	7	41				1471	6	54									
1700	18	81	1450	1610	1580	7	42				1459	6	51									
1730	18	87	1451	1593	1570	7	40				1464	5	61									
1800	18	82	1453	1542	1561	6	51				1451	5	63									
1830	18	86	1457	1579	1553	6	53				1448	5	67									
1900	18	83	1452	1528	1548	6	57				1437	5	64									
1930	18	81	1449	1552	1576	5	61				1452	5	68									
2000	18	87	1449	1513	1574	5	64				1429	5	62								33780	71400
2400	18	86	1451	1437	1568	5	62				1401	5	63									

Comments: 12/22- TOOK TOTAL INLET VAPOR SAMPLE @ 1300, TURNED OFF DPE-3 & AIR SPARGIE @ 1305. TURNED AIR SPARGIE ON AT 1500.

HIGH VACUUM

SVE or

DPE

FIELD DATA SHEET

CalClean Inc.

Project Location: 1630 PARK STREET

City: ALMEDA

Site #: GOOD CHEVROLET

Date: 12/23/2011

Page 11A of 19

Client: BUESTAD

Operator (s): Nick

EXTRACTION WELLS

Well I.D.		DPE-1						DPE-3			DPE-2						Water Meter Readings		Cumul. Water Extracted
Screen Interval: From-To (ft)																	units	gals	
Initial Depth To Water DTW (ft)																			
Time	Unit Vacuum ("Hg.)	Air Flowrate (cfm)	TOX Temp. (degF)	Vapor Inlet Conc. (ppmv)	Off/On (ppmv)	DTW (ft)	Stinger Depth (feet)	Off/On (ppmv)	DTW (ft)	Stinger Depth (feet)	Off/On (ppmv)	DTW (ft)	Stinger Depth (feet)	Off/On (ppmv)	DTW (ft)	Stinger Depth (feet)			
1/23					ON	VAC	Flow	OFF			OFF	VAC	Flow						
0400	16	103	658	1371	1521	7	49				1364	5	61						
0800	14	121	657	1293	1473	7	47				1375	5	64				34520	22140	
1200	14	124	653	1281	1468	7	42	ON			1348	5	63						
1300	15	173	652	1497	1471	7	44	1396	0	101	1321	5	61						
1600	15	174	651	1578	1524	7	43	1377	0	103	1306	5	62						
2000	15	178	653	1632	1567	7	41	1342	0	105	1298	5	61				35110	26130	
12/24																			
0001	15	177	651	1581	1531	7	42	1327	0	107	1324	5	63						
0400	15	175	649	1459	1488	7	41	1304	0	108	1293	5	65						
0800	15	171	658	1398	1507	7	44	1281	0	102	1261	5	62				35750	23370	
1200	15	176	655	1378	1478	7	41	1273	0	104	1244	5	61						
1600	15	173	654	1306	1452	7	43	1258	0	101	1216	5	64						
2000	15	171	651	1284	1443	7	40	1212	0	106	1194	5	63				36480	24100	
12/25																			
0001	15	178	652	1251	1396	7	42	1196	0	105	1173	5	65						
0400	15	175	651	1274	1373	7	41	1153	0	102	1148	5	62						
0800	15	174	653	1226	1328	7	44	1107	0	104	1124	5	61				37240	24860	
1200	15	173	651	1193	1291	7	43	1086	0	101	1097	5	64						
2000	15	177	653	1068	1284	7	45	1048	0	103	1076	5	62				37890	25510	

Comments:



HIGH VACUUM

SVE or

DPE

FIELD DATA SHEET

CalClean Inc.

Project Location: 1630 PARK STREET

City: ALMEDA

Site #: GOOD CHEVROLET

Date: 12/26/2011

Page 124 of 19

Client: BUESTAD

Operator (s): NICK

EXTRACTION WELLS

Well I.D.																				Water Meter Readings	Cumul. Water Extracted	
Screen Interval: From-To (ft)																						
Initial Depth To Water DTW (ft)																						
Time	Unit Vacuum ("Hg.)	Air Flowrate (cfm)	TOX Temp. (degF)	Vapor Inlet Conc. (ppmv)	Off/On (ppmv)	DTW (ft)	Stinger Depth (feet)	Off/On (ppmv)	DTW (ft)	Stinger Depth (feet)	Off/On (ppmv)	DTW (ft)	Stinger Depth (feet)	Off/On (ppmv)	DTW (ft)	Stinger Depth (feet)	Off/On (ppmv)	DTW (ft)	Stinger Depth (feet)	units	gals	
12/26					ON	VAC	FLOW	ON	VAC	FLOW	ON	VAC	FLOW								12380	
0001	15	171	653	1057	1267	7	41	1093	0	106	1093	5	64									
0400	15	175	651	1008	1244	7	44	1104	0	102	1058	5	67									
0800	15	173	652	1031	1223	7	48	1071	0	103	1023	5	62								38240	25860
1200	15	174	654	1053	1209	7	43	1053	0	101	1007	5	63									
1600	15	177	651	1096	1197	7	44	1027	0	105	998	5	64									
2000	15	176	649	1041	1146	7	47	1009	0	103	973	5	61								38870	26490
12/27																						
0001	15	178	647	1007	1158	7	44	968	0	107	952	5	65									
0400	15	176	653	953	1115	7	46	947	0	106	908	5	63									
0800	15	171	652	978	1096	7	45	921	0	108	964	5	61								39490	27110
0445	OFF	PER	SEAL	M/VAL	OFF/ON			OFF			OFF											
1000	20	37	664		427	1	97		0.18			0.10										
1030	25	24	746		715	1.5	99		0.20			0.09										
1100	25	21	679		793	1.5	98		0.20			0.10										
1105	24	28	681		847	3	81		0.20			0.10										
1135	24	29	663		949	3	87		0.20			0.10										
1205	24	28	658		973	3	85		0.30			0.14										
1210	23	31	654		942	5	64		0.30			0.17										
1240	23	33	653		1013	5	63		0.30			0.17										
1310	23	32	651		1028	5	65		0.30			0.19										

Comments:

Project Location: 1630 PARK STREET

City: ALMEDA

Site #: GOOD CHEVROLET

Date: 12/27/2011

Page 13A of 19

Client: BUESTAD

Operator (s): Nick

EXTRACTION WELLS																						Water Meter Readings	Cumul. Water Extracted
Well I.D.					DPE-1			DPE-3			DPE-2												
Screen Interval: From-To (ft)																							
Initial Depth To Water DTW (ft)																units	gals						
Time	Unit Vacuum ("Hg.)	Air Flowrate (cfm)	TOX Temp. (degF)	Vapor Inlet Conc. (ppmv)	Off/On (ppmv)	DTW (ft)	Stinger Depth (feet)	Off/On (ppmv)	DTW (ft)	Stinger Depth (feet)	Off/On (ppmv)	DTW (ft)	Stinger Depth (feet)	Off/On (ppmv)	DTW (ft)			Stinger Depth (feet)	Off/On (ppmv)	DTW (ft)	Stinger Depth (feet)		
12/27																							
1315	22	39	651		1054	7	43		0.35			0.20											
1345	22	39	653		1059	7	41		0.35			0.20											
1415	22	38	654		1077	7	45		0.40			0.20											
					OFF						ON												
1420	25	23	658				0.70		0.95		243	1.5	96										
1450	24	26	652				0.70		1.05		317	1.5	98										
1520	24	28	651				0.65		1.15		343	1.5	97										
1525	23	30	653				0.65		1.15		418	3	83										
1555	23	32	651				0.60		1.20		447	3	85										
1625	22	35	655				0.60		1.20		496	3	82										
1630	21	39	651				0.55		1.25		581	5	64										
1700	21	40	651				0.55		1.25		678	5	67										
1730	21	43	653				0.55		1.30		721	5	65										
					ON						ON												
1745	17	163	654	852	1174	7	42	652	0	107	743	5	62										
2000	17	162	653	871	1217	7	46	678	0	109	776	5	67						39770	27390	900		
12/28																							
0001	16	168	651	864	1244	7	47	682	0	101	751	5	61										
0400	16	170	654	921	1258	7	44	699	0	105	784	5	63										
0800	16	171	653	907	1277	7	41	703	0	104	792	5	65						40310	27930	820		

Comments:

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HIGH VACUUM

SVE or

DPE

FIELD DATA SHEET

CalClean Inc.

Project Location: 1630 PARK STREET

City: ALMEDA

Site #: GOOD CHEVROLET

Date: 12/28/2011

Page 14 of 19

Client: BUESTAD

Operator(s): NJCK -767-

EXTRACTION WELLS

Well I.D.				DPE-1			DPE-3			DPE-2									Water Meter Readings	Cumul. Water Extracted			
Screen Interval: From-To (ft)																units	gals						
Initial Depth To Water DTW (ft)																							
Time	Unit Vacuum ("Hg.)	Air Flowrate (cfm)	TOX Temp. (degF)	Vapor Inlet Conc. (ppmv)	Off/On (ppmv)	DTW (ft)	Stinger Depth (feet)	Off/On (ppmv)	DTW (ft)	Stinger Depth (feet)	Off/On (ppmv)	DTW (ft)	Stinger Depth (feet)	Off/On (ppmv)	DTW (ft)	Stinger Depth (feet)	Off/On (ppmv)	DTW (ft)	Stinger Depth (feet)				
12/28					ON	VAC	Flow	ON	VAC	Flow	ON	VAC	Flow										
1200	15	174	651	923	1293	7	43	717	0	101	806	5	63										
1600	15	177	653	974	1313	7	42	742	0	99	819	5	64										
2000	15	178	654	951	1284	7	44	721	0	104	803	5	62								40920	28540	1150
12/29																							
0901	15	178	652	928	1263	7	45	691	0	105	782	5	61										
0400	15	176	658	897	1251	7	43	674	0	103	773	5	65										
0800	15	173	657	871	1233	7	42	653	0	101	758	5	64								41710	29330	1400
1200	15	171	652	855	1208	7	44	611	0	104	742	5	61										
1600	15	172	651	833	1196	7	43	643	0	102	719	5	63										
2000	15	174	653	818	1191	7	41	641	0	101	698	5	68								42310	29930	1390
12/30																							
0601	15	171	654	841	1142	7	42	618	0	103	732	5	65										
0400	15	177	651	876	1093	7	44	637	0	102	787	5	62										
-	UNIT	OFF	AEI	-																			

Comments: 12/30 - TOOK VAPOR SAMPLES AS FOLLOWS - TOTAL INLET @ 0356, DPE-1 @ 0400, DPE-2 @ 0405, DPE-3 @ 0410.

Project Location: 1630 PARK STREET

City: ALMEDA

Site #: GOOD CHEVROLET

Date: 12/30/2011

Page 15A of 19

Client: BUESTAD

Operator (s): *Mark -767-*

EXTRACTION WELLS

Well I.D.		DPE-1			DPE-3			DPE-2			MW-2			Water Meter Readings	Cumul. Water Extracted							
Screen Interval: From-To (ft)																						
Initial Depth To Water DTW (ft)																						
Time	Unit Vacuum ("Hg.)	Air Flowrate (cfm)	TOX Temp. (degF)	Vapor Inlet Conc. (ppmv)	Off/On (ppmv)	DTW (ft)	Stinger Depth (feet)	Off/On (ppmv)	DTW (ft)	Stinger Depth (feet)	Off/On (ppmv)	DTW (ft)	Stinger Depth (feet)	Off/On (ppmv)	DTW (ft)	Stinger Depth (feet)	Off/On (ppmv)	DTW (ft)	Stinger Depth (feet)	units	gals	
12/30																					12380	
0930						10.63			9.60			10.89									42770	30390
1130						10.54			9.58			10.65										
						VAL			VAL													
1215	25	33	651	289		0.01			0.01			0.01										
1230	25	35	653	241		0.05			0.03			0.05										
1300	25	37	649	376		0.70			0.03			0.05										
1330	25	39	656	528		0.75			0.05			0.05										
1400	25	38	658	1073		0.75			0.07			0.05										
1430	25	39	651	1637		0.75			0.07			0.05										
1600	25	38	653	1728		0.75			0.07			0.05										
2000	25	37	652	1793		0.75			0.07			0.05									42370	30990
12/31																						
0001	25	35	657	1852		0.75			0.06			0.05										
0400	25	37	651	1937		0.75			0.07			0.05										
0800	25	39	654	2010		0.70			0.07			0.05									43630	31250
1200	25	36	653	1958		0.75			0.07			0.05										8600
						ON																
1315	22	57	651	1538	1218	7	48		0.07			0.05		1876								
1415	22	58	654	1529	1150	7	45		0.07			0.05		1852								
1515	22	56	653	1486	1073	7	47		0.07			0.05		1841								

Comments: 12/31 - Took VAPOR SAMPLE OF MW-2 @ 1300. TURNED ON DPE-1 @ 1305.

Project Location: 1630 PARK STREET

City: ALMEDA

Site #: GOOD CHEVROLET

Date: 12/31/2011

Page 16 of 19

Client: BUESTAD

Operator (s): Nick -767-

EXTRACTION WELLS

Well I.D.				DPE-1			DPE-3			DPE-2			MW-2			Water Meter Readings	Cumul. Water Extracted					
Screen Interval: From-To (ft)																						
Initial Depth To Water DTW (ft)																						
Time	Unit Vacuum ("Hg.)	Air Flowrate (cfm)	TOX Temp. (degF)	Vapor Inlet Conc. (ppmv)	Off/On (ppmv)	DTW (ft)	Stinger Depth (feet)	Off/On (ppmv)	DTW (ft)	Stinger Depth (feet)	Off/On (ppmv)	DTW (ft)	Stinger Depth (feet)	Off/On (ppmv)	DTW (ft)	Stinger Depth (feet)	Off/On (ppmv)	DTW (ft)	Stinger Depth (feet)	units	gals	
12/31								OFF			OFF			ON							12380	
1600	22	55	652	1392	1007	7	47		0.21			0.05		1817								
	Happy NEW YEAR -2012-																					
6/1/01																						
0400	22	57	657	1173	874	7	49		0.36			0.10		1704								
0800	22	59	653	1158	839	6	51		0.35			0.10		1691						45180	32800	1550
1200	22	56	652	1117	818	6	52		0.35			0.15		1673								
1600	22	55	651	1073	756	6	57		0.35			0.15		1642								
2000	22	59	653	1047	717	6	55		0.35			0.20		1668						45870	33490	
01/02	7																					
0001	22	59	658	1004	693	6	54		0.36			0.25		1637								
0400	22	60	654	956	688	6	56		0.35			0.20		1591								
0800	22	58	651	928	677	6	53		0.34			0.29		1568						46220	33340	1040
1200	22	56	652	911	652	6	51		0.36		ON											
1600	21	124	654	1298	631	6	52		0.35		831	5	63	1533								
2000	20	132	658	1252	649	6	54		0.35		796	5	62	1506						46930	34550	1060
01/03																						
0001	20	137	653	1227	619	6	51		0.35		728	5	64	1482								
0400	19	148	651	1177	594	6	57		0.35		673	5	61	1461								
0800	18	164	652	1135	583	6	54		0.35		621	5	60	1429						47790	35410	1570
1100	18	163	651	1103	561	6	52		0.35		593	5	61	1391								

Comments: 01/02 - TURNED ON DPE-2 @ 1530.

Project Location: 1630 PARK STREET

City: ALMEDA

Site #: GOOD CHEVROLET

Date: 1/3/2012

Page 17A of 18

Client: BUESTAD

Operator(s): NICK -767-

EXTRACTION WELLS

Well I.D.					DPE-1			DPE-3			DPE-2			MW-2			Water Meter Readings	Cumul. Water Extracted				
Screen Interval: From-To (ft)																						
Initial Depth To Water DTW (ft)																						
Time	Unit Vacuum ("Hg.)	Air Flowrate (cfm)	TOX Temp. (degF)	Vapor Inlet Conc. (ppmv)	Off/On (ppmv)	DTW (ft)	Stinger Depth (feet)	Off/On (ppmv)	DTW (ft)	Stinger Depth (feet)	Off/On (ppmv)	DTW (ft)	Stinger Depth (feet)	Off/On (ppmv)	DTW (ft)	Stinger Depth (feet)	Off/On (ppmv)	DTW (ft)	Stinger Depth (feet)	units	gals	
01/03					ON			OFF			ON			ON							12380	
1500	18	164	652	1078	551	6	53		0.35		563	5	63	1343								
1600	18	163	653	1051	523	6	52		0.35		551	5	61	1321								
2000	18	165	657	1031	578	6	51		0.35		542	5	64	1318							48520	36140
01/04																						1590
0001	18	167	654	1017	556	6	54		0.35		528	5	63	1291								
0400	18	165	655	977	561	6	54		0.35		515	5	61	1243								
0800	18	163	652	923	537	6	51		0.35		507	5	64	1271							49220	36840
1200	18	168	651	958	518	6	53		0.35		501	5	61	1241								1430
1600	18	162	652	971	561	6	52		0.35		521	5	63	1257								
2000	18	167	652	943	547	6	53		0.35		516	5	62	1251							49970	37590
01/05																						1450
0001	18	163	651	967	529	6	53		0.35		511	5	64	1259								
0400	18	161	654	928	551	6	53		0.35		503	5	61	1282								
0800	18	165	658	939	529	6	54		0.35		497	5	63	1258							50640	38260
1200	18	167	651	976	558	6	51		0.35		492	5	61	1217								1420
1600	18	163	653	952	507	6	51		0.35		499	5	61	1247								
2000	18	164	654	903	523	6	51		0.35		496	5	64	1231							51030	38650
01/06																						1060
0001	18	165	652	928	542	6	51		0.35		487	5	64	1206								
0400	18	161	651	952	511	6	53		0.35		491	5	64	1191								

Comments:

Project Location: 1630 PARK STREET

City: ALMEDA

Site #: GOOD CHEVROLET

Date: 01/06/2011

Page 18 of 19

Client: BUESTAD

Operator(s): Nick -767-

EXTRACTION WELLS

Well I.D.				DPE-1			DPE-3			DPE-2			MW-2			Water Meter Readings	Cumul. Water Extracted						
Screen Interval: From-To (ft)																							
Initial Depth To Water DTW (ft)																							
Time	Unit Vacuum ("Hg.)	Air Flowrate (cfm)	TOX Temp. (degF)	Vapor Inlet Conc. (ppmv)	Off/On (ppmv)	DTW (ft)	Stinger Depth (feet)	Off/On (ppmv)	DTW (ft)	Stinger Depth (feet)	Off/On (ppmv)	DTW (ft)	Stinger Depth (feet)	Off/On (ppmv)	DTW (ft)	Stinger Depth (feet)	Off/On (ppmv)	DTW (ft)	Stinger Depth (feet)	units	gals		
01/06																					12380		
0800	18	162	652	917	529	6	52		0.35		487	5	63	1176									
1200	18	163	654	924	507	6	51		0.35		492	5	64	1142							51740	39360	1100
1600	18	164	651	893	513	6	53		0.35		478	9	64	1169									
2000	18	161	658	915	501	6	53		0.35		473	5	61	1131							52310	39930	1280
01/07																							
0001	18	165	653	886	528	6	51		0.35		452	5	61	1146									
0400	18	168	654	872	509	6	51		0.35		448	5	63	1178									
0800	18	163	654	871	493	6	51		0.35		467	5	63	1151							52970	40590	1230
1200	18	165	651	857	499	6	52		0.35		434	5	63	1118									
2000	18	161	658	882	496	6	51		0.35		451	5	61	1093							53610	41230	1300
01/08																							
0001	18	167	654	861	478	6	51		0.35		472	5	61	1077									
0400	18	164	651	879	491	6	51		0.35		478	5	63	1081									
0800	18	167	653	852	468	6	52		0.35		421	5	62	1042							54110	41730	1140
1200	18	163	658	883	492	6	53		0.35		413	5	62	1071									
2000	18	161	652	864	471	6	53		0.35		401	5	62	1093							54690	42310	1080
01/09																							
0400	18	168	653	821	458	6	52		0.35		376	5	63	1098									
0800	18	166	653	845	469	6	52		0.35		352	5	64	1047							55230	42850	1120
1200	18	165	651	817	459	6	52		0.35		288	5	64	1023									

Comments: 01/06 - Took VAPOR SAMPLES AS FOLLOWS - TOTAL INLET @ 0800, DPE-1 @ 0805, DPE-2 @ 0810, MW-2 @ 0815.

Project Location: 1630 PARK STREET

City: ALMEDA

Site #: GOOD CHEVROLET

Date: 01/09/2011

Page 19 of 19

Client: BUESTAD

Operator (s): Nick -767-

EXTRACTION WELLS

Well I.D.				DPE-1			DPE-3			DPE-2			MW-2			Water Meter Readings	Cumul. Water Extracted		
Screen Interval: From-To (ft)													units	gals					
Initial Depth To Water DTW (ft)																			
Time	Unit Vacuum ("Hg.)	Air Flowrate (cfm)	TOX Temp. (degF)	Vapor Inlet Conc. (ppmv)	Off/On (ppmv)	DTW (ft)	Stinger Depth (feet)	Off/On (ppmv)	DTW (ft)	Stinger Depth (feet)	Off/On (ppmv)	DTW (ft)	Stinger Depth (feet)	Off/On (ppmv)	DTW (ft)	Stinger Depth (feet)			
01/09																		12380	
11600	18	1164	1052	827	441	6	53	0.35			371	5	63	1004					
11645	18	1162	1053	811	423	6	52	0.35			362	5	63	987				55910	43530
	END		EVENT																

Comments: 01/09 - Took VAPOR SAMPLES AS FOLLOWS - TOTAL INLET @ 11645, MW-2 @ 11650, DPE-2 @ 11655, DPE-1 @ 1700. END H2O METER - 55910.



HIGH VACUUM

SVE or

DPE

FIELD DATA SHEET

CALCLEAN INC.

(714) 734-9137

Page 12 of 16

Project Location: 1630 PARK STREET

City: ALMEDA

Site #: GOOD CHEVROLET

Date: 12/05/2011

Client: BUESTAD

Operator (s): NICK

OBSERVATION WELLS

WELL SCREEN DTW (ft)	MW-1		MW-2		MW-3		AS-1		VP-1		VP-2		VP-3										
	Vacuum "H <sub>2</sub> O	DTW (ft)	Vacuum "H <sub>2</sub> O	DTW (ft)	Vacuum "H <sub>2</sub> O	DTW (ft)	Vacuum "H <sub>2</sub> O	DTW (ft)	Vacuum "H <sub>2</sub> O	DTW (ft)	Vacuum "H <sub>2</sub> O	DTW (ft)	Vacuum "H <sub>2</sub> O	DTW (ft)	Vacuum "H <sub>2</sub> O	DTW (ft)	Vacuum "H <sub>2</sub> O	DTW (ft)	Vacuum "H <sub>2</sub> O	DTW (ft)	Vacuum "H <sub>2</sub> O	DTW (ft)	
12/05																							
1000		8.27		8.18		8.34		8.47															
12/06																							
0700		8.02		8.41		8.24		8.43															
1130		8.13		8.51		8.28			0.33	0.20	0.10												
1230									0.35	0.20	0.10												
1300									0.40	0.20	0.12												
1350	0.10		0.43		0.02				0.42	0.23	0.12												
1400	0.05		0.45		0.03				0.44	0.25	0.14												
1430	0.10		0.44		0.02				0.49	0.26	0.12												
1500	0.10	8.21	0.47	8.71	0.02	8.37			0.44	0.23	0.11												
1530	0.10	8.27	0.44	8.18	0.02	8.39			0.43	0.22	0.12												
1600	0.10	8.24	0.48	8.73	0.02	8.42			0.43	0.28	0.12												
2000	0.13	8.29	0.42	8.77	0.02	8.44			0.44	0.22	0.10												
12/07																							
0001	0.12	8.35	0.40	8.79	0.02	8.47			0.47	0.54	0.12												
0400	0.10	8.38	0.44	8.83	0.03	8.49			0.49	0.87	0.11												
0800	0.22	9.19	0.60	9.41	0.03	8.77			0.44	0.78	0.12												
0900	0.10		0.12		0.01				0.02	0.01	0.04												
0930	0.08		0.13		0.00				0.015	0.01	0.04												
1000	0.08		0.13		0.00				0.015	0.01	0.04												

Comments:

HIGH VACUUM

SVE or

DPE

FIELD DATA SHEET

CALCLEAN INC.

(714) 734-9137

Page 23 of 16

Project Location: 1630 PARK STREET

City: ALMEDA

Site #: GOOD CHEVROLET

Date: 12/7/201

Client: BUESTAD

Operator (s): NECK

OBSERVATION WELLS

WELL SCREEN DTW (ft)	MW-1		MW-2		MW-3		VP-1		VP-2		VP-3		AS-1										
	Time	Vacuum "H <sub>2</sub> O	DTW (ft)	Vacuum "H <sub>2</sub> O	DTW (ft)	Vacuum "H <sub>2</sub> O	DTW (ft)	Vacuum "H <sub>2</sub> O	DTW (ft)	Vacuum "H <sub>2</sub> O	DTW (ft)	Vacuum "H <sub>2</sub> O	DTW (ft)	Vacuum "H <sub>2</sub> O	DTW (ft)	Vacuum "H <sub>2</sub> O	DTW (ft)	Vacuum "H <sub>2</sub> O	DTW (ft)	Vacuum "H <sub>2</sub> O	DTW (ft)	Vacuum "H <sub>2</sub> O	DTW (ft)
12/7																							
1030	0.10			0.13			0.00			0.01			0.01			0.04							
1100	0.10			0.13			0.00			0.01			0.01			0.04							
1130	0.10	9.72		0.15	9.58		0.00	8.86		0.01			0.01			0.04							
1200	0.10	9.75		0.15	9.59		0.00	8.87		0.01			0.01			0.04							
1230	0.10	9.76		0.15	9.61		0.00	8.89		0.01			0.01			0.04							
1300	0.10	9.74		0.15	9.63		0.00	8.91		0.01			0.01			0.04							
1400	0.10	9.77		0.15	9.67		0.00	8.93		0.01			0.00			0.04							
1500	0.10	9.79		0.15	9.68		0.00	8.97		0.00			0.01			0.04							
1600	0.10	9.83		0.15	9.71		0.00	8.99		0.01			0.01			0.04							
2000	0.10	9.81		0.15	9.77		0.00	9.04		0.00			0.00			0.04							
12/8																							
0001	0.10	9.88		0.15	9.83		0.00	9.07		0.01			0.01			0.05							
0400	0.10	9.91		0.15	9.89		0.00	9.18		0.00			0.01			0.06							
0800	0.10	9.97		0.15	9.94		0.00	9.29		0.00			0.01			0.06							
0830	0.10			0.10			0.00			0.01			0.01			0.05							
0900	0.10			0.10			0.00			0.01			0.00			0.05							
0930	0.10			0.10			0.00			0.01			0.00			0.05							
1000	0.10			0.10			0.00			0.00			0.01			0.05							
1030	0.10			0.10			0.00			0.00			0.00			0.05							
1100	0.10	9.96		0.10	9.95		0.00	9.27		0.00			0.01			0.05							

Comments:

HIGH VACUUM

SVE or

DPE

FIELD DATA SHEET

CALCLEAN INC.

(714) 734-9137

Page 38 of 16

Project Location: 1630 PARK STREET

City: ALMEDA

Site #: GOOD CHEVROLET

Date: 12/8/2011

Client: BUESTAD

Operator (s): Nick

WELL SCREEN DTW (ft)	OBSERVATION WELLS																							
	MW-1		MW-2		MW-3		VP-1		VP-2		VP-3		AG-1											
	Time	Vacuum "H <sub>2</sub> O	DTW (ft)	Vacuum "H <sub>2</sub> O	DTW (ft)	Vacuum "H <sub>2</sub> O	DTW (ft)	Vacuum "H <sub>2</sub> O	DTW (ft)	Vacuum "H <sub>2</sub> O	DTW (ft)	Vacuum "H <sub>2</sub> O	DTW (ft)	Vacuum "H <sub>2</sub> O	DTW (ft)	Vacuum "H <sub>2</sub> O	DTW (ft)	Vacuum "H <sub>2</sub> O	DTW (ft)	Vacuum "H <sub>2</sub> O	DTW (ft)	Vacuum "H <sub>2</sub> O	DTW (ft)	
12/08																								
1130	0.10	9.99	0.10	9.97	0.00	9.29	0.00		0.01		0.05													
1200	0.10	10.03	0.10	9.99	0.00	9.31	0.00		0.00		0.05													
1230	0.05	10.01	0.10	10.00	0.00	9.30	0.00		0.01		0.04													
1300	0.05	10.03	0.10	10.02	0.00	9.33	0.00		0.01		0.05													
1400	0.05	10.07	0.10	10.03	0.00	9.34	0.00		0.00		0.04													
1500	0.05	10.08	0.10	10.04	0.00	9.37	0.00		0.01		0.04													
1600	0.10	10.06	0.05	10.03	0.00	9.36	0.00		0.01		0.03													
2000	0.05	10.09	0.10	10.07	0.00	9.31	0.00		0.01		0.03													
12/9																								
0001	0.10	10.05	0.05	10.09	0.00	9.33	0.00		0.01		0.03													
0400	0.10	10.08	0.10	10.04	0.00	9.35	0.00		0.01		0.03													
0800	0.10	10.07	0.05	10.01	0.00	9.39	0.00		0.01		0.04													
0900	0.08		0.08		0.01	0.30			0.15		0.07													
1000	0.07		0.09		0.01	0.35			0.15		0.05													
1100	0.10		0.07		0.01	0.35			0.15		0.09													
1200	0.15		0.11		0.00	0.40			0.20		0.15													
1600	0.10		0.10		0.00	0.50			0.25		0.15													
2000	0.10		0.10		0.00	0.55			0.30		0.20													

Comments:

HIGH VACUUM

SVE or

DPE

FIELD DATA SHEET

CALCLEAN INC.

(714) 734-9137

Page 48 of 16

Project Location: 1630 PARK STREET

City: ALMEDA

Site #: GOOD CHEVROLET

Date: 12/10/2011

Client: BUESTAD

Operator (s): Nick

OBSERVATION WELLS

WELL SCREEN DTW (ft)	MW-1		MW-2		MW-3		VP-1		VP-2		VP-3		AG-1										
	Time	Vacuum "H <sub>2</sub> O	DTW (ft)	Vacuum "H <sub>2</sub> O	DTW (ft)	Vacuum "H <sub>2</sub> O	DTW (ft)	Vacuum "H <sub>2</sub> O	DTW (ft)	Vacuum "H <sub>2</sub> O	DTW (ft)	Vacuum "H <sub>2</sub> O	DTW (ft)	Vacuum "H <sub>2</sub> O	DTW (ft)	Vacuum "H <sub>2</sub> O	DTW (ft)	Vacuum "H <sub>2</sub> O	DTW (ft)	Vacuum "H <sub>2</sub> O	DTW (ft)	Vacuum "H <sub>2</sub> O	DTW (ft)
12/10																							
0800	0.15		0.15		0.00		0.55		0.30		0.24												
2000	0.15		0.20		0.00		0.55		0.30		0.24												
12/11																							
0800	0.20		0.20		0.00		0.55		0.32		0.26												
2000	0.20		0.25		0.00		0.60		0.28		0.26												
12/12																							
0800	0.20		0.25		0.00		0.60		0.30		0.24												
1200	0.20		0.25		0.00		0.62		0.32		0.28												
2000	0.20		0.25		0.00		0.60		0.35		0.30												
12/13																							
0800	0.20		0.25		0.00		0.60		0.35		0.30												
2000	0.25		0.20		0.00		0.55		0.30		0.30												
12/14																							
0800	0.25		0.25		0.00		0.50		0.35		0.30												
2000	0.20		0.20		0.00		0.45		0.30		0.25												
12/15																							
0800	0.20		0.20		0.00		0.45		0.30		0.25												
2000	0.20		0.20		0.00		0.45		0.30		0.30												
12/16																							
0800	0.20		0.20		0.00		0.45		0.35		0.30												
2000	0.20		0.25		0.00		0.50		0.35		0.30												

Comments:

HIGH VACUUM

SVE or  DPE

FIELD DATA SHEET

CALCLEAN INC.

(714) 734-9137

Page 58 of 16

Project Location: 1630 PARK STREET

City: ALMEDA

Site #: GOOD CHEVROLET

Date: 12/17/201

Client: BUESTAD

Operator (s): NICK

OBSERVATION WELLS

WELL SCREEN DTW (ft)	MW-1		MW-2		MW-3		VP-1		VP-2		VP-3		AS-1										
	Time	Vacuum H <sub>2</sub> O	DTW (ft)	Vacuum H <sub>2</sub> O	DTW (ft)	Vacuum H <sub>2</sub> O	DTW (ft)	Vacuum H <sub>2</sub> O	DTW (ft)	Vacuum H <sub>2</sub> O	DTW (ft)	Vacuum H <sub>2</sub> O	DTW (ft)	Vacuum H <sub>2</sub> O	DTW (ft)	Vacuum H <sub>2</sub> O	DTW (ft)	Vacuum H <sub>2</sub> O	DTW (ft)	Vacuum H <sub>2</sub> O	DTW (ft)	Vacuum H <sub>2</sub> O	DTW (ft)
12/17																							
0800	0.20			0.20			0.00			0.55			0.32			0.30							
2000	0.25			0.20			0.00			0.50			0.30			0.30							
12/18																							
0800	0.30			0.25			0.00			0.50			0.30			0.30							
2000	0.35			0.25			0.00			0.50			0.30			0.30							
12/19																							
0800	0.40			0.25			0.00			0.50			0.30			0.30							
1615	0.40			0.25			0.00			0.60			0.35			0.30							
1630	0.41			0.25																			
1645	0.45			0.25						0.60			0.35			0.30							
1700	0.45			0.25						0.60			0.35			0.30							
1716	0.45			0.25						0.60			0.35			0.30							
1730	0.45			0.25						0.60			0.35			0.30							
1745	0.45			0.25						0.60			0.35			0.30							
1900	0.45			0.25						0.60			0.35			0.30							
1815	0.43			0.25						0.60			0.35			0.30							
1830	0.44			0.25						0.60			0.35			0.30							
1845	0.45			0.25						0.60			0.35			0.30							
1900	0.45			0.25						0.60			0.35			0.30							
1915	0.45			0.25						0.60			0.35			0.30							

Comments:

HIGH VACUUM

SVE or

DPE

FIELD DATA SHEET

CALCLEAN INC.

(714) 734-9137

Page 62 of 16

Project Location: 1630 PARK STREET

City: ALMEDA

Site #: GOOD CHEVROLET

Date: 12/19/2011

Client: BUESTAD

Operator (s): DAVIS

OBSERVATION WELLS

WELL SCREEN DTW (ft)	MW-1		MW-2		MW-3		VP-1		VP-2		VP-3		AS-1										
	Time	Vacuum "H <sub>2</sub> O	DTW (ft)	Vacuum "H <sub>2</sub> O	DTW (ft)	Vacuum "H <sub>2</sub> O	DTW (ft)	Vacuum "H <sub>2</sub> O	DTW (ft)	Vacuum "H <sub>2</sub> O	DTW (ft)	Vacuum "H <sub>2</sub> O	DTW (ft)	PSI	FLOW	Vacuum "H <sub>2</sub> O	DTW (ft)	Vacuum "H <sub>2</sub> O	DTW (ft)	Vacuum "H <sub>2</sub> O	DTW (ft)	Vacuum "H <sub>2</sub> O	DTW (ft)
12/19					OFF																		
1930	0.45		0.25				0.60		0.35		0.30												
1945	0.45		0.25				0.60		0.35		0.30												
2000	0.45		0.25				0.60		0.35		0.30												
2100	0.45		0.25				0.60		0.35		0.30												
2200	0.45		0.25				0.60		0.35		0.30												
2300	0.45		0.25				0.60		0.35		0.30												
2400	0.45		0.25				0.60		0.35		0.30												
12/20																							
0400	0.45		0.25				0.60		0.35		0.30												
0800	0.40		0.25				0.55		0.35		0.30												
2000	0.40		0.25				0.65		0.30		0.30												
12/21																							
0800	0.40		0.25				0.55		0.31		0.30												
0930	0.52		0.40				0.50		0.40		0.55		8	5									
0945	0.50		0.35				1.45		0.70		0.55		8	5									
1000	0.45		0.35				1.45		0.70		0.55		8	5									
1015	0.45		0.35				1.45		0.70		0.55		8	5									
1030	0.45		0.35				1.45		0.70		0.55		8	5									
1045	0.45		0.35				1.45		0.70		0.55		8	5									
1100	0.45		0.35				1.45		0.70		0.55		8	5									

Comments:

HIGH VACUUM

SVE or

DPE

FIELD DATA SHEET

CALCLEAN INC.

(714) 734-9137

Page 10 of 16

Project Location: 1630 PARK STREET

City: ALMEDA

Site #: GOOD CHEVROLET

Date: 12/21/2011

Client: BUESTAD

Operator (s): DAVIS

OBSERVATION WELLS

WELL SCREEN DTW (ft)	MW-1		MW-2		MW-3		VP-1		VP-2		VP-3		AS-1										
	Time	Vacuum "H <sub>2</sub> O	DTW (ft)	Vacuum "H <sub>2</sub> O	DTW (ft)	Vacuum "H <sub>2</sub> O	DTW (ft)	Vacuum "H <sub>2</sub> O	DTW (ft)	Vacuum "H <sub>2</sub> O	DTW (ft)	Vacuum "H <sub>2</sub> O	DTW (ft)	PSI	Flow	Vacuum "H <sub>2</sub> O	DTW (ft)	Vacuum "H <sub>2</sub> O	DTW (ft)	Vacuum "H <sub>2</sub> O	DTW (ft)	Vacuum "H <sub>2</sub> O	DTW (ft)
12/21																							
1115	0.45			0.35				1.45	0.70			0.55		7	6								
1130	0.45			0.35				1.45	0.70			0.55		7	6								
1145	0.45			0.35				1.45	0.70			0.50		7	6								
1200	0.45			0.35				1.45	0.70			0.50		7	6								
1300	0.45			0.36				1.45	0.70			0.45		7	6								
1400	0.45			0.36				1.45	0.70			0.45		7	6								
1500	0.45			0.35				1.45	0.70			0.45		7	6								
1600	0.45			0.35				1.45	0.70			0.44		7	6								
1700	0.45			0.35				1.44	0.70			0.44		7	6								
1800	0.45			0.35				1.44	0.70			0.44		7	6								
1900	0.45			0.35				1.44	0.70			0.45		7	6								
2000	0.45			0.35				1.44	0.70			0.44		7	6								
2200	0.44			0.35				1.44	0.70			0.44		6	7								
2400	0.44			0.35				1.44	0.70			0.44		6	7								
12/22																							
0800	0.44			0.35				1.44	0.70			0.44		6	7								
1200	0.45			0.35				1.41	0.70			0.44		6	7								
1300	0.44			0.25				0.55	0.35			0.35		OFF									
1330	0.43			0.25				0.55	0.40			0.35											
1400	0.43			0.25				0.60	0.35			0.30											

Comments:

HIGH VACUUM

SVE or

DPE

FIELD DATA SHEET

CALCLEAN INC.

(714) 734-9137

Project Location: 1630 PARK STREET

City: ALMEDA

Site #: GOOD CHEVROLET

Date: 12/22/2011

Page 88 of 16

Client: BUESTAD

Operator (s): NICK

OBSERVATION WELLS

WELL SCREEN DTW (ft)	MW-1		MW-2		MW-3		VP-1		VP-2		VP-3		AS-1										
	Time	Vacuum "H <sub>2</sub> O	DTW (ft)	Vacuum "H <sub>2</sub> O	DTW (ft)	Vacuum "H <sub>2</sub> O	DTW (ft)	Vacuum "H <sub>2</sub> O	DTW (ft)	Vacuum "H <sub>2</sub> O	DTW (ft)	Vacuum "H <sub>2</sub> O	DTW (ft)	Vacuum "H <sub>2</sub> O	DTW (ft)	Vacuum "H <sub>2</sub> O	DTW (ft)	Vacuum "H <sub>2</sub> O	DTW (ft)	Vacuum "H <sub>2</sub> O	DTW (ft)	Vacuum "H <sub>2</sub> O	DTW (ft)
12/22																							
1430	0.43			0.25				0.65	0.40			0.35											
1500	0.44			0.35				1.35	0.60			0.40			6	7							
1530	0.44			0.35				1.35	0.60			0.45			7	6							
1600	0.44			0.35				1.35	0.65			0.40			8	5							
1630	0.45			0.35				1.40	0.60			0.40			8	5							
1700	0.44			0.35				1.40	0.60			0.40			8	5							
1730	0.44			0.35				1.40	0.65			0.35			8	5							
1800	0.45			0.35				1.40	0.65			0.35			8	5							
1830	0.44			0.35				1.45	0.65			0.35			8	5							
1900	0.45			0.35				1.45	0.70			0.35			7	6							
1930	0.45			0.35				1.45	0.70			0.35			7	6							
2000	0.44			0.35				1.45	0.70			0.30			8	5							
12/23																							
0001	0.40			0.35				1.45	0.70			0.30			8	5							
0400	0.43			0.35				1.40	0.70			0.30			8	5							
0800	0.41			0.35				1.45	0.70			0.35			8	5							
1200	0.40			0.35				1.45	0.70			0.30			8	5							
1300	0.35			0.30				0.95	0.70			0.30			OFF	OFF							
1600	0.35			0.25				0.90	0.60			0.30											
1800	0.35			0.20				0.90	0.55			0.25											

Comments:



HIGH VACUUM

SVE or

DPE

FIELD DATA SHEET

CALCLEAN INC.

(714) 734-9137

Page 98 of 16

Project Location: 1630 PARK STREET

City: ALMEDA

Site #: GOOD CHEVROLET

Date: 12/24/2011

Client: BUESTAD

Operator (s): Nick

OBSERVATION WELLS

WELL SCREEN DTW (ft)	MW-1		MW-2		MW-3		VP-1		VP-2		VP-3		As-1										
	Vacuum "H <sub>2</sub> O	DTW (ft)	Vacuum "H <sub>2</sub> O	DTW (ft)	Vacuum "H <sub>2</sub> O	DTW (ft)	Vacuum "H <sub>2</sub> O	DTW (ft)	Vacuum "H <sub>2</sub> O	DTW (ft)	Vacuum "H <sub>2</sub> O	DTW (ft)	Vacuum "H <sub>2</sub> O	DTW (ft)	Vacuum "H <sub>2</sub> O	DTW (ft)	Vacuum "H <sub>2</sub> O	DTW (ft)	Vacuum "H <sub>2</sub> O	DTW (ft)	Vacuum "H <sub>2</sub> O	DTW (ft)	
12/24					OFF									OFF									
0001	0.35		0.20									0.35	0.55	0.25									
0400	0.35		0.20									0.85	0.55	0.25									
0800	0.35		0.25									0.80	0.55	0.25									
1200	0.30		0.25									0.80	0.55	0.25									
1600	0.30		0.25									0.75	0.55	0.30									
2000	0.30		0.20									0.75	0.55	0.25									
12/26																							
0001	0.75		0.25									0.75	0.55	0.30									
0400	0.35		0.25									0.65	0.50	0.30									
0800	0.30		0.25									0.65	0.50	0.25									
1200	0.35		0.25									0.70	0.50	0.25									
1600	0.30		0.30									0.65	0.45	0.25									
2000	0.35		0.25									0.65	0.45	0.25									
12/26																							
0001	0.30		0.30									0.60	0.45	0.25									
0400	0.35		0.30									0.65	0.50	0.25									
0800	0.30		0.30									0.65	0.50	0.25									
1200	0.30		0.25									0.60	0.50	0.25									
1600	0.35		0.25									0.60	0.45	0.30									
2000	0.30		0.25									0.60	0.50	0.25									

Comments:

HIGH VACUUM

SVE or

DPE

FIELD DATA SHEET

CALCLEAN INC.

(714) 734-9137

Page 108 of 16

Project Location: 1630 PARK STREET

City: ALMEDA

Site #: GOOD CHEVROLET

Date: 10/27/2011

Client: BUESTAD

Operator (s): Nick

OBSERVATION WELLS

WELL SCREEN DTW (ft)	MW-1		MW-2		MW-3		VP-1		VP-2		VP-3		AS-1											
	Time	Vacuum "H <sub>2</sub> O	DTW (ft)	Vacuum "H <sub>2</sub> O	DTW (ft)	Vacuum "H <sub>2</sub> O	DTW (ft)	Vacuum "H <sub>2</sub> O	DTW (ft)	Vacuum "H <sub>2</sub> O	DTW (ft)	Vacuum "H <sub>2</sub> O	DTW (ft)	Vacuum "H <sub>2</sub> O	DTW (ft)	Vacuum "H <sub>2</sub> O	DTW (ft)	Vacuum "H <sub>2</sub> O	DTW (ft)	Vacuum "H <sub>2</sub> O	DTW (ft)	Vacuum "H <sub>2</sub> O	DTW (ft)	
12/27					OFF									OFF										
0001	0.35		0.30					0.55	0.50	0.30														
0400	0.35		0.25					0.55	0.50	0.30														
0800	0.30		0.25					0.55	0.45	0.30														
0845	0.05		0.05					0.10	0.20	0.10														
0915	Ø		Ø					Ø	Ø	Ø														
1000	0.18		0.70		0.00			0.80	0.40	0.20														
1030	0.20		0.90		0.04			0.85	0.41	0.15														
1100	0.20		0.90		0.04			0.80	0.40	0.15														
1105	0.20		0.95		0.05			1.20	0.56	0.25														
1135	0.20		0.95		0.05			1.30	0.60	0.25														
1205	0.20		0.95		0.05			1.30	0.60	0.25														
1210	0.30		1.10		0.06			1.70	0.80	0.35														
1240	0.30		1.10		0.06			1.75	0.95	0.40														
1310	0.30		1.10		0.07			1.80	0.95	0.45														
1315	0.35		1.30		0.07			1.85	1.05	0.55														
1345	0.35		1.10		0.07			1.90	1.10	0.55														
1415	0.35		1.10		0.07			1.90	1.10	0.55														
1420	0.35		0.70		0.00			0.90	0.60	0.20														
1450	0.35		0.50		0.00			0.80	0.45	0.20														
1520	0.30		0.35		0.00			0.65	0.35	0.15														

Comments:

HIGH VACUUM

SVE or

DPE

FIELD DATA SHEET

CALCLEAN INC.

(714) 734-9137

Page 11B of 16

Project Location: 1630 PARK STREET

City: ALMEDA

Site #: GOOD CHEVROLET

Date: 12/27/2011

Client: BUESTAD

Operator (s): Nick

OBSERVATION WELLS

WELL SCREEN DTW (ft)	MW-1		MW-2		MW-3		VP-1		VP-2		VP-3		AS-1										
	Time	Vacuum "H <sub>2</sub> O	DTW (ft)	Vacuum "H <sub>2</sub> O	DTW (ft)	Vacuum "H <sub>2</sub> O	DTW (ft)	Vacuum "H <sub>2</sub> O	DTW (ft)	Vacuum "H <sub>2</sub> O	DTW (ft)	Vacuum "H <sub>2</sub> O	DTW (ft)	Vacuum "H <sub>2</sub> O	DTW (ft)	Vacuum "H <sub>2</sub> O	DTW (ft)	Vacuum "H <sub>2</sub> O	DTW (ft)	Vacuum "H <sub>2</sub> O	DTW (ft)	Vacuum "H <sub>2</sub> O	DTW (ft)
12/27														off									
1525	0.30			0.35			0.00		0.45			0.25		0.10									
1555	0.25			0.30			0.00		0.40			0.20		0.05									
1625	0.25			0.25			0.00		0.25			0.10		0.05									
1630	0.20			0.20			0.00		0.20			0.05		0.00									
1700	0.15			0.15			0.00		0.15			0.05		0.00									
1730	0.15			0.15			0.00		0.15			0.05		0.00									
1745	0.35			0.35			0.00		0.15			0.05		0.00									
2000	0.30			0.35			0.00		0.30			0.25		0.05									
12/28																							
0001	0.30			0.35			0.00		0.35			0.30		0.10									
0400	0.30			0.30			0.00		0.40			0.35		0.15									
0800	0.35			0.30			0.00		0.40			0.35		0.15									
1200	0.35			0.30			0.00		0.40			0.30		0.20									
1600	0.30			0.30			0.00		0.40			0.35		0.20									
2000	0.30			0.35			0.00		0.45			0.30		0.25									
12/29																							
0001	0.35			0.30			0.00		0.45			0.35		0.25									
0400	0.35			0.30			0.00		0.45			0.35		0.30									
0800	0.35			0.30			0.00		0.45			0.35		0.30									
1200	0.30			0.35			0.00		0.50			0.40		0.30									

Comments:

HIGH VACUUM

SVE or

DPE

FIELD DATA SHEET

CALCLEAN INC.

(714) 734-9137

Page 12B of 16

Project Location: 1630 PARK STREET

City: ALMEDA

Site #: GOOD CHEVROLET

Date: 12/29/2011

Client: BUESTAD

Operator (s): Nick

OBSERVATION WELLS

WELL SCREEN DTW (ft)	MW-1		MW-2		MW-3		VP-1		VP-2		VP-3		AS-1										
	Vacuum "H <sub>2</sub> O	DTW (ft)	Vacuum "H <sub>2</sub> O	DTW (ft)	Vacuum "H <sub>2</sub> O	DTW (ft)	Vacuum "H <sub>2</sub> O	DTW (ft)	Vacuum "H <sub>2</sub> O	DTW (ft)	Vacuum "H <sub>2</sub> O	DTW (ft)	Vacuum "H <sub>2</sub> O	DTW (ft)	Vacuum "H <sub>2</sub> O	DTW (ft)	Vacuum "H <sub>2</sub> O	DTW (ft)	Vacuum "H <sub>2</sub> O	DTW (ft)	Vacuum "H <sub>2</sub> O	DTW (ft)	
12/29														OFF									
1600	0.30		0.35		0.00		0.50		0.40		0.30												
2000	0.30		0.35		0.00		0.50		0.40		0.30												
12/30																							
0001	0.35		0.30		0.00		0.50		0.40		0.35												
0400	0.35		0.35		0.00		0.50		0.40		0.35												
0930		9.49		9.52		9.21																	
1130		9.43		9.86		9.25																	
1230	0.00		DN		0.00		0.10		0.02		0.05												
1300	0.15				0.05		0.55		0.42		0.15												
1330	0.10				0.05		0.55		0.40		0.15												
1400	0.10				0.05		0.60		0.45		0.15												
1430	0.10				0.05		0.60		0.45		0.20												
1600	0.10				0.05		0.60		0.45		0.20												
2000	0.10				0.05		0.60		0.45		0.20												
12/31																							
0001	0.10				0.05		0.60		0.45		0.15												
0400	0.15				0.05		0.60		0.50		0.15												
0800	0.15				0.05		0.60		0.50		0.20												
1200	0.15				0.05		0.60		0.50		0.20												
1315	0.25				0.05		0.75		0.50		0.20												

Comments:

HIGH VACUUM

SVE or

DPE

FIELD DATA SHEET

CALCLEAN INC.

(714) 734-9137

Page 178 of 16

Project Location: 1630 PARK STREET

City: ALMEDA

Site #: GOOD CHEVROLET

Date: 12/31/2011

Client: BUESTAD

Operator (s): NICK

OBSERVATION WELLS

WELL SCREEN DTW (ft)	MW-1		MW-2		MW-3		VP-1		VP-2		VP-3		AS-1										
	Time	Vacuum "H <sub>2</sub> O	DTW (ft)	Vacuum "H <sub>2</sub> O	DTW (ft)	Vacuum "H <sub>2</sub> O	DTW (ft)	Vacuum "H <sub>2</sub> O	DTW (ft)	Vacuum "H <sub>2</sub> O	DTW (ft)	Vacuum "H <sub>2</sub> O	DTW (ft)	Vacuum "H <sub>2</sub> O	DTW (ft)	Vacuum "H <sub>2</sub> O	DTW (ft)	Vacuum "H <sub>2</sub> O	DTW (ft)	Vacuum "H <sub>2</sub> O	DTW (ft)	Vacuum "H <sub>2</sub> O	DTW (ft)
			DN																				
12/31																							
1415	0.25				0.05		0.75		0.55		0.20												
1515	0.25				0.05		0.75		0.55		0.20												
1600	0.25				0.05		0.75		0.55		0.25												
01/01																							
0400	0.25				0.05		0.75		0.55		0.25												
0800	0.25				0.05		0.80		0.55		0.25												
1200	0.30				0.05		0.80		0.60		0.30												
1600	0.30				0.05		0.80		0.60		0.30												
2000	0.30				0.05		0.80		0.60		0.30												
01/02																							
0001	0.30				0.05		0.85		0.60		0.35												
0400	0.30				0.05		0.85		0.65		0.35												
0800	0.30				0.05		0.85		0.65		0.35												
1200	0.30				0.05		0.85		0.65		0.35												
1600	0.30				0.00		0.70		0.60		0.30												
2000	0.30				0.00		0.70		0.55		0.30												
01/03																							
0001	0.30				0.00		0.65		0.50		0.25												
0400	0.30				0.00		0.65		0.50		0.25												

Comments:

HIGH VACUUM

SVE or

DPE

FIELD DATA SHEET

CALCLEAN INC.

(714) 734-9137

Page 14B of 16

Project Location: 1630 PARK STREET

City: ALMEDA

Site #: GOOD CHEVROLET

Date: 1/3/2012

Client: BUESTAD

Operator (s): *NECK*

OBSERVATION WELLS

WELL SCREEN DTW (ft)	MW-1		MW-2		MW-3		VP-1		VP-2		VP-3		AS-1										
	Time	Vacuum "H <sub>2</sub> O	DTW (ft)	Vacuum "H <sub>2</sub> O	DTW (ft)	Vacuum "H <sub>2</sub> O	DTW (ft)	Vacuum "H <sub>2</sub> O	DTW (ft)	Vacuum "H <sub>2</sub> O	DTW (ft)	Vacuum "H <sub>2</sub> O	DTW (ft)	Vacuum "H <sub>2</sub> O	DTW (ft)	Vacuum "H <sub>2</sub> O	DTW (ft)	Vacuum "H <sub>2</sub> O	DTW (ft)	Vacuum "H <sub>2</sub> O	DTW (ft)	Vacuum "H <sub>2</sub> O	DTW (ft)
01/03			ON											OFF									
0800	0.25				0.00		0.65		0.50		0.25												
1100	0.25				0.00		0.65		0.50		0.25												
1500	0.25				0.00		0.65		0.50		0.25												
1600	0.25				0.00		0.65		0.50		0.25												
2000	0.25				0.00		0.65		0.50		0.25												
01/04																							
0001	0.25				0.00		0.65		0.50		0.25												
0400	0.25				0.00		0.65		0.50		0.25												
0800	0.25				0.00		0.65		0.50		0.25												
1200	0.25				0.00		0.65		0.50		0.25												
1600	0.25				0.00		0.65		0.50		0.25												
2000	0.25				0.00		0.65		0.45		0.30												
01/05																							
0001	0.25				0.02		0.70		0.45		0.30												
0400	0.25				0.02		0.70		0.45		0.30												
0800	0.25				0.02		0.70		0.45		0.30												
1200	0.25				0.02		0.75		0.50		0.35												
1600	0.25				0.02		0.70		0.50		0.36												
2000	0.25				0.02		0.65		0.50		0.35												

Comments:

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HIGH VACUUM

SVE or

DPE

FIELD DATA SHEET

CALCLEAN INC.

(714) 734-9137

Page 158 of 160

Project Location: 1630 PARK STREET

City: ALMEDA

Site #: GOOD CHEVROLET

Date: 01/06/2011

Client: BUESTAD

Operator (s): NICK

OBSERVATION WELLS

WELL SCREEN DTW (ft)	MW-1		MW-2		MW-3		VP-1		VP-2		VP-3		AG-1										
	Time	Vacuum "H <sub>2</sub> O	DTW (ft)	Vacuum "H <sub>2</sub> O	DTW (ft)	Vacuum "H <sub>2</sub> O	DTW (ft)	Vacuum "H <sub>2</sub> O	DTW (ft)	Vacuum "H <sub>2</sub> O	DTW (ft)	Vacuum "H <sub>2</sub> O	DTW (ft)	Vacuum "H <sub>2</sub> O	DTW (ft)	Vacuum "H <sub>2</sub> O	DTW (ft)	Vacuum "H <sub>2</sub> O	DTW (ft)	Vacuum "H <sub>2</sub> O	DTW (ft)	Vacuum "H <sub>2</sub> O	DTW (ft)
01/06			ON											OFF									
0601	0.30				0.02	0.70		0.55		0.35													
0400	0.30				0.02	0.70		0.50		0.35													
0800	0.30				0.04	0.70		0.50		0.35													
1200	0.30				0.04	0.70		0.50		0.35													
1600	0.30				0.04	0.70		0.55		0.40													
2000	0.30				0.04	0.70		0.55		0.40													
01/07																							
0601	0.30				0.04	0.70		0.50		0.35													
0400	0.30				0.06	0.70		0.50		0.40													
0800	0.35				0.06	0.75		0.55		0.35													
1200	0.35				0.06	0.75		0.55		0.40													
2000	0.35				0.06	0.75		0.60		0.35													
01/08																							
0601	0.35				0.08	0.70		0.60		0.35													
0400	0.36				0.08	0.70		0.60		0.35													
0800	0.35				0.08	0.75		0.55		0.40													
1200	0.35				0.08	0.75		0.55		0.35													
2000	0.35				0.08	0.70		0.60		0.40													
01/09																							
0400	0.35				0.08	0.75		0.60		0.40													

Comments:

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HIGH VACUUM

SVE or

DPE

FIELD DATA SHEET

CALCLEAN INC.

(714) 734-9137

Page 16 of 16

Project Location: 1630 PARK STREET

City: ALMEDA

Site #: GOOD CHEVROLET

Date: 01/9/2011

Client: BUESTAD

Operator (s): Nick

OBSERVATION WELLS

WELL SCREEN DTW (ft)	MW-1		MW-2		MW-3		VP-1		VP-2		VP-3		AS-1											
	Time	Vacuum "H <sub>2</sub> O	DTW (ft)	Vacuum "H <sub>2</sub> O	DTW (ft)	Vacuum "H <sub>2</sub> O	DTW (ft)	Vacuum "H <sub>2</sub> O	DTW (ft)	Vacuum "H <sub>2</sub> O	DTW (ft)	Vacuum "H <sub>2</sub> O	DTW (ft)	Vacuum "H <sub>2</sub> O	DTW (ft)	Vacuum "H <sub>2</sub> O	DTW (ft)	Vacuum "H <sub>2</sub> O	DTW (ft)	Vacuum "H <sub>2</sub> O	DTW (ft)	Vacuum "H <sub>2</sub> O	DTW (ft)	
01/09			ON											OFF										
0800	0.35				0.08		0.75		0.55		0.40													
1200	0.35				0.10		0.75		0.55		0.40													
1600	0.35				0.10		0.75		0.55		0.40													
1715	0.35				0.10		0.75		0.55		0.40													

Comments:



**APPENDIX C**  
**REMEDIAL COST ESTIMATES**

Appendix 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
			\$ 491,325.00

Other tasks

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)	\$ 43,000.00	1	\$ 43,000.00
			\$ 105,000.00

Estimated total: \$ 596,325.00

Appendix C  
Remedial Option Cost Estimates

HVDPE Extraction

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 (7 extraction)	\$ 35,000.00	1	\$ 35,000.00
Additional remediation wells (3 extraction)	\$ 15,000.00	1	\$ 15,000.00
Monthly monitoring, data analysis, optimization	\$ 7,000.00	4	\$ 28,000.00
4th month of HVDPE system operation	\$ 60,000.00	1	\$ 60,000.00
			\$ 340,500.00

Other tasks

Data gaps investigation (well, conduit survey; vapor survey, add'l MWs)	\$ 15,000.00	1	\$ 15,000.00
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
			\$ 135,590.00

Estimated total: \$ 476,090.00

\* Quote from CalClean, Inc: includes mobilization, operation for 3 months, water & vapor treatment, AQMD permitting and sampling

Appendix 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 optimization	\$	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