August 1, 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
Partner of F.S.I.

JB/pm

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

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

August 1, 2013

GROUNDWATER MONITORING AND SAMPLING REPORT
2nd Quarter 2013

Property Identification:
1630 Park Street, Parcel B
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

August 1, 2013

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

Subject: **Groundwater Monitoring and Sampling Report**
2nd Quarter 2013
1630 Park Street, Parcel B
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 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:
  - Former UST-hold (Excavation E1): 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.
  - Three former hydraulic lifts (Excavation E2): 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 and was performed for four consecutive quarters.

SUMMARY OF GROUNDWATER MONITORING ACTIVITIES

On May 1, 2013, thirteen (13) groundwater monitoring wells (MW-1 to MW-5, DPE-1, DPE-2, DPE-4, 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. During the gauging of well DPE-5, it was found to contain a layer of light non-aqueous phase liquid (LNAPL) hydrocarbon which was sampled on May 6, 2013. 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 samples were collected into laboratory supplied 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 groundwater 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 LNAPL sample was delivered via overnight shipment to Friedman & Bruya, Inc. laboratory in Seattle, Washington, for forensic evaluation.

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

The LNAPL sample was analyzed for:

- Simulated distillation; and
- Gas chromatography with a flame ionization detector (GC/FID) with silica gel clean-up.

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 16.21 (MW-4) to 18.64 (DPE-6) feet above mean sea level (amsl). Depth to water ranged from 7.03 (MW-1) to 9.37 (MW-4) below ground surface. The average groundwater elevation for this event was 0.41 feet lower than the previous event.

- Based on these data, the groundwater flow direction was to the northwest under a hydraulic gradient of approximately 0.02 ft/ft which is consistent with previous events.

- Well DPE-5 contained 0.17 feet of LNAPL hydrocarbon. This is the first occurrence of measurable LNAPL in a well at the site.

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 AND LNAPL 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-2, MW-5, DPE-1, DPE-2, DPE-4, DPE-8 and DPE-10 compared to the prior event; however, the recent concentrations across the site are well below historical levels. TPH-g was not detected or decreased in all other wells compared to prior events. The highest concentration of TPH-g was reported in the sample collected from well DPE-10 at 3,700 micrograms per liter (µg/L). TPH-d was detected in 8 of the wells sampled. The highest concentration of TPH-d was reported in the sample collected from DPE-10 at 2,600 µg/L; however, qualitative laboratory notations indicate that this detection of TPH-d is associated with gasoline.

- TPH-mo was detected only in DPE-6 well at a concentration of 1,200 µg/L.

- MTBE was not detected in any well during the event.

- Concentrations of benzene in groundwater samples increased slightly in wells MW-1, MW-2, MW-4, MW-5, DPE-2, DPE-4, DPE-6, DPE-8, and DPE-10 and decreased in all other wells compared to prior events. The highest concentration of benzene was reported in the sample collected from well DPE-10 at 56 µg/L. In general, benzene concentrations are well below historic levels.

- Groundwater samples from two wells (MW-3 and DPE-11) were non-detect for all analytes for this event.

- Well DPE-5 contained 0.17 feet of LNAPL hydrocarbon and therefore, no groundwater sample was collected from this well. A sample of the LNAPL was collected and submitted for forensic analysis. The LNAPL was found to be composed primarily of oil (presumably hydraulic or motor oil) mixed with some extensively degraded gasoline.

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

No soil vapor samples were collected from the three onsite (3) soil vapor probes (VP-1, VP-2, and VP-3) during this quarter. During previous groundwater monitoring events, the three onsite (3) soil vapor probes (VP-1, VP-2, and VP-3) were sampled. The purpose of the sampling was to establish a baseline concentrations post interim remediation and as part of an evaluation of vapor intrusion potential. Data from those probes indicated non-detectable concentrations of TPH related constituents of concern over the previous four quarterly sampling events. Several VOCs including tetrachloroethene (PCE), hexane, ethanol and tert-butyl-alcohol have been sporadically detected in soil vapor at concentrations below the ESLs. See Table 4.

At the request of ACEH, a soil vapor survey was conducted on April 16, 2013, using seven temporary soil gas probes installed to a depth of 5 feet bgs across the western portion of site where new buildings are proposed. The results of the sampling indicated non-detectable concentrations of petroleum constituents of concern. PCE was detected in one location (SV-5) at a concentration well below the ESL. Results of the April soil vapor survey are included in Table 4. A map showing the location of the soil vapor probes and a copy of the laboratory analytical report are included as Appendix C.

SUMMARY

AEI completed a groundwater monitoring and sampling event on May 1, 2013. Thirteen wells were monitored as per the proposed groundwater monitoring schedule. The results of the groundwater monitoring are summarized below:

Groundwater flow is toward northwest under a hydraulic gradient of 0.02 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 and over time, the concentrations appear to be decreasing as a result of recent remedial efforts. MTBE was not detected in any groundwater samples.

Well DPE-5 contained 0.17 feet of LNAPL hydrocarbon. Forensic analysis of the LNAPL suggests the material is composed primarily of oil with some extensively degraded gasoline. This was the first occurrence of measurable LNAPL in a well at the site.

Soil vapor samples collected from seven locations across the site showed non-detectable concentrations of TPH-g, TPH-d, BTEX and naphthalene.

Tetrachloroethene (PCE) was detected in soil vapor collected from SV-5 located near the center of the proposed building. The laboratory reported a concentration of 100 µg/m3 in SV-5, well below the commercial/industrial ESL of 2100 µg/m3. PCE degradation by-products TCE and 1,2-dichlorethene were not detected in any of the samples. The PCE degradation by-product, vinyl chloride, was not reported due to the analytical method used (TO-17), however; the low concentration of PCE combined with the lack of the remaining degradation by-products suggests that vinyl chloride would not be present at significant concentrations.

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. No further quarterly groundwater monitoring and sampling events are scheduled at this time. Groundwater and soil gas may be sampled from selected wells, as needed, to fill remaining data gaps.

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. 5/31/14
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 and LNAPL 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 2013. Environmental Screening Levels, Table F-1a & E-2, San Francisco Regional Water Quality Control Board

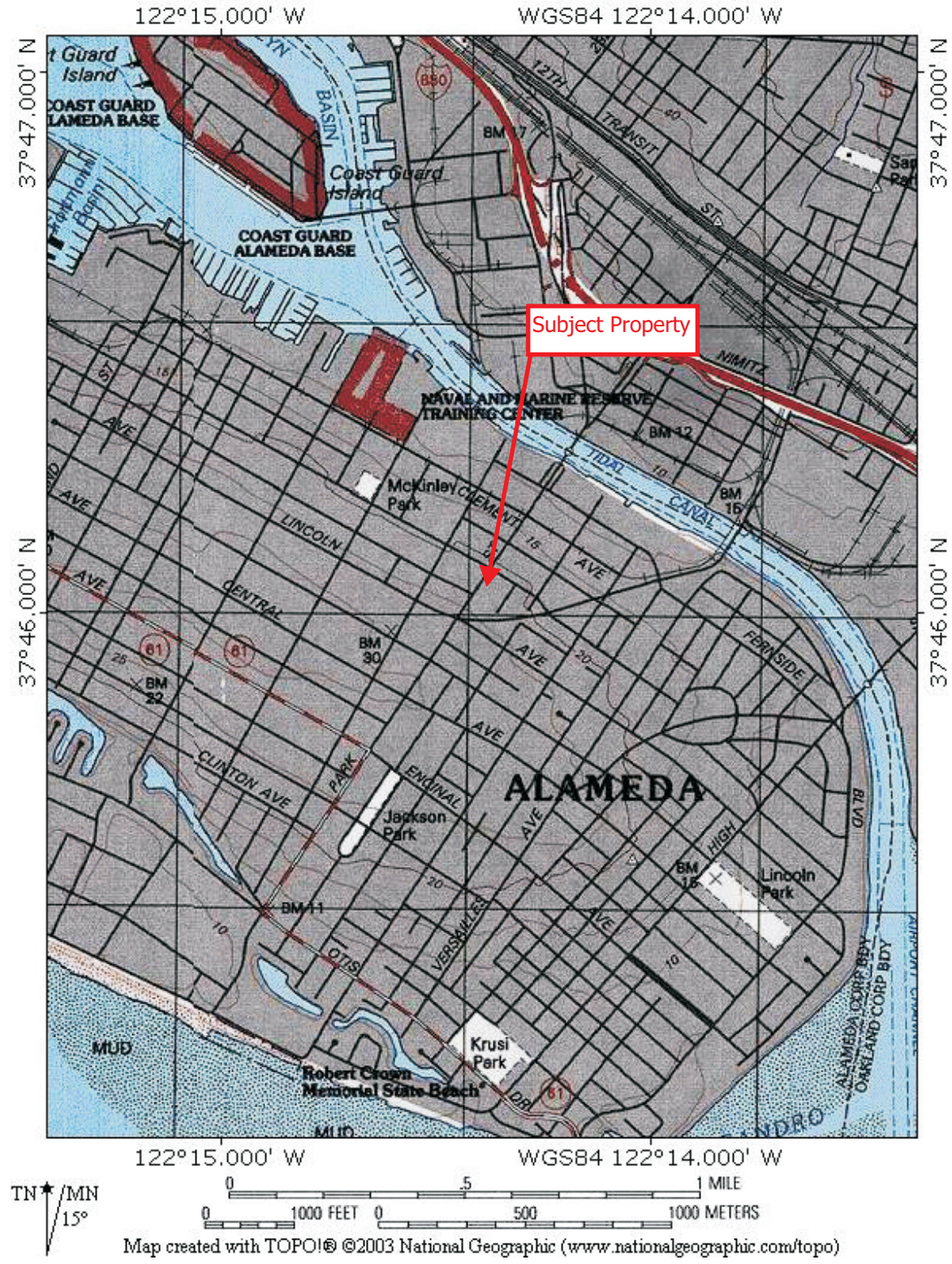
DISTRIBUTION

John Buestad, Foley Street Investments

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

GeoTracker (Upload)

FIGURES



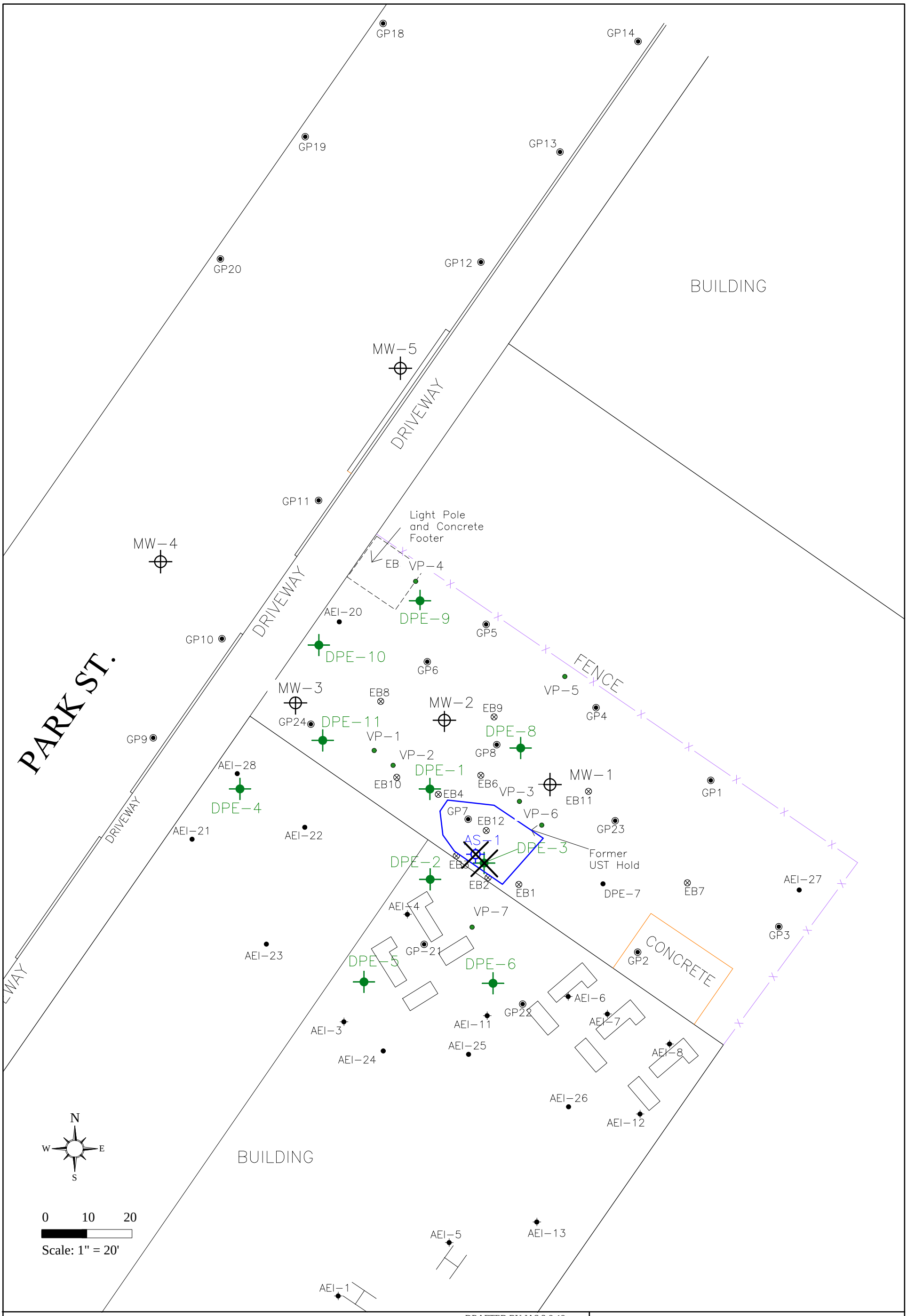
WELL

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

(16.50)
MW–5

DRIVEWAY

17.00

(16.21)
MW–4

DRIVEWAY

(17.34)
DPE–9

17.50

(16.93)
DPE–10

PARK ST.

(17.06)

MW–3

(17.81)
MW–2

FENCE

(18.33)
DPE–11

(18.11)
DPE–8

18.00

(18.00)
DPE–1

(18.34)
MW–1

DRIVEWAY

DPE–4
(17.16)

18.50

AS–1

DPE–3

Former
UST Hold

DPE–2
(18.25)

(18.06)
DPE–5

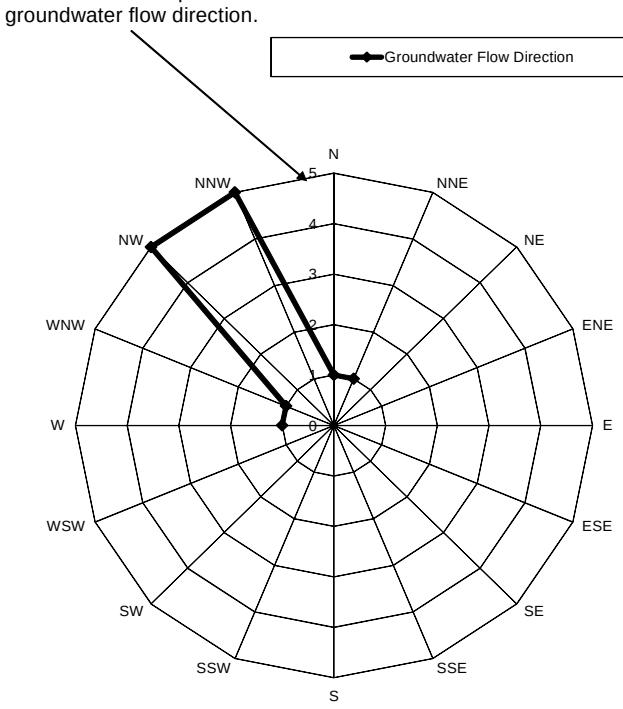
(18.64)
DPE–6

CONCRETE

Groundwater Flow Direction
May 1, 2013; Groundwater
Gradient = 0.01 ft/ft

Groundwater Flow Direction
Former Good Chevrolet,
1630 Park Street, Alameda, CA

Number of events per
groundwater flow direction.



N
W E
S

0 10 20
Scale: 1" = 20'

LEGEND

DRAFTED BY JAS 3-9-12
REVISED BY STL 05-11-13

- 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 - MAY 2013

1630 PARK STREET
ALAMEDA, CALIFORNIA

FIGURE 3
PROJECT NO. 298931

N
W E
S

BUILDING

PARK ST.

DRIVEWAY

FENCE

MW–5

TPHg - 64
TPHd - <50
TPHmo - <250
B - 3.4
T - <0.5
E - <0.5
X - <0.5

TPHg - <50
TPHd - <50
TPHmo - <250
B - 1.8
T - <0.5
E - <0.5
X - <0.5

MW–4

TPHg - 3,700
TPHd - 2,600
TPHmo - <250
B - 56
T - <1.7
E - 95
X - 82

TPHg - 1,700
TPHd - 1,300
TPHmo - <250
B - 5.4
T - <0.5
E - 5.6
X - 11

TPHg - 280
TPHd - 190
TPHmo - <250
B - 2.2
T - <0.5
E - 5.6
X - 5.6

DPE–9

DPE–10

TPHg - <50
TPHd - <50
TPHmo - <250
B - <0.5
T - <0.5
E - <0.5
X - <0.5

MW–3

MW–2

TPHg - 140
TPHd - 92
TPHmo - <250
B - 8.0
T - <0.5
E - <0.5
X - <0.5

DPE–11

DPE–8

DPE–1

MW–1

TPHg - 210
TPHd - 53
TPHmo - <250
B - 19
T - <0.5
E - <0.5
X - <0.5

DPE–4

TPHg - <50
TPHd - <50
TPHmo - <250
B - 3.1
T - <0.5
E - <0.5
X - <0.5

AS–1

DPE–3

Former
UST Hold

DPE–2

TPHg - <50
TPHd - <50
TPHmo - <250
B - <0.5
T - <0.5
E - <0.5
X - <0.5

DPE–5

DPE–6

TPHg - 330
TPHd - 74
TPHmo - <250
B - 0.90
T - <0.5
E - 1.9
X - 10

LNAPL
(0.17')

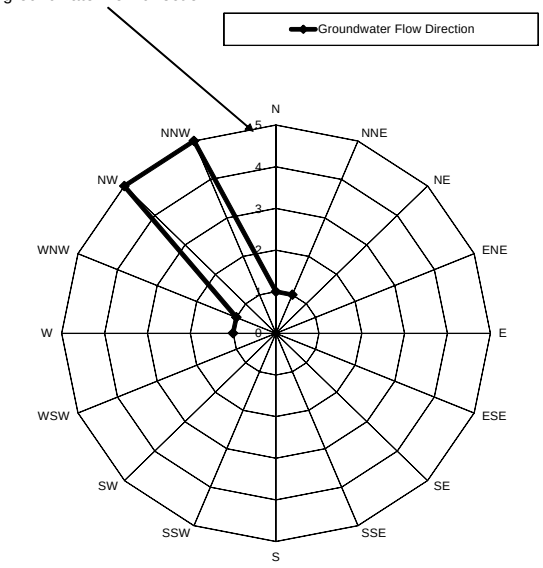
TPHg - 180
TPHd - 57
TPHmo - <250
B - 37
T - 1.3
E - 3.1
X - 3.2

TPHg - <50
TPHd - 1,200
TPHmo - 1,100
B - 0.58
T - <0.5
E - <0.5
X - <0.5

BUILDING

Groundwater Flow Direction
Former Good Chevrolet,
1630 Park Street, Alameda, CA

Number of events per
groundwater flow direction.



0 10 20

Scale: 1" = 20'

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

Remediation (DPE) Well

Abandoned Well

Groundwater Monitoring Well

DRAFTED BY JAS 3-9-12
REVISED BY JAS 05-22-13

AEI CONSULTANTS

2500 CAMINO DIABLO, WALNUT CREEK

GROUNDWATER ANALYTICAL DATA - MAY 2013

1620-1640 PARK STREET
ALAMEDA, CALIFORNIA

FIGURE 4
PROJECT NO. 298931

TABLES

Table 1

Well Construction Details

AEI Project No. 298931, 1620-1640 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	25.88	PVC	16	15	10	4	7 - 15	0.010	6.5 - 16	#2/12 Sand
DPE-2	11/15/2011	26.22	PVC	16	15	10	4	7 - 15	0.010	6.5 - 16	#2/12 Sand
~~DPE-3~~	~~11/14/2011~~	~~25.27~~	~~PVC~~	~~16~~	~~14~~	~~10~~	~~4~~	~~7 - 14~~	~~0.010~~	~~6.5 - 16~~	~~#2/12 Sand~~
DPE-4	1/19/2012	26.06	PVC	17	17	10	4	8 - 17	0.010	7.5 - 17	#2/12 Sand
DPE-5	1/20/2012	26.25	PVC	18	18	10	4	8 - 18	0.010	7.5 - 18	#2/12 Sand
DPE-6	1/20/2012	26.13	PVC	18	18	10	4	8 - 18	0.010	7.5 - 18	#2/12 Sand
DPE-8	1/20/2012	25.36	PVC	18	18	10	4	8 - 18	0.010	7.5 - 18	#2/12 Sand
DPE-9	1/20/2012	25.09	PVC	18	18	10	4	8 - 18	0.010	7.5 - 18	#2/12 Sand
DPE-10	1/20/2012	25.14	PVC	17	17	10	4	8 - 17	0.010	7.5 - 17	#2/12 Sand
DPE-11	1/20/2012	25.57	PVC	18	18	10	4	8 - 18	0.010	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	24.32	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 Sand
VP-2	12/6/2011	-	Stainless Steel	5.9	5.9	1.25	1/4	5.1-5.6	Mesh	4.7-5.9	#30 Mesh Sand
VP-3	12/6/2011	-	Stainless Steel	5.75	5.75	1.25	1/4	5.1-5.6	Mesh	4.7-5.75	#30 Mesh Sand

TOC = top of casing
PVC = polyvinyl chloride
~~AS-1~~ = indicates well has been abandoned
"-" = not available

Table 2

Groundwater Elevation Data
AEI Project No. 298931, 1620-1640 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
	Feb-13	25.37	6.55	18.82
	May-13	25.37	7.03	18.34
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
	Feb-13	25.48	7.17	18.31
	May-13	25.48	7.67	17.81

Table 2

Groundwater Elevation Data
AEI Project No. 298931, 1620-1640 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
	Feb-13	25.13	7.49	17.64
	May-13	25.13	8.07	17.06
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
	Feb-13	25.58	9.15	16.43
	May-13	25.58	9.37	16.21
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
	Feb-13	24.32	7.59	16.73
	May-13	24.32	7.82	16.50

Table 2

Groundwater Elevation Data
AEI Project No. 298931, 1620-1640 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
	Feb-13	25.88	7.36	18.52
	May-13	25.88	7.88	18.00
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
	Feb-13	26.22	7.50	18.72
	May-13	26.22	7.97	18.25
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
	Feb-13	26.06	8.37	17.69
	May-13	26.06	8.90	17.16
DPE-5 (8-18 feet bgs)	Jan-12	26.25	-	-
	Nov-12	26.25	9.94	16.31
	Feb-13	26.25	7.72	18.53
	May-13	26.25	8.19	18.06
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
	Feb-13	26.13	7.01	19.12
	May-13	26.13	7.49	18.64
DPE-8 (8-18 feet bgs)	Jan-12	25.36	-	-
	Nov-12	25.36	8.31	17.05
	Feb-13	25.36	6.69	18.67
	May-13	25.36	7.25	18.11
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
	Feb-13	25.09	7.27	17.82
	May-13	25.09	7.75	17.34
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
	Feb-13	25.14	7.64	17.50
	May-13	25.14	8.21	16.93
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
	Feb-13	25.57	7.68	17.89
	May-13	25.57	7.24	18.33
Average depth to water GW elev	Dec-11		8.45	17.11
	Jan-12		8.48	17.15
	May-12		7.70	17.82
	Jul-12		8.03	17.45
	Nov-12		8.81	16.73
	Feb-13		7.51	18.03
	May-13		7.92	17.62

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, 1620-1640 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	-	-	-	-	-	-	-	-	-	-
	2/27/2013		<50	<250	<50	<0.5	<0.5	<0.5	<0.5	<0.5	-	-	-	-	-	-	-	-	-	-
	5/1/2013		<50	<250	<50	3.1	<0.5	<0.5	<0.5	<0.5	-									

Table 3

Groundwater Analytical Data- Monitoring Wells

AEI Project No. 298931, 1620-1640 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	-	-	-	-	-	-	-	-	-	-
	2/27/2013	a	<50	<250	53	1.8	<0.5	<0.5	1.4	<0.5	-	-	-	-	-	-	-	-	-	-
	5/1/2013	a,c	190	<250	280	2.2	<0.5	5.6	5.6	<0.5	-									

Table 3

Groundwater Analytical Data- Monitoring Wells

AEI Project No. 298931, 1620-1640 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	-	-	-	-	-	-	-	-	-	-
	2/27/2013	g	<50	<250	<50	<0.5	<0.5	<0.5	<0.5	<0.5	-	-	-	-	-	-	-	-	-	-
	5/1/2013		<50	<250	<50	<0.5	<0.5	<0.5	<0.5	<0.5										

Table 3

Groundwater Analytical Data- Monitoring Wells

AEI Project No. 298931, 1620-1640 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	-	-	-	-	-	-	-	-	-	-
	2/27/2013		<50	<250	<50	<0.5	<0.5	<0.5	<0.5	<0.5										
	5/1/2013		<50	<250	<50	1.8	<0.5	<0.5	<0.5	<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	-	-	-	-	-	-	-	-	-	-
	2/27/2013		<50	<250	<50	<0.5	<0.5	<0.5	<0.5	<0.5	-	-	-	-	-	-	-	-	-	-
	5/1/2013	a	<50	<250	64	3.4	<0.5	<0.5	<0.5	<0.5										

Table 3

Groundwater Analytical Data- Monitoring Wells

AEI Project No. 298931, 1620-1640 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	-	-	-	-	-	-	-	-	-	-
	2/27/2013	a,c	110	<250	270	1.4	<0.5	0.53	5.3	<0.5	-	-	-	-	-	-	-	-	-	-
	5/1/2013	a,c	74	<250	330	0.90	<0.5	1.9	10	<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	-	-	-	-	-	-	-	-	-	-
	2/27/2013	h	99	<250	<50	<0.5	<0.5	<0.5	<0.5	<0.5	-	-	-	-	-	-	-	-	-	-
	5/1/2013	a,c	57	<250	180	37	1.3	3.1	3.2	<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	-	-	-	-	-	-	-	-	-	-
	2/27/2013		<50	<250	<50	0.63	<0.5	<0.5	<0.5	<0.5	-	-	-	-	-	-	-	-	-	-
	5/1/2013	a,h	53	<250	210	19	<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	-	-	-	-	-	-	-	-	-	-
	2/27/2013	a,c,h	1,200	2,600	3,900	440	370	120	570	<10	-	-	-	-	-	-	-	-	-	-
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	-	-	-	-	-	-	-	-	-	-
	2/27/2013	h	160	<250	<50	<0.5	<0.5	<0.5	<0.5	<0.5	-	-	-	-	-	-	-	-	-	-
	5/1/2013	i	1,200	1,100	<50	0.58	<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	-	-	-	-	-	-	-	-	-	-
	2/27/2013		<50	<250	<50	<0.5	<0.5	<0.5	<0.5	<0.5	-	-	-	-	-	-	-	-	-	-
	5/1/2013	a,c	92	<250	140	8.0	<0.5	<0.5	<0.5	<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	-	-	-	-	-	-	-	-	-	-
	2/27/2013	b	2,200	<250	3,300	5.5	<0.5	5.7	<0.5	16	-	-	-	-	-	-	-	-	-	-
	5/1/2013	a,c	1,300	<250	1,700	5.4	<0.5	5.6	11	<0.5										

Table 3

Groundwater Analytical Data- Monitoring Wells

AEI Project No. 298931, 1620-1640 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-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	-	-	-	-	-	-	-	-	-	-
	2/27/2013	a	660	<250	820	5.3	<0.5	6.0	<0.5	4.4	-	-	-	-	-	-	-	-	-	-
	5/1/2013	a,c	2,600	<250	3,700	56	<1.7	95	82	<1.7										
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	-	-	-	-	-	-	-	-	-	-
	2/27/2013		<50	<250	<50	<0.5	<0.5	<0.5	<0.5	<0.5	-	-	-	-	-	-	-	-	-	-
	5/1/2013		<50	<250	<50	<0.5	<0.5	<0.5	<0.5	<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

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 February 2013
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
i = Laboratory note indicates that aged diesel is 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	Isopropyl Alcohol* ($\mu g/m^3$)	TPH-g & TVH ($\mu g/m^3$)	Benzene ($\mu g/m^3$)	Toluene ($\mu g/m^3$)	Ethyl-benzene ($\mu g/m^3$)	Xylenes ($\mu g/m^3$)	TBA ($\mu g/m^3$)	MTBE ($\mu g/m^3$)	TAME ($\mu g/m^3$)	DIPE ($\mu g/m^3$)	ETBE ($\mu g/m^3$)	Naphthalene ($\mu g/m^3$)	PCE ($\mu g/m^3$)	Other VOCs ($\mu g/m^3$)	CO2 (µL/L)	Methane (µL/L)	Nitrogen (µL/L)	Oxygen (µL/L)
VP-1	5/17/2012	<50	<1,800	<6.5	<7.7	<8.8	<27	<62	-	-	-	-	-	-	-	-	-	-	-
	7/12/2012	<50	<1,800	<6.5	<7.7	<8.8	<27	<62	<7.3	<8.5	<8.5	<8.5	<11	-	-	17,000	<1.0	-	270,000
	11/16/2012	<50	<2,700	<9.7	<11	<13	<40	<93	<11	<13	<13	<13	<16	63	500[a]	25,000	<1.5	750,000	180,000
	2/27/2013	<50	<1,800	<6.5	<7.7	<8.8	<27	<62	<7.3	<8.5	<8.5	<8.5	<11	30	<MDL	15,000	<1.0	710,000	180,000
VP-2	5/17/2012	<50	<1,800	<6.5	<7.7	<8.8	<27	<62	-	-	-	-	-	-	-	-	-	-	-
	7/12/2012	<50	<1,800	<6.5	<7.7	<8.8	<27	230	<7.3	<8.5	<8.5	<8.5	<11	-	-	13,000	<1.0	-	280,000
	11/16/2012	<50	<1,800	<6.5	<7.7	<8.8	<27	95	<7.3	<8.5	<8.5	<8.5	<11	72	230[a], 110[b]	23,000	<1.0	610,000	180,000
	2/27/2013	<50	<2,700	<9.7	<11	<13	<40	<93	<11	<13	<13	<13	<16	28	<MDL	13,000	<1.5	710,000	190,000
VP-3	5/17/2012	<50	<1,800	<6.5	<7.7	<8.8	<27	<62	-	-	-	-	-	-	-	-	-	-	-
	7/12/2012	290	<1,800	<6.5	<7.7	<8.8	<27	<62	<7.3	<8.5	<8.5	<8.5	<11	-	-	24,000	1.1	-	280,000
	11/16/2012	<50	<1,900	<6.9	<8.2	<9.3	<29	<66	<7.7	<9.0	<9.0	<9.0	<12	ND<15	260[a]	8,500	1.5	630,000	210,000
	2/27/2013	<50	<2,700	<9.7	<11	<13	<40	<93	<11	<13	<13	<13	<16	ND<14	<MDL	3,700	1.1	710,000	190,000
SV-1	4/16/2013	-	<2500	<25	<25	<25	<25	-	-	-	-	-	<25	<25	<MDL	3,400	<2.0	-	170,000
SV-2	4/16/2013	-	<2500	<25	<25	<25	<25	-	-	-	-	-	<25	<25	<MDL	4,600	1.8	-	170,000
SV-3	4/16/2013	-	<2500	<25	<25	<25	<25	-	-	-	-	-	<25	<25	<MDL	160	<2.0	-	170,000
SV-4	4/16/2013	-	<2500	<25	<25	<25	<25	-	-	-	-	-	<25	<25	<MDL	4,200	<2.0	-	170,000
SV-5	5/3/2013	-	<2500	<25	<25	<25	<25	-	-	-	-	-	<25	100	<MDL	12,000	<2.0	-	170,000
SV-6	4/16/2013	-	<2500	<25	<25	<25	<25	-	-	-	-	-	<25	<25	<MDL	260	1.2	-	18,000
SV-7	4/16/2013	-	<2500	<25	<25	<25	<25	-	-	-	-	-	<25	<25	<MDL	10,000	<2.0	-	160,000
ESL		NA	50,000	420	1,300,000	4,900	220,000	NA	47,000	NA	NA	NA	360	2,100	NA	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)
* = Isoproyl alchohol used as leak check compound.
ND = Not detected above the reporting limit.
NA = Not applicable
ESL = Environmental Screening Levels, Table E-2, San Francisco Regional Water Quality Control Board (Commercial/Industrial, Shallow Soil, Drinking Water Aquifer), Revised May 2013

MTBE = Methyl-tert-butyl ether
TAME = Tert-amyl methyl ether
DIPE = Di-isopropyl ether
ETBE = Ethyl tert-butyl ether
PCE = Tetrachloroethene
a = Hexane (no ESL established)
b = Ethanol (no ESL established)
MDL = method detection limit
"-" = Not analyzed

APPENDIX A

FIELD SAMPLING FORMS

AEI CONSULTANTS

GROUNDWATER MONITORING WELL FIELD SAMPLING FORM

Monitoring Well Number: MW-1

Project Name:	Buestad	Date of Sampling:	5-1-13
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
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: 7.03 After: 7.05
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?	no — 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
0505	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	"
0515	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 bailer/from pump/system	Pump

COMMENTS

AEI CONSULTANTS

GROUNDWATER MONITORING WELL FIELD SAMPLING FORM

Monitoring Well Number: MW-2

Project Name:	Buestad	Date of Sampling:	5-1-13
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	20.00	
Depth to Water (from top of casing)	Before: 7.67	After: 7.69
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?	NO	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
0545	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	"
0555	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

AEI CONSULTANTS

GROUNDWATER MONITORING WELL FIELD SAMPLING FORM

Monitoring Well Number: MW-3

Project Name:	Buestad	Date of Sampling:	5-1-13
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: 8.07	After: 8.09
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?	no	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
0645	1	19.28	702	4.25	7.82	-121.3	Clear
	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	"
0655	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:	5-1-13
Job Number:	298931	Name of Sampler:	J. Sripy
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: 9.37	After: 9.39
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?	NO	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
0425	1	19.34	382	5.04	7.57	-132.8	Clear
	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	"
0435	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	17 FT
Sample method bailer/from pump/system	pump

COMMENTS

AEI CONSULTANTS

GROUNDWATER MONITORING WELL FIELD SAMPLING FORM

Monitoring Well Number: MW-5

Project Name:	Buestad	Date of Sampling.	5-1-13
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: 7.82 After: 7.85
Water Elevation (feet above msl)	Before: After:
Purging and Sampling Method	Low-Flow (Minimal Drawdown) Purging / Sampling
Well Volumes Purged	Mon 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? NO	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
0445	1	19.30	734	3.82	7.53	-72.7	Clear
	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	"
0455	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:	5-1-13
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: 7.88	After: 7.80
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?	NO	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
0745	1	19.35	858	3.67	7.62	-133.2	Clear
	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	"
0755	5	19.31	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

AEI CONSULTANTS
GROUNDWATER MONITORING WELL FIELD SAMPLING FORM

Monitoring Well Number: DPE-2

Project Name:	Buestad	Date of Sampling	5-1-31
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: 7.97	After: 7.99
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?	NO	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
0805	1	19.35	1133	3.07	7.54	-127.6	Clear
	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	"
0815	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-4

Project Name:	Buestad	Date of Sampling:	5-1-13
Job Number:	298931	Name of Sampler:	JS, GT
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: 8.90 After: 8.92
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? NO	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
0705	1	19.36	882	3.81	7.59	-85.4	Clear
	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	"
0715	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 bailer/from pump/system	Pump

COMMENTS

AEI CONSULTANTS
GROUNDWATER MONITORING WELL FIELD SAMPLING FORM

Monitoring Well Number: DPE-5

Project Name:	Buestad	Date of Sampling:	5-1-13
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:	8.19	After:	8.20
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 L to / min			
Actual Volume Purged (liters)	5			
Appearance of Purge Water/Turbidity/Color	Clear			
Free Product Present?	yes	Thickness (ft):	.17	

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	19.36	758	4.50	7.82	-103.8	Clear
	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	"
0915	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	17.5 FT
Sample method bailer/from pump/system	Pump

COMMENTS

Free Product present .17 THK

AEI CONSULTANTS

GROUNDWATER MONITORING WELL FIELD SAMPLING FORM

Monitoring Well Number: DPE-6

Project Name:	Buestad	Date of Sampling:	5-1-13
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: 7.49 After: 7.50
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?	NO 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
0825	1	19.34	808	3.82	7.82	-43.7	Clear
	2	19.36	797	3.67	7.70	-40.8	"
	3	19.37	795	2.65	7.68	-42.1	"
	4	19.38	791	2.17	7.66	-44.7	"
0835	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 bailer/from pump/system	PUMP

COMMENTS

AEI CONSULTANTS

GROUNDWATER MONITORING WELL FIELD SAMPLING FORM

Monitoring Well Number: DPE-8

Project Name:	Buestad	Date of Sampling:	5-1-13
Job Number:	298931	Name of Sampler:	J. Gorski
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: 7.25	After: 7.27
Water Elevation (feet above msl)	Before:	After:
Purging and Sampling Method	Low-Flow (Minimal Drawdown) Purging / Sampling	
Well Volumes Purged	Micropurge	
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?	NO	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
0525	1	19.37	923	3.32	7.50	-131.2	Clear
	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	"
0535	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:	5-1-13
Job Number:	298931	Name of Sampler:	J. Sapp
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: 7.75	After: 7.76
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 Lite. / Min	
Actual Volume Purged (liters)	5	
Appearance of Purge Water/Turbidity/Color	Clear	
Free Product Present? NO	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
0605	1	19.37	757	2.97	7.82	-103.4	Clear
	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	"
0615	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:	5-1-13
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: 8.21 After: 8.23
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? NO	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
0625	1	19.35	743	4.01	7.53	-144.5	Clear
	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	"
0635	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 bailer/from pump/system	PUMP

COMMENTS

AEI CONSULTANTS

GROUNDWATER MONITORING WELL FIELD SAMPLING FORM

Monitoring Well Number: DPE-11

Project Name:	Buestad	Date of Sampling:	5-1-13
Job Number:	298931	Name of Sampler:	JSigl
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: 7.24 After: 7.26
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? NO	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
0725	1	19.35	943	3.28	7.62	-188.3	Clear
	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	"
0735	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	11ft
Sample method	Pump
bailer/from pump/system	

COMMENTS

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# WC0840944 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:

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		5-1-13	0455	4	VOA, ~~amber~~	X					X	X			X	X	X		
MW-2			0515	4	VOA, ~~amber~~	X					X	X			X	X	X		
MW-3			0535	4	VOA, ~~amber~~	X					X	X			X	X	X		
MW-4			0415	4	VOA, ~~amber~~	X					X	X			X	X	X		
MW-5			0435	4	VOA, ~~amber~~	X					X	X			X	X	X		
DEP-1			0615	4	VOA, ~~amber~~	X					X	X			X	X	X		
DEP-2			0635	4	VOA, ~~amber~~	X					X	X			X	X	X		
~~DEP-3~~				~~4~~	VOA, ~~amber~~	~~X~~					~~X~~	~~X~~			X	X	X		
DEP-4			0655	4	VOA, ~~amber~~	X					X	X			X	X	X		
DEP-5			0855	4	VOA, ~~amber~~	X					X	X			X	X	X		HOLD
DEP-6			0715	4	VOA, ~~amber~~	X					X	X			X	X	X		
DEP-8			0735	4	VOA, ~~amber~~	X					X	X			X	X	X		
DEP-9			0755	4	VOA, ~~amber~~	X					X	X			X	X	X		
DEP-10			0815	4	VOA, ~~amber~~	X					X	X			X	X	X		
DEP-11			0835	4	VOA, ~~amber~~	X					X	X			X	X	X		

Relinquished By:	Date:	Time:	Received By:
	5-1-13	1019	
Relinquished By:	Date:	Time:	Received By:
Relinquished By:	Date:	Time:	Received By:

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

GOOD CONDITION_____ PRESERVATION_____

HEAD SPACE ABSENT_____ APPROPRIATE

DECHLORINATED IN LAB_____ CONTAINERS_____

PERSERVED IN LAB_____

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: 05/01/13
		Date Received: 05/01/13
2500 Camino Diablo, Ste.#200	Client Contact: Robert Robitaille	Date Reported: 05/07/13
Walnut Creek, CA 94597	Client P.O.: #WC084094	Date Completed: 05/07/13

WorkOrder: 1305020

May 08, 2013

Dear Robert:

Enclosed within are:

1) The results of the **13** 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.

1305020

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# WC084094 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 Sigg

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	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		5-1-13	0455	4	VOA, amber-t.	X					X	X			X	X	X		
MW-2			0515	4	VOA, amber-t.	X					X	X			X	X	X		
MW-3			0535	4	VOA, amber-t.	X					X	X			X	X	X		
MW-4			0415	4	VOA, amber-t.	X					X	X			X	X	X		
MW-5			0435	4	VOA, amber-t.	X					X	X			X	X	X		
DEP-1			0615	4	VOA, amber-t.	X					X	X			X	X	X		
DEP-2			0635	4	VOA, amber-t.	X					X	X			X	X	X		
~~DEP-3~~				~~4~~	~~VOA, amber-t.~~	~~X~~					~~X~~	~~X~~			X	X	X		
DEP-4			0655	4	VOA, amber-t.	X					X	X			X	X	X		
DEP-5			0855	4	VOA, amber-t.	X					X	X			X	X	X		HOLD
DEP-6			0715	4	VOA, amber-t.	X					X	X			X	X	X		
DEP-8			0735	4	VOA, amber-t.	X					X	X			X	X	X		
DEP-9			0755	4	VOA, amber-t.	X					X	X			X	X	X		
DEP-10			0815	4	VOA, amber-t.	X					X	X			X	X	X		
DEP-11			0835	4	VOA, amber-t.	X					X	X			X	X	X		

Relinquished By:	Date:	Time:	Received By:
John Sigg	5-1-13	1019	
Relinquished By:	Date:	Time:	Received By:
Relinquished By:	Date:	Time:	Received By:

ICE/t° 10.9

GOOD CONDITION ✓

HEAD SPACE ABSENT ✓

DECHLORINATED IN LAB _____

PRESERVATION APPROPRIATE ✓

CONTAINERS ✓

PERSERVED IN LAB _____

VOAS	O&G	METALS	OTHER
✓			

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

CHAIN-OF-CUSTODY RECORD

WorkOrder: 1305020 **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) 944-2895
Email: rrobitaille@aeiconsultants.com
cc:
PO: #WC084094
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: **05/01/2013**
Date Printed: **05/01/2013**

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
1305020-001	MW-1	Water	5/1/2013 4:55	☐	A	B	A									
1305020-002	MW-2	Water	5/1/2013 5:15	☐	A	B										
1305020-003	MW-3	Water	5/1/2013 5:35	☐	A	B										
1305020-004	MW-4	Water	5/1/2013 4:15	☐	A	B										
1305020-005	MW-5	Water	5/1/2013 4:35	☐	A	B										
1305020-006	DEP-1	Water	5/1/2013 6:15	☐	A	B										
1305020-007	DEP-2	Water	5/1/2013 6:35	☐	A	B										
1305020-008	DEP-4	Water	5/1/2013 6:55	☐	A	B										
1305020-010	DEP-6	Water	5/1/2013 7:15	☐	A	B										
1305020-011	DEP-8	Water	5/1/2013 7:35	☐	A	B										
1305020-012	DEP-9	Water	5/1/2013 7:55	☐	A	B										
1305020-013	DEP-10	Water	5/1/2013 8:15	☐	A	B										
1305020-014	DEP-11	Water	5/1/2013 8:35	☐	A	B										

Test Legend:

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

The following SampIDs: 001A, 002A, 003A, 004A, 005A, 006A, 007A, 008A, 010A, 011A, 012A, 013A, 014A 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.

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

Sample Receipt Checklist

Client Name: **AEI Consultants** Date and Time Received: **5/1/2013 2:35:44 PM**

Project Name: **#298931; FSI** LogIn Reviewed by: Maria Venegas

WorkOrder N°: **1305020** 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: 1.9°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:

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

AEI Consultants	Client Project ID: #298931; FSI	Date Sampled: 05/01/13
		Date Received: 05/01/13
2500 Camino Diablo, Ste.#200	Client Contact: Robert Robitaille	Date Extracted 05/02/13-05/06/13
Walnut Creek, CA 94597	Client P.O.: #WC084094	Date Analyzed 05/02/13-05/06/13

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

Extraction method: SW5030B Analytical methods: SW8015Bm Work Order: 1305020

Lab ID	Client ID	Matrix	TPH(g)	DF	% SS	Comments
001A	MW-1	W	ND	1	96	
002A	MW-2	W	280	1	109	d1
003A	MW-3	W	ND	1	94	
004A	MW-4	W	ND	1	119	
005A	MW-5	W	64	1	---#	d1
006A	DEP-1	W	330	1	129	d1
007A	DEP-2	W	180	1	102	d1
008A	DEP-4	W	210	1	---#	d1
010A	DEP-6	W	ND	1	108	
011A	DEP-8	W	140	1	110	d1
012A	DEP-9	W	1700	1	---#	d1
013A	DEP-10	W	3700	2	---#	d1
014A	DEP-11	W	ND	1	103	

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

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AEI Consultants	Client Project ID: #298931; FSI	Date Sampled: 05/01/13
		Date Received: 05/01/13
2500 Camino Diablo, Ste.#200	Client Contact: Robert Robitaille	Date Extracted: 05/03/13-05/04/13
Walnut Creek, CA 94597	Client P.O.: #WC084094	Date Analyzed: 05/03/13-05/04/13

MTBE and BTEX by GC/MS*

Extraction Method: SW5030B | Analytical Method: SW8260B | Work Order: 1305020

Lab ID	1305020-001B	1305020-002B	1305020-003B	1305020-004B	Reporting Limit for DF =1	
Client ID	MW-1	MW-2	MW-3	MW-4		
Matrix	W	W	W	W		
DF	1	1	1	1	S	W
Compound	**Concentration**				ug/kg	µg/L
Benzene	3.1	2.2	ND	1.8	NA	0.5
Ethylbenzene	ND	5.6	ND	ND	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	5.6	ND	ND	NA	0.5
Surrogate Recoveries (%)						
%SS1:	104	108	111	108		
%SS2:	95	95	97	97		
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: 05/01/13
		Date Received: 05/01/13
2500 Camino Diablo, Ste.#200	Client Contact: Robert Robitaille	Date Extracted: 05/03/13-05/04/13
Walnut Creek, CA 94597	Client P.O.: #WC084094	Date Analyzed: 05/03/13-05/04/13

MTBE and BTEX by GC/MS*

Extraction Method: SW5030B | Analytical Method: SW8260B | Work Order: 1305020

Lab ID	1305020-005B	1305020-006B	1305020-007B	1305020-008B	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	3.4	0.90	37	19	NA	0.5
Ethylbenzene	ND	1.9	3.1	ND	NA	0.5
Methyl-t-butyl ether (MTBE)	ND	ND	ND	ND	NA	0.5
Toluene	ND	ND	1.3	ND	NA	0.5
Xylenes, Total	ND	10	3.2	ND	NA	0.5
Surrogate Recoveries (%)						
%SS1:	108	104	106	108		
%SS2:	96	95	97	96		
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: 05/01/13
		Date Received: 05/01/13
2500 Camino Diablo, Ste.#200	Client Contact: Robert Robitaille	Date Extracted: 05/03/13-05/04/13
Walnut Creek, CA 94597	Client P.O.: #WC084094	Date Analyzed: 05/03/13-05/04/13

MTBE and BTEX by GC/MS*

Extraction Method: SW5030B | Analytical Method: SW8260B | Work Order: 1305020

Lab ID	1305020-010B	1305020-011B	1305020-012B	1305020-013B	Reporting Limit for DF =1	
Client ID	DEP-6	DEP-8	DEP-9	DEP-10		
Matrix	W	W	W	W		
DF	1	1	1	3.3	S	W
Compound	**Concentration**				ug/kg	µg/L
Benzene	0.58	8.0	5.4	56	NA	0.5
Ethylbenzene	ND	ND	5.6	95	NA	0.5
Methyl-t-butyl ether (MTBE)	ND	ND	ND	ND<1.7	NA	0.5
Toluene	ND	ND	ND	ND<1.7	NA	0.5
Xylenes, Total	ND	ND	11	82	NA	0.5
Surrogate Recoveries (%)						
%SS1:	107	107	107	109		
%SS2:	98	95	95	95		
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: 05/01/13
		Date Received: 05/01/13
2500 Camino Diablo, Ste.#200	Client Contact: Robert Robitaille	Date Extracted: 05/03/13-05/04/13
Walnut Creek, CA 94597	Client P.O.: #WC084094	Date Analyzed: 05/03/13-05/04/13

MTBE and BTEX by GC/MS*

Extraction Method: SW5030B | Analytical Method: SW8260B | Work Order: 1305020

					Reporting Limit for DF =1	
Lab ID	1305020-014B					
Client ID	DEP-11					
Matrix	W					
DF	1				S	W
Compound	**Concentration**				ug/kg	µg/L
Benzene	ND				NA	0.5
Ethylbenzene	ND				NA	0.5
Methyl-t-butyl ether (MTBE)	ND				NA	0.5
Toluene	ND				NA	0.5
Xylenes, Total	ND				NA	0.5
Surrogate Recoveries (%)						
%SS1:	111					
%SS2:	96					
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: 05/01/13
		Date Received: 05/01/13
2500 Camino Diablo, Ste.#200	Client Contact: Robert Robitaille	Date Extracted: 05/01/13
Walnut Creek, CA 94597	Client P.O.: #WC084094	Date Analyzed: 05/02/13-05/06/13

Total Extractable Petroleum Hydrocarbons with Silica Gel Clean-Up*

Extraction method: SW3510C/3630C Analytical methods: SW8015B Work Order: 1305020

Lab ID	Client ID	Matrix	TPH-Diesel (C10-C23)	TPH-Motor Oil (C18-C36)	DF	% SS	Comments
1305020-001A	MW-1	W	ND	ND	1	95	
1305020-002A	MW-2	W	190	ND	1	85	e4
1305020-003A	MW-3	W	ND	ND	1	88	
1305020-004A	MW-4	W	ND	ND	1	91	
1305020-005A	MW-5	W	ND	ND	1	96	
1305020-006A	DEP-1	W	74	ND	1	93	e4
1305020-007A	DEP-2	W	57	ND	1	92	e4
1305020-008A	DEP-4	W	53	ND	1	88	e2
1305020-010A	DEP-6	W	1200	1100	1	93	e3
1305020-011A	DEP-8	W	92	ND	1	92	e4
1305020-012A	DEP-9	W	1300	ND	1	97	e4
1305020-013A	DEP-10	W	2600	ND	1	95	e4
1305020-014A	DEP-11	W	ND	ND	1	93	

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
e3) aged diesel is significant
e4) gasoline range compounds are significant.

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QC SUMMARY REPORT FOR SW8021B/8015Bm

W.O. Sample Matrix: Water | QC Matrix: Water | BatchID: 76911 | WorkOrder: 1305020

EPA Method: SW8021B/8015Bm **Extraction: SW5030B** **Spiked Sample ID: 1304880-003A**

Analyte	Sample	Spiked	MS	MSD	MS-MSD	LCS	Acceptance Criteria (%)		
	µg/L	µg/L	% Rec.	% Rec.	% RPD	% Rec.	MS / MSD	RPD	LCS
TPH(btex)£	ND	60	94	90.6	3.68	92.1	70 - 130	20	70 - 130
MTBE	ND	10	90.8	91.3	0.514	93.7	70 - 130	20	70 - 130
Benzene	ND	10	86.4	88.8	2.82	85.7	70 - 130	20	70 - 130
Toluene	ND	10	87.4	89.7	2.52	87	70 - 130	20	70 - 130
Ethylbenzene	ND	10	87.7	91.1	3.80	86.7	70 - 130	20	70 - 130
Xylenes	ND	30	88.9	92.5	3.91	87.1	70 - 130	20	70 - 130
%SS:	107	10	88	96	8.68	95	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 76911 SUMMARY

Lab ID	Date Sampled	Date Extracted	Date Analyzed	Lab ID	Date Sampled	Date Extracted	Date Analyzed
1305020-001A	05/01/13 4:55 AM	05/03/13	05/03/13 5:13 AM	1305020-002A	05/01/13 5:15 AM	05/03/13	05/03/13 5:43 AM

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

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

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

£ 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: 76940 | WorkOrder: 1305020

EPA Method: SW8021B/8015Bm **Extraction: SW5030B** **Spiked Sample ID: 1305040-002C**

Analyte	Sample	Spiked	MS	MSD	MS-MSD	LCS	Acceptance Criteria (%)		
	µg/L	µg/L	% Rec.	% Rec.	% RPD	% Rec.	MS / MSD	RPD	LCS
TPH(btex)£	ND	60	92.8	95.5	2.86	91.6	70 - 130	20	70 - 130
MTBE	ND	10	98	97.2	0.734	96.5	70 - 130	20	70 - 130
Benzene	ND	10	88.2	86.7	1.70	89.6	70 - 130	20	70 - 130
Toluene	ND	10	89.7	88.9	0.851	90.4	70 - 130	20	70 - 130
Ethylbenzene	ND	10	92.5	91	1.56	92.5	70 - 130	20	70 - 130
Xylenes	ND	30	93.2	91.9	1.43	93.1	70 - 130	20	70 - 130
%SS:	96	10	95	95	0	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 76940 SUMMARY

Lab ID	Date Sampled	Date Extracted	Date Analyzed	Lab ID	Date Sampled	Date Extracted	Date Analyzed
1305020-003A	05/01/13 5:35 AM	05/03/13	05/03/13 5:47 PM	1305020-004A	05/01/13 4:15 AM	05/02/13	05/02/13 9:26 PM
1305020-005A	05/01/13 4:35 AM	05/03/13	05/03/13 11:47 PM	1305020-006A	05/01/13 6:15 AM	05/02/13	05/02/13 11:31 PM
1305020-007A	05/01/13 6:35 AM	05/03/13	05/03/13 12:03 AM	1305020-008A	05/01/13 6:55 AM	05/03/13	05/03/13 12:34 AM
1305020-010A	05/01/13 7:15 AM	05/06/13	05/06/13 11:52 PM	1305020-011A	05/01/13 7:35 AM	05/03/13	05/03/13 1:37 AM
1305020-012A	05/01/13 7:55 AM	05/03/13	05/03/13 9:38 PM	1305020-013A	05/01/13 8:15 AM	05/03/13	05/03/13 11:15 PM
1305020-014A	05/01/13 8:35 AM	05/04/13	05/04/13 12:52 AM				

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

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

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

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

cluttered chromatogram; sample peak coelutes with surrogate peak.

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

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

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QC SUMMARY REPORT FOR SW8260B

W.O. Sample Matrix: Water | QC Matrix: Water | BatchID: 77012 | WorkOrder: 1305020

EPA Method: SW8260B **Extraction: SW5030B** **Spiked Sample ID: 1305072-001A**

Analyte	Sample	Spiked	MS	MSD	MS-MSD	LCS	Acceptance Criteria (%)		
	µg/L	µg/L	% Rec.	% Rec.	% RPD	% Rec.	MS / MSD	RPD	LCS
Benzene	ND	20	104	104	0	93.9	70 - 130	20	70 - 130
Methyl-t-butyl ether (MTBE)	ND	20	114	114	0	108	70 - 130	20	70 - 130
Toluene	ND	20	85.5	86.2	0.808	80.9	70 - 130	20	70 - 130
%SS1:	108	25	106	106	0	111	70 - 130	20	70 - 130
%SS2:	97	25	94	95	0.540	94	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 77012 SUMMARY

Lab ID	Date Sampled	Date Extracted	Date Analyzed	Lab ID	Date Sampled	Date Extracted	Date Analyzed
1305020-001B	05/01/13 4:55 AM	05/03/13	05/03/13 11:43 PM	1305020-002B	05/01/13 5:15 AM	05/04/13	05/04/13 12:26 AM
1305020-003B	05/01/13 5:35 AM	05/04/13	05/04/13 1:09 AM	1305020-004B	05/01/13 4:15 AM	05/04/13	05/04/13 1:52 AM
1305020-005B	05/01/13 4:35 AM	05/04/13	05/04/13 2:34 AM	1305020-006B	05/01/13 6:15 AM	05/04/13	05/04/13 3:17 AM
1305020-007B	05/01/13 6:35 AM	05/04/13	05/04/13 3:59 AM	1305020-008B	05/01/13 6:55 AM	05/04/13	05/04/13 4:42 AM
1305020-010B	05/01/13 7:15 AM	05/04/13	05/04/13 5:24 AM	1305020-011B	05/01/13 7:35 AM	05/04/13	05/04/13 6:07 AM
1305020-012B	05/01/13 7:55 AM	05/04/13	05/04/13 6:49 AM	1305020-013B	05/01/13 8:15 AM	05/04/13	05/04/13 7:32 AM
1305020-014B	05/01/13 8:35 AM	05/04/13	05/04/13 8:14 AM				

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

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

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

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

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

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

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QA/QC Officer

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QC SUMMARY REPORT FOR SW8015B

W.O. Sample Matrix: Water | QC Matrix: Water | BatchID: 76880 | WorkOrder: 1305020

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

Analyte	Sample	Spiked	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	109	N/A	N/A	70 - 130
%SS:	N/A	625	N/A	N/A	N/A	95	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 76880 SUMMARY

Lab ID	Date Sampled	Date Extracted	Date Analyzed	Lab ID	Date Sampled	Date Extracted	Date Analyzed
1305020-001A	05/01/13 4:55 AM	05/01/13	05/03/13 10:28 PM	1305020-002A	05/01/13 5:15 AM	05/01/13	05/04/13 11:31 PM
1305020-003A	05/01/13 5:35 AM	05/01/13	05/04/13 10:19 PM	1305020-004A	05/01/13 4:15 AM	05/01/13	05/04/13 4:10 PM
1305020-005A	05/01/13 4:35 AM	05/01/13	05/04/13 2:53 PM	1305020-006A	05/01/13 6:15 AM	05/01/13	05/04/13 5:28 PM
1305020-007A	05/01/13 6:35 AM	05/01/13	05/02/13 8:26 PM	1305020-008A	05/01/13 6:55 AM	05/01/13	05/06/13 8:51 PM
1305020-010A	05/01/13 7:15 AM	05/01/13	05/02/13 8:59 AM	1305020-011A	05/01/13 7:35 AM	05/01/13	05/04/13 9:50 AM
1305020-012A	05/01/13 7:55 AM	05/01/13	05/02/13 5:32 AM	1305020-013A	05/01/13 8:15 AM	05/01/13	05/02/13 4:23 AM
1305020-014A	05/01/13 8:35 AM	05/01/13	05/02/13 7:49 AM				

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

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

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

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

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

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QA/QC Officer

FRIEDMAN & BRUYA, INC.

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May 22, 2013

Robert Robitaille
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Walnut Creek, CA 94597

Dear Mr. Robitaille:

Included are the results from the testing of material submitted on May 7, 2013 from the 298931 FSI, PO WC084104, 1630 Park St., Alameda, CA, F&BI 305109 project. The product sample submitted for forensic evaluation arrived in good condition. Upon arrival, the sample DPE-5 Prod was placed in a refrigerator maintained at 4°C until removed for sample processing.

The sample DPE-5 Prod was diluted, passed through a silica gel column, and analyzed using a gas chromatograph with a flame ionization detector (GC/FID). The data generated yielded information on the boiling range and general chemical composition of the material present. The GC/FID traces are enclosed. A GC/FID trace of a standard consisting of normal alkanes is also provided for reference purposes. In addition, a simulated distillation was performed on the sample DPE-5 Prod. The results of this testing are also enclosed.

Please contact us if additional consultation is needed by our firm in the interpretation of the analytical results provided. We appreciate this opportunity to be of service to you and hope you will call if you should have any questions. We will hold your samples for 30 days before disposal unless directed otherwise.

Sincerely,

FRIEDMAN & BRUYA, INC.

Michele Costales Poquiz

Michele Costales Poquiz
Chemist

Enclosures
c: rrobitaille@aeiconsultants.com
NAA0522R.DOC

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 05/22/13
Date Received: 05/07/13
Project: 298931 FSI, PO WC084104, 1630 Park St., Alameda, CA, F&BI 305109
Date Extracted: 05/13/13
Date Analyzed: 05/13/13

RESULTS FROM THE ANALYSIS OF THE PRODUCT SAMPLE FOR FORENSIC EVALUATION BY CAPILLARY GAS CHROMATOGRAPHY USING A FLAME IONIZATION DETECTOR (FID) Sample Extract Passed Through a Silica Gel Column Prior to Analysis

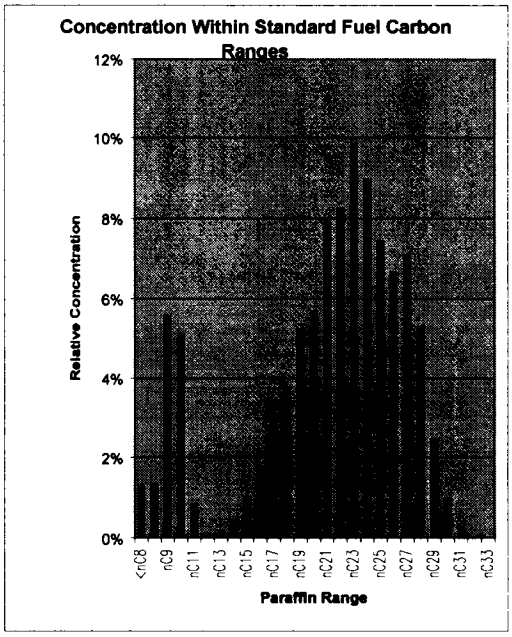
Sample ID	GC Characterization
DPE-5 Prod	The GC trace using the flame ionization detector (FID) showed the presence of low and high boiling compounds. The patterns displayed by these peaks are indicative of a mixture of a low boiling material such as degraded gasoline or similar materials and a high boiling material such as lube oil or similar materials. The low boiling compounds appear as an irregular pattern of peaks on top of a small hump or unresolved complex mixture (UCM). This material elutes from *n*-C_7 to *n*-C_{13} showing a maximum near *n*-C_{10}. This correlates with a temperature range of approximately 100°C to 240°C with a maximum near 100°C. Within this range, the GC/FID trace showed a low level or absence of peaks which are indicative of toluene, ethylbenzene, and the xylenes. The low level or absence of these constituents indicates that if gasoline is present, it has undergone extensive degradation. The high boiling compounds appear as an irregular pattern of peaks on top of a broad hump or UCM. This material elutes from *n*-C_{13} to *n*-C_{32} showing a maximum near *n*-C_{25}. This correlates with a temperature range of approximately 240°C to 470°C with a maximum near 400°C. The large peak seen near 25 minutes on the GC/FID trace is pentacosane, added as a quality assurance check for this GC analysis.

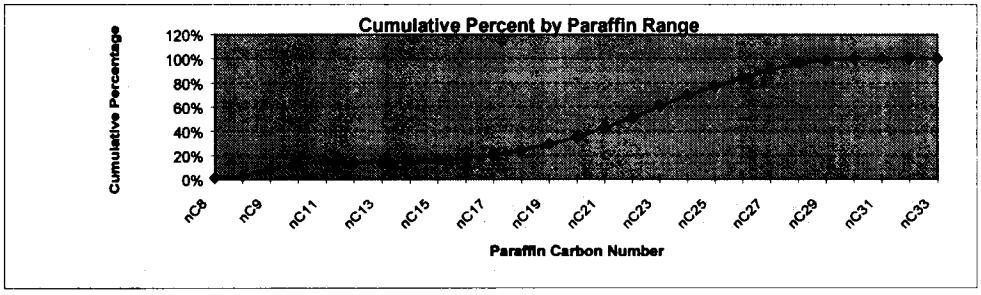
Date of Report: 05/22/13
Date Received: 05/07/13
Project: 298931 FSI, PO WC084104, 1630 Park St., Alameda, CA, F&BI 305109
Date Extracted: 05/13/13
Data Analyzed: 05/13/13

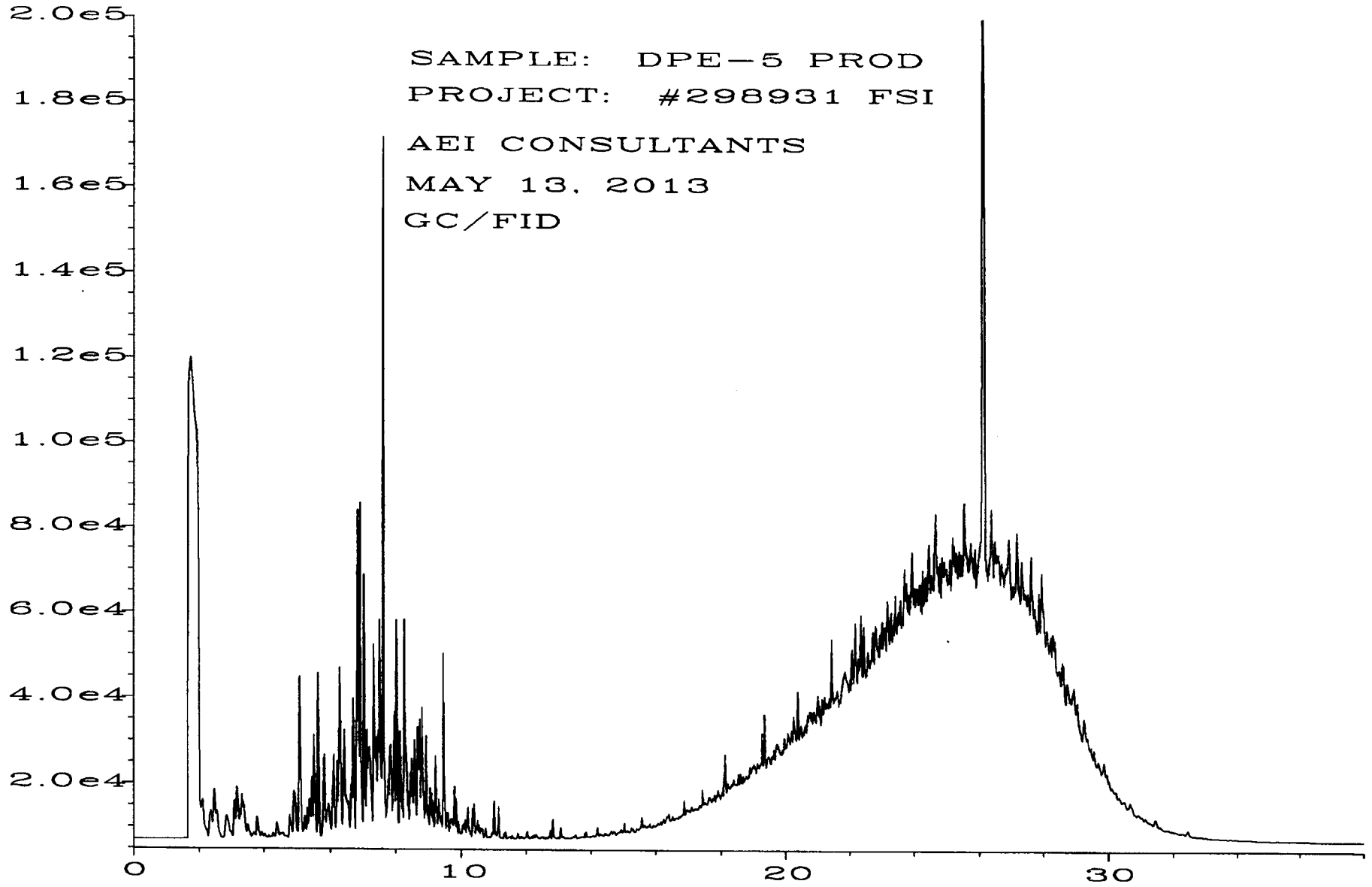
RESULTS FROM THE ANALYSIS OF THE PRODUCT SAMPLE FOR PETROLEUM HYDROCARBONS USING GC/FID (Modified 8015-Simulated Distillation) Sample Extract Passed Through a Silica Gel Column Prior to Analysis

Laboratory ID: 305109-01 sg
Client ID: DPE-5 Prod

Paraffin Range	Percent of Total	Cumulative Percent
<nC8	1%	1%
nC8 - <nC9	1%	3%
nC9 - <nC10	6%	8%
nC10 - <nC11	5%	13%
nC11 - <nC12	1%	14%
nC12 - <nC13	<1%	14%
nC13 - <nC14	<1%	14%
nC14 - <nC15	<1%	15%
nC15 - <nC16	1%	16%
nC16 - <nC17	2%	17%
nC17 - <nC18	3%	20%
nC18 - <nC19	4%	24%
nC19 - <nC20	5%	29%
nC20 - <nC21	6%	35%
nC21 - <nC22	8%	43%
nC22 - <nC23	8%	51%
nC23 - <nC24	10%	61%
nC24 - <nC25	9%	70%
nC25 - <nC26	7%	77%
nC26 - <nC27	7%	84%
nC27 - <nC28	7%	91%
nC28 - <nC29	5%	96%
nC29 - <nC30	2%	99%
nC30 - <nC31	1%	100%
nC31 - <nC32	<1%	100%
nC32 - <nC33	<1%	100%
nC33 - <nC34	<1%	100%







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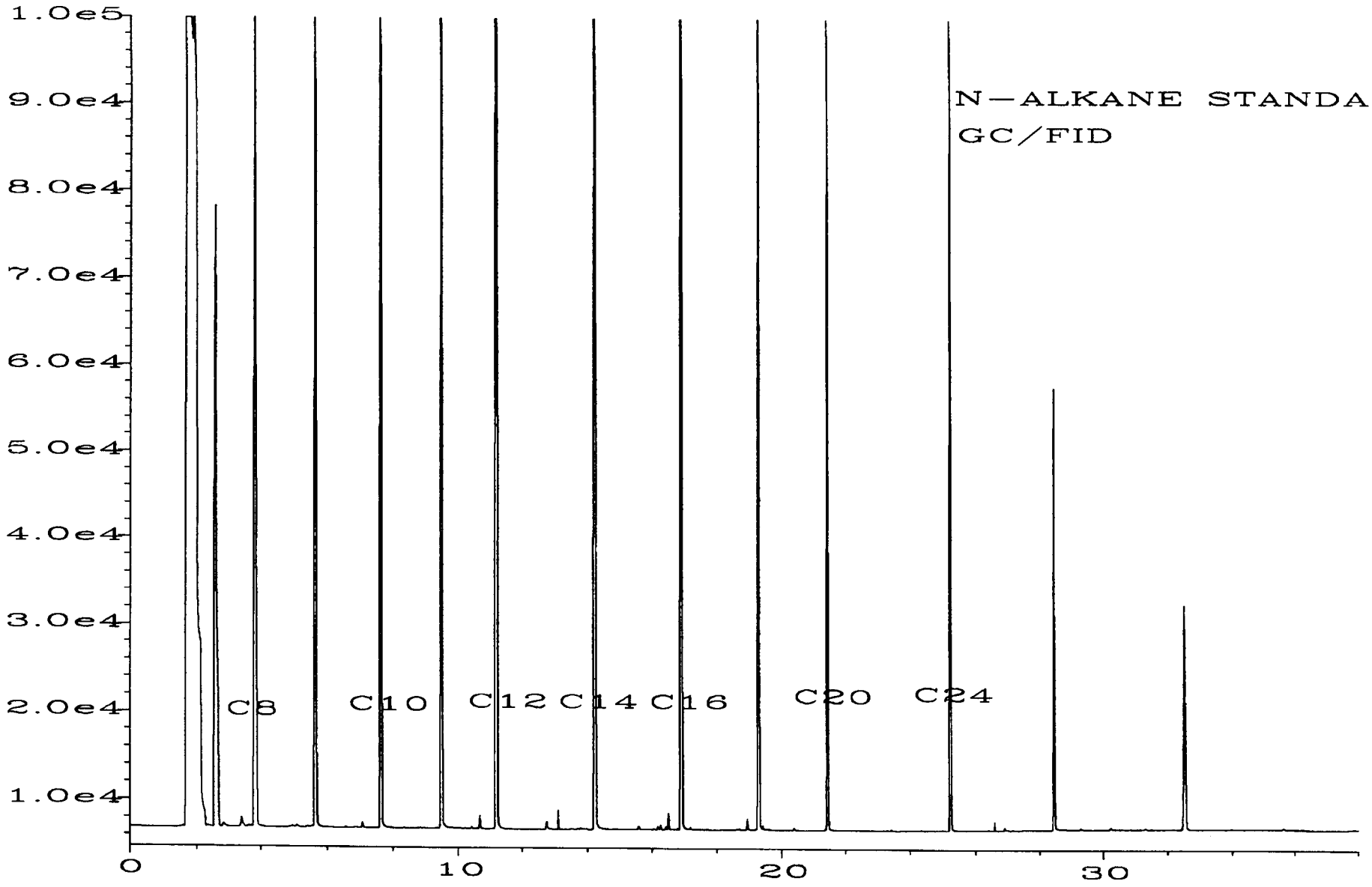

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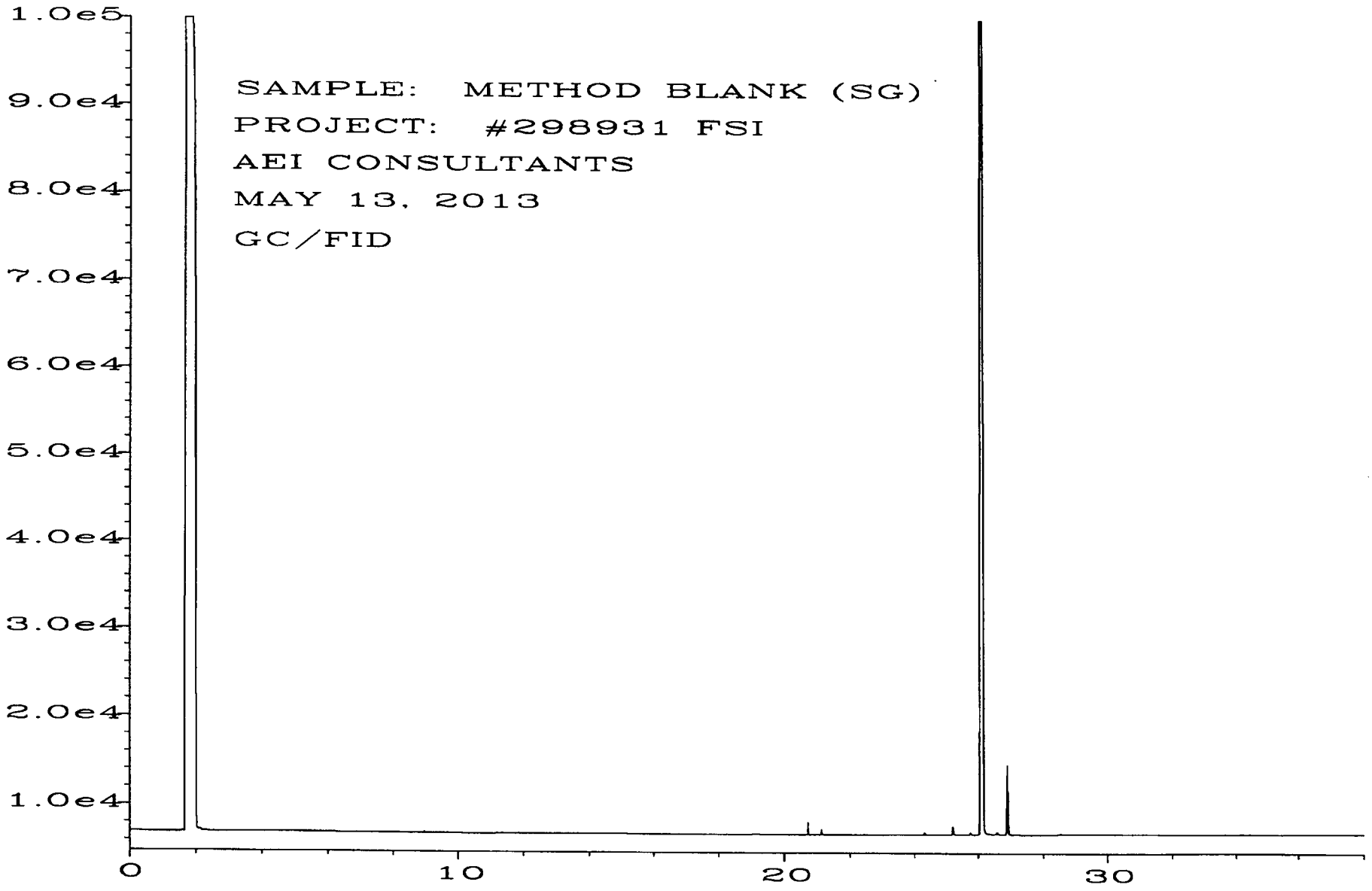


Sig. 1 in C:\HPCHEM\1\DATA\05-13-13\005F0401.D

305109

SAMPLE CHAIN OF CUSTODY

MP 05-07-13 D02

Send Report To: Robert Robitaille

Company: AEI Consultants

Address: 2500 Camino Diablo

City, State, ZIP: Walnut Creek, CA 94597

Phone # (925) 746-6000 Fax # (925) 746-6099

Email Address: rrobitaille@aeiconsultants.com

SAMPLERS (signature)

PROJECT NAME/NO.: #298931 FSI

PO #: WC084104

PROJECT ADDRESS: 1630 Park St., Alameda, CA

ELECTRONIC DATA REQUESTED YES

Page # 1 of 1

TURNAROUND TIME

Standard Turnaround

~~2 WEEK~~ Std

Rush charges authorized by:

SAMPLE DISPOSAL

Dispose after 30 days

Return samples

Will call with instructions

Samples Received at ____ °C

Sample ID	Lab ID	Date	Time	Sample Type	# of containers	TPH-Diesel	TPH-Gasoline	BTEX by 8021B	VOCs by 8260	SVOCs by 8270	HFS	Simulated Distillation					Notes
DPE-5 Prod	01	5/6/2013	0530	Product	1 Voa						X	X					Gas/Oil mixture
																	Soil is on ice per Robert R. 5/7/13
																	Samples received at 23 °C

Friedman & Bruya, Inc.
3012 16th Avenue West
Seattle, WA 98119-2029
Ph. (206) 285-8282
Fax (206) 283-5044

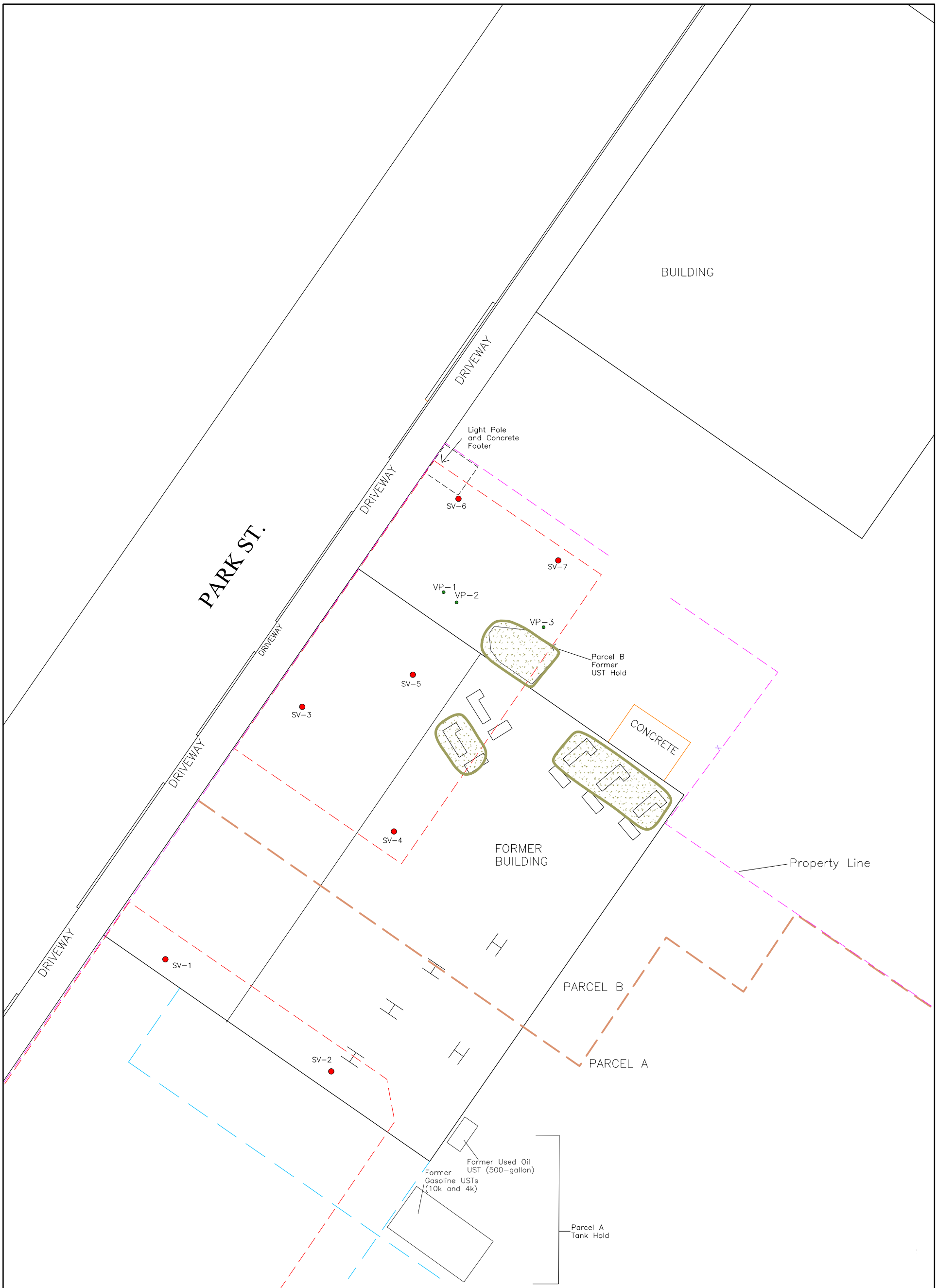
FORMS\COC\COC.DOC

	SIGNATURE	PRINT NAME	COMPANY	DATE	TIME
Relinquished by:		Bob Robitaille	AEI	5/6/13	10:30
Received by:		Nhan Phan	FEBI	5/7/13	10:00
Relinquished by:					
Received by:					

Samples received at ____ °C

APPENDIX C

APRIL 16, 2013
SOIL VAPOR SURVEY RESULTS



N

W E

S

0 15 30

Scale: 1" = 30'

LEGEND

DRAFTED BY JAS 3-2-12
REVISED BY RPR 7-22-13

- Vapor Probe (12/11)
- Vapor Sampling Point (04/13)
- Parcel Split
- Excavation Extents
- Proposed Building Extents
- Former Hydraulic Lift
- Former Hydraulic Lift

AEI CONSULTANTS

2500 CAMINO DIABLO, WALNUT CREEK

SOIL VAPOR SAMPLE LOCATIONS

1630 PARK STREET
ALAMEDA, CALIFORNIA

Appendix C

PROJECT NO. 298931

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; Foley Street	Date Sampled: 04/16/13
		Date Received: 04/17/13
2500 Camino Diablo, Ste.#200	Client Contact: Jeremy Smith	Date Reported: 04/25/13
Walnut Creek, CA 94597	Client P.O.: WC084069	Date Completed: 04/25/13

WorkOrder: 1304552

July 19, 2013

Dear Jeremy:

Enclosed within are:

1) The results of the **9** analyzed samples from your project: **#298931; Foley Street,**
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.

1304552

McCAMPBELL ANALYTICAL INC.
1534 WILLOW PASS ROAD / PITTSBURG, CA 94565-1701
Website: www.mccampbell.com / Email: main@mccampbell.com
Telephone: (877) 252-9262 / Fax: (925) 252-9269

CHAIN OF CUSTODY RECORD

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

EDF Required? Coelt (Normal) No Write On (DW) No

Report To: Jeremy Smith	Bill To: AEI
Company: AEI Consultants	WC084069
2500 Camino Diablo	
Walnut Creek	E-Mail: jasmith@aeiconsultants.com
Tele: (925) 746-6000	Fax: (925) 746-6099
Project #: 298931	Project Name: Foley Street
Project Location: 1630 Park Street, Alameda, CA	
Sampler Signature:	

Lab Use Only

Pressurized By	Date	Pressurization Gas N2	Pressurization Gas He

Helium Shroud SN#:

Other: PO # WC084069

Notes:
McCampbell
Helium Shroud used

Field Sample ID (Location)	Collection Date	Collection Time	Canister SN#	Manifold / Sampler Kit SN#	Analysis Requested	Indoor Air	Soil Gas	Canister Pressure/Vacuum Initial	Final	Receipt	Final (psi)
SV-1	4-16-13	1230	6301	316T-998	TO-17 (TPHg, BTEX, Naphthalene)		☒	-30	-5		
SV-2		124	6419	316T-776				-28.5	-5		
SV-3		1033	A7522	316-815				-28	-4		
SV-4		1131	1462-585	316T-779	D1946-90 (O_2, CO_2, CH_4)			-30	-5		
SV-5		337	6306-786	316-825				-30	-5		
SV-6		207	6303	316-816				-27	-5		
SV-7		918	6311-791	316-819				-27	-5		
Trip Blank					TO-17 only			N/A	N/A		
SV-5 DUP		337	1461	316-825	TO-17 only			-30	-5		

Relinquished By:	Date:	Time:	Received By:
	4/17/13	6:45	
Relinquished By:	Date:	Time:	Received By:
	4/17/13	1545	
Relinquished By:	Date:	Time:	Received By:

Temp (°C): _____ Work Order #: _____

Equipment Condition: _____

Shipped Via: _____

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

CHAIN-OF-CUSTODY RECORD

WorkOrder: 1304552 **ClientCode: AEL**

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

Report to:
Jeremy Smith
AEI Consultants
2500 Camino Diablo, Ste.#200
Walnut Creek, CA 94597
(925) 283-6000 FAX: (925) 944-2895

Email: jasmith@aeiconsultants.com
cc:
PO: WC084069
ProjectNo: #298931; Foley Street

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

Requested TAT: 5 days

Date Received: **04/17/2013**
Date Printed: **04/18/2013**

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
1304552-001	SV-1	Soil Gas	4/16/2013 12:30	☐	A	A	A	A								
1304552-002	SV-2	Soil Gas	4/16/2013 13:24	☐	A	A		A								
1304552-003	SV-3	Soil Gas	4/16/2013 10:33	☐	A	A		A								
1304552-004	SV-4	Soil Gas	4/16/2013 11:31	☐	A	A		A								
1304552-005	SV-5	Soil Gas	4/16/2013 15:37	☐	A	A		A								
1304552-006	SV-6	Soil Gas	4/16/2013 14:07	☐	A	A		A								
1304552-007	SV-7	Soil Gas	4/16/2013 16:18	☐	A	A		A								
1304552-008	Trip Blank	Soil Gas	4/16/2013	☐		A		A								
1304552-009	SV-5 Dup	Soil Gas	4/16/2013 15:37	☐		A		A								

Test Legend:

1	TMOSPHERICGAS_SG(UL/I	2	PRHELIUM SHROUD	3	PRUNUSEDSUMMA	4	TO17_ST(UGM3)	5	
6		7		8		9		10	
11		12							

The following SampIDs: 001A, 002A, 003A, 004A, 005A, 006A, 007A, 008A, 009A 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.

McCampbell Analytical, Inc.
"When Quality Counts"

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Toll Free Telephone: (877) 252-9262 / Fax: (925) 252-9269
http://www.mccampbell.com / E-mail: main@mccampbell.com

Sample Receipt Checklist

Client Name: **AEI Consultants**
Date and Time Received: **4/17/2013 3:45:00 PM**
Project Name: **#298931; Foley Street**
LogIn Reviewed by: Maria Venegas
WorkOrder N°: **1304552** Matrix: Soil Gas
Carrier: Rob Pringle (MAI Courier)

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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http://www.mccampbell.com / E-mail: main@mccampbell.com

AEI Consultants	Client Project ID: #298931; Foley Street	Date Sampled: 04/16/13
		Date Received: 04/17/13
2500 Camino Diablo, Ste.#200	Client Contact: Jeremy Smith	Date Extracted: 04/19/13-04/22/13
Walnut Creek, CA 94597	Client P.O.: WC084069	Date Analyzed: 04/19/13-04/22/13

Light Gases, Atmospheric*

Extraction Method: ASTM D 1946-90 | Analytical Method: ASTM D 1946-90 | Work Order: 1304552

Lab ID	1304552-001A	1304552-002A	1304552-003A	1304552-004A	Reporting Limit for DF =1 and Pressure Ratio (Final/Initial) = 2	
Client ID	SV-1	SV-2	SV-3	SV-4		
Matrix	Soil Gas	Soil Gas	Soil Gas	Soil Gas		
Initial Pressure (psia)	13.04	12.50	12.83	12.98		
Final Pressure (psia)	25.98	24.91	25.56	25.88		
DF	1	1	1	1	Soil Gas	W
Compound	**Concentration**				µL/L	ug/L
Carbon Dioxide	3400	4600	160	4200	20	NA
Methane	ND	1.8	ND	ND	2.0	NA
Oxygen	170,000	170,000	170,000	170,000	500	NA
Surrogate Recoveries (%)						
%SS:	N/A	N/A	N/A	N/A		
Comments						

* vapor samples are reported in µL/L.

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

DHS ELAP Certification 1644 BB Analyst's Initial AR Angela Rydelius, Lab Manager

McCampbell Analytical, Inc.
"When Quality Counts"

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AEI Consultants	Client Project ID: #298931; Foley Street	Date Sampled: 04/16/13
		Date Received: 04/17/13
2500 Camino Diablo, Ste.#200	Client Contact: Jeremy Smith	Date Extracted: 04/19/13-04/22/13
Walnut Creek, CA 94597	Client P.O.: WC084069	Date Analyzed: 04/19/13-04/22/13

Light Gases, Atmospheric*

Extraction Method: ASTM D 1946-90 | Analytical Method: ASTM D 1946-90 | Work Order: 1304552

Lab ID	1304552-005A	1304552-006A	1304552-007A		Reporting Limit for DF =1 and Pressure Ratio (Final/Initial) = 2	
Client ID	SV-5	SV-6	SV-7			
Matrix	Soil Gas	Soil Gas	Soil Gas			
Initial Pressure (psia)	12.89	14.36	11.86			
Final Pressure (psia)	25.68	28.63	23.62			
DF	1	1	1		Soil Gas	W
Compound	**Concentration**				µL/L	ug/L
Carbon Dioxide	10,000	260	10,000		20	NA
Methane	3.5	1.2	ND		2.0	NA
Oxygen	160,000	180,000	160,000		500	NA
Surrogate Recoveries (%)						
%SS:	N/A	N/A	N/A			
Comments						

* vapor samples are reported in µL/L.

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

DHS ELAP Certification 1644 BB Analyst's Initial AR Angela Rydelius, Lab Manager

McCampbell Analytical, Inc.
"When Quality Counts"

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http://www.mccampbell.com / E-mail: main@mccampbell.com

AEI Consultants	Client Project ID: #298931; Foley Street	Date Sampled: 04/16/13
2500 Camino Diablo, Ste.#200		Date Received: 04/17/13
	Client Contact: Jeremy Smith	Date Extracted: 04/18/13-04/23/13
Walnut Creek, CA 94597	Client P.O.: WC084069	Date Analyzed: 04/18/13-04/23/13

Helium*

Extraction method: ASTM D 1946-90 Analytical methods: ASTM D 1946-90 Work Order: 1304552

Lab ID	Client ID	Matrix	Initial Pressure	Final Pressure	Helium	DF	% SS	Comments
001A	SV-1	Soil Gas	13.04	25.98	0.017	1	N/A	
002A	SV-2	Soil Gas	12.50	24.91	0.018	1	N/A	
003A	SV-3	Soil Gas	12.83	25.56	ND	1	N/A	
004A	SV-4	Soil Gas	12.98	25.88	ND	1	N/A	
005A	SV-5	Soil Gas	12.89	25.68	1.8	1	N/A	
006A	SV-6	Soil Gas	14.36	28.63	0.081	1	N/A	
007A	SV-7	Soil Gas	11.86	23.62	0.013	1	N/A	
008A	Trip Blank	Soil Gas	14.99	29.88	ND	1	N/A	
009A	SV-5 Dup	Soil Gas	12.89	25.68	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	0.005	%

* vapor samples are reported in %.

%SS = Percent Recovery of Surrogate Standard

DF = Dilution Factor

DHS ELAP Certification 1644 BB Analyst's Initial Angela Rydelius, Lab Manager

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

AEI Consultants	Client Project ID: #298931; Foley Street	Date Sampled: 04/16/13
2500 Camino Diablo, Ste.#200		Date Received: 04/17/13
	Client Contact: Jeremy Smith	Date Extracted: 04/24/13-04/25/13
Walnut Creek, CA 94597	Client P.O.: WC084069	Date Analyzed: 04/24/13-04/25/13

Volatile Organic Compounds in µg/m³*

Extraction Method: TO17 | Analytical Method: TO17 | Work Order: 1304552

Lab ID	1304552-001A	1304552-002A	1304552-003A	1304552-004A	Reporting Limit for DF =1	
Client ID	SV-1	SV-2	SV-3	SV-4		
Matrix	Soil Gas	Soil Gas	Soil Gas	Soil Gas		
DF	1	1	1	1		
Volume (L)	1.00	1.00	1.00	1.00	Soil Gas	W
Compound	**Concentration**				µg/m³	ug/L
TPH-Gas (C6-C12)	ND	ND	ND	ND	2500	NA
Benzene	ND	ND	ND	ND	25	NA
cis-1,2-Dichloroethene	ND, c10	ND, c10	ND, c10	ND, c10	25	NA
trans-1,2-Dichloroethene	ND, c10	ND, c10	ND, c10	ND, c10	25	NA
Ethylbenzene	ND	ND	ND	ND	25	NA
Naphthalene	ND	ND	ND	ND	25	NA
Tetrachloroethene	ND	ND	ND	ND	25	NA
Toluene	ND	ND	ND	ND	25	NA
Trichloroethene	ND	ND	ND	ND	25	NA
Xylenes, Total	ND	ND	ND	ND	25	NA
Surrogate Recoveries (%)						
%SS2	106	106	106	107		
%SS3	92	93	93	92		
Comments						

*Samples reported in µg/m³; reporting limit may change due to variable volume of air.

ND means not detected above the reporting limit/method detection limit; N/A means analyte not applicable to this analysis; %SS = Percent Recovery of Surrogate Standard; DF = Dilution Factor

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

c10) estimated value

McCampbell Analytical, Inc.
"When Quality Counts"

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AEI Consultants	Client Project ID: #298931; Foley Street	Date Sampled: 04/16/13
2500 Camino Diablo, Ste.#200		Date Received: 04/17/13
	Client Contact: Jeremy Smith	Date Extracted: 04/24/13-04/25/13
Walnut Creek, CA 94597	Client P.O.: WC084069	Date Analyzed: 04/24/13-04/25/13

Volatile Organic Compounds in µg/m³*

Extraction Method: TO17 | Analytical Method: TO17 | Work Order: 1304552

Lab ID	1304552-006A	1304552-007A	1304552-008A		Reporting Limit for DF =1	
Client ID	SV-6	SV-7	Trip Blank			
Matrix	Soil Gas	Soil Gas	Soil Gas			
DF	1	1	1			
Volume (L)	1.00	1.00	1.00		Soil Gas	W
Compound	**Concentration**				µg/m³	ug/L
TPH-Gas (C6-C12)	ND	ND	ND		2500	NA
Benzene	ND	ND	ND		25	NA
cis-1,2-Dichloroethene	ND, c10	ND, c10	ND, c10		25	NA
trans-1,2-Dichloroethene	ND, c10	ND, c10	ND, c10		25	NA
Ethylbenzene	ND	ND	ND		25	NA
Naphthalene	ND	ND	ND		25	NA
Tetrachloroethene	ND	ND	ND		25	NA
Toluene	ND	ND	ND		25	NA
Trichloroethene	ND	ND	ND		25	NA
Xylenes, Total	ND	ND	ND		25	NA
Surrogate Recoveries (%)						
%SS2	107	106	82			
%SS3	93	93	93			
Comments						

*Samples reported in µg/m³; reporting limit may change due to variable volume of air.

ND means not detected above the reporting limit/method detection limit; N/A means analyte not applicable to this analysis; %SS = Percent Recovery of Surrogate Standard; DF = Dilution Factor

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

c10) estimated value

CDPH ELAP 1644 ♦ NELAP 12283CA GM Analyst's Initial 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: 76535 | WorkOrder: 1304552

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	105	N/A	N/A	70 - 130
Methane	N/A	100	N/A	N/A	N/A	112	N/A	N/A	70 - 130
Oxygen	N/A	7000	N/A	N/A	N/A	82.4	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 76535 SUMMARY

Lab ID	Date Sampled	Date Extracted	Date Analyzed	Lab ID	Date Sampled	Date Extracted	Date Analyzed
1304552-001A	04/16/13 12:30 PM	04/19/13	04/19/13 2:07 PM	1304552-001A	04/16/13 12:30 PM	04/22/13	04/22/13 11:06 AM
1304552-001A	04/16/13 12:30 PM	04/22/13	04/22/13 2:03 PM	1304552-002A	04/16/13 1:24 PM	04/19/13	04/19/13 2:28 PM
1304552-002A	04/16/13 1:24 PM	04/22/13	04/22/13 11:18 AM	1304552-002A	04/16/13 1:24 PM	04/22/13	04/22/13 2:27 PM
1304552-003A	04/16/13 10:33 AM	04/19/13	04/19/13 2:50 PM	1304552-003A	04/16/13 10:33 AM	04/22/13	04/22/13 11:55 AM
1304552-004A	04/16/13 11:31 AM	04/19/13	04/19/13 3:11 PM	1304552-004A	04/16/13 11:31 AM	04/22/13	04/22/13 12:20 PM
1304552-004A	04/16/13 11:31 AM	04/22/13	04/22/13 2:52 PM	1304552-005A	04/16/13 3:37 PM	04/19/13	04/19/13 4:04 PM
1304552-005A	04/16/13 3:37 PM	04/22/13	04/22/13 12:44 PM	1304552-005A	04/16/13 3:37 PM	04/22/13	04/22/13 3:22 PM
1304552-006A	04/16/13 2:07 PM	04/19/13	04/19/13 4:26 PM	1304552-006A	04/16/13 2:07 PM	04/22/13	04/22/13 1:09 PM
1304552-007A	04/16/13 4:18 PM	04/19/13	04/19/13 4:47 PM	1304552-007A	04/16/13 4:18 PM	04/22/13	04/22/13 1:33 PM
1304552-007A	04/16/13 4:18 PM	04/22/13	04/22/13 3:47 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.

DHS ELAP Certification 1644

QA/QC Officer

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QC SUMMARY REPORT FOR ASTM D 1946-90

W.O. Sample Matrix: Soilgas | QC Matrix: Soilgas | BatchID: 76517 | WorkOrder: 1304552

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 (%)		
	%	%	% Rec.	% Rec.	% RPD	% Rec.	MS / MSD	RPD	LCS
Helium	N/A	0.010	N/A	N/A	N/A	105	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

BATCH 76517 SUMMARY

Lab ID	Date Sampled	Date Extracted	Date Analyzed	Lab ID	Date Sampled	Date Extracted	Date Analyzed
1304552-008A	04/16/13	04/18/13	04/18/13 4:39 PM	1304552-009A	04/16/13 3:37 PM	04/18/13	04/18/13 4:52 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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Analytical Report

AEI Consultants	Client Project ID: #298931; FSI	Date Sampled: 05/01/13
		Date Received: 05/01/13
2500 Camino Diablo, Ste.#200	Client Contact: Jeremy Smith	Date Reported: 05/08/13
Walnut Creek, CA 94597	Client P.O.: #WC084092	Date Completed: 05/08/13

WorkOrder: 1305019

July 19, 2013

Dear Jeremy:

Enclosed within are:

1) The results of the **2** 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.

1305019

McCAMPBELL ANALYTICAL INC.

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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: Jeremy Smith	Bill To: PO# WC084092
Company: AEI Consultants	
2500 Camino Diablo, Walnut Creek, California 94597	
E-Mail: jasmith@aeiconsultants.com	
Tele: (925) 746-6000, ext. 128	Fax: (925) 746-6099
Project #: 298931	Project Name: FSI
Project Location: 1630 Park St., Alameda, California	
Sampler Signature:	

Lab Use Only

Pressurized By	Date	Pressurization Gas	
		N2	He

Notes: Helium is leak check using McCampbell Provided Helium Shroud

Field Sample ID (Location)	Collection Date	Collection Time	Canister SN#	Sampler Kit SN#	Analysis Requested	Indoor Air	Soil Gas	Canister Pressure/Vacuum Initial	Final	Receipt	Final (psi)
SV-5	5-1-13	913	6167	316T-776	TO-17 - TPH(g), BTEX, naphthalene D1946-90 (O_2, CO_2, CH_4)		X	-30	-5		
SV-5 DUP	5-1-13	913	6164	316T-776	TO-17 - TPH(g), BTEX, naphthalene D1946-90 (O_2, CO_2, CH_4)		X	-30	-5		

Relinquished By:	Date:	Time:	Received By:
	5-1-13	1019	
Relinquished By:	Date:	Time:	Received By:

Temp (°C) : _____ Work Order #: _____

Condition: _____

Custody Seals Intact?: Yes _____ No _____ None _____

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CHAIN-OF-CUSTODY RECORD

WorkOrder: 1305019 **ClientCode: AEL**

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

Report to:
Jeremy Smith
AEI Consultants
2500 Camino Diablo, Ste.#200
Walnut Creek, CA 94597
(925) 283-6000 FAX: (925) 944-2895

Email: jasmith@aeiconsultants.com
cc:
PO: #WC084092
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: **05/01/2013**
Date Printed: **05/01/2013**

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
1305019-001	SV-5	Soil Gas	5/1/2013 9:13	☐	A	A	A									
1305019-002	SV-5 Dup	Soil Gas	5/1/2013 9:13	☐	A	A	A									

Test Legend:

1	TMOSPHERICGAS_SG(UL/I	2	PRHELIUM SHROUD	3	TO17_ST(UGM3)	4		5	
6		7		8		9		10	
11		12							

The following SampIDs: 001A, 002A 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: **5/1/2013 2:18:54 PM**

Project Name: **#298931; FSI** LogIn Reviewed by: Maria Venegas

WorkOrder N°: **1305019** 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: 7.2°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: Sorbent Tube on ICE

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AEI Consultants	Client Project ID: #298931; FSI	Date Sampled: 05/01/13
		Date Received: 05/01/13
2500 Camino Diablo, Ste.#200	Client Contact: Jeremy Smith	Date Extracted: 05/02/13
Walnut Creek, CA 94597	Client P.O.: #WC084092	Date Analyzed: 05/02/13

Light Gases, Atmospheric*

Extraction Method: ASTM D 1946-90 | Analytical Method: ASTM D 1946-90 | Work Order: 1305019

Lab ID	1305019-001A	1305019-002A			Reporting Limit for DF =1 and Pressure Ratio (Final/Initial) = 2	
Client ID	SV-5	SV-5 Dup				
Matrix	Soil Gas	Soil Gas				
Initial Pressure (psia)	13.31	13.43				
Final Pressure (psia)	26.52	26.76				
DF	1	1			Soil Gas	W
Compound	**Concentration**				µL/L	ug/L
Carbon Dioxide	12,000	12,000			20	NA
Methane	ND	ND			2.0	NA
Oxygen	170,000	170,000			500	NA
Surrogate Recoveries (%)						
%SS:	N/A	N/A				
Comments						

* vapor samples are reported in µL/L.

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

DHS ELAP Certification 1644 BB Analyst's Initial Angela Rydelius, Lab Manager

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AEI Consultants	Client Project ID: #298931; FSI	Date Sampled: 05/01/13
		Date Received: 05/01/13
2500 Camino Diablo, Ste.#200	Client Contact: Jeremy Smith	Date Extracted: 05/02/13
Walnut Creek, CA 94597	Client P.O.: #WC084092	Date Analyzed: 05/02/13

Helium*

Extraction method: ASTM D 1946-90 Analytical methods: ASTM D 1946-90 Work Order: 1305019

Lab ID	Client ID	Matrix	Initial Pressure	Final Pressure	Helium	DF	% SS	Comments
001A	SV-5	Soil Gas	13.31	26.52	0.0076	1	N/A	
002A	SV-5 Dup	Soil Gas	13.43	26.76	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	0.005	%

* vapor samples are reported in %.

%SS = Percent Recovery of Surrogate Standard

DF = Dilution Factor

DHS ELAP Certification 1644

BB Analyst's Initial

Angela Rydelius, Lab Manager

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AEI Consultants	Client Project ID: #298931; FSI	Date Sampled: 05/01/13
		Date Received: 05/01/13
2500 Camino Diablo, Ste.#200	Client Contact: Jeremy Smith	Date Extracted: 05/03/13-05/06/13
Walnut Creek, CA 94597	Client P.O.: #WC084092	Date Analyzed: 05/03/13-05/06/13

Volatile Organic Compounds in µg/m³*

Extraction Method: TO17 | Analytical Method: TO17 | Work Order: 1305019

Lab ID	1305019-001A	1305019-002A			Reporting Limit for DF =1	
Client ID	SV-5	SV-5 Dup				
Matrix	Soil Gas	Soil Gas				
DF	1	1				
Sample Volume (L)	1.00	1.00			Soil Gas	W
Compound	**Concentration**				µg/m³	ug/L
TPH-Gas (C6-C12)	ND	ND			2500	NA
Benzene	ND	ND			25	NA
cis-1,2-Dichloroethene	ND, c10	ND, c10			25	NA
trans-1,2-Dichloroethene	ND, c10	ND, c10			25	NA
Ethylbenzene	ND	ND			25	NA
Naphthalene	ND	ND			25	NA
Tetrachloroethene	100	100			25	NA
Toluene	ND	ND			25	NA
Trichloroethene	ND	ND			25	NA
Xylenes, Total	ND	ND			25	NA
Surrogate Recoveries (%)						
%SS3:	107	106				
Comments						

*Samples reported in µg/m³; reporting limit may change due to variable volume of air.

ND means not detected above the reporting limit/method detection limit; N/A means analyte not applicable to this analysis; %SS = Percent Recovery of Surrogate Standard; DF = Dilution Factor

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

c10) estimated value

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QC SUMMARY REPORT FOR ASTM D 1946-90

W.O. Sample Matrix: SoilGas | QC Matrix: SoilGas | BatchID: 76915 | WorkOrder: 1305019

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	104	N/A	N/A	70 - 130
Methane	N/A	100	N/A	N/A	N/A	107	N/A	N/A	70 - 130
Oxygen	N/A	7000	N/A	N/A	N/A	83.1	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 76915 SUMMARY

Lab ID	Date Sampled	Date Extracted	Date Analyzed	Lab ID	Date Sampled	Date Extracted	Date Analyzed
1305019-001A	05/01/13 9:13 AM	05/02/13	05/02/13 1:56 PM	1305019-001A	05/01/13 9:13 AM	05/02/13	05/02/13 2:38 PM
1305019-001A	05/01/13 9:13 AM	05/02/13	05/02/13 5:27 PM	1305019-002A	05/01/13 9:13 AM	05/02/13	05/02/13 2:21 PM
1305019-002A	05/01/13 9:13 AM	05/02/13	05/02/13 3:03 PM	1305019-002A	05/01/13 9:13 AM	05/02/13	05/02/13 5:49 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 ASTM D 1946-90

W.O. Sample Matrix: Soilgas QC Matrix: Soilgas BatchID: 76916 WorkOrder: 1305019

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 (%)		
	%	%	% Rec.	% Rec.	% RPD	% Rec.	MS / MSD	RPD	LCS
Helium	N/A	0.010	N/A	N/A	N/A	97.8	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

BATCH 76916 SUMMARY

Lab ID	Date Sampled	Date Extracted	Date Analyzed	Lab ID	Date Sampled	Date Extracted	Date Analyzed
1305019-001A	05/01/13 9:13 AM	05/02/13	05/02/13 10:43 AM	1305019-002A	05/01/13 9:13 AM	05/02/13	05/02/13 10:56 AM

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

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

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

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

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

DHS ELAP Certification 1644

QA/QC Officer

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QC SUMMARY REPORT FOR TO17

W.O. Sample Matrix: Sorbent Tube | QC Matrix: Sorbent Tube | BatchID: 77120 | WorkOrder: 1305019

EPA Method: TO17 **Extraction: TO17** **Spiked Sample ID: N/A**

Analyte	Sample	Spiked	MS	MSD	MS-MSD	LCS	Acceptance Criteria (%)		
	µg/m³	µg/m³	% Rec.	% Rec.	% RPD	% Rec.	MS / MSD	RPD	LCS
Benzene	N/A	100	N/A	N/A	N/A	118	N/A	N/A	60 - 140
Ethylbenzene	N/A	100	N/A	N/A	N/A	82.5	N/A	N/A	60 - 140
Naphthalene	N/A	100	N/A	N/A	N/A	88.4	N/A	N/A	60 - 140
Toluene	N/A	100	N/A	N/A	N/A	83.5	N/A	N/A	60 - 140
%SS2:	N/A	100	N/A	N/A	N/A	103	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

BATCH 77120 SUMMARY

Lab ID	Date Sampled	Date Extracted	Date Analyzed	Lab ID	Date Sampled	Date Extracted	Date Analyzed
1305019-001A	05/01/13 9:13 AM	05/06/13	05/06/13 3:05 PM	1305019-002A	05/01/13 9:13 AM	05/03/13	05/03/13 6:00 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.

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

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

McCampbell Analytical, Inc.
"When Quality Counts"

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QC SUMMARY REPORT FOR ASTM D 1946-90

W.O. Sample Matrix: Soilgas | QC Matrix: Soilgas | BatchID: 76574 | WorkOrder: 1304552

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 (%)		
	%	%	% Rec.	% Rec.	% RPD	% Rec.	MS / MSD	RPD	LCS
Helium	N/A	0.010	N/A	N/A	N/A	105	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

BATCH 76574 SUMMARY

Lab ID	Date Sampled	Date Extracted	Date Analyzed	Lab ID	Date Sampled	Date Extracted	Date Analyzed
1304552-001A	04/16/13 12:30 PM	04/23/13	04/23/13 12:32 PM	1304552-002A	04/16/13 1:24 PM	04/23/13	04/23/13 12:45 PM
1304552-003A	04/16/13 10:33 AM	04/23/13	04/23/13 12:58 PM	1304552-004A	04/16/13 11:31 AM	04/23/13	04/23/13 1:11 PM
1304552-005A	04/16/13 3:37 PM	04/23/13	04/23/13 1:37 PM	1304552-006A	04/16/13 2:07 PM	04/23/13	04/23/13 1:24 PM
1304552-007A	04/16/13 4:18 PM	04/23/13	04/23/13 1:50 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.

DHS ELAP Certification 1644

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QC SUMMARY REPORT FOR TO17

W.O. Sample Matrix: Sorbent Tube | QC Matrix: Sorbent Tube | BatchID: 76697 | WorkOrder: 1304552

EPA Method: TO17 **Extraction: TO17** **Spiked Sample ID: N/A**

Analyte	Sample	Spiked	MS	MSD	MS-MSD	LCS	Acceptance Criteria (%)		
	µg/m³	µg/m³	% Rec.	% Rec.	% RPD	% Rec.	MS / MSD	RPD	LCS
Benzene	N/A	100	N/A	N/A	N/A	90.2	N/A	N/A	60 - 140
Ethylbenzene	N/A	100	N/A	N/A	N/A	116	N/A	N/A	60 - 140
Naphthalene	N/A	100	N/A	N/A	N/A	111	N/A	N/A	60 - 140
Toluene	N/A	100	N/A	N/A	N/A	111	N/A	N/A	60 - 140
Xylenes, Total	N/A	300	N/A	N/A	N/A	118	N/A	N/A	60 - 140
%SS2:	N/A	100	N/A	N/A	N/A	105	N/A	N/A	60 - 140
%SS3:	N/A	100	N/A	N/A	N/A	100	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

BATCH 76697 SUMMARY

Lab ID	Date Sampled	Date Extracted	Date Analyzed	Lab ID	Date Sampled	Date Extracted	Date Analyzed
1304552-001A	04/16/13 12:30 PM	04/24/13	04/24/13 8:24 PM	1304552-002A	04/16/13 1:24 PM	04/24/13	04/24/13 9:19 PM
1304552-003A	04/16/13 10:33 AM	04/25/13	04/25/13 12:59 AM	1304552-004A	04/16/13 11:31 AM	04/24/13	04/24/13 10:14 PM
1304552-006A	04/16/13 2:07 PM	04/25/13	04/25/13 12:04 AM	1304552-007A	04/16/13 4:18 PM	04/24/13	04/24/13 11:09 PM
1304552-008A	04/16/13	04/25/13	04/25/13 9:29 AM				

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

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

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

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

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

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QA/QC Officer