March 12, 2013

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 or Mr. Peter McIntyre at AEI Consultants, (925) 746-6004.

Sincerely,

John Buestad
President

JB/pm

Attachment: AEI Consultants, *Groundwater Monitoring & Soil Vapor Sampling Report*

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

March 11, 2013

GROUNDWATER MONITORING AND SOIL VAPOR SAMPLING REPORT 4th Quarter 2012

Property Identification:
1630 Park Street
Alameda, California

ACEH RO#0000008
AEI Project No. 298931

Prepared for:
Mr. John Buestad
Foley Street Investments, LLC
1980 Mountain Boulevard, Suite 208
Oakland, CA 94611

Prepared by:
AEI Consultants
2500 Camino Diablo
Walnut Creek, CA 94597
(925) 746-746-6000

March 11, 2013

Mr. John Buestad
Foley Street Investments, LLC
1980 Mountain Boulevard, Suite 208
Oakland, California 94611

Subject: **Groundwater Monitoring and Soil Vapor Sampling Report**
4th Quarter 2012
1630 Park Street
Alameda, California
ACEH RO#0000008
AEI Project No. 298931

Dear Mr. Buestad:

AEI Consultants (AEI) has prepared this report on behalf of Foley Street Investments, LLC, for the property referenced above. AEI has been retained by Foley Street Investments, LLC to provide environmental consulting and engineering services. The ongoing investigation and remediation of the release is being performed under the direction of the Alameda County Environmental Health (ACEH) local oversight program. This report has been prepared to document the field activities and the results of recent groundwater monitoring and soil vapor sampling event.

SITE DESCRIPTION AND HISTORY

The subject property (hereafter referred to as the "site" or "property") is located in a commercial area on the southeast side of Park Street in Alameda, California (Figure 1 and Figure 2). The property is currently a vacant lot which formerly contained an automobile dealership, repair facility, and parking lot.

According to a Phase I Environmental Site Assessment dated July 5, 2011 by AEI, the former building was constructed in 1945 for use as an automobile garage and showroom. A review of historical city directories indicates that the subject property was occupied by various auto dealerships and repair facilities including Good Chevrolet/Good Leasing from at least 1971 to 2006, Fairway Leasing from 1986 to 2006, and Enterprise Rent-A-Car in 1991.

- In 1986, a 300-gallon waste oil underground storage tank (UST) and a 500-gallon UST were reportedly removed from the north end of the building property by Petroleum Engineering, Inc. Soil samples collected from the adjacent tank pits indicated hydrocarbon impacts in the soils. An environmental case was subsequently opened with the ACEH.

- In January 1987, three groundwater monitoring wells (MW-1 through MW-3) were installed at the site to evaluate the groundwater conditions. Two additional borings (SB-4 and SB-5) were advanced at the same time and soil samples were collected from one of the borings (SB-5).

- In October 1993, a supplemental investigation was performed by Geo Plexus which included advancing seven (7) soil borings (EB1 through EB7) across the parking area of the property. The investigation identified concentrations of hydrocarbons and volatile aromatic compounds in the vicinity of the former USTs at depths between 5 to 12 feet below ground surface (bgs).

- In April 1994, two additional groundwater monitoring wells (MW-4 and MW-5) were installed by Geo Plexus to further characterize the downgradient groundwater conditions.

- In January 1997, a remedial investigation was performed by Geo Plexus which included advancing eight (8) soil borings (EB8 through EB12 and P1 through P3) at locations which were immediately upgradient, downgradient, and cross gradient from the former USTs. Soil samples were collected from EB8 through EB12). The investigation indicated that gasoline impacted soil remained at depths ranging from 7 to 11 feet bgs.

- In November 1998, an investigation for a risk assessment was performed by Geo Plexus. The investigation involved the collection of soil gas samples from three (3) soil gas probes. Soil gas samples were collected at a depth of 3 feet bgs and collected in summa canisters. Using a commercial health risk of 1×10^{-4}, a risk-based corrective action analysis indicated that soil gas concentrations do not represent a significant health risk.

- 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 impacts. It should be noted that AEI was not able to review 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 and 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) Pilot Test at the site. A

review of multiple remedial options was discussed in these documents and HVDPE was considered the most feasible option given the site conditions.

- In November 2011, three (3) dual phase extraction wells (DPE-1, DPE-2 and DPE-3) and one (1) air sparge well (AS-1) were installed. In early December, three vacuum monitoring points (VP-1, VP-2 and VP-3) were installed and pilot testing began. Results of the HVDPE pilot test were preliminarily provided in the *Investigation and Remedial Action Workplan* dated January 12, 2012 (AEI 2012a). The work plan also proposed the advancement of additional borings and the installation of additional HVPDE 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. DPE-7 was advanced as a boring instead of being completed as a well. Soil sample analytical results for samples collected during the drilling were used to help define the extent of impacted soil and groundwater and to identify target areas for additional remedial action.

- A *Corrective Action Plan* (CAP) dated February 3, 2012, (AEI 2012b) was submitted to the ACEH. The CAP documented the December 2011 to January 2012 HVDPE event and based on the results, recommended HVDPE as the remedial option for the site.

- On January 25, 2012, based on the results of the pilot testing, the HVDPE system resumed operation. The system was operated for 94 days and was turned off on April 25, 2012.

- At the request of the ACEH, a *Data Gap and Interim Source Removal Workplan*, was prepared and submitted on May 4, 2012 (AEI 2012c). The work plan outlined the scope of work to define the lateral extent of impacted groundwater and proposed excavation of known sources of impacts to groundwater. An addendum to the workplan to address ACEH comments was submitted on September 7, 2012 and conditionally approved on October 5, 2012.

- On October 22 to 29, 2012 interim source removal activities were conducted at the site. Approximately 450 tons of hydrocarbon impacted soil were removed from the three excavation areas. The results of the activities were detailed in the *Interim Source Removal Report and Well Abandonment and Replacement Workplan Addendum*, dated December 7, 2012 (AEI 2012d). Observations made during the excavations and confirmation soil sampling of the excavation bottoms and sidewalls indicate the following:
  - o <u>Former UST-hold (Excavation E1):</u> Hydrocarbon impacts in soil at this location are substantially remediated. One sidewall soil sample was found to slightly exceed the ESLs for THP-g and xylenes and two sidewall samples exceeded the ESLs for benzene. The objectives of this excavation were met since the bottoms samples were below the agreed upon target concentrations.
  - o <u>Three former hydraulic lifts (Excavation E2):</u> Hydrocarbon impacts in soil at this location are substantially remediated. One sidewall sample collected from the west wall (closest to the former UST pit) contained concentrations of TPH-g, TPH-mo, ethylbenzene and xylenes at concentrations that exceeded the ESLs. The objectives of this excavation were met since the bottoms samples were below the agreed upon target concentrations.

- Former hydraulic lift near DPE-5 (Excavation E3): Hydrocarbon impacts in soil at this location remain in the sidewalls at depths between approximately 7 to 11.5 feet bgs. Concentrations of TPHg, TPH-mo and BTEX exceeded the ESLs in all sidewall samples. The objectives of this excavation were met since the bottom samples were below the agreed upon target concentrations.

- Groundwater monitoring and sampling has been ongoing at the site since 1992. It was conducted approximately quarterly from 1992 through 1995, then sporadically through 2003, once in 2008, and twice in 2011. Groundwater has been monitored on a quarterly basis since December 2011. Soil vapor monitoring from the three vapor monitoring points installed during the HVPDE pilot test was added to the quarterly monitoring schedule in May 2012.

SUMMARY OF GROUNDWATER MONITORING ACTIVITIES

On November 16, 2012, fourteen (14) groundwater monitoring wells (MW-1 to MW-5, DPE-1, DPE-2, DPE-4, DPE-5, DPE-6, DPE-8, DPE-9, DPE-10 and DPE-11) were gauged and sampled in accordance with the groundwater monitoring schedule presented in the May 2012, Data Gap Investigation and Interim Source Removal Workplan (AEI, 2012c) . Well DPE-3 was abandoned in August 2012. Groundwater well field sampling forms are included in Appendix A.

GAUGING

Prior to gauging, the wells caps were opened and allowed to equilibrate with atmospheric pressure. The depths to water from the top of the well casings were then measured with an electric water level indicator accurate to 0.01 feet prior to sampling.

SAMPLING

Groundwater sampling was accomplished using a peristaltic pump and low-flow purge techniques. New disposable ¼-inch polyethylene tubing was set to the approximate depth of the middle of the screened interval and the pump was operated at a flow rate of approximately 250 milliliters per minute or less. The discharge tubing was connected to a flow-through cell fitted with water quality sensors and readings of temperature, pH, conductivity, dissolved oxygen (DO) and oxygen reduction potential (ORP) were recorded. A visual estimate and description of turbidity was also noted for each well. Once the field parameters stabilized, groundwater samples were collected directly from the discharge side of peristaltic pump.

The groundwater samples were collected into laboratory supplied unpreserved 1-liter amber glass bottles and 40-milliliter (mL) volatile organic analysis (VOA) vials preserved with hydrochloric acid capped such that no head space or air bubbles were visible. Samples were labeled with a unique sample name and the date and time of collection, then entered onto a chain of custody record and placed in a pre-chilled cooler on wet ice pending transportation to the laboratory. The samples were delivered on the day of collection, under proper chain of custody protocol and within hold time, to McCampbell Analytical, Inc. of Pittsburg, California (Department of Health Services Certification #1644) for analysis.

The groundwater samples were analyzed for:

- Total Petroleum Hydrocarbons as gasoline (TPH-g) by EPA Method SW8015B Modified, TPH as diesel (TPH-d) and TPH as motor oil (TPH-mo) by EPA Method SW8015B with silica gel clean-up.

- Benzene, toluene, ethylbenzene, total xylenes (BTEX), and methyl tertiary butyl ether (MTBE) by EPA Method SW8260B.

GROUNDWATER MONITORING RESULTS

GROUNDWATER ELEVATIONS AND HYDRAULIC GRADIENT

The measured depth to water was subtracted from the surveyed top-of-casing elevation for each well to obtain the groundwater elevation at each well. The groundwater elevations, groundwater flow direction and hydraulic gradient are summarized below:

- The groundwater elevations during this event ranged from 15.54 (MW-4) to 17.42 (DPE-6) feet above mean sea level (amsl). Depth to water ranged from 8.23 (MW-1) to 10.04 (MW-4) below ground surface. The average depth to water for this event was 0.78 feet lower than the previous event.

- Based on these data, the groundwater flow direction was to the north-northwest under a hydraulic gradient of approximately 0.01 ft/ft which is consistent with previous events.

Current and historical groundwater elevations are summarized in Table 2. The groundwater elevation data, flow direction and hydraulic gradient are presented on Figure 3.

GROUNDWATER SAMPLE LABORATORY ANALYTICAL DATA

The groundwater sample analytical data, with a comparison to the previous monitoring event, are summarized below:

- Concentrations of TPH-g increased in wells MW-4 and MW-5 compared to the prior event; however, the recent concentrations are well below historical levels. TPH-g decreased in all other wells compared to prior events. The highest concentration of TPH-g was reported in the sample collected from well DPE-11 at 860 micrograms per liter (µg/L).

- TPH-d was detected in 10 of the wells sampled. The highest concentration of TPH-d was reported in the sample collected from DPE-5 at 560 µg/L; however, qualitative laboratory notations indicate that this detection of TPH-d is associated with gasoline.

- TPH-mo was detected only in DPE-5 well at a concentration of 1,400 µg/L.

- No MTBE was detected in groundwater samples collected at the site during the event.

- Concentrations of benzene in groundwater samples increased slightly in wells MW-4, and MW-5 and decreased in all other wells compared to prior events. The highest concentration

of benzene was reported in the sample collected from well MW-1 at 71 µg/L, however benzene concentrations were generally well below historical levels.

- Groundwater samples from three wells (MW-3, DPE-4 and DPE-6) were non-detect for all analytes for this event.

The groundwater analytical data are summarized in Table 3 and are presented graphically on Figure 4. Laboratory analytical reports with chain of custody and quality assurance/quality control documentation are included in Appendix B.

SUMMARY OF SOIL VAPOR SAMPLING ACTIVITIES

On November 16, 2012, the three onsite (3) soil vapor probes (VP-1, VP-2, and VP-3) were sampled. The probes are located in the source area near the former tank hold which has recently been excavated and previously undergone HVDPE. The purpose of the sampling was to establish a baseline concentrations post interim remediation and as part of an evaluation of vapor intrusion potential.

Soil vapor samples were collected in one-liter summa canisters fitted with 150 ml/hr flow controllers. Each canister and flow controller was individually checked, tested and certified by the laboratory for air tightness and proper vacuum prior to shipping. A vacuum gauge was used to measure and record the initial and final summa canister vacuum pressure. Prior to collecting each vapor sample, a shut-in test was performed to verify that the sampling train was free of leaks, and approximately three tubing volumes were purged using a spare summa-canister. During sampling a leak check compound (isopropyl alcohol) was used to check for leaks. Upon completion of sampling the valves were removed, the inlet fittings tightly capped, and the canisters were labeled with sample name, date and time of collection, and then entered onto a chain of custody record.

After sample collection, field readings of oxygen (O_2), methane (CH_4), carbon dioxide (CO_2) and total volatile hydrocarbons (TVHC) were collected using a multi-gas detector. The instrument uses a photoionization detector (PID) calibrated to 100 ppm isobutylene to read TVHC and contains dedicated O_2, CH_4 and CO_2 sensors. The field data were recorded on field sampling sheets which are included in Appendix A.

The soil vapor samples were delivered on the day of collection, under proper chain of custody protocol and within hold time, to McCampbell Analytical, Inc. of Pittsburg, California (Department of Health Services Certification #1644) for analysis. Soil vapor samples were analyzed: by EPA Method TO-15 for total petroleum hydrocarbons as gasoline (TPHg), benzene, toluene, ethylbenzene, xylenes (BTEX), fuel oxygenates and isopropyl alcohol; and by ASTM Method D 1946-90 for atmospheric gasses (CO_2, CH_4, nitrogen, and O_2).

SOIL VAPOR SAMPLING ANALYTICAL RESULTS

- All soil vapor samples collected during the event were non-detect for TPH-g and BTEX.
- 95 µg/m3 of tert-butyl alcohol was detected at VP-2 sample.
- PID and methane field readings from the vapor probes were non-detect (zero).

- Oxygen concentrations in soil vapor ranged from 180,000 µL/L to 210,000 µL/L (18% to 21%).
- Carbon dioxide concentrations in soil vapor ranged from 8,500 µL/L to 25,000 µL/L (0.85% to 2.5%).

Several non-target VOC's were also detected in the soil vapor samples collected during this event. The compounds hexane, tetrachloroethene, and ethanol were detected. These compounds had not been detected in any media (soil, groundwater or soil vapor) during prior events. Notably, hexane and ethanol are common laboratory contaminants.

Laboratory analytical results are summarized in Table 4. Copies of the laboratory analytical reports with chain of custody and quality assurance/quality control documentation are included in Appendix C.

SUMMARY

AEI completed a groundwater monitoring and sampling event on November 16, 2012. Fourteen wells were monitored as per the proposed groundwater monitoring schedule. The results of the groundwater monitoring are summarized below:

Groundwater flow is toward north-northwest under a hydraulic gradient of 0.01 ft/ft, consistent with historic data.

- TPH-g, TPH-d, benzene, toluene, ethylbenzene, and total xylenes were detected in groundwater around the release area. In general the concentrations appear to be decreasing as a result of recent remedial efforts.

- MTBE was not detected in groundwater samples.

AEI also completed a soil vapor sampling event on November 16, 2012. Three soil vapor probes were sampled to determine base line concentrations post-interim remediation. The results of the soil vapor sampling are summarized below:

- All soil vapor samples collected during the event were non-detect for TPH-g and BTEX. Field monitoring data indicated sufficient oxygen for aerobic degradation of hydrocarbons.
- Non-target compounds including hexane, tetrachloroethene, and ethanol were detected at low concentrations for the first time in any media at the site.

Based on the results of recent groundwater monitoring, groundwater quality has significantly improved since HVDPE implementation and source area excavation. Natural attenuation is expected to continue to reduce impact to groundwater. Groundwater monitoring data will be evaluated following each event to determine the need for further monitoring and to evaluate the site for case closure eligibility.

The next groundwater monitoring and soil gas sampling event is scheduled for February 2013, after which the majority of the onsite groundwater monitoring wells and the three soil gas

probes will be decommissioned. Replacement wells are planned to be installed in the second quarter of 2013.

REPORT LIMITATIONS AND SIGNATURES

This report presents a summary of work completed by AEI Consultants. The completed work includes observations and descriptions of site conditions encountered. Where appropriate, it includes analytical results for samples taken during the course of the work. The number and location of samples are chosen to provide the requested information, but it cannot be assumed that they are representative of areas not sampled. All conclusions and/or recommendations are based on these analyses and observations, and the governing regulations. Conclusions beyond those stated and reported herein should not be inferred from this document. These services were performed in accordance with generally accepted practices, in the environmental engineering and construction field, which existed at the time and location of the work and were performed under the direction of appropriate California-licensed professionals.

Should you have any questions, or need any additional information regarding this report, please do not hesitate to contact us at (925) 746-6000.

Sincerely,
AEI Consultants

Stephen Lao
Project Engineer

Robert Robitaille
Program Manager

Peter McIntyre, PG
Executive Vice President
Principal Geologist

REGISTERED GEOLOGIST
PETER J. MCINTYRE
Exp. 7/31/14
No. 7702
STATE OF CALIFORNIA

ATTACHMENTS

Figures

Figure 1	Site Location Map
Figure 2	Site Plan
Figure 3	Groundwater Elevation Data
Figure 4	Groundwater Analytical Data

Tables

Table 1	Well Construction Details
Table 2	Groundwater Elevation Data
Table 3	Groundwater Analytical Data
Table 4	Soil Vapor Analytical Data

Appendices

Appendix A Field Sampling Forms
Appendix B Groundwater Sample Laboratory Analytical Reports
Appendix C Soil Vapor Sample Laboratory Analytical Reports

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 14, 2011.

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

AEI Consultants (AEI) 2012b. Corrective Action Plan, 1630 Park Street, Alameda, California, February 3, 2012.

AEI Consultants (AEI) 2012c. Data Gap and Interim Source Removal Workplan, 1630 Park Street, Alameda, California, May 4, 2012.

AEI Consultants (AEI) 2012d. Interim Source Removal Report and Well Abandonment and Replacement Workplan Addendum, 1630 Park Street, Alameda, California, December 7, 2012

RWQCB 2008. Environmental Screening Levels, Table E-2, San Francisco Regional Water Quality Control Board

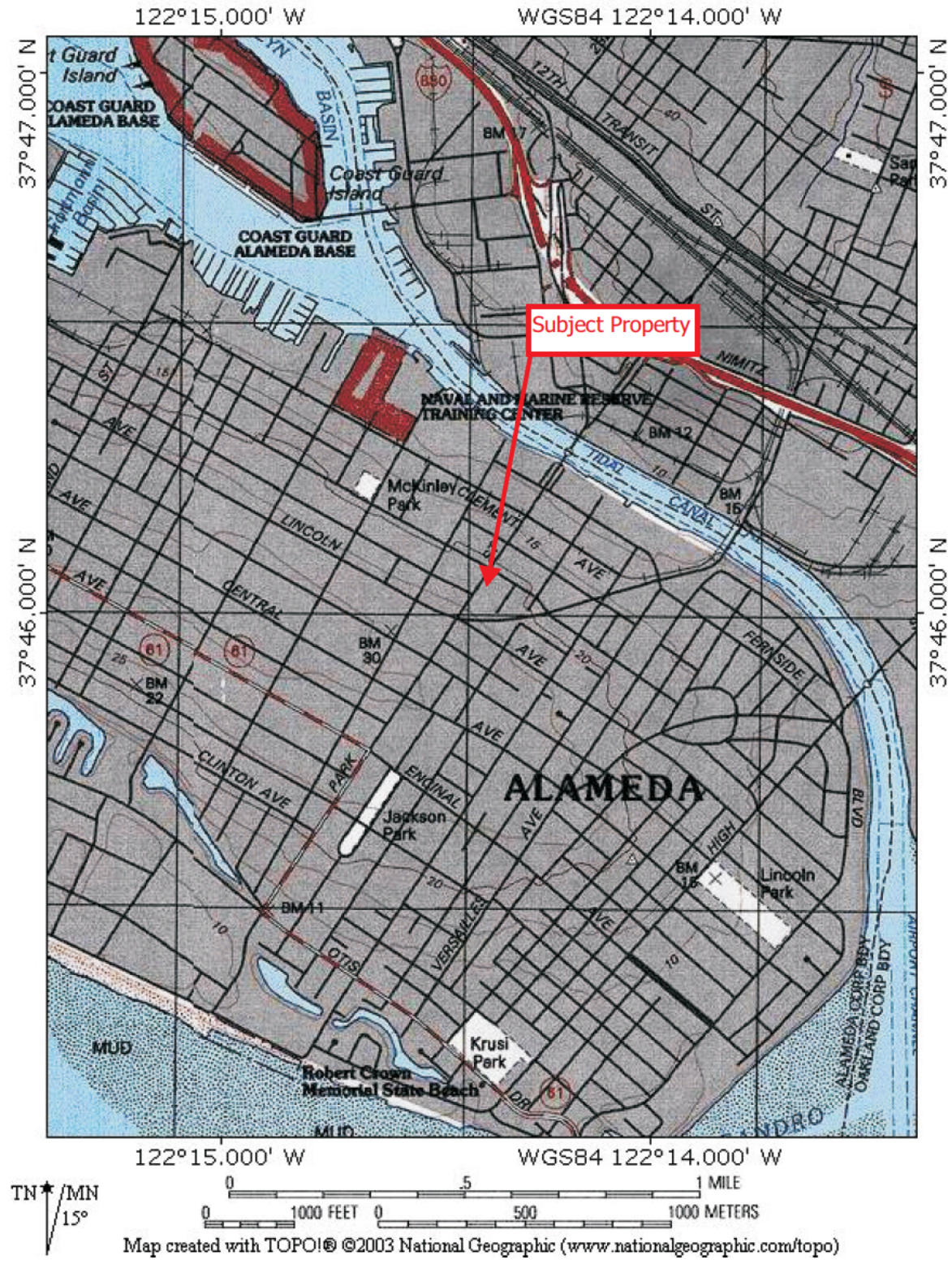
DISTRIBUTION

John Buestad, Foley Street Investments

Karel Detterman, Alameda County Environmental Health Department (FTP Upload)

GeoTracker (Upload)

FIGURES



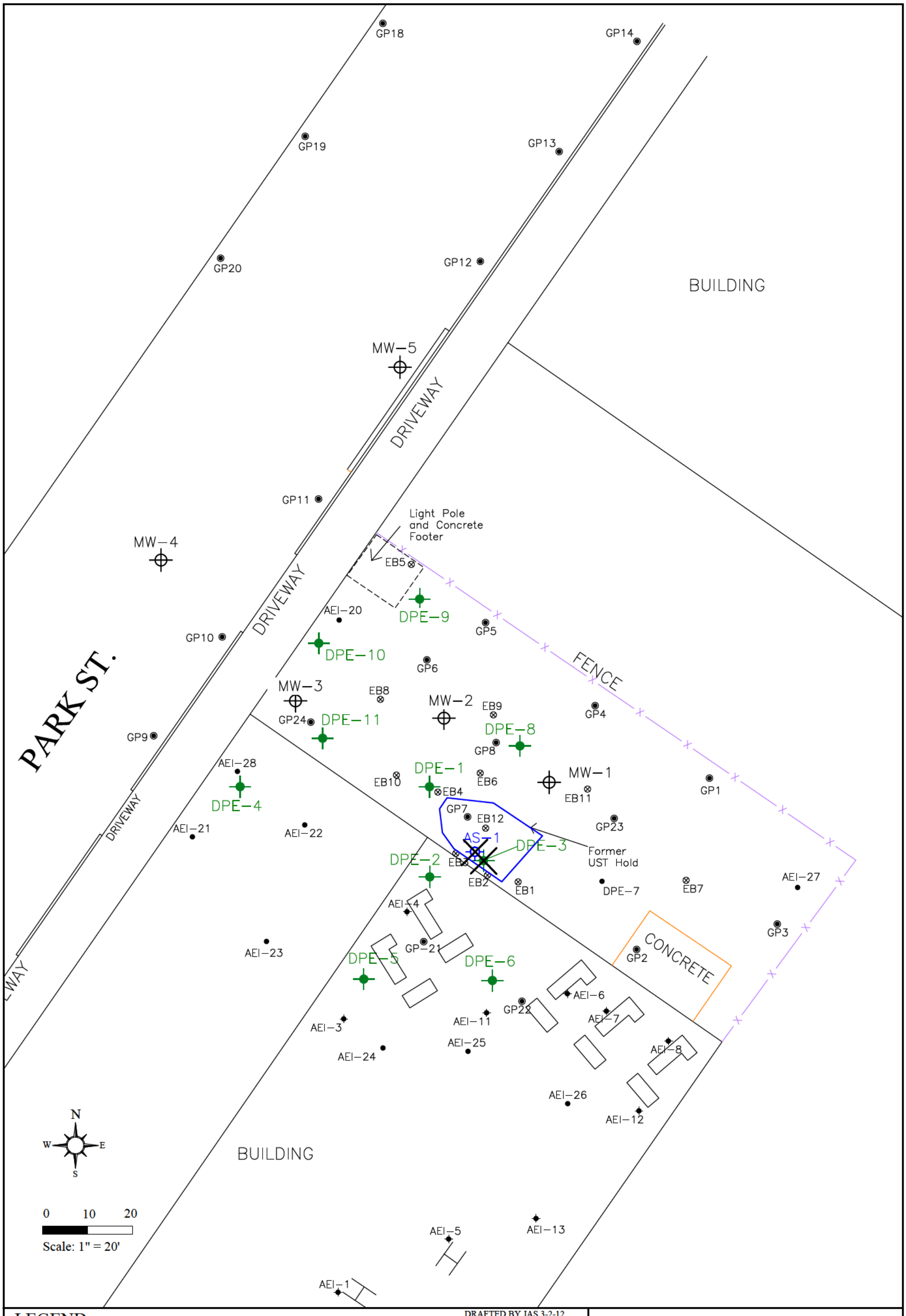
SITE LOCATION MAP

1630 Park Street, Alameda, California

FIGURE 1

Project Number: 298931

AEI Consultants



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
- Air Sparge Well
- Abandoned Monitoring Well
- Abandoned Air Sparge Well
- Existing Hydraulic Lift
- Former Hydraulic Lift

DRAFTED BY JAS 3-2-12
REVISED BY STL 12-10-12

AEI CONSULTANTS
2500 CAMINO DIABLO, WALNUT CREEK

SITE PLAN

1630 PARK STREET
ALAMEDA, CALIFORNIA

FIGURE 2
PROJECT NO. 298931

BUILDING

16.00

16.25

16.50

16.75

17.00

17.25

(15.85) MW–5

15.75

DRIVEWAY

(15.54) MW–4

DRIVEWAY

(16.71) DPE–9

(16.63) DPE–10

(16.73) MW–3

(16.97) MW–2

(17.05) DPE–8

DPE–11 (16.83)

(17.14) MW–1

DPE–1 (17.04)

DPE–4 (16.83)

AS–1

DPE–3

Former UST Hold

DPE–2 (17.20)

(16.31)* DPE–5

(17.42) DPE–6

FENCE

CONCRETE

PARK ST.

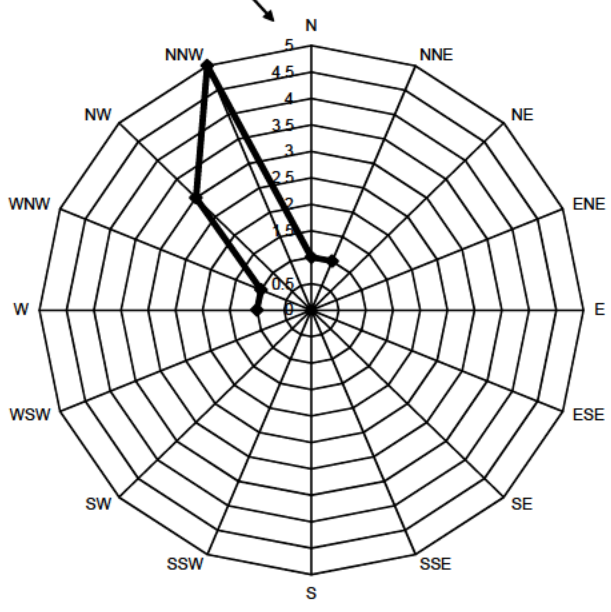
DRIVEWAY

DRIVEWAY

Groundwater Flow Direction July 11, 2012; Groundwater Gradient = 0.01 ft/ft

Historical Shallow Zone Groundwater Flow Direction for Former Good Chevrolet, 1630 Park Street, Alameda, CA

Number of monitoring events in which groundwater was reported to flow in a particular direction.



N

W E

S

0 10 20

Scale: 1" = 20'

LEGEND

DRAFTED BY JAS 3-9-12
REVISED BY STL 01-07-13

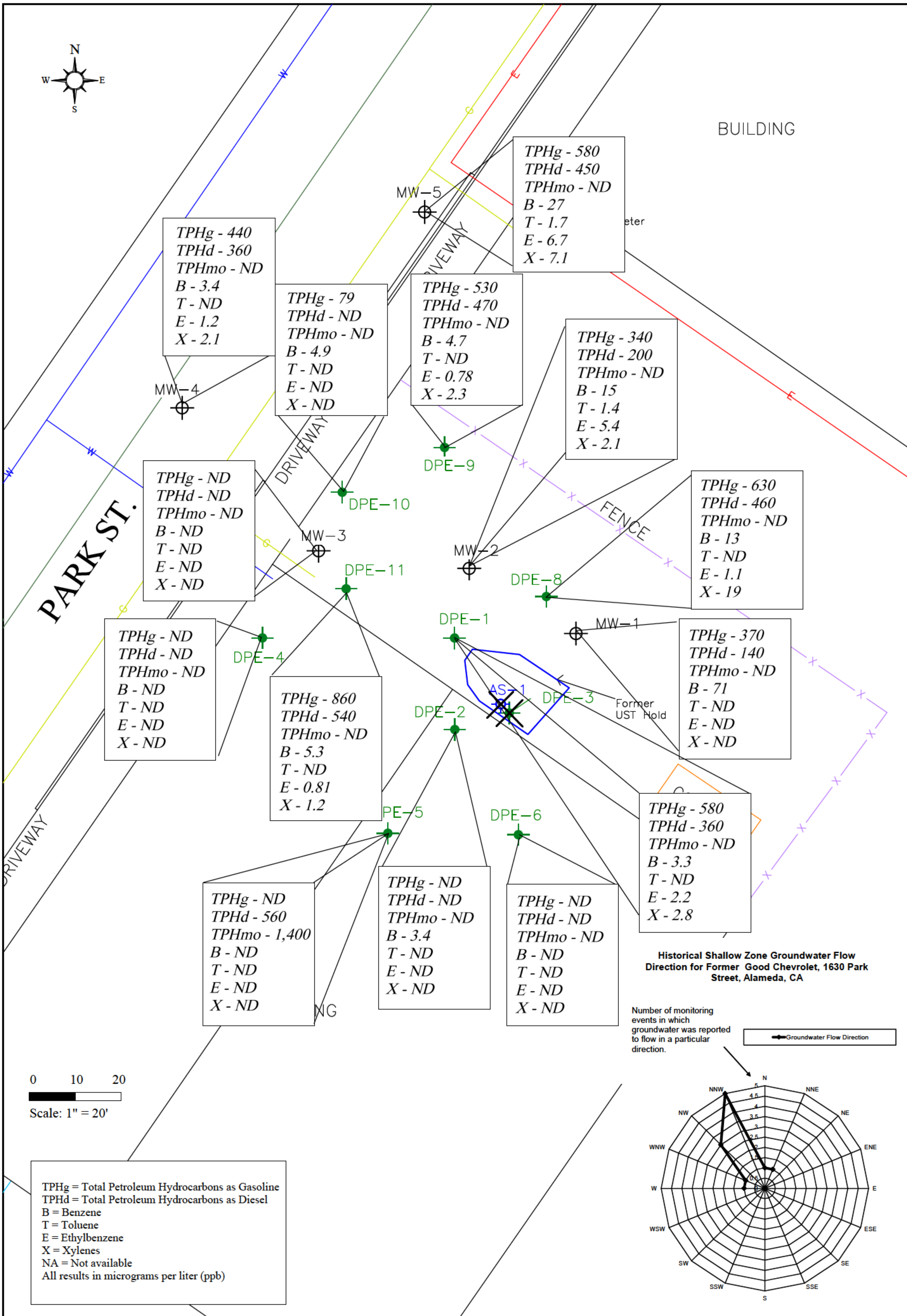
- Remediation Well (12/11 and 1/12)
- Abandoned Well
- Groundwater Monitoring Well
- (306.70) Groundwater Elevation (ft, msl)
- (306.70)* Not used for contouring

AEI CONSULTANTS
2500 CAMINO DIABLO, WALNUT CREEK

GROUNDWATER ELEVATION MAP - NOV. 2012

1630 PARK STREET
ALAMEDA, CALIFORNIA

FIGURE 3
PROJECT NO. 298931



TPHg = Total Petroleum Hydrocarbons as Gasoline
TPHd = Total Petroleum Hydrocarbons as Diesel
B = Benzene
T = Toluene
E = Ethylbenzene
X = Xylenes
NA = Not available
All results in micrograms per liter (ppb)

LEGEND

DRAFTED BY JAS 3-9-12
REVISED BY STL 01-11-12

- Underground Natural Gas Line (3 to 4 feet bgs)
- Underground Water Line (3 feet bgs)
- Underground Electric Line (3 feet bgs)
- Underground Sanitrary Sewer Line (10.3 to 11.3 feet bgs)
- Remediation (DPE) Well
- Abandoned Well
- Groundwater Monitoring Well
- AEI Soil Boring

AEI CONSULTANTS
2500 CAMINO DIABLO, WALNUT CREEK

GROUNDWATER
ANALYTICAL DATA - NOV. 2012

1630 PARK STREET
ALAMEDA, CALIFORNIA

FIGURE 4
PROJECT NO. 298931

TABLES

Table 1

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	#30 Mesh Sanc
VP-2	12/6/2011	-	Stainless Steel	5.9	5.9	1.25	1/4	5.1-5.6	Mesh	4.7-5.9	#30 Mesh Sanc
VP-3	12/6/2011	-	Stainless Steel	5.75	5.75	1.25	1/4	5.1-5.6	Mesh	4.7-5.75	#30 Mesh Sanc

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

Table 2

Groundwater Elevation Data

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

Well ID (Screen Interval)	Date Collected	Well Elevation *(ft amsl*)*	Depth to Water *(ft)*	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	25.42	7.13	18.29
	Jun-11	25.42	7 54	17.88
	Dec-11	25.37	8 02	17.35
	Jan-12	25.37	8 08	17.29
	May-12	25.37	6 87	18.50
	Jul-12	25.37	7 34	18.03
	Nov-12	25.37	8 23	17.14
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
	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	25.52	7 35	18.17
	Dec-11	25.48	8.41	17.07
	Jan-12	25.48	8.43	17.05
	May-12	25.48	7.41	18.07
	Jul-12	25.48	7 83	17.65
	Nov-12	25.48	8 51	16.97

Table 2

Groundwater Elevation Data

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

Well ID (Screen Interval)	Date Collected	Well Elevation *(ft amsl*)*	Depth to Water *(ft)*	Groundwater Elevation *(ft amsl*)*
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	25.17	7 50	17.67
	Dec-11	25.13	8 25	16.88
	Jan-12	25.13	8 25	16.88
	May-12	25.13	7 64	17.49
	Jul-12	25.13	7.97	17.16
	Nov-12	25.13	8.40	16.73
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
	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	25.53	8 52	17.01
	Dec-11	25.58	-	-
	Jan-12	25.58	-	-
	May-12	25.58	8.96	16.62
	Jul-12	25.58	9 26	16.32
	Nov-12	25.58	10.04	15.54
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	24.31	7.43	16.88
	Dec-11	24.32	-	-
	Jan-12	24.32	-	-
	May-12	24.32	7.46	16.86
	Jul-12	24.32	7.76	16.56
	Nov-12	24.32	8.47	15.85

Table 2

Groundwater Elevation Data

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

Well ID (Screen Interval)	Date Collected	Well Elevation *(ft amsl*)*	Depth to Water *(ft)*	Groundwater Elevation *(ft amsl*)*
DPE-1 (7 - 15 feet bgs)	Dec-11	25.88	8 81	17.07
	Jan-12	25.88	8.78	17.10
	May-12	25.88	7.72	18.16
	Jul-12	25.88	8.13	17.75
	Nov-12	25.88	8 84	17.04
DPE-2 (7 - 15 feet bgs)	Dec-11	26.22	9 29	16.93
	Jan-12	26.22	7.97	18.25
	May-12	26.22	7 89	18.33
	Jul-12	26.22	8 26	17.96
	Nov-12	26.22	9 02	17.20
DPE-3 (7 - 15 feet bgs)	Dec-11	25.27	7.92	17.35
	Jan-12	25.27	8.98	16.29
	May-12	25.27	6.75	18.52
	Jul-12	25.27	7 20	18.07
	Nov-12	Abandoned	-	-
DPE-4 (8-17 feet bgs)	Jan-12	26.06	9.11	16.95
	May-12	26.06	8 59	17.47
	Jul-12	26.06	8 84	17.22
	Nov-12	26.06	9 23	16.83
DPE-5 (8-18 feet bgs)	Jan-12	26.25	-	-
	Nov-12	26.25	9.94	16.31
DPE-6 (8-18 feet bgs)	Jan-12	26.13	8 58	17.55
	May-12	26.13	7.43	18.70
	Jul-12	26.13	7 83	18.30
	Nov-12	26.13	8.71	17.42
DPE-8 (8-18 feet bgs)	Jan-12	25.36	-	-
	Nov-12	25.36	8 31	17.05
DPE-9 (8-18 feet bgs)	Jan-12	25.09	8.12	16.97
	Jul-12	25.09	7 81	17.28
	Nov-12	25.09	8 38	16.71
DPE-10 (8-17 feet bgs)	Jan-12	25.14	-	-
	May-12	25.14	7.73	17.41
	Jul-12	25.14	8 09	17.05
	Nov-12	25.14	8 51	16.63
DPE-11 (8-18 feet bgs)	Jan-12	25.57	-	-
	May-12	25.57	7.90	17.67
	Jul-12	25.57	-	-
	Nov-12	25.57	8.74	16.83
Average depth to water	Dec-11		8.45	
	Jan-12		8.48	
	May-12		7.70	
	Jul-12		8 03	
	Nov-12		8 81	

ft amsl *= feet above mean sea level. Note: Data before 2008 are based on a fictitous 100 ft datum.
All water level depths are measured from the top of casing
"-" = not measured
bgs = below ground surface

Table 3

Groundwater Analytical Data- Monitoring Wells

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

Sample ID	Date	Notes	TPH-d	TPH-mo	TPH-g	Benzene	Toluene	Ethylbenzene	Xylenes	MTBE	MTBE	TAME	TBA	EDB	1,2-DCA	DIPE	Ethanol	ETBE	Methanol	Lead
					EPA Methods 8020, 8021B, or 8260B						EPA Method 8260B									
			(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(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	5.0	-	-	-	-	-	-	-	-	-	-	-
	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	a	-	-	2,200	720	180	82	150	-	-	-	-	-	-	-	-	-	-	-
	7/8/1993	a	-	-	3,200	1,200	110	97	100	-	-	-	-	-	-	-	-	-	-	-
	10/15/1993	a	-	-	3,700	1,400	43	94	36	-	-	-	-	-	-	-	-	-	-	-
	1/25/1994	a	-	-	1,600	680	16	41	35	-	-	-	-	-	-	-	-	-	-	-
	4/28/1994	a	-	-	6,100	1,900	380	250	340	-	-	-	-	-	-	-	-	-	-	-
	7/27/1994	a	-	-	6,000	1,800	510	220	450	-	-	-	-	-	-	-	-	-	-	-
	10/27/1994	a	-	-	3,000	1,100	79	82	87	-	-	-	-	-	-	-	-	-	-	-
	1/26/1995	a	-	-	1,600	660	100	82	87	-	-	-	-	-	-	-	-	-	-	-
	4/13/1995	a	-	-	3,800	1,200	270	120	260	-	-	-	-	-	-	-	-	-	-	-
	7/21/1995	a	-	-	5,200	1,500	450	190	400	-	-	-	-	-	-	-	-	-	-	-
	10/25/1995	a	-	-	5,900	1,800	450	210	400	-	-	-	-	-	-	-	-	-	-	-
	1/21/1997	a	-	-	3,100	1,100	87	160	180	<7.3	-	-	-	-	-	-	-	-	-	-
	11/12/1998	a	-	-	1,000	280	3	3.3	7.9	<30	-	-	-	-	-	-	-	-	-	-
	1/16/2001	a	-	-	4,700	1,20	18	150	49	-	<5	<5.0	<25	<5.0	<5.0	<5.0	-	<5.0	-	-
	6/27/2002	a	-	-	5,900	230	7.7	<5	1,500	-	<5	<5.0	<50	<5.0	<5.0	<5.0	-	<5.0	-	-
	11/18/2002	a	-	-	3,100	890	12	310	28	-	<2.5	-	-	<2.5	<2.5	-	-	-	-	-
	2/20/2003	d	-	-	260	100	0.72	<0.5	<0.5	-	<0.5	-	-	<0.5	<0.5	-	-	-	-	-
	6/11/2003	a	-	-	3,100	480	6.7	220	420	-	<2.5	-	-	<2.5	<2.5	-	-	-	-	-
	4/3/2008	a	-	-	2,700	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	a	-	-	610	100	6.2	46	77	-	<2.5	<2.5	<10	-	-	<2.5	-	<2.5	-	-
	12/6/2011	a	-	-	900	160	<5.0	68	76	-	<5.0	<5.0	<20	-	-	<5.0	-	<5.0	-	-
	1/24/2012	a	-	-	190	25	<1.0	1.4	4.6	<1.0	-	-	-	-	-	-	-	-	-	-
	5/18/2012	f	210	<250	2,600	200	51	93	610	<5.0	-	-	-	-	-	-	-	-	-	-
	7/11/2012	a	700	<250	2,700	190	8.1	100	230	<5.0	-	-	-	-	-	-	-	-	-	-
	11/16/2012	c	140	<250	370	71	<1.7	<1.7	<1.7	<1.7	-	-	-	-	-	-	-	-	-	-

Table 3

Groundwater Analytical Data- Monitoring Wells

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

Sample ID	Date	Notes	TPH-d	TPH-mo	TPH-g	Benzene	Toluene	Ethylbenzene	Xylenes	MTBE	MTBE	TAME	TBA	EDB	1,2-DCA	DIPE	Ethanol	ETBE	Methanol	Lead
					EPA Methods 8020, 8021B, or 8260B						EPA Method 8260B									
			(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)
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	a	-	-	52,000	13,000	8,400	1,700	5,300	-	-	-	-	-	-	-	-	-	-	-
	7/8/1993	a	-	-	6,400	2,500	470	280	530	-	-	-	-	-	-	-	-	-	-	-
	10/15/1993	a	-	-	17,000	3,900	870	500	940	-	-	-	-	-	-	-	-	-	-	-
	1/25/1994	a	-	-	16,000	5,400	1,140	640	1,500	-	-	-	-	-	-	-	-	-	-	-
	4/28/1994	a	-	-	15,000	4,00	910	480	1,200	-	-	-	-	-	-	-	-	-	-	-
	7/27/1994	a	-	-	18,000	6,000	760	630	1,600	-	-	-	-	-	-	-	-	-	-	-
	10/27/1994	a	-	-	9,500	2,700	230	320	640	-	-	-	-	-	-	-	-	-	-	-
	1/26/1995	a	-	-	5,900	1,900	290	230	500	-	-	-	-	-	-	-	-	-	-	-
	4/13/1995	a	-	-	10,000	3,300	620	360	930	-	-	-	-	-	-	-	-	-	-	-
	7/21/1995	a	-	-	9,900	3,300	320	390	830	-	-	-	-	-	-	-	-	-	-	-
	10/25/1995	a	-	-	13,000	4,900	400	580	990	-	-	-	-	-	-	-	-	-	-	-
	1/21/1997	a	-	-	7,600	2,600	310	330	660	<20	-	-	-	-	-	-	-	-	-	-
	11/12/1998	a	-	-	31,000	11,000	750	1,500	2,300	<900	-	-	-	-	-	-	-	-	-	-
	1/16/2001	a	-	-	23,000	8,200	260	1,000	820	<30	-	<30	<150	<30	<30	<30	-	<30	-	-
	6/27/2002	a	-	-	39,000	7,000	1,800	690	4,000	-	<5	<5.0	<5.0	<5.0	6.1	<5.0	-	<5.0	-	-
	11/18/2002	a	-	-	15,000	5,700	76	1,000	150	-	<12	-	-	<12	<12	-	-	-	-	-
	2/20/2003	a	-	-	26,000	6,300	1,100	1,300	1,900	-	<5.0	-	-	<5.0	<5.0	-	-	-	-	-
	6/11/2003	a	-	-	37,000	7,100	2,300	2,000	3,600	-	<25	-	-	<25	<25	-	-	-	-	-
	4/3/2008	a	-	-	4,100	760	96	250	130	<50	<2.5	<2.5	<10	<2.5	<2.5	<2.5	<250	<2.5	<2,500	<0.5
	6/23/2011	a	-	-	6,500	2,100	210.0	560	310	-	<50	<50	<200	-	-	<50	-	<50	-	-
	12/6/2011	a	-	-	4,800	1,600	<50	260	<50	-	<50	<50	<200	-	-	<50	-	<50	-	-
	1/24/2012	a	-	-	2,500	100	22.0	<5.0	410	<5.0	-	-	-	-	-	-	-	-	-	-
	5/18/2012	f	68	<250	140	14	2.8	2.9	12	<0.5	-	-	-	-	-	-	-	-	-	-
	7/11/2012	a	270	<250	930	170	<5.0	24	9.3	<5.0	-	-	-	-	-	-	-	-	-	-
	11/16/2012	c	200	<250	340	15	1.4	5.4	2.1	<0.5	-	-	-	-	-	-	-	-	-	-

Table 3

Groundwater Analytical Data- Monitoring Wells

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

Sample ID	Date	Notes	TPH-d	TPH-mo	TPH-g	Benzene	Toluene	Ethylbenzene	Xylenes	MTBE	MTBE	TAME	TBA	EDB	1,2-DCA	DIPE	Ethanol	ETBE	Methanol	Lead
					EPA Methods 8020, 8021B, or 8260B						EPA Method 8260B									
			(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)
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	a	-	-	6,500	2,600	280	260	190	-	-	-	-	-	-	-	-	-	-	-
	7/8/1993	a	-	-	5,200	2,100	260	250	180	-	-	-	-	-	-	-	-	-	-	-
	10/15/1993	a	-	-	11,000	3,500	580	430	370	-	-	-	-	-	-	-	-	-	-	-
	1/25/1994	a	-	-	6,200	2,500	270	160	28	-	-	-	-	-	-	-	-	-	-	-
	4/28/1994	a	-	-	5,300	1,700	190	210	180	-	-	-	-	-	-	-	-	-	-	-
	7/27/1994	a	-	-	5,900	2,000	360	260	330	-	-	-	-	-	-	-	-	-	-	-
	10/27/1994	a	-	-	8,000	2,200	580	260	170	-	-	-	-	-	-	-	-	-	-	-
	1/26/1995	a	-	-	3,700	1,200	150	150	190	-	-	-	-	-	-	-	-	-	-	-
	4/13/1995	a	-	-	4,000	1,400	200	180	210	-	-	-	-	-	-	-	-	-	-	-
	7/21/1995	a	-	-	5,700	2,000	280	270	280	-	-	-	-	-	-	-	-	-	-	-
	10/25/1995	a	-	-	11,000	3,500	1,100	460	680	-	-	-	-	-	-	-	-	-	-	-
	1/21/1997	a	-	-	2,200	860	63	71	80	<5	-	-	-	-	-	-	-	-	-	-
	11/12/1998	d	-	-	180	44	0.51	<0.5	0.92	<20	-	-	-	-	-	-	-	-	-	-
	1/16/2001	a	-	-	64	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	a	-	-	110	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	a	-	-	7,600	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	a	-	-	1,300	560	21	86	150	-	<12	<12	<50	-	-	<12	-	<12	-	-
	12/6/2011	a	-	-	1,800	620	28	22	46	-	<17	<17	<67	-	-	<17	-	<17	-	-
	1/24/2012	a	-	-	3,700	1,200	68	34	130	<25	-	-	-	-	-	-	-	-	-	-
	5/18/2012	f	<50	<250	75	5.3	<0.5	<0.5	1.6	<0.5	-	-	-	-	-	-	-	-	-	-
	7/11/2012	a	<50	<250	78	1.4	0.66	<0.5	5.5	<0.5	-	-	-	-	-	-	-	-	-	-
	11/16/2012		<50	<250	<50	<0.5	<0.5	<0.5	<0.5	<0.5	-	-	-	-	-	-	-	-	-	-

Table 3

Groundwater Analytical Data- Monitoring Wells

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

Sample ID	Date	Notes	TPH-d	TPH-mo	TPH-g	Benzene	Toluene	Ethylbenzene	Xylenes	MTBE	MTBE	TAME	TBA	EDB	1,2-DCA	DIPE	Ethanol	ETBE	Methanol	Lead
					EPA Methods 8020, 8021B, or 8260B						EPA Method 8260B									
			(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)
MW-4	4/28/1994	b,c	-	-	190	3.8	2.9	2.1	3.1	-	-	-	-	-	-	-	-	-	-	-
	7/27/1994	a	-	-	180	15	9.2	7.6	28	-	-	-	-	-	-	-	-	-	-	-
	10/27/1994	a	-	-	130	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	-	-	-	-	-	-	-	-	-	-	-
	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	a	-	-	53	2.7	<0.5	1.0	1.7	-	<0.5	<0.5	<2.0	-	-	<0.5	-	<0.5	-	-
	5/23/2012	f	<50	<250	<50	<0.5	<0.5	<0.5	<0.5	<0.5	-	-	-	-	-	-	-	-	-	-
	7/11/2012	g	<50	<250	<50	<0.5	<0.5	<0.5	<0.5	<0.5	-	-	-	-	-	-	-	-	-	-
	11/16/2012	c	360	<250	440	3.4	<0.5	1.2	2.1	<0.5	-	-	-	-	-	-	-	-	-	-
MW-5	4/28/1994	a	-	-	30,000	4,000	3,000	810	3,500	-	-	-	-	-	-	-	-	-	-	-
	7/27/1994	a	-	-	9,300	2,000	800	290	940	-	-	-	-	-	-	-	-	-	-	-
	10/27/1994	a	-	-	15,000	2,700	1,300	420	1,100	-	-	-	-	-	-	-	-	-	-	-
	1/26/1995	a	-	-	7,900	2,100	680	240	860	-	-	-	-	-	-	-	-	-	-	-
	4/13/1995	a	-	-	7,900	2,400	580	340	630	-	-	-	-	-	-	-	-	-	-	-
	7/21/1995	a	-	-	11,000	3,400	760	610	1,200	-	-	-	-	-	-	-	-	-	-	-
	10/25/1995	a	-	-	13,000	2,900	830	570	1,100	-	-	-	-	-	-	-	-	-	-	-
	1/21/1997	a	-	-	2,600	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	a	-	-	130	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	a	-	-	170	48	<0.5	<0.5	1.4	-	<0.5	-	-	<0.5	<0.5	-	-	-	-	-
	4/3/2008	a	-	-	31,000	490	3,400	1,600	5,300	<250	<10	<10	<40	<10	<10	<10	<1,000	<10	<10,000	<0.5
	6/23/2011	a	-	-	82	5.1	<0.5	12.0	8.4	-	<0.5	<0.5	<2.0	-	-	<0.5	-	<0.5	-	-
	5/18/2012	f	<50	<250	120	<0.5	<0.5	<0.5	<0.5	<0.5	-	-	-	-	-	-	-	-	-	-
	7/11/2012	g	<50	<250	<50	<0.5	<0.5	<0.5	<0.5	<0.5	-	-	-	-	-	-	-	-	-	-
	11/16/2012	c	450	<250	580	27	1.7	6.7	7.1	<0.5	-	-	-	-	-	-	-	-	-	-

Table 3

Groundwater Analytical Data- Monitoring Wells

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

Sample ID	Date	Notes	TPH-d	TPH-mo	TPH-g	Benzene	Toluene	Ethylbenzene	Xylenes	MTBE	MTBE	TAME	TBA	EDB	1,2-DCA	DIPE	Ethanol	ETBE	Methanol	Lead
					EPA Methods 8020, 8021B, or 8260B						EPA Method 8260B									
			(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)
DPE-1	12/6/2011	a	-	-	9,200	1,800	570	460	1,100	-	<50	<50	<200	-	-	<50	-	<50	-	-
	1/24/2012	a	-	-	3,200	170	58	<5.0	620	<5.0	-	-	-	-	-	-	-	-	-	-
	5/18/2012	f	280	<250	540	49	<1.0	<1.0	17	<1.0	-	-	-	-	-	-	-	-	-	-
	7/11/2012	a	860	<250	2,300	240	15	98	88	<5.0	-	-	-	-	-	-	-	-	-	-
	11/16/2012	c	360	<250	580	3.3	<0.5	2.2	2.8	<0.5	-	-	-	-	-	-	-	-	-	-
DPE-2	12/6/2011	a	-	-	22,000	2,100	3,300	650	3,300	-	<100	<100	<400	-	-	<100	-	<100	-	-
	1/24/2012	a	-	-	1,100	44	26	11	150	<2.5	-	-	-	-	-	-	-	-	-	-
	5/18/2012	f	<50	<250	220	33	3.2	<0.5	30	<0.5	-	-	-	-	-	-	-	-	-	-
	7/11/2012	a	400	<250	2,600	300	12	45	390	<10	-	-	-	-	-	-	-	-	-	-
	11/16/2012		<50	<250	<50	3.4	<0.5	<0.5	<0.5	<0.5	-	-	-	-	-	-	-	-	-	-
DPE-3	12/6/2011	a	-	-	6,400	550	560	180	1,000	-	<17	<17	<67	-	-	<17	-	<17	-	-
	1/24/2012	a	-	-	5,500	290	240	44	1,000	<5.0	-	-	-	-	-	-	-	-	-	-
	5/18/2012	f	260	<250	1,100	78	37	11	89	<1.7	-	-	-	-	-	-	-	-	-	-
	7/11/2012	a	720	<250	2,400	330	19	10	130	<10	-	-	-	-	-	-	-	-	-	-
DPE-4	1/24/2012	a	-	-	730	66	6.0	7.1	83	2.5	-	-	-	-	-	-	-	-	-	-
	5/18/2012	f	<50	<250	<50	<0.5	<0.5	<0.5	<0.5	<0.5	-	-	-	-	-	-	-	-	-	-
	7/11/2012		<50	<250	<50	<0.5	<0.5	<0.5	<0.5	<0.5	-	-	-	-	-	-	-	-	-	-
	11/16/2012		<50	<250	<50	<0.5	<0.5	<0.5	<0.5	<0.5	-	-	-	-	-	-	-	-	-	-
DPE-5	11/16/2012	h	560	1,400	<50	<0.5	<0.5	<0.5	<0.5	<0.5	-	-	-	-	-	-	-	-	-	-
DPE-6	1/24/2012	a	-	-	64*	<0.5	<0.5	<0.5	3.2	<0.5	-	-	-	-	-	-	-	-	-	-
	5/18/2012	f	<50	<250	<50	<0.5	<0.5	<0.5	<0.5	<0.5	-	-	-	-	-	-	-	-	-	-
	7/11/2012	g	<50	<250	<50	0.93	<0.5	<0.5	<0.5	<0.5	-	-	-	-	-	-	-	-	-	-
	11/16/2012		<50	<250	<50	<0.5	<0.5	<0.5	<0.5	<0.5	-	-	-	-	-	-	-	-	-	-
DPE-8	11/16/2012	c	460	<250	630	13	<0.5	1.1	19	<0.5	-	-	-	-	-	-	-	-	-	-
DPE-9	1/24/2012	a	<50	<250	4,400	160	390	93	1,100	<5.0	-	-	-	-	-	-	-	-	-	-
	7/11/2012	a	680	<250	1,300	47	3.1	4.0	100	<1.7	-	-	-	-	-	-	-	-	-	-
	11/16/2012	c	470	<250	530	4.7	<0.5	0.78	2.3	<0.5	-	-	-	-	-	-	-	-	-	-
DPE-10	5/18/2012	f	420	<250	1,700	150	<5.0	<5.0	<5.0	160	-	-	-	-	-	-	-	-	-	-
	7/11/2012	a	160	<250	360	40	<1.0	<1.0	<1.0	<1.0	-	-	-	-	-	-	-	-	-	-
	11/16/2012		<50	<250	79	4.9	<0.5	<0.5	<0.5	<0.5	-	-	-	-	-	-	-	-	-	-
DPE-11	5/18/2012	f	260	<250	930	6.4	4.6	4.6	160	<1.2	-	-	-	-	-	-	-	-	-	-
	7/11/2012	a	1,600	<250	2,400	16	<1.0	14	57	<1.0	-	-	-	-	-	-	-	-	-	-
	11/16/2012	c	540	<250	860	5.3	<0.5	0.81	1.2	<0.5	-	-	-	-	-	-	-	-	-	-
ESL			100	100	100	1.0	40	30	20	5.0	5.0	NA	12	0.05	0.5	NA	NA	NA	NA	2.5

Table 3

Groundwater Analytical Data- Monitoring Wells

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

Sample ID	Date	Notes	TPH-d	TPH-mo	TPH-g	Benzene	Toluene	Ethylbenzene	Xylenes	MTBE	MTBE	TAME	TBA	EDB	1,2-DCA	DIPE	Ethanol	ETBE	Methanol	Lead
			EPA Methods 8020, 8021B, or 8260B								EPA Method 8260B									
			(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)

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
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
"-" = Not analyzed or data not available
µg/L = micrograms per liter (ppb)
ESL = Environmental Screening Levels, Table F-1a, Gorunwater, Potential Drinking Water, San Francisco Regional Water Quality Control Board, Revised May 2008
NA = Not applicable

a = Laboratory note indicates the unmodified or weakly modified gasoline is significant.
b = Laboratory note indicates heavier gasoline range compounds are significant (aged gas?).
c = Laboratory note indicates gasoline range compounds are significant with no recognizable pattern.
d = Laboratory note indicates that lighter gasoline range coounds (the most mobile fraction) are significant.
e = Laboratory note indicates that one to a few isloated non-targed peaks are present.
f = Laboratory note indicates that low surrogate due to matrix interference.
g = Surrogate recovery exceeds the control limits due to dilution / matrix interference / coelution / presence of surrogate compound in the sample
h = Laboratory note indicates that diesel & oil range compounds are significant

* Total petroleum hydrocarbons as diesel = <50; Total petroleum hydrocarbons as motor oil = <250

Table 4

Soil Vapor Analytical Data

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

Sample ID	Date	TPH-g & TVH (µg/m3)	Benzene (µg/m3)	Toluene (µg/m3)	Ethylbenzene (µg/m3)	Xylenes (µg/m3)	TBA (µg/m3)	Isopropyl Alcohol (µg/m3)	MTBE (µg/m3)	TAME (µg/m3)	DIPE (µg/m3)	ETBE (µg/m3)	Naphthalene (µg/m3)	Other VOCs (µg/m3)	CO2 (µL/L)	Methane (µL/L)	Nitrogen (µL/L)	Oxygen (µL/L)
VP-1	5/17/2012	<1,800	<6.5	<7.7	<8.8	<27	<62	<50										
	7/12/2012	<1,800	<6.5	<7.7	<8.8	<27	<62	<50	<7.3	<8.5	<8.5	<8.5	<11	-	17,000	<1.0	-	270,000
	11/16/2012	<2,700	<9.7	<11	<13	<40	<93	<50	<11	<13	<13	<13	<16	500[a],63[b]	25,000	<1.5	750,000	180,000
VP-2	5/17/2012	<1,800	<6.5	<7.7	<8.8	<27	<62	<50										
	7/12/2012	<1,800	<6.5	<7.7	<8.8	<27	230	<50	<7.3	<8.5	<8.5	<8.5	<11	-	13,000	<1.0	-	280,000
	11/16/2012	<1,800	<6.5	<7.7	<8.8	<27	95	<50	<7.3	<8.5	<8.5	<8.5	<11	95[d],110[c], 230[a],72[b]	23,000	<1.0	610,000	180,000
VP-3	5/17/2012	<1,800	<6.5	<7.7	<8.8	<27	<62	<50										
	7/12/2012	<1,800	<6.5	<7.7	<8.8	<27	<62	**290***	<7.3	<8.5	<8.5	<8.5	<11	-	24,000	1.1	-	280,000
	11/16/2012	<1,900	<6.9	<8.2	<9.3	<29	<66	<50	<7.7	<9.0	<9.0	<9.0	<12	260[a]	8,500	1.5	630,000	210,000
ESL		29,000	280	180,000	3,300	58,000	NA	NA	31,000	NA	NA	NA	240		NA	NA	NA	NA

TPH-g= total petroleum hydrocarbons as gasoline
TVH= Total volatile hydrocarbons -aliphatics
TBA - tert-Butyl-alchohol
µg/m3 = micrograms per cubic meter (ppbv)
290* = Isoproyl alchohol used as leak check compound.
NA = Not applicable
ESL = Environmental Screening Levels, Table E-2, San Francisco Regional Water Quality Control Board (Shallow Soil Gas- Lowest Commercial), Revised May 2008

MTBE= Methyl-tert-butyl ether
TAME= Tert-amyl methyl ether
DIPE= Di-isopropyl ether
ETBE= Ethyl tert-butyl ether
a = Hexane
b = Tetrachloroethene
c = Ethanol
d = Tert-butyl alcohol

APPENDIX A

FIELD SAMPLING FORMS

AEI CONSULTANTS

GROUNDWATER MONITORING WORK ORDER (LOW-FLOW PURGING & SAMPLING)

Project Name: Foley Street Investments
Project Number: 298931

Activity	Hours Budget	Actual

Client Contact: John Buestad
Project Manager: Bob Robitaille
Gate / System Combo:
PO Number:
Scheduled Work Date: Nov 16,2012
Flexible: YES (NO)

Site Contact: N/A
Site Phone: N/A
Site Address: 1630 Park St.
Alameda, CA 94501

Summary of Work Requested

Groundwater ans Soil Vapor Monitoring Event

1) Measure DTW and sample **All Groundwater** wells using low-flow purging and sampling method.
2) Run the peristaltic pump at 150 rpms x 1.67 ml/rev = 250 ml/min, or less.
3) Stabilization criteria: pH ±0.1; conductivity ±3%; DO ±10%; ORP ±10 mV.
4) Collect at least three **(3) 40-mL VOAs** and one **(1) amber liter** from each well.
5) Collect **Soil Vapor** samples from **VP-1, 2 and 3.**
6) Use **1-Liter summa** cannisters equipped with **150 ml/min** regulators.
7) Stop pulling sample when ~5 in.Hg vacuum remaining in canister.
8) Inventory Drums at Site. Make sure all of ours are labeled.

Completed	Not Completed	
☑	○	1. Removed standing water from well boxes; removed well caps; allowed water levels to stabilize.
☑	○	2. Checked the depth to water in each well sampled before and after purging and sampling.
☑	○	3. Continously purged up to 10 liters of groundwater using peristaltic pump and flow-thru cell.
☑	○	4. Recorded temp, pH, sc, DO, and ORP readings until stabilization criteria was achieved (see above).
☑	○	5. Noted appearance of purge water (clear, dark, milky, etc.) and if an immiscible sheen was present.
☑	○	6. Collected three (3) 40-ml VOA vials per well, capped with zero head space (no bubbles in the VOAs).
☑	○	7. Noted condition of well boxes, well casing, and well plug; recorded wellhead info on the field sheets.
☑	○	8. Recorded the amount of consumables (bailers, drums, well plugs, tubing, etc.) used.
☑	○	9. Labeled purge water drums; recorded the total number of drums used and left onsite below.
☑	○	10. Transported samples on water ice to McCampbell Analytical, Inc. of Pittsburg, CA for analyses.

Lab Analyses: See Chain-of-Custody

Turnaround Time: Rush 24 hours 48 hours 72 hours (Standard)

Consumables: # of Bailers: 0 # of Drums: 1 # of Well Plugs: 0

AEI CONSULTANTS

GROUNDWATER MONITORING WORK ORDER (LOW-FLOW PURGING & SAMPLING)

Drums Onsite: # of Water: 1 # of Soil: 1 # of Other: 0

Requested by PM: _____ Completed by Tech: John Sigg

Groundwater Notes:

Need traffic control to access MW-4. Coordinate with Robitaille and/or Campbell.

During each monitoring event, water levels will be measured, and for new wells, light non-aqueous phase liquid (LNAPL) will be checked with an oil-water interface probe. Wells not containing measurable LNAPL will be purged using low flow sampling techniques until field readings have stabilized. During purging the following water quality measurements will be collected: temperature, pH, specific conductivity, and dissolved oxygen (DO). Groundwater samples will be collected into appropriate laboratory-supplied containers using the purge tubing which will consist of new, unused disposable tubing for each well. Samples will then be logged onto the Chain of Custody and placed in a cooler with water ice. All samples will be delivered to a state certified laboratory under Chain of Custody documentation.

One groundwater sample will be analyzed from each well for TPHmo and TPHd by EPA method 8015 Modified with silica gel cleanup, TPHg by EPA method 8015 Modified, and BTEX & MTBE by EPA method 8260B.

Soil Vapor Notes:

To begin, a 1 liter summa canister connected to a flow controller, will be connected to the probe sampling lines. Prior to collecting the sample, soil vapor will be withdrawn from the inert tubing using a calibrated syringe connected via an on-off valve. A total of three purge volumes will be removed from each probe. Following purging, soil gas will be monitoring with an Eagle ® field meter for oxygen (O2), carbon dioxide (CO2), and total hydrocarbons. The sample canister will then be connected, opened, and the initial vacuum recorded. Vapor samples will be collected through the regulator at approximately 150 mL/minute. Upon reaching approximately 5 in Hg vacuum in the canister, the canister will be closed and removed from the sampling line. Samples will be appropriately labeled and entered onto the chain of custody prior to shipping to the laboratory. During sampling, a leak check gas will be used to confirm that the sample train was tight and leak free.

All vapor samples will be sealed and labeled immediately upon collection. Chain of custody documentation will be initiated prior to leaving the site. All samples will be shipped to a state certified laboratory on the day of collection. Soil vapor samples will be analyzed by EPA Method TO-3 for total petroleum hydrocarbons as gasoline (TPHg) and by EPA Method TO-15 for benzene, toluene, ethylbenzene, and xylenes (BTEX) & Naphthalene, N_2, CH_4, O_2, CO_2.

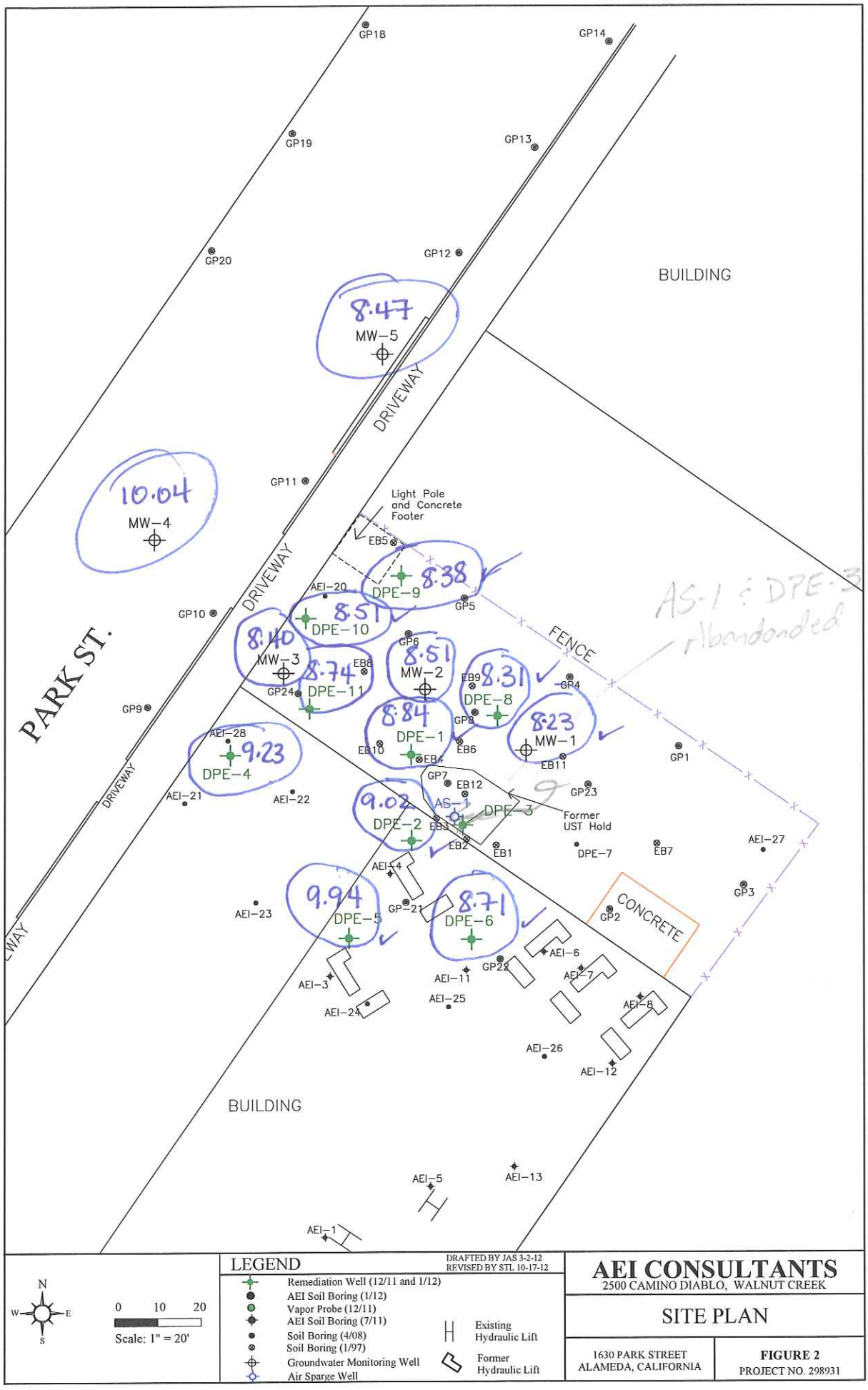
Table 9

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	0.02	20 - 25	#3 Sand
DPE-1	11/15/2011	25.88	PVC	16	15	10	4	7 - 15	0.01	6.5 - 16	#2/12 Sand
DPE-2	11/15/2011	26.22	PVC	16	15	10	4	7 - 15	0.01	6.5 - 16	#2/12 Sand
DPE-3	11/14/2011	25.27	PVC	16	14	10	4	7 - 14	0.01	6.5 - 16	#2/12 Sand
DPE-4	1/19/2012	26.06	PVC	17	17	10	4	8 - 17	0.01	7.5 - 17	#2/12 Sand
DPE-5	1/20/2012	26.25	PVC	18	18	10	4	8 - 18	0.01	7.5 - 18	#2/12 Sand
DPE-6	1/20/2012	26.13	PVC	18	18	10	4	8 - 18	0.01	7.5 - 18	#2/12 Sand
DPE-8	1/20/2012	25.36	PVC	18	18	10	4	8 - 18	0.01	7.5 - 18	#2/12 Sand
DPE-9	1/20/2012	25.09	PVC	18	18	10	4	8 - 18	0.01	7.5 - 18	#2/12 Sand
DPE-10	1/20/2012	25.14	PVC	17	17	10	4	8 - 17	0.01	7.5 - 17	#2/12 Sand
DPE-11	1/20/2012	25.57	PVC	18	18	10	4	8 - 18	0.01	7.5 - 18	#2/12 Sand
MW-1	1/15/1987	25.37	PVC	-	20	8	2	5 - 20	-	-	-
MW-2	1/15/1987	25.48	PVC	-	20	8	2	5 - 20	-	-	-
MW-3	1/15/1987	25.13	PVC	-	20	8	2	5 - 20	-	-	-
MW-4	4/20/1994	25.58	PVC	-	23	8	2	8 - 23	-	-	-
MW-5	4/20/1994	24.31	PVC	-	22	8	2	7 - 22	-	-	-
VP-1	12/6/2011	-	Poly/SS	6	6	1.25	1/4	5.1 - 5.6	Mesh	4.7 - 6	#30 Mesh Sand
VP-2	12/6/2011	-	Poly/SS	5.9	5.9	1.25	1/4	5.1-5.6	Mesh	4.7-5.9	#30 Mesh Sand
VP-3	12/6/2011	-	Poly/SS	5.75	5.75	1.25	1/4	5.1-5.6	Mesh	4.7-5.75	#30 Mesh Sand

PVC = polyvinyl chloride
Poly/SS = Polyethelene tubing with stainless-steel tip
TOC = top of casing
"-" = not available


GP18
GP14
GP19
GP13
GP20
GP12
BUILDING
8.47
MW-5
DRIVEWAY
10.04
MW-4
GP11
Light Pole and Concrete Footer
EB5
8.38
DPE-9
AEI-20
8.51
DPE-10
GP5
GP10
DRIVEWAY
PARK ST.
8.40
MW-3
8.74
DPE-11
EB8
GP24
GP6
8.51
MW-2
FENCE
AS-1 & DPE-3 Abandoned
EB9
8.31
DPE-8
GP4
GP9
8.84
DPE-1
GP8
8.23
MW-1
EB10
EB4
EB6
EB11
GP1
AEI-28
9.23
DPE-4
GP7
EB12
GP23
AEI-21
AEI-22
9.02
DPE-2
AS-1
DPE-3
Former UST Hold
EB3
EB2
EB1
DPE-7
EB7
AEI-27
AEI-14
GP3
9.94
DPE-5
GP21
8.71
DPE-6
CONCRETE
GP2
AEI-23
AEI-6
GP22
AEI-11
AEI-7
AEI-3
AEI-25
AEI-8
AEI-24
AEI-26
AEI-12
BUILDING
AEI-5
AEI-13
AEI-1
N
W
E
S
0 10 20
Scale: 1" = 20'
LEGEND
DRAFTED BY JAS 3-2-12
REVISED BY STL 10-17-12
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
Air Sparge Well
Existing Hydraulic Lift
Former Hydraulic Lift
AEI CONSULTANTS
2500 CAMINO DIABLO, WALNUT CREEK
SITE PLAN
1630 PARK STREET
ALAMEDA, CALIFORNIA
FIGURE 2
PROJECT NO. 298931

AEI CONSULTANTS

GROUNDWATER MONITORING WELL FIELD SAMPLING FORM

Monitoring Well Number: MW-1

Project Name:	Buestad	Date of Sampling:	11/16/12
Job Number:	298931	Name of Sampler:	J. Sagg
Project Address:	1630 Park Street, Alameda, CA		

MONITORING WELL DATA

Well Casing Diameter (2"/4"/6")	2			
Well & Wellhead Condition	good			
Elevation of Top of Casing (feet above msl)				
Depth of Well	20.00			
Depth to Water (from top of casing)	Before: 8.23		After: 8.25	
Water Elevation (feet above msl)	Before:		After:	
Purging and Sampling Method	Low-Flow (Minimal Drawdown) Purging / Sampling			
Well Volumes Purged	Micropurged			
Pump Speed (Default = 300 rpms)	300 Rpm			
Estimated Purge Rate-ml/min(Pump Speed * 1.67 ml/rev)	.5 liter / Min			
Actual Volume Purged (liters)	5			
Appearance of Purge Water/Turbidity/Color	Clear			
Free Product Present?		Thickness (ft):		

Purging Equipment/Pump: (Peristalic)/ bladder/ centrifugal/ submersible

GROUNDWATER SAMPLES

Number of Samples / Container Size: Three (3) 40mL VOAs (HCL)

Time	Volume Removed ~~(gallons)~~	Temp (C°)	Conductivity (µS/cm)	DO (mg/L)	pH	ORP (meV)	Comments
0734	1	19.27	804	2.08	7.73	-102.3	Clear
	2	19.30	795	1.82	7.73	-101.1	"
	3	19.32	790	1.27	7.71	-98.7	"
	4	19.33	788	1.15	7.70	-97.3	"
0745	5	19.34	787	1.01	7.70	-95.2	"

Stabilization criteria: pH +/- 0.1; conductivity +/- 3%; DO +/- 10%; ORP +/- 10 meV

Odor	No
Recharge time %	> 90%
Duplicate sample	No
Pump intake depth	17 FT
Sample method	Pump
bailer/from pump/system	

COMMENTS

AEI CONSULTANTS

GROUNDWATER MONITORING WELL FIELD SAMPLING FORM

Monitoring Well Number: MW-2

Project Name:	Buestad	Date of Sampling:	11/16/12
Job Number:	298931	Name of Sampler:	J. Stipp
Project Address:	1630 Park Street, Alameda, CA		

MONITORING WELL DATA

Well Casing Diameter (2"/4"/6")	2
Wellhead Condition	GOOD
Elevation of Top of Casing (feet above msl)	
Depth of Well	20.00
Depth to Water (from top of casing)	Before: 8.51 After: 8.53
Water Elevation (feet above msl)	Before: After:
Purging and Sampling Method	Low-Flow (Minimal Drawdown) Purging / Sampling
Well Volumes Purged	micropurged
Pump Speed (Default = 300 rpms)	300 rpm
Estimated Purge Rate-ml/min(Pump Speed * 1.67 ml/rev)	.5 Liter / Min
Actual Volume Purged (liters)	5
Appearance of Purge Water/Turbidity/Color	Clear
Free Product Present?	Thickness (ft):

Purging Equipment/Pump: Peristalic/ bladder/ centrifugal/ submersible

GROUNDWATER SAMPLES

Number of Samples / Container Size: Three (3) 40mL VOAs (HCL)

Time	Volume Removed ~~(gallons)~~	Temp (C°)	Conductivity (µS/cm)	DO (mg/L)	pH	ORP (meV)	Comments
0905	1	19.34	1082	6.82	7.82	-153.2	Clear
	2	19.36	1080	4.73	7.80	-151.7	"
	3	19.36	1078	2.86	7.80	-150.1	"
	4	19.37	1076	2.07	7.79	-148.9	"
0915	5	19.37	1075	1.88	7.79	-148.1	"

Stabilization criteria: pH +/- 0.1; conductivity +/- 3%; DO +/- 10%; ORP +/- 10 meV

Odor	YES
Recharge time %	>90%
Duplicate sample	NO
Pump intake depth	17 FT
Sample method	PUMP
bailer/from pump/system	

COMMENTS

Slight gas smell

AEI CONSULTANTS

GROUNDWATER MONITORING WELL FIELD SAMPLING FORM

Monitoring Well Number: MW-3

Project Name:	Buestad	Date of Sampling:	11/16/12
Job Number:	298931	Name of Sampler:	G. Sigg
Project Address:	1630 Park Street, Alameda, CA		

MONITORING WELL DATA

Well Casing Diameter (2"/4"/6")	2			
Wellhead Condition	good			
Elevation of Top of Casing (feet above msl)				
Depth of Well	20.00			
Depth to Water (from top of casing)	Before: 8.40	After: 8.41		
Water Elevation (feet above msl)	Before:	After:		
Purging and Sampling Method	Low-Flow (Minimal Drawdown) Purging / Sampling			
Well Volumes Purged	Micropurged			
Pump Speed (Default = 300 rpms)	300 RPM			
Estimated Purge Rate-ml/min(Pump Speed * 1.67 ml/rev)	.5 Liter / Min.			
Actual Volume Purged (liters)	5			
Appearance of Purge Water/Turbidity/Color	Clear			
Free Product Present?		Thickness (ft):		

Purging Equipment/Pump: Peristalic/ bladder/ centrifugal/ submersible

GROUNDWATER SAMPLES

Number of Samples / Container Size: Three (3) 40mL VOAs (HCL)

Time	Volume Removed ~~(gallons)~~	Temp (C°)	Conductivity (µS/cm)	DO (mg/L)	pH	ORP (meV)	Comments
1034	1	19.28	702	4.25	7.82	-121.3	
	2	19.30	697	3.71	7.80	-118.7	
	3	19.32	695	2.29	7.80	-116.2	
	4	19.32	693	1.97	7.80	-115.7	
1045	5	19.34	690	1.62	7.80	-115.1	

Stabilization criteria: pH +/- 0.1; conductivity +/- 3%; DO +/- 10%; ORP +/- 10 meV

Odor	NO
Recharge time %	> 90%
Duplicate sample	NO
Pump intake depth	17 FT
Sample method	PUMP
bailer/from pump/system	

COMMENTS

AEI CONSULTANTS

GROUNDWATER MONITORING WELL FIELD SAMPLING FORM

Monitoring Well Number: MW-4

Project Name:	Buestad	Date of Sampling:	11/16/12
Job Number:	298931	Name of Sampler:	J. Sapp
Project Address:	1630 Park Street, Alameda, CA		

MONITORING WELL DATA

Well Casing Diameter (2"/4"/6")	2
Wellhead Condition	good
Elevation of Top of Casing (feet above msl)	
Depth of Well	23.00
Depth to Water (from top of casing)	Before: 10.04 After: 10.05
Water Elevation (feet above msl)	Before: After:
Purging and Sampling Method	Low-Flow (Minimal Drawdown) Purging / Sampling
Well Volumes Purged	micropurged
Pump Speed (Default = 300 rpms)	300 Rpm
Estimated Purge Rate-ml/min(Pump Speed * 1.67 ml/rev)	.5 Liter / min
Actual Volume Purged (liters)	5
Appearance of Purge Water/Turbidity/Color	Clear
Free Product Present?	Thickness (ft):

Purging Equipment/Pump: Peristalic/ bladder/ centrifugal/ submersible

GROUNDWATER SAMPLES

Number of Samples / Container Size: Three (3) 40mL VOAs (HCL)

Time	Volume Removed (~~gallons~~)	Temp (C°)	Conductivity (µS/cm)	DO (mg/L)	pH	ORP (meV)	Comments
0405	1	19.34	382	5.04	7.57	-132.8	
	2	19.36	380	4.82	7.55	-130.1	
	3	19.38	380	4.67	7.55	-128.6	
	4	19.38	383	4.42	7.54	-126.3	
0415	5	19.39	385	4.31	7.54	-125.1	

Stabilization criteria: pH +/- 0.1; conductivity +/- 3%; DO +/- 10%; ORP +/- 10 meV

Odor	NO
Recharge time %	>90%
Duplicate sample	NO
Pump intake depth	17FT
Sample method	PUMP
bailer/from pump/system	

COMMENTS

AEI CONSULTANTS

GROUNDWATER MONITORING WELL FIELD SAMPLING FORM

Monitoring Well Number: MW-5

Project Name:	Buestad	Date of Sampling:	11/16/12
Job Number:	298931	Name of Sampler:	J. Sigg
Project Address:	1630 Park Street, Alameda, CA		

MONITORING WELL DATA

Well Casing Diameter (2"/4"/6")	2			
Wellhead Condition	good			
Elevation of Top of Casing (feet above msl)				
Depth of Well	22.00			
Depth to Water (from top of casing)	Before: 8.47		After: 8.49	
Water Elevation (feet above msl)	Before:		After:	
Purging and Sampling Method	Low-Flow (Minimal Drawdown) Purging / Sampling			
Well Volumes Purged	Mw purged			
Pump Speed (Default = 300 rpms)	300 rpm			
Estimated Purge Rate-ml/min(Pump Speed * 1.67 ml/rev)	.5 Liter / Min			
Actual Volume Purged (liters)	5			
Appearance of Purge Water/Turbidity/Color	Clear			
Free Product Present?		Thickness (ft):		

Purging Equipment/Pump: (Peristalic)/ bladder/ centrifugal/ submersible

GROUNDWATER SAMPLES

Number of Samples / Container Size: Three (3) 40mL VOAs (HCL)

Time	Volume Removed ~~(gallons)~~	Temp (C°)	Conductivity (µS/cm)	DO (mg/L)	pH	ORP (meV)	Comments
0434	1	19.30	734	3.82	7.53	-72.7	
	2	19.32	730	3.17	7.53	-71.3	
	3	19.32	730	2.87	7.51	-70.1	
	4	19.34	728	2.54	7.50	-68.7	
0445	5	19.34	728	2.01	7.50	-66.2	

Stabilization criteria: pH +/- 0.1; conductivity +/- 3%; DO +/- 10%; ORP +/- 10 meV

Odor	No
Recharge time %	> 90%
Duplicate sample	No
Pump intake depth	17 FT
Sample method	Pump
bailer/from pump/system	

COMMENTS

AEI CONSULTANTS

GROUNDWATER MONITORING WELL FIELD SAMPLING FORM

Monitoring Well Number: DPE-1

Project Name:	Buestad	Date of Sampling:	11/16/12
Job Number:	298931	Name of Sampler:	J. Stagg
Project Address:	1630 Park Street, Alameda, CA		

MONITORING WELL DATA

Well Casing Diameter (2"/4"/6")	4			
Wellhead Condition	~~no~~ damaged			
Elevation of Top of Casing (feet above msl)				
Depth of Well	15.00			
Depth to Water (from top of casing)	Before: 8.84		After: 8.86	
Water Elevation (feet above msl)	Before:		After:	
Purging and Sampling Method	Low-Flow (Minimal Drawdown) Purging / Sampling			
Well Volumes Purged	micropurged			
Pump Speed (Default = 300 rpms)	300 rpm			
Estimated Purge Rate-ml/min(Pump Speed * 1.67 ml/rev)	.5 Liter/min			
Actual Volume Purged (liters)	5			
Appearance of Purge Water/Turbidity/Color	Clear			
Free Product Present?		Thickness (ft):		

Purging Equipment/Pump: Peristalic/ bladder/ centrifugal/ submersible

GROUNDWATER SAMPLES

Number of Samples / Container Size: Three (3) 40mL VOAs (HCL)

Time	Volume Removed ~~(gallons)~~	Temp (C°)	Conductivity (µS/cm)	DO (mg/L)	pH	ORP (meV)	Comments
0835	1	19.35	858	3.67	7.62	-133.2	
	2	19.36	850	2.83	7.60	-130.7	
	3	19.37	843	2.06	7.60	-129.6	
	4	19.37	840	1.90	7.60	-128.3	
0845	5	19.37	838	1.79	7.60	-127.2	

Stabilization criteria: pH +/- 0.1; conductivity +/- 3%; DO +/- 10%; ORP +/- 10 meV

Odor	YES
Recharge time %	> 90%
Duplicate sample	NO
Pump intake depth	13FT
Sample method	PUMP
bailer/from pump/system	

COMMENTS

Slight gas odor

AEI CONSULTANTS

GROUNDWATER MONITORING WELL FIELD SAMPLING FORM

Monitoring Well Number: DPE-2

Project Name:	Buestad	Date of Sampling:	11/16/12
Job Number:	298931	Name of Sampler:	J. Sigg
Project Address:	1630 Park Street, Alameda, CA		

MONITORING WELL DATA

Well Casing Diameter (2"/4"/6")	4	
Wellhead Condition	Damaged	
Elevation of Top of Casing (feet above msl)		
Depth of Well	15.00	
Depth to Water (from top of casing)	Before: 9.02	After: 9.05
Water Elevation (feet above msl)	Before:	After:
Purging and Sampling Method	Low-Flow (Minimal Drawdown) Purging / Sampling	
Well Volumes Purged	Micropurged	
Pump Speed (Default = 300 rpms)	300 RPM	
Estimated Purge Rate-ml/min(Pump Speed * 1.67 ml/rev)	.5 Liter/min	
Actual Volume Purged (liters)	5	
Appearance of Purge Water/Turbidity/Color	Clear	
Free Product Present?		Thickness (ft):

Purging Equipment/Pump: Peristalic/ bladder/ centrifugal/ submersible

GROUNDWATER SAMPLES

Number of Samples / Container Size: Three (3) 40mL VOAs (HCL)

Time	Volume Removed ~~(gallons)~~	Temp (C°)	Conductivity (µS/cm)	DO (mg/L)	pH	ORP (meV)	Comments
0704	1	19.35	1133	3.07	7.54	-127.6	
	2	19.37	1130	2.65	7.50	-125.3	
	3	19.37	1130	2.10	7.50	-122.4	
	4	19.37	1128	1.90	7.49	-120.1	
0715	5	19.37	1126	1.66	7.49	-119.3	

Stabilization criteria: pH +/- 0.1; conductivity +/- 3%; DO +/- 10%; ORP +/- 10 meV

Odor	NO
Recharge time %	>90
Duplicate sample	NO
Pump intake depth	13 FT
Sample method	Pump
bailer/from pump/system	

COMMENTS

AEI CONSULTANTS

GROUNDWATER MONITORING WELL FIELD SAMPLING FORM

Monitoring Well Number: DPE-3

Project Name:	Buestad	Date of Sampling:	11/16/12
Job Number:	298931	Name of Sampler:	
Project Address:	1630 Park Street, Alameda, CA		

MONITORING WELL DATA

Well Casing Diameter (2"/4"/6")	4	
Wellhead Condition		
Elevation of Top of Casing (feet above msl)		
Depth of Well	14.00	
Depth to Water (from top of casing)	Before:	After:
Water Elevation (feet above msl)	Before:	After:
Purging and Sampling Method	Low-Flow (Minimal Drawdown) Purging / Sampling	
Well Volumes Purged		
Pump Speed (Default = 300 rpms)		
Estimated Purge Rate-ml/min(Pump Speed * 1.67 ml/rev)		
Actual Volume Purged (liters)		
Appearance of Purge Water/Turbidity/Color		
Free Product Present?		Thickness (ft):

Purging Equipment/Pump: Peristalic/ bladder/ centrifugal/ submersible

GROUNDWATER SAMPLES

Number of Samples / Container Size: Three (3) 40mL VOAs (HCL)

Time	Volume Removed (gallons)	Temp (C°)	Conductivity (µS/cm)	DO (mg/L)	pH	ORP (meV)	Comments

Stabilization criteria: pH +/- 0.1; conductivity +/- 3%; DO +/- 10%; ORP +/- 10 meV

	COMMENTS
Odor	
Recharge time %	
Duplicate sample	
Pump intake depth	
Sample method	
bailer/from pump/system	

AEI CONSULTANTS

GROUNDWATER MONITORING WELL FIELD SAMPLING FORM

Monitoring Well Number: DPE-4

Project Name:	Buestad	Date of Sampling:	11/16/12
Job Number:	298931	Name of Sampler:	J Sigg
Project Address:	1630 Park Street, Alameda, CA		

MONITORING WELL DATA

Well Casing Diameter (2"/4"/6")	4	
Wellhead Condition	Damaged	
Elevation of Top of Casing (feet above msl)		
Depth of Well	17.00	
Depth to Water (from top of casing)	Before: 9.23	After: 9.25
Water Elevation (feet above msl)	Before:	After:
Purging and Sampling Method	Low-Flow (Minimal Drawdown) Purging / Sampling	
Well Volumes Purged	micropurged	
Pump Speed (Default = 300 rpms)	300 rpm	
Estimated Purge Rate-ml/min(Pump Speed * 1.67 ml/rev)	.5 Liter/min	
Actual Volume Purged (liters)	5	
Appearance of Purge Water/Turbidity/Color	clear	
Free Product Present?		Thickness (ft):

Purging Equipment/Pump: Peristalic/ bladder/ centrifugal/ submersible

GROUNDWATER SAMPLES

Number of Samples / Container Size: Three (3) 40mL VOAs (HCL)

Time	Volume Removed (gallons)	Temp (C°)	Conductivity (µS/cm)	DO (mg/L)	pH	ORP (meV)	Comments
1104	1	19.36	882	3.81	7.59	-85.4	
	2	19.36	880	3.05	7.59	-83.2	
	3	19.36	880	2.68	7.56	-81.7	
	4	19.37	878	2.07	7.55	-80.2	
1115	5	19.37	878	1.83	7.55	-79.7	

Stabilization criteria: pH +/- 0.1; conductivity +/- 3%; DO +/- 10%; ORP +/- 10 meV

Odor	NO
Recharge time %	> 90%
Duplicate sample	NO
Pump intake depth	15 FT
Sample method	Pump
bailer/from pump/system	

COMMENTS

AEI CONSULTANTS

GROUNDWATER MONITORING WELL FIELD SAMPLING FORM

Monitoring Well Number: DPE-5

Project Name:	Buestad	Date of Sampling:	11/16/12
Job Number:	298931	Name of Sampler:	J. Sagg
Project Address:	1630 Park Street, Alameda, CA		

MONITORING WELL DATA

Well Casing Diameter (2"/4"/6")	4	
Wellhead Condition	Damaged	
Elevation of Top of Casing (feet above msl)		
Depth of Well	18.00	
Depth to Water (from top of casing)	Before: 9.94	After: 9.96
Water Elevation (feet above msl)	Before:	After:
Purging and Sampling Method	Low-Flow (Minimal Drawdown) Purging / Sampling	
Well Volumes Purged	Micropurged	
Pump Speed (Default = 300 rpms)	300 Rpm	
Estimated Purge Rate-ml/min(Pump Speed * 1.67 ml/rev)	.5 Lit/min	
Actual Volume Purged (liters)	5	
Appearance of Purge Water/Turbidity/Color	Clear	
Free Product Present?		Thickness (ft):

Purging Equipment/Pump: Peristalic/ bladder/ centrifugal/ submersible

GROUNDWATER SAMPLES

Number of Samples / Container Size: Three (3) 40mL VOAs (HCL)

Time	Volume Removed ~~(gallons)~~	Temp (C°)	Conductivity (µS/cm)	DO (mg/L)	pH	ORP (meV)	Comments
0634	1	19.36	758	4.50	7.82	-103.8	
	2	19.36	758	2.87	7.80	-97.2	
	3	19.37	756	2.06	7.78	-95.8	
	4	19.37	755	1.88	7.78	-93.1	
0645	5	19.36	755	1.62	7.76	-90.7	

Stabilization criteria: pH +/- 0.1; conductivity +/- 3%; DO +/- 10%; ORP +/- 10 meV

Odor	NO
Recharge time %	>90
Duplicate sample	NO
Pump intake depth	16FT
Sample method	Pump
bailer/from pump/system	

COMMENTS

AEI CONSULTANTS

GROUNDWATER MONITORING WELL FIELD SAMPLING FORM

Monitoring Well Number: DPE-6

Project Name:	Buestad	Date of Sampling:	11/16/12
Job Number:	298931	Name of Sampler:	J. Sigg
Project Address:	1630 Park Street, Alameda, CA		

MONITORING WELL DATA

Well Casing Diameter (2"/4"/6")	4			
Wellhead Condition	Damaged			
Elevation of Top of Casing (feet above msl)				
Depth of Well	18.00			
Depth to Water (from top of casing)	Before: 8.71		After: 8.73	
Water Elevation (feet above msl)	Before:		After:	
Purging and Sampling Method	Low-Flow (Minimal Drawdown) Purging / Sampling			
Well Volumes Purged	Micropurged			
Pump Speed (Default = 300 rpms)	300 RPM			
Estimated Purge Rate-ml/min(Pump Speed * 1.67 ml/rev)	.5 Liter/min			
Actual Volume Purged (liters)	5			
Appearance of Purge Water/Turbidity/Color	1			
Free Product Present?		Thickness (ft):		

Purging Equipment/Pump: Peristalic/ bladder/ centrifugal/ submersible

GROUNDWATER SAMPLES

Number of Samples / Container Size: Three (3) 40mL VOAs (HCL)

Time	Volume Removed ~~(gallons)~~	Temp (C°)	Conductivity (µS/cm)	DO (mg/L)	pH	ORP (meV)	Comments
0604	1	19.34	803	3.82	7.82	-43.7	
	2	19.36	797	3.07	7.70	-40.8	
	3	19.37	795	2.65	7.68	-42.1	
	4	19.38	791	2.17	7.66	-44.7	
0615	5	19.38	790	1.78	7.66	-46.2	

Stabilization criteria: pH +/- 0.1; conductivity +/- 3%; DO +/- 10%; ORP +/- 10 meV

Odor	NO
Recharge time %	~90
Duplicate sample	NO
Pump intake depth	16FT
Sample method	PUMP
bailer/from pump/system	

COMMENTS

AEI CONSULTANTS

GROUNDWATER MONITORING WELL FIELD SAMPLING FORM

Monitoring Well Number: DPE-8

Project Name:	Buestad	Date of Sampling:	11/16/12
Job Number:	298931	Name of Sampler:	J. Gregg
Project Address:	1630 Park Street, Alameda, CA		

MONITORING WELL DATA

Well Casing Diameter (2"/4"/6")	4	
Wellhead Condition	~~Damaged~~ good	
Elevation of Top of Casing (feet above msl)		
Depth of Well	18.00	
Depth to Water (from top of casing)	Before: 8.31	After: 8.32
Water Elevation (feet above msl)	Before:	After:
Purging and Sampling Method	Low-Flow (Minimal Drawdown) Purging / Sampling	
Well Volumes Purged	Micro purged	
Pump Speed (Default = 300 rpms)	300 Rpm	
Estimated Purge Rate-ml/min(Pump Speed * 1.67 ml/rev)	.5 Liter/min	
Actual Volume Purged (liters)	5	
Appearance of Purge Water/Turbidity/Color	Clear	
Free Product Present?		Thickness (ft):

Purging Equipment/Pump: Peristalic/ bladder/ centrifugal/ submersible

GROUNDWATER SAMPLES

Number of Samples / Container Size: Three (3) 40mL VOAs (HCL)

Time	Volume Removed ~~(gallons)~~	Temp (C°)	Conductivity (µS/cm)	DO (mg/L)	pH	ORP (meV)	Comments
0804	1	19.37	923	3.32	7.50	-131.2	
	2	19.38	920	2.61	7.47	-130.8	
	3	19.38	918	2.07	7.47	-127.1	
	4	19.38	916	1.89	7.45	-125.3	
0815	5	19.38	916	1.62	7.45	-124.1	

Stabilization criteria: pH +/- 0.1; conductivity +/- 3%; DO +/- 10%; ORP +/- 10 meV

Odor	No
Recharge time %	~90%
Duplicate sample	No
Pump intake depth	16FT
Sample method bailer/from pump/system	pump

COMMENTS

AEI CONSULTANTS

GROUNDWATER MONITORING WELL FIELD SAMPLING FORM

Monitoring Well Number: DPE-9

Project Name:	Buestad	Date of Sampling:	11/16/12
Job Number:	298931	Name of Sampler:	J. Sigg
Project Address:	1630 Park Street, Alameda, CA		

MONITORING WELL DATA

Well Casing Diameter (2"/4"/6")	4	
Wellhead Condition	good	
Elevation of Top of Casing (feet above msl)		
Depth of Well	18.00	
Depth to Water (from top of casing)	Before: 8.38	After: 8.40
Water Elevation (feet above msl)	Before:	After:
Purging and Sampling Method	Low-Flow (Minimal Drawdown) Purging / Sampling	
Well Volumes Purged	Micropurged	
Pump Speed (Default = 300 rpms)	300 RPM	
Estimated Purge Rate-ml/min(Pump Speed * 1.67 ml/rev)	.5 Liter / Min	
Actual Volume Purged (liters)	5	
Appearance of Purge Water/Turbidity/Color	Clear	
Free Product Present?		Thickness (ft):

Purging Equipment/Pump: Peristalic/ bladder/ centrifugal/ submersible

GROUNDWATER SAMPLES

Number of Samples / Container Size: Three (3) 40mL VOAs (HCL)

Time	Volume Removed (gallons)	Temp (C°)	Conductivity (µS/cm)	DO (mg/L)	pH	ORP (meV)	Comments
0935	1	19.37	757	2.97	7.82	-103.4	
	2	19.38	755	2.02	7.80	-101.8	
	3	19.39	755	1.83	7.80	-104.2	
	4	19.39	753	1.67	7.80	-106.3	
0945	5	19.39	752	1.53	7.80	-108.1	

Stabilization criteria: pH +/- 0.1; conductivity +/- 3%; DO +/- 10%; ORP +/- 10 meV

Odor	NO
Recharge time %	~90%
Duplicate sample	NO
Pump intake depth	16 FT
Sample method	PUMP
bailer/from pump/system	

COMMENTS

AEI CONSULTANTS

GROUNDWATER MONITORING WELL FIELD SAMPLING FORM

Monitoring Well Number: DPE-10

Project Name:	Buestad	Date of Sampling:	11/16/12
Job Number:	298931	Name of Sampler:	J. Sigg
Project Address:	1630 Park Street, Alameda, CA		

MONITORING WELL DATA

Well Casing Diameter (2"/4"/6")	4
Wellhead Condition	good
Elevation of Top of Casing (feet above msl)	
Depth of Well	17.00
Depth to Water (from top of casing)	Before: 8.51 After: 8.53
Water Elevation (feet above msl)	Before: After:
Purging and Sampling Method	Low-Flow (Minimal Drawdown) Purging / Sampling
Well Volumes Purged	Micropurged
Pump Speed (Default = 300 rpms)	300 Rpm
Estimated Purge Rate-ml/min(Pump Speed * 1.67 ml/rev)	.5 Liter/min
Actual Volume Purged (liters)	5
Appearance of Purge Water/Turbidity/Color	Clear
Free Product Present?	Thickness (ft):

Purging Equipment/Pump: Peristalic/ bladder/ centrifugal/ submersible

GROUNDWATER SAMPLES

Number of Samples / Container Size: Three (3) 40mL VOAs (HCL)

Time	Volume Removed ~~(gallons)~~	Temp (C°)	Conductivity (µS/cm)	DO (mg/L)	pH	ORP (meV)	Comments
1005	1	19.35	743	4.07	7.53	-144.5	
	2	19.33	743	3.13	7.50	-140.7	
	3	19.36	740	2.86	7.48	-140.1	
	4	19.36	744	2.10	7.46	-138.3	
1015	5	19.36	740	1.87	7.45	-136.1	

Stabilization criteria: pH +/- 0.1; conductivity +/- 3%; DO +/- 10%; ORP +/- 10 meV

Odor	NO
Recharge time %	> 90%
Duplicate sample	NO
Pump intake depth	15 FT
Sample method	PUMP
bailer/from pump/system	

COMMENTS

AEI CONSULTANTS

GROUNDWATER MONITORING WELL FIELD SAMPLING FORM

Monitoring Well Number: DPE-11

Project Name:	Buestad	Date of Sampling:	11/16/12
Job Number:	298931	Name of Sampler:	J. Sipp
Project Address:	1630 Park Street, Alameda, CA		

MONITORING WELL DATA

Well Casing Diameter (2"/4"/6")	4	
Wellhead Condition	Good	
Elevation of Top of Casing (feet above msl)		
Depth of Well	18.00	
Depth to Water (from top of casing)	Before: 8.74	After: 8.75
Water Elevation (feet above msl)	Before:	After:
Purging and Sampling Method	Low-Flow (Minimal Drawdown) Purging / Sampling	
Well Volumes Purged	Micropurged	
Pump Speed (Default = 300 rpms)	300 rpm	
Estimated Purge Rate-ml/min(Pump Speed * 1.67 ml/rev)	.5 Liter / min	
Actual Volume Purged (liters)	5	
Appearance of Purge Water/Turbidity/Color	Clear	
Free Product Present?		Thickness (ft):

Purging Equipment/Pump: Peristalic/ bladder/ centrifugal/ submersible

GROUNDWATER SAMPLES

Number of Samples / Container Size: Three (3) 40mL VOAs (HCL)

Time	Volume Removed ~~(gallons)~~	Temp (C°)	Conductivity (µS/cm)	DO (mg/L)	pH	ORP (meV)	Comments
1135	1	19.35	943	3.28	7.62	-188.3	
	2	19.37	945	2.52	7.61	-186.1	
	3	19.37	944	2.10	7.60	-185.4	
	4	19.37	943	1.93	7.60	-183.7	
1145	5	19.38	940	1.60	7.60	-181.5	

Stabilization criteria: pH +/- 0.1; conductivity +/- 3%; DO +/- 10%; ORP +/- 10 meV

Odor	NO
Recharge time %	>90%
Duplicate sample	NO
Pump intake depth	16FT
Sample method	PUMP
bailer/from pump/system	

COMMENTS

AEI CONSULTANTS

SOIL VAPOR FIELD SAMPLING FORM

SOIL VAPOR PROBE ID:	VP-1

Project Name:	Foley Street Investments	Date of Sampling:	11-16-12
Job Number:	298931	Start Time:	0510
Project Address:	1630 Park St. Alameda, CA 94501	End Time:	0516
		Name of Sampler:	J. Sigg

SOIL GAS PROBE DATA	
Starting Vacuum (in-Hg)	30"
Ending Vacuum (in-Hg)	5"
Flow Controller / Sampling Flow Rate (mL/min)	100 - 200
Tubing Inside Diameter (1/8" or 1/4")	1/8" I.D.
Tubing Type (Nylon, Kynar, Teflon, Stainless Steel)	NYLON / NYLAFLOW
Wellbox Condition	good
Depth of Probe (ft bgs)	6
Length of Tubing Above Grade (ft)	1
Total Length of Tubing Purged (ft)	7
Number of Purge Volumes (default = 3 purge volumes)	3
Total Volume Purged (mL): formula valid only for tubing sizes of 1/8" I.D. (~2.4 mL/ft), 3/16" I.D. (~5.4 mL/ft), and 1/4" I.D. (~9.6 mL/ft)	**50**
Appreciable Amount of Rain (>1/2") in Last Five Days?	NO
Moisture / Water Present in Tubing?	NO

SOIL GAS SAMPLING EQUIPMENT	
Number of Samples / Container Size and Type	One (1) 1-Liter Summa Canister
Summa Canister Number	6207
Sampling Manifold / Flow Controller Number	846
Leak Check Compound	1,1-DIFLUOROETHANE (1,1-DFE)

Eagle Screening **THV ppmv/** 0 **CH4 %/** 0.0 **O2 %/** 17.9 **CO2 %/** 1.4

NOTES & COMMENTS

cc = cubic centimeter
mL = milliliter

1 L = 1000 mL
1 mL = 1 cc

in-Hg = inches of mercury
ft bgs = feet below ground surface

AEI CONSULTANTS

SOIL VAPOR FIELD SAMPLING FORM

SOIL VAPOR PROBE ID:	VP-2

Project Name:	Foley Street Investments	Date of Sampling:	11-16-12
Job Number:	298931	Start Time:	0530
Project Address:	1630 Park St. Alameda, CA 94501	End Time:	0537
		Name of Sampler:	J. Sigg

SOIL GAS PROBE DATA	
Starting Vacuum (in-Hg)	30"
Ending Vacuum (in-Hg)	5"
Flow Controller / Sampling Flow Rate (mL/min)	100 - 200
Tubing Inside Diameter (1/8" or 1/4")	1/8" I.D.
Tubing Type (Nylon, Kynar, Teflon, Stainless Steel)	NYLON / NYLAFLOW
Wellbox Condition	DAMAGED
Depth of Probe (ft bgs)	6
Length of Tubing Above Grade (ft)	1
Total Length of Tubing Purged (ft)	7
Number of Purge Volumes (default = 3 purge volumes)	3
Total Volume Purged (mL): formula valid only for tubing sizes of 1/8" I.D. (~2.4 mL/ft), 3/16" I.D. (~5.4 mL/ft), and 1/4" I.D. (~9.6 mL/ft)	**50**
Appreciable Amount of Rain (>1/2") in Last Five Days?	NO
Moisture / Water Present in Tubing?	NO

SOIL GAS SAMPLING EQUIPMENT	
Number of Samples / Container Size and Type	One (1) 1-Liter Summa Canister
Summa Canister Number	5805
Sampling Manifold / Flow Controller Number	680
Leak Check Compound	HELIUM GAS (HE)

Eagle Screening **THV ppmv/** 0 **CH4 %/** 0.0 **O2 %/** 17.7 **CO2 %/** 1.4

NOTES & COMMENTS

cc = cubic centimeter
mL = milliliter

1 L = 1000 mL
1 mL = 1 cc

in-Hg = inches of mercury
ft bgs = feet below ground surface

AEI CONSULTANTS
SOIL VAPOR FIELD SAMPLING FORM

SOIL VAPOR PROBE ID:	VP-3

Project Name:	Foley Street Investments	Date of Sampling:	11-16-12
Job Number:	298931	Start Time:	0555
Project Address:	1630 Park St. Alameda, CA 94501	End Time:	0601
		Name of Sampler:	J. Sigg

SOIL GAS PROBE DATA	
Starting Vacuum (in-Hg)	36"
Ending Vacuum (in-Hg)	5"
Flow Controller / Sampling Flow Rate (mL/min)	100 - 200
Tubing Inside Diameter (1/8" or 1/4")	1/8" I.D.
Tubing Type (Nylon, Kynar, Teflon, Stainless Steel)	NYLON / NYLAFLOW
Wellbox Condition	DAMAGED
Depth of Probe (ft bgs)	6
Length of Tubing Above Grade (ft)	1
Total Length of Tubing Purged (ft)	7
Number of Purge Volumes (default = 3 purge volumes)	3
Total Volume Purged (mL): formula valid only for tubing sizes of 1/8" I.D. (~2.4 mL/ft), 3/16" I.D. (~5.4 mL/ft), and 1/4" I.D. (~9.6 mL/ft)	**50**
Appreciable Amount of Rain (>1/2") in Last Five Days?	NO
Moisture / Water Present in Tubing?	NO

SOIL GAS SAMPLING EQUIPMENT	
Number of Samples / Container Size and Type	One (1) 1-Liter Summa Canister
Summa Canister Number	A7531
Sampling Manifold / Flow Controller Number	689
Leak Check Compound	HELIUM GAS (HE)

Eagle Screening **THV ppmv/** 0 **CH4 %/** 0.0 **O2 %/** 17.6 **CO2 %/** 1.9

NOTES & COMMENTS

cc = cubic centimeter
mL = milliliter
1 L = 1000 mL
1 mL = 1 cc
in-Hg = inches of mercury
ft bgs = feet below ground surface

McCAMPBELL ANALYTICAL INC.

1538 Willow Pass Road, Pittsburg, CA 94565

Telephone: (925) 252-9262 Fax: (925) 252-9269

CHAIN OF CUSTODY RECORD

TURN AROUND TIME ☐ RUSH ☐ 24 HR ☐ 48 HR ☐ 72 HR ■ 5 DAY

EDF Required? ■ Yes ☐ No PDF Required? ■ Yes ☐ No

Report To: Robert Robitaille Bill To: AEI Consultants

Company: AEI Consultants, 2500 Camino Diablo, Walnut Creek, CA 94597

PO# WC083860 Global ID: T0600100655

E-Mail: rrobitaille@aeiconsultatns.com

Telephone: (925) 746-6000, ext. 148 Fax: (925) 746-6099

AEI Project No. 298931 Project Name: FSI

Project Location: 1630 Park St., Alameda, CA 94501

Sampler Signature: John Sigge

SAMPLE ID	FIELD POINT NAME	SAMPLING Date	SAMPLING Time	# of Containers	Type Containers	MATRIX: Water	Soil	Air	Sludge	Other	METHOD PRESERVED: Ice	HCL	HNO_3	Other	Analysis Request: TPH-G (EPA 8015 M)	TPH-D / TPH-MO (EPA 8015 M w/ Silica Gel Clean-up)	BTEX, MTBE (EPA 8260B)	Other	Comments
MW-1		11-16-12	0745	4	VOA, amber L	X					X	X			X	X	X		
MW-2			0915	4	VOA, amber L	X					X	X			X	X	X		
MW-3			1045	4	VOA, amber L	X					X	X			X	X	X		
MW-4			0915	4	VOA, amber L	X					X	X			X	X	X		
MW-5			0945	4	VOA, amber L	X					X	X			X	X	X		
DEP-1			0845	4	VOA, amber L	X					X	X			X	X	X		
DEP-2			0715	4	VOA, amber L	X					X	X			X	X	X		
DEP-4			1115	4	VOA, amber L	X					X	X			X	X	X		
DEP-5			0645	4	VOA, amber L	X					X	X			X	X	X		
DEP-6			0615	4	VOA, amber L	X					X	X			X	X	X		
DEP-8			0815	4	VOA, amber L	X					X	X			X	X	X		
DEP-9			0945	4	VOA, amber L	X					X	X			X	X	X		
DEP-10			1015	4	VOA, amber L	X					X	X			X	X	X		
DEP-11		↓	1145	4	VOA, amber L	X					X	X			X	X	X		

Relinquished By:	Date:	Time:	Received By:
John Sigge	11-16-12	1249	
Relinquished By:	Date:	Time:	Received By:
Relinquished By:	Date:	Time:	Received By:

ICE/t° _____ PRESERVATION VOAS | O&G | METALS | OTHER

GOOD CONDITION _____ APPROPRIATE

HEAD SPACE ABSENT _____ CONTAINERS _____

DECHLORINATED IN LAB _____ PERSERVED IN LAB _____

McCAMPBELL ANALYTICAL INC.

1534 Willow Pass Road
Pittsburg, CA 94565-1701
www.main@mccampbell.com
Telephone: (925) 252-9262 Fax: (925) 252-9269

CHAIN OF CUSTODY RECORD

TURN AROUND TIME ☐ RUSH ☐ 24 HR ☐ 48 HR ☐ 72 HR ■ 5 DAY

EDF Required? ☐ No ■ Yes

Report To: Robert Robitaille — Bill To: PO# WC083860

Company: AEI Consultants

2500 Camino Diablo, Walnut Creek, California 94597

E-Mail: rrobitaille@aeiconsultants.com

Tele: (925) 746-6048 Fax: (925) 746-6099

Project #: 298931 Project Name: FSI

Project Location: 1630 Park Street, Alameda, California

Sampler Signature: John Stagg

Lab Use Only

Pressurized By	Date	Pressurization Gas	
		N2	He

Notes: TO15 Full List, TPH-g, BTEX, TVH, MTBE, TBA, TAME, DIPE, ETBE, Naphthlene, CO2, methane, Oxygen, Nitrogen, Isopropyl alcohol

Field Sample ID (Location)	Collection Date	Collection Time	Canister SN#	Sampler Kit SN#	*Analysis Requested TO15 Full List*	*Indoor Air*	*Soil Gas*	*Canister Pressure/Vacuum* Initial	Final	Receipt	Final (psi)
VP-1	11-16-12	0510	6207	846	Atm. Gases, TPH(g), BTEX & Oxygenates		X	30	5		
VP-2	"	0530	5805	680	Atm. Gases, TPH(g), BTEX & Oxygenates		X	30	5		
VP-3	"	0555	A7531	689	Atm. Gases, TPH(g), BTEX & Oxygenates		X	30	5		

Relinquished By:	Date:	Time:	Received By:
John Stagg	11-16-12	1244	
Relinquished By:	Date:	Time:	Received By:
Relinquished By:	Date:	Time:	Received By:

Temp (°C) : _____ Work Order #: _____

Condition: _____

Custody Seals Intact?: Yes _____ No _____ None _____

Shipped Via: _____

APPENDIX B

LABORATORY ANALYTICAL REPORTS W/ CHAIN OF CUSTODY DOCUMENTATION

McCampbell Analytical, Inc.
"When Quality Counts"

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

Analytical Report

AEI Consultants	Client Project ID: #298931; FSI	Date Sampled: 11/16/12
		Date Received: 11/16/12
2500 Camino Diablo, Ste.#200	Client Contact: Robert Robitaille	Date Reported: 11/27/12
Walnut Creek, CA 94597	Client P.O.: #WC083860	Date Completed: 11/26/12

WorkOrder: 1211483

November 27, 2012

Dear Robert:

Enclosed within are:

1) The results of the **14** analyzed samples from your project: **#298931; FSI,**
2) QC data for the above samples, and
3) A copy of the chain of custody.

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

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

Best regards,

Angela Rydelius
Laboratory Manager
McCampbell Analytical, Inc.

The analytical results relate only to the items tested.

1211483

McCAMPBELL ANALYTICAL INC.

1538 Willow Pass Road, Pittsburg, CA 94565

Telephone: (925) 252-9262 Fax: (925) 252-9269

CHAIN OF CUSTODY RECORD

TURN AROUND TIME ☐ RUSH ☐ 24 HR ☐ 48 HR ☐ 72 HR ■ 5 DAY

EDF Required? ■ Yes ☐ No PDF Required? ■ Yes ☐ No

Report To: Robert Robitaille Bill To: AEI Consultants

Company: AEI Consultants, 2500 Camino Diablo, Walnut Creek, CA 94597

PO# WC083860 Global ID: T0600100655

E-Mail: rrobitaille@aeiconsultatns.com

Telephone: (925) 746-6000, ext. 148 Fax: (925) 746-6099

AEI Project No. 298931 Project Name: FSI

Project Location: 1630 Park St., Alameda, CA 94501

Sampler Signature: John Siggs

SAMPLE ID	FIELD POINT NAME	SAMPLING Date	SAMPLING Time	# of Containers	Type Containers	MATRIX Water	Soil	Air	Sludge	Other	METHOD PRESERVED Ice	HCL	HNO_3	Other	Analysis Request: TPH-G (EPA 8015 M)	TPH-D / TPH-MO (EPA 8015 M w/ Silica Gel Clean-up)	BTEX, MTBE (EPA 8260B)	Other	Comments
MW-1		11-16-12	0745	4	VOA, amber L	X					X	X			X	X	X		
MW-2			0915	4	VOA, amber L	X					X	X			X	X	X		
MW-3			1045	4	VOA, amber L	X					X	X			X	X	X		
MW-4			0415	4	VOA, amber L	X					X	X			X	X	X		
MW-5			0445	4	VOA, amber L	X					X	X			X	X	X		
DEP-1			0845	4	VOA, amber L	X					X	X			X	X	X		
DEP-2			0715	4	VOA, amber L	X					X	X			X	X	X		
DEP-4			1115	4	VOA, amber L	X					X	X			X	X	X		
DEP-5			0645	4	VOA, amber L	X					X	X			X	X	X		
DEP-6			0615	4	VOA, amber L	X					X	X			X	X	X		
DEP-8			0815	4	VOA, amber L	X					X	X			X	X	X		
DEP-9			0945	4	VOA, amber L	X					X	X			X	X	X		
DEP-10			1015	4	VOA, amber L	X					X	X			X	X	X		
DEP-11			1145	4	VOA, amber L	X					X	X			X	X	X		

Relinquished By:	Date:	Time:	Received By:
John Siggs	11-16-12	1244	
Relinquished By:	Date:	Time:	Received By:
Relinquished By:	Date:	Time:	Received By:

ICE/t° 3.4

GOOD CONDITION_____

HEAD SPACE ABSENT_____

DECHLORINATED IN LAB_____

	VOAS	O&G	METALS	OTHER
PRESERVATION				
APPROPRIATE				
CONTAINERS				

PERSERVED IN LAB_____

McCampbell Analytical, Inc.
1534 Willow Pass Rd
Pittsburg, CA 94565-1701
(925) 252-9262

CHAIN-OF-CUSTODY RECORD

WorkOrder: 1211483 **ClientCode: AEL**

☐ WaterTrax ☐ WriteOn ☑ EDF ☐ Excel ☐ EQuIS ☑ Email ☐ HardCopy ☐ ThirdParty ☐ J-flag

Report to:
Robert Robitaille
AEI Consultants
2500 Camino Diablo, Ste.#200
Walnut Creek, CA 94597
(925) 283-6000 FAX: (925) 283-6121
Email: rrobitaille@aeiconsultants.com
cc:
PO: #WC083860
ProjectNo: #298931; FSI

Bill to:
Sara Guerin
AEI Consultants
2500 Camino Diablo, Ste. #200
Walnut Creek, CA 94597
AccountsPayable@AEIConsultants.co

Requested TAT: 5 days

Date Received: **11/16/2012**
Date Printed: **11/16/2012**

Lab ID	Client ID	Matrix	Collection Date	Hold	Requested Tests (See legend below)											
					1	2	3	4	5	6	7	8	9	10	11	12
1211483-001	MW-1	Water	11/16/2012 7:45	☐	A	B	A	C								
1211483-002	MW-2	Water	11/16/2012 9:15	☐	A	B		C								
1211483-003	MW-3	Water	11/16/2012 10:45	☐	A	B		C								
1211483-004	MW-4	Water	11/16/2012 4:15	☐	A	B		C								
1211483-005	MW-5	Water	11/16/2012 4:45	☐	A	B		C								
1211483-006	DEP-1	Water	11/16/2012 8:45	☐	A	B		C								
1211483-007	DEP-2	Water	11/16/2012 7:15	☐	A	B		C								
1211483-008	DEP-4	Water	11/16/2012 11:15	☐	A	B		C								
1211483-009	DEP-5	Water	11/16/2012 6:45	☐	A	B		C								
1211483-010	DEP-6	Water	11/16/2012 6:15	☐	A	B		C								
1211483-011	DEP-8	Water	11/16/2012 8:15	☐	A	B		C								
1211483-012	DEP-9	Water	11/16/2012 9:45	☐	A	B		C								
1211483-013	DEP-10	Water	11/16/2012 10:15	☐	A	B		C								
1211483-014	DEP-11	Water	11/16/2012 11:45	☐	A	B		C								

Test Legend:

1	G-MBTEX_W	2	MBTEX-8260B_W	3	PREDF REPORT	4	TPH(DMO)WSG_W	5	
6		7		8		9		10	
11		12							

Prepared by: Zoraida Cortez

Comments:

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

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Sample Receipt Checklist

Client Name: **AEI Consultants**
Date and Time Received: **11/16/2012 2:04:02 PM**
Project Name: **#298931; FSI**
LogIn Reviewed by: Zoraida Cortez
WorkOrder N°: **1211483** Matrix: Water
Carrier: Client Drop-In

Chain of Custody (COC) Information

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

Sample Receipt Information

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

Sample Preservation and Hold Time (HT) Information

All samples received within holding time?	Yes ☑	No ☐	
Container/Temp Blank temperature	Cooler Temp: 3.4°C		NA ☐
Water - VOA vials have zero headspace / no bubbles?	Yes ☑	No ☐	No VOA vials submitted ☐
Sample labels checked for correct preservation?	Yes ☑	No ☐	
Metal - pH acceptable upon receipt (pH<2)?	Yes ☐	No ☐	NA ☑
Samples Received on Ice?	Yes ☑	No ☐	

(Ice Type: WET ICE)

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

Comments:

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AEI Consultants	Client Project ID: #298931; FSI	Date Sampled: 11/16/12
		Date Received: 11/16/12
2500 Camino Diablo, Ste.#200	Client Contact: Robert Robitaille	Date Extracted 11/16/12-11/27/12
Walnut Creek, CA 94597	Client P.O.: #WC083860	Date Analyzed 11/16/12-11/27/12

Gasoline Range (C6-C12) Volatile Hydrocarbons as Gasoline *

Extraction method: SW5030B Analytical methods: SW8015Bm Work Order: 1211483

Lab ID	Client ID	Matrix	TPH(g)	DF	% SS	Comments
001A	MW-1	W	370	1	115	d1
002A	MW-2	W	340	1	---#	d1
003A	MW-3	W	ND	1	---#	
004A	MW-4	W	440	1	116	d2
005A	MW-5	W	580	1	119	d1
006A	DEP-1	W	580	1	110	d2
007A	DEP-2	W	ND	1	113	
008A	DEP-4	W	ND	1	109	
009A	DEP-5	W	ND	1	---#	
010A	DEP-6	W	ND	1	---#	
011A	DEP-8	W	630	1	104	d2,d1
012A	DEP-9	W	530	1	127	d2,d1
013A	DEP-10	W	79	1	---#	d1
014A	DEP-11	W	860	1	---#	d2,d1

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

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

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

The following descriptions of the TPH chromatogram are cursory in nature and McCampbell Analytical is not responsible for their interpretation:
d1) weakly modified or unmodified gasoline is significant
d2) heavier gasoline range compounds are significant (aged gasoline?)

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Angela Rydelius, Lab Manager

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AEI Consultants	Client Project ID: #298931; FSI	Date Sampled: 11/16/12
		Date Received: 11/16/12
2500 Camino Diablo, Ste.#200	Client Contact: Robert Robitaille	Date Extracted: 11/20/12-11/22/12
Walnut Creek, CA 94597	Client P.O.: #WC083860	Date Analyzed: 11/20/12-11/22/12

MTBE and BTEX by GC/MS*

Extraction Method: SW5030B | Analytical Method: SW8260B | Work Order: 1211483

Lab ID	1211483-001B	1211483-002B	1211483-003B	1211483-004B	Reporting Limit for DF =1	
Client ID	MW-1	MW-2	MW-3	MW-4		
Matrix	W	W	W	W		
DF	3.3	1	1	1	S	W
Compound	**Concentration**				ug/kg	µg/L
Benzene	71	15	ND	3.4	NA	0.5
Ethylbenzene	ND<1.7	5.4	ND	1.2	NA	0.5
Methyl-t-butyl ether (MTBE)	ND<1.7	ND	ND	ND	NA	0.5
Toluene	ND<1.7	1.4	ND	ND	NA	0.5
Xylenes, Total	ND<1.7	2.1	ND	2.1	NA	0.5
Surrogate Recoveries (%)						
%SS1:	97	97	98	98		
%SS2:	94	92	93	93		
Comments						

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

ND means not detected above the reporting limit/method detection limit; N/A means analyte not applicable to this analysis.

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

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

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AEI Consultants	Client Project ID: #298931; FSI	Date Sampled: 11/16/12
		Date Received: 11/16/12
2500 Camino Diablo, Ste.#200	Client Contact: Robert Robitaille	Date Extracted: 11/20/12-11/22/12
Walnut Creek, CA 94597	Client P.O.: #WC083860	Date Analyzed: 11/20/12-11/22/12

MTBE and BTEX by GC/MS*

Extraction Method: SW5030B | Analytical Method: SW8260B | Work Order: 1211483

Lab ID	1211483-005B	1211483-006B	1211483-007B	1211483-008B	Reporting Limit for DF =1	
Client ID	MW-5	DEP-1	DEP-2	DEP-4		
Matrix	W	W	W	W		
DF	1	1	1	1	S	W
Compound	**Concentration**				ug/kg	µg/L
Benzene	27	3.3	3.4	ND	NA	0.5
Ethylbenzene	6.7	2.2	ND	ND	NA	0.5
Methyl-t-butyl ether (MTBE)	ND	ND	ND	ND	NA	0.5
Toluene	1.7	ND	ND	ND	NA	0.5
Xylenes, Total	7.1	2.8	ND	ND	NA	0.5
Surrogate Recoveries (%)						
%SS1:	98	99	100	101		
%SS2:	93	93	95	94		
Comments						

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

ND means not detected above the reporting limit/method detection limit; N/A means analyte not applicable to this analysis.

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

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

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AEI Consultants	Client Project ID: #298931; FSI	Date Sampled: 11/16/12
		Date Received: 11/16/12
2500 Camino Diablo, Ste.#200	Client Contact: Robert Robitaille	Date Extracted: 11/20/12-11/22/12
Walnut Creek, CA 94597	Client P.O.: #WC083860	Date Analyzed: 11/20/12-11/22/12

MTBE and BTEX by GC/MS*

Extraction Method: SW5030B | Analytical Method: SW8260B | Work Order: 1211483

Lab ID	1211483-009B	1211483-010B	1211483-011B	1211483-012B	Reporting Limit for DF =1	
Client ID	DEP-5	DEP-6	DEP-8	DEP-9		
Matrix	W	W	W	W		
DF	1	1	1	1	S	W
Compound	**Concentration**				ug/kg	µg/L
Benzene	ND	ND	13	4.7	NA	0.5
Ethylbenzene	ND	ND	1.1	0.78	NA	0.5
Methyl-t-butyl ether (MTBE)	ND	ND	ND	ND	NA	0.5
Toluene	ND	ND	ND	ND	NA	0.5
Xylenes, Total	ND	ND	19	2.3	NA	0.5
Surrogate Recoveries (%)						
%SS1:	97	95	99	99		
%SS2:	93	92	93	94		
Comments						

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

ND means not detected above the reporting limit/method detection limit; N/A means analyte not applicable to this analysis.

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

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

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AEI Consultants	Client Project ID: #298931; FSI	Date Sampled: 11/16/12
		Date Received: 11/16/12
2500 Camino Diablo, Ste.#200	Client Contact: Robert Robitaille	Date Extracted: 11/20/12-11/22/12
Walnut Creek, CA 94597	Client P.O.: #WC083860	Date Analyzed: 11/20/12-11/22/12

MTBE and BTEX by GC/MS*

Extraction Method: SW5030B | Analytical Method: SW8260B | Work Order: 1211483

Lab ID	1211483-013B	1211483-014B			Reporting Limit for DF =1	
Client ID	DEP-10	DEP-11				
Matrix	W	W				
DF	1	1			S	W
Compound	**Concentration**				ug/kg	µg/L
Benzene	4.9	5.3			NA	0.5
Ethylbenzene	ND	0.81			NA	0.5
Methyl-t-butyl ether (MTBE)	ND	ND			NA	0.5
Toluene	ND	ND			NA	0.5
Xylenes, Total	ND	1.2			NA	0.5
Surrogate Recoveries (%)						
%SS1:	99	97				
%SS2:	94	94				
Comments						

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

ND means not detected above the reporting limit/method detection limit; N/A means analyte not applicable to this analysis.

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

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

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AEI Consultants	Client Project ID: #298931; FSI	Date Sampled: 11/16/12
		Date Received: 11/16/12
2500 Camino Diablo, Ste.#200	Client Contact: Robert Robitaille	Date Extracted: 11/16/12
Walnut Creek, CA 94597	Client P.O.: #WC083860	Date Analyzed: 11/17/12-11/19/12

Total Extractable Petroleum Hydrocarbons with Silica Gel Clean-Up*

Extraction method: SW3510C/3630C Analytical methods: SW8015B Work Order: 1211483

Lab ID	Client ID	Matrix	TPH-Diesel (C10-C23)	TPH-Motor Oil (C18-C36)	DF	% SS	Comments
1211483-001C	MW-1	W	140	ND	1	90	e4
1211483-002C	MW-2	W	200	ND	1	92	e4
1211483-003C	MW-3	W	ND	ND	1	88	
1211483-004C	MW-4	W	360	ND	1	86	e4
1211483-005C	MW-5	W	450	ND	1	87	e4
1211483-006C	DEP-1	W	360	ND	1	85	e4
1211483-007C	DEP-2	W	ND	ND	1	87	
1211483-008C	DEP-4	W	ND	ND	1	84	
1211483-009C	DEP-5	W	560	1400	1	84	e7,e2
1211483-010C	DEP-6	W	ND	ND	1	84	
1211483-011C	DEP-8	W	460	ND	1	88	e4
1211483-012C	DEP-9	W	470	ND	1	89	e4
1211483-013C	DEP-10	W	ND	ND	1	87	
1211483-014C	DEP-11	W	540	ND	1	88	e4

Reporting Limit for DF =1; ND means not detected at or above the reporting limit	W	50	250	µg/L
	S	NA	NA	mg/Kg

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

#) cluttered chromatogram resulting in coeluted surrogate and sample peaks, or; surrogate peak is on elevated baseline, or; surrogate has been diminished by dilution of original extract; &) low or no surrogate due to matrix interference.

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

The following descriptions of the TPH chromatogram are cursory in nature and McCampbell Analytical is not responsible for their interpretation:
e2) diesel range compounds are significant; no recognizable pattern
e4) gasoline range compounds are significant.
e7) oil range compounds are significant

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QC SUMMARY REPORT FOR SW8021B/8015Bm

W.O. Sample Matrix: Water | QC Matrix: Water | BatchID: 72552 | WorkOrder: 1211483

EPA Method: SW8015Bm **Extraction: SW5030B** **Spiked Sample ID: 1211429-001A**

Analyte	Sample	Sp ked	MS	MSD	MS-MSD	LCS	Acceptance Criteria (%)		
	µg/L	µg/L	% Rec.	% Rec.	% RPD	% Rec.	MS / MSD	RPD	LCS
TPH(btex)£	ND	60	105	106	0.949	106	70 - 130	20	80 - 120
MTBE	ND	10	83.2	88.4	6.09	87.6	70 - 130	20	80 - 120
Benzene	ND	10	93.7	99.6	6.13	96.8	70 - 130	20	80 - 120
Toluene	ND	10	95.2	102	6.41	97.7	70 - 130	20	80 - 120
Ethylbenzene	ND	10	95.5	102	6.26	97.4	70 - 130	20	80 - 120
Xylenes	ND	30	96.8	103	5.95	91.4	70 - 130	20	80 - 120
%SS:	104	10	96	96	0	96	70 - 130	20	70 - 130

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

BATCH 72552 SUMMARY

Lab ID	Date Sampled	Date Extracted	Date Analyzed	Lab ID	Date Sampled	Date Extracted	Date Analyzed
1211483-003A	11/16/12 10:45 AM	11/16/12	11/16/12 11:44 PM	1211483-009A	11/16/12 6:45 AM	11/17/12	11/17/12 12:13 AM

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

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

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

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

cluttered chromatogram; sample peak coelutes with surrogate peak.

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

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

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QA/QC Officer

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QC SUMMARY REPORT FOR SW8021B/8015Bm

W.O. Sample Matrix: Water | QC Matrix: Water | BatchID: 72591 | WorkOrder: 1211483

EPA Method: SW8015Bm **Extraction: SW5030B** **Spiked Sample ID: 1211483-010A**

Analyte	Sample	Sp ked	MS	MSD	MS-MSD	LCS	Acceptance Criteria (%)		
	µg/L	µg/L	% Rec.	% Rec.	% RPD	% Rec.	MS / MSD	RPD	LCS
TPH(btex)£	ND	60	104	105	1.49	113	70 - 130	20	80 - 120
MTBE	ND	10	91	91.9	0.920	98	70 - 130	20	80 - 120
Benzene	ND	10	98.8	98	0.788	104	70 - 130	20	80 - 120
Toluene	ND	10	98.4	97.9	0.568	105	70 - 130	20	80 - 120
Ethylbenzene	ND	10	97	97.7	0.697	95.6	70 - 130	20	80 - 120
Xylenes	ND	30	96.9	97.8	0.844	94.7	70 - 130	20	80 - 120
%SS:	---#	10	---#	---#	---#	98	70 - 130	20	70 - 130

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

BATCH 72591 SUMMARY

Lab ID	Date Sampled	Date Extracted	Date Analyzed	Lab ID	Date Sampled	Date Extracted	Date Analyzed
1211483-001A	11/16/12 7:45 AM	11/19/12	11/19/12 9:09 PM	1211483-002A	11/16/12 9:15 AM	11/21/12	11/21/12 3:07 AM
1211483-004A	11/16/12 4:15 AM	11/21/12	11/21/12 3:37 AM	1211483-005A	11/16/12 4:45 AM	11/21/12	11/21/12 4:37 AM
1211483-006A	11/16/12 8:45 AM	11/21/12	11/21/12 5:07 AM	1211483-007A	11/16/12 7:15 AM	11/21/12	11/21/12 5:37 AM
1211483-008A	11/16/12 11:15 AM	11/19/12	11/19/12 11:37 PM	1211483-010A	11/16/12 6:15 AM	11/20/12	11/20/12 4:33 AM
1211483-011A	11/16/12 8:15 AM	11/21/12	11/21/12 8:26 PM	1211483-012A	11/16/12 9:45 AM	11/21/12	11/21/12 8:56 PM
1211483-013A	11/16/12 10:15 AM	11/27/12	11/27/12 12:19 AM	1211483-014A	11/16/12 11:45 AM	11/21/12	11/21/12 11:27 PM

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

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

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

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

cluttered chromatogram; sample peak coelutes with surrogate peak.

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

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

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QA/QC Officer

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QC SUMMARY REPORT FOR SW8260B

W.O. Sample Matrix: Water | QC Matrix: Water | BatchID: 72624 | WorkOrder: 1211483

EPA Method: SW8260B **Extraction: SW5030B** **Spiked Sample ID: 1211483-010B**

Analyte	Sample	Sp ked	MS	MSD	MS-MSD	LCS	Acceptance Criteria (%)		
	µg/L	µg/L	% Rec.	% Rec.	% RPD	% Rec.	MS / MSD	RPD	LCS
Benzene	ND	10	91.2	90.6	0.655	85.4	70 - 130	20	70 - 130
Methyl-t-butyl ether (MTBE)	ND	10	94	98.4	4.63	87	70 - 130	20	70 - 130
Toluene	ND	10	87.5	86.4	1.33	86.4	70 - 130	20	70 - 130
%SS1:	95	25	98	100	2.08	96	70 - 130	20	70 - 130
%SS2:	92	25	93	93	0	97	70 - 130	20	70 - 130

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

BATCH 72624 SUMMARY

Lab ID	Date Sampled	Date Extracted	Date Analyzed	Lab ID	Date Sampled	Date Extracted	Date Analyzed
1211483-001B	11/16/12 7:45 AM	11/20/12	11/20/12 3:47 PM	1211483-002B	11/16/12 9:15 AM	11/20/12	11/20/12 4:27 PM
1211483-003B	11/16/12 10:45 AM	11/20/12	11/20/12 5:06 PM	1211483-004B	11/16/12 4:15 AM	11/20/12	11/20/12 5:45 PM
1211483-005B	11/16/12 4:45 AM	11/20/12	11/20/12 6:24 PM	1211483-006B	11/16/12 8:45 AM	11/20/12	11/20/12 10:18 PM
1211483-007B	11/16/12 7:15 AM	11/20/12	11/20/12 10:57 PM	1211483-008B	11/16/12 11:15 AM	11/20/12	11/20/12 11:36 PM
1211483-010B	11/16/12 6:15 AM	11/22/12	11/22/12 12:54 AM	1211483-011B	11/16/12 8:15 AM	11/21/12	11/21/12 12:54 AM
1211483-012B	11/16/12 9:45 AM	11/21/12	11/21/12 1:33 AM	1211483-013B	11/16/12 10:15 AM	11/21/12	11/21/12 2:12 AM
1211483-014B	11/16/12 11:45 AM	11/21/12	11/21/12 2:51 AM				

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

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

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

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

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

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

DHS ELAP Certification 1644

QA/QC Officer

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QC SUMMARY REPORT FOR SW8260B

W.O. Sample Matrix: Water | QC Matrix: Water | BatchID: 72657 | WorkOrder: 1211483

EPA Method: SW8260B **Extraction: SW5030B** **Spiked Sample ID: 1211555-004B**

Analyte	Sample	Sp ked	MS	MSD	MS-MSD	LCS	Acceptance Criteria (%)		
	µg/L	µg/L	% Rec.	% Rec.	% RPD	% Rec.	MS / MSD	RPD	LCS
Benzene	ND	10	103	97.1	6.30	105	70 - 130	20	70 - 130
Methyl-t-butyl ether (MTBE)	ND	10	114	103	9.52	109	70 - 130	20	70 - 130
Toluene	ND	10	96.6	89.2	7.89	95.4	70 - 130	20	70 - 130
%SS1:	99	25	98	99	1.26	94	70 - 130	20	70 - 130
%SS2:	92	25	90	90	0	90	70 - 130	20	70 - 130

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

BATCH 72657 SUMMARY

Lab ID	Date Sampled	Date Extracted	Date Analyzed	Lab ID	Date Sampled	Date Extracted	Date Analyzed
1211483-009B	11/16/12 6:45 AM	11/22/12	11/22/12 12:16 AM				

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

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

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

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

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

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

DHS ELAP Certification 1644

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QC SUMMARY REPORT FOR SW8015B

W.O. Sample Matrix: Water | QC Matrix: Water | BatchID: 72495 | WorkOrder: 1211483

EPA Method: SW8015B | **Extraction: SW3510C/3630C** | **Spiked Sample ID: N/A**

Analyte	Sample	Sp ked	MS	MSD	MS-MSD	LCS	Acceptance Criteria (%)		
	µg/L	µg/L	% Rec.	% Rec.	% RPD	% Rec.	MS / MSD	RPD	LCS
TPH-Diesel (C10-C23)	N/A	1000	N/A	N/A	N/A	112	N/A	N/A	70 - 130
%SS:	N/A	625	N/A	N/A	N/A	106	N/A	N/A	70 - 130

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

BATCH 72495 SUMMARY

Lab ID	Date Sampled	Date Extracted	Date Analyzed	Lab ID	Date Sampled	Date Extracted	Date Analyzed
1211483-001C	11/16/12 7:45 AM	11/16/12	11/17/12 6:10 PM	1211483-002C	11/16/12 9:15 AM	11/16/12	11/17/12 8:27 PM
1211483-003C	11/16/12 10:45 AM	11/16/12	11/17/12 3:54 PM	1211483-004C	11/16/12 4:15 AM	11/16/12	11/17/12 4:32 AM
1211483-005C	11/16/12 4:45 AM	11/16/12	11/17/12 10:13 AM	1211483-006C	11/16/12 8:45 AM	11/16/12	11/17/12 5:02 PM
1211483-007C	11/16/12 7:15 AM	11/16/12	11/17/12 6:49 AM	1211483-008C	11/16/12 11:15 AM	11/16/12	11/17/12 2:46 PM
1211483-009C	11/16/12 6:45 AM	11/16/12	11/19/12 11:48 PM	1211483-010C	11/16/12 6:15 AM	11/16/12	11/17/12 5:41 AM
1211483-011C	11/16/12 8:15 AM	11/16/12	11/17/12 3:24 AM	1211483-012C	11/16/12 9:45 AM	11/16/12	11/17/12 7:19 PM
1211483-013C	11/16/12 10:15 AM	11/16/12	11/17/12 9:05 AM	1211483-014C	11/16/12 11:45 AM	11/16/12	11/17/12 11:21 AM

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

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

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

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

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

DHS ELAP Certification 1644

QA/QC Officer

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Analytical Report

AEI Consultants	Client Project ID: #298931; FSI	Date Sampled: 01/16/12-11/16/12
		Date Received: 11/16/12
2500 Camino Diablo, Ste.#200	Client Contact: Robert Robitaille	Date Reported: 11/26/12
Walnut Creek, CA 94597	Client P.O.: #WC083860	Date Completed: 11/26/12

WorkOrder: 1211486

November 28, 2012

Dear Robert:

Enclosed within are:

1) The results of the **3** analyzed samples from your project: **#298931; FSI,**
2) QC data for the above samples, and
3) A copy of the chain of custody.

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

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

Best regards,

Angela Rydelius
Laboratory Manager
McCampbell Analytical, Inc.

The analytical results relate only to the items tested.

1211486

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CHAIN OF CUSTODY RECORD

TURN AROUND TIME ☐ RUSH ☐ 24 HR ☐ 48 HR ☐ 72 HR ■ 5 DAY

EDF Required? ☐ No ■ Yes

Report To: Robert Robitaille Bill To: PO# WC083860

Company: AEI Consultants

2500 Camino Diablo, Walnut Creek, California 94597

E-Mail: rrobitaille@aeiconsultants.com

Tele: (925) 746-6048 Fax: (925) 746-6099

Project #: 298931 Project Name: FSI

Project Location: 1630 Park Street, Alameda, California

Sampler Signature: John Sigg

Lab Use Only

Pressurized By	Date	Pressurization Gas	
		N2	He

Notes: TO15 Full List, TPH-g, BTEX, TVH, MTBE, TBA, TAME, DIPE, ETBE, Naphthlene, CO2, methane, Oxygen, Nitrogen, Isopropyl alcohol

Field Sample ID (Location)	Collection Date	Collection Time	Canister SN#	Sampler Kit SN#	Analysis Requested TO15 Full List	Indoor Air	Soil Gas	Canister Pressure/Vacuum Initial	Final	Receipt	Final (psi)
VP-1	11-16-12	0510	6207	846	Atm. Gases, TPH(g), BTEX & Oxygenates		X	30	5		
VP-2		0530	5805	680	Atm. Gases, TPH(g), BTEX & Oxygenates		X	30	5		
VP-3		0555	A7531	689	Atm. Gases, TPH(g), BTEX & Oxygenates		X	30	5		

Relinquished By:	Date:	Time:	Received By:
John Sigg	11-16-12	1244	
Relinquished By:	Date:	Time:	Received By:
Relinquished By:	Date:	Time:	Received By:

Temp (°C): _____ Work Order #: _____

Condition: _____

Custody Seals Intact?: Yes _____ No _____ None _____

Shipped Via: _____

McCampbell Analytical, Inc.
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Pittsburg, CA 94565-1701
(925) 252-9262

CHAIN-OF-CUSTODY RECORD

WorkOrder: 1211486 **ClientCode: AEL**

☐ WaterTrax ☐ WriteOn ☐ EDF ☐ Excel ☐ EQuIS ☑ Email ☐ HardCopy ☐ ThirdParty ☐ J-flag

Report to:
Robert Robitaille
AEI Consultants
2500 Camino Diablo, Ste.#200
Walnut Creek, CA 94597
(925) 283-6000 FAX: (925) 283-6121
Email: rrobitaille@aeiconsultants.com
cc:
PO: #WC083860
ProjectNo: #298931; FSI

Bill to:
Sara Guerin
AEI Consultants
2500 Camino Diablo, Ste. #200
Walnut Creek, CA 94597
AccountsPayable@AEIConsultants.c

Requested TAT: 5 days
Date Received: **11/16/2012**
Date Printed: **11/19/2012**

Lab ID	Client ID	Matrix	Collection Date	Hold	Requested Tests (See legend below)											
					1	2	3	4	5	6	7	8	9	10	11	12
1211486-001	VP-1	Soil Gas	1/16/2012 5:10	☐	A	A										
1211486-002	VP-2	Soil Gas	11/16/2012 5:30	☐	A	A										
1211486-003	VP-3	Soil Gas	11/16/2012 5:55	☐	A	A										

Test Legend:

1	LG_SUMMA_SOILGAS	2	TO15+GAS_SOIL(UG/M3)	3		4		5	
6		7		8		9		10	
11		12							

The following SampIDs: 001A, 002A, 003A contain testgroup.

Prepared by: Maria Venegas

Comments:

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

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Sample Receipt Checklist

Client Name: **AEI Consultants**
Date and Time Received: **11/16/2012 3:42:12 PM**
Project Name: **#298931; FSI**
LogIn Reviewed by: Maria Venegas
WorkOrder N°: **1211486** Matrix: Soil Gas
Carrier: Client Drop-In

Chain of Custody (COC) Information

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

Sample Receipt Information

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

Sample Preservation and Hold Time (HT) Information

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

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

Comments:

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AEI Consultants	Client Project ID: #298931; FSI	Date Sampled: 01/16/12-11/16/12
		Date Received: 11/16/12
2500 Camino Diablo, Ste.#200	Client Contact: Robert Robitaille	Date Extracted: 11/19/12-11/20/12
Walnut Creek, CA 94597	Client P.O.: #WC083860	Date Analyzed: 11/19/12-11/20/12

Light Gases*

Extraction Method: ASTM D 1946-90 | Analytical Method: ASTM D 1946-90 | Work Order: 1211486

Lab ID	1211486-001A	1211486-002A	1211486-003A		Reporting Limit for DF =1 and Pressure Ratio (Final/Initial) = 2	
Client ID	VP-1	VP-2	VP-3			
Matrix	Soil Gas	Soil Gas	Soil Gas			
Initial Pressure (psia)	13.18	12.16	12.97			
Final Pressure (psia)	39.35	24.25	27.50			
DF	1	1	1		Soil Gas	W
Compound	**Concentration**				µL/L	ug/L
Carbon Dioxide	25,000	23,000	8500		50	NA
Methane	ND<1.5	ND	1.5		1.0	NA
Nitrogen	750,000	610,000	630,000		4000	NA
Oxygen	180,000	180,000	210,000		4000	NA
Surrogate Recoveries (%)						
%SS:	N/A	N/A	N/A			
Comments						

* soil vapor samples are reported in µL/L.

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

DHS ELAP Certification 1644

Angela Rydelius, Lab Manager

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AEI Consultants	Client Project ID: #298931; FSI	Date Sampled: 01/16/12
		Date Received: 11/16/12
2500 Camino Diablo, Ste.#200	Client Contact: Robert Robitaille	Date Extracted: 11/21/12
Walnut Creek, CA 94597	Client P.O.: #WC083860	Date Analyzed: 11/21/12

TPH gas + Volatile Organic Compounds in µg/m³*

Extraction Method: TO15 Analytical Method: TO15 Work Order: 1211486

Lab ID	1211486-001A	Initial Pressure (psia)	13.18
Client ID	VP-1	Final Pressure (psia)	39.35
Matrix	Soil Gas		

Compound	Concentration *	DF	Reporting Limit	Compound	Concentration *	DF	Reporting Limit
Acetone	ND<180	1.0	120	Acrylonitrile	ND<6.6	1.0	4.4
tert-Amyl methyl ether (TAME)	ND<13	1.0	8.5	Benzene	ND<9.7	1.0	6.5
Benzyl chloride	ND<16	1.0	11	Bromodichloromethane	ND<21	1.0	14
Bromoform	ND<31	1.0	21	Bromomethane	ND<12	1.0	7.9
1,3-Butadiene	ND<6.7	1.0	4.5	2-Butanone (MEK)	ND<220	1.0	150
t-Butyl alcohol (TBA)	ND<93	1.0	62	Carbon Disulfide	ND<9.4	1.0	6.3
Carbon Tetrachloride	ND<19	1.0	13	Chlorobenzene	ND<14	1.0	9.4
Chloroethane	ND<8.1	1.0	5.4	Chloroform	ND<15	1.0	9.9
Chloromethane	ND<6.3	1.0	4.2	Cyclohexane	ND<270	1.0	180
Dibromochloromethane	ND<25	1.0	17	1,2-Dibromo-3-chloropropane	ND<30	1.0	20
1,2-Dibromoethane (EDB)	ND<24	1.0	16	1,2-Dichlorobenzene	ND<18	1.0	12
1,3-Dichlorobenzene	ND<18	1.0	12	1,4-Dichlorobenzene	ND<18	1.0	12
Dichlorodifluoromethane	ND<15	1.0	10	1,1-Dichloroethane	ND<12	1.0	8.2
1,2-Dichloroethane (1,2-DCA)	ND<12	1.0	8.2	1,1-Dichloroethene	ND<12	1.0	8.1
cis-1,2-Dichloroethene	ND<12	1.0	8.1	trans-1,2-Dichloroethene	ND<12	1.0	8.1
1,2-Dichloropropane	ND<14	1.0	9.4	cis-1,3-Dichloropropene	ND<14	1.0	9.2
trans-1,3-Dichloropropene	ND<14	1.0	9.2	1,2-Dichloro-1,1,2,2-tetrafluoroethane	ND<21	1.0	14
Diisopropyl ether (DIPE)	ND<13	1.0	8.5	1,4-Dioxane	ND<11	1.0	7.3
Ethanol	ND<140	1.0	96	Ethyl acetate	ND<28	1.0	19
Ethyl tert-butyl ether (ETBE)	ND<13	1.0	8.5	Ethylbenzene	ND<13	1.0	8.8
4-Ethyltoluene	ND<15	1.0	10	Freon 113	ND<24	1.0	16
Heptane	ND<310	1.0	210	Hexachlorobutadiene	ND<33	1.0	22
Hexane	500	1.0	180	2-Hexanone	ND<310	1.0	210
4-Methyl-2-pentanone (MIBK)	ND<12	1.0	8.3	Methyl-t-butyl ether (MTBE)	ND<11	1.0	7.3
Methylene chloride	ND<11	1.0	7.1	Naphthalene	ND<16	1.0	11
Propene	ND<130	1.0	88	Styrene	ND<13	1.0	8.6
1,1,1,2-Tetrachloroethane	ND<21	1.0	14	1,1,2,2-Tetrachloroethane	ND<21	1.0	14
Tetrachloroethene	63	1.0	14	Tetrahydrofuran	ND<9.0	1.0	6.0
Toluene	ND<11	1.0	7.7	TPH(g)	ND<2700	1.0	1800
1,2,4-Trichlorobenzene	ND<22	1.0	15	1,1,1-Trichloroethane	ND<16	1.0	11
1,1,2-Trichloroethane	ND<16	1.0	11	Trichloroethene	ND<16	1.0	11
Trichlorofluoromethane	ND<16	1.0	11	1,2,4-Trimethylbenzene	ND<15	1.0	10
1,3,5-Trimethylbenzene	ND<15	1.0	10	Vinyl Acetate	ND<270	1.0	180
Vinyl Chloride	ND<7.8	1.0	5.2	Xylenes, Total	ND<40	1.0	27

Surrogate Recoveries (%)

%SS1:	108	%SS2:	103
%SS3:	101		

Comments:

*vapor samples are reported in µg/m³.

ND means not detected above the reporting limit/method detection limit; N/A means analyte not applicable to this analysis.

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

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

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AEI Consultants	Client Project ID: #298931; FSI	Date Sampled: 11/16/12
		Date Received: 11/16/12
2500 Camino Diablo, Ste.#200	Client Contact: Robert Robitaille	Date Extracted: 11/21/12
Walnut Creek, CA 94597	Client P.O.: #WC083860	Date Analyzed: 11/21/12

TPH gas + Volatile Organic Compounds in µg/m³*

Extraction Method: TO15 Analytical Method: TO15 Work Order: 1211486

Lab ID	1211486-002A	Initial Pressure (psia)	12.16
Client ID	VP-2	Final Pressure (psia)	24.25
Matrix	Soil Gas		

Compound	Concentration *	DF	Reporting Limit	Compound	Concentration *	DF	Reporting Limit
Acetone	ND	1.0	120	Acrylonitrile	ND	1.0	4.4
tert-Amyl methyl ether (TAME)	ND	1.0	8.5	Benzene	ND	1.0	6.5
Benzyl chloride	ND	1.0	11	Bromodichloromethane	ND	1.0	14
Bromoform	ND	1.0	21	Bromomethane	ND	1.0	7.9
1,3-Butadiene	ND	1.0	4.5	2-Butanone (MEK)	ND	1.0	150
t-Butyl alcohol (TBA)	95	1.0	62	Carbon Disulfide	ND	1.0	6.3
Carbon Tetrachloride	ND	1.0	13	Chlorobenzene	ND	1.0	9.4
Chloroethane	ND	1.0	5.4	Chloroform	ND	1.0	9.9
Chloromethane	ND	1.0	4.2	Cyclohexane	ND	1.0	180
Dibromochloromethane	ND	1.0	17	1,2-Dibromo-3-chloropropane	ND	1.0	20
1,2-Dibromoethane (EDB)	ND	1.0	16	1,2-Dichlorobenzene	ND	1.0	12
1,3-Dichlorobenzene	ND	1.0	12	1,4-Dichlorobenzene	ND	1.0	12
Dichlorodifluoromethane	ND	1.0	10	1,1-Dichloroethane	ND	1.0	8.2
1,2-Dichloroethane (1,2-DCA)	ND	1.0	8.2	1,1-Dichloroethene	ND	1.0	8.1
cis-1,2-Dichloroethene	ND	1.0	8.1	trans-1,2-Dichloroethene	ND	1.0	8.1
1,2-Dichloropropane	ND	1.0	9.4	cis-1,3-Dichloropropene	ND	1.0	9.2
trans-1,3-Dichloropropene	ND	1.0	9.2	1,2-Dichloro-1,1,2,2-tetrafluoroethane	ND	1.0	14
Diisopropyl ether (DIPE)	ND	1.0	8.5	1,4-Dioxane	ND	1.0	7.3
Ethanol	110	1.0	96	Ethyl acetate	ND	1.0	19
Ethyl tert-butyl ether (ETBE)	ND	1.0	8.5	Ethylbenzene	ND	1.0	8.8
4-Ethyltoluene	ND	1.0	10	Freon 113	ND	1.0	16
Heptane	ND	1.0	210	Hexachlorobutadiene	ND	1.0	22
Hexane	230	1.0	180	2-Hexanone	ND	1.0	210
4-Methyl-2-pentanone (MIBK)	ND	1.0	8.3	Methyl-t-butyl ether (MTBE)	ND	1.0	7.3
Methylene chloride	ND	1.0	7.1	Naphthalene	ND	1.0	11
Propene	ND	1.0	88	Styrene	ND	1.0	8.6
1,1,1,2-Tetrachloroethane	ND	1.0	14	1,1,2,2-Tetrachloroethane	ND	1.0	14
Tetrachloroethene	72	1.0	14	Tetrahydrofuran	ND	1.0	6.0
Toluene	ND	1.0	7.7	TPH(g)	ND	1.0	1800
1,2,4-Trichlorobenzene	ND	1.0	15	1,1,1-Trichloroethane	ND	1.0	11
1,1,2-Trichloroethane	ND	1.0	11	Trichloroethene	ND	1.0	11
Trichlorofluoromethane	ND	1.0	11	1,2,4-Trimethylbenzene	ND	1.0	10
1,3,5-Trimethylbenzene	ND	1.0	10	Vinyl Acetate	ND	1.0	180
Vinyl Chloride	ND	1.0	5.2	Xylenes, Total	ND	1.0	27

Surrogate Recoveries (%)

%SS1:	107	%SS2:	105
%SS3:	102		

Comments:

*vapor samples are reported in µg/m³.

ND means not detected above the reporting limit/method detection limit; N/A means analyte not applicable to this analysis.

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

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

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AEI Consultants	Client Project ID: #298931; FSI	Date Sampled: 11/16/12
		Date Received: 11/16/12
2500 Camino Diablo, Ste.#200	Client Contact: Robert Robitaille	Date Extracted: 11/21/12
Walnut Creek, CA 94597	Client P.O.: #WC083860	Date Analyzed: 11/21/12

TPH gas + Volatile Organic Compounds in µg/m³*

Extraction Method: TO15 Analytical Method: TO15 Work Order: 1211486

Lab ID	1211486-003A	Initial Pressure (psia)	12.97
Client ID	VP-3	Final Pressure (psia)	27.50
Matrix	Soil Gas		

Compound	Concentration *	DF	Reporting Limit	Compound	Concentration *	DF	Reporting Limit
Acetone	ND<130	1.0	120	Acrylonitrile	ND<4.7	1.0	4.4
tert-Amyl methyl ether (TAME)	ND<9.0	1.0	8.5	Benzene	ND<6.9	1.0	6.5
Benzyl chloride	ND<12	1.0	11	Bromodichloromethane	ND<15	1.0	14
Bromoform	ND<22	1.0	21	Bromomethane	ND<8.4	1.0	7.9
1,3-Butadiene	ND<4.8	1.0	4.5	2-Butanone (MEK)	ND<160	1.0	150
t-Butyl alcohol (TBA)	ND<66	1.0	62	Carbon Disulfide	ND<6.7	1.0	6.3
Carbon Tetrachloride	ND<14	1.0	13	Chlorobenzene	ND<10	1.0	9.4
Chloroethane	ND<5.7	1.0	5.4	Chloroform	ND<10	1.0	9.9
Chloromethane	ND<4.5	1.0	4.2	Cyclohexane	ND<190	1.0	180
Dibromochloromethane	ND<18	1.0	17	1,2-Dibromo-3-chloropropane	ND<21	1.0	20
1,2-Dibromoethane (EDB)	ND<17	1.0	16	1,2-Dichlorobenzene	ND<13	1.0	12
1,3-Dichlorobenzene	ND<13	1.0	12	1,4-Dichlorobenzene	ND<13	1.0	12
Dichlorodifluoromethane	ND<11	1.0	10	1,1-Dichloroethane	ND<8.7	1.0	8.2
1,2-Dichloroethane (1,2-DCA)	ND<8.7	1.0	8.2	1,1-Dichloroethene	ND<8.6	1.0	8.1
cis-1,2-Dichloroethene	ND<8.6	1.0	8.1	trans-1,2-Dichloroethene	ND<8.6	1.0	8.1
1,2-Dichloropropane	ND<10	1.0	9.4	cis-1,3-Dichloropropene	ND<9.8	1.0	9.2
trans-1,3-Dichloropropene	ND<9.8	1.0	9.2	1,2-Dichloro-1,1,2,2-tetrafluoroethane	ND<15	1.0	14
Diisopropyl ether (DIPE)	ND<9.0	1.0	8.5	1,4-Dioxane	ND<7.7	1.0	7.3
Ethanol	ND<100	1.0	96	Ethyl acetate	ND<20	1.0	19
Ethyl tert-butyl ether (ETBE)	ND<9.0	1.0	8.5	Ethylbenzene	ND<9.3	1.0	8.8
4-Ethyltoluene	ND<11	1.0	10	Freon 113	ND<17	1.0	16
Heptane	ND<220	1.0	210	Hexachlorobutadiene	ND<23	1.0	22
Hexane	260	1.0	180	2-Hexanone	ND<220	1.0	210
4-Methyl-2-pentanone (MIBK)	ND<8.8	1.0	8.3	Methyl-t-butyl ether (MTBE)	ND<7.7	1.0	7.3
Methylene chloride	ND<7.5	1.0	7.1	Naphthalene	ND<12	1.0	11
Propene	ND<93	1.0	88	Styrene	ND<9.1	1.0	8.6
1,1,1,2-Tetrachloroethane	ND<15	1.0	14	1,1,2,2-Tetrachloroethane	ND<15	1.0	14
Tetrachloroethene	ND<15	1.0	14	Tetrahydrofuran	ND<6.4	1.0	6.0
Toluene	ND<8.2	1.0	7.7	TPH(g)	ND<1900	1.0	1800
1,2,4-Trichlorobenzene	ND<16	1.0	15	1,1,1-Trichloroethane	ND<12	1.0	11
1,1,2-Trichloroethane	ND<12	1.0	11	Trichloroethene	ND<12	1.0	11
Trichlorofluoromethane	ND<12	1.0	11	1,2,4-Trimethylbenzene	ND<11	1.0	10
1,3,5-Trimethylbenzene	ND<11	1.0	10	Vinyl Acetate	ND<190	1.0	180
Vinyl Chloride	ND<5.5	1.0	5.2	Xylenes, Total	ND<29	1.0	27

Surrogate Recoveries (%)

%SS1:	107	%SS2:	106
%SS3:	102		

Comments:

*vapor samples are reported in µg/m³.

ND means not detected above the reporting limit/method detection limit; N/A means analyte not applicable to this analysis.

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

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

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AEI Consultants	Client Project ID: #298931; FSI	Date Sampled: 01/16/12-11/16/12
		Date Received: 11/16/12
2500 Camino Diablo, Ste.#200	Client Contact: Robert Robitaille	Date Extracted: 11/21/12
Walnut Creek, CA 94597	Client P.O.: #WC083860	Date Analyzed: 11/21/12

Leak Check Compound*

Extraction method: TO15 Analytical methods: TO15 Work Order: 1211486

Lab ID	Client ID	Matrix	Initial Pressure	Final Pressure	Isopropyl Alcohol	DF	% SS	Comments
001A	VP-1	Soil Gas	13.18	39.35	ND	1	N/A	
002A	VP-2	Soil Gas	12.16	24.25	ND	1	N/A	
003A	VP-3	Soil Gas	12.97	27.50	ND	1	N/A	

Reporting Limit for DF =1; ND means not detected at or above the reporting limit	W	psia	psia	NA	NA
	SoilGas	psia	psia	50	µg/m³

* leak check compound is reported in µg/m³.

ND means not detected above the reporting limit/method detection limit; N/A means analyte not applicable to this analysis.

The (liquid) Leak Check reference is:

DTSC, Advisory-Active Soil Gas Investigations, April 2012, page 17, section 4.2.2.1:

"The laboratory reports should quantify and annotate all detections of the leak check compound at the reporting limit of the target analytes."

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

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Angela Rydelius, Lab Manager

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QC SUMMARY REPORT FOR ASTM D 1946-90

W.O. Sample Matrix: SoilGas | QC Matrix: SoilGas | BatchID: 72600 | WorkOrder: 1211486

EPA Method: ASTM D 1946-90 **Extraction: ASTM D 1946-90** **Spiked Sample ID: N/A**

Analyte	Sample	Spiked	MS	MSD	MS-MSD	LCS	Acceptance Criteria (%)		
	µL/L	µL/L	% Rec.	% Rec.	% RPD	% Rec.	MS / MSD	RPD	LCS
Carbon Dioxide	N/A	100	N/A	N/A	N/A	88.5	N/A	N/A	70 - 130
Methane	N/A	10	N/A	N/A	N/A	94	N/A	N/A	70 - 130
Nitrogen	N/A	26000	N/A	N/A	N/A	88.8	N/A	N/A	70 - 130
Oxygen	N/A	7000	N/A	N/A	N/A	88.5	N/A	N/A	70 - 130

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

BATCH 72600 SUMMARY

Lab ID	Date Sampled	Date Extracted	Date Analyzed	Lab ID	Date Sampled	Date Extracted	Date Analyzed
1211486-001A	01/16/12 5:10 AM	11/19/12	11/19/12 6:52 PM	1211486-001A	01/16/12 5:10 AM	11/20/12	11/20/12 11:50 AM
1211486-001A	01/16/12 5:10 AM	11/20/12	11/20/12 2:25 PM	1211486-002A	11/16/12 5:30 AM	11/19/12	11/19/12 6:28 PM
1211486-002A	11/16/12 5:30 AM	11/20/12	11/20/12 12:02 PM	1211486-002A	11/16/12 5:30 AM	11/20/12	11/20/12 2:46 PM
1211486-003A	11/16/12 5:55 AM	11/19/12	11/19/12 6:40 PM	1211486-003A	11/16/12 5:55 AM	11/20/12	11/20/12 12:19 PM
1211486-003A	11/16/12 5:55 AM	11/20/12	11/20/12 3:07 PM				

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

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

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

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

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

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QC SUMMARY REPORT FOR TO15

W.O. Sample Matrix: Soilgas | QC Matrix: Soilgas | BatchID: 72633 | WorkOrder: 1211486

EPA Method: TO15 **Extraction: TO15** **Spiked Sample ID: N/A**

Analyte	Sample	Spiked	MS	MSD	MS-MSD	LCS	Acceptance Criteria (%)		
	nL/L	nL/L	% Rec.	% Rec.	% RPD	% Rec.	MS / MSD	RPD	LCS
Acrylonitrile	N/A	25	N/A	N/A	N/A	150, F2	N/A	N/A	60 - 140
tert-Amyl methyl ether (TAME)	N/A	25	N/A	N/A	N/A	99.3	N/A	N/A	60 - 140
Benzene	N/A	25	N/A	N/A	N/A	99.2	N/A	N/A	60 - 140
Benzyl chloride	N/A	25	N/A	N/A	N/A	97.4	N/A	N/A	60 - 140
Bromodichloromethane	N/A	25	N/A	N/A	N/A	101	N/A	N/A	60 - 140
Bromoform	N/A	25	N/A	N/A	N/A	118	N/A	N/A	60 - 140
t-Butyl alcohol (TBA)	N/A	25	N/A	N/A	N/A	128	N/A	N/A	60 - 140
Carbon Disulfide	N/A	25	N/A	N/A	N/A	103	N/A	N/A	60 - 140
Carbon Tetrachloride	N/A	25	N/A	N/A	N/A	98.5	N/A	N/A	60 - 140
Chlorobenzene	N/A	25	N/A	N/A	N/A	94.6	N/A	N/A	60 - 140
Chloroethane	N/A	25	N/A	N/A	N/A	115	N/A	N/A	60 - 140
Chloroform	N/A	25	N/A	N/A	N/A	98.8	N/A	N/A	60 - 140
Chloromethane	N/A	25	N/A	N/A	N/A	122	N/A	N/A	60 - 140
Dibromochloromethane	N/A	25	N/A	N/A	N/A	106	N/A	N/A	60 - 140
1,2-Dibromo-3-chloropropane	N/A	25	N/A	N/A	N/A	127	N/A	N/A	60 - 140
1,2-Dibromoethane (EDB)	N/A	25	N/A	N/A	N/A	95.7	N/A	N/A	60 - 140
1,3-Dichlorobenzene	N/A	25	N/A	N/A	N/A	95.8	N/A	N/A	60 - 140
1,4-Dichlorobenzene	N/A	25	N/A	N/A	N/A	89	N/A	N/A	60 - 140
Dichlorodifluoromethane	N/A	25	N/A	N/A	N/A	116	N/A	N/A	60 - 140
1,1-Dichloroethane	N/A	25	N/A	N/A	N/A	102	N/A	N/A	60 - 140
1,2-Dichloroethane (1,2-DCA)	N/A	25	N/A	N/A	N/A	97.2	N/A	N/A	60 - 140
cis-1,2-Dichloroethene	N/A	25	N/A	N/A	N/A	103	N/A	N/A	60 - 140
trans-1,2-Dichloroethene	N/A	25	N/A	N/A	N/A	103	N/A	N/A	60 - 140
1,2-Dichloropropane	N/A	25	N/A	N/A	N/A	100	N/A	N/A	60 - 140
cis-1,3-Dichloropropene	N/A	25	N/A	N/A	N/A	98.7	N/A	N/A	60 - 140
trans-1,3-Dichloropropene	N/A	25	N/A	N/A	N/A	99.5	N/A	N/A	60 - 140
1,2-Dichloro-1,1,2,2-tetrafluoroethane	N/A	25	N/A	N/A	N/A	118	N/A	N/A	60 - 140
Diisopropyl ether (DIPE)	N/A	25	N/A	N/A	N/A	103	N/A	N/A	60 - 140
1,4-Dioxane	N/A	25	N/A	N/A	N/A	97.7	N/A	N/A	60 - 140
Ethyl acetate	N/A	25	N/A	N/A	N/A	99.3	N/A	N/A	60 - 140
Ethyl tert-butyl ether (ETBE)	N/A	25	N/A	N/A	N/A	105	N/A	N/A	60 - 140

LCS = Laboratory Control Sample

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

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QC SUMMARY REPORT FOR TO15

W.O. Sample Matrix: Soilgas | QC Matrix: Soilgas | BatchID: 72633 | WorkOrder: 1211486

EPA Method: TO15 **Extraction: TO15** **Spiked Sample ID: N/A**

Analyte	Sample	Spiked	MS	MSD	MS-MSD	LCS	Acceptance Criteria (%)		
	nL/L	nL/L	% Rec.	% Rec.	% RPD	% Rec.	MS / MSD	RPD	LCS
Ethylbenzene	N/A	25	N/A	N/A	N/A	111	N/A	N/A	60 - 140
Freon 113	N/A	25	N/A	N/A	N/A	121	N/A	N/A	60 - 140
Hexachlorobutadiene	N/A	25	N/A	N/A	N/A	93.5	N/A	N/A	60 - 140
4-Methyl-2-pentanone (MIBK)	N/A	25	N/A	N/A	N/A	97.3	N/A	N/A	60 - 140
Methyl-t-butyl ether (MTBE)	N/A	25	N/A	N/A	N/A	99.2	N/A	N/A	60 - 140
Methylene chloride	N/A	25	N/A	N/A	N/A	116	N/A	N/A	60 - 140
Naphthalene	N/A	25	N/A	N/A	N/A	99.1	N/A	N/A	60 - 140
Styrene	N/A	25	N/A	N/A	N/A	95.6	N/A	N/A	60 - 140
1,1,1,2-Tetrachloroethane	N/A	25	N/A	N/A	N/A	102	N/A	N/A	60 - 140
1,1,2,2-Tetrachloroethane	N/A	25	N/A	N/A	N/A	100	N/A	N/A	60 - 140
Tetrachloroethene	N/A	25	N/A	N/A	N/A	118	N/A	N/A	60 - 140
Tetrahydrofuran	N/A	25	N/A	N/A	N/A	130	N/A	N/A	60 - 140
Toluene	N/A	25	N/A	N/A	N/A	95.7	N/A	N/A	60 - 140
1,2,4-Trichlorobenzene	N/A	25	N/A	N/A	N/A	96.6	N/A	N/A	60 - 140
1,1,1-Trichloroethane	N/A	25	N/A	N/A	N/A	98.4	N/A	N/A	60 - 140
1,1,2-Trichloroethane	N/A	25	N/A	N/A	N/A	98.4	N/A	N/A	60 - 140
Trichloroethene	N/A	25	N/A	N/A	N/A	96.2	N/A	N/A	60 - 140
1,2,4-Trimethylbenzene	N/A	25	N/A	N/A	N/A	93.6	N/A	N/A	60 - 140
1,3,5-Trimethylbenzene	N/A	25	N/A	N/A	N/A	94.8	N/A	N/A	60 - 140
Vinyl Chloride	N/A	25	N/A	N/A	N/A	103	N/A	N/A	60 - 140
%SS1:	N/A	500	N/A	N/A	N/A	98	N/A	N/A	60 - 140
%SS2:	N/A	500	N/A	N/A	N/A	104	N/A	N/A	60 - 140
%SS3:	N/A	500	N/A	N/A	N/A	101	N/A	N/A	60 - 140

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

F2 = LCS recovery for this compound is higher than acceptance limits.

LCS = Laboratory Control Sample

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

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QC SUMMARY REPORT FOR TO15

W.O. Sample Matrix: Soilgas | QC Matrix: Soilgas | BatchID: 72633 | WorkOrder: 1211486

EPA Method: TO15 | **Extraction: TO15** | **Spiked Sample ID: N/A**

Analyte	Sample	Spiked	MS	MSD	MS-MSD	LCS	Acceptance Criteria (%)		
	nL/L	nL/L	% Rec.	% Rec.	% RPD	% Rec.	MS / MSD	RPD	LCS

BATCH 72633 SUMMARY

Lab ID	Date Sampled	Date Extracted	Date Analyzed	Lab ID	Date Sampled	Date Extracted	Date Analyzed
1211486-001A	01/16/12 5:10 AM	11/21/12	11/21/12 10:38 AM	1211486-002A	11/16/12 5:30 AM	11/21/12	11/21/12 11:19 AM
1211486-003A	11/16/12 5:55 AM	11/21/12	11/21/12 12:00 PM				

LCS = Laboratory Control Sample

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

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