

**RECEIVED**

By Alameda County Environmental Health at 4:15 pm, Jan 16, 2014

January 15, 2014

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

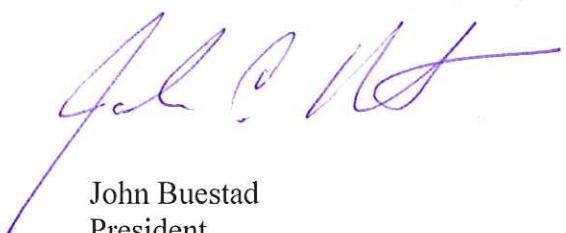
**Subject:** Perjury Statement and Report Transmittal  
1600 Park Street (Parcel A)  
Alameda, California 94501  
AEI Project No. 324771  
ACEH RO#0003112

Dear Ms. Detterman:

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

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

Sincerely,



John Buestad  
President

JB/pm

Attachment: AEI Consultants, *Source Removal Excavation Report and Workplan for Additional Characterization*

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



January 15, 2014

## SOURCE REMOVAL EXCAVATION REPORT AND WORKPLAN FOR ADDITIONAL CHARACTERIZATION

**Property Identification:**

1600 Park Street – Parcel A  
Alameda, California

AEI Project No. 324771

ACEH Fuel Leak Case No. RO0003112

**Prepared for:**

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

**Prepared by:**

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

San Francisco HQ

Atlanta

Chicago

Costa Mesa

Dallas

Denver

Los Angeles

Miami

New York

Phoenix

Portland

San Jose

National Presence

Regional Focus

Local Solutions

## TABLE OF CONTENTS

<b>1.0 PROJECT OVERVIEW .....</b>	<b>1</b>
<b>2.0 SOURCE REMOVAL ACTIVITIES .....</b>	<b>2</b>
2.1 Waste Profiling .....	3
2.2 Source Removal.....	3
2.3 Soil Disposal .....	4
2.4 Confirmation Sampling .....	4
2.5 Analytical Results.....	5
2.6 Excavation Backfilling.....	5
<b>3.0 SOIL VAPOR INVESTIGATION.....</b>	<b>6</b>
3.1 Permits and Clearances .....	6
3.2 Sampling.....	6
3.3 Soil Vapor Results.....	7
3.4 Bore Hole Abandonment .....	7
<b>4.0 SUMMARY AND RECOMMENDATIONS.....</b>	<b>8</b>
<b>5.0 PROPOSED INVESTIGATION .....</b>	<b>8</b>
5.1 Permits and Clearances .....	9
5.2 Drilling and Soil Sampling.....	9
5.3 Groundwater Sampling.....	10
5.4 Sample Storage and Analyses.....	10
5.5 Boring Destruction .....	10
<b>6.0 REPORTING AND SCHEDULE .....</b>	<b>10</b>
<b>7.0 REPORT LIMITATIONS .....</b>	<b>10</b>

## FIGURES

<i>FIGURE 1</i>	<i>SITE LOCATION MAP</i>
<i>FIGURE 2</i>	<i>EXTENDED SITE PLAN</i>
<i>FIGURE 3</i>	<i>SITE PLAN</i>
<i>FIGURE 4</i>	<i>SOIL AND GROUNDWATER ANALYTICAL DATA</i>
<i>FIGURE 5</i>	<i>SOIL VAPOR ANALYTICAL DATA</i>
<i>FIGURE 6</i>	<i>PROPOSED SOIL BORINGS</i>

## TABLES

<i>TABLE 1</i>	<i>SOIL SAMPLE ANALYTICAL DATA – TPH &amp; MBTEX</i>
<i>TABLE 2</i>	<i>SOIL SAMPLE ANALYTICAL DATA – VOCs &amp; SVOCs</i>
<i>TABLE 3</i>	<i>SOIL SAMPLE ANALYTICAL DATA – METALS</i>
<i>TABLE 4</i>	<i>SOIL VAPOR ANALYTICAL DATA</i>
<i>TABLE 5</i>	<i>GROUNDWATER ANALYTICAL DATA</i>

## **APPENDICES**

<i>APPENDIX A</i>	<i>DRUM AND HYDRAULIC RESERVOIR REMOVAL REPORT</i>
<i>APPENDIX B</i>	<i>WASTE MANIFESTS</i>
<i>APPENDIX C</i>	<i>LABORATORY ANALYTICAL REPORTS</i>
<i>APPENDIX D</i>	<i>QUARRY DOCUMENTATION</i>
<i>APPENDIX E</i>	<i>COMPACTION TESTING</i>
<i>APPENDIX F</i>	<i>DRILLING PERMIT</i>



January 15, 2014

Alameda County Environmental Health Department  
Attn: Ms. Karel Detterman  
1131 Harbor Bay Parkway, Suite 250  
Alameda, CA 94502

**Subject:** **Source Removal Excavation Report and Workplan for Additional Characterization**  
1600 Park Street – Parcel A  
Alameda, California  
AEI Project No. 324771  
ACEH Fuel Leak Case No. RO0003112

Dear Ms. Detterman:

AEI Consultants (AEI) has prepared this *Source Removal Excavation Report and Workplan for Additional Characterization* on behalf of Foley Street Investments (FSI), developer of the subject site (See Figure 1 and Figure 2). This report describes source removal and subsequent sampling activities performed at the site in October and November 2013 to investigate a release discovered during the underground storage tank (UST) removal activities. The USTs which are the subject of this report are those that were identified during grading activities in October 2013 and removed shortly thereafter. The Alameda County Environmental Health Department (ACEH) is the agency with regulatory oversight of the leaking underground storage tank (LUST) case (ACEH Fuel Leak Case No. RO0003112).

## 1.0 Project Overview

The subject parcel is currently under development for use as a commercial retail store. Prior to development, AEI identified several areas of historical concern which were documented in AEI's *Phase I Environmental Site Assessment* dated July 5, 2011 including existing USTs (identified as Area 1), hydraulic hoists, and an area in the southwestern portion of the parcel suspected of containing historical USTs (identified as Area 2). Subsequently, soil borings were advanced to investigate each of the identified areas of concern. In November 2011, one 10,000 gallon and one 4,000 gallon gasoline UST, and one 500 gallon waste oil UST were removed from the Parcel A UST Area 1. Details regarding the removal of the USTs were reported in AEI's *UST Removal Report* dated February 16, 2012.

Soil boring data, as reported in AEI's *Phase II Subsurface Investigation Report* dated August 16, 2011, in conjunction with the soil and groundwater data obtained during the UST removal activities, indicated that a minor release from the former USTs in Area 1 had occurred which was limited in extent. Impacted soil from beneath the waste oil UST was excavated and removed from the site. Verification soil sampling confirmed that the source had been removed.

Petroleum hydrocarbons were also detected within the groundwater of the gasoline UST cavity during removal activities, however were limited in extent as the soil within the UST cavity did not contain hydrocarbons, nor did the groundwater from soil borings adjacent to the UST cavity. Based on meetings with the ACEH this matter should be eligible for case closure, therefore, AEI's prepared a *Conceptual Site Model (CSM) Update & Request for Case Closure – May 2013* dated May 15, 2013. Subsequently, a public notice for case closure was issued by the ACEH on May 31, 2013. Case closure was not finalized prior to the discovery of additional USTs and suspected release, discussed in more detail below.

A geophysical survey completed in July 2011 did not identify any USTs associated with the gas and oil area identified in the historic documents, and soil borings did not indicate elevated hydrocarbons were present in this area. Soil borings in the vicinity of the former hydraulic hoists did not indicate that a significant release has occurred, and no obvious contamination was observed during the removal of the lifts. Historical site features are shown on Figure 2.

On October 17, 2013, the general contractor discovered one 55-gallon drum containing sludge material and one 30-gallon hydraulic lift reservoir tank during grading activities. Subsequent sampling did not identify significantly impacted soil beneath these features. Details, including the location of the encountered features, are reported in AEI's *Drum and Reservoir Tank Removal* report dated November 13, 2013, which is included as Appendix A.

On October 22, 2013, the general contractor discovered one 400-gallon and one 600-gallon UST at approximately 3 feet below ground surface (bgs) and adjacent to each other in the southwestern portion of the parcel while grading this area (identified as USA Area 2 and on Figure 2 and 3). The tops of the USTs were exposed however the USTs remained in ground while the necessary permits for their removal were obtained. During UST removal activities, a hydrocarbon release was identified. Details of the UST removal are included in AEI's *UST Removal Report* dated December 20, 2013.

Based on the elevated concentrations of petroleum hydrocarbons detected during the UST removal, AEI and FSI met with ACEH on October 31, 2013 to discuss a course of action relating to the release. It was determined that a source removal excavation was prudent to remove easily accessible impacted soil (secondary source) from the open UST excavation as a method that would limit the likelihood of significant disruption to the development schedule. ACEH personnel also requested that soil vapor sampling be performed to assess the risk for vapor intrusion within the planned building. The following report documents these activities.

## 2.0 Source Removal Activities

As discussed in the October 31, 2013 meeting with the ACEH, source removal via excavation of impacted soil was a prudent action to facilitate site cleanup and limit disruption to the development of the commercial building in the area. Source removal activities are described below.

## 2.1 Waste Profiling

On October 29, 2013 two four-point composite soil samples were collected from the stockpiled material that remained onsite following the UST removal. The samples were collected to characterize the existing waste for acceptance into a licensed waste facility as well as obtain pre-approval for the disposal of soil expected to be removed during source removal excavation.

The composite samples were analyzed for the following:

- Total Petroleum Hydrocarbons (TPH) as gasoline (TPHg), as diesel (TPHd), and as motor oil (TPHmo) by EPA Method 8015
- Volatile organic compounds (VOCs) by EPA Method 8260
- Semi-Volatile Organic Compounds (SVOCs) by EPA Method 8270
- Cam-17 Metals by EPA Method 6020
- Oil and Grease (O&G) by EPA Method 9071

On October 30, 2013, the waste profile was submitted to Recology's Class II waste facility located at 6426 Hay Road in Vacaville, California. The material was approved for disposal on October 31, 2013.

## 2.2 Source Removal

On November 1, 2013, AEI mobilized onsite to excavate hydrocarbon impacted soil identified during UST removal activities performed on October 29, 2013. Prior to the initiation of each day of work, AEI field staff was briefed and the Site Health and Safety Plan reviewed.

Following the UST removal activities, the excavation area measured approximately 12 feet by 16 feet trending southwest to northeast, around the two USTs' former location (Figure 3). The excavation was expanded in all directions with the intention of removing the remaining soil significantly impacted with petroleum hydrocarbons impacted.

Soil was removed by use of an excavator, directly loaded onto trucks, if the daily maximum had not been met, and transported under non-hazardous waste manifests to the Hay Road waste facility. Based on waste profile findings, the Hay Road facility set a daily maximum disposal limit of 150 tons per day. Once this limit was reached, AEI continued to excavate, and the remaining material was removed and stockpiled adjacent to the existing stockpiles created during the UST removal activities. All stockpiled material was placed on and covered with visqueen and surrounded by straw waddles.

Air monitoring was periodically performed onsite around the perimeter of the excavation and around the subject property to ensure a safe working environment for all personnel onsite as well as for adjacent businesses and residences. The highest Photo Ionization Detector (PID) reading around the perimeter of the excavation peaked at 22 parts per million (ppm) and the highest reading around the property perimeter peaked at 12 ppm.

During excavation activities stained soil and petroleum odors were observed at depths ranging from 6 feet bgs to approximately 12 feet bgs. Excavated soil was periodically tested by use of a PID to measure volatile levels. Grab samples collected from depths beyond 6 feet bgs exhibited volatile gas levels ranging from 1 ppm to 2,500 ppm.

The excavation was expanded 8 feet to the southwest and northeast, 4 feet to the southeast, and 1 foot to the northwest resulting in a final excavation of approximately 32 feet by 17 feet. Grab samples of soil were collected from each side at depths ranging from 7 to 10 bgs where the heaviest staining was observed. Samples collected from the southwest, northeast, and southeast all reported volatile gas concentrations less than 100 ppm. PID readings collected from grab samples from the northwest sidewall exhibited volatile gas concentrations in excess of 500 ppm. However, due to the close proximity of the excavation to Park Street, the excavation could not be expanded further to the northwest. The excavation continued to a depth of approximately 12 feet bgs where the stained soil transitioned to a light brown color and PID readings indicated volatile gas concentrations less than 40 ppm.

### **2.3 Soil Disposal**

On November 1, 2013, six loads totaling 144.29 tons of non-hazardous soil were transported to, and disposed of properly, at the Hay Road waste facility. On November 4, 2013, AEI disposed of the remaining stockpiled soil and hardened slurry material from both the UST removal activities and over-excavation activities. The material totaled five loads, or 116.98 tons, and was loaded onto trucks and transported to the Hay Road waste facility under non-hazardous waste manifest. The non-hazardous waste manifests are located in Appendix B.

### **2.4 Confirmation Sampling**

Prior to backfilling the excavation, confirmation soil samples were collected from the bottom and sidewalls of the excavation. Samples were collected at a minimum of one sample for every 20 linear feet of the excavation for both sidewalls and excavation bottom samples. The samples were collected based on PID readings as well as visual observations and were biased towards the areas of greatest observed impacts.

All confirmation soil samples were collected by driving a 3-inch stainless steel tube into the soil to be sampled. The tube was removed and sealed with Teflon tape and plastic caps, entered into a chain of custody and immediately placed into a pre-chilled cooler containing ice. The soil samples were submitted for laboratory analysis at McCampbell analytical, Inc. (State Certification No. 1644) of Pittsburg, California to be analyzed for TPHmo, TPHd, and TPHg by EPA Method SW8015 and VOCs by EPA Method SW8260B.

On November 1, 2013, a total of ten sidewall and one bottom confirmation soil samples were collected from the excavation. One sample, SWN-7', was collected from north sidewall at a depth of 7 feet bgs and one sample, SWS-9', was collected from the south sidewall at a depth of 9 feet bgs. Two separate sidewall samples were collected from both the west and east sidewalls, at two sampling depths in each location (6 and 9 feet bgs); for a total of eight

samples. One additional bottom sample was collected at a depth of 12' bgs (EB1-12'); one bottom sample was previously collected (Tank-A-12') at a depth of 12 feet bgs during the UST removal activities, resulting in a total of two bottom samples.

On November 4, 2013, one grab groundwater sample was collected from a small amount of accumulated water within the excavation. The sample was collected by lowering a new, disposable bailer into the water and transferring the water into laboratory supplied volatile organic analyte sampling vial (VOAs). The VOAs were immediately placed on ice pending transportation to the laboratory. The groundwater sample was analyzed for TPHmo, TPHd, and TPHg by EPA Method SW8015 and VOCs by EPA Method SW8260B.

## 2.5 Analytical Results

Elevated concentrations of hydrocarbons were not detected along the northern, eastern, or southern sidewalls or the bottom samples. Elevated hydrocarbons were detected along the western wall in the 9 foot bgs soil samples. TPHg, TPHd, and TPHmo were detected at concentrations up to 2,000 mg/kg, 930 mg/kg, and 21 mg/kg in the 9 foot bgs samples. However, the 6 foot bgs samples from each of these western wall samples did not contain hydrocarbons at or above the laboratory detection limits. Based on this data hydrocarbon concentrations remain in a thin strip (between 6 and 12 feet bgs) along the western wall; based on field observations the thickness of the impacted soil is limited to a depth range of approximately 7 to 11.5 feet bgs.

The groundwater sample was reported to contain TPHg and TPHd at a concentration of 1,500 micrograms per liter ( $\mu\text{g}/\text{L}$ ) and 620  $\mu\text{g}/\text{L}$ , respectively. Benzene and toluene were not reported at or above the laboratory detection limit; however ethylbenzene and xylenes were reported at a concentration of 0.93  $\mu\text{g}/\text{L}$  and 13  $\mu\text{g}/\text{L}$ , respectively.

A comparison of analytical results are presented Tables 1, 2, and 5 and displayed on Figure 4. Copies of the laboratory analytical reports are included in Appendix C.

## 2.6 Excavation Backfilling

Immediately following sample collection, the excavation was backfilled with ¾-inch virgin drain rock to a depth of 8 feet bgs to ensure structural integrity of the excavation, as well as to bridge groundwater in the excavation while awaiting confirmation soil sample results. The material was imported from Syar Industries Inc. of Vallejo, California (quarry certification is included in Appendix D).

Based on analytical results from the confirmation soil samples collected, it was determined that the majority of petroleum hydrocarbon impacted soil had been removed and the excavation would be backfilled. No further excavation was feasible to the west (toward Park Street) due to the presence of the sidewalk and utilities. Backfilling of the excavation was approved by the ACEH in an electronic mail correspondence dated November 5, 2013.

On November 5, 2013, AEI continued backfilling the excavation with ¾-inch virgin drain rock to approximately 6 feet bgs. Filter fabric was then laid across the rock over the extent of the excavation to separate drain rock from the base rock. AEI continued to backfill the excavation with ¾-inch virgin base rock imported from Syar Industries Inc. (quarry certification is included in Appendix D). The excavation was compacted in one-foot lifts by use of a remote controlled Sheepfoot and hand operated Jumping Jack compactor. Salem Engineering Group, Inc. mobilized onsite and performed the first set of compaction tests for the excavation area at each lift, to an approximate depth of 3 feet bgs.

On November 6, 2013 AEI finished backfilling and compacting activities. Salem Engineering Group, Inc. arrived onsite and performed the second set of compaction testing at each lift, up to surface level. All areas tested received higher than a 95% level of compaction. Compact test results are included in Appendix E.

### **3.0 Soil Vapor Investigation**

During the October 31, 2013 meeting with the ACEH, it was agreed that soil vapor samples would be collected following excavation activities to assess the potential for vapor intrusion into the proposed commercial building. A total of three vapor samples (SV-16 to SV-18) were subsequently collected at locations and depths agreed upon during the meeting.

#### **3.1 Permits and Clearances**

As required, a subsurface drilling permit was obtained from the Alameda County Public Works Agency (ACPWA), permit number W2013-0892 and included in Appendix F, prior to drilling activities. An active Underground Service Alert (USA) ticket had already been obtained for the UST removal activities, therefore it was not necessary to notify USA again.

#### **3.2 Sampling**

On November 1, 2013, AEI completed three soil vapor samples (SV-16 to SV-18) by installing temporary soil vapor monitoring points. To install the points, a borehole was first drilled to a depth of approximately 6 feet bgs as measured from the sidewalk, which corresponds to approximately 5 feet below the proposed building foundation. The probes were then constructed within the borehole using 0.25-inch diameter Teflon tubing connected to a micro-porous plastic tip. The probe tip was placed in the middle of an annular filter pack composed of #3 Monterey sand placed between 5 and 6 feet bgs. The probe was then sealed with a 1-foot layer of dry granular bentonite followed by hydrated granular bentonite to just below ground surface.

After waiting the recommended equilibration time (as defined by the DTSC), approximately 2 hours, soil vapor samples were collected from the soil vapor probes. Prior to collecting the samples, a shut-in test was performed by placing a vacuum on the sampling train above grade. The vacuum was observed for approximately 1 minute and verified to not change.

Sampling was conducted using the helium shroud method to quantify leaks that may occur during sampling. The shroud was placed over the borehole, sample tubing, sample manifold and the sample container and then flooded with helium to approximately 20% concentration (as

measured using a direct-read helium detector). Once the helium concentration within the shroud had stabilized, soil vapor was purged from the tubing using a dedicated purge canister connected via an on-off valve. A total of three purge volumes were removed from each boring.

Following purging of the sampling lines, the purge valve was closed and the 1 liter Summa canister initial vacuum was recorded. The helium concentration within the shroud was recorded periodically during sampling. Vapor samples were collected through the regulator at approximately 150 mL/minute. After approximately five minutes (depending on the down-hole vacuum), or -5 in Hg vacuum in the canisters, each canister was closed and removed from the sampling line. The Summa canister sample was sealed with a gas tight cap, then appropriately labeled and entered onto a chain of custody manifest for delivery to the laboratory.

The samples were transferred under appropriate chain-of-custody documentation to McCampbell Analytical of Pittsburg, California. The vapor samples were analyzed for TPHg and VOCs by EPA Method TO15 and for light gases carbon dioxide ( $\text{CO}_2$ ), oxygen, methane, and helium (leak check) using ASTM D 1946-90.

### **3.3 Soil Vapor Results**

The following information is a summary of the soil vapor sample analytical test results. This information is included in Table 4 and displayed on Figure 5. Complete results are included in the laboratory analytical report in Appendix C.

- TPHg was detected in one of the vapor samples (SV-18) at a concentration of 2,700  $\mu\text{g}/\text{m}^3$ , well below the environmental screening level (ESL) of 1,200,000  $\mu\text{g}/\text{m}^3$ .
- Low levels of VOCs, each detection one or more orders of magnitude below the respective ESL, if applicable, were detected in the soil vapor samples. These low concentrations indicate that a significant threat for vapor intrusion is not present at the site.
- Oxygen was reported at 170,000 microliters per liter ( $\mu\text{L}/\text{L}$ ), or 17%, in each of the samples. These concentrations, combined with the lack of TPH at 6 feet bgs in the soil samples, would indicate that a bioattenuation zone is present in the shallow subsurface within the vicinity of the sample locations.
- Carbon Dioxide was reported at concentrations ranging from 1,200  $\mu\text{L}/\text{L}$  to 2,500  $\mu\text{L}/\text{L}$ , or 0.12% to 0.25% in the samples.
- The leak check compound (helium) was not detected in the samples above 0.057%, well below the acceptable limit of 1% (5% of the maintained 20% helium concentration in the shroud), indicating that a significant leak was not present in the sampling train.

### **3.4 Bore Hole Abandonment**

Following receipt of laboratory analytical data, the temporary soil vapor sampling points were abandoned on November 5, 2013 as directed by the Alameda County inspector. Sample tubing was physically removed from the borehole and the bentonite seal was left in place. The upper 1 foot of the boring was backfilled with cement grout.

## 4.0 Summary and Recommendations

From November 1 through November 6, 2013 AEI performed source removal activities at the site. The intent of the source removal was to remove petroleum hydrocarbon-impacted soil discovered during an UST removal conducted by AEI on October 29, 2013. The excavation area trended southwest to northeast and measured approximately 17 feet by 32 feet to depth of 12 feet bgs. During excavation activities, eleven loads totaling 261.27 tons of hydrocarbon impacted soil and hardened slurry material were removed and properly disposed of at Recology's Hay Road non-hazardous waste facility in Vacaville, California.

Prior to backfilling activities, confirmation soil samples were collected from the excavation's sidewalls and bottom and one groundwater sample was collected from the excavation bottom. Confirmation samples indicated that while the excavation was successful at removing hydrocarbons to the north, east, and south, residual hydrocarbons remained between 6 and 12 feet bgs along the western wall; based on field observations the thickness of the impacted soil is limited to a depth range of approximately 7 to 11.5 feet bgs.. The contaminated soil could not be removed due to the presence of Park Street. Furthermore, the groundwater sample collected within the former UST cavity contained detectable concentrations of hydrocarbons.

Subsequent soil vapor sampling was completed surrounding the excavation which indicated that elevated concentrations of hydrocarbons and VOCs were not present in the shallow soil vapor. Furthermore, the lack of hydrocarbons from 6 feet bgs, coupled with oxygen levels at 17%, indicate that a bioattenuation zone is present in the excavation area. Based on these findings and screening level comparison, vapor intrusion is not a significant threat at the site, and construction activities are continuing as planned.

However, the hydrocarbons found in the soil along the western sidewall have not been fully delineated towards Park Street. Therefore, as discussed with ACEH and FSI, a soil boring investigation is proposed to assess the lateral extent of the release in both the soil and groundwater. A work plan for additional characterization has been included in the following section.

## 5.0 Proposed Investigation

Confirmation soil samples collected during the November 2013 excavation activities, November 2013 soil vapor sampling, and prior soil borings, AEI-17 to AEI-19 completed in 2011, indicate that the release is well defined to the north, east, and south. However, residual impacted soil remains present in the soil along Park Street, and the extent of impacted groundwater has not been sufficiently delineated towards Park Street, the expected downgradient direction.

An additional soil boring investigation is proposed to quickly and cost effectively identify the limits of the release. This data will be utilized to guide future recommendations as to whether case closure is appropriate. The investigation will include soil and groundwater sampling by use of direct push drilling equipment. Three additional borings (AEI-29 to AEI-31) are proposed in the immediate downgradient direction of the former UST cavity. If initial field readings indicate elevated hydrocarbons are present in these borings, additional borings (AEI-32 and AEI-33) will

be completed. Elevated hydrocarbons triggering the completion of AEI-32 and AEI-33 will be defined by PID readings above 100 ppm, visual hydrocarbon staining observed in the soil, or a sheen observed in the groundwater samples. Proposed boring locations are shown Figure 6 and a summary of the rationale for the borings are as follows.

Boring ID	Rationale	Analyses*
AEI-29 to AEI-31	Samples immediately downgradient of the former UST cavity	TPHd, TPHg, MBTEX
AEI-32 to AEI-33	Tentative borings further downgradient only to be completed if field conditions indicate that elevated concentrations of chemicals of concern are present in AEI-29 to AEI-31	TPHd, TPHg, MBTEX

\* TPHg by EPA method 8015; MBTEX [methyl tert-butyl ether (MTBE), benzene, toluene, ethyl benzene, xylenes] by EPA method 8021; TPHd by EPA method 8015 w/ silica gel cleanup.

## 5.1 Permits and Clearances

As required, a subsurface drilling permit will be obtained from the Alameda County Public Works Agency (ACPWA) prior to drilling activities. Prior to beginning drilling activities, Underground Service Alert (USA) will be notified at least three (3) days prior to drilling. Underground utility locations will be reviewed and a private utility locating service retained to clear drilling locations. Furthermore, a Right of Way Permit will be obtained from the City of Alameda to provide the necessary lane closures during the drilling activities.

## 5.2 Drilling and Soil Sampling

All drilling work will be performed by a California C-57 licensed drilling contractor working under the direction of AEI professional staff. Once drilling dates have been established, the client and other involved parties, ACPWA and ACEH will be notified of the schedule.

The soil borings will be advanced with a direct-push drilling rig (GeoProbe or similar). The borings will be advanced to anticipated depths of approximately 16 feet bgs, as necessary, for the collection of groundwater samples. Soil will be continuously collected from each boring in approximately 4-foot long, 2-inch diameter acrylic liners. The borings will be logged by an AEI scientist, under the direction of a California Professional Geologist (PG) using the Unified Soil Classification System (USCS). Soil samples will be cut from the liners at intervals of approximately 4 feet, or more frequently, based on field observations and organic vapor measurements collected in the field to define the vertical profile of impacted soil above and below the water table. A sub-sample of each sample collected for potential chemical testing will be placed into a zipper-locking bag and screened for the presence of organic vapors with a photo-ionization detector (PID). Samples will be selected for analysis based on PID readings, sensory observations of impact, and changes in soil types. Selected soil samples will be sealed with Teflon tape and end caps, labeled with a unique identifier, and stored over water ice. It is expected that samples will be collected at intervals of approximately 4 feet or at each change in lithology.

### **5.3 Groundwater Sampling**

Groundwater samples will be collected from each boring. Upon encountering groundwater, a temporary ¾ inch factory slotted well casing will be installed into saturated sediments with blank casing to ground surface. Water levels will be measured before sample collection and each temporary casing will be purged to the extent practical prior to sample collection. Samples will be collected with a peristaltic pump or check valve into appropriate laboratory-supplied containers.

### **5.4 Sample Storage and Analyses**

All samples will be labeled with, at a minimum, a unique sample identification, sample date and time, and project number. The samples will be sealed in plastic bags and immediate placed in a pre-chilled cooler over water ice. Samples will be entered onto a chain of custody prior to leaving the site. Samples will be delivered on the day of collection to a California Department of Health Services (DHS) certified analytical laboratory.

One groundwater sample and an estimated two to three soil samples are planned for analysis from each boring. It is planned that soil and groundwater samples selected for analyses will be analyzed as outlined in the table at the beginning of Section 5.0.

### **5.5 Boring Destruction**

Upon completion of sampling, all temporary casing and sampling rods will be removed from the borings. The temporary soil borings will be backfilled with cement grout. The grout will be mixed at a ratio of one (1) 94-pound bag of Type II Portland cement to 5-gallons of water.

## **6.0 Reporting and Schedule**

Upon receipt of data, AEI will consolidate the findings of this investigation with prior data to update the CSM. The investigation will be reported in a stand-alone document and may include a request for closure package, to be determined by ongoing discussions with ACEH. Reports and data presentations will be uploaded into the GeoTracker database, as necessary. The project will be overseen and the documentation signed by an AEI California registered professional geologist or engineer.

## **7.0 Report Limitations**

This report has been prepared by AEI Consultants relating to the property located at 1600 Park Street, in the City of Alameda, Alameda County, California. This report includes a summary of site conditions and relies heavily on information obtained from public records and other resources; AEI makes no warrantee that the information summarized in this report includes consideration of all possible resources or information available for the site, whether referenced on not. Material samples have been collected and analyzed, and where appropriate conclusions drawn and recommendations made based on these analyses and other observations. This report may not reflect subsurface variations that may exist between sampling points. These variations cannot be fully anticipated, nor could they be entirely accounted for, in spite of exhaustive additional testing. This document should not be regarded as a guarantee that no

further contamination, beyond that which could have been detected within the scope of past investigations is present beneath the property or that all contamination present at the site will be identified, treated, or removed. Undocumented, unauthorized releases of hazardous material(s) and petroleum products, the remains of which are not readily identifiable by visual inspection and/or are of different chemical constituents, are difficult and often impossible to detect within the scope of a chemical specific investigation and may or may not become apparent at a later time. This document may contain estimates of costs for various activities that could be implemented at the site. Such estimates are based on reasonably expected costs for similar activities; however, AEI provides no guarantee implicit or explicit that costs will not be significantly higher or lower than those estimated. All specified work has been performed in accordance with generally accepted practices in environmental engineering, geology, and hydrogeology and performed under the direction of appropriate California registered professionals.

Field activities for the soil borings will be permitted upon approval from the ACEH. AEI welcomes comments and questions from ACEH staff. Please contact us (925) 746-6000.

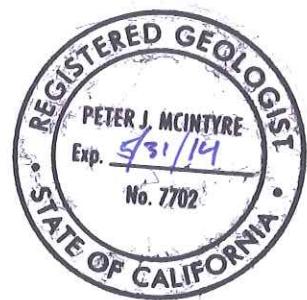
Sincerely,  
**AEI Consultants**



Jeremy Smith  
Sr. Project Manager



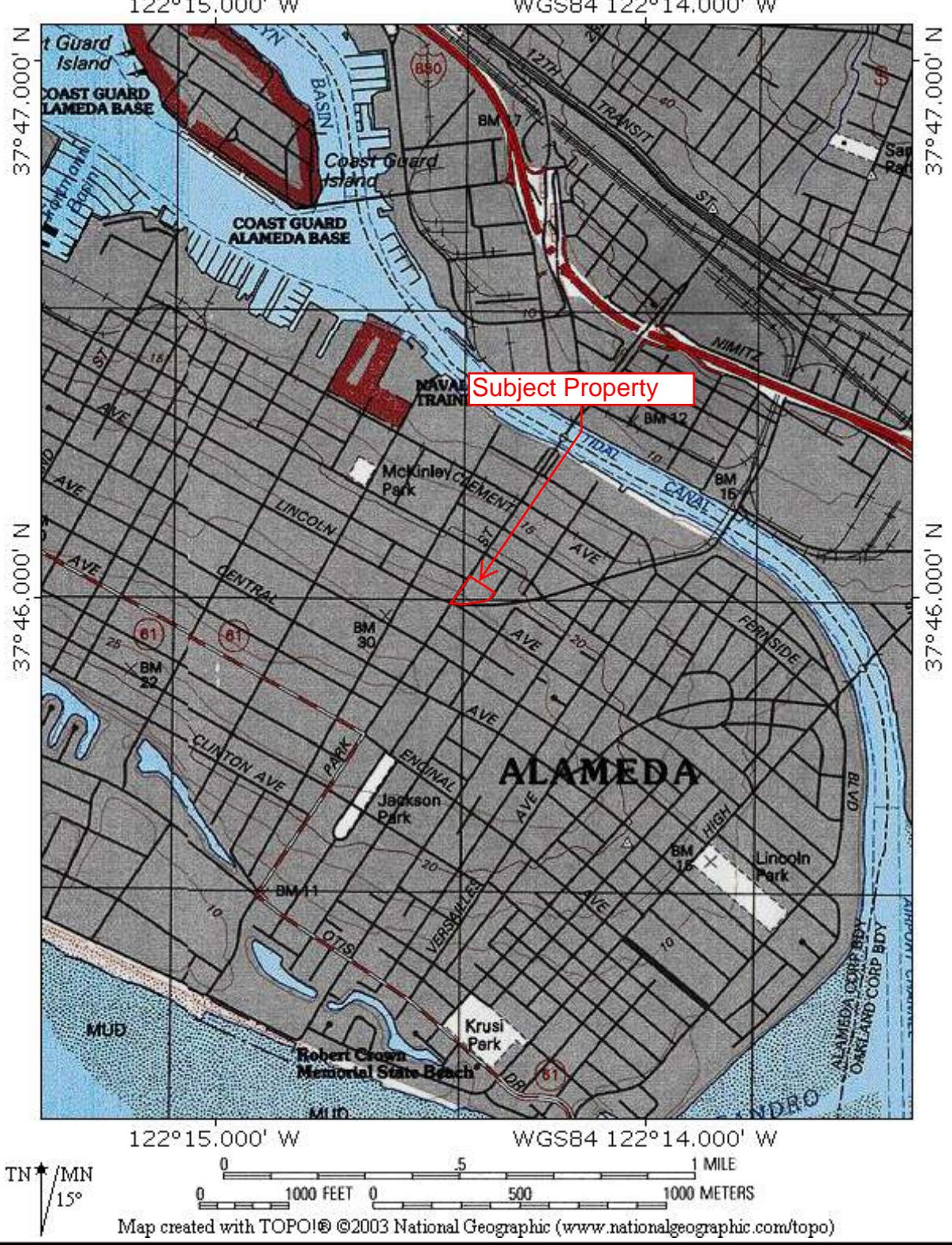
Peter J. McIntyre, PG  
Executive Vice President  
Principal Geologist



**Distribution:**

John Buestad, Foley Street Investments  
Tom Graf, Grafcon  
Karel Detterman, Alameda County Environmental Health Department (FTP Upload)  
GeoTracker (Upload)

## **FIGURES**



# SITE LOCATION MAP

1600-1650 Park Street

Alameda, California 94501

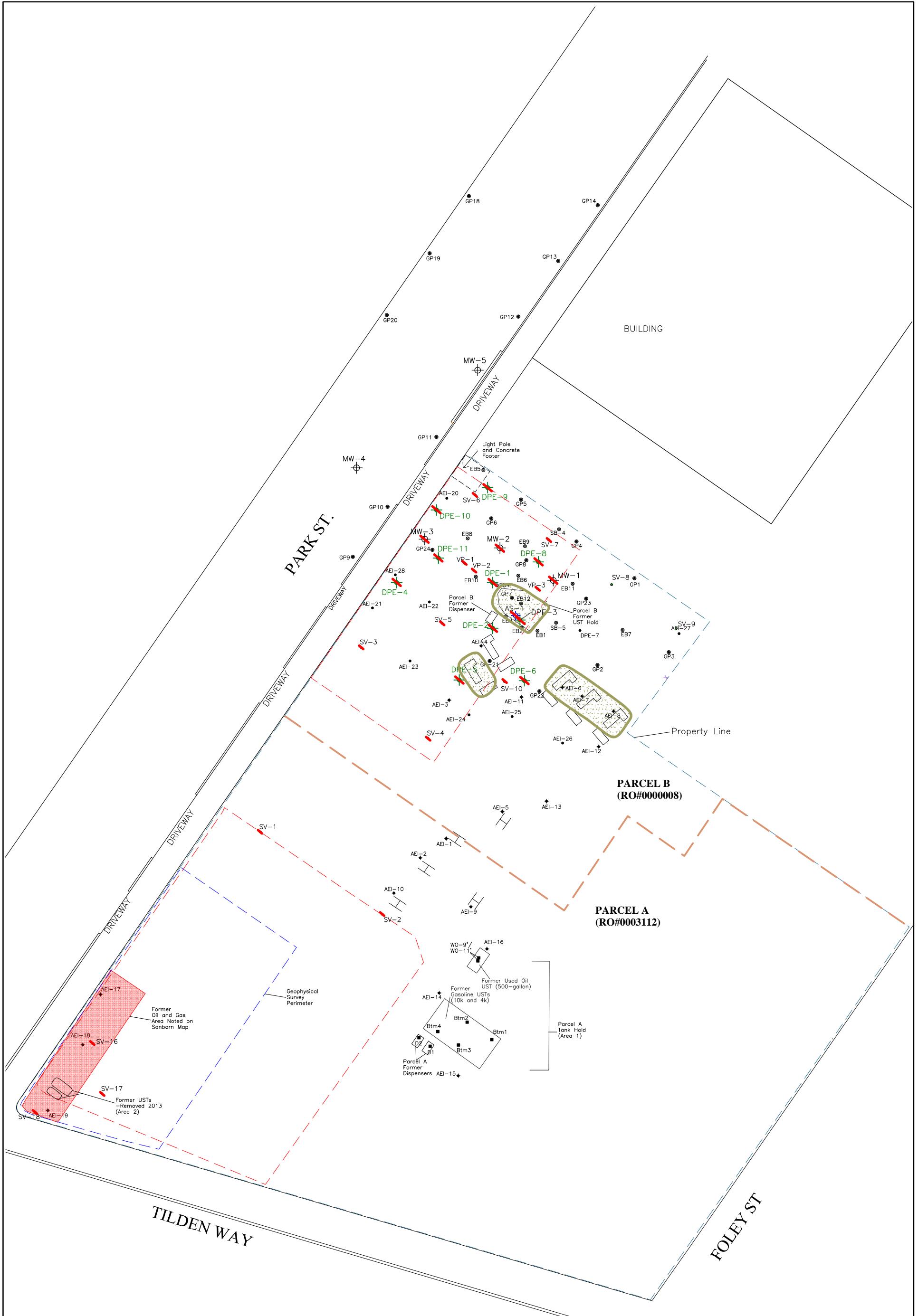


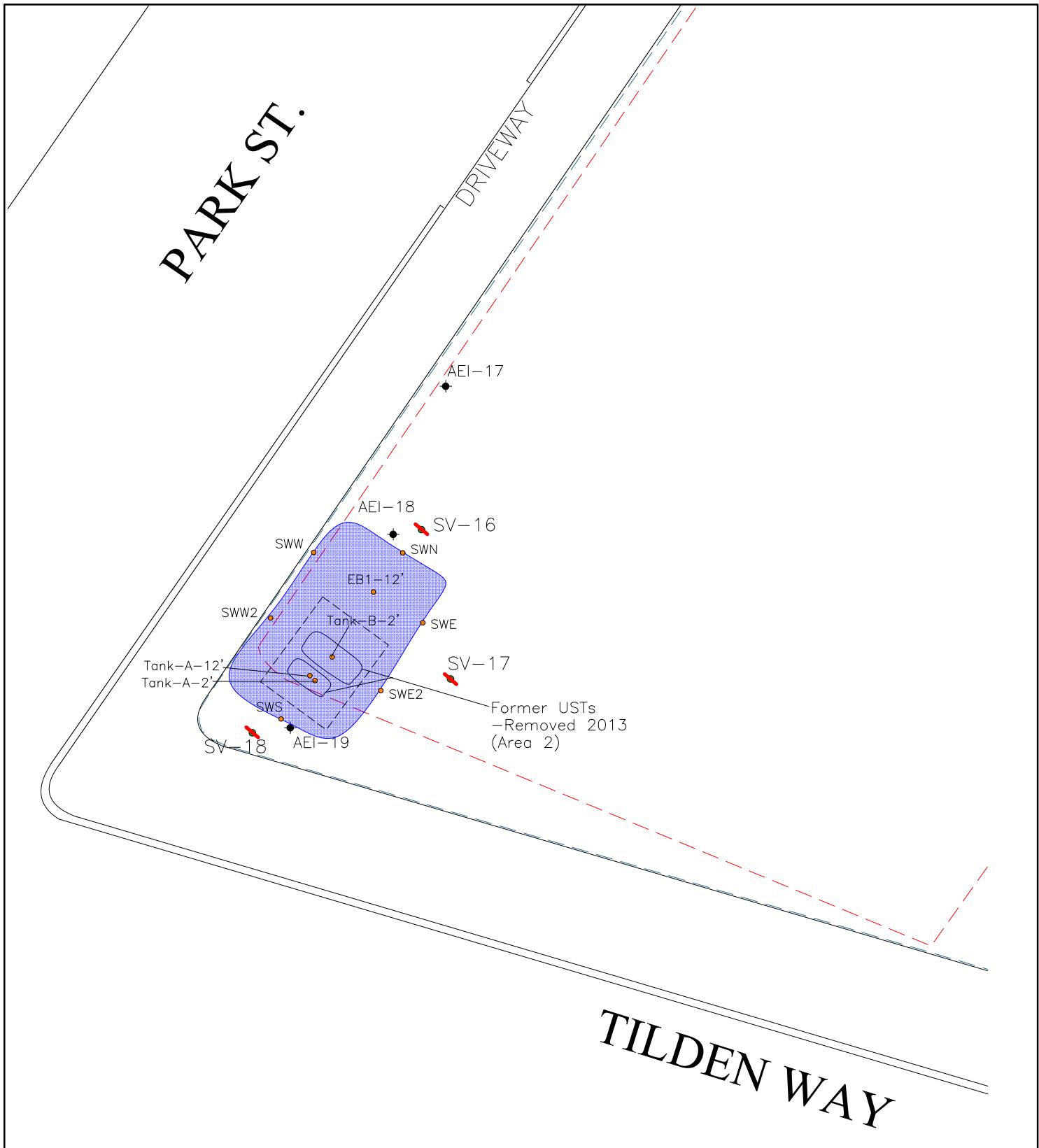
## FIGURE 1

Project Number: 298931

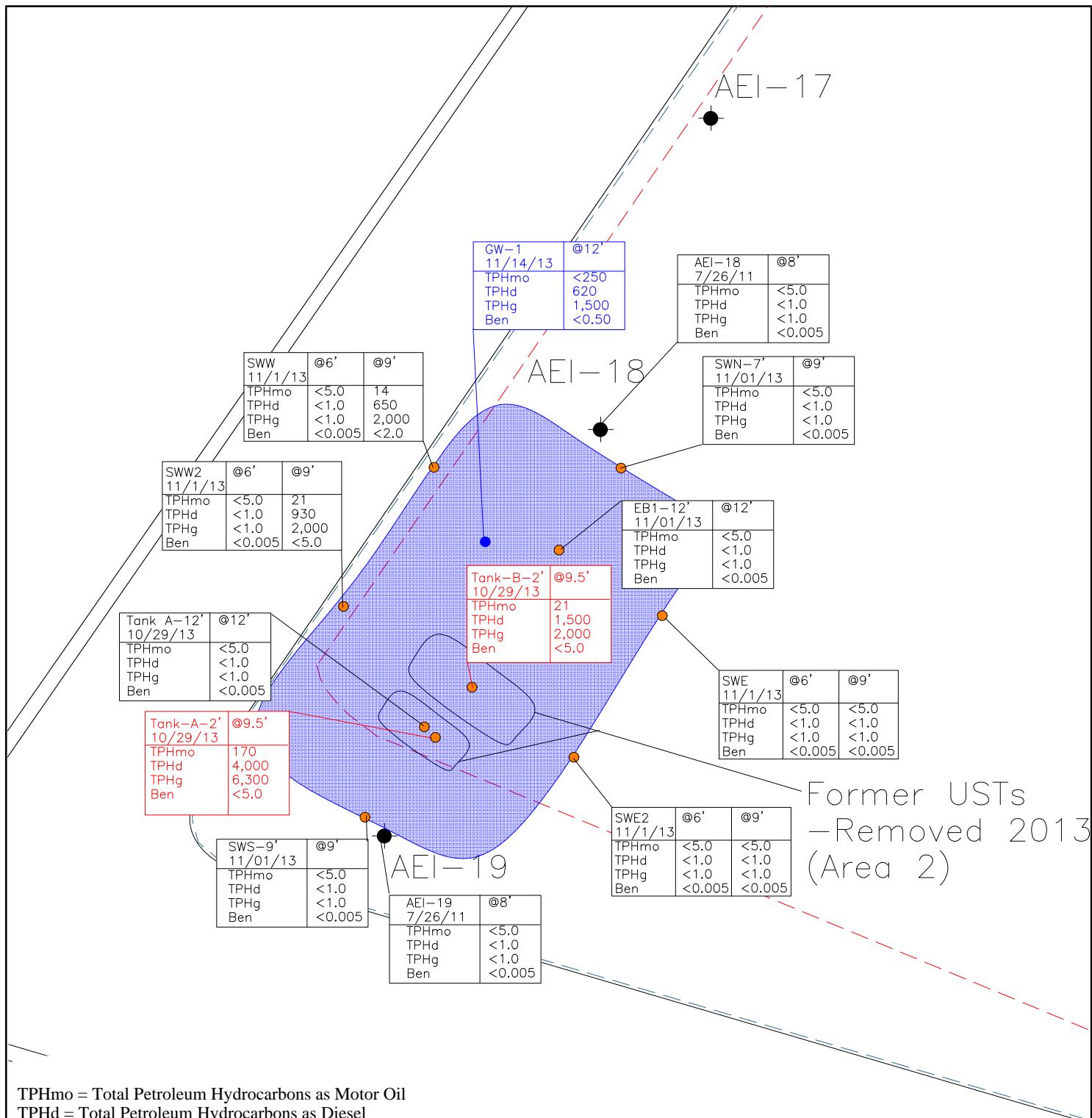
Source: USGS

**AEI**  
Consultants





 0      10      20  Scale: 1" = 20'	<b>LEGEND</b> <ul style="list-style-type: none"> <li>2013 Over-Excavation Extents</li> <li>Original UST Excavation Extent</li> <li>USTs (Removed 10/29/13)</li> <li>AEI Soil Boring (7/11)</li> <li>Property Line</li> <li>Grab Soil Sample</li> <li>Former Soil Vapor Probe</li> <li>Proposed Buildings</li> </ul>	DRAFTED BY JAS 3-9-12 REVISED BY JAS 10-29-13	<b>AEI CONSULTANTS</b> 2500 CAMINO DIABLO, WALNUT CREEK
<b>SITE PLAN</b>			<b>FIGURE 3</b> PROJECT NO. 324771
1600 PARK STREET ALAMEDA, CALIFORNIA			



TPHmo = Total Petroleum Hydrocarbons as Motor Oil

TPHd = Total Petroleum Hydrocarbons as Diesel

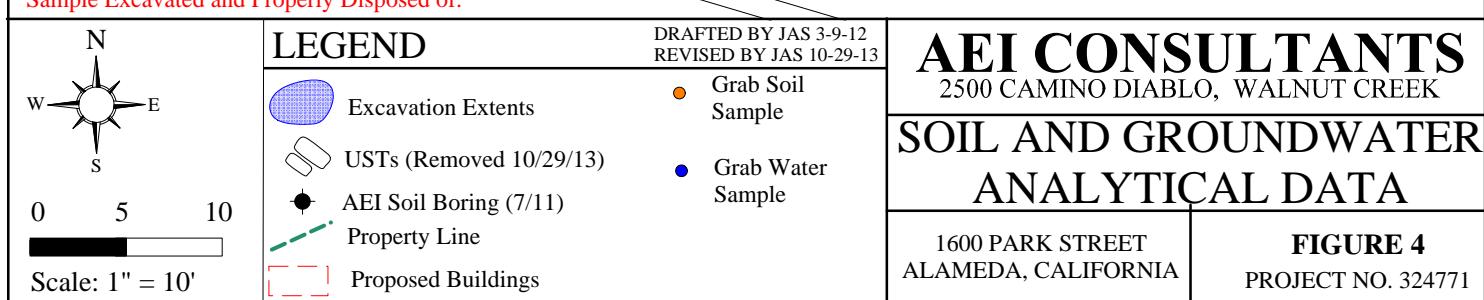
TPHg = Total Petroleum Hydrocarbons as Gasoline

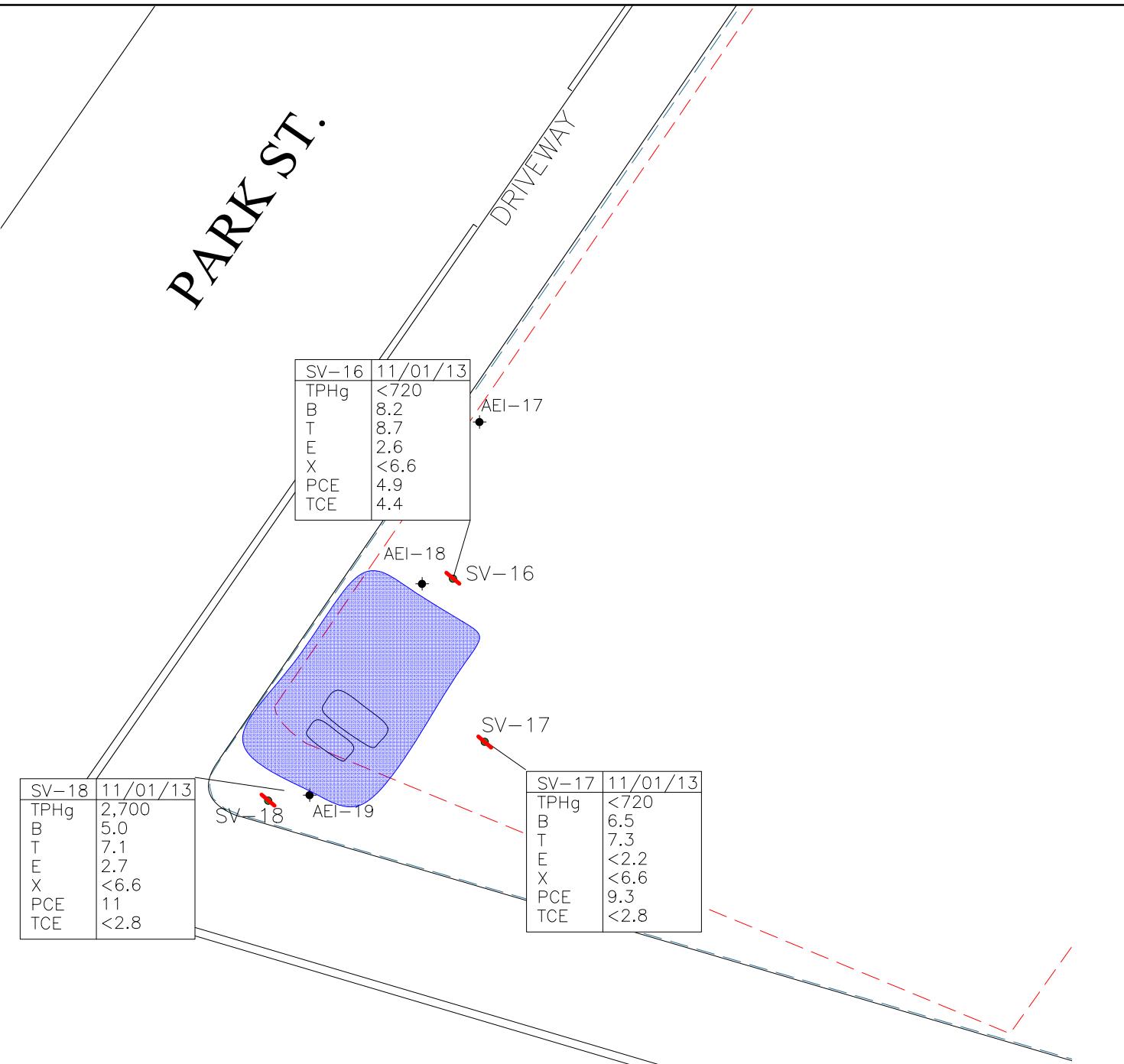
Ben = Benzene

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

Groundwater results in micrograms per liter (ug/L)

Sample Excavated and Properly Disposed of.





TPHg = Total Petroleum Hydrocarbons as Gasoline

B = Benzene

T = Toluene

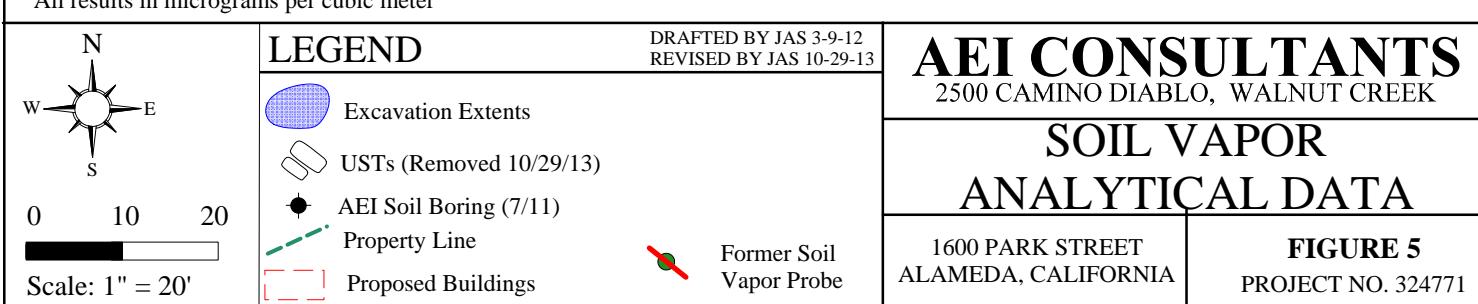
E = Ethylbenzene

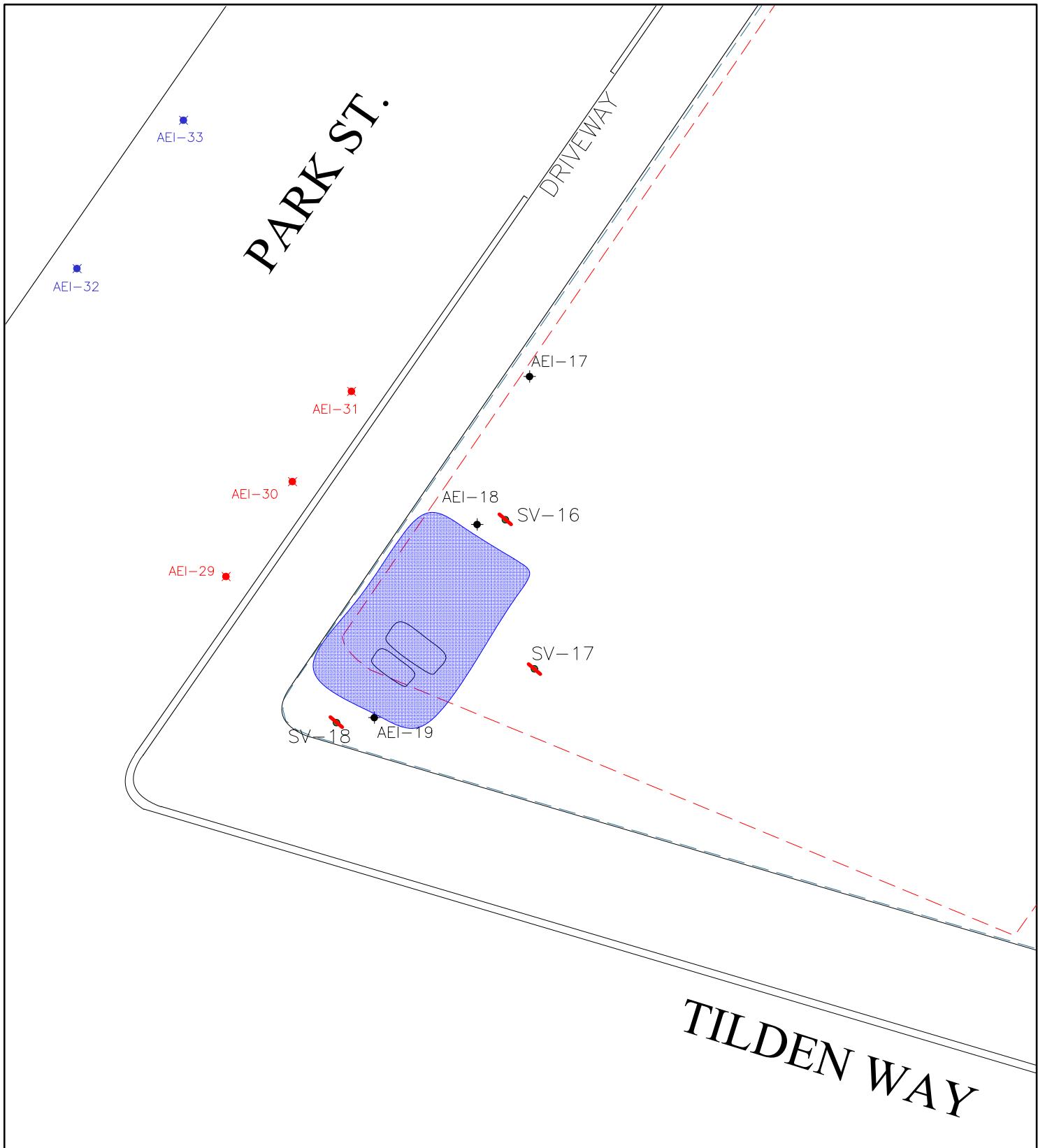
X = Xylenes

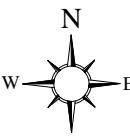
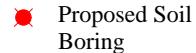
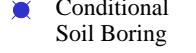
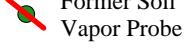
PCE = Tetrachloroethene

TCE = Trichloroethene

All results in micrograms per cubic meter





 0 10 20	<b>LEGEND</b> <ul style="list-style-type: none"> <li>2013 Excavation Extents</li> <li>USTs (Removed 10/29/13)</li> <li>AEI Soil Boring (7/11)</li> <li>Property Line</li> <li>Proposed Buildings</li> </ul>	<small>DRAFTED BY JAS 3-9-12 REVISED BY JAS 1-9-14</small>	<b>AEI CONSULTANTS</b> 2500 CAMINO DIABLO, WALNUT CREEK		
		 Proposed Soil Boring	<b>PROPOSED SOIL BORINGS</b>		
		 Conditional Soil Boring	1600 PARK STREET ALAMEDA, CALIFORNIA		
		 Former Soil Vapor Probe	<b>FIGURE 6</b> PROJECT NO. 324771		

## **TABLES**

**Table 1**  
**Soil Sample Analytical Data - TPH and MBTEX**  
AEI Project No. 324771, 1600 Park Street, Alameda, California

Sample ID	Date Collected	Approx. Depth (feet)	TPH-g (mg/kg)	TPH-d* (mg/kg)	TPH-mo* (mg/kg)	HEMSGT	MTBE (mg/kg)	Benzene (mg/kg)	Toluene (mg/kg)	Ethylbenzene (mg/kg)	Xylenes (mg/kg)
EPA Method SW8260/8015B/m											
<b>October / November 2013 Excavation Activities</b>											
Tank-A-2'	10/29/2013	9.5'	6,300	4,000	170	170	<5.0	<5.0	<5.0	28	12
Tank-B-2'	10/29/2013	9.5'	2,000	1,500	21	<50	<5.0	<5.0	<5.0	<5.0	<5.0
Tank-A-12'	10/29/2013	12'	<1.0	<1.0	<5.0	-	<0.005	<0.005	<0.005	<0.005	<0.005
EB1-12'	11/1/2013	12'	<1.0	<1.0	<5.0	-	<0.005	<0.005	<0.005	<0.005	<0.005
SWN-7'	11/1/2013	9'	<1.0	<1.0	<5.0	-	<0.005	<0.005	<0.005	<0.005	<0.005
SWW-9'	11/1/2013	9'	2,000	650	14	-	<2.0	<2.0	<2.0	4.6	9.2
SWW-6'	11/1/2013	6'	<1.0	<1.0	<5.0	-	<0.005	<0.005	<0.005	<0.005	<0.005
SWE-9'	11/1/2013	9'	<1.0	<1.0	<5.0	-	<0.005	<0.005	<0.005	<0.005	<0.005
SWE-6'	11/1/2013	6'	<1.0	<1.0	<5.0	-	<0.005	<0.005	<0.005	<0.005	<0.005
SWW2-9'	11/1/2013	9'	2,000	930	21	-	<5.0	<5.0	<5.0	<5.0	<5.0
SWW2-6'	11/1/2013	6'	<1.0	<1.0	<5.0	-	<0.005	<0.005	<0.005	<0.005	<0.005
SWE2-9'	11/1/2013	9'	<1.0	<1.0	<5.0	-	<0.005	<0.005	<0.005	<0.005	<0.005
SWE2-6'	11/1/2013	6'	<1.0	<1.0	<5.0	-	<0.005	<0.005	<0.005	<0.005	<0.005
SWS-9'	11/1/2013	9'	<1.0	1.1	<5.0	-	<0.005	<0.005	<0.005	<0.005	<0.005
ESL (Shallow Soil)	-	-	500	500	2,500	-	0.023	0.044	2.9	3.3	2.3
ESL (Deep Soil)	-	-	580	530	5,000	-	0.023	0.044	2.9	3.3	2.3

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

TPH = total petroleum hydrocarbons MTBE = methyl tertiary butyl ethyl

TPH-g = TPH as gasoline

TPH-d = TPH as diesel

TPH-mo = TPH as motor oil

MTBE = methyl tertiary butyl ethyl

HEMSGT = Hexane Extractable Material with Silica Gel Treatment

**Soil Sample was over-excavated during source removal activities**

"<" = less than

"\*" = with silica gel cleanup

"-" = not available

ESL (Shallow Soil) = < 3 meters bgs, Commercial Land Use, groundwater is a current or potential drinking water source. From Screening for Environmental Concerns at Sites with Contaminated Soil and Groundwater - California Regional Water Quality Control Board - San Francisco Bay Region (Revised 2013)

ESL (Deep Soil) = > 3 meters bgs, Commercial Land Use, groundwater is a current or potential drinking water source. From Screening for Environmental Concerns at Sites with Contaminated Soil and Groundwater - California Regional Water Quality Control Board - San Francisco Bay Region (Revised 2013)

**Table 2**  
**Soil Sample Analytical Data - VOCs and SVOCs**  
AEI Project No. 324771, 1600 Park Street, Alameda, California

Sample ID	Date Collected	Approx. Depth (feet)	n-Butyl-benzene (mg/kg)	Naphthalene (mg/kg)	1,2,4-Trimethyl benzene (mg/kg) EPA Method SW8260B	1,3,5-Trimethyl benzene (mg/kg)	n-Propyl benzene (mg/kg)	Isopropyl-benzene (mg/kg)	Remaining VOCs	Naphthalene (mg/kg) EPA Method SW8270C	2-Methyl-naphthalene (mg/kg)	Remaining SVOCs
<b>October 2013 Excavation Activities</b>												
Tank-A-2'	10/29/2013	9.5'	14	36	<5.0	8.1	20	8.1	<RL	19	6.0	<RL
Tank-B-2'	10/29/2013	9.5'	6.8	8.2	<5.0	<5.0	<5.0	<5.0	<RL	<2.5	1.8	<RL
Tank-A-12'	10/29/2013	12'	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<RL	-	-	-
EB1-12'	11/1/2013	12'	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<RL	-	-	-
SWN-7'	11/1/2013	9'	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<RL	-	-	-
SWW-9'	11/1/2013	9'	3.6	5.8	36	6.8	4.0	<2.0	<RL	-	-	-
SWW-6'	11/1/2013	6'	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<RL	-	-	-
SWE-9'	11/1/2013	9'	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<RL	-	-	-
SWE-6'	11/1/2013	6'	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<RL	-	-	-
SWW2-9'	11/1/2013	9'	<5.0	6.2	<5.0	<5.0	<5.0	<5.0	<RL	-	-	-
SWW2-6'	11/1/2013	6'	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<RL	-	-	-
SWE2-9'	11/1/2013	9'	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<RL	-	-	-
SWE2-6'	11/1/2013	6'	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<RL	-	-	-
SWS-9'	11/1/2013	9'	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<RL	-	-	-
ESL (Shallow Soil)	-	-	-	1.2	-	-	-	-	-	-	0.25	-
ESL (Deep Soil)	-	-	-	1.2	-	-	-	-	-	-	0.25	-

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

VOCs = volatile organic compounds

"<" = less than

RL = reporting limit - see laboratory reports for sample specific dilution factors

Soil Sample was over-excavated during source removal activities

ESL (Shallow Soil)= < 3 meters bgs, Commercial Land Use, groundwater is a current or potential drinking water source. From Screening for Environmental Concerns at Sites with Contaminated Soil and Groundwater - California Regional Water Quality Control Board - San Francisco Bay Region (Revised 2013)

ESL (Deep Soil)= > 3 meters bgs, Commercial Land Use, groundwater is a current or potential drinking water source. From Screening for Environmental Concerns at Sites with Contaminated Soil and Groundwater - California Regional Water Quality Control Board - San Francisco Bay Region (Revised 2013)

**Table 3**  
**Soil Sample Analytical Data - Metals**  
AEI Project No. 324771, 1600 Park Street, Alameda, California

Sample ID	Date Collected	Approx. Depth (feet)	Cd mg/kg	Cr (total) mg/kg	Pb mg/kg EPA Method SW6020	Ni mg/kg	Zn mg/kg
Tank-A-2'	10/29/2013	9.5'	<0.25	37	22	34	21
Tank-B-2'	10/29/2013	9.5'	<0.25	38	12	26	16
ESL (Shallow Soil)	-	-	12	-	320	150	600

**Notes:**

mg/kg = milligrams per kilogram

"-" = not available

Cd = Cadmium

Cr = Chromium

Pb = Lead

Ni = Nickel

Zn = Zinc

Soil Sample was over-excavated during source removal activities

ESL (Shallow Soil)= < 3 meters bgs, Commercial Land Use, groundwater is a current or potential drinking water source. From Screening for Environmental Concerns at Sites with Contaminated Soil and Groundwater - California Regional Water Quality Control Board - San Francisco Bay Region (Revised 2013)

**Table 4**  
**Soil Vapor Analytical Data**  
AEI Project No. 324771, 16100 Park Street, Alameda, CA

Sample ID	Date	TPH-g	Benzene	Toluene	Ethyl-benzene	PCE	TCE	4-Ethyltoluene	1,2,4-Trimethylbenzene	Tetrahydrofuran	Carbon Disulfide	Acetone	1,3,5-Trimethylbenzene	Other VOCs	Helium*	CO2	Methane	Oxygen
			( $\mu\text{g}/\text{m}^3$ )	(%)	( $\mu\text{L}/\text{L}$ )	( $\mu\text{L}/\text{L}$ )	( $\mu\text{L}/\text{L}$ )											
			Analyzed using Method TO15															Analyzed using ASTM D 1946-90
SV-16	11/1/13	<720	8.2	8.7	2.6	4.9	4.4	<2.5	3.8	13	3.4	<60	<2.5	<RL	0.057	2,000	5.1	170,000
SV-17	11/1/13	<720	6.5	7.3	<2.2	9.3	<2.8	<2.5	3.2	<1.5	1.9	<60	<2.5	<RL	0.018	2,500	3.3	170,000
SV-18	11/1/13	2,700	5.0	7.1	2.7	11	<2.8	3.6	8.9	<1.5	<1.6	110	3.0	<RL	0.012	1,200	<1.0	170,000
ESL		1,200,000	420	1,300,000	4,900	2,100	3,000	--	--	--	--	140,000,000	--	NA	NA	NA	NA	NA

**Notes:**

$\mu\text{g}/\text{m}^3$  = micrograms per cubic meter (ppbv)

$\mu\text{L}/\text{L}$  = microliters per liter

\* = Leak check compound; <5% of Tracer Concentration is Acceptable; or 1% assuming a 20% atmosphere was maintained.

<1.0 = Not detected above the laboratory reporting limit shown

**Bold** = Result exceeds screening criteria (ESL)

NA = Not applicable

-- = No value established

<RL = Less than laboratory reporting limit

ESL = Environmental Screening Levels, Table E-2, San Francisco Regional Water Quality Control Board (Commercial/Industrial, Shallow Soil, Drinking Water Aquifer), Revised May 2013

**Table 5**  
**Groundwater Analytical Data**  
AEI Project No. 324771, 1600 Park Street, Alameda, California

Sample ID	Date Collected	TPH-g	TPH-d*	TPH-mo*	Benzene	Toluene	Ethylbenzene	Xylenes	Acetone	2-Butanone	n-Butyl Alcohol	sec-Butyl benzene	4-Isopropyl-toluene	1,2,4-Trimethylbenzene (µg/L)	1,3,5-Trimethylbenzene (µg/L)	Remaining VOCs
		(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)	<RL
GW-1	11/4/2013	1,500	620	<250	<0.50	<0.50	0.93	13	10	4.8	2.7	0.65	0.98	2.3	15	<RL
ESLs - DW	-	100	100	100	1.0	40	30	20	1,500	-	-	-	-	-	-	-

µg/L = micrograms per liter

TPH = total petroleum hydrocarbons

TPH-g = TPH as gasoline

TPH-d = TPH as diesel

TPH-mo = TPH as motor oil

VOCs = volatile organic compounds

RL = reporting limit

"\*" = with silica gel cleanup

"-" = not available

"<" = less than

ESL = Environmental Screening Levels, Table F-1a, San Francisco Regional Water Quality Control Board (Potential Drinking Water Aquifer), Revised May 2013

**APPENDIX A**

**DRUM AND HYDRAULIC RESERVOIR REMOVAL REPORT**



November 13, 2013

John Buestad  
Foley Street Investments, LLC  
2533 Clement Avenue  
Alameda, CA 94501

**Subject: Drum and Reservoir Tank Removal**

1600 Park Street, Alameda, CA 94501  
AEI Project No. 324771

Dear Mr. John Buestad:

AEI Consultants (AEI) has prepared this letter report at the request of Foley Street Investments, LLC describing the removal and disposal of one (1) 55-gallon drum containing sludge and one (1) hydraulic lift reservoir tank discovered by the general contractor during grading activities at 1600 Park Street, Alameda, California (hereinafter referred to as the "site").

AEI was contracted to profile the contents of the drum and reservoir tank for disposal at a licensed waste facility, secure the material for transport, transport and dispose of the material, and perform confirmation soil sampling.

**Site Location and Description**

The site is located in a mixed commercial and residential area of Alameda County. Currently, the site is undergoing redevelopment activities for construction of an onsite commercial building and associated parking.

**Waste Profiling Activities**

On October 17, 2013, the general contractor discovered one (1) 55-gallon drum containing sludge material and one (1) 30-gallon hydraulic lift reservoir tank on site during grading activities. Under the direction of AEI personnel, the drum was removed from the grading area and placed on and covered with visuqueen, and surrounded by straw wattles in a designated location for further examination and content sampling. The reservoir tank remained in ground while AEI personnel collected samples of its contents. The excavation area and reservoir tank were secured and marked off with caution tape while awaiting confirmation soil sample analytical results.

One (1) sample (Drum 1) was collected from material within the 55-gallon drum for waste profiling and characterization purposes. The sample was analyzed for Total Petroleum Hydrocarbons (TPH) as Gasoline (TPH-g), Diesel (TPH-d), Motor oil (TPH-mo), Volatile Organic

Compounds (VOCs), Polychlorinated Biphenyls (PCBs), and CAM-17 Metals by EPA Methods 8015, 8260, 8082, and 6020 respectively. One (1) sample (Cylinder 1) was collected from the material within the reservoir tank and analyzed for PCBs and Chlorinated Volatile Organic Compounds CVOCS by EPA Methods 8082 and 8260, respectively for waste profiling purposes.

One (1) soil sample (Conf Sample) was collected from directly beneath the 55-gallon drum to determine if soil directly beneath the drum had been impacted by the drum contents. The soil sample was analyzed for TPH-g, TPH-d, and TPH-mo using EPA Method 8015, VOCs using EPA Method 8260, and PCBs using EPA Method 8082. The confirmation sample did not contain significantly elevated concentrations of hydrocarbons, VOCs, or PCBs, and the results were discussed onsite with Ms. Karel Detterman of the Alameda County Department of Environmental Health (ADEH) on October 29, 2013. It was determined by AEI and the ACEH that no further action with regards to the soil beneath or around the drum was necessary.

All samples were immediately placed into a cooler with ice and transported to McCampbell Analytical, Inc. (State Certification # 1644) of Pittsburg, California for analysis. The analytical reports are included as Attachment B: Analytical Reports.

The analytical data collected was used to profile the drum and reservoir tank contents for acceptance into a licensed waste facility.

The reservoir tank and its contents were split into two waste profiles, one for the tanks contents and one for the tank itself. The 55-gallon drum and its contents were profiled under a single waste profile number. Due to the concentrations of PCBs, all three (3) waste profiles were accepted as Non-RCRA hazardous waste.

On October 24, 2013, three (3) waste profiles were submitted and accepted into Clean Harbors Environmental Services, Inc. Class I waste facility located at 1021 Berryessa Road in San Jose, California. The reservoir tank was profiled under No. CH704149, while its contents were profiled under No. CH704141. The Drum was profiled under No. CH704023.

### **Excavation and Removal Activities**

On October 29, 2013, AEI and Clean Harbors Environmental Services, Inc. personnel mobilized on site for removal activities. The 55-gallon drum containing oily sludge waste was placed into an overpacked 85-gallon drum and secured on a Clean Harbors truck for transport. The remaining content of the reservoir tank was pumped into a 55-gallon drum. The empty reservoir tank was then cut into manageable pieces which were wrapped in plastic and placed into a 55-gallon drum for secure transport. All of the waste items were loaded onto a Clean Harbors truck and transported under Non-RCRA hazardous waste manifest to Clean Harbors San Jose, LLC waste facility located at 1021 Berryessa Road in San Jose, California where the waste was disposed of properly. The Non-RCRA hazardous waste manifest waste profiles are attached as attachment A: Transport and Disposal Documentation.

One (1) confirmation soil sample (RT-5') was collected 1 foot beneath the reservoir tank and analyzed for TPH-Multi-Range, PCB's, VOCs, and hydraulic oil, by EPA Methods 8015, 8082, 8260, 8021, respectively. Analytical data indicated no impacts to the soil beneath the reservoir tank.

Upon confirmation soil sample data indicating no impacts to the soil, the excavation was backfilled and compacted to match the surrounding surface.

Should you have any questions regarding this letter, please contact me at (925) 746-6000.

Sincerely,

**AEI Consultants**



Andrew Wallace  
Project Manager, Construction Dept.



Dusty Roy  
Director, Construction Dept.

Figure 1: Site Location Map

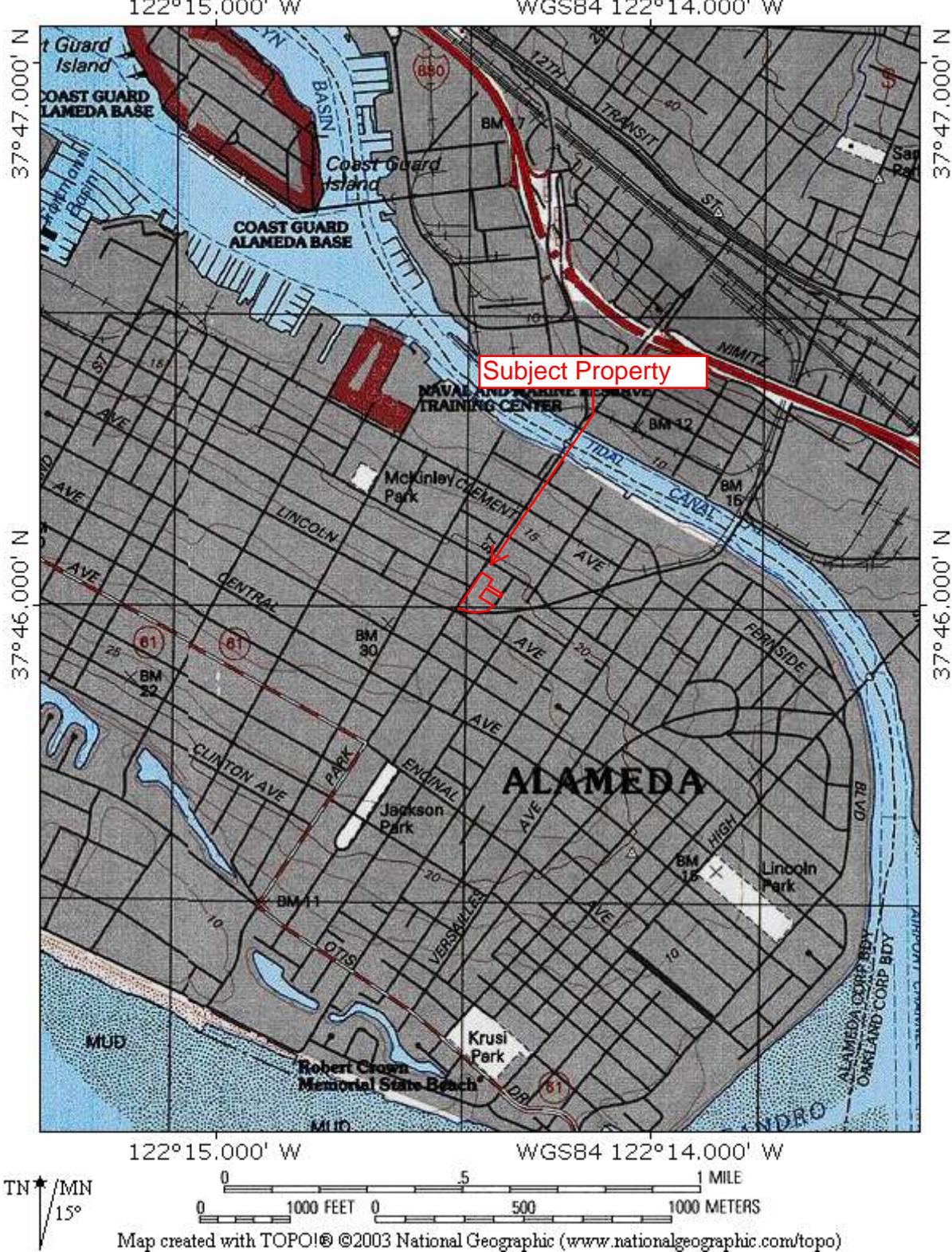
Figure 2: Site Plan

Table 1: TPH & VOCs Analytical Data

Table 2: Cam 17 Metals and PCBs Analytical Data

Attachment A: Transportation and Disposal Documentation

Attachment B: Laboratory Analytical Reports



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

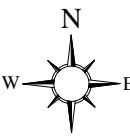
## SITE LOCATION MAP

1600-1650 Park Street

Alameda, California 94501





 0 15 30  Scale: 1" = 30'	<b>LEGEND</b> ● Former Buried 55-Gallon Drum ● Former Hydraulic Reservoir [Red dashed box] Proposed Buildings	DRAFTED BY JAS 3-9-12 REVISED BY JAS 11-12-13	<b>AEI CONSULTANTS</b> 2500 CAMINO DIABLO, WALNUT CREEK
<b>SITE PLAN</b>			<b>FIGURE 2</b> PROJECT NO. 324771

**Table 1**  
**Soil Sample Analytical Data - TPH & VOCs**  
**1630 Park Street, Alameda, CA**

Sample ID	Date	Depth (feet bgs)	TPHd mg/Kg	TPHg mg/Kg	TPHmo mg/Kg	n-Butyl benzene mg/Kg	Ethylbenzene mg/Kg	Naphthalene mg/Kg	n-Propyl benzene mg/Kg	Toluene mg/Kg	1,2,4- Trimethylbenzene mg/Kg	1,3,5- Trimethylbenzene mg/Kg	Total Xylenes mg/Kg	All other VOCs mg/Kg
Drum 1	10/17/2013	-	<b>3,400</b>	410	<b>11,000</b>	1.9	2.6	10	1.4	6.5	15	3.9	<b>16</b>	<RL
Conf Sample	10/17/2013	1	43	<1	280	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<RL
Cylinder 1	10/17/2013	-	-	-	-	-	-	-	-	-	-	-	-	-
RT-5'	10/29/2013	5	<10	<10	<50	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<RL
ESL (Shallow Soil)	-	-	100	100	500	-	3.3	1.2	-	2.9	-	-	2.3	vaires
ESL (Deep Soil)	-	-	240	490	5,000	-	3.3	1.2	-	2.9	-	-	2.3	varies

Notes:

mg/kg = milligrams per kilogram

bgs= below ground surface

ESL (Shallow Soil)= < 3 meters bgs, Residential Land Use, groundwater is a current or potential drinking water source. From Screening for Environmental Concerns at Sites with Contaminated Soil and Groundwater - California RWQCB San Francisco Bay Region (Revised 2013)

ESL (Deep Soil)= > 3 meters bgs, Residential Land Use, groundwater is a current or potential drinking water source. From Screening for Environmental Concerns at Sites with Contaminated Soil and Groundwater - California RWQCB Bay Region (Revised 2013)

RWQCB= Region Water Quality Control Board

TPHg= total petroleum hydrocarbons as gas analyzed using EPA Method 8015B

TPHd= total petroleum hydrocarbons as diesel analyzed using EPA Method 8015B

TPHmo= total petroleum hydrocarbon as motor oil analyzed using EPA Method 8015B

n-Butyl benzene analyzed using EPA Method 8260B

Naphthalene analyzed using EPA Method 8260B

Ethylbenzene analyzed using EPA Method 8260B

n-Propyl benzene analyzed using EPA Method 8260B

Toluene analyzed using EPA Method 8260B

1,2,4- Trimethylbenzene analyzed using EPA Method 8260B

1,3,5- Trimethylbenzene analyzed using EPA Method 8260B

Total Xylenes analyzed using EPA Method 8260B

< = below method detection limit

' = not analyzed/applicable

RL= Reporting Limit

**Bold**= Exceeds Environmental Screening Level (ESL)

**Table 2**  
**CAM 17 Metals & PCBs**  
*EPA Method SW6020 & SW8082*

Sample ID	Date	Antimony mg/kg	Arsenic mg/kg	Barium mg/kg	Beryllium mg/kg	Cadmium mg/kg	Chromium mg/kg	Cobalt mg/kg
Drum 1	10/17/2013	<0.5	<0.5	22	<0.5	0.25	9.3	11
Conf Sample	10/17/2013	-	-	-	-	-	-	-
Cylinder 1	10/17/2013	-	-	-	-	-	-	-
RT - 5'	10/29/2013	-	-	-	-	-	-	-
Sample ID	Date	Copper mg/kg	Lead mg/kg	Mercury mg/kg	Molybdenum mg/kg	Nickel mg/kg	Selenium mg/kg	Silver mg/kg
Drum 1	10/17/2013	110	30	0.45	<0.5	8.1	<0.5	<0.5
Conf Sample	10/17/2013	-	-	-	-	-	-	-
Cylinder 1	10/17/2013	-	-	-	-	-	-	-
RT - 5'	10/29/2013	-	-	-	-	-	-	-
Sample ID	Date	Thallium mg/kg	Vanadium mg/kg	Zinc mg/kg	Total PCBs mg/kg	Aroclor1242 mg/kg	Aroclor1260 mg/kg	All other Aroclors mg/kg
Drum 1	10/17/2013	<0.5	66	65	3.7	3.7	<2.5	<2.5
Conf Sample	10/17/2013	-	-	-	<2.0	<0.5	<2.0	<0.5
Cylinder 1	10/17/2013	<0.5	-	-	23	6.4	17	<2.0
RT - 5'	10/29/2013	-	-	-	<0.05	<0.05	<0.05	<0.05

Notes:

mg/kg = milligrams per kilogram

< = below method detection limit

- = Not analyzed

## **Attachment A**

### **Transportation and Disposal Documentation**



## WASTE MATERIAL PROFILE SHEET

Clean Harbors Profile No. CH704023

## A. GENERAL INFORMATION

GENERATOR EPA ID#/REGISTRATION # **CAL002745942**  
 GENERATOR CODE (Assigned by Clean Harbors) **AE12579**  
 ADDRESS **1630 Park St**  
 CUSTOMER CODE (Assigned by Clean Harbors) **AE0253**  
 ADDRESS **2500 Camino Diablo Suite 100**

GENERATOR NAME:

**Foley Street Investments LLC**CITY **Alameda**STATE/PROVINCE **CA** ZIP/POSTAL CODE **94501**PHONE: **(925) 250-0002****AEI Consultants**CITY **Walnut Creek**STATE/PROVINCE **CA** ZIP/POSTAL CODE **94597**

## B. WASTE DESCRIPTION

WASTE DESCRIPTION: **Oily Sludge with <5ppm PCB's**PROCESS GENERATING WASTE: **site cleanup**IS THIS WASTE CONTAINED IN SMALL PACKAGING CONTAINED WITHIN A LARGER SHIPPING CONTAINER? **No**

## C. PHYSICAL PROPERTIES (at 25C or 77F)

PHYSICAL STATE SOLID WITHOUT FREE LIQUID POWDER MONOLITHIC SOLID LIQUID WITH NO SOLIDS LIQUID/SOLID MIXTURE % FREE LIQUID <b>25.00 - 50.00</b> % SETTLED SOLID % TOTAL SUSPENDED SOLID <b>50.00 - 75.00</b> SLUDGE GAS/AEROSOL	NUMBER OF PHASES/LAYERS			VISCOSITY (If liquid present) 1 - 100 (e.g. Water) 101 - 500 (e.g. Motor Oil) <input checked="" type="checkbox"/> 501 - 10,000 (e.g. Molasses) > 10,000	COLOR <b>Brown</b>
	1 <input checked="" type="checkbox"/>	2 <input type="checkbox"/>	3 <input type="checkbox"/>		
	% BY VOLUME (Approx.)			MIDDLE <b>0.00</b> BOTTOM <b>75.00</b>	
	ODOR	NONE <input checked="" type="checkbox"/> MILD <input type="checkbox"/> STRONG	BOILING POINT °F (°C) <= 95 (<=35) 95 - 100 (35-38) 101 - 129 (38-54) <input checked="" type="checkbox"/> >= 130 (>54)		
	Describe:			MELTING POINT °F (°C) < 140 (<60) 140-200 (60-93) <input checked="" type="checkbox"/> >= 200 (>93)	TOTAL ORGANIC CARBON <= 1% 1-9% <input checked="" type="checkbox"/> >= 10%
FLASH POINT °F (°C) < 73 (<23) 73 - 100 (23-38) 101 - 140 (38-60) 141 - 200 (60-93) <input checked="" type="checkbox"/> > 200 (>93)	pH <= 2 2.1 - 6.9 <input checked="" type="checkbox"/> 7 (Neutral) 7.1 - 12.4 <input checked="" type="checkbox"/> >= 12.5	SPECIFIC GRAVITY < 0.8 (e.g. Gasoline) 0.8-1.0 (e.g. Ethanol) <input checked="" type="checkbox"/> 1.0 (e.g. Water) 1.0-1.2 (e.g. Antifreeze) 1.2 (e.g. Methylene Chloride)	ASH < 0.1 0.1 - 1.0 <input checked="" type="checkbox"/> 1.1 - 5.0 5.1 - 20.0	BTU/LB (MJ/kg) < 2,000 (<4.6) 2,000-5,000 (4.6-11.6) <input checked="" type="checkbox"/> 5,000-10,000 (11.6-23.2) > 10,000 (>23.2) Actual:	

D. COMPOSITION (List the complete composition of the waste, include any inert components and/or debris. Ranges for individual components are acceptable. If a trade name is used, please supply an MSDS. Please do not use abbreviations.)

CHEMICAL	MIN	--	MAX	UOM
1,2,3-TRIMETHYLBENZENE	<b>15.0000000</b>	--	<b>15.0000000</b>	PPM
1,2,4-TRIMETHYL BENZENE	<b>3.9000000</b>	--	<b>3.9000000</b>	PPM
ETHYL BENZENE	<b>2.6000000</b>	--	<b>2.6000000</b>	PPM
N-BUTYL BENZENE	<b>1.9000000</b>	--	<b>1.9000000</b>	PPM
N-PROPYL BENZENE	<b>1.4000000</b>	--	<b>1.4000000</b>	PPM
NAPHTHALENE	<b>10.0000000</b>	--	<b>10.0000000</b>	PPM
OIL SLUDGE	<b>50.0000000</b>	--	<b>75.0000000</b>	%
POLYCHLORINATED BIPHENYLS	<b>0.0000000</b>	--	<b>3.7000000</b>	PPM
TOLUENE	<b>6.5000000</b>	--	<b>6.5000000</b>	PPM
WATER	<b>25.0000000</b>	--	<b>50.0000000</b>	%

DOES THIS WASTE CONTAIN ANY HEAVY GAUGE METAL DEBRIS OR OTHER LARGE OBJECTS (EX., METAL PLATE OR PIPING &gt;1/4" THICK OR &gt;12" LONG, METAL REINFORCED HOSE &gt;12" LONG, METAL WIRE &gt;12" LONG, METAL VALVES, PIPE FITTINGS, CONCRETE REINFORCING BAR OR PIECES OF CONCRETE &gt;3")?

YES  NO

If yes, describe, including dimensions:

DOES THIS WASTE CONTAIN ANY METALS IN POWDERED OR OTHER FINELY DIVIDED FORM? YES  NODOES THIS WASTE CONTAIN OR HAS IT CONTACTED ANY OF THE FOLLOWING: ANIMAL WASTES, HUMAN BLOOD, BLOOD PRODUCTS, BODY FLUIDS, MICROBIOLOGICAL WASTE, PATHOLOGICAL WASTE, HUMAN OR ANIMAL DERIVED SERUMS OR PROTEINS OR ANY OTHER POTENTIALLY INFECTIOUS MATERIAL? YES  NO

I acknowledge that this waste material is neither infectious nor does it contain any organism known to be a threat to human health. This certification is based on my knowledge of the material. Select the answer below that applies:

The waste was never exposed to potentially infectious material. YES NO

Chemical disinfection or some other form of sterilization has been applied to the waste. YES NO

I ACKNOWLEDGE THAT THIS PROFILE MEETS THE CLEAN HARBORS BATTERY PACKAGING REQUIREMENTS. YES NO

I ACKNOWLEDGE THAT MY FRIABLE ASBESTOS WASTE IS DOUBLE BAGGED AND WETTED. YES NO

SPECIFY THE SOURCE CODE ASSOCIATED WITH THE WASTE. **G45** SPECIFY THE FORM CODE ASSOCIATED WITH THE WASTE. **W205**

**E. CONSTITUENTS**

Are these values based on testing or knowledge?

 Knowledge  Testing

If constituent concentrations are based on analytical testing, analysis must be provided. Please attach document(s) using the link on the Submit tab.

**Please indicate which constituents below apply. Concentrations must be entered when applicable to assist in accurate review and expedited approval of your waste profile. Please note that the total regulated metals and other constituents sections require answers.**

RCRA	REGULATED METALS	REGULATORY LEVEL (mg/l)	TCLP mg/l	TOTAL	UOM	NOT APPLICABLE
D004	ARSENIC	5.0				<input checked="" type="checkbox"/>
D005	BARIUM	100.0				<input checked="" type="checkbox"/>
D006	CADMIUM	1.0				<input checked="" type="checkbox"/>
D007	CHROMIUM	5.0				<input checked="" type="checkbox"/>
D008	LEAD	5.0				<input checked="" type="checkbox"/>
D009	MERCURY	0.2				<input checked="" type="checkbox"/>
D010	SELENIUM	1.0				<input checked="" type="checkbox"/>
D011	SILVER	5.0				<input checked="" type="checkbox"/>
<b>VOLATILE COMPOUNDS</b>		<b>OTHER CONSTITUENTS</b>			MAX	UOM
D018	BENZENE	0.5		BROMINE		NOT APPLICABLE
D019	CARBON TETRACHLORIDE	0.5		CHLORINE		<input checked="" type="checkbox"/>
D021	CHLOROBENZENE	100.0		FLUORINE		<input checked="" type="checkbox"/>
D022	CHLOROFORM	6.0		IODINE		<input checked="" type="checkbox"/>
D028	1,2-DICHLOROETHANE	0.5		SULFUR		<input checked="" type="checkbox"/>
D029	1,1-DICHLOROETHYLENE	0.7		POTASSIUM		<input checked="" type="checkbox"/>
D035	METHYL ETHYL KETONE	200.0		SODIUM		<input checked="" type="checkbox"/>
D039	TETRACHLOROETHYLENE	0.7		AMMONIA		<input checked="" type="checkbox"/>
D040	TRICHLOROETHYLENE	0.5		CYANIDE AMENABLE		<input checked="" type="checkbox"/>
D043	VINYL CHLORIDE	0.2		CYANIDE REACTIVE		<input checked="" type="checkbox"/>
<b>SEMI-VOLATILE COMPOUNDS</b>		CYANIDE TOTAL				
D023	o-CRESOL	200.0		SULFIDE REACTIVE		<input checked="" type="checkbox"/>
D024	m-CRESOL	200.0		<div style="display: flex; justify-content: space-between;"> <div style="width: 45%;"> <b>HOCs</b>  <input checked="" type="checkbox"/> NONE  <input type="checkbox"/> &lt; 1000 PPM  <input type="checkbox"/> &gt;= 1000 PPM                 </div> <div style="width: 45%;"> <b>PCBs</b>  <input checked="" type="checkbox"/> NONE  <input checked="" type="checkbox"/> &lt; 50 PPM  <input type="checkbox"/> &gt;=50 PPM                 </div> </div>		
D025	p-CRESOL	200.0		<small>IF PCBs ARE PRESENT, IS THE WASTE REGULATED BY TSCA 40 CFR 761?</small>		
D026	CRESOL (TOTAL)	200.0		<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO		
D027	1,4-DICHLOROBENZENE	7.5				
D030	2,4-DINITROTOLUENE	0.13				
D032	HEXACHLOROBENZENE	0.13				
D033	HEXACHLOROBUTADIENE	0.5				
D034	HEXACHLOROETHANE	3.0				
D036	NITROBENZENE	2.0				
D037	PENTACHLOROPHENOL	100.0				
D038	PYRIDINE	5.0				
D041	2,4,5-TRICHLOROPHENOL	400.0				
D042	2,4,6-TRICHLOROPHENOL	2.0				
<b>PESTICIDES AND HERBICIDES</b>						
D012	ENDRIN	0.02				
D013	LINDANE	0.4				
D014	METHOXYPYRIDINE	10.0				
D015	TOXAPHENE	0.5				
D016	2,4-D	10.0				
D017	2,4,5-TP (SILVEX)	1.0				
D020	CHLORDANE	0.03				
D031	HEPTACHLOR (AND ITS EPOXIDE)	0.008				

**ADDITIONAL HAZARDS**

DOES THIS WASTE HAVE ANY UNDISCLOSED HAZARDS OR PRIOR INCIDENTS ASSOCIATED WITH IT, WHICH COULD AFFECT THE WAY IT SHOULD BE HANDLED?

 YES  NO (If yes, explain)

**CHOOSE ALL THAT APPLY**

DEA REGULATED SUBSTANCE

EXPLOSIVE

FUMING

OSHA REGULATED CARCINOGENS

POLYMERIZABLE

RADIOACTIVE

REACTIVE MATERIAL

 NONE OF THE ABOVE

## F. REGULATORY STATUS

YES  NO USEPA HAZARDOUS WASTE?YES  NO DO ANY STATE WASTE CODES APPLY?

221

Texas Waste Code

OUTS6091

YES  NO DO ANY CANADIAN PROVINCIAL WASTE CODES APPLY?YES  NO IS THIS WASTE PROHIBITED FROM LAND DISPOSAL WITHOUT FURTHER TREATMENT PER 40 CFR PART 268?LDR CATEGORY:  
VARIANCE INFO: *Not subject to LDR*YES  NO IS THIS A UNIVERSAL WASTE?YES  NO IS THE GENERATOR OF THE WASTE CLASSIFIED AS CONDITIONALLY EXEMPT SMALL QUANTITY GENERATOR (CESQG)?

YES NO IS THIS MATERIAL GOING TO BE MANAGED AS A RCRA EXEMPT COMMERCIAL PRODUCT, WHICH IS FUEL (40 CFR 261.2 (C)(2)(II))?

YES  NO DOES TREATMENT OF THIS WASTE GENERATE A F006 OR F019 SLUDGE?

YES NO IS THIS WASTE STREAM SUBJECT TO THE INORGANIC METAL BEARING WASTE PROHIBITION FOUND AT 40 CFR 268.3(C)?

YES  NO DOES THIS WASTE CONTAIN VOC'S IN CONCENTRATIONS >=500 PPM?YES  NO DOES THE WASTE CONTAIN GREATER THAN 20% OF ORGANIC CONSTITUENTS WITH A VAPOR PRESSURE >=.3KPA (.044 PSIA)?YES  NO DOES THIS WASTE CONTAIN AN ORGANIC CONSTITUENT WHICH IN ITS PURE FORM HAS A VAPOR PRESSURE > 77 KPA (11.2 PSIA)?YES  NO IS THIS CERCLA REGULATED (SUPERFUND ) WASTE ?YES  NO IS THE WASTE SUBJECT TO ONE OF THE FOLLOWING NESHAP RULES?

Hazardous Organic NESHAP (HON) rule (subpart G)

Pharmaceuticals production (subpart GGG)

YES NO IF THIS IS A US EPA HAZARDOUS WASTE, DOES THIS WASTE STREAM CONTAIN BENZENE?

YES NO Does the waste stream come from a facility with one of the SIC codes listed under benzene NESHAP or is this waste regulated under the benzene NESHAP rules because the original source of the waste is from a chemical manufacturing, coke by-product recovery, or petroleum refinery process?

YES NO Is the generating source of this waste stream a facility with Total Annual Benzene (TAB) &gt;10 Mg/year?

What is the TAB quantity for your facility? \_\_\_\_\_ Megagram/year (1 Mg = 2,200 lbs)

The basis for this determination is: Knowledge of the Waste Or Test Data

Knowledge

Testing

Describe the knowledge : \_\_\_\_\_

## G. DOT/TDG INFORMATION

DOT/TDG PROPER SHIPPING NAME:

**NON RCRA HAZARDOUS WASTE LIQUIDS, (OILY SLUDGE)**

## H. TRANSPORTATION REQUIREMENTS

ESTIMATED SHIPMENT FREQUENCY  ONE TIME WEEKLY MONTHLY QUARTERLY YEARLY OTHER CONTAINERIZED

1-1 CONTAINERS/SHIPMENT

**BULK LIQUID****BULK SOLID**STORAGE CAPACITY:  
CONTAINER TYPE:

CUBIC YARD BOX PALLET

GALLONS/SHIPMENT: **0 Min -0 Max**

GAL.

SHIPMENT UOM:

TON

YARD

TOTE TANK

 DRUM

OTHER:

DRUM SIZE: **55**TONS/YARDS/SHIPMENT: **0 Min - 0 Max**

## I. SPECIAL REQUEST

COMMENTS OR REQUESTS:

WCC FB3

## GENERATOR'S CERTIFICATION

I certify that I am authorized to execute this document as an authorized agent. I hereby certify that all information submitted in this and attached documents is correct to the best of my knowledge. I also certify that any samples submitted are representative of the actual waste. If Clean Harbors discovers a discrepancy during the approval process, Generator grants Clean Harbors the authority to amend the profile, as Clean Harbors deems necessary, to reflect the discrepancy.

AUTHORIZED SIGNATURE

NAME (PRINT)

TITLE

DATE

awallace@aeiconsultants.com

This waste profile has been submitted using Clean Harbors' electronic signature system.

## Addendum

## D. COMPOSITION

CHEMICAL	MIN	--	MAX	UOM
XYLENE	16.0000	--	16.0000	PPM
	000		000	



## WASTE MATERIAL PROFILE SHEET

Clean Harbors Profile No. CH704149

## A. GENERAL INFORMATION

GENERATOR EPA ID#/REGISTRATION # **CAL002745942**  
 GENERATOR CODE (Assigned by Clean Harbors) **AE12579**  
 ADDRESS **1630 Park St**  
 CUSTOMER CODE (Assigned by Clean Harbors) **AE0253**  
 ADDRESS **2500 Camino Diablo Suite 100**

GENERATOR NAME:

**Foley Street Investments LLC**CITY **Alameda**STATE/PROVINCE **CA** ZIP/POSTAL CODE **94501**PHONE: **(925) 250-0002****AEI Consultants**STATE/PROVINCE **CA** ZIP/POSTAL CODE **94597**

## B. WASTE DESCRIPTION

WASTE DESCRIPTION: **Steel tank**PROCESS GENERATING WASTE: **Dismantling of steel tank.**IS THIS WASTE CONTAINED IN SMALL PACKAGING CONTAINED WITHIN A LARGER SHIPPING CONTAINER? **No**

## C. PHYSICAL PROPERTIES (at 25C or 77F)

PHYSICAL STATE <input checked="" type="checkbox"/> SOLID WITHOUT FREE LIQUID POWDER MONOLITHIC SOLID LIQUID WITH NO SOLIDS LIQUID/SOLID MIXTURE % FREE LIQUID % SETTLED SOLID % TOTAL SUSPENDED SOLID SLUDGE GAS/AEROSOL	NUMBER OF PHASES/LAYERS				VISCOSITY (If liquid present) 1 - 100 (e.g. Water) 101 - 500 (e.g. Motor Oil) 501 - 10,000 (e.g. Molasses) > 10,000	COLOR <b>Black</b>	
	1	2	3	TOP <b>0.00</b>			
		% BY VOLUME (Approx.)		MIDDLE <b>0.00</b>			
				BOTTOM <b>0.00</b>			
	ODOR	NONE <input checked="" type="checkbox"/>	MILD <input type="checkbox"/>	STRONG <input type="checkbox"/>	BOILING POINT °F (°C) ≤ 95 (<=35) 95 - 100 (35-38) 101 - 129 (38-54) ≥ 130 (>54)	MELTING POINT °F (°C) ≤ 140 (<60) 140-200 (60-93) ≥ 200 (>93)	TOTAL ORGANIC CARBON <input checked="" type="checkbox"/> ≤ 1% 1-9% ≥ 10%
				Describe:			

FLASH POINT °F (°C)	pH	SPECIFIC GRAVITY	ASH	BTU/LB (MJ/kg)
< 73 (<23)	≤ 2	< 0.8 (e.g. Gasoline)	< 0.1	<input checked="" type="checkbox"/> < 2,000 (<4.6)
73 - 100 (23-38)	2.1 - 6.9	0.8-1.0 (e.g. Ethanol)	0.1 - 1.0	2,000-5,000 (4.6-11.6)
101 -140 (38-60)	<input checked="" type="checkbox"/> 7 (Neutral)	<input checked="" type="checkbox"/> 1.0 (e.g. Water)	1.1 - 5.0	5,000-10,000 (11.6-23.2)
141 -200 (60-93)	7.1 - 12.4	1.0-1.2 (e.g. Antifreeze)	5.1 - 20.0	> 10,000 (>23.2)
> 200 (>93)	≥ 12.5	> 1.2 (e.g. Methylene Chloride)		Actual:

D. COMPOSITION (List the complete composition of the waste, include any inert components and/or debris. Ranges for individual components are acceptable. If a trade name is used, please supply an MSDS. Please do not use abbreviations.)

CHEMICAL	MIN	--	MAX	UOM
<b>&lt;50 PPM PCB OIL</b>	<b>1.0000000</b>	--	<b>1.0000000</b>	%
<b>SCRAP STEEL</b>	<b>100.0000000</b>	--	<b>100.0000000</b>	%

DOES THIS WASTE CONTAIN ANY HEAVY GAUGE METAL DEBRIS OR OTHER LARGE OBJECTS (EX., METAL PLATE OR PIPING >1/4" THICK OR >12" LONG, METAL REINFORCED HOSE >12" LONG, METAL WIRE >12" LONG, METAL VALVES, PIPE FITTINGS, CONCRETE REINFORCING BAR OR PIECES OF CONCRETE >3")?  YES NO

If yes, describe, including dimensions: **Cut Up Steel Tank**DOES THIS WASTE CONTAIN ANY METALS IN POWDERED OR OTHER FINELY DIVIDED FORM? YES  NODOES THIS WASTE CONTAIN OR HAS IT CONTACTED ANY OF THE FOLLOWING; ANIMAL WASTES, HUMAN BLOOD, BLOOD PRODUCTS, BODY FLUIDS, MICROBIOLOGICAL WASTE, PATHOLOGICAL WASTE, HUMAN OR ANIMAL DERIVED SERUMS OR PROTEINS OR ANY OTHER POTENTIALLY INFECTIOUS MATERIAL? YES  NO

I acknowledge that this waste material is neither infectious nor does it contain any organism known to be a threat to human health. This certification is based on my knowledge of the material. Select the answer below that applies:

The waste was never exposed to potentially infectious material. YES NO

Chemical disinfection or some other form of sterilization has been applied to the waste. YES NO

I ACKNOWLEDGE THAT THIS PROFILE MEETS THE CLEAN HARBORS BATTERY PACKAGING REQUIREMENTS. YES NO

I ACKNOWLEDGE THAT MY FRIABLE ASBESTOS WASTE IS DOUBLE BAGGED AND WETTED. YES NO

SPECIFY THE SOURCE CODE ASSOCIATED WITH THE WASTE. **G45** SPECIFY THE FORM CODE ASSOCIATED WITH THE WASTE. **W307**

**E. CONSTITUENTS**

Are these values based on testing or knowledge?

 Knowledge       Testing

If based on knowledge, please describe in detail, the rationale applied to identify and characterize the waste material. Please include reference to Material Safety Data Sheets (MSDS) when applicable. Include the chemical or trade-name represented by the MSDS, and or detailed process or operating procedures which generate the waste.

**Tank Dismantling**

**Please indicate which constituents below apply. Concentrations must be entered when applicable to assist in accurate review and expedited approval of your waste profile. Please note that the total regulated metals and other constituents sections require answers.**

RCRA	REGULATED METALS	REGULATORY LEVEL (mg/l)	TCLP mg/l	TOTAL	UOM	NOT APPLICABLE
D004	ARSENIC	5.0				<input checked="" type="checkbox"/>
D005	BARIUM	100.0				<input checked="" type="checkbox"/>
D006	CADMIUM	1.0				<input checked="" type="checkbox"/>
D007	CHROMIUM	5.0				<input checked="" type="checkbox"/>
D008	LEAD	5.0				<input checked="" type="checkbox"/>
D009	MERCURY	0.2				<input checked="" type="checkbox"/>
D010	SELENIUM	1.0				<input checked="" type="checkbox"/>
D011	SILVER	5.0				<input checked="" type="checkbox"/>
<b>VOLATILE COMPOUNDS</b>				<b>OTHER CONSTITUENTS</b>	<b>MAX</b>	<b>UOM</b>
D018	BENZENE	0.5		BROMINE		
D019	CARBON TETRACHLORIDE	0.5		CHLORINE		
D021	CHLOROBENZENE	100.0		FLUORINE		
D022	CHLOROFORM	6.0		IODINE		
D028	1,2-DICHLOROETHANE	0.5		SULFUR		
D029	1,1-DICHLOROETHYLENE	0.7		POTASSIUM		
D035	METHYL ETHYL KETONE	200.0		SODIUM		
D039	TETRACHLOROETHYLENE	0.7		AMMONIA		
D040	TRICHLOROETHYLENE	0.5		CYANIDE AMENABLE		
D043	VINYL CHLORIDE	0.2		CYANIDE REACTIVE		
<b>SEMI-VOLATILE COMPOUNDS</b>				CYANIDE TOTAL		
D023	o-CRESOL	200.0		SULFIDE REACTIVE		
D024	m-CRESOL	200.0				
D025	p-CRESOL	200.0				
D026	CRESOL (TOTAL)	200.0				
D027	1,4-DICHLOROBENZENE	7.5				
D030	2,4-DINITROTOLUENE	0.13				
D032	HEXACHLOROBENZENE	0.13				
D033	HEXACHLOROBUTADIENE	0.5				
D034	HEXACHLOROETHANE	3.0				
D036	NITROBENZENE	2.0				
D037	PENTACHLOROPHENOL	100.0				
D038	PYRIDINE	5.0				
D041	2,4,5-TRICHLOROPHENOL	400.0				
D042	2,4,6-TRICHLOROPHENOL	2.0				
<b>PESTICIDES AND HERBICIDES</b>						
D012	ENDRIN	0.02				
D013	LINDANE	0.4				
D014	METHOXYPYRENE	10.0				
D015	TOXAPHENE	0.5				
D016	2,4-D	10.0				
D017	2,4,5-TP (SILVEX)	1.0				
D020	CHLORDANE	0.03				
D031	HEPTACHLOR (AND ITS EPOXIDE)	0.008				

**HOCs**

- NONE  
 < 1000 PPM  
 >= 1000 PPM

**PCBs**

- NONE  
 < 50 PPM  
 >= 50 PPM

IF PCBs ARE PRESENT, IS THE WASTE REGULATED BY TSCA 40 CFR 761?

YES       NO

**ADDITIONAL HAZARDS**

DOES THIS WASTE HAVE ANY UNDISCLOSED HAZARDS OR PRIOR INCIDENTS ASSOCIATED WITH IT, WHICH COULD AFFECT THE WAY IT SHOULD BE HANDLED?

YES  NO  (If yes, explain)

**CHOOSE ALL THAT APPLY**

DEA REGULATED SUBSTANCE

EXPLOSIVE

FUMING

OSHA REGULATED CARCINOGENS

POLYMERIZABLE

RADIOACTIVE

REACTIVE MATERIAL

NONE OF THE ABOVE



## F. REGULATORY STATUS

YES  NO USEPA HAZARDOUS WASTE?YES  NO DO ANY STATE WASTE CODES APPLY?

352

Texas Waste Code

YES  NO DO ANY CANADIAN PROVINCIAL WASTE CODES APPLY?LDR CATEGORY:  
VARIANCE INFO:

Not subject to LDR

YES  NO IS THIS A UNIVERSAL WASTE?YES  NO IS THE GENERATOR OF THE WASTE CLASSIFIED AS CONDITIONALLY EXEMPT SMALL QUANTITY GENERATOR (CESQG)?

YES NO IS THIS MATERIAL GOING TO BE MANAGED AS A RCRA EXEMPT COMMERCIAL PRODUCT, WHICH IS FUEL (40 CFR 261.2 (C)(2)(II))?

YES  NO DOES TREATMENT OF THIS WASTE GENERATE A F006 OR F019 SLUDGE?

YES NO IS THIS WASTE STREAM SUBJECT TO THE INORGANIC METAL BEARING WASTE PROHIBITION FOUND AT 40 CFR 268.3(C)?

YES  NO DOES THIS WASTE CONTAIN VOC'S IN CONCENTRATIONS >=500 PPM?

YES NO DOES THE WASTE CONTAIN GREATER THAN 20% OF ORGANIC CONSTITUENTS WITH A VAPOR PRESSURE &gt;=.3KPA (.044 PSIA)?

YES  NO DOES THIS WASTE CONTAIN AN ORGANIC CONSTITUENT WHICH IN ITS PURE FORM HAS A VAPOR PRESSURE > 77 KPA (11.2 PSIA)?YES  NO IS THIS CERCLA REGULATED (SUPERFUND ) WASTE ?YES  NO IS THE WASTE SUBJECT TO ONE OF THE FOLLOWING NESHAP RULES?

Hazardous Organic NESHAP (HON) rule (subpart G)

Pharmaceuticals production (subpart GGG)

YES NO IF THIS IS A US EPA HAZARDOUS WASTE, DOES THIS WASTE STREAM CONTAIN BENZENE?

YES NO Does the waste stream come from a facility with one of the SIC codes listed under benzene NESHAP or is this waste regulated under the benzene NESHAP rules because the original source of the waste is from a chemical manufacturing, coke by-product recovery, or petroleum refinery process?

YES NO Is the generating source of this waste stream a facility with Total Annual Benzene (TAB) &gt;10 Mg/year?

What is the TAB quantity for your facility? \_\_\_\_\_ Megagram/year (1 Mg = 2,200 lbs)

The basis for this determination is: Knowledge of the Waste Or Test Data

Knowledge

Testing

Describe the knowledge : \_\_\_\_\_

## G. DOT/TDG INFORMATION

DOT/TDG PROPER SHIPPING NAME:

**NON RCRA HAZARDOUS WASTE SOLIDS, (SCRAP STEEL)**

## H. TRANSPORTATION REQUIREMENTS

ESTIMATED SHIPMENT FREQUENCY  ONE TIME WEEKLY MONTHLY QUARTERLY YEARLY OTHER CONTAINERIZED

1-1 CONTAINERS/SHIPMENT

**BULK LIQUID****BULK SOLID**STORAGE CAPACITY: 1  
CONTAINER TYPE:GALLONS/SHIPMENT: **0 Min -0 Max**

GAL.

SHIPMENT UOM:

TON

YARD

CUBIC YARD BOX

PALLET

TONS/YARDS/SHIPMENT: **0 Min - 0 Max**

TOTE TANK

 DRUM

OTHER:

DRUM SIZE: 55

## I. SPECIAL REQUEST

COMMENTS OR REQUESTS:

WCC CBP

## GENERATOR'S CERTIFICATION

I certify that I am authorized to execute this document as an authorized agent. I hereby certify that all information submitted in this and attached documents is correct to the best of my knowledge. I also certify that any samples submitted are representative of the actual waste. If Clean Harbors discovers a discrepancy during the approval process, Generator grants Clean Harbors the authority to amend the profile, as Clean Harbors deems necessary, to reflect the discrepancy.

AUTHORIZED SIGNATURE

NAME (PRINT)

TITLE

DATE

awallace@aeiconsultants.com

This waste profile has been submitted using Clean Harbors' electronic signature system.



**E. CONSTITUENTS**

Are these values based on testing or knowledge?

 Knowledge  Testing

If constituent concentrations are based on analytical testing, analysis must be provided. Please attach document(s) using the link on the Submit tab.

**Please indicate which constituents below apply. Concentrations must be entered when applicable to assist in accurate review and expedited approval of your waste profile. Please note that the total regulated metals and other constituents sections require answers.**

RCRA	REGULATED METALS	REGULATORY LEVEL (mg/l)	TCLP mg/l	TOTAL	UOM	NOT APPLICABLE								
D004	ARSENIC	5.0				<input checked="" type="checkbox"/>								
D005	BARIUM	100.0				<input checked="" type="checkbox"/>								
D006	CADMIUM	1.0				<input checked="" type="checkbox"/>								
D007	CHROMIUM	5.0				<input checked="" type="checkbox"/>								
D008	LEAD	5.0				<input checked="" type="checkbox"/>								
D009	MERCURY	0.2				<input checked="" type="checkbox"/>								
D010	SELENIUM	1.0				<input checked="" type="checkbox"/>								
D011	SILVER	5.0				<input checked="" type="checkbox"/>								
<b>VOLATILE COMPOUNDS</b>		<b>OTHER CONSTITUENTS</b>			MAX	UOM								
D018	BENZENE	0.5		BROMINE		NOT APPLICABLE								
D019	CARBON TETRACHLORIDE	0.5		CHLORINE		<input checked="" type="checkbox"/>								
D021	CHLOROBENZENE	100.0		FLUORINE		<input checked="" type="checkbox"/>								
D022	CHLOROFORM	6.0		IODINE		<input checked="" type="checkbox"/>								
D028	1,2-DICHLOROETHANE	0.5		SULFUR		<input checked="" type="checkbox"/>								
D029	1,1-DICHLOROETHYLENE	0.7		POTASSIUM		<input checked="" type="checkbox"/>								
D035	METHYL ETHYL KETONE	200.0		SODIUM		<input checked="" type="checkbox"/>								
D039	TETRACHLOROETHYLENE	0.7		AMMONIA		<input checked="" type="checkbox"/>								
D040	TRICHLOROETHYLENE	0.5		CYANIDE AMENABLE		<input checked="" type="checkbox"/>								
D043	VINYL CHLORIDE	0.2		CYANIDE REACTIVE		<input checked="" type="checkbox"/>								
<b>SEMI-VOLATILE COMPOUNDS</b>		CYANIDE TOTAL												
D023	o-CRESOL	200.0		SULFIDE REACTIVE		<input checked="" type="checkbox"/>								
D024	m-CRESOL	200.0		<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="padding: 2px;"><b>HOCs</b></td> <td style="padding: 2px;"><b>PCBs</b></td> </tr> <tr> <td style="padding: 2px;">NONE</td> <td style="padding: 2px;">NONE</td> </tr> <tr> <td style="padding: 2px;"><input checked="" type="checkbox"/> &lt; 1000 PPM</td> <td style="padding: 2px;">&lt; 50 PPM</td> </tr> <tr> <td style="padding: 2px;">&gt;= 1000 PPM</td> <td style="padding: 2px;">&gt;=50 PPM</td> </tr> </table>			<b>HOCs</b>	<b>PCBs</b>	NONE	NONE	<input checked="" type="checkbox"/> < 1000 PPM	< 50 PPM	>= 1000 PPM	>=50 PPM
<b>HOCs</b>	<b>PCBs</b>													
NONE	NONE													
<input checked="" type="checkbox"/> < 1000 PPM	< 50 PPM													
>= 1000 PPM	>=50 PPM													
D025	p-CRESOL	200.0		IF PCBs ARE PRESENT, IS THE WASTE REGULATED BY TSCA 40 CFR 761? <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO										
D026	CRESOL (TOTAL)	200.0												
D027	1,4-DICHLOROBENZENE	7.5												
D030	2,4-DINITROTOLUENE	0.13												
D032	HEXACHLOROBENZENE	0.13												
D033	HEXACHLOROBUTADIENE	0.5												
D034	HEXACHLOROETHANE	3.0												
D036	NITROBENZENE	2.0												
D037	PENTACHLOROPHENOL	100.0												
D038	PYRIDINE	5.0												
D041	2,4,5-TRICHLOROPHENOL	400.0												
D042	2,4,6-TRICHLOROPHENOL	2.0												
<b>PESTICIDES AND HERBICIDES</b>														
D012	ENDRIN	0.02												
D013	LINDANE	0.4												
D014	METHOXYPYRROLE	10.0												
D015	TOXAPHENE	0.5												
D016	2,4-D	10.0												
D017	2,4,5-TP (SILVEX)	1.0												
D020	CHLORDANE	0.03												
D031	HEPTACHLOR (AND ITS EPOXIDE)	0.008												

**ADDITIONAL HAZARDS**

DOES THIS WASTE HAVE ANY UNDISCLOSED HAZARDS OR PRIOR INCIDENTS ASSOCIATED WITH IT, WHICH COULD AFFECT THE WAY IT SHOULD BE HANDLED?

 YES  NO (If yes, explain)

**CHOOSE ALL THAT APPLY**

DEA REGULATED SUBSTANCE

EXPLOSIVE

FUMING

OSHA REGULATED CARCINOGENS

POLYMERIZABLE

RADIOACTIVE

REACTIVE MATERIAL

 NONE OF THE ABOVE

## F. REGULATORY STATUS

YES  NO USEPA HAZARDOUS WASTE?YES  NO DO ANY STATE WASTE CODES APPLY?

261

Texas Waste Code

YES  NO DO ANY CANADIAN PROVINCIAL WASTE CODES APPLY?LDR CATEGORY:  
VARIANCE INFO:

Not subject to LDR

YES  NO IS THIS A UNIVERSAL WASTE?YES  NO IS THE GENERATOR OF THE WASTE CLASSIFIED AS CONDITIONALLY EXEMPT SMALL QUANTITY GENERATOR (CESQG)?YES  NO IS THIS MATERIAL GOING TO BE MANAGED AS A RCRA EXEMPT COMMERCIAL PRODUCT, WHICH IS FUEL (40 CFR 261.2 (C)(2)(II))?YES  NO DOES TREATMENT OF THIS WASTE GENERATE A F006 OR F019 SLUDGE?

YES NO IS THIS WASTE STREAM SUBJECT TO THE INORGANIC METAL BEARING WASTE PROHIBITION FOUND AT 40 CFR 268.3(C)?

YES  NO DOES THIS WASTE CONTAIN VOC'S IN CONCENTRATIONS >=500 PPM?YES  NO DOES THE WASTE CONTAIN GREATER THAN 20% OF ORGANIC CONSTITUENTS WITH A VAPOR PRESSURE >=.3KPA (.044 PSIA)?YES  NO DOES THIS WASTE CONTAIN AN ORGANIC CONSTITUENT WHICH IN ITS PURE FORM HAS A VAPOR PRESSURE > 77 KPA (11.2 PSIA)?YES  NO IS THIS CERCLA REGULATED (SUPERFUND ) WASTE ?YES  NO IS THE WASTE SUBJECT TO ONE OF THE FOLLOWING NESHAP RULES?

Hazardous Organic NESHAP (HON) rule (subpart G)

Pharmaceuticals production (subpart GGG)

YES NO IF THIS IS A US EPA HAZARDOUS WASTE, DOES THIS WASTE STREAM CONTAIN BENZENE?

YES NO Does the waste stream come from a facility with one of the SIC codes listed under benzene NESHAP or is this waste regulated under the benzene NESHAP rules because the original source of the waste is from a chemical manufacturing, coke by-product recovery, or petroleum refinery process?

YES NO Is the generating source of this waste stream a facility with Total Annual Benzene (TAB) &gt;10 Mg/year?

What is the TAB quantity for your facility? Megagram/year (1 Mg = 2,200 lbs)

The basis for this determination is: Knowledge of the Waste Or Test Data

Knowledge

Testing

Describe the knowledge :

## G. DOT/TDG INFORMATION

DOT/TDG PROPER SHIPPING NAME:

NON RCRA HAZARDOUS WASTE LIQUIDS, (&lt;50PPM PCB)

## H. TRANSPORTATION REQUIREMENTS

ESTIMATED SHIPMENT FREQUENCY ONE TIME WEEKLY MONTHLY QUARTERLY YEARLY  OTHER Other CONTAINERIZED

1-1 CONTAINERS/SHIPMENT

BULK LIQUID

BULK SOLID

STORAGE CAPACITY: 1  
CONTAINER TYPE:

GALLONS/SHIPMENT: 0 Min -0 Max

GAL.

SHIPMENT UOM:

TON

YARD

CUBIC YARD BOX

PALLET

TOTE TANK

 DRUM

OTHER:

DRUM SIZE: 55

TONS/YARDS/SHIPMENT: 0 Min - 0 Max

## I. SPECIAL REQUEST

COMMENTS OR REQUESTS:

WCC FB1

## GENERATOR'S CERTIFICATION

I certify that I am authorized to execute this document as an authorized agent. I hereby certify that all information submitted in this and attached documents is correct to the best of my knowledge. I also certify that any samples submitted are representative of the actual waste. If Clean Harbors discovers a discrepancy during the approval process, Generator grants Clean Harbors the authority to amend the profile, as Clean Harbors deems necessary, to reflect the discrepancy.

AUTHORIZED SIGNATURE

NAME (PRINT)

TITLE

DATE

awallace@aeiconsultants.com

This waste profile has been submitted using Clean Harbors' electronic signature system.

Please print or type. (Form designed for use on elite (12-pitch) typewriter.)

Form Approved, OMB No. 2050-0039

<b>UNIFORM HAZARDOUS WASTE MANIFEST</b>		1. Generator ID Number <i>1A234567890123456789</i>	2. Page 1 of <i>1</i>	3. Emergency Response Phone <i>(800) 400-1234</i>	4. Manifest Tracking Number <b>004835842 FLE</b>											
5. Generator's Name and Mailing Address <i>12345 W. Main Street Anytown, CA 95555</i>		Generator's Site Address (if different than mailing address) <i>12345 W. Main Street Anytown, CA 95555</i>														
Generator's Phone: 6. Transporter 1 Company Name <i>ABC Transporters Inc.</i>		U.S. EPAID Number <b>NAL1234567890</b>														
7. Transporter 2 Company Name		U.S. EPAID Number														
8. Designated Facility Name and Site Address <i>12345 W. Main Street Anytown, CA 95555</i>		U.S. EPAID Number														
Facility's Phone: <i>555-1234</i>																
<b>GENERATOR</b>	9a. HM 9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))  1. <i>Hazardous wastes containing asbestos, lead, mercury, and cadmium</i> 2. <i>Hazardous wastes containing asbestos, lead, mercury, and cadmium</i> 3. <i>Hazardous wastes containing asbestos, lead, mercury, and cadmium</i> 4.		10. Containers <table border="1"><tr><th>No.</th><th>Type</th></tr><tr><td>001</td><td>DR</td></tr><tr><td>001</td><td>DR</td></tr><tr><td>001</td><td>DF</td></tr><tr><td></td><td></td></tr></table>	No.	Type	001	DR	001	DR	001	DF			11. Total Quantity <i>200</i>	12. Unit Wt./Vol. <i>P</i>	13. Waste Codes <i>1234567890</i>
	No.	Type														
	001	DR														
	001	DR														
	001	DF														
14. Special Handling Instructions and Additional Information  1. <i>None</i> 2. <i>None</i> 3. <i>None</i>																
15. GENERATOR'S/OFFEROR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent. I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.																
Generator's/Offeror's Printed/Typed Name <i>D. J. Smith</i>				Signature <i>[Signature]</i>												
				Month	Day	Year <i>10/01/13</i>										
<b>TRANSPORTER INT'L</b>	16. International Shipments <input type="checkbox"/> Import to U.S. <input type="checkbox"/> Export from U.S.		Port of entry/exit:													
	Transporter signature (for exports only): <i>[Signature]</i>		Date leaving U.S.: <i>10/12/13</i>													
17. Transporter Acknowledgment of Receipt of Materials  Transporter 1 Printed/Typed Name <i>D. J. Smith</i> Signature <i>[Signature]</i> Month <i>10</i> Day <i>12</i> Year <i>13</i> Transporter 2 Printed/Typed Name <i>[Signature]</i> Signature <i>[Signature]</i> Month <i>10</i> Day <i>12</i> Year <i>13</i>																
<b>DESIGNATED FACILITY</b>	18. Discrepancy  18a. Discrepancy Indication Space <input type="checkbox"/> Quantity <input type="checkbox"/> Type <input type="checkbox"/> Residue <input type="checkbox"/> Partial Rejection <input type="checkbox"/> Full Rejection															
	Manifest Reference Number: <i>1234567890</i>															
	18b. Alternate Facility (or Generator)  Facility's Phone: <i>555-1234</i>															
	18c. Signature of Alternate Facility (or Generator) <i>[Signature]</i> Month <i>10</i> Day <i>12</i> Year <i>13</i>															
	19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)  1. <i>1234567890</i> 2. <i>1234567890</i> 3. <i>1234567890</i> 4. <i>1234567890</i>															
20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in Item 18a  Printed/Typed Name <i>[Signature]</i> Signature <i>[Signature]</i> Month <i>10</i> Day <i>12</i> Year <i>13</i>																

**Attachment B:**  
**Laboratory Analytical Report**



# McCampbell Analytical, Inc.

"When Quality Counts"

## Analytical Report

**WorkOrder:** 1310629

**Report Created for:** AEI Consultants  
2500 Camino Diablo, Ste.#200  
Walnut Creek, CA 94597

**Project Contact:** Jeremy Smith

**Project P.O.:** #WC084417

**Project Name:** #298931; FSI

**Project Received:** 10/17/2013

Analytical Report reviewed & approved for release on 10/23/2013 by:

Question about  
your data?

[Click here to email](#)  
[McCcampbell](#)

Angela Rydelius,  
Laboratory Manager

***The report shall not be reproduced except in full, without the written approval of the laboratory.  
The analytical results relate only to the items tested. Results reported conform to the most  
current NELAP standards, where applicable, unless otherwise stated in the case narrative.***



1534 Willow Pass Rd. Pittsburg, CA 94565 ♦ TEL: (877) 252-9262 ♦ FAX: (925) 252-9269 ♦ [www.mccampbell.com](http://www.mccampbell.com)

NELAP: 12283CA ♦ ELAP: 1644 ♦ ISO/IEC: 17025:2005 ♦ WSDE: C972-11 ♦ ADEC: UST-098 ♦ UCMR3



## Glossary of Terms & Qualifier Definitions

**Client:** AEI Consultants

**Project:** #298931; FSI

**WorkOrder:** 1310629

### Glossary Abbreviation

<u>Glossary Abbreviation</u>	<u>Description</u>
95% Interval	95% Confident Interval
DF	Dilution Factor
DUP	Duplicate
LCS	Laboratory Control Sample
MB	Method Blank
MB % Rec	% Recovery of Surrogate in Method Blank, if applicable
MDL	Method Detection Limit
MS	Matrix Spike
MSD	Matrix Spike Duplicate
ND	Not detected at or above the indicated MDL or RL
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.
RD	Relative Difference
RL	Reporting Limit
RPD	Relative Percent Deviation
SPK Val	Spike Value
SPKRef Val	Spike Reference Value

### Analytical Qualifier

d2	heavier gasoline range compounds are significant (aged gasoline?)
d9	no recognizable pattern
e2	diesel range compounds are significant; no recognizable pattern
e4	gasoline range compounds are significant.
e7	oil range compounds are significant
h4	sulfuric acid permanganate (EPA 3665) cleanup

### Quality Control Qualifier

F1	MS/MSD recovery was out of acceptance criteria; LCS validated the prep batch.
F3	the surrogate standard recovery is outside of acceptance limits; however, all spiked LCS analytes are within proper acceptance limits.



## Analytical Report

**Client:** AEI Consultants  
**Project:** #298931; FSI  
**Date Received:** 10/17/13 19:11  
**Date Prepared:** 10/17/13

**WorkOrder:** 1310629  
**Extraction Method:** SW3550B  
**Analytical Method:** SW8082  
**Unit:** mg/kg

### Polychlorinated Biphenyls (PCBs) Aroclors

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
Drum 1 13:30	1310629-003A	Soil	10/17/2013 13:30	GC5A	83016
<u>Analytes</u>	<u>Result</u>		<u>RL</u>	<u>DF</u>	<u>Date Analyzed</u>
Aroclor1016	ND		2.5	50	10/22/2013 11:25
Aroclor1221	ND		2.5	50	10/22/2013 11:25
Aroclor1232	ND		2.5	50	10/22/2013 11:25
Aroclor1242	3.7		2.5	50	10/22/2013 11:25
Aroclor1248	ND		2.5	50	10/22/2013 11:25
Aroclor1254	ND		2.5	50	10/22/2013 11:25
Aroclor1260	ND		2.5	50	10/22/2013 11:25
PCBs, total	3.7		2.5	50	10/22/2013 11:25
<u>Surrogates</u>	<u>REC (%)</u>		<u>Limits</u>	Analytical Comments: h4	
Decachlorobiphenyl	96		70-130		10/22/2013 11:25



## Analytical Report

**Client:** AEI Consultants  
**Project:** #298931; FSI  
**Date Received:** 10/17/13 19:11  
**Date Prepared:** 10/17/13

**WorkOrder:** 1310629  
**Extraction Method:** SW5030B  
**Analytical Method:** SW8260B  
**Unit:** mg/kg

### Volatile Organics by P&T and GC/MS (Basic Target List)

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
Drum 1 13:30	1310629-003A	Soil	10/17/2013 13:30	GC16	83011
<u>Analytes</u>	<u>Result</u>	<u>RL</u>	<u>DF</u>		<u>Date Analyzed</u>
Acetone	ND	20	200		10/19/2013 05:07
tert-Amyl methyl ether (TAME)	ND	1.0	200		10/19/2013 05:07
Benzene	ND	1.0	200		10/19/2013 05:07
Bromobenzene	ND	1.0	200		10/19/2013 05:07
Bromoform	ND	1.0	200		10/19/2013 05:07
Bromochloromethane	ND	1.0	200		10/19/2013 05:07
Bromodichloromethane	ND	1.0	200		10/19/2013 05:07
Bromoform	ND	1.0	200		10/19/2013 05:07
Bromomethane	ND	1.0	200		10/19/2013 05:07
2-Butanone (MEK)	ND	4.0	200		10/19/2013 05:07
t-Butyl alcohol (TBA)	ND	10	200		10/19/2013 05:07
n-Butyl benzene	1.9	1.0	200		10/19/2013 05:07
sec-Butyl benzene	ND	1.0	200		10/19/2013 05:07
tert-Butyl benzene	ND	1.0	200		10/19/2013 05:07
Carbon Disulfide	ND	1.0	200		10/19/2013 05:07
Carbon Tetrachloride	ND	1.0	200		10/19/2013 05:07
Chlorobenzene	ND	1.0	200		10/19/2013 05:07
Chloroethane	ND	1.0	200		10/19/2013 05:07
Chloroform	ND	1.0	200		10/19/2013 05:07
Chloromethane	ND	1.0	200		10/19/2013 05:07
2-Chlorotoluene	ND	1.0	200		10/19/2013 05:07
4-Chlorotoluene	ND	1.0	200		10/19/2013 05:07
Dibromochloromethane	ND	1.0	200		10/19/2013 05:07
1,2-Dibromo-3-chloropropane	ND	0.80	200		10/19/2013 05:07
1,2-Dibromoethane (EDB)	ND	0.80	200		10/19/2013 05:07
Dibromomethane	ND	1.0	200		10/19/2013 05:07
1,2-Dichlorobenzene	ND	1.0	200		10/19/2013 05:07
1,3-Dichlorobenzene	ND	1.0	200		10/19/2013 05:07
1,4-Dichlorobenzene	ND	1.0	200		10/19/2013 05:07
Dichlorodifluoromethane	ND	1.0	200		10/19/2013 05:07
1,1-Dichloroethane	ND	1.0	200		10/19/2013 05:07
1,2-Dichloroethane (1,2-DCA)	ND	0.80	200		10/19/2013 05:07
1,1-Dichloroethene	ND	1.0	200		10/19/2013 05:07
cis-1,2-Dichloroethene	ND	1.0	200		10/19/2013 05:07
trans-1,2-Dichloroethene	ND	1.0	200		10/19/2013 05:07
1,2-Dichloropropane	ND	1.0	200		10/19/2013 05:07
1,3-Dichloropropane	ND	1.0	200		10/19/2013 05:07
2,2-Dichloropropane	ND	1.0	200		10/19/2013 05:07
1,1-Dichloropropene	ND	1.0	200		10/19/2013 05:07

(Cont.)



## Analytical Report

**Client:** AEI Consultants  
**Project:** #298931; FSI  
**Date Received:** 10/17/13 19:11  
**Date Prepared:** 10/17/13

**WorkOrder:** 1310629  
**Extraction Method:** SW5030B  
**Analytical Method:** SW8260B  
**Unit:** mg/kg

### Volatile Organics by P&T and GC/MS (Basic Target List)

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
Drum 1 13:30	1310629-003A	Soil	10/17/2013 13:30	GC16	83011
<u>Analytes</u>	<u>Result</u>		<u>RL</u>	<u>DF</u>	<u>Date Analyzed</u>
cis-1,3-Dichloropropene	ND		1.0	200	10/19/2013 05:07
trans-1,3-Dichloropropene	ND		1.0	200	10/19/2013 05:07
Diisopropyl ether (DIPE)	ND		1.0	200	10/19/2013 05:07
Ethylbenzene	2.6		1.0	200	10/19/2013 05:07
Ethyl tert-butyl ether (ETBE)	ND		1.0	200	10/19/2013 05:07
Freon 113	ND		20	200	10/19/2013 05:07
Hexachlorobutadiene	ND		1.0	200	10/19/2013 05:07
Hexachloroethane	ND		1.0	200	10/19/2013 05:07
2-Hexanone	ND		1.0	200	10/19/2013 05:07
Isopropylbenzene	ND		1.0	200	10/19/2013 05:07
4-Isopropyl toluene	ND		1.0	200	10/19/2013 05:07
Methyl-t-butyl ether (MTBE)	ND		1.0	200	10/19/2013 05:07
Methylene chloride	ND		1.0	200	10/19/2013 05:07
4-Methyl-2-pentanone (MIBK)	ND		1.0	200	10/19/2013 05:07
Naphthalene	10		1.0	200	10/19/2013 05:07
n-Propyl benzene	1.4		1.0	200	10/19/2013 05:07
Styrene	ND		1.0	200	10/19/2013 05:07
1,1,1,2-Tetrachloroethane	ND		1.0	200	10/19/2013 05:07
1,1,2,2-Tetrachloroethane	ND		1.0	200	10/19/2013 05:07
Tetrachloroethene	ND		1.0	200	10/19/2013 05:07
Toluene	6.5		1.0	200	10/19/2013 05:07
1,2,3-Trichlorobenzene	ND		1.0	200	10/19/2013 05:07
1,2,4-Trichlorobenzene	ND		1.0	200	10/19/2013 05:07
1,1,1-Trichloroethane	ND		1.0	200	10/19/2013 05:07
1,1,2-Trichloroethane	ND		1.0	200	10/19/2013 05:07
Trichloroethene	ND		1.0	200	10/19/2013 05:07
Trichlorofluoromethane	ND		1.0	200	10/19/2013 05:07
1,2,3-Trichloropropane	ND		1.0	200	10/19/2013 05:07
1,2,4-Trimethylbenzene	15		1.0	200	10/19/2013 05:07
1,3,5-Trimethylbenzene	3.9		1.0	200	10/19/2013 05:07
Vinyl Chloride	ND		1.0	200	10/19/2013 05:07
Xylenes, Total	16		1.0	200	10/19/2013 05:07
<u>Surrogates</u>	<u>REC (%)</u>		<u>Limits</u>		
Dibromofluoromethane	101		70-130		10/19/2013 05:07
Toluene-d8	103		70-130		10/19/2013 05:07
4-BFB	109		70-130		10/19/2013 05:07

(Cont.)



## Analytical Report

**Client:** AEI Consultants  
**Project:** #298931; FSI  
**Date Received:** 10/17/13 19:11  
**Date Prepared:** 10/17/13

**WorkOrder:** 1310629  
**Extraction Method:** SW5030B  
**Analytical Method:** SW8260B  
**Unit:** mg/kg

### Volatile Organics by P&T and GC/MS (Basic Target List)

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
Conf Sample	1310629-004A	Soil	10/17/2013 14:35	GC16	83011
<u>Analytes</u>	<u>Result</u>		<u>RL</u>	<u>DF</u>	<u>Date Analyzed</u>
Acetone	ND		0.10	1	10/18/2013 13:28
tert-Amyl methyl ether (TAME)	ND		0.0050	1	10/18/2013 13:28
Benzene	ND		0.0050	1	10/18/2013 13:28
Bromobenzene	ND		0.0050	1	10/18/2013 13:28
Bromoform	ND		0.0050	1	10/18/2013 13:28
Bromochloromethane	ND		0.0050	1	10/18/2013 13:28
Bromodichloromethane	ND		0.0050	1	10/18/2013 13:28
Bromomethane	ND		0.0050	1	10/18/2013 13:28
2-Butanone (MEK)	ND		0.020	1	10/18/2013 13:28
t-Butyl alcohol (TBA)	ND		0.050	1	10/18/2013 13:28
n-Butyl benzene	ND		0.0050	1	10/18/2013 13:28
sec-Butyl benzene	ND		0.0050	1	10/18/2013 13:28
tert-Butyl benzene	ND		0.0050	1	10/18/2013 13:28
Carbon Disulfide	ND		0.0050	1	10/18/2013 13:28
Carbon Tetrachloride	ND		0.0050	1	10/18/2013 13:28
Chlorobenzene	ND		0.0050	1	10/18/2013 13:28
Chloroethane	ND		0.0050	1	10/18/2013 13:28
Chloroform	ND		0.0050	1	10/18/2013 13:28
Chloromethane	ND		0.0050	1	10/18/2013 13:28
2-Chlorotoluene	ND		0.0050	1	10/18/2013 13:28
4-Chlorotoluene	ND		0.0050	1	10/18/2013 13:28
Dibromochloromethane	ND		0.0050	1	10/18/2013 13:28
1,2-Dibromo-3-chloropropane	ND		0.0040	1	10/18/2013 13:28
1,2-Dibromoethane (EDB)	ND		0.0040	1	10/18/2013 13:28
Dibromomethane	ND		0.0050	1	10/18/2013 13:28
1,2-Dichlorobenzene	ND		0.0050	1	10/18/2013 13:28
1,3-Dichlorobenzene	ND		0.0050	1	10/18/2013 13:28
1,4-Dichlorobenzene	ND		0.0050	1	10/18/2013 13:28
Dichlorodifluoromethane	ND		0.0050	1	10/18/2013 13:28
1,1-Dichloroethane	ND		0.0050	1	10/18/2013 13:28
1,2-Dichloroethane (1,2-DCA)	ND		0.0040	1	10/18/2013 13:28
1,1-Dichloroethene	ND		0.0050	1	10/18/2013 13:28
cis-1,2-Dichloroethene	ND		0.0050	1	10/18/2013 13:28
trans-1,2-Dichloroethene	ND		0.0050	1	10/18/2013 13:28
1,2-Dichloropropane	ND		0.0050	1	10/18/2013 13:28
1,3-Dichloropropane	ND		0.0050	1	10/18/2013 13:28
2,2-Dichloropropane	ND		0.0050	1	10/18/2013 13:28
1,1-Dichloropropene	ND		0.0050	1	10/18/2013 13:28

(Cont.)



## Analytical Report

**Client:** AEI Consultants  
**Project:** #298931; FSI  
**Date Received:** 10/17/13 19:11  
**Date Prepared:** 10/17/13

**WorkOrder:** 1310629  
**Extraction Method:** SW5030B  
**Analytical Method:** SW8260B  
**Unit:** mg/kg

### Volatile Organics by P&T and GC/MS (Basic Target List)

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
Conf Sample	1310629-004A	Soil	10/17/2013 14:35	GC16	83011
<u>Analytes</u>	<u>Result</u>		<u>RL</u>	<u>DF</u>	<u>Date Analyzed</u>
cis-1,3-Dichloropropene	ND		0.0050	1	10/18/2013 13:28
trans-1,3-Dichloropropene	ND		0.0050	1	10/18/2013 13:28
Diisopropyl ether (DIPE)	ND		0.0050	1	10/18/2013 13:28
Ethylbenzene	ND		0.0050	1	10/18/2013 13:28
Ethyl tert-butyl ether (ETBE)	ND		0.0050	1	10/18/2013 13:28
Freon 113	ND		0.10	1	10/18/2013 13:28
Hexachlorobutadiene	ND		0.0050	1	10/18/2013 13:28
Hexachloroethane	ND		0.0050	1	10/18/2013 13:28
2-Hexanone	ND		0.0050	1	10/18/2013 13:28
Isopropylbenzene	ND		0.0050	1	10/18/2013 13:28
4-Isopropyl toluene	ND		0.0050	1	10/18/2013 13:28
Methyl-t-butyl ether (MTBE)	ND		0.0050	1	10/18/2013 13:28
Methylene chloride	ND		0.0050	1	10/18/2013 13:28
4-Methyl-2-pentanone (MIBK)	ND		0.0050	1	10/18/2013 13:28
Naphthalene	ND		0.0050	1	10/18/2013 13:28
n-Propyl benzene	ND		0.0050	1	10/18/2013 13:28
Styrene	ND		0.0050	1	10/18/2013 13:28
1,1,1,2-Tetrachloroethane	ND		0.0050	1	10/18/2013 13:28
1,1,2,2-Tetrachloroethane	ND		0.0050	1	10/18/2013 13:28
Tetrachloroethene	ND		0.0050	1	10/18/2013 13:28
Toluene	ND		0.0050	1	10/18/2013 13:28
1,2,3-Trichlorobenzene	ND		0.0050	1	10/18/2013 13:28
1,2,4-Trichlorobenzene	ND		0.0050	1	10/18/2013 13:28
1,1,1-Trichloroethane	ND		0.0050	1	10/18/2013 13:28
1,1,2-Trichloroethane	ND		0.0050	1	10/18/2013 13:28
Trichloroethene	ND		0.0050	1	10/18/2013 13:28
Trichlorofluoromethane	ND		0.0050	1	10/18/2013 13:28
1,2,3-Trichloropropane	ND		0.0050	1	10/18/2013 13:28
1,2,4-Trimethylbenzene	ND		0.0050	1	10/18/2013 13:28
1,3,5-Trimethylbenzene	ND		0.0050	1	10/18/2013 13:28
Vinyl Chloride	ND		0.0050	1	10/18/2013 13:28
Xylenes, Total	ND		0.0050	1	10/18/2013 13:28
<u>Surrogates</u>	<u>REC (%)</u>		<u>Limits</u>		
Dibromofluoromethane	96		70-130		10/18/2013 13:28
Toluene-d8	111		70-130		10/18/2013 13:28
4-BFB	114		70-130		10/18/2013 13:28



## Analytical Report

**Client:** AEI Consultants

**WorkOrder:** 1310629

**Project:** #298931; FSI

**Extraction Method** SW3050B

**Date Received:** 10/17/13 19:11

**Analytical Method:** SW6020

**Date Prepared:** 10/17/13

**Unit:** mg/Kg

### CAM / CCR 17 Metals

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
Drum 1 13:30	1310629-003A	Soil/TOTAL	10/17/2013 13:30	ICP-MS1	83009
<u>Analytes</u>	<u>Result</u>		<u>RL</u>	<u>DF</u>	<u>Date Analyzed</u>
Antimony	ND		0.50	1	10/22/2013 00:08
Arsenic	ND		0.50	1	10/22/2013 00:08
Barium	<b>22</b>		5.0	1	10/22/2013 00:08
Beryllium	ND		0.50	1	10/22/2013 00:08
Cadmium	ND		0.25	1	10/22/2013 00:08
Chromium	<b>9.3</b>		0.50	1	10/22/2013 00:08
Cobalt	<b>11</b>		0.50	1	10/22/2013 00:08
Copper	<b>110</b>		0.50	1	10/22/2013 00:08
Lead	<b>30</b>		0.50	1	10/22/2013 00:08
Mercury	<b>0.45</b>		0.050	1	10/22/2013 00:08
Molybdenum	ND		0.50	1	10/22/2013 00:08
Nickel	<b>8.1</b>		0.50	1	10/22/2013 00:08
Selenium	ND		0.50	1	10/22/2013 00:08
Silver	ND		0.50	1	10/22/2013 00:08
Thallium	ND		0.50	1	10/22/2013 00:08
Vanadium	<b>66</b>		0.50	1	10/22/2013 00:08
Zinc	<b>65</b>		5.0	1	10/22/2013 00:08
<u>Surrogates</u>	<u>REC (%)</u>		<u>Limits</u>		
Tb 350.917	95		70-130		10/22/2013 00:08



## Analytical Report

**Client:** AEI Consultants      **WorkOrder:** 1310629  
**Project:** #298931; FSI      **Extraction Method:** SW5030B  
**Date Received:** 10/17/13 19:11      **Analytical Method:** SW8021B/8015Bm  
**Date Prepared:** 10/17/13      **Unit:** mg/Kg

### Gasoline Range (C6-C12) Volatile Hydrocarbons as Gasoline with BTEX and MTBE

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
Drum 1 13:30	1310629-003A	Soil	10/17/2013 13:30	GC19	83007
<u>Analytes</u>	<u>Result</u>		<u>RL</u>	<u>DF</u>	<u>Date Analyzed</u>
TPH(g)	410		20	20	10/21/2013 12:40
MTBE	---		1.0	20	10/21/2013 12:40
Benzene	---		0.10	20	10/21/2013 12:40
Toluene	---		0.10	20	10/21/2013 12:40
Ethylbenzene	---		0.10	20	10/21/2013 12:40
Xylenes	---		0.10	20	10/21/2013 12:40
<u>Surrogates</u>	<u>REC (%)</u>		<u>Limits</u>	Analytical Comments: d2,d9	
2-Fluorotoluene	80		70-130		10/21/2013 12:40
Conf Sample	1310629-004A	Soil	10/17/2013 14:35	GC7	83007
<u>Analytes</u>	<u>Result</u>		<u>RL</u>	<u>DF</u>	<u>Date Analyzed</u>
TPH(g)	ND		1.0	1	10/19/2013 04:33
MTBE	---		0.050	1	10/19/2013 04:33
Benzene	---		0.0050	1	10/19/2013 04:33
Toluene	---		0.0050	1	10/19/2013 04:33
Ethylbenzene	---		0.0050	1	10/19/2013 04:33
Xylenes	---		0.0050	1	10/19/2013 04:33
<u>Surrogates</u>	<u>REC (%)</u>		<u>Limits</u>		
2-Fluorotoluene	103		70-130		10/19/2013 04:33



## Analytical Report

**Client:** AEI Consultants  
**Project:** #298931; FSI  
**Date Received:** 10/17/13 19:11  
**Date Prepared:** 10/17/13-10/22/13

**WorkOrder:** 1310629  
**Extraction Method:** SW3550B  
**Analytical Method:** SW8015B  
**Unit:** mg/Kg

### Total Extractable Petroleum Hydrocarbons

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
Drum 1 13:30	1310629-003A	Soil	10/17/2013 13:30	GC11A	83117
<u>Analytes</u>	<u>Result</u>		<u>RL</u>	<u>DF</u>	<u>Date Analyzed</u>
TPH-Diesel (C10-C23)	3400		100	100	10/23/2013 02:05
TPH-Motor Oil (C18-C36)	11,000		500	100	10/23/2013 02:05
<u>Surrogates</u>	<u>REC (%)</u>		<u>Limits</u>	Analytical Comments: e7,e2,e4	
C9	130		70-130		10/23/2013 02:05
Conf Sample	1310629-004A	Soil	10/17/2013 14:35	GC6A	82983
<u>Analytes</u>	<u>Result</u>		<u>RL</u>	<u>DF</u>	<u>Date Analyzed</u>
TPH-Diesel (C10-C23)	43		1.0	1	10/20/2013 18:46
TPH-Motor Oil (C18-C36)	280		5.0	1	10/20/2013 18:46
<u>Surrogates</u>	<u>REC (%)</u>		<u>Limits</u>	Analytical Comments: e7,e2	
C9	96		70-130		10/20/2013 18:46



## Quality Control Report

<b>Client:</b>	AEI Consultants	<b>WorkOrder:</b>	1310629
<b>Date Prepared:</b>	10/17/13	<b>BatchID:</b>	83007
<b>Date Analyzed:</b>	10/18/13	<b>Extraction Method</b>	SW5030B
<b>Instrument:</b>	GC19	<b>Analytical Method:</b>	SW8021B/8015Bm
<b>Matrix:</b>	Soil	<b>Unit:</b>	mg/Kg
<b>Project:</b>	#298931; FSI	<b>Sample ID:</b>	MB/LCS-83007 1310616-006AMS/MSD

### QC SUMMARY REPORT FOR SW8021B/8015Bm

Analyte	MB Result	LCS Result	RL	SPK Val	MB SS %REC	LCS %REC	LCS Limits
TPH(btex)	ND	0.6007	0.40	0.60	-	100	70-130
MTBE	ND	0.09629	0.050	0.10	-	96.3	70-130
Benzene	ND	0.1118	0.0050	0.10	-	112	70-130
Toluene	ND	0.1132	0.0050	0.10	-	113	70-130
Ethylbenzene	ND	0.1112	0.0050	0.10	-	111	70-130
Xylenes	ND	0.3539	0.0050	0.30	-	118	70-130

**Surrogate Recovery**

2-Fluorotoluene	0.1071	0.1044	0.10	107	104	70-130
-----------------	--------	--------	------	-----	-----	--------

Analyte	MS Result	MSD Result	SPK Val	SPKRef Val	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD Limit
TPH(btex)	0.6402	0.6311	0.60	ND	107	105	70-130	1.43	20
MTBE	0.1063	0.09441	0.10	ND	106	94.4	70-130	11.9	20
Benzene	0.1165	0.1131	0.10	ND	117	113	70-130	3.01	20
Toluene	0.119	0.1139	0.10	ND	119	114	70-130	4.39	20
Ethylbenzene	0.1183	0.1124	0.10	ND	118	112	70-130	5.16	20
Xylenes	0.3728	0.3593	0.30	ND	124	120	70-130	3.69	20

**Surrogate Recovery**

2-Fluorotoluene	0.1097	0.102	0.10	110	102	70-130	7.22	20
-----------------	--------	-------	------	-----	-----	--------	------	----

(Cont.)



## Quality Control Report

<b>Client:</b>	AEI Consultants	<b>WorkOrder:</b>	1310629
<b>Date Prepared:</b>	10/17/13	<b>BatchID:</b>	83016
<b>Date Analyzed:</b>	10/21/13	<b>Extraction Method</b>	SW3550B
<b>Instrument:</b>	GC5A	<b>Analytical Method:</b>	SW8082
<b>Matrix:</b>	Soil	<b>Unit:</b>	mg/kg
<b>Project:</b>	#298931; FSI	<b>Sample ID:</b>	MB/LCS-83016 1310629-003AMS/MSD

### QC SUMMARY REPORT FOR SW8082

Analyte	MB Result	LCS Result	RL	SPK Val	MB SS %REC	LCS %REC	LCS Limits
Aroclor1016	ND	-	0.050	-	-	-	-
Aroclor1221	ND	-	0.050	-	-	-	-
Aroclor1232	ND	-	0.050	-	-	-	-
Aroclor1242	ND	-	0.050	-	-	-	-
Aroclor1248	ND	-	0.050	-	-	-	-
Aroclor1254	ND	-	0.050	-	-	-	-
Aroclor1260	ND	0.1574	0.050	0.15	-	105	70-130
PCBs, total	ND	-	0.050	-	-	-	-

**Surrogate Recovery**

Decachlorobiphenyl	0.0471	0.04994	0.050	94	100	70-130
--------------------	--------	---------	-------	----	-----	--------

Analyte	MS Result	MSD Result	SPK Val	SPKRef Val	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD Limit
Aroclor1260	NR	NR	0	ND<2.5	NR	NR	-	NR	
<b>Surrogate Recovery</b>									
Decachlorobiphenyl	NR	NR	0		NR	NR	-	NR	



## Quality Control Report

**Client:** AEI Consultants  
**Date Prepared:** 10/17/13  
**Date Analyzed:** 10/18/13  
**Instrument:** GC16  
**Matrix:** Soil  
**Project:** #298931; FSI

**WorkOrder:** 1310629  
**BatchID:** 83011  
**Extraction Method:** SW5030B  
**Analytical Method:** SW8260B  
**Unit:** mg/Kg  
**Sample ID:** MB/LCS-83011  
1310629-004AMS/MSD

### QC SUMMARY REPORT FOR SW8260B

Analyte	MB Result	LCS Result	RL	SPK Val	MB SS %REC	LCS %REC	LCS Limits
Acetone	ND	-	0.10	-	-	-	-
tert-Amyl methyl ether (TAME)	ND	0.04991	0.0050	0.050	-	99.8	70-130
Benzene	ND	0.04737	0.0050	0.050	-	94.7	70-130
Bromobenzene	ND	-	0.0050	-	-	-	-
Bromochloromethane	ND	-	0.0050	-	-	-	-
Bromodichloromethane	ND	-	0.0050	-	-	-	-
Bromoform	ND	-	0.0050	-	-	-	-
Bromomethane	ND	-	0.0050	-	-	-	-
2-Butanone (MEK)	ND	-	0.020	-	-	-	-
t-Butyl alcohol (TBA)	ND	0.1686	0.050	0.20	-	84.3	70-130
n-Butyl benzene	ND	-	0.0050	-	-	-	-
sec-Butyl benzene	ND	-	0.0050	-	-	-	-
tert-Butyl benzene	ND	-	0.0050	-	-	-	-
Carbon Disulfide	ND	-	0.0050	-	-	-	-
Carbon Tetrachloride	ND	-	0.0050	-	-	-	-
Chlorobenzene	ND	0.04717	0.0050	0.050	-	94.3	70-130
Chloroethane	ND	-	0.0050	-	-	-	-
Chloroform	ND	-	0.0050	-	-	-	-
Chloromethane	ND	-	0.0050	-	-	-	-
2-Chlorotoluene	ND	-	0.0050	-	-	-	-
4-Chlorotoluene	ND	-	0.0050	-	-	-	-
Dibromochloromethane	ND	-	0.0050	-	-	-	-
1,2-Dibromo-3-chloropropane	ND	-	0.0040	-	-	-	-
1,2-Dibromoethane (EDB)	ND	0.04904	0.0040	0.050	-	98.1	70-130
Dibromomethane	ND	-	0.0050	-	-	-	-
1,2-Dichlorobenzene	ND	-	0.0050	-	-	-	-
1,3-Dichlorobenzene	ND	-	0.0050	-	-	-	-
1,4-Dichlorobenzene	ND	-	0.0050	-	-	-	-
Dichlorodifluoromethane	ND	-	0.0050	-	-	-	-
1,1-Dichloroethane	ND	-	0.0050	-	-	-	-
1,2-Dichloroethane (1,2-DCA)	ND	0.04981	0.0040	0.050	-	99.6	70-130
1,1-Dichloroethene	ND	0.04125	0.0050	0.050	-	82.5	70-130
cis-1,2-Dichloroethene	ND	-	0.0050	-	-	-	-
trans-1,2-Dichloroethene	ND	-	0.0050	-	-	-	-
1,2-Dichloropropane	ND	-	0.0050	-	-	-	-
1,3-Dichloropropane	ND	-	0.0050	-	-	-	-
2,2-Dichloropropane	ND	-	0.0050	-	-	-	-
1,1-Dichloropropene	ND	-	0.0050	-	-	-	-
cis-1,3-Dichloropropene	ND	-	0.0050	-	-	-	-
trans-1,3-Dichloropropene	ND	-	0.0050	-	-	-	-

(Cont.)



## Quality Control Report

**Client:** AEI Consultants  
**Date Prepared:** 10/17/13  
**Date Analyzed:** 10/18/13  
**Instrument:** GC16  
**Matrix:** Soil  
**Project:** #298931; FSI

**WorkOrder:** 1310629  
**BatchID:** 83011  
**Extraction Method:** SW5030B  
**Analytical Method:** SW8260B  
**Unit:** mg/Kg  
**Sample ID:** MB/LCS-83011  
1310629-004AMS/MSD

### QC SUMMARY REPORT FOR SW8260B

Analyte	MB Result	LCS Result	RL	SPK Val	MB SS %REC	LCS %REC	LCS Limits
Diisopropyl ether (DIPE)	ND	0.04893	0.0050	0.050	-	97.9	70-130
Ethylbenzene	ND	-	0.0050	-	-	-	-
Ethyl tert-butyl ether (ETBE)	ND	0.04847	0.0050	0.050	-	96.9	70-130
Freon 113	ND	-	0.0050	-	-	-	-
Hexachlorobutadiene	ND	-	0.0050	-	-	-	-
Hexachloroethane	ND	-	0.0050	-	-	-	-
2-Hexanone	ND	-	0.0050	-	-	-	-
Isopropylbenzene	ND	-	0.0050	-	-	-	-
4-Isopropyl toluene	ND	-	0.0050	-	-	-	-
Methyl-t-butyl ether (MTBE)	ND	0.05108	0.0050	0.050	-	102	70-130
Methylene chloride	ND	-	0.0050	-	-	-	-
4-Methyl-2-pentanone (MIBK)	ND	-	0.0050	-	-	-	-
Naphthalene	ND	-	0.0050	-	-	-	-
n-Propyl benzene	ND	-	0.0050	-	-	-	-
Styrene	ND	-	0.0050	-	-	-	-
1,1,1,2-Tetrachloroethane	ND	-	0.0050	-	-	-	-
1,1,2,2-Tetrachloroethane	ND	-	0.0050	-	-	-	-
Tetrachloroethene	ND	-	0.0050	-	-	-	-
Toluene	ND	0.05491	0.0050	0.050	-	110	70-130
1,2,3-Trichlorobenzene	ND	-	0.0050	-	-	-	-
1,2,4-Trichlorobenzene	ND	-	0.0050	-	-	-	-
1,1,1-Trichloroethane	ND	-	0.0050	-	-	-	-
1,1,2-Trichloroethane	ND	-	0.0050	-	-	-	-
Trichloroethene	ND	0.04996	0.0050	0.050	-	99.9	70-130
Trichlorofluoromethane	ND	-	0.0050	-	-	-	-
1,2,3-Trichloropropane	ND	-	0.0050	-	-	-	-
1,2,4-Trimethylbenzene	ND	-	0.0050	-	-	-	-
1,3,5-Trimethylbenzene	ND	-	0.0050	-	-	-	-
Vinyl Chloride	ND	-	0.0050	-	-	-	-
Xylenes, Total	ND	-	0.0050	-	-	-	-
<b>Surrogate Recovery</b>							
Dibromofluoromethane	0.1193	0.124		0.12	95	99	70-130
Toluene-d8	0.1408	0.1543		0.12	113	123	70-130
4-BFB	0.01341	0.01149		0.012	107	92	70-130

(Cont.)



## Quality Control Report

**Client:** AEI Consultants  
**Date Prepared:** 10/17/13  
**Date Analyzed:** 10/18/13  
**Instrument:** GC16  
**Matrix:** Soil  
**Project:** #298931; FSI

**WorkOrder:** 1310629  
**BatchID:** 83011  
**Extraction Method:** SW5030B  
**Analytical Method:** SW8260B  
**Unit:** mg/Kg  
**Sample ID:** MB/LCS-83011  
1310629-004AMS/MSD

### QC SUMMARY REPORT FOR SW8260B

Analyte	MS Result	MSD Result	SPK Val	SPKRef Val	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD Limit
tert-Amyl methyl ether (TAME)	0.04966	0.04803	0.050	ND	99.3,F1	96.1,F1	56-94	3.33	30
Benzene	0.0474	0.04471	0.050	ND	94.8	89.4	60-106	5.84	30
t-Butyl alcohol (TBA)	0.1979	0.2162	0.20	ND	98.9	108	56-140	8.88	30
Chlorobenzene	0.04703	0.04467	0.050	ND	94.1	89.3	61-108	5.13	30
1,2-Dibromoethane (EDB)	0.05099	0.04949	0.050	ND	102	99	54-119	2.98	30
1,2-Dichloroethane (1,2-DCA)	0.04891	0.04689	0.050	ND	97.8	93.8	48-115	4.21	30
1,1-Dichloroethene	0.04135	0.04026	0.050	ND	82.7	80.5	46-111	2.65	30
Diisopropyl ether (DIPE)	0.04762	0.04561	0.050	ND	95.2	91.2	53-111	4.31	30
Ethyl tert-butyl ether (ETBE)	0.04746	0.04546	0.050	ND	94.9	90.9	61-104	4.30	30
Methyl-t-butyl ether (MTBE)	0.05052	0.04972	0.050	ND	101	99.4	58-107	1.59	30
Toluene	0.05203	0.04984	0.050	ND	104	99.7	64-114	4.30	30
Trichloroethylene	0.04694	0.04466	0.050	ND	93.9	89.3	60-116	4.98	30
<b>Surrogate Recovery</b>									
Dibromofluoromethane	0.1213	0.1207	0.12		97	97	70-130	0	30
Toluene-d8	0.1465	0.1458	0.12		117	117	70-130	0	30
4-BFB	0.01348	0.01969	0.012		108	157,F3	70-130	37.4,F1	30



## Quality Control Report

<b>Client:</b>	AEI Consultants	<b>WorkOrder:</b>	1310629
<b>Date Prepared:</b>	10/17/13	<b>BatchID:</b>	83009
<b>Date Analyzed:</b>	10/18/13	<b>Extraction Method</b>	SW3050B
<b>Instrument:</b>	ICP-MS1	<b>Analytical Method:</b>	SW6020
<b>Matrix:</b>	Soil	<b>Unit:</b>	mg/Kg
<b>Project:</b>	#298931; FSI	<b>Sample ID:</b>	MB/LCS-83009 1310617-012AMS/MSD

### QC SUMMARY REPORT FOR SW6020

Analyte	MB Result	LCS Result	RL	SPK Val	MB SS %REC	LCS %REC	LCS Limits
Antimony	ND	48.08	0.50	50	-	96.2	75-125
Arsenic	ND	48.65	0.50	50	-	97.3	75-125
Barium	ND	495	5.0	500	-	99	75-125
Beryllium	ND	46.49	0.50	50	-	93	75-125
Cadmium	ND	48.99	0.25	50	-	98	75-125
Chromium	ND	53.65	0.50	50	-	107	75-125
Cobalt	ND	48.45	0.50	50	-	96.9	75-125
Copper	ND	52.26	0.50	50	-	105	75-125
Lead	ND	47.95	0.50	50	-	95.9	75-125
Mercury	ND	1.192	0.050	1.25	-	95.4	75-125
Molybdenum	ND	48.27	0.50	50	-	96.5	75-125
Nickel	ND	49.86	0.50	50	-	99.7	75-125
Selenium	ND	48.89	0.50	50	-	97.8	75-125
Silver	ND	49.41	0.50	50	-	98.8	75-125
Thallium	ND	46.62	0.50	50	-	93.2	75-125
Vanadium	ND	52.88	0.50	50	-	106	75-125
Zinc	ND	534.5	5.0	500	-	107	75-125

#### Surrogate Recovery

Tb 350.917	469.5	473.9	500	94	95	70-130
------------	-------	-------	-----	----	----	--------

(Cont.)



## Quality Control Report

<b>Client:</b>	AEI Consultants	<b>WorkOrder:</b>	1310629
<b>Date Prepared:</b>	10/17/13	<b>BatchID:</b>	83009
<b>Date Analyzed:</b>	10/18/13	<b>Extraction Method</b>	SW3050B
<b>Instrument:</b>	ICP-MS1	<b>Analytical Method:</b>	SW6020
<b>Matrix:</b>	Soil	<b>Unit:</b>	mg/Kg
<b>Project:</b>	#298931; FSI	<b>Sample ID:</b>	MB/LCS-83009 1310617-012AMS/MSD

### QC SUMMARY REPORT FOR SW6020

Analyte	MS Result	MSD Result	SPK Val	SPKRef Val	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD Limit
Antimony	51.37	44.83	50	ND	103	89.7	75-125	13.6	20
Arsenic	57.08	53.89	50	2.929	108	102	75-125	5.75	20
Barium	610.9	618.3	500	59.97	110	112	75-125	1.20	20
Beryllium	49.74	48.42	50	ND	99.5	96.8	75-125	2.69	20
Cadmium	52.02	51.09	50	ND	104	102	75-125	1.80	20
Chromium	92.75	83.54	50	35.52	114	96	75-125	10.4	20
Cobalt	59.3	57.33	50	5.955	107	103	75-125	3.38	20
Copper	66.31	62.05	50	11.28	110	102	75-125	6.64	20
Lead	106.9	108.3	50	69.43	74.9,F1	77.7	75-125	1.30	20
Mercury	1.287	1.111	1.25	ND	103	88.9	75-125	14.7	20
Molybdenum	52.7	44.65	50	ND	105	89.3	75-125	16.5	20
Nickel	81.95	78.5	50	27.34	109	102	75-125	4.30	20
Selenium	59.96	51.92	50	ND	120	104	75-125	14.4	20
Silver	52.85	51.09	50	ND	106	102	75-125	3.39	20
Thallium	51.77	49.41	50	ND	104	98.8	75-125	4.66	20
Vanadium	85.41	82.2	50	27.37	116	110	75-125	3.83	20
Zinc	563.9	554.7	500	36.73	105	104	75-125	1.64	20
<b>Surrogate Recovery</b>									
Tb 350.917	501.2	483.9	500		100	97	70-130	3.51	20



# Quality Control Report

**Client:** AEI Consultants  
**Date Prepared:** 10/17/13  
**Date Analyzed:** 10/18/13  
**Instrument:** GC6B  
**Matrix:** Soil  
**Project:** #298931; FSI

**WorkOrder:** 1310629  
**BatchID:** 82983  
**Extraction Method:** SW3550B  
**Analytical Method:** SW8015B  
**Unit:** mg/Kg  
**Sample ID:** MB/LCS-82983  
1310572-001AMS/MSD

# QC SUMMARY REPORT FOR SW8015B

Analyte	MB Result	LCS Result	RL	SPK Val	MB SS %REC	LCS %REC	LCS Limits		
TPH-Diesel (C10-C23)	ND	40.86	1.0	40	-	102	70-130		
<b>Surrogate Recovery</b>									
C9	26.68	26.25		25	107	105	70-130		
<hr/>									
Analyte	MS Result	MSD Result	SPK Val	SPKRef Val	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD Limit
TPH-Diesel (C10-C23)	455.1	451.6	40	398.8	141,F1	132,F1	70-130	0.766	30
<b>Surrogate Recovery</b>									
C9	28.66	28.87	25		115	115	70-130	0	30

(Cont.)



# Quality Control Report

**Client:** AEI Consultants  
**Date Prepared:** 10/21/13  
**Date Analyzed:** 10/23/13  
**Instrument:** GC6A  
**Matrix:** Soil  
**Project:** #298931; FSI

**WorkOrder:** 1310629  
**BatchID:** 83117  
**Extraction Method:** SW3550B  
**Analytical Method:** SW8015B  
**Unit:** mg/Kg  
**Sample ID:** MB/LCS-83117  
1310690-006AMS/MSD

## QC SUMMARY REPORT FOR SW8015B

Analyte	MB Result	LCS Result	RL	SPK Val	MB SS %REC	LCS %REC	LCS Limits		
TPH-Diesel (C10-C23)	ND	42.15	1.0	40	-	105	70-130		
<b>Surrogate Recovery</b>									
C9	23.32	23.27		25	93	93	70-130		
<hr/>									
Analyte	MS Result	MSD Result	SPK Val	SPKRef Val	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD Limit
TPH-Diesel (C10-C23)	48.48	47.57	40	ND	121	119	70-130	1.91	30
<b>Surrogate Recovery</b>									
C9	26.82	26.41	25		107	106	70-130	1.54	30



# CHAIN-OF-CUSTODY RECORD

WorkOrder: 1310629

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: #WC084417  
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: 10/17/2013

Date Printed: 10/21/2013

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
1310629-003	Drum 1 13:30	Soil	10/17/2013 13:30	<input type="checkbox"/>	A	A	A	A								
1310629-004	Conf Sample	Soil	10/17/2013 14:35	<input type="checkbox"/>		A		A								

Test Legend:

1	8082A_PCB_S
6	
11	

2	8260B_S
7	
12	

3	CAM17MS_S
8	

4	G-MBTEX_S
9	

5	
10	

The following SamplIDs: 003A, 004A contain testgroup.

Prepared by: Daniel Loa

Comments: Changed to rush on 10/21/13, due 10/22 except d,mo 5d

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.

1310629 *Delta 48 hr*  
*Due Tues 10/22*

McCAMPBELL ANALYTICAL INC.								CHAIN OF CUSTODY RECORD										
1538 Willow Pass Road, Pittsburg, CA 94565								TURN AROUND TIME										
Telephone: (925) 252-9262				Fax: (925) 252-9269				<i>Nalco</i>				<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>			
Report To: Jeremy Smith				Bill To: AEI Consultants				EDF Required? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No				RUSH	24 HR	48 HR	72 HR			
Company: AEI Consultants, 2500 Camino Diablo, Walnut Creek, CA 94597								PDF Required? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No				5 DAY						
PO# WC084417				Global ID: T0600100655				Analysis Request				Other	Comments					
				E-Mail: jasmith@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				<i>Wigs</i>														
Sampler Signature:																		
SAMPLE ID	FIELD POINT NAME	SAMPLING		# of Containers	Type Containers	MATRIX			METHOD PRESERVED									
		Date	Time			Water	Soil	Air	Sludge	Other	Ice	HCL	HNO <sub>3</sub>	Other				
Drum 1		10-17-13	11:00	2	VOA	X			X			PCBs E8082	CVOCs 8260	<i>TNT 806 multi-range</i>	<i>VOCs 8260</i>	<i>PCBs E8082</i>	<i>Cam 17 metals</i>	<i>HOLD</i>
Drum 1			11:05	2	VOA	X			X X								X	
Drum 1		↓	13:30	1	Liner	X			X					<i>X X X X</i>			X	
Conf Sample		10-17-13	14:35	1	Liner	X			X					<i>X X</i>				
Relinquished By:	Stephen Xiao	Date: 10-17-13	Time: 18:36	Received By:	<i>Bilal</i>								ICE/t° <u>7.4</u>	PRESERVATION	VOAS	O&G	METALS	OTHER
Relinquished By:		Date:	Time:	Received By:									GOOD CONDITION					
Relinquished By:		Date:	Time:	Received By:									HEAD SPACE ABSENT					
Relinquished By:		Date:	Time:	Received By:									DECHLORINATED IN LAB	PERSERVED IN LAB				



## Sample Receipt Checklist

Client Name: **AEI Consultants**

Date and Time Received: **10/17/2013 7:11:51 PM**

Project Name: **#298931; FSI**

Login Reviewed by:

Daniel Loa

WorkOrder N°: **1310629**

Matrix: Soil/Water

Carrier: Client Drop-In

### Chain of Custody (COC) Information

- |   |   |                             |
|---|---|-----------------------------|
| Chain of custody present?                               | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> |
| Chain of custody signed when relinquished and received? | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> |
| Chain of custody agrees with sample labels?             | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> |
| Sample IDs noted by Client on COC?                      | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> |
| Date and Time of collection noted by Client on COC?     | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> |
| Sampler's name noted on COC?                            | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> |

### Sample Receipt Information

- |  |   |                             |  |
|--|---|-----------------------------|--|
| Custody seals intact on shipping container/cooler? | Yes <input type="checkbox"/>            | No <input type="checkbox"/> | NA <input checked="" type="checkbox"/> |
| Shipping container/cooler in good condition?       | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> |  |
| Samples in proper containers/bottles?              | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> |  |
| Sample containers intact?                          | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> |  |
| Sufficient sample volume for indicated test?       | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> |  |

### Sample Preservation and Hold Time (HT) Information

- |   |   |                             |  |
|---|---|-----------------------------|--|
| All samples received within holding time?           | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> |  |
| Container/Temp Blank temperature                    | Cooler Temp: 7.4°C                      |                             | NA <input type="checkbox"/>            |
| Water - VOA vials have zero headspace / no bubbles? | Yes <input type="checkbox"/>            | No <input type="checkbox"/> | NA <input checked="" type="checkbox"/> |
| Sample labels checked for correct preservation?     | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> |  |
| Metal - pH acceptable upon receipt (pH<2)?          | Yes <input type="checkbox"/>            | No <input type="checkbox"/> | NA <input checked="" type="checkbox"/> |
| Samples Received on Ice?                            | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> |  |

(Ice Type: WET ICE )

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

Comments:



# McCormick Analytical, Inc.

"When Quality Counts"

## Analytical Report

**WorkOrder:** 1310627

**Report Created for:** AEI Consultants  
2500 Camino Diablo, Ste.#200  
Walnut Creek, CA 94597

**Project Contact:** Jeremy Smith

**Project P.O.:** #WC084421

**Project Name:** #298931; FSI

**Project Received:** 10/17/2013

Analytical Report reviewed & approved for release on 10/18/2013 by:

Question about  
your data?

[Click here to email](#)  
[McCormick](#)

Angela Rydelius,  
Laboratory Manager

***The report shall not be reproduced except in full, without the written approval of the laboratory.  
The analytical results relate only to the items tested. Results reported conform to the most  
current NELAP standards, where applicable, unless otherwise stated in the case narrative.***



1534 Willow Pass Rd. Pittsburg, CA 94565 ♦ TEL: (877) 252-9262 ♦ FAX: (925) 252-9269 ♦ [www.mccormickanalytical.com](http://www.mccormickanalytical.com)

NELAP: 12283CA ♦ ELAP: 1644 ♦ ISO/IEC: 17025:2005 ♦ WSDE: C972-11 ♦ ADEC: UST-098 ♦ UCMR3



## Glossary of Terms & Qualifier Definitions

**Client:** AEI Consultants

**Project:** #298931; FSI

**WorkOrder:** 1310627

### Glossary Abbreviation

<u>Glossary Abbreviation</u>	<u>Description</u>
95% Interval	95% Confident Interval
DF	Dilution Factor
DUP	Duplicate
LCS	Laboratory Control Sample
MB	Method Blank
MB % Rec	% Recovery of Surrogate in Method Blank, if applicable
MDL	Method Detection Limit
MS	Matrix Spike
MSD	Matrix Spike Duplicate
ND	Not detected at or above the indicated MDL or RL
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.
RD	Relative Difference
RL	Reporting Limit
RPD	Relative Percent Deviation
SPK Val	Spike Value
SPKRef Val	Spike Reference Value

### Analytical Qualifier

h4	sulfuric acid permanganate (EPA 3665) cleanup
j1	see attached narrative



## Analytical Report

**Client:** AEI Consultants

**WorkOrder:** 1310627

**Project:** #298931; FSI

**Extraction Method:** SW5030B

**Date Received:** 10/17/13 18:51

**Analytical Method:** SW8260B

**Date Prepared:** 10/17/13

**Unit:** mg/L

### Halogenated Volatile Organics by P&T and GC-MS (8010 Basic Target List)

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
Cylinder 1 - 14:00	1310627-001A	Oil	10/17/2013 14:00	GC4	83015
<u>Analytes</u>	<u>Result</u>	<u>RL</u>	<u>DF</u>		<u>Date Analyzed</u>
Bromodichloromethane	ND	5.0	1		10/17/2013 22:03
Bromoform	ND	5.0	1		10/17/2013 22:03
Bromomethane	ND	5.0	1		10/17/2013 22:03
Carbon Tetrachloride	ND	5.0	1		10/17/2013 22:03
Chlorobenzene	ND	5.0	1		10/17/2013 22:03
Chloroethane	ND	5.0	1		10/17/2013 22:03
Chloroform	ND	5.0	1		10/17/2013 22:03
Chloromethane	ND	5.0	1		10/17/2013 22:03
Dibromochloromethane	ND	5.0	1		10/17/2013 22:03
1,2-Dibromoethane (EDB)	ND	5.0	1		10/17/2013 22:03
1,2-Dichlorobenzene	ND	5.0	1		10/17/2013 22:03
1,3-Dichlorobenzene	ND	5.0	1		10/17/2013 22:03
1,4-Dichlorobenzene	ND	5.0	1		10/17/2013 22:03
Dichlorodifluoromethane	ND	5.0	1		10/17/2013 22:03
1,1-Dichloroethane	ND	5.0	1		10/17/2013 22:03
1,2-Dichloroethane (1,2-DCA)	ND	5.0	1		10/17/2013 22:03
1,1-Dichloroethene	ND	5.0	1		10/17/2013 22:03
cis-1,2-Dichloroethene	ND	5.0	1		10/17/2013 22:03
trans-1,2-Dichloroethene	ND	5.0	1		10/17/2013 22:03
1,2-Dichloropropane	ND	5.0	1		10/17/2013 22:03
cis-1,3-Dichloropropene	ND	5.0	1		10/17/2013 22:03
trans-1,3-Dichloropropene	ND	5.0	1		10/17/2013 22:03
Freon 113	ND	100	1		10/17/2013 22:03
Methylene chloride	ND	5.0	1		10/17/2013 22:03
1,1,1,2-Tetrachloroethane	ND	5.0	1		10/17/2013 22:03
1,1,2,2-Tetrachloroethane	ND	5.0	1		10/17/2013 22:03
Tetrachloroethene	ND	5.0	1		10/17/2013 22:03
1,1,1-Trichloroethane	ND	5.0	1		10/17/2013 22:03
1,1,2-Trichloroethane	ND	5.0	1		10/17/2013 22:03
Trichloroethene	ND	5.0	1		10/17/2013 22:03
Trichlorofluoromethane	ND	5.0	1		10/17/2013 22:03
Vinyl Chloride	ND	5.0	1		10/17/2013 22:03
<u>Surrogates</u>	<u>REC (%)</u>	<u>Limits</u>		<u>Analytical Comments:</u>	j1
Dibromofluoromethane	107	70-130			10/17/2013 22:03
Toluene-d8	101	70-130			10/17/2013 22:03
4-BFB	83	70-130			10/17/2013 22:03



## Analytical Report

**Client:** AEI Consultants  
**Project:** #298931; FSI  
**Date Received:** 10/17/13 18:51  
**Date Prepared:** 10/17/13

**WorkOrder:** 1310627  
**Extraction Method:** SW3550B  
**Analytical Method:** SW8082  
**Unit:** mg/kg

### Polychlorinated Biphenyls (PCBs) Aroclors

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
Cylinder 1 - 13:55	1310627-002A	Oil	10/17/2013 13:55	GC22A	82987
<u>Analytes</u>	<u>Result</u>		<u>RL</u>	<u>DF</u>	<u>Date Analyzed</u>
Aroclor1016	ND		2.0	1	10/18/2013 13:40
Aroclor1221	ND		2.0	1	10/18/2013 13:40
Aroclor1232	ND		2.0	1	10/18/2013 13:40
Aroclor1242	<b>6.4</b>		2.0	1	10/18/2013 13:40
Aroclor1248	ND		2.0	1	10/18/2013 13:40
Aroclor1254	ND		2.0	1	10/18/2013 13:40
Aroclor1260	<b>17</b>		2.0	1	10/18/2013 13:40
PCBs, total	<b>23</b>		2.0	1	10/18/2013 13:40
<u>Surrogates</u>	<u>REC (%)</u>		<u>Limits</u>	Analytical Comments: h4	
Decachlorobiphenyl	92		70-130		10/18/2013 13:40



## Quality Control Report

**Client:** AEI Consultants  
**Date Prepared:** 10/17/13  
**Date Analyzed:** 10/17/13  
**Instrument:** GC4  
**Matrix:** Liquid  
**Project:** #298931; FSI

**WorkOrder:** 1310627  
**BatchID:** 83015  
**Extraction Method:** SW5030B  
**Analytical Method:** SW8260B  
**Unit:** mg/L  
**Sample ID:** MB-83015

### QC SUMMARY REPORT FOR SW8260B

Analyte	MB Result	LCS Result	RL	SPK Val	MB SS %REC	LCS %REC	LCS Limits
Acetone	ND	-	100	-	-	-	-
tert-Amyl methyl ether (TAME)	ND	-	5.0	-	-	-	-
Benzene	ND	-	5.0	-	-	-	-
Bromobenzene	ND	-	5.0	-	-	-	-
Bromochloromethane	ND	-	5.0	-	-	-	-
Bromodichloromethane	ND	-	5.0	-	-	-	-
Bromoform	ND	-	5.0	-	-	-	-
Bromomethane	ND	-	5.0	-	-	-	-
2-Butanone (MEK)	ND	-	20	-	-	-	-
t-Butyl alcohol (TBA)	ND	-	50	-	-	-	-
n-Butyl benzene	ND	-	5.0	-	-	-	-
sec-Butyl benzene	ND	-	5.0	-	-	-	-
tert-Butyl benzene	ND	-	5.0	-	-	-	-
Carbon Disulfide	ND	-	5.0	-	-	-	-
Carbon Tetrachloride	ND	-	5.0	-	-	-	-
Chlorobenzene	ND	-	5.0	-	-	-	-
Chloroethane	ND	-	5.0	-	-	-	-
Chloroform	ND	-	5.0	-	-	-	-
Chloromethane	ND	-	5.0	-	-	-	-
2-Chlorotoluene	ND	-	5.0	-	-	-	-
4-Chlorotoluene	ND	-	5.0	-	-	-	-
Dibromochloromethane	ND	-	5.0	-	-	-	-
1,2-Dibromo-3-chloropropane	ND	-	5.0	-	-	-	-
1,2-Dibromoethane (EDB)	ND	-	5.0	-	-	-	-
Dibromomethane	ND	-	5.0	-	-	-	-
1,2-Dichlorobenzene	ND	-	5.0	-	-	-	-
1,3-Dichlorobenzene	ND	-	5.0	-	-	-	-
1,4-Dichlorobenzene	ND	-	5.0	-	-	-	-
Dichlorodifluoromethane	ND	-	5.0	-	-	-	-
1,1-Dichloroethane	ND	-	5.0	-	-	-	-
1,2-Dichloroethane (1,2-DCA)	ND	-	5.0	-	-	-	-
1,1-Dichloroethene	ND	-	5.0	-	-	-	-
cis-1,2-Dichloroethene	ND	-	5.0	-	-	-	-
trans-1,2-Dichloroethene	ND	-	5.0	-	-	-	-
1,2-Dichloropropene	ND	-	5.0	-	-	-	-
1,3-Dichloropropene	ND	-	5.0	-	-	-	-
2,2-Dichloropropene	ND	-	5.0	-	-	-	-
1,1-Dichloropropene	ND	-	5.0	-	-	-	-
cis-1,3-Dichloropropene	ND	-	5.0	-	-	-	-
trans-1,3-Dichloropropene	ND	-	5.0	-	-	-	-

(Cont.)



## Quality Control Report

**Client:** AEI Consultants  
**Date Prepared:** 10/17/13  
**Date Analyzed:** 10/17/13  
**Instrument:** GC4  
**Matrix:** Liquid  
**Project:** #298931; FSI

**WorkOrder:** 1310627  
**BatchID:** 83015  
**Extraction Method:** SW5030B  
**Analytical Method:** SW8260B  
**Unit:** mg/L  
**Sample ID:** MB-83015

### QC SUMMARY REPORT FOR SW8260B

Analyte	MB Result	LCS Result	RL	SPK Val	MB SS %REC	LCS %REC	LCS Limits
Diisopropyl ether (DIPE)	ND	-	5.0	-	-	-	-
Ethylbenzene	ND	-	5.0	-	-	-	-
Ethyl tert-butyl ether (ETBE)	ND	-	5.0	-	-	-	-
Freon 113	ND	-	100	-	-	-	-
Hexachlorobutadiene	ND	-	5.0	-	-	-	-
Hexachloroethane	ND	-	5.0	-	-	-	-
2-Hexanone	ND	-	5.0	-	-	-	-
Isopropylbenzene	ND	-	5.0	-	-	-	-
4-Isopropyl toluene	ND	-	5.0	-	-	-	-
Methyl-t-butyl ether (MTBE)	ND	-	5.0	-	-	-	-
Methylene chloride	ND	-	5.0	-	-	-	-
4-Methyl-2-pentanone (MIBK)	ND	-	5.0	-	-	-	-
Naphthalene	ND	-	5.0	-	-	-	-
n-Propyl benzene	ND	-	5.0	-	-	-	-
Styrene	ND	-	5.0	-	-	-	-
1,1,1,2-Tetrachloroethane	ND	-	5.0	-	-	-	-
1,1,2,2-Tetrachloroethane	ND	-	5.0	-	-	-	-
Tetrachloroethene	ND	-	5.0	-	-	-	-
Toluene	ND	-	5.0	-	-	-	-
1,2,3-Trichlorobenzene	ND	-	5.0	-	-	-	-
1,2,4-Trichlorobenzene	ND	-	5.0	-	-	-	-
1,1,1-Trichloroethane	ND	-	5.0	-	-	-	-
1,1,2-Trichloroethane	ND	-	5.0	-	-	-	-
Trichloroethene	ND	-	5.0	-	-	-	-
Trichlorofluoromethane	ND	-	5.0	-	-	-	-
1,2,3-Trichloropropane	ND	-	5.0	-	-	-	-
1,2,4-Trimethylbenzene	ND	-	5.0	-	-	-	-
1,3,5-Trimethylbenzene	ND	-	5.0	-	-	-	-
Vinyl Chloride	ND	-	5.0	-	-	-	-
<b>Surrogate Recovery</b>							
Dibromofluoromethane	268.6	-		250	107	-	-
Toluene-d8	252.6	-		250	101	-	-
4-BFB	20.48	-		25	82	-	-



## Quality Control Report

**Client:** AEI Consultants  
**Date Prepared:** 10/17/13  
**Date Analyzed:** 10/18/13  
**Instrument:** GC22A  
**Matrix:** Oil  
**Project:** #298931; FSI

**WorkOrder:** 1310627  
**BatchID:** 82987  
**Extraction Method:** SW3550B  
**Analytical Method:** SW8082  
**Unit:** mg/kg  
**Sample ID:** MB-82987

---

### QC SUMMARY REPORT FOR SW8082

---

Analyte	MB Result	LCS Result	RL	SPK Val	MB SS %REC	LCS %REC	LCS Limits
Aroclor1016	ND	-	2.0	-	-	-	-
Aroclor1221	ND	-	2.0	-	-	-	-
Aroclor1232	ND	-	2.0	-	-	-	-
Aroclor1242	ND	-	2.0	-	-	-	-
Aroclor1248	ND	-	2.0	-	-	-	-
Aroclor1254	ND	-	2.0	-	-	-	-
Aroclor1260	ND	-	2.0	-	-	-	-
PCBs, total	ND	-	2.0	-	-	-	-
<b>Surrogate Recovery</b>							
Decachlorobiphenyl	4.737	-		4	118	-	-

---



# CHAIN-OF-CUSTODY RECORD

Page 1 of 1

**WorkOrder:** 1310627

**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: #WC084421  
ProjectNo: #298931; FSI

**Bill to:**

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

**Requested TAT:** 1 day

**Date Received:** 10/17/2013

**Date Printed:** 10/17/2013

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
1310627-001	Cylinder 1 - 14:00	Oil	10/17/2013 14:00	<input type="checkbox"/>	A											
1310627-002	Cylinder 1 - 13:55	Oil	10/17/2013 13:55	<input type="checkbox"/>	A											

**Test Legend:**

1	8010BMS_O	2	8082A_PCB_O(MG/KG)	3		4		5
6		7		8		9		10
11		12						

**Prepared by:** Daniel Loa

**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.





## Sample Receipt Checklist

Client Name: **AEI Consultants**

Date and Time Received: **10/17/2013 6:51:37 PM**

Project Name: **#298931; FSI**

Login Reviewed by:

Daniel Loa

WorkOrder N°: **1310627**

Matrix: Oil

Carrier: Client Drop-In

### Chain of Custody (COC) Information

- |   |   |                             |
|---|---|-----------------------------|
| Chain of custody present?                               | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> |
| Chain of custody signed when relinquished and received? | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> |
| Chain of custody agrees with sample labels?             | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> |
| Sample IDs noted by Client on COC?                      | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> |
| Date and Time of collection noted by Client on COC?     | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> |
| Sampler's name noted on COC?                            | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> |

### Sample Receipt Information

- |  |   |                             |  |
|--|---|-----------------------------|--|
| Custody seals intact on shipping container/cooler? | Yes <input type="checkbox"/>            | No <input type="checkbox"/> | NA <input checked="" type="checkbox"/> |
| Shipping container/cooler in good condition?       | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> |  |
| Samples in proper containers/bottles?              | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> |  |
| Sample containers intact?                          | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> |  |
| Sufficient sample volume for indicated test?       | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> |  |

### Sample Preservation and Hold Time (HT) Information

- |   |   |                             |  |
|---|---|-----------------------------|--|
| All samples received within holding time?           | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> |  |
| Container/Temp Blank temperature                    | Cooler Temp: 8.8°C                      |                             | NA <input type="checkbox"/>            |
| Water - VOA vials have zero headspace / no bubbles? | Yes <input type="checkbox"/>            | No <input type="checkbox"/> | NA <input checked="" type="checkbox"/> |
| Sample labels checked for correct preservation?     | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> |  |
| Metal - pH acceptable upon receipt (pH<2)?          | Yes <input type="checkbox"/>            | No <input type="checkbox"/> | NA <input checked="" type="checkbox"/> |
| Samples Received on Ice?                            | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> |  |

(Ice Type: WET ICE )

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

Comments:



# McCormick Analytical, Inc.

"When Quality Counts"

## Analytical Report

**WorkOrder:** 1310936

**Report Created for:** AEI Consultants  
2500 Camino Diablo, Ste.#200  
Walnut Creek, CA 94597

**Project Contact:** Andrew Wallace

**Project P.O.:**

**Project Name:** #324771; FSI

**Project Received:** 10/29/2013

Analytical Report reviewed & approved for release on 11/01/2013 by:

Question about  
your data?

[Click here to email](#)  
[McCormick](#)

Angela Rydelius,  
Laboratory Manager

***The report shall not be reproduced except in full, without the written approval of the laboratory.  
The analytical results relate only to the items tested. Results reported conform to the most  
current NELAP standards, where applicable, unless otherwise stated in the case narrative.***



1534 Willow Pass Rd. Pittsburg, CA 94565 ♦ TEL: (877) 252-9262 ♦ FAX: (925) 252-9269 ♦ [www.mccormick.com](http://www.mccormick.com)

NELAP: 12283CA ♦ ELAP: 1644 ♦ ISO/IEC: 17025:2005 ♦ WSDE: C972-11 ♦ ADEC: UST-098 ♦ UCMR3



## Glossary of Terms & Qualifier Definitions

**Client:** AEI Consultants

**Project:** #324771; FSI

**WorkOrder:** 1310936

### Glossary Abbreviation

<u>Glossary Abbreviation</u>	<u>Description</u>
95% Interval	95% Confident Interval
DF	Dilution Factor
DUP	Duplicate
LCS	Laboratory Control Sample
MB	Method Blank
MB % Rec	% Recovery of Surrogate in Method Blank, if applicable
MDL	Method Detection Limit
MS	Matrix Spike
MSD	Matrix Spike Duplicate
ND	Not detected at or above the indicated MDL or RL
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.
RD	Relative Difference
RL	Reporting Limit
RPD	Relative Percent Deviation
SPK Val	Spike Value
SPKRef Val	Spike Reference Value

### Quality Control Qualifier

F1	MS/MSD recovery was out of acceptance criteria; LCS validated the prep batch.
F2	LCS recovery for this compound is outside of acceptance limits.



## Analytical Report

**Client:** AEI Consultants  
**Project:** #324771; FSI  
**Date Received:** 10/29/13 16:26  
**Date Prepared:** 10/29/13

**WorkOrder:** 1310936  
**Extraction Method:** SW3550B  
**Analytical Method:** SW8082  
**Unit:** mg/kg

### Polychlorinated Biphenyls (PCBs) Aroclors

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
RT-5'	1310936-001A	Soil	10/29/2013 14:00	GC5A	83381
<u>Analytes</u>	<u>Result</u>		<u>RL</u>	<u>DF</u>	<u>Date Analyzed</u>
Aroclor1016	ND		0.050	1	10/30/2013 09:35
Aroclor1221	ND		0.050	1	10/30/2013 09:35
Aroclor1232	ND		0.050	1	10/30/2013 09:35
Aroclor1242	ND		0.050	1	10/30/2013 09:35
Aroclor1248	ND		0.050	1	10/30/2013 09:35
Aroclor1254	ND		0.050	1	10/30/2013 09:35
Aroclor1260	ND		0.050	1	10/30/2013 09:35
PCBs, total	ND		0.050	1	10/30/2013 09:35
<u>Surrogates</u>	<u>REC (%)</u>		<u>Limits</u>		
Decachlorobiphenyl	109		70-130		10/30/2013 09:35



## Analytical Report

**Client:** AEI Consultants  
**Project:** #324771; FSI  
**Date Received:** 10/29/13 16:26  
**Date Prepared:** 10/29/13

**WorkOrder:** 1310936  
**Extraction Method:** SW5030B  
**Analytical Method:** SW8260B  
**Unit:** mg/kg

### Volatile Organics by P&T and GC/MS (Basic Target List)

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
RT-5'	1310936-001A	Soil	10/29/2013 14:00	GC16	83423
<u>Analytes</u>	<u>Result</u>		<u>RL</u>	<u>DF</u>	<u>Date Analyzed</u>
Acetone	ND		0.10	1	10/29/2013 21:55
tert-Amyl methyl ether (TAME)	ND		0.0050	1	10/29/2013 21:55
Benzene	ND		0.0050	1	10/29/2013 21:55
Bromobenzene	ND		0.0050	1	10/29/2013 21:55
Bromoform	ND		0.0050	1	10/29/2013 21:55
Bromochloromethane	ND		0.0050	1	10/29/2013 21:55
Bromodichloromethane	ND		0.0050	1	10/29/2013 21:55
Bromoform	ND		0.0050	1	10/29/2013 21:55
Bromomethane	ND		0.0050	1	10/29/2013 21:55
2-Butanone (MEK)	ND		0.020	1	10/29/2013 21:55
t-Butyl alcohol (TBA)	ND		0.050	1	10/29/2013 21:55
n-Butyl benzene	ND		0.0050	1	10/29/2013 21:55
sec-Butyl benzene	ND		0.0050	1	10/29/2013 21:55
tert-Butyl benzene	ND		0.0050	1	10/29/2013 21:55
Carbon Disulfide	ND		0.0050	1	10/29/2013 21:55
Carbon Tetrachloride	ND		0.0050	1	10/29/2013 21:55
Chlorobenzene	ND		0.0050	1	10/29/2013 21:55
Chloroethane	ND		0.0050	1	10/29/2013 21:55
Chloroform	ND		0.0050	1	10/29/2013 21:55
Chloromethane	ND		0.0050	1	10/29/2013 21:55
2-Chlorotoluene	ND		0.0050	1	10/29/2013 21:55
4-Chlorotoluene	ND		0.0050	1	10/29/2013 21:55
Dibromochloromethane	ND		0.0050	1	10/29/2013 21:55
1,2-Dibromo-3-chloropropane	ND		0.0040	1	10/29/2013 21:55
1,2-Dibromoethane (EDB)	ND		0.0040	1	10/29/2013 21:55
Dibromomethane	ND		0.0050	1	10/29/2013 21:55
1,2-Dichlorobenzene	ND		0.0050	1	10/29/2013 21:55
1,3-Dichlorobenzene	ND		0.0050	1	10/29/2013 21:55
1,4-Dichlorobenzene	ND		0.0050	1	10/29/2013 21:55
Dichlorodifluoromethane	ND		0.0050	1	10/29/2013 21:55
1,1-Dichloroethane	ND		0.0050	1	10/29/2013 21:55
1,2-Dichloroethane (1,2-DCA)	ND		0.0040	1	10/29/2013 21:55
1,1-Dichloroethene	ND		0.0050	1	10/29/2013 21:55
cis-1,2-Dichloroethene	ND		0.0050	1	10/29/2013 21:55
trans-1,2-Dichloroethene	ND		0.0050	1	10/29/2013 21:55
1,2-Dichloropropane	ND		0.0050	1	10/29/2013 21:55
1,3-Dichloropropane	ND		0.0050	1	10/29/2013 21:55
2,2-Dichloropropane	ND		0.0050	1	10/29/2013 21:55
1,1-Dichloropropene	ND		0.0050	1	10/29/2013 21:55

(Cont.)



## Analytical Report

**Client:** AEI Consultants  
**Project:** #324771; FSI  
**Date Received:** 10/29/13 16:26  
**Date Prepared:** 10/29/13

**WorkOrder:** 1310936  
**Extraction Method:** SW5030B  
**Analytical Method:** SW8260B  
**Unit:** mg/kg

### Volatile Organics by P&T and GC/MS (Basic Target List)

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
RT-5'	1310936-001A	Soil	10/29/2013 14:00	GC16	83423
<u>Analytes</u>	<u>Result</u>		<u>RL</u>	<u>DF</u>	<u>Date Analyzed</u>
cis-1,3-Dichloropropene	ND		0.0050	1	10/29/2013 21:55
trans-1,3-Dichloropropene	ND		0.0050	1	10/29/2013 21:55
Diisopropyl ether (DIPE)	ND		0.0050	1	10/29/2013 21:55
Ethylbenzene	ND		0.0050	1	10/29/2013 21:55
Ethyl tert-butyl ether (ETBE)	ND		0.0050	1	10/29/2013 21:55
Freon 113	ND		0.10	1	10/29/2013 21:55
Hexachlorobutadiene	ND		0.0050	1	10/29/2013 21:55
Hexachloroethane	ND		0.0050	1	10/29/2013 21:55
2-Hexanone	ND		0.0050	1	10/29/2013 21:55
Isopropylbenzene	ND		0.0050	1	10/29/2013 21:55
4-Isopropyl toluene	ND		0.0050	1	10/29/2013 21:55
Methyl-t-butyl ether (MTBE)	ND		0.0050	1	10/29/2013 21:55
Methylene chloride	ND		0.0050	1	10/29/2013 21:55
4-Methyl-2-pentanone (MIBK)	ND		0.0050	1	10/29/2013 21:55
Naphthalene	ND		0.0050	1	10/29/2013 21:55
n-Propyl benzene	ND		0.0050	1	10/29/2013 21:55
Styrene	ND		0.0050	1	10/29/2013 21:55
1,1,1,2-Tetrachloroethane	ND		0.0050	1	10/29/2013 21:55
1,1,2,2-Tetrachloroethane	ND		0.0050	1	10/29/2013 21:55
Tetrachloroethene	ND		0.0050	1	10/29/2013 21:55
Toluene	ND		0.0050	1	10/29/2013 21:55
1,2,3-Trichlorobenzene	ND		0.0050	1	10/29/2013 21:55
1,2,4-Trichlorobenzene	ND		0.0050	1	10/29/2013 21:55
1,1,1-Trichloroethane	ND		0.0050	1	10/29/2013 21:55
1,1,2-Trichloroethane	ND		0.0050	1	10/29/2013 21:55
Trichloroethene	ND		0.0050	1	10/29/2013 21:55
Trichlorofluoromethane	ND		0.0050	1	10/29/2013 21:55
1,2,3-Trichloropropane	ND		0.0050	1	10/29/2013 21:55
1,2,4-Trimethylbenzene	ND		0.0050	1	10/29/2013 21:55
1,3,5-Trimethylbenzene	ND		0.0050	1	10/29/2013 21:55
Vinyl Chloride	ND		0.0050	1	10/29/2013 21:55
Xylenes, Total	ND		0.0050	1	10/29/2013 21:55
<u>Surrogates</u>	<u>REC (%)</u>		<u>Limits</u>		
Dibromofluoromethane	99		70-130		10/29/2013 21:55
Toluene-d8	111		70-130		10/29/2013 21:55
4-BFB	104		70-130		10/29/2013 21:55



## Analytical Report

**Client:** AEI Consultants      **WorkOrder:** 1310936  
**Project:** #324771; FSI      **Extraction Method:** SW5030B  
**Date Received:** 10/29/13 16:26      **Analytical Method:** SW8021B/8015Bm  
**Date Prepared:** 10/29/13      **Unit:** mg/Kg

### Gasoline Range (C6-C12) Volatile Hydrocarbons as Gasoline with BTEX and MTBE

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
RT-5'	1310936-001A	Soil	10/29/2013 14:00	GC7	83378
<u>Analytes</u>	<u>Result</u>		<u>RL</u>	<u>DF</u>	<u>Date Analyzed</u>
TPH(g)	ND		1.0	1	10/29/2013 22:32
MTBE	---		0.050	1	10/29/2013 22:32
Benzene	---		0.0050	1	10/29/2013 22:32
Toluene	---		0.0050	1	10/29/2013 22:32
Ethylbenzene	---		0.0050	1	10/29/2013 22:32
Xylenes	---		0.0050	1	10/29/2013 22:32
<u>Surrogates</u>	<u>REC (%)</u>		<u>Limits</u>		
2-Fluorotoluene	112		70-130		10/29/2013 22:32



## Analytical Report

**Client:** AEI Consultants  
**Project:** #324771; FSI  
**Date Received:** 10/29/13 16:26  
**Date Prepared:** 10/29/13

**WorkOrder:** 1310936  
**Extraction Method:** SW3550B  
**Analytical Method:** SW8015B  
**Unit:** mg/Kg

### Total Extractable Petroleum Hydrocarbons

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
RT-5'	1310936-001A	Soil	10/29/2013 14:00	GC9b	83380
<u>Analytes</u>	<u>Result</u>		<u>RL</u>	<u>DF</u>	<u>Date Analyzed</u>
TPH-Diesel (C10-C23)	ND		1.0	1	11/01/2013 15:23
TPH-Motor Oil (C18-C36)	ND		5.0	1	11/01/2013 15:23
TPH-Hydraulic Oil (C18-C36)	ND		5.0	1	11/01/2013 15:23
<u>Surrogates</u>	<u>REC (%)</u>		<u>Limits</u>		
C9	95		70-130		11/01/2013 15:23



## Quality Control Report

<b>Client:</b>	AEI Consultants	<b>WorkOrder:</b>	1310936
<b>Date Prepared:</b>	10/28/13	<b>BatchID:</b>	83381
<b>Date Analyzed:</b>	10/28/13 - 10/29/13	<b>Extraction Method</b>	SW3550B
<b>Instrument:</b>	GC5A	<b>Analytical Method:</b>	SW8082
<b>Matrix:</b>	Soil	<b>Unit:</b>	mg/kg
<b>Project:</b>	#324771; FSI	<b>Sample ID:</b>	MB/LCS-83381 1310908-002AMS/MSD

### QC SUMMARY REPORT FOR SW8082

Analyte	MB Result	LCS Result	RL	SPK Val	MB SS %REC	LCS %REC	LCS Limits
Aroclor1016	ND	-	0.050	-	-	-	-
Aroclor1221	ND	-	0.050	-	-	-	-
Aroclor1232	ND	-	0.050	-	-	-	-
Aroclor1242	ND	-	0.050	-	-	-	-
Aroclor1248	ND	-	0.050	-	-	-	-
Aroclor1254	ND	-	0.050	-	-	-	-
Aroclor1260	ND	0.1829	0.050	0.15	-	122	70-130
PCBs, total	ND	-	0.050	-	-	-	-

**Surrogate Recovery**

Decachlorobiphenyl	0.05323	0.05495	0.050	106	110	70-130
--------------------	---------	---------	-------	-----	-----	--------

Analyte	MS Result	MSD Result	SPK Val	SPKRef Val	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD Limit
Aroclor1260	NR	NR	0	ND<2.5	NR	NR	-	NR	
<b>Surrogate Recovery</b>									
Decachlorobiphenyl	NR	NR	0		NR	NR	-	NR	



## Quality Control Report

**Client:** AEI Consultants  
**Date Prepared:** 10/28/13  
**Date Analyzed:** 10/29/13  
**Instrument:** GC7  
**Matrix:** Soil  
**Project:** #324771; FSI

**WorkOrder:** 1310936  
**BatchID:** 83378  
**Extraction Method:** SW5030B  
**Analytical Method:** SW8021B/8015Bm  
**Unit:** mg/Kg  
**Sample ID:** MB/LCS-83378  
1310814-002AMS/MSD

### QC SUMMARY REPORT FOR SW8021B/8015Bm

Analyte	MB Result	LCS Result	RL	SPK Val	MB SS %REC	LCS %REC	LCS Limits
TPH(btex)	ND	0.6344	0.40	0.60	-	106	70-130
MTBE	ND	0.09294	0.050	0.10	-	92.9	70-130
Benzene	ND	0.1142	0.0050	0.10	-	114	70-130
Toluene	ND	0.1062	0.0050	0.10	-	106	70-130
Ethylbenzene	ND	0.1196	0.0050	0.10	-	120	70-130
Xylenes	ND	0.3628	0.0050	0.30	-	121	70-130

#### Surrogate Recovery

2-Fluorotoluene	0.1182	0.1106		0.10	118	111	70-130
-----------------	--------	--------	--	------	-----	-----	--------

Analyte	MS Result	MSD Result	SPK Val	SPKRef Val	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD Limit
TPH(btex)	0.6112	0.6169	0.60	ND	102	103	70-130	0.919	20
MTBE	0.1014	0.09755	0.10	ND	101	97.5	70-130	3.89	20
Benzene	0.1206	0.1158	0.10	ND	121	116	70-130	4.05	20
Toluene	0.1109	0.1056	0.10	ND	111	106	70-130	4.93	20
Ethylbenzene	0.1218	0.1192	0.10	ND	122	119	70-130	2.19	20
Xylenes	0.3623	0.3566	0.30	0.0051	118	116	70-130	1.61	20

#### Surrogate Recovery

2-Fluorotoluene	0.1162	0.1137	0.10		116	114	70-130	2.20	20
-----------------	--------	--------	------	--	-----	-----	--------	------	----

(Cont.)

CDPH ELAP 1644 ♦ NELAP 12283CA

 QA/QC Officer



## Quality Control Report

<b>Client:</b>	AEI Consultants	<b>WorkOrder:</b>	1310936
<b>Date Prepared:</b>	10/28/13	<b>BatchID:</b>	83380
<b>Date Analyzed:</b>	10/29/13	<b>Extraction Method</b>	SW3550B
<b>Instrument:</b>	GC6A, GC6B	<b>Analytical Method:</b>	SW8015B
<b>Matrix:</b>	Soil	<b>Unit:</b>	mg/Kg
<b>Project:</b>	#324771; FSI	<b>Sample ID:</b>	MB/LCS-83380 1310908-002AMS/MSD

### QC SUMMARY REPORT FOR SW8015B

Analyte	MB Result	LCS Result	RL	SPK Val	MB SS %REC	LCS %REC	LCS Limits		
TPH-Diesel (C10-C23)	ND	41.13	1.0	40	-	103	70-130		
<b>Surrogate Recovery</b>									
C9	27.3	22.22		25	109	89	70-130		
<hr/>									
Analyte	MS Result	MSD Result	SPK Val	SPKRef Val	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD Limit
TPH-Diesel (C10-C23)	71.17	73.66	40	20.28	127	133,F1	70-130	3.43	30
<b>Surrogate Recovery</b>									
C9	26.63	26.65	25		107	107	70-130	0	30

(Cont.)



## Quality Control Report

**Client:** AEI Consultants  
**Date Prepared:** 10/29/13  
**Date Analyzed:** 10/29/13  
**Instrument:** GC16  
**Matrix:** Soil  
**Project:** #324771; FSI

**WorkOrder:** 1310936  
**BatchID:** 83423  
**Extraction Method:** SW5030B  
**Analytical Method:** SW8260B  
**Unit:** mg/Kg  
**Sample ID:** MB/LCS-83423  
1310934-004AMS/MSD

### QC SUMMARY REPORT FOR SW8260B

Analyte	MB Result	LCS Result	RL	SPK Val	MB SS %REC	LCS %REC	LCS Limits
Acetone	ND	-	0.10	-	-	-	-
tert-Amyl methyl ether (TAME)	ND	0.05635	0.0050	0.050	-	113	70-130
Benzene	ND	0.04985	0.0050	0.050	-	99.7	70-130
Bromobenzene	ND	-	0.0050	-	-	-	-
Bromochloromethane	ND	-	0.0050	-	-	-	-
Bromodichloromethane	ND	-	0.0050	-	-	-	-
Bromoform	ND	-	0.0050	-	-	-	-
Bromomethane	ND	-	0.0050	-	-	-	-
2-Butanone (MEK)	ND	-	0.020	-	-	-	-
t-Butyl alcohol (TBA)	ND	0.2778	0.050	0.20	-	139, F2	70-130
n-Butyl benzene	ND	-	0.0050	-	-	-	-
sec-Butyl benzene	ND	-	0.0050	-	-	-	-
tert-Butyl benzene	ND	-	0.0050	-	-	-	-
Carbon Disulfide	ND	-	0.0050	-	-	-	-
Carbon Tetrachloride	ND	-	0.0050	-	-	-	-
Chlorobenzene	ND	0.05408	0.0050	0.050	-	108	70-130
Chloroethane	ND	-	0.0050	-	-	-	-
Chloroform	ND	-	0.0050	-	-	-	-
Chloromethane	ND	-	0.0050	-	-	-	-
2-Chlorotoluene	ND	-	0.0050	-	-	-	-
4-Chlorotoluene	ND	-	0.0050	-	-	-	-
Dibromochloromethane	ND	-	0.0050	-	-	-	-
1,2-Dibromo-3-chloropropane	ND	-	0.0040	-	-	-	-
1,2-Dibromoethane (EDB)	ND	0.0569	0.0040	0.050	-	114	70-130
Dibromomethane	ND	-	0.0050	-	-	-	-
1,2-Dichlorobenzene	ND	-	0.0050	-	-	-	-
1,3-Dichlorobenzene	ND	-	0.0050	-	-	-	-
1,4-Dichlorobenzene	ND	-	0.0050	-	-	-	-
Dichlorodifluoromethane	ND	-	0.0050	-	-	-	-
1,1-Dichloroethane	ND	-	0.0050	-	-	-	-
1,2-Dichloroethane (1,2-DCA)	ND	0.05422	0.0040	0.050	-	108	70-130
1,1-Dichloroethene	ND	0.04204	0.0050	0.050	-	84.1	70-130
cis-1,2-Dichloroethene	ND	-	0.0050	-	-	-	-
trans-1,2-Dichloroethene	ND	-	0.0050	-	-	-	-
1,2-Dichloropropene	ND	-	0.0050	-	-	-	-
1,3-Dichloropropene	ND	-	0.0050	-	-	-	-
2,2-Dichloropropene	ND	-	0.0050	-	-	-	-
1,1-Dichloropropene	ND	-	0.0050	-	-	-	-
cis-1,3-Dichloropropene	ND	-	0.0050	-	-	-	-
trans-1,3-Dichloropropene	ND	-	0.0050	-	-	-	-

(Cont.)



## Quality Control Report

**Client:** AEI Consultants  
**Date Prepared:** 10/29/13  
**Date Analyzed:** 10/29/13  
**Instrument:** GC16  
**Matrix:** Soil  
**Project:** #324771; FSI

**WorkOrder:** 1310936  
**BatchID:** 83423  
**Extraction Method:** SW5030B  
**Analytical Method:** SW8260B  
**Unit:** mg/Kg  
**Sample ID:** MB/LCS-83423  
1310934-004AMS/MSD

### QC SUMMARY REPORT FOR SW8260B

Analyte	MB Result	LCS Result	RL	SPK Val	MB SS %REC	LCS %REC	LCS Limits
Diisopropyl ether (DIPE)	ND	0.05189	0.0050	0.050	-	104	70-130
Ethylbenzene	ND	-	0.0050	-	-	-	-
Ethyl tert-butyl ether (ETBE)	ND	0.05266	0.0050	0.050	-	105	70-130
Freon 113	ND	-	0.0050	-	-	-	-
Hexachlorobutadiene	ND	-	0.0050	-	-	-	-
Hexachloroethane	ND	-	0.0050	-	-	-	-
2-Hexanone	ND	-	0.0050	-	-	-	-
Isopropylbenzene	ND	-	0.0050	-	-	-	-
4-Isopropyl toluene	ND	-	0.0050	-	-	-	-
Methyl-t-butyl ether (MTBE)	ND	0.0573	0.0050	0.050	-	115	70-130
Methylene chloride	ND	-	0.0050	-	-	-	-
4-Methyl-2-pentanone (MIBK)	ND	-	0.0050	-	-	-	-
Naphthalene	ND	-	0.0050	-	-	-	-
n-Propyl benzene	ND	-	0.0050	-	-	-	-
Styrene	ND	-	0.0050	-	-	-	-
1,1,1,2-Tetrachloroethane	ND	-	0.0050	-	-	-	-
1,1,2,2-Tetrachloroethane	ND	-	0.0050	-	-	-	-
Tetrachloroethene	ND	-	0.0050	-	-	-	-
Toluene	ND	0.05502	0.0050	0.050	-	110	70-130
1,2,3-Trichlorobenzene	ND	-	0.0050	-	-	-	-
1,2,4-Trichlorobenzene	ND	-	0.0050	-	-	-	-
1,1,1-Trichloroethane	ND	-	0.0050	-	-	-	-
1,1,2-Trichloroethane	ND	-	0.0050	-	-	-	-
Trichloroethene	ND	0.0533	0.0050	0.050	-	107	70-130
Trichlorofluoromethane	ND	-	0.0050	-	-	-	-
1,2,3-Trichloropropane	ND	-	0.0050	-	-	-	-
1,2,4-Trimethylbenzene	ND	-	0.0050	-	-	-	-
1,3,5-Trimethylbenzene	ND	-	0.0050	-	-	-	-
Vinyl Chloride	ND	-	0.0050	-	-	-	-
Xylenes, Total	ND	-	0.0050	-	-	-	-
<b>Surrogate Recovery</b>							
Dibromofluoromethane	0.1226	0.1207		0.12	98	97	70-130
Toluene-d8	0.1406	0.1429		0.12	112	114	70-130
4-BFB	0.01307	0.01254		0.012	105	100	70-130

(Cont.)



## Quality Control Report

**Client:** AEI Consultants  
**Date Prepared:** 10/29/13  
**Date Analyzed:** 10/29/13  
**Instrument:** GC16  
**Matrix:** Soil  
**Project:** #324771; FSI

**WorkOrder:** 1310936  
**BatchID:** 83423  
**Extraction Method:** SW5030B  
**Analytical Method:** SW8260B  
**Unit:** mg/Kg  
**Sample ID:** MB/LCS-83423  
1310934-004AMS/MSD

### QC SUMMARY REPORT FOR SW8260B

Analyte	MS Result	MSD Result	SPK Val	SPKRef Val	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD Limit
tert-Amyl methyl ether (TAME)	0.0464	0.04594	0.050	ND	92.8	91.9	56-94	0.985	30
Benzene	0.04043	0.03939	0.050	ND	80.9	78.8	60-106	2.60	30
t-Butyl alcohol (TBA)	0.2134	0.2099	0.20	ND	107	105	56-140	1.64	30
Chlorobenzene	0.04289	0.04207	0.050	ND	85.8	84.1	61-108	1.91	30
1,2-Dibromoethane (EDB)	0.04507	0.04484	0.050	ND	90.1	89.7	54-119	0.517	30
1,2-Dichloroethane (1,2-DCA)	0.04445	0.04332	0.050	ND	88.9	86.6	48-115	2.58	30
1,1-Dichloroethene	0.03362	0.03308	0.050	ND	67.2	66.2	46-111	1.60	30
Diisopropyl ether (DIPE)	0.04171	0.04111	0.050	ND	83.4	82.2	53-111	1.46	30
Ethyl tert-butyl ether (ETBE)	0.04293	0.0422	0.050	ND	85.9	84.4	61-104	1.72	30
Methyl-t-butyl ether (MTBE)	0.04641	0.04557	0.050	ND	92.8	91.1	58-107	1.81	30
Toluene	0.04258	0.04175	0.050	ND	85.2	83.5	64-114	1.98	30
Trichloroethylene	0.04322	0.04131	0.050	ND	86.4	82.6	60-116	4.52	30
<b>Surrogate Recovery</b>									
Dibromofluoromethane	0.1238	0.1235	0.12		99	99	70-130	0	30
Toluene-d8	0.1375	0.1374	0.12		110	110	70-130	0	30
4-BFB	0.0124	0.01299	0.012		99	104	70-130	4.69	30



# CHAIN-OF-CUSTODY RECORD

Page 1 of 1

**WorkOrder:** 1310936

**ClientCode:** AEL

WaterTrax     WriteOn     EDF     Excel     EQuIS     Email     HardCopy     ThirdParty     J-flag

**Report to:**

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

Email: awallace@aeiconsultants.com  
cc:  
PO: ProjectNo: #324771; FSI

**Bill to:**

Sara Guerin  
AEI Consultants  
2500 Camino Diablo, Ste. #200  
Walnut Creek, CA 94597  
AccountsPayable@AEIconsultants.co

**Requested TAT:** 3 days

**Date Received:** 10/29/2013

**Date Printed:** 10/29/2013

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
1310936-001	RT-5'	Soil	10/29/2013 14:00	<input type="checkbox"/>	A	A	A									

**Test Legend:**

1	8082A_PCB_S
6	
11	

2	8260B_S
7	
12	

3	G-MBTEX_S
8	

4	
9	

5	
10	

The following SamplID: 001A contains testgroup.

**Prepared by:** Maria Venegas

**Comments:** 72hr

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.





## Sample Receipt Checklist

Client Name: **AEI Consultants**

Date and Time Received: **10/29/2013 4:26:04 PM**

Project Name: **#324771; FSI**

Login Reviewed by:

Maria Venegas

WorkOrder N°: **1310936**

Matrix: Soil

Carrier: Client Drop-In

### Chain of Custody (COC) Information

- |   |   |                             |
|---|---|-----------------------------|
| Chain of custody present?                               | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> |
| Chain of custody signed when relinquished and received? | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> |
| Chain of custody agrees with sample labels?             | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> |
| Sample IDs noted by Client on COC?                      | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> |
| Date and Time of collection noted by Client on COC?     | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> |
| Sampler's name noted on COC?                            | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> |

### Sample Receipt Information

- |  |   |                             |  |
|--|---|-----------------------------|--|
| Custody seals intact on shipping container/cooler? | Yes <input type="checkbox"/>            | No <input type="checkbox"/> | NA <input checked="" type="checkbox"/> |
| Shipping container/cooler in good condition?       | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> |  |
| Samples in proper containers/bottles?              | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> |  |
| Sample containers intact?                          | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> |  |
| Sufficient sample volume for indicated test?       | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> |  |

### Sample Preservation and Hold Time (HT) Information

- |   |   |                             |  |
|---|---|-----------------------------|--|
| All samples received within holding time?           | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> |  |
| Container/Temp Blank temperature                    | Cooler Temp: -2.9°C                     |                             | NA <input type="checkbox"/>            |
| Water - VOA vials have zero headspace / no bubbles? | Yes <input type="checkbox"/>            | No <input type="checkbox"/> | NA <input checked="" type="checkbox"/> |
| Sample labels checked for correct preservation?     | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> |  |
| Metal - pH acceptable upon receipt (pH<2)?          | Yes <input type="checkbox"/>            | No <input type="checkbox"/> | NA <input checked="" type="checkbox"/> |
| Samples Received on Ice?                            | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> |  |
- (Ice Type: DRY ICE )

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

Comments:



# McCampbell Analytical, Inc.

"When Quality Counts"

## Analytical Report

**WorkOrder:** 1310629 A

**Report Created for:** AEI Consultants  
2500 Camino Diablo, Ste.#200  
Walnut Creek, CA 94597

**Project Contact:** Jeremy Smith

**Project P.O.:** #WC084417

**Project Name:** #298931; FSI

**Project Received:** 10/17/2013

Analytical Report reviewed & approved for release on 10/24/2013 by:

Question about  
your data?

[Click here to email](#)  
[McCcampbell](#)

Angela Rydelius,  
Laboratory Manager

***The report shall not be reproduced except in full, without the written approval of the laboratory.  
The analytical results relate only to the items tested. Results reported conform to the most  
current NELAP standards, where applicable, unless otherwise stated in the case narrative.***



1534 Willow Pass Rd. Pittsburg, CA 94565 ♦ TEL: (877) 252-9262 ♦ FAX: (925) 252-9269 ♦ [www.mccampbell.com](http://www.mccampbell.com)

NELAP: 12283CA ♦ ELAP: 1644 ♦ ISO/IEC: 17025:2005 ♦ WSDE: C972-11 ♦ ADEC: UST-098 ♦ UCMR3



## Glossary of Terms & Qualifier Definitions

**Client:** AEI Consultants

**Project:** #298931; FSI

**WorkOrder:** 1310629

### Glossary Abbreviation

<u>Glossary Abbreviation</u>	<u>Description</u>
95% Interval	95% Confident Interval
DF	Dilution Factor
DUP	Duplicate
LCS	Laboratory Control Sample
MB	Method Blank
MB % Rec	% Recovery of Surrogate in Method Blank, if applicable
MDL	Method Detection Limit
MS	Matrix Spike
MSD	Matrix Spike Duplicate
ND	Not detected at or above the indicated MDL or RL
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.
RD	Relative Difference
RL	Reporting Limit
RPD	Relative Percent Deviation
SPK Val	Spike Value
SPKRef Val	Spike Reference Value

### Analytical Qualifier

d2	heavier gasoline range compounds are significant (aged gasoline?)
d9	no recognizable pattern
e2	diesel range compounds are significant; no recognizable pattern
e4	gasoline range compounds are significant.
e7	oil range compounds are significant
h4	sulfuric acid permanganate (EPA 3665) cleanup

### Quality Control Qualifier

F1	MS/MSD recovery was out of acceptance criteria; LCS validated the prep batch.
F3	the surrogate standard recovery is outside of acceptance limits; however, all spiked LCS analytes are within proper acceptance limits.



## Analytical Report

**Client:** AEI Consultants

**WorkOrder:** 1310629

**Project:** #298931; FSI

**Extraction Method** SW3550B

**Date Received:** 10/17/13 19:11

**Analytical Method:** SW8082

**Date Prepared:** 10/22/13

**Unit:** mg/kg

### Polychlorinated Biphenyls (PCBs) Aroclors

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
Conf Sample	1310629-004A	Soil	10/17/2013 14:35	GC5A	83152
<u>Analytes</u>	<u>Result</u>		<u>RL</u>	<u>DF</u>	<u>Date Analyzed</u>
Aroclor1016	ND		0.50	10	10/23/2013 15:47
Aroclor1221	ND		0.50	10	10/23/2013 15:47
Aroclor1232	ND		0.50	10	10/23/2013 15:47
Aroclor1242	ND		0.50	10	10/23/2013 15:47
Aroclor1248	ND		0.50	10	10/23/2013 15:47
Aroclor1254	ND		0.50	10	10/23/2013 15:47
Aroclor1260	ND		2.0	10	10/23/2013 15:47
PCBs, total	ND		2.0	10	10/23/2013 15:47
<u>Surrogates</u>	<u>REC (%)</u>		<u>Limits</u>	Analytical Comments: h4	
Decachlorobiphenyl	120		70-130		10/23/2013 15:47



## Quality Control Report

**Client:** AEI Consultants  
**Date Prepared:** 10/22/13  
**Date Analyzed:** 10/23/13  
**Instrument:** GC5A  
**Matrix:** Soil  
**Project:** #298931; FSI

**WorkOrder:** 1310629  
**BatchID:** 83152  
**Extraction Method:** SW3550B  
**Analytical Method:** SW8082  
**Unit:** mg/kg  
**Sample ID:** MB/LCS-83152

---

### QC SUMMARY REPORT FOR SW8082

---

Analyte	MB Result	LCS Result	RL	SPK Val	MB SS %REC	LCS %REC	LCS Limits
Aroclor1016	ND	-	0.050	-	-	-	-
Aroclor1221	ND	-	0.050	-	-	-	-
Aroclor1232	ND	-	0.050	-	-	-	-
Aroclor1242	ND	-	0.050	-	-	-	-
Aroclor1248	ND	-	0.050	-	-	-	-
Aroclor1254	ND	-	0.050	-	-	-	-
Aroclor1260	ND	0.183	0.050	0.15	-	122	70-130
PCBs, total	ND	-	0.050	-	-	-	-
<b>Surrogate Recovery</b>							
Decachlorobiphenyl	0.05666	0.05719		0.050	113	114	70-130

---



# CHAIN-OF-CUSTODY RECORD

Page 1 of 1

WaterTrax     WriteOn     EDF     Excel     Fax     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: awallace@aeiconsultants.com  
PO: #WC084417  
ProjectNo: #298931; FSI

**Bill to:**

Sara Guerin  
AEI Consultants  
2500 Camino Diablo, Ste. #200  
Walnut Creek, CA 94597  
AccountsPayable@AEIconsultants.co

**Requested TAT:** 5 days

**Date Received:** 10/17/2013

**Date Add-On:** 10/22/2013

**Date Printed:** 10/22/2013

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	
1310629-004	Conf Sample	Soil	10/17/2013 14:35	<input type="checkbox"/>	A												

**Test Legend:**

1	8082A_PCB_ESL_S	2		3		4		5	
6		7		8		9		10	
11		12							

**Prepared by:** Daniel Loa

**Comments:** Changed to rush on 10/21/13, due 10/22 except d,mo 5d. PCBs with ESL Limits added to 004 10/22/13 24hr.

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.

1310629 *Delta 48hr*  
*Date Due 10/22*

McCAMPBELL ANALYTICAL INC.								CHAIN OF CUSTODY RECORD								
1538 Willow Pass Road, Pittsburg, CA 94565								TURN AROUND TIME								
Telephone: (925) 252-9262				Fax: (925) 252-9269				RUSH	24 HR	48 HR	72 HR	5 DAY				
Report To: Jeremy Smith				Bill To: AEI Consultants				<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	<input type="checkbox"/> Yes	<input type="checkbox"/> No					
Company: AEI Consultants, 2500 Camino Diablo, Walnut Creek, CA 94597																
PO# WC084417				Global ID: T0600100655												
E-Mail: jasmith@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: <i>MJS</i>																
SAMPLE ID	FIELD POINT NAME	SAMPLING		# of Containers	MATRIX			METHOD PRESERVED			Analysis Request			Other	Comments	
		Date	Time		Type	Containers	Water	Soil	Air	Sludge	Other	Ice	HCl			HNO <sub>3</sub>
Drum 1	10-17-13	11:00	2	VOA,	X					X				PCBs E8082		
Drum 1		11:05	2	VOA,	X					X X				CVOCs 8260		
Drum 1	↓	13:30	1	Liner	X					X						
Conf Sample	10-17-13	14:35	1	Liner	X					X						
Relinquished By:	Date:	Time:	Received By:									ICE/t° <i>7.4</i>	PRESERVATION <i>VOAS</i>	O&G <i>_____</i>	METALS <i>_____</i>	OTHER <i>_____</i>
<i>Stephen Dao</i>	10-17-13	18:36	<i>B. J. et al.</i>									GOOD CONDITION	APPROPRIATE CONTAINERS	DECHLORINATED IN LAB	PERSERVED IN LAB	
Relinquished By:	Date:	Time:	Received By:									HEAD SPACE ABSENT	_____	_____	_____	
Relinquished By:	Date:	Time:	Received By:									DECHLORINATED IN LAB	_____	_____	_____	

**APPENDIX B**

**WASTE MANIFESTS**

9E36787

<b>NON-HAZARDOUS WASTE MANIFEST</b>		1. Generator ID Number <b>N/A</b>	2. Page 1 of <b>1</b>	3. Emergency Response Phone <b>Carr 707-548-5859</b>	4. Waste Tracking Number <b>BTI 0622</b>	
5. Generator's Name and Mailing Address  <b>Foley Street Investments LLC</b> 2533 Clement Ave Generator's Phone: <b>Alameda, CA 94501 510 523 1925</b>		Generator's Site Address (if different than mailing address)  <b>1630 Park Street</b> <b>Alameda, CA 94501</b>				
6. Transporter 1 Company Name <b>SANTO INC TRUCKING</b>		U.S. EPA ID Number				
7. Transporter 2 Company Name		U.S. EPA ID Number				
8. Designated Facility Name and Site Address  <b>Hay Road Landfill</b> <b>6426 Hay Road</b> Facility's Phone: <b>Vacaville, CA 95687 (707) 678-4718</b>		U.S. EPA ID Number <b>N/A</b>				
9. Waste Shipping Name and Description  <b>1. Non-Hazardous Waste Soil</b>		10. Containers No. <b>001</b>	Type <b>D T</b>	11. Total Quantity <b>18</b>	12. Unit Wt./Vol. <b>Y</b>	
2.						
3.						
4.						
13. Special Handling Instructions and Additional Information  <b>Approval # 5426.4</b>						
14. GENERATOR'S/OFFEROR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations.						
Generator's/Offeror's Printed/Typed Name <b>Alexander W. Lohmeyer, Generator</b>		Signature <b>Lohmeyer</b>		Month <b>11</b>	Day <b>11</b>	Year <b>13</b>
15. International Shipments <input type="checkbox"/> Import to U.S. <input type="checkbox"/> Export from U.S.		Port of entry/exit: _____				
Transporter Signature (for exports only):		Date leaving U.S.: _____				
16. Transporter Acknowledgment of Receipt of Materials						
Transporter 1 Printed/Typed Name <b>John H. Lohmeyer</b>		Signature <b>Lohmeyer</b>		Month <b>11</b>	Day <b>11</b>	Year <b>13</b>
Transporter 2 Printed/Typed Name		Signature		Month	Day	Year
17. Discrepancy						
17a. Discrepancy Indication Space <input type="checkbox"/> Quantity <input type="checkbox"/> Type <input type="checkbox"/> Residue		<input type="checkbox"/> Partial Rejection <input type="checkbox"/> Full Rejection		Manifest Reference Number: _____		
17b. Alternate Facility (or Generator)		U.S. EPA ID Number				
Facility's Phone:						
17c. Signature of Alternate Facility (or Generator)						
18. Designated Facility Owner or Operator: Certification of receipt of materials covered by the manifest except as noted in Item 17a						
Printed/Typed Name		Signature		Month	Day	Year

<b>NON-HAZARDOUS WASTE MANIFEST</b>		1. Generator ID Number <b>N/A</b>	2. Page 1 of <b>1</b>	3. Emergency Response Phone <b>Call 707-548-5839</b>	4. Waste Tracking Number <b>BTI 060314</b>	
5. Generator's Name and Mailing Address <b>Foley Street Investments LLC 2533 Clement Ave Alameda, CA 94501 510 523 1925</b>		Generator's Site Address (If different than mailing address) <b>1630 Park Street Alameda, CA 94501</b>				
Generator's Phone: <b>510-523-1925</b>		U.S. EPA ID Number				
6. Transporter 1 Company Name <b>Santa Fe Trail Company</b>		U.S. EPA ID Number				
7. Transporter 2 Company Name		U.S. EPA ID Number				
8. Designated Facility Name and Site Address <b>Hay Road Landfill 6426 Hay Road Vacaville, CA 95687 (707) 678-4718</b>		U.S. EPA ID Number				
Facility's Phone: <b>N/A</b>						
9. Waste Shipping Name and Description <b>Non-Hazardous Waste Soil</b>		10. Containers No. <b>001</b>	Type <b>D T</b>	11. Total Quantity <b>18</b>	12. Unit Wt./Vol. <b>Y</b>	
1.						
2.						
3.						
4.						
13. Special Handling Instructions and Additional Information <b>Approval # 5426.4</b>						
14. GENERATOR'S/OFFEROR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations.						
Generator's/Offeror's Printed/Typed Name <b>Andrew Wallace</b>		Signature <b>hank</b>		Month <b>11</b>	Day <b>4</b>	Year <b>13</b>
15. International Shipments <input type="checkbox"/> Import to U.S. <input type="checkbox"/> Export from U.S.		Port of entry/exit: _____				
Transporter Signature (for exports only): <b>hank</b>						
16. Transporter Acknowledgment of Receipt of Materials  Transporter 1 Printed/Typed Name <b>hank</b> Signature <b>hank</b> Month <b>11</b> Day <b>4</b> Year <b>13</b> Transporter 2 Printed/Typed Name <b>hank</b> Signature <b>hank</b> Month <b>11</b> Day <b>4</b> Year <b>13</b>						
17. Discrepancy 17a. Discrepancy Indication Space <input type="checkbox"/> Quantity <input type="checkbox"/> Type <input type="checkbox"/> Residue <input type="checkbox"/> Partial Rejection <input type="checkbox"/> Full Rejection						
Manifest Reference Number:						
17b. Alternate Facility (or Generator)		U.S. EPA ID Number				
Facility's Phone:						
17c. Signature of Alternate Facility (or Generator)		Month Day Year				
18. Designated Facility Owner or Operator: Certification of receipt of materials covered by the manifest except as noted in Item 17a						
Printed/Typed Name		Signature		Month	Day	Year

NON-HAZARDOUS WASTE MANIFEST	1. Generator ID Number <b>N/A</b>	2. Page 1 of <b>1</b>	3. Emergency Response Phone <b>Call 707-548-5859</b>	4. Waste Tracking Number <b>BTI 060516</b>		
	5. Generator's Name and Mailing Address <b>Foley Street Investments LLC 2533 Clement Ave Alameda, CA 94501 510 523 1925</b>					
Generator's Phone:	Generator's Site Address (if different than mailing address) <b>1630 Park Street Alameda, CA 94501</b>					
6. Transporter 1 Company Name <b>Branley Tanks Inc.</b>	U.S. EPA ID Number <b>N/A</b>					
7. Transporter 2 Company Name	U.S. EPA ID Number <b>/</b>					
8. Designated Facility Name and Site Address <b>Hay Road Landfill 6426 Hay Road Vacaville, CA 95887 (707) 678-4718</b>	U.S. EPA ID Number <b>N/A</b>					
Facility's Phone:						
9. Waste Shipping Name and Description		10. Containers		11. Total Quantity	12. Unit Wt./Vol.	
		No.	Type			
1. Non-Hazardous Waste Soil		001	DT	10	Y	
2.						
3.						
4.						
13. Special Handling Instructions and Additional Information <b>Approval # 5426.4</b>						
<i>t 6001</i>						
14. GENERATOR'S/OFFEROR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations.						
Generator's/Officer's Printed/Typed Name <b>Andrew Wallace</b>		Signature <i>On behalf of generator</i>		Month <b>11</b>	Day <b>4</b>	Year <b>13</b>
15. International Shipments <input type="checkbox"/> Import to U.S. <input type="checkbox"/> Export from U.S.		Port of entry/exit: <input type="checkbox"/> Date leaving U.S.:				
Transporter Signature (for exports only): <i>[Signature]</i>						
16. Transporter Acknowledgment of Receipt of Materials						
Transporter 1 Printed/Typed Name <b>Joe Downing</b>		Signature <i>[Signature]</i>		Month <b>11</b>	Day <b>4</b>	Year <b>13</b>
Transporter 2 Printed/Typed Name <b>Jerry</b>		Signature <i>[Signature]</i>		Month <b>11</b>	Day <b>4</b>	Year <b>13</b>
17. Discrepancy						
17a. Discrepancy Indication Space <input type="checkbox"/> Quantity <input type="checkbox"/> Type <input type="checkbox"/> Residue <input type="checkbox"/> Partial Rejection <input type="checkbox"/> Full Rejection						
Manifest Reference Number:						
17b. Alternate Facility (or Generator)		U.S. EPA ID Number				
Facility's Phone:						
17c. Signature of Alternate Facility (or Generator)						
18. Designated Facility Owner or Operator: Certification of receipt of materials covered by the manifest except as noted in Item 17a						
Printed/Typed Name		Signature		Month	Day	Year

NON-HAZARDOUS WASTE MANIFEST		1. Generator ID Number <b>N/A</b>	2. Page 1 of 1	3. Emergency Response Phone <b>Call 707-548-5859</b>	4. Waste Tracking Number <b>ETI 060213</b>			
5. Generator's Name and Mailing Address <b>Foley Street Investments LLC 2533 Clement Ave Alameda, CA 94501 510 523 1925</b>		Generator's Site Address (if different than mailing address) <b>1630 Park Street Alameda, CA 94501</b>						
Generator's Phone:								
6. Transporter 1 Company Name <b>Brandy Tanks Inc.</b>		U.S. EPA ID Number <b>N/A</b>						
7. Transporter 2 Company Name		U.S. EPA ID Number <b> </b>						
8. Designated Facility Name and Site Address <b>Hay Road Landfill 6426 Hay Road Vacaville, CA 95687 (707) 678-4718</b>		U.S. EPA ID Number <b>N/A</b>						
9. Waste Shipping Name and Description <b>1. Non-Hazardous Waste Soil</b>		10. Containers No. <b>001</b>	Type <b>D T</b>	11. Total Quantity <b>18</b>	12. Unit Wt./Vol. <b>Y</b>			
2.								
3.								
4.								
13. Special Handling Instructions and Additional Information <b>#600 Approval #54264</b>								
14. GENERATOR'S/OFFEROR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations.								
Generator's/Officer's Printed/Typed Name <b>Andrew Wallace</b>		Signature <b>Asall</b>		Month <b>11</b>	Day <b>4</b>	Year <b>13</b>		
15. International Shipments <input type="checkbox"/> Import to U.S.		<input type="checkbox"/> Export from U.S.		Port of entry/exit: Date leaving U.S.: <b> </b>				
Transporter Signature (for exports only): <b> </b>								
16. Transporter Acknowledgment of Receipt of Materials								
Transporter 1 Printed/Typed Name <b>Jeffrey J. Wallace</b>		Signature <b>Jeffrey J. Wallace</b>		Month <b>11</b>	Day <b>4</b>	Year <b>13</b>		
Transporter 2 Printed/Typed Name <b> </b>		Signature <b> </b>		Month <b> </b>	Day <b> </b>	Year <b> </b>		
17. Discrepancy								
17a. Discrepancy Indication Space <input type="checkbox"/> Quantity		<input type="checkbox"/> Type		<input type="checkbox"/> Residue		<input type="checkbox"/> Partial Rejection	<input type="checkbox"/> Full Rejection	
Manifest Reference Number: <b> </b>								
17b. Alternate Facility (or Generator)						U.S. EPA ID Number <b> </b>		
Facility's Phone: <b> </b>								
17c. Signature of Alternate Facility (or Generator) <b> </b>						Month <b> </b>	Day <b> </b>	Year <b> </b>
18. Designated Facility Owner or Operator: Certification of receipt of materials covered by the manifest except as noted in Item 17a								
Printed/Typed Name <b> </b>		Signature <b> </b>		Month <b> </b>	Day <b> </b>	Year <b> </b>		

NON-HAZARDOUS WASTE MANIFEST		1. Generator ID Number <b>N/A</b>	2. Page 1 of 1	3. Emergency Response Phone <b>Call 707-548-5239</b>	4. Waste Tracking Number <b>B11060415</b>		
5. Generator's Name and Mailing Address <b>Foley Street Investments LLC 2533 Clement Ave Alameda, CA 94501 510 523 1925</b>		Generator's Site Address (if different than mailing address) <b>1630 Park Street Alameda, CA 94501</b>					
Generator's Phone: <b>Brady Tanks Inc</b>		U.S. EPA ID Number					
6. Transporter 1 Company Name <b>Brady Tanks Inc</b>		U.S. EPA ID Number					
7. Transporter 2 Company Name							
8. Designated Facility Name and Site Address <b>Hay Road Landfill 6426 Hay Road Vacaville, CA 95687 (707) 678-4718</b>		U.S. EPA ID Number					
Facility's Phone: <b>N/A</b>							
9. Waste Shipping Name and Description <b>1. Non-Hazardous Waste Soil</b>		10. Containers No. <b>001</b>	Type <b>D T</b>	11. Total Quantity <b>18</b>	12. Unit Wt./Vol. <b>T</b>		
2.							
3.							
4.							
13. Special Handling Instructions and Additional Information <b>Approval #54264</b>							
14. GENERATOR'S/OFFEROR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations.							
Generator's/Offeror's Printed/Typed Name <b>Andrew Wallace</b>		Signature <i>On behalf of generator</i>		Month <b>11</b>	Day <b>4</b>	Year <b>13</b>	
15. International Shipments <input type="checkbox"/> Import to U.S.		<input type="checkbox"/> Export from U.S.		Port of entry/exit:			
Transporter Signature (for exports only):		Date leaving U.S.:					
16. Transporter Acknowledgment of Receipt of Materials							
Transporter 1 Printed/Typed Name <b>Leopoldo</b>		Signature <i>Owner</i>		Month <b>11</b>	Day <b>4</b>	Year <b>13</b>	
Transporter 2 Printed/Typed Name		Signature					
17. Discrepancy							
17a. Discrepancy Indication Space <input type="checkbox"/> Quantity		<input type="checkbox"/> Type		<input type="checkbox"/> Residue		<input type="checkbox"/> Partial Rejection	<input type="checkbox"/> Full Rejection
Manifest Reference Number:							
17b. Alternate Facility (or Generator)		U.S. EPA ID Number					
Facility's Phone:							
17c. Signature of Alternate Facility (or Generator)		Month <b> </b>	Day <b> </b>	Year <b> </b>			
18. Designated Facility Owner or Operator: Certification of receipt of materials covered by the manifest except as noted in Item 17a							
Printed/Typed Name		Signature		Month <b> </b>	Day <b> </b>	Year <b> </b>	

GENERATOR	NON-HAZARDOUS WASTE MANIFEST	1. Generator ID Number <b>N/A</b>	2. Page 1 of <b>1</b>	3. Emergency Response Phone <b>Call 707-548-5859</b>	4. Waste Tracking Number <b>RTI 060111</b>	
	5. Generator's Name and Mailing Address <b>Foley Street Investments LLC 2533 Clement Ave Alameda, CA 94501 510 523 1925</b>		Generator's Site Address (if different than mailing address) <b>1630 Park Street Alameda, CA 94501</b>			
	Generator's Phone:					
	6. Transporter 1 Company Name <b>Bradley Tanks FNL</b>					U.S. EPA ID Number
	7. Transporter 2 Company Name					U.S. EPA ID Number
	8. Designated Facility Name and Site Address <b>Hay Road Landfill 6426 Hay Road Vacaville, CA 95687 (707) 678-4718</b>					U.S. EPA ID Number
	Facility's Phone:					<b>N/A</b>
	9. Waste Shipping Name and Description <b>1. Non-Hazardous Waste Soil</b>		10. Containers No. <b>001</b>	Type <b>D T</b>	11. Total Quantity <b>18</b>	12. Unit Wt./Vol. <b>Y</b>
	2.					
	3.					
4.						
13. Special Handling Instructions and Additional Information <b>Approval # 5426.4</b>						
14. GENERATOR'S/OFFEROR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations.						
Generator's/Offeror's Printed/Typed Name <b>Andrea Wallace</b>		Signature <b>Wall</b>		Month <b>11</b>	Day <b>4</b>	Year <b>13</b>
15. International Shipments <input type="checkbox"/> Import to U.S. <input type="checkbox"/> Export from U.S.		Port of entry/exit: _____				
Transporter Signature (for exports only):		Date leaving U.S.: _____				
16. Transporter Acknowledgment of Receipt of Materials						
Transporter 1 Printed/Typed Name <b>Recycles</b>		Signature <b>Recycles</b>		Month <b>11</b>	Day <b>4</b>	Year <b>13</b>
Transporter 2 Printed/Typed Name		Signature		Month	Day	Year
17. Discrepancy						
17a. Discrepancy Indication Space		<input type="checkbox"/> Quantity	<input type="checkbox"/> Type	<input type="checkbox"/> Residue	<input type="checkbox"/> Partial Rejection	<input type="checkbox"/> Full Rejection
Manifest Reference Number: _____						
17b. Alternate Facility (or Generator)		U.S. EPA ID Number				
Facility's Phone:						
17c. Signature of Alternate Facility (or Generator)		Month	Day	Year		
18. Designated Facility Owner or Operator: Certification of receipt of materials covered by the manifest except as noted in Item 17a						
Printed/Typed Name		Signature		Month	Day	Year

NON-HAZARDOUS WASTE MANIFEST	1. Generator ID Number <b>N/A</b>	2. Page 1 of <b>1</b>	3. Emergency Response Phone <b>Call 707-548-5859</b>	4. Waste Tracking Number <b>BTI 0623</b>		
	5. Generator's Name and Mailing Address <b>Foley Street Investments LLC 2533 Clement Ave Alameda, CA 94501 510 523 1925</b> Generator's Site Address (if different than mailing address) <b>1630 Park Street Alameda, CA 94501</b>					
6. Transporter 1 Company Name <b>Bradley Tanks Inc</b>	U.S. EPA ID Number					
7. Transporter 2 Company Name	U.S. EPA ID Number					
8. Designated Facility Name and Site Address <b>Hay Road Landfill 6426 Hay Road Vacaville, CA 95897 (707) 678-4718</b>	U.S. EPA ID Number <b>N/A</b>					
9. Waste Shipping Name and Description <b>Non-Hazardous Waste Soil</b>		10. Containers No. <b>001</b>	Type <b>D T</b>	11. Total Quantity <b>18</b>	12. Unit Wt./Vol. <b>Y</b>	
1.						
2.						
3.						
4.						
13. Special Handling Instructions and Additional Information <b>Approval # S426.4</b>						
14. GENERATOR'S/OFFEROR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations.						
Generator's/Offeror's Printed/Typed Name <b>On behalf of Foley Street Investments Inc generator</b>		Signature <b>A. N. G.</b>		Month <b>11</b>	Day <b>1</b> Year <b>2003</b>	
15. International Shipments <input type="checkbox"/> Import to U.S. <input type="checkbox"/> Export from U.S.		Port of entry/exit: _____ Date leaving U.S.: _____				
Transporter Signature (for exports only):						
16. Transporter Acknowledgment of Receipt of Materials						
Transporter 1 Printed/Typed Name <b>Leopoldo Otero</b>		Signature <b>Leopoldo Otero</b>		Month <b>11</b>	Day <b>1</b> Year <b>2003</b>	
Transporter 2 Printed/Typed Name		Signature		Month	Day	Year
17. Discrepancy						
17a. Discrepancy Indication Space <input type="checkbox"/> Quantity <input type="checkbox"/> Type <input type="checkbox"/> Residue <input type="checkbox"/> Partial Rejection <input type="checkbox"/> Full Rejection		Manifest Reference Number: _____				
17b. Alternate Facility (or Generator)		U.S. EPA ID Number				
Facility's Phone:						
17c. Signature of Alternate Facility (or Generator)						
18. Designated Facility Owner or Operator: Certification of receipt of materials covered by the manifest except as noted in Item 17a						
Printed/Typed Name		Signature		Month	Day	Year

NON-HAZARDOUS WASTE MANIFEST		1. Generator ID Number <b>N/A</b>	2. Page 1 of <b>1</b>	3. Emergency Response Phone <b>510-707-548-5859</b>	4. Waste Tracking Number <b>BTI 0624</b>
5. Generator's Name and Mailing Address <b>Foley Street Investments LLC 2533 Clement Ave Alameda, CA 94501 510 523 1925</b>		Generator's Site Address (if different than mailing address) <b>1630 Park Street Alameda, CA 94501</b>			
Generator's Phone:					
6. Transporter 1 Company Name <b>Bindley Tanks Inc.</b>		U.S. EPA ID Number			
7. Transporter 2 Company Name		U.S. EPA ID Number			
8. Designated Facility Name and Site Address <b>Hay Road Landfill 6426 Hay Road Vacaville, CA 95687 (707) 678-4718</b>		U.S. EPA ID Number			
Facility's Phone:		<b>N/A</b>			
GENERATOR	9. Waste Shipping Name and Description <b>1. Non-Hazardous Waste Soil</b>		10. Containers No. <b>001</b>	11. Total Quantity <b>18</b>	12. Unit Wt./Vol. <b>Y</b>
	2.				
	3.				
	4.				
13. Special Handling Instructions and Additional Information <b>Approval # 5426.4</b>					
14. GENERATOR'S/OFFEROR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations.					
Generator's/Offeror's Printed/Typed Name <b>John Wallace</b>		Signature		Month <b>11</b>	Day <b>11</b> Year <b>13</b>
INT'L	15. International Shipments <input type="checkbox"/> Import to U.S. <input type="checkbox"/> Export from U.S.		Port of entry/exit: _____ Date leaving U.S.: _____		
	Transporter Signature (for exports only):				
TRANSPORTER	16. Transporter Acknowledgment of Receipt of Materials <b>Roman Lopez</b>		Signature		Month <b>11</b> Day <b>13</b> Year <b>13</b>
	Transporter 2 Printed/Typed Name <b>Roman Lopez</b>		Signature		
DESIGNATED FACILITY	17. Discrepancy 17a. Discrepancy Indication Space <input type="checkbox"/> Quantity <input type="checkbox"/> Type <input type="checkbox"/> Residue <input type="checkbox"/> Partial Rejection <input type="checkbox"/> Full Rejection		Manifest Reference Number: _____		
	17b. Alternate Facility (or Generator)		U.S. EPA ID Number		
	Facility's Phone:				
	17c. Signature of Alternate Facility (or Generator)				
18. Designated Facility Owner or Operator: Certification of receipt of materials covered by the manifest except as noted in Item 17a					
Printed/Typed Name		Signature		Month <b>11</b>	Day <b>13</b> Year <b>13</b>

<b>NON-HAZARDOUS WASTE MANIFEST</b>		1. Generator ID Number <b>N/A</b>	2. Page 1 of <b>1</b>	3. Emergency Response Phone <b>Car 707-548-5839</b>	4. Waste Tracking Number <b>BTI 060944</b>	
5. Generator's Name and Mailing Address <b>Foley Street Investments LLC 2513 Clement Ave Alameda, CA 94501 S10 S23 1925</b>		Generator's Site Address (if different than mailing address) <b>1630 Park Street Alameda, CA 94501</b>				
Generator's Phone:						
6. Transporter 1 Company Name <b>Bradeay TRUCKS Inc.</b>		U.S. EPA ID Number				
7. Transporter 2 Company Name		U.S. EPA ID Number				
8. Designated Facility Name and Site Address <b>Hay Road Landfill 6426 Hay Road Vacaville, CA 95687 (707) 678-4718</b>		U.S. EPA ID Number <b>N/A</b>				
Facility's Phone:						
9. Waste Shipping Name and Description		10. Containers		11. Total Quantity	12. Unit Wt./Vol.	
1. <b>Non-Hazardous Waste Soil</b>		<b>001</b>	<b>D T</b>	<b>18</b>	<b>Y</b>	
2.						
3.						
4.						
13. Special Handling Instructions and Additional Information <b>Approval # 5426.4</b>						
14. GENERATOR'S/OFFEROR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations.						
Generator's/Offeror's Printed/Typed Name <b>John Belcher Jr.</b>		Signature <b>John Belcher Jr.</b>		Month <b>11</b>	Day <b>11</b>	Year <b>13</b>
15. International Shipments <input type="checkbox"/> Import to U.S.		<input type="checkbox"/> Export from U.S.		Port of entry/exit: _____		
Transporter Signature (for exports only): <b>Ronan Lopez Jr.</b>				Date leaving U.S.: _____		
16. Transporter Acknowledgment of Receipt of Materials						
Transporter 1 Printed/Typed Name <b>Ronan Lopez Jr.</b>		Signature <b>Ronan Lopez Jr.</b>		Month <b>11</b>	Day <b>11</b>	Year <b>13</b>
Transporter 2 Printed/Typed Name <b>Ronan Lopez Jr.</b>		Signature <b>Ronan Lopez Jr.</b>		Month <b>11</b>	Day <b>11</b>	Year <b>13</b>
17. Discrepancy						
17a. Discrepancy Indication Space <input type="checkbox"/> Quantity <input type="checkbox"/> Type <input type="checkbox"/> Residue		<input type="checkbox"/> Partial Rejection		<input type="checkbox"/> Full Rejection		
Manifest Reference Number: _____						
17b. Alternate Facility (or Generator)		U.S. EPA ID Number				
Facility's Phone:						
17c. Signature of Alternate Facility (or Generator)		Month Day Year				
18. Designated Facility Owner or Operator: Certification of receipt of materials covered by the manifest except as noted in Item 17a						
Printed/Typed Name		Signature		Month	Day	Year

GENERATOR	<b>NON-HAZARDOUS WASTE MANIFEST</b>	1. Generator ID Number <b>N/A</b>	2. Page 1 of <b>1</b>	3. Emergency Response Phone <b>Call 707-548-5839</b>	4. Waste Tracking Number <b>BTI 0625</b>	
	5. Generator's Name and Mailing Address <b>Foley Street Investments LLC</b> <b>2533 Clement Ave</b> <b>Alameda, CA 94501 510 523 1925</b>		Generator's Site Address (if different than mailing address) <b>1630 Park Street</b> <b>Alameda, CA 94501</b>			
	Generator's Phone:					
	6. Transporter 1 Company Name <b>Bradley Tanks Inc</b>		U.S. EPA ID Number			
	7. Transporter 2 Company Name		U.S. EPA ID Number			
	8. Designated Facility Name and Site Address <b>Hay Road Landfill</b> <b>6426 Hay Road</b> <b>Vacaville, CA 95687 (707) 578-4718</b>		U.S. EPA ID Number <b>N/A</b>			
	Facility's Phone:					
	9. Waste Shipping Name and Description 1. <b>Non-Hazardous Waste Soil</b>		10. Containers No. <b>001</b>	Type <b>D T</b>	11. Total Quantity <b>18</b>	12. Unit Wt./Vol. <b>Y</b>
	2.					
	3.					
4.						
13. Special Handling Instructions and Additional Information <b>Approval # 5426-4</b>						
14. GENERATOR'S/OFFEROR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations.						
Generator's/Offeror's Printed/Typed Name <b>John Whaley</b>		Signature <b>[Signature]</b>		Month <b>11</b>	Day <b>11</b>	Year <b>13</b>
15. International Shipments <input type="checkbox"/> Import to U.S.		<input type="checkbox"/> Export from U.S.		Port of entry/exit: _____		
Transporter Signature (for exports only):		Date leaving U.S.: _____				
16. Transporter Acknowledgment of Receipt of Materials						
Transporter 1 Printed/Typed Name <b>Leander</b>		Signature <b>[Signature]</b>		Month <b>11</b>	Day <b>11</b>	Year <b>13</b>
Transporter 2 Printed/Typed Name		Signature		Month	Day	Year
17. Discrepancy						
17a. Discrepancy Indication Space		<input type="checkbox"/> Quantity	<input type="checkbox"/> Type	<input type="checkbox"/> Residue	<input type="checkbox"/> Partial Rejection	<input type="checkbox"/> Full Rejection
Manifest Reference Number: _____						
17b. Alternate Facility (or Generator)		U.S. EPA ID Number				
Facility's Phone:						
17c. Signature of Alternate Facility (or Generator)						
18. Designated Facility Owner or Operator: Certification of receipt of materials covered by the manifest except as noted in Item 17a						
Printed/Typed Name		Signature		Month	Day	Year

<b>NON-HAZARDOUS WASTE MANIFEST</b>		1. Generator ID Number <b>N/A</b>	2. Page 1 of <b>1</b>	3. Emergency Response Phone <b>Carr 707-548-5850</b>	4. Waste Tracking Number <b>RTI 060819</b>	
5. Generator's Name and Mailing Address <b>Foley Street Investments LLC 2533 Clement Ave Alameda, CA 94501 510 523 1925</b>						
Generator's Phone: <b>1530 Park Street Alameda, CA 94501</b>						
6. Transporter 1 Company Name <b>Shuttle Trackers</b> U.S. EPA ID Number						
7. Transporter 2 Company Name U.S. EPA ID Number						
8. Designated Facility Name and Site Address U.S. EPA ID Number <b>Hay Road Landfill 6426 Hay Road Vacaville, CA 95687 (707) 678-4718 N/A</b>						
Facility's Phone:						
9. Waste Shipping Name and Description			10. Containers	11. Total Quantity	12. Unit Wt./Vol.	
			No. <b>001</b>	Type <b>D T</b>	<b>18</b>	<b>Y</b>
1. <b>Non-Hazardous Waste Soil</b>						
2.						
3.						
4.						
13. Special Handling Instructions and Additional Information <b>Approval # 5426 4</b>						
14. GENERATOR'S/OFFEROR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations.						
Generator's/Offeror's Printed/Typed Name <b>Andrew Wallace Generator</b>			Signature		Month <b>11</b> Day <b>11</b> Year <b>13</b>	
15. International Shipments <input type="checkbox"/> Import to U.S. <input type="checkbox"/> Export from U.S.			Port of entry/exit: _____			
Transporter Signature (for exports only): _____						
16. Transporter Acknowledgment of Receipt of Materials						
Transporter 1 Printed/Typed Name <b>Shuttle Trackers</b>			Signature		Month <b>11</b> Day <b>13</b> Year	
Transporter 2 Printed/Typed Name			Signature		Month <b>11</b> Day <b>13</b> Year	
17. Discrepancy						
17a. Discrepancy Indication Space <input type="checkbox"/> Quantity <input type="checkbox"/> Type <input type="checkbox"/> Residue <input type="checkbox"/> Partial Rejection <input type="checkbox"/> Full Rejection						
Manifest Reference Number: _____						
17b. Alternate Facility (or Generator) U.S. EPA ID Number						
Facility's Phone: _____						
17c. Signature of Alternate Facility (or Generator) Month Day Year						
18. Designated Facility Owner or Operator: Certification of receipt of materials covered by the manifest except as noted in Item 17a						
Printed/Typed Name			Signature		Month Day Year	

**APPENDIX C**

**LABORATORY ANALYTICAL REPORTS**



# McCampbell Analytical, Inc.

"When Quality Counts"

## Analytical Report

**WorkOrder:** 1311018

**Report Created for:** AEI Consultants  
2500 Camino Diablo, Ste.#200  
Walnut Creek, CA 94597

**Project Contact:** Jeremy Smith

**Project P.O.:** #WC084448

**Project Name:** #324771; FSI

**Project Received:** 11/01/2013

Analytical Report reviewed & approved for release on 11/04/2013 by:

Question about  
your data?

[Click here to email](#)  
[McCAMPBELL](#)

Angela Rydelius,  
Laboratory Manager

***The report shall not be reproduced except in full, without the written approval of the laboratory.  
The analytical results relate only to the items tested. Results reported conform to the most current NELAP standards, where applicable, unless otherwise stated in the case narrative.***



1534 Willow Pass Rd. Pittsburg, CA 94565 ♦ TEL: (877) 252-9262 ♦ FAX: (925) 252-9269 ♦ [www.mccampbell.com](http://www.mccampbell.com)

NELAP: 12283CA ♦ ELAP: 1644 ♦ ISO/IEC: 17025:2005 ♦ WSDE: C972-11 ♦ ADEC: UST-098 ♦ UCMR3



## Glossary of Terms & Qualifier Definitions

**Client:** AEI Consultants

**Project:** #324771; FSI

**WorkOrder:** 1311018

### Glossary Abbreviation

<u>Glossary Abbreviation</u>	<u>Description</u>
95% Interval	95% Confident Interval
DF	Dilution Factor
DUP	Duplicate
LCS	Laboratory Control Sample
MB	Method Blank
MB % Rec	% Recovery of Surrogate in Method Blank, if applicable
MDL	Method Detection Limit
MS	Matrix Spike
MSD	Matrix Spike Duplicate
ND	Not detected at or above the indicated MDL or RL
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.
RD	Relative Difference
RL	Reporting Limit
RPD	Relative Percent Deviation
SPK Val	Spike Value
SPKRef Val	Spike Reference Value

### Analytical Qualifier

d9	no recognizable pattern
e1	unmodified or weakly modified diesel is significant
e11	stoddard solvent/mineral spirit (?)

### Quality Control Qualifier

F1	MS/MSD recovery was out of acceptance criteria; LCS validated the prep batch.
F2	LCS recovery for this compound is outside of acceptance limits.



## Analytical Report

**Client:** AEI Consultants  
**Project:** #324771; FSI  
**Date Received:** 11/1/13 16:01  
**Date Prepared:** 11/1/13

**WorkOrder:** 1311018  
**Extraction Method:** SW5030B  
**Analytical Method:** SW8260B  
**Unit:** mg/kg

### Volatile Organics by P&T and GC/MS (Basic Target List)

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
EB1-12'	1311018-001A	Soil	11/01/2013 09:30	GC16	83543
<u>Analytes</u>	<u>Result</u>	<u>RL</u>	<u>DF</u>		<u>Date Analyzed</u>
Acetone	ND	0.10	1		11/01/2013 21:28
tert-Amyl methyl ether (TAME)	ND	0.0050	1		11/01/2013 21:28
Benzene	ND	0.0050	1		11/01/2013 21:28
Bromobenzene	ND	0.0050	1		11/01/2013 21:28
Bromoform	ND	0.0050	1		11/01/2013 21:28
Bromochloromethane	ND	0.0050	1		11/01/2013 21:28
Bromodichloromethane	ND	0.0050	1		11/01/2013 21:28
Bromomethane	ND	0.0050	1		11/01/2013 21:28
2-Butanone (MEK)	ND	0.020	1		11/01/2013 21:28
t-Butyl alcohol (TBA)	ND	0.050	1		11/01/2013 21:28
n-Butyl benzene	ND	0.0050	1		11/01/2013 21:28
sec-Butyl benzene	ND	0.0050	1		11/01/2013 21:28
tert-Butyl benzene	ND	0.0050	1		11/01/2013 21:28
Carbon Disulfide	ND	0.0050	1		11/01/2013 21:28
Carbon Tetrachloride	ND	0.0050	1		11/01/2013 21:28
Chlorobenzene	ND	0.0050	1		11/01/2013 21:28
Chloroethane	ND	0.0050	1		11/01/2013 21:28
Chloroform	ND	0.0050	1		11/01/2013 21:28
Chloromethane	ND	0.0050	1		11/01/2013 21:28
2-Chlorotoluene	ND	0.0050	1		11/01/2013 21:28
4-Chlorotoluene	ND	0.0050	1		11/01/2013 21:28
Dibromochloromethane	ND	0.0050	1		11/01/2013 21:28
1,2-Dibromo-3-chloropropane	ND	0.0040	1		11/01/2013 21:28
1,2-Dibromoethane (EDB)	ND	0.0040	1		11/01/2013 21:28
Dibromomethane	ND	0.0050	1		11/01/2013 21:28
1,2-Dichlorobenzene	ND	0.0050	1		11/01/2013 21:28
1,3-Dichlorobenzene	ND	0.0050	1		11/01/2013 21:28
1,4-Dichlorobenzene	ND	0.0050	1		11/01/2013 21:28
Dichlorodifluoromethane	ND	0.0050	1		11/01/2013 21:28
1,1-Dichloroethane	ND	0.0050	1		11/01/2013 21:28
1,2-Dichloroethane (1,2-DCA)	ND	0.0040	1		11/01/2013 21:28
1,1-Dichloroethene	ND	0.0050	1		11/01/2013 21:28
cis-1,2-Dichloroethene	ND	0.0050	1		11/01/2013 21:28
trans-1,2-Dichloroethene	ND	0.0050	1		11/01/2013 21:28
1,2-Dichloropropane	ND	0.0050	1		11/01/2013 21:28
1,3-Dichloropropane	ND	0.0050	1		11/01/2013 21:28
2,2-Dichloropropane	ND	0.0050	1		11/01/2013 21:28
1,1-Dichloropropene	ND	0.0050	1		11/01/2013 21:28

(Cont.)



## Analytical Report

**Client:** AEI Consultants  
**Project:** #324771; FSI  
**Date Received:** 11/1/13 16:01  
**Date Prepared:** 11/1/13

**WorkOrder:** 1311018  
**Extraction Method:** SW5030B  
**Analytical Method:** SW8260B  
**Unit:** mg/kg

### Volatile Organics by P&T and GC/MS (Basic Target List)

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
EB1-12'	1311018-001A	Soil	11/01/2013 09:30	GC16	83543
<u>Analytes</u>	<u>Result</u>		<u>RL</u>	<u>DF</u>	<u>Date Analyzed</u>
cis-1,3-Dichloropropene	ND		0.0050	1	11/01/2013 21:28
trans-1,3-Dichloropropene	ND		0.0050	1	11/01/2013 21:28
Diisopropyl ether (DIPE)	ND		0.0050	1	11/01/2013 21:28
Ethylbenzene	ND		0.0050	1	11/01/2013 21:28
Ethyl tert-butyl ether (ETBE)	ND		0.0050	1	11/01/2013 21:28
Freon 113	ND		0.10	1	11/01/2013 21:28
Hexachlorobutadiene	ND		0.0050	1	11/01/2013 21:28
Hexachloroethane	ND		0.0050	1	11/01/2013 21:28
2-Hexanone	ND		0.0050	1	11/01/2013 21:28
Isopropylbenzene	ND		0.0050	1	11/01/2013 21:28
4-Isopropyl toluene	ND		0.0050	1	11/01/2013 21:28
Methyl-t-butyl ether (MTBE)	ND		0.0050	1	11/01/2013 21:28
Methylene chloride	ND		0.0050	1	11/01/2013 21:28
4-Methyl-2-pentanone (MIBK)	ND		0.0050	1	11/01/2013 21:28
Naphthalene	ND		0.0050	1	11/01/2013 21:28
n-Propyl benzene	ND		0.0050	1	11/01/2013 21:28
Styrene	ND		0.0050	1	11/01/2013 21:28
1,1,1,2-Tetrachloroethane	ND		0.0050	1	11/01/2013 21:28
1,1,2,2-Tetrachloroethane	ND		0.0050	1	11/01/2013 21:28
Tetrachloroethene	ND		0.0050	1	11/01/2013 21:28
Toluene	ND		0.0050	1	11/01/2013 21:28
1,2,3-Trichlorobenzene	ND		0.0050	1	11/01/2013 21:28
1,2,4-Trichlorobenzene	ND		0.0050	1	11/01/2013 21:28
1,1,1-Trichloroethane	ND		0.0050	1	11/01/2013 21:28
1,1,2-Trichloroethane	ND		0.0050	1	11/01/2013 21:28
Trichloroethene	ND		0.0050	1	11/01/2013 21:28
Trichlorofluoromethane	ND		0.0050	1	11/01/2013 21:28
1,2,3-Trichloropropane	ND		0.0050	1	11/01/2013 21:28
1,2,4-Trimethylbenzene	ND		0.0050	1	11/01/2013 21:28
1,3,5-Trimethylbenzene	ND		0.0050	1	11/01/2013 21:28
Vinyl Chloride	ND		0.0050	1	11/01/2013 21:28
Xylenes, Total	ND		0.0050	1	11/01/2013 21:28
<u>Surrogates</u>	<u>REC (%)</u>		<u>Limits</u>		
Dibromofluoromethane	96		70-130		11/01/2013 21:28
Toluene-d8	99		70-130		11/01/2013 21:28
4-BFB	106		70-130		11/01/2013 21:28

(Cont.)



## Analytical Report

**Client:** AEI Consultants  
**Project:** #324771; FSI  
**Date Received:** 11/1/13 16:01  
**Date Prepared:** 11/1/13

**WorkOrder:** 1311018  
**Extraction Method:** SW5030B  
**Analytical Method:** SW8260B  
**Unit:** mg/kg

### Volatile Organics by P&T and GC/MS (Basic Target List)

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
<b>SWN-7'</b>	<b>1311018-002A</b>	<b>Soil</b>	<b>11/01/2013 09:05</b>	<b>GC16</b>	<b>83543</b>
<u>Analytes</u>	<u>Result</u>	<u>RL</u>	<u>DF</u>		<u>Date Analyzed</u>
Acetone	ND	0.10	1		11/01/2013 22:10
tert-Amyl methyl ether (TAME)	ND	0.0050	1		11/01/2013 22:10
Benzene	ND	0.0050	1		11/01/2013 22:10
Bromobenzene	ND	0.0050	1		11/01/2013 22:10
Bromoform	ND	0.0050	1		11/01/2013 22:10
Bromochloromethane	ND	0.0050	1		11/01/2013 22:10
Bromodichloromethane	ND	0.0050	1		11/01/2013 22:10
Bromoform	ND	0.0050	1		11/01/2013 22:10
Bromomethane	ND	0.0050	1		11/01/2013 22:10
2-Butanone (MEK)	ND	0.020	1		11/01/2013 22:10
t-Butyl alcohol (TBA)	ND	0.050	1		11/01/2013 22:10
n-Butyl benzene	ND	0.0050	1		11/01/2013 22:10
sec-Butyl benzene	ND	0.0050	1		11/01/2013 22:10
tert-Butyl benzene	ND	0.0050	1		11/01/2013 22:10
Carbon Disulfide	ND	0.0050	1		11/01/2013 22:10
Carbon Tetrachloride	ND	0.0050	1		11/01/2013 22:10
Chlorobenzene	ND	0.0050	1		11/01/2013 22:10
Chloroethane	ND	0.0050	1		11/01/2013 22:10
Chloroform	ND	0.0050	1		11/01/2013 22:10
Chloromethane	ND	0.0050	1		11/01/2013 22:10
2-Chlorotoluene	ND	0.0050	1		11/01/2013 22:10
4-Chlorotoluene	ND	0.0050	1		11/01/2013 22:10
Dibromochloromethane	ND	0.0050	1		11/01/2013 22:10
1,2-Dibromo-3-chloropropane	ND	0.0040	1		11/01/2013 22:10
1,2-Dibromoethane (EDB)	ND	0.0040	1		11/01/2013 22:10
Dibromomethane	ND	0.0050	1		11/01/2013 22:10
1,2-Dichlorobenzene	ND	0.0050	1		11/01/2013 22:10
1,3-Dichlorobenzene	ND	0.0050	1		11/01/2013 22:10
1,4-Dichlorobenzene	ND	0.0050	1		11/01/2013 22:10
Dichlorodifluoromethane	ND	0.0050	1		11/01/2013 22:10
1,1-Dichloroethane	ND	0.0050	1		11/01/2013 22:10
1,2-Dichloroethane (1,2-DCA)	ND	0.0040	1		11/01/2013 22:10
1,1-Dichloroethene	ND	0.0050	1		11/01/2013 22:10
cis-1,2-Dichloroethene	ND	0.0050	1		11/01/2013 22:10
trans-1,2-Dichloroethene	ND	0.0050	1		11/01/2013 22:10
1,2-Dichloropropane	ND	0.0050	1		11/01/2013 22:10
1,3-Dichloropropane	ND	0.0050	1		11/01/2013 22:10
2,2-Dichloropropane	ND	0.0050	1		11/01/2013 22:10
1,1-Dichloropropene	ND	0.0050	1		11/01/2013 22:10

(Cont.)



## Analytical Report

**Client:** AEI Consultants  
**Project:** #324771; FSI  
**Date Received:** 11/1/13 16:01  
**Date Prepared:** 11/1/13

**WorkOrder:** 1311018  
**Extraction Method:** SW5030B  
**Analytical Method:** SW8260B  
**Unit:** mg/kg

### Volatile Organics by P&T and GC/MS (Basic Target List)

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
<b>SWN-7'</b>	<b>1311018-002A</b>	<b>Soil</b>	<b>11/01/2013 09:05</b>	<b>GC16</b>	<b>83543</b>
<u>Analytes</u>	<u>Result</u>		<u>RL</u>	<u>DF</u>	<u>Date Analyzed</u>
cis-1,3-Dichloropropene	ND		0.0050	1	11/01/2013 22:10
trans-1,3-Dichloropropene	ND		0.0050	1	11/01/2013 22:10
Diisopropyl ether (DIPE)	ND		0.0050	1	11/01/2013 22:10
Ethylbenzene	ND		0.0050	1	11/01/2013 22:10
Ethyl tert-butyl ether (ETBE)	ND		0.0050	1	11/01/2013 22:10
Freon 113	ND		0.10	1	11/01/2013 22:10
Hexachlorobutadiene	ND		0.0050	1	11/01/2013 22:10
Hexachloroethane	ND		0.0050	1	11/01/2013 22:10
2-Hexanone	ND		0.0050	1	11/01/2013 22:10
Isopropylbenzene	ND		0.0050	1	11/01/2013 22:10
4-Isopropyl toluene	ND		0.0050	1	11/01/2013 22:10
Methyl-t-butyl ether (MTBE)	ND		0.0050	1	11/01/2013 22:10
Methylene chloride	ND		0.0050	1	11/01/2013 22:10
4-Methyl-2-pentanone (MIBK)	ND		0.0050	1	11/01/2013 22:10
Naphthalene	ND		0.0050	1	11/01/2013 22:10
n-Propyl benzene	ND		0.0050	1	11/01/2013 22:10
Styrene	ND		0.0050	1	11/01/2013 22:10
1,1,1,2-Tetrachloroethane	ND		0.0050	1	11/01/2013 22:10
1,1,2,2-Tetrachloroethane	ND		0.0050	1	11/01/2013 22:10
Tetrachloroethene	ND		0.0050	1	11/01/2013 22:10
Toluene	ND		0.0050	1	11/01/2013 22:10
1,2,3-Trichlorobenzene	ND		0.0050	1	11/01/2013 22:10
1,2,4-Trichlorobenzene	ND		0.0050	1	11/01/2013 22:10
1,1,1-Trichloroethane	ND		0.0050	1	11/01/2013 22:10
1,1,2-Trichloroethane	ND		0.0050	1	11/01/2013 22:10
Trichloroethene	ND		0.0050	1	11/01/2013 22:10
Trichlorofluoromethane	ND		0.0050	1	11/01/2013 22:10
1,2,3-Trichloropropane	ND		0.0050	1	11/01/2013 22:10
1,2,4-Trimethylbenzene	ND		0.0050	1	11/01/2013 22:10
1,3,5-Trimethylbenzene	ND		0.0050	1	11/01/2013 22:10
Vinyl Chloride	ND		0.0050	1	11/01/2013 22:10
Xylenes, Total	ND		0.0050	1	11/01/2013 22:10
<u>Surrogates</u>	<u>REC (%)</u>		<u>Limits</u>		
Dibromofluoromethane	97		70-130		11/01/2013 22:10
Toluene-d8	98		70-130		11/01/2013 22:10
4-BFB	105		70-130		11/01/2013 22:10

(Cont.)



## Analytical Report

**Client:** AEI Consultants  
**Project:** #324771; FSI  
**Date Received:** 11/1/13 16:01  
**Date Prepared:** 11/1/13

**WorkOrder:** 1311018  
**Extraction Method:** SW5030B  
**Analytical Method:** SW8260B  
**Unit:** mg/kg

### Volatile Organics by P&T and GC/MS (Basic Target List)

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
<b>SWW-9'</b>	<b>1311018-003A</b>	<b>Soil</b>	<b>11/01/2013 09:30</b>	<b>GC28</b>	<b>83543</b>
<u>Analytes</u>	<u>Result</u>	<u>RL</u>	<u>DF</u>		<u>Date Analyzed</u>
Acetone	ND	40	400		11/02/2013 03:20
tert-Amyl methyl ether (TAME)	ND	2.0	400		11/02/2013 03:20
Benzene	ND	2.0	400		11/02/2013 03:20
Bromobenzene	ND	2.0	400		11/02/2013 03:20
Bromoform	ND	2.0	400		11/02/2013 03:20
Bromochloromethane	ND	2.0	400		11/02/2013 03:20
Bromodichloromethane	ND	2.0	400		11/02/2013 03:20
Bromoform	ND	2.0	400		11/02/2013 03:20
Bromomethane	ND	2.0	400		11/02/2013 03:20
2-Butanone (MEK)	ND	8.0	400		11/02/2013 03:20
t-Butyl alcohol (TBA)	ND	20	400		11/02/2013 03:20
n-Butyl benzene	<b>3.6</b>	2.0	400		11/02/2013 03:20
sec-Butyl benzene	ND	2.0	400		11/02/2013 03:20
tert-Butyl benzene	ND	2.0	400		11/02/2013 03:20
Carbon Disulfide	ND	2.0	400		11/02/2013 03:20
Carbon Tetrachloride	ND	2.0	400		11/02/2013 03:20
Chlorobenzene	ND	2.0	400		11/02/2013 03:20
Chloroethane	ND	2.0	400		11/02/2013 03:20
Chloroform	ND	2.0	400		11/02/2013 03:20
Chloromethane	ND	2.0	400		11/02/2013 03:20
2-Chlorotoluene	ND	2.0	400		11/02/2013 03:20
4-Chlorotoluene	ND	2.0	400		11/02/2013 03:20
Dibromochloromethane	ND	2.0	400		11/02/2013 03:20
1,2-Dibromo-3-chloropropane	ND	1.6	400		11/02/2013 03:20
1,2-Dibromoethane (EDB)	ND	1.6	400		11/02/2013 03:20
Dibromomethane	ND	2.0	400		11/02/2013 03:20
1,2-Dichlorobenzene	ND	2.0	400		11/02/2013 03:20
1,3-Dichlorobenzene	ND	2.0	400		11/02/2013 03:20
1,4-Dichlorobenzene	ND	2.0	400		11/02/2013 03:20
Dichlorodifluoromethane	ND	2.0	400		11/02/2013 03:20
1,1-Dichloroethane	ND	2.0	400		11/02/2013 03:20
1,2-Dichloroethane (1,2-DCA)	ND	1.6	400		11/02/2013 03:20
1,1-Dichloroethene	ND	2.0	400		11/02/2013 03:20
cis-1,2-Dichloroethene	ND	2.0	400		11/02/2013 03:20
trans-1,2-Dichloroethene	ND	2.0	400		11/02/2013 03:20
1,2-Dichloropropane	ND	2.0	400		11/02/2013 03:20
1,3-Dichloropropane	ND	2.0	400		11/02/2013 03:20
2,2-Dichloropropane	ND	2.0	400		11/02/2013 03:20
1,1-Dichloropropene	ND	2.0	400		11/02/2013 03:20

(Cont.)



## Analytical Report

**Client:** AEI Consultants  
**Project:** #324771; FSI  
**Date Received:** 11/1/13 16:01  
**Date Prepared:** 11/1/13

**WorkOrder:** 1311018  
**Extraction Method:** SW5030B  
**Analytical Method:** SW8260B  
**Unit:** mg/kg

### Volatile Organics by P&T and GC/MS (Basic Target List)

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
<b>SWW-9'</b>	<b>1311018-003A</b>	<b>Soil</b>	<b>11/01/2013 09:30</b>	<b>GC28</b>	<b>83543</b>
<u>Analytes</u>	<u>Result</u>		<u>RL</u>	<u>DF</u>	<u>Date Analyzed</u>
cis-1,3-Dichloropropene	ND		2.0	400	11/02/2013 03:20
trans-1,3-Dichloropropene	ND		2.0	400	11/02/2013 03:20
Diisopropyl ether (DIPE)	ND		2.0	400	11/02/2013 03:20
Ethylbenzene	<b>4.6</b>		2.0	400	11/02/2013 03:20
Ethyl tert-butyl ether (ETBE)	ND		2.0	400	11/02/2013 03:20
Freon 113	ND		40	400	11/02/2013 03:20
Hexachlorobutadiene	ND		2.0	400	11/02/2013 03:20
Hexachloroethane	ND		2.0	400	11/02/2013 03:20
2-Hexanone	ND		2.0	400	11/02/2013 03:20
Isopropylbenzene	ND		2.0	400	11/02/2013 03:20
4-Isopropyl toluene	ND		2.0	400	11/02/2013 03:20
Methyl-t-butyl ether (MTBE)	ND		2.0	400	11/02/2013 03:20
Methylene chloride	ND		2.0	400	11/02/2013 03:20
4-Methyl-2-pentanone (MIBK)	ND		2.0	400	11/02/2013 03:20
Naphthalene	<b>5.8</b>		2.0	400	11/02/2013 03:20
n-Propyl benzene	<b>4.0</b>		2.0	400	11/02/2013 03:20
Styrene	ND		2.0	400	11/02/2013 03:20
1,1,1,2-Tetrachloroethane	ND		2.0	400	11/02/2013 03:20
1,1,2,2-Tetrachloroethane	ND		2.0	400	11/02/2013 03:20
Tetrachloroethene	ND		2.0	400	11/02/2013 03:20
Toluene	ND		2.0	400	11/02/2013 03:20
1,2,3-Trichlorobenzene	ND		2.0	400	11/02/2013 03:20
1,2,4-Trichlorobenzene	ND		2.0	400	11/02/2013 03:20
1,1,1-Trichloroethane	ND		2.0	400	11/02/2013 03:20
1,1,2-Trichloroethane	ND		2.0	400	11/02/2013 03:20
Trichloroethene	ND		2.0	400	11/02/2013 03:20
Trichlorofluoromethane	ND		2.0	400	11/02/2013 03:20
1,2,3-Trichloropropane	ND		2.0	400	11/02/2013 03:20
1,2,4-Trimethylbenzene	<b>36</b>		2.0	400	11/02/2013 03:20
1,3,5-Trimethylbenzene	<b>6.8</b>		2.0	400	11/02/2013 03:20
Vinyl Chloride	ND		2.0	400	11/02/2013 03:20
Xylenes, Total	<b>9.2</b>		2.0	400	11/02/2013 03:20
<u>Surrogates</u>	<u>REC (%)</u>		<u>Limits</u>		
Dibromofluoromethane	107		70-130		11/02/2013 03:20
Toluene-d8	91		70-130		11/02/2013 03:20
4-BFB	97		70-130		11/02/2013 03:20

(Cont.)



## Analytical Report

**Client:** AEI Consultants  
**Project:** #324771; FSI  
**Date Received:** 11/1/13 16:01  
**Date Prepared:** 11/1/13

**WorkOrder:** 1311018  
**Extraction Method:** SW5030B  
**Analytical Method:** SW8260B  
**Unit:** mg/kg

### Volatile Organics by P&T and GC/MS (Basic Target List)

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
<b>SWW-6</b>	<b>1311018-004A</b>	<b>Soil</b>	<b>11/01/2013 09:45</b>	<b>GC16</b>	<b>83543</b>
<u>Analytes</u>	<u>Result</u>		<u>RL</u>	<u>DF</u>	<u>Date Analyzed</u>
Acetone	ND		0.10	1	11/01/2013 22:53
tert-Amyl methyl ether (TAME)	ND		0.0050	1	11/01/2013 22:53
Benzene	ND		0.0050	1	11/01/2013 22:53
Bromobenzene	ND		0.0050	1	11/01/2013 22:53
Bromoform	ND		0.0050	1	11/01/2013 22:53
Bromochloromethane	ND		0.0050	1	11/01/2013 22:53
Bromodichloromethane	ND		0.0050	1	11/01/2013 22:53
Bromoform	ND		0.0050	1	11/01/2013 22:53
Bromomethane	ND		0.0050	1	11/01/2013 22:53
2-Butanone (MEK)	ND		0.020	1	11/01/2013 22:53
t-Butyl alcohol (TBA)	ND		0.050	1	11/01/2013 22:53
n-Butyl benzene	ND		0.0050	1	11/01/2013 22:53
sec-Butyl benzene	ND		0.0050	1	11/01/2013 22:53
tert-Butyl benzene	ND		0.0050	1	11/01/2013 22:53
Carbon Disulfide	ND		0.0050	1	11/01/2013 22:53
Carbon Tetrachloride	ND		0.0050	1	11/01/2013 22:53
Chlorobenzene	ND		0.0050	1	11/01/2013 22:53
Chloroethane	ND		0.0050	1	11/01/2013 22:53
Chloroform	ND		0.0050	1	11/01/2013 22:53
Chloromethane	ND		0.0050	1	11/01/2013 22:53
2-Chlorotoluene	ND		0.0050	1	11/01/2013 22:53
4-Chlorotoluene	ND		0.0050	1	11/01/2013 22:53
Dibromochloromethane	ND		0.0050	1	11/01/2013 22:53
1,2-Dibromo-3-chloropropane	ND		0.0040	1	11/01/2013 22:53
1,2-Dibromoethane (EDB)	ND		0.0040	1	11/01/2013 22:53
Dibromomethane	ND		0.0050	1	11/01/2013 22:53
1,2-Dichlorobenzene	ND		0.0050	1	11/01/2013 22:53
1,3-Dichlorobenzene	ND		0.0050	1	11/01/2013 22:53
1,4-Dichlorobenzene	ND		0.0050	1	11/01/2013 22:53
Dichlorodifluoromethane	ND		0.0050	1	11/01/2013 22:53
1,1-Dichloroethane	ND		0.0050	1	11/01/2013 22:53
1,2-Dichloroethane (1,2-DCA)	ND		0.0040	1	11/01/2013 22:53
1,1-Dichloroethene	ND		0.0050	1	11/01/2013 22:53
cis-1,2-Dichloroethene	ND		0.0050	1	11/01/2013 22:53
trans-1,2-Dichloroethene	ND		0.0050	1	11/01/2013 22:53
1,2-Dichloropropane	ND		0.0050	1	11/01/2013 22:53
1,3-Dichloropropane	ND		0.0050	1	11/01/2013 22:53
2,2-Dichloropropane	ND		0.0050	1	11/01/2013 22:53
1,1-Dichloropropene	ND		0.0050	1	11/01/2013 22:53

(Cont.)



## Analytical Report

**Client:** AEI Consultants  
**Project:** #324771; FSI  
**Date Received:** 11/1/13 16:01  
**Date Prepared:** 11/1/13

**WorkOrder:** 1311018  
**Extraction Method:** SW5030B  
**Analytical Method:** SW8260B  
**Unit:** mg/kg

### Volatile Organics by P&T and GC/MS (Basic Target List)

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
<b>SWW-6</b>	<b>1311018-004A</b>	<b>Soil</b>	<b>11/01/2013 09:45</b>	<b>GC16</b>	<b>83543</b>
<u>Analytes</u>	<u>Result</u>		<u>RL</u>	<u>DF</u>	<u>Date Analyzed</u>
cis-1,3-Dichloropropene	ND		0.0050	1	11/01/2013 22:53
trans-1,3-Dichloropropene	ND		0.0050	1	11/01/2013 22:53
Diisopropyl ether (DIPE)	ND		0.0050	1	11/01/2013 22:53
Ethylbenzene	ND		0.0050	1	11/01/2013 22:53
Ethyl tert-butyl ether (ETBE)	ND		0.0050	1	11/01/2013 22:53
Freon 113	ND		0.10	1	11/01/2013 22:53
Hexachlorobutadiene	ND		0.0050	1	11/01/2013 22:53
Hexachloroethane	ND		0.0050	1	11/01/2013 22:53
2-Hexanone	ND		0.0050	1	11/01/2013 22:53
Isopropylbenzene	ND		0.0050	1	11/01/2013 22:53
4-Isopropyl toluene	ND		0.0050	1	11/01/2013 22:53
Methyl-t-butyl ether (MTBE)	ND		0.0050	1	11/01/2013 22:53
Methylene chloride	ND		0.0050	1	11/01/2013 22:53
4-Methyl-2-pentanone (MIBK)	ND		0.0050	1	11/01/2013 22:53
Naphthalene	ND		0.0050	1	11/01/2013 22:53
n-Propyl benzene	ND		0.0050	1	11/01/2013 22:53
Styrene	ND		0.0050	1	11/01/2013 22:53
1,1,1,2-Tetrachloroethane	ND		0.0050	1	11/01/2013 22:53
1,1,2,2-Tetrachloroethane	ND		0.0050	1	11/01/2013 22:53
Tetrachloroethene	ND		0.0050	1	11/01/2013 22:53
Toluene	ND		0.0050	1	11/01/2013 22:53
1,2,3-Trichlorobenzene	ND		0.0050	1	11/01/2013 22:53
1,2,4-Trichlorobenzene	ND		0.0050	1	11/01/2013 22:53
1,1,1-Trichloroethane	ND		0.0050	1	11/01/2013 22:53
1,1,2-Trichloroethane	ND		0.0050	1	11/01/2013 22:53
Trichloroethene	ND		0.0050	1	11/01/2013 22:53
Trichlorofluoromethane	ND		0.0050	1	11/01/2013 22:53
1,2,3-Trichloropropane	ND		0.0050	1	11/01/2013 22:53
1,2,4-Trimethylbenzene	ND		0.0050	1	11/01/2013 22:53
1,3,5-Trimethylbenzene	ND		0.0050	1	11/01/2013 22:53
Vinyl Chloride	ND		0.0050	1	11/01/2013 22:53
Xylenes, Total	ND		0.0050	1	11/01/2013 22:53
<u>Surrogates</u>	<u>REC (%)</u>		<u>Limits</u>		
Dibromofluoromethane	96		70-130		11/01/2013 22:53
Toluene-d8	99		70-130		11/01/2013 22:53
4-BFB	106		70-130		11/01/2013 22:53

(Cont.)



## Analytical Report

**Client:** AEI Consultants  
**Project:** #324771; FSI  
**Date Received:** 11/1/13 16:01  
**Date Prepared:** 11/1/13

**WorkOrder:** 1311018  
**Extraction Method:** SW5030B  
**Analytical Method:** SW8260B  
**Unit:** mg/kg

### Volatile Organics by P&T and GC/MS (Basic Target List)

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
SWE-9'	1311018-006A	Soil	11/01/2013 10:00	GC16	83543
<u>Analytes</u>	<u>Result</u>		<u>RL</u>	<u>DF</u>	<u>Date Analyzed</u>
Acetone	ND		0.10	1	11/01/2013 23:36
tert-Amyl methyl ether (TAME)	ND		0.0050	1	11/01/2013 23:36
Benzene	ND		0.0050	1	11/01/2013 23:36
Bromobenzene	ND		0.0050	1	11/01/2013 23:36
Bromoform	ND		0.0050	1	11/01/2013 23:36
Bromochloromethane	ND		0.0050	1	11/01/2013 23:36
Bromodichloromethane	ND		0.0050	1	11/01/2013 23:36
Bromoform	ND		0.0050	1	11/01/2013 23:36
Bromomethane	ND		0.0050	1	11/01/2013 23:36
2-Butanone (MEK)	ND		0.020	1	11/01/2013 23:36
t-Butyl alcohol (TBA)	ND		0.050	1	11/01/2013 23:36
n-Butyl benzene	ND		0.0050	1	11/01/2013 23:36
sec-Butyl benzene	ND		0.0050	1	11/01/2013 23:36
tert-Butyl benzene	ND		0.0050	1	11/01/2013 23:36
Carbon Disulfide	ND		0.0050	1	11/01/2013 23:36
Carbon Tetrachloride	ND		0.0050	1	11/01/2013 23:36
Chlorobenzene	ND		0.0050	1	11/01/2013 23:36
Chloroethane	ND		0.0050	1	11/01/2013 23:36
Chloroform	ND		0.0050	1	11/01/2013 23:36
Chloromethane	ND		0.0050	1	11/01/2013 23:36
2-Chlorotoluene	ND		0.0050	1	11/01/2013 23:36
4-Chlorotoluene	ND		0.0050	1	11/01/2013 23:36
Dibromochloromethane	ND		0.0050	1	11/01/2013 23:36
1,2-Dibromo-3-chloropropane	ND		0.0040	1	11/01/2013 23:36
1,2-Dibromoethane (EDB)	ND		0.0040	1	11/01/2013 23:36
Dibromomethane	ND		0.0050	1	11/01/2013 23:36
1,2-Dichlorobenzene	ND		0.0050	1	11/01/2013 23:36
1,3-Dichlorobenzene	ND		0.0050	1	11/01/2013 23:36
1,4-Dichlorobenzene	ND		0.0050	1	11/01/2013 23:36
Dichlorodifluoromethane	ND		0.0050	1	11/01/2013 23:36
1,1-Dichloroethane	ND		0.0050	1	11/01/2013 23:36
1,2-Dichloroethane (1,2-DCA)	ND		0.0040	1	11/01/2013 23:36
1,1-Dichloroethene	ND		0.0050	1	11/01/2013 23:36
cis-1,2-Dichloroethene	ND		0.0050	1	11/01/2013 23:36
trans-1,2-Dichloroethene	ND		0.0050	1	11/01/2013 23:36
1,2-Dichloropropane	ND		0.0050	1	11/01/2013 23:36
1,3-Dichloropropane	ND		0.0050	1	11/01/2013 23:36
2,2-Dichloropropane	ND		0.0050	1	11/01/2013 23:36
1,1-Dichloropropene	ND		0.0050	1	11/01/2013 23:36

(Cont.)



## Analytical Report

**Client:** AEI Consultants  
**Project:** #324771; FSI  
**Date Received:** 11/1/13 16:01  
**Date Prepared:** 11/1/13

**WorkOrder:** 1311018  
**Extraction Method:** SW5030B  
**Analytical Method:** SW8260B  
**Unit:** mg/kg

### Volatile Organics by P&T and GC/MS (Basic Target List)

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
SWE-9'	1311018-006A	Soil	11/01/2013 10:00	GC16	83543
<u>Analytes</u>	<u>Result</u>		<u>RL</u>	<u>DF</u>	<u>Date Analyzed</u>
cis-1,3-Dichloropropene	ND		0.0050	1	11/01/2013 23:36
trans-1,3-Dichloropropene	ND		0.0050	1	11/01/2013 23:36
Diisopropyl ether (DIPE)	ND		0.0050	1	11/01/2013 23:36
Ethylbenzene	ND		0.0050	1	11/01/2013 23:36
Ethyl tert-butyl ether (ETBE)	ND		0.0050	1	11/01/2013 23:36
Freon 113	ND		0.10	1	11/01/2013 23:36
Hexachlorobutadiene	ND		0.0050	1	11/01/2013 23:36
Hexachloroethane	ND		0.0050	1	11/01/2013 23:36
2-Hexanone	ND		0.0050	1	11/01/2013 23:36
Isopropylbenzene	ND		0.0050	1	11/01/2013 23:36
4-Isopropyl toluene	ND		0.0050	1	11/01/2013 23:36
Methyl-t-butyl ether (MTBE)	ND		0.0050	1	11/01/2013 23:36
Methylene chloride	ND		0.0050	1	11/01/2013 23:36
4-Methyl-2-pentanone (MIBK)	ND		0.0050	1	11/01/2013 23:36
Naphthalene	ND		0.0050	1	11/01/2013 23:36
n-Propyl benzene	ND		0.0050	1	11/01/2013 23:36
Styrene	ND		0.0050	1	11/01/2013 23:36
1,1,1,2-Tetrachloroethane	ND		0.0050	1	11/01/2013 23:36
1,1,2,2-Tetrachloroethane	ND		0.0050	1	11/01/2013 23:36
Tetrachloroethene	ND		0.0050	1	11/01/2013 23:36
Toluene	ND		0.0050	1	11/01/2013 23:36
1,2,3-Trichlorobenzene	ND		0.0050	1	11/01/2013 23:36
1,2,4-Trichlorobenzene	ND		0.0050	1	11/01/2013 23:36
1,1,1-Trichloroethane	ND		0.0050	1	11/01/2013 23:36
1,1,2-Trichloroethane	ND		0.0050	1	11/01/2013 23:36
Trichloroethene	ND		0.0050	1	11/01/2013 23:36
Trichlorofluoromethane	ND		0.0050	1	11/01/2013 23:36
1,2,3-Trichloropropane	ND		0.0050	1	11/01/2013 23:36
1,2,4-Trimethylbenzene	ND		0.0050	1	11/01/2013 23:36
1,3,5-Trimethylbenzene	ND		0.0050	1	11/01/2013 23:36
Vinyl Chloride	ND		0.0050	1	11/01/2013 23:36
Xylenes, Total	ND		0.0050	1	11/01/2013 23:36
<u>Surrogates</u>	<u>REC (%)</u>		<u>Limits</u>		
Dibromofluoromethane	97		70-130		11/01/2013 23:36
Toluene-d8	100		70-130		11/01/2013 23:36
4-BFB	105		70-130		11/01/2013 23:36

(Cont.)



## Analytical Report

**Client:** AEI Consultants  
**Project:** #324771; FSI  
**Date Received:** 11/1/13 16:01  
**Date Prepared:** 11/1/13

**WorkOrder:** 1311018  
**Extraction Method:** SW5030B  
**Analytical Method:** SW8260B  
**Unit:** mg/kg

### Volatile Organics by P&T and GC/MS (Basic Target List)

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
SWE-6'	1311018-007A	Soil	11/01/2013 10:05	GC16	83543
<u>Analytes</u>	<u>Result</u>		<u>RL</u>	<u>DF</u>	<u>Date Analyzed</u>
Acetone	ND		0.10	1	11/02/2013 00:18
tert-Amyl methyl ether (TAME)	ND		0.0050	1	11/02/2013 00:18
Benzene	ND		0.0050	1	11/02/2013 00:18
Bromobenzene	ND		0.0050	1	11/02/2013 00:18
Bromoform	ND		0.0050	1	11/02/2013 00:18
Bromochloromethane	ND		0.0050	1	11/02/2013 00:18
Bromodichloromethane	ND		0.0050	1	11/02/2013 00:18
Bromoform	ND		0.0050	1	11/02/2013 00:18
Bromomethane	ND		0.0050	1	11/02/2013 00:18
2-Butanone (MEK)	ND		0.020	1	11/02/2013 00:18
t-Butyl alcohol (TBA)	ND		0.050	1	11/02/2013 00:18
n-Butyl benzene	ND		0.0050	1	11/02/2013 00:18
sec-Butyl benzene	ND		0.0050	1	11/02/2013 00:18
tert-Butyl benzene	ND		0.0050	1	11/02/2013 00:18
Carbon Disulfide	ND		0.0050	1	11/02/2013 00:18
Carbon Tetrachloride	ND		0.0050	1	11/02/2013 00:18
Chlorobenzene	ND		0.0050	1	11/02/2013 00:18
Chloroethane	ND		0.0050	1	11/02/2013 00:18
Chloroform	ND		0.0050	1	11/02/2013 00:18
Chloromethane	ND		0.0050	1	11/02/2013 00:18
2-Chlorotoluene	ND		0.0050	1	11/02/2013 00:18
4-Chlorotoluene	ND		0.0050	1	11/02/2013 00:18
Dibromochloromethane	ND		0.0050	1	11/02/2013 00:18
1,2-Dibromo-3-chloropropane	ND		0.0040	1	11/02/2013 00:18
1,2-Dibromoethane (EDB)	ND		0.0040	1	11/02/2013 00:18
Dibromomethane	ND		0.0050	1	11/02/2013 00:18
1,2-Dichlorobenzene	ND		0.0050	1	11/02/2013 00:18
1,3-Dichlorobenzene	ND		0.0050	1	11/02/2013 00:18
1,4-Dichlorobenzene	ND		0.0050	1	11/02/2013 00:18
Dichlorodifluoromethane	ND		0.0050	1	11/02/2013 00:18
1,1-Dichloroethane	ND		0.0050	1	11/02/2013 00:18
1,2-Dichloroethane (1,2-DCA)	ND		0.0040	1	11/02/2013 00:18
1,1-Dichloroethene	ND		0.0050	1	11/02/2013 00:18
cis-1,2-Dichloroethene	ND		0.0050	1	11/02/2013 00:18
trans-1,2-Dichloroethene	ND		0.0050	1	11/02/2013 00:18
1,2-Dichloropropane	ND		0.0050	1	11/02/2013 00:18
1,3-Dichloropropane	ND		0.0050	1	11/02/2013 00:18
2,2-Dichloropropane	ND		0.0050	1	11/02/2013 00:18
1,1-Dichloropropene	ND		0.0050	1	11/02/2013 00:18

(Cont.)



## Analytical Report

**Client:** AEI Consultants  
**Project:** #324771; FSI  
**Date Received:** 11/1/13 16:01  
**Date Prepared:** 11/1/13

**WorkOrder:** 1311018  
**Extraction Method:** SW5030B  
**Analytical Method:** SW8260B  
**Unit:** mg/kg

### Volatile Organics by P&T and GC/MS (Basic Target List)

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
SWE-6'	1311018-007A	Soil	11/01/2013 10:05	GC16	83543
<u>Analytes</u>	<u>Result</u>		<u>RL</u>	<u>DF</u>	<u>Date Analyzed</u>
cis-1,3-Dichloropropene	ND		0.0050	1	11/02/2013 00:18
trans-1,3-Dichloropropene	ND		0.0050	1	11/02/2013 00:18
Diisopropyl ether (DIPE)	ND		0.0050	1	11/02/2013 00:18
Ethylbenzene	ND		0.0050	1	11/02/2013 00:18
Ethyl tert-butyl ether (ETBE)	ND		0.0050	1	11/02/2013 00:18
Freon 113	ND		0.10	1	11/02/2013 00:18
Hexachlorobutadiene	ND		0.0050	1	11/02/2013 00:18
Hexachloroethane	ND		0.0050	1	11/02/2013 00:18
2-Hexanone	ND		0.0050	1	11/02/2013 00:18
Isopropylbenzene	ND		0.0050	1	11/02/2013 00:18
4-Isopropyl toluene	ND		0.0050	1	11/02/2013 00:18
Methyl-t-butyl ether (MTBE)	ND		0.0050	1	11/02/2013 00:18
Methylene chloride	ND		0.0050	1	11/02/2013 00:18
4-Methyl-2-pentanone (MIBK)	ND		0.0050	1	11/02/2013 00:18
Naphthalene	ND		0.0050	1	11/02/2013 00:18
n-Propyl benzene	ND		0.0050	1	11/02/2013 00:18
Styrene	ND		0.0050	1	11/02/2013 00:18
1,1,1,2-Tetrachloroethane	ND		0.0050	1	11/02/2013 00:18
1,1,2,2-Tetrachloroethane	ND		0.0050	1	11/02/2013 00:18
Tetrachloroethene	ND		0.0050	1	11/02/2013 00:18
Toluene	ND		0.0050	1	11/02/2013 00:18
1,2,3-Trichlorobenzene	ND		0.0050	1	11/02/2013 00:18
1,2,4-Trichlorobenzene	ND		0.0050	1	11/02/2013 00:18
1,1,1-Trichloroethane	ND		0.0050	1	11/02/2013 00:18
1,1,2-Trichloroethane	ND		0.0050	1	11/02/2013 00:18
Trichloroethene	ND		0.0050	1	11/02/2013 00:18
Trichlorofluoromethane	ND		0.0050	1	11/02/2013 00:18
1,2,3-Trichloropropane	ND		0.0050	1	11/02/2013 00:18
1,2,4-Trimethylbenzene	ND		0.0050	1	11/02/2013 00:18
1,3,5-Trimethylbenzene	ND		0.0050	1	11/02/2013 00:18
Vinyl Chloride	ND		0.0050	1	11/02/2013 00:18
Xylenes, Total	ND		0.0050	1	11/02/2013 00:18
<u>Surrogates</u>	<u>REC (%)</u>		<u>Limits</u>		
Dibromofluoromethane	96		70-130		11/02/2013 00:18
Toluene-d8	99		70-130		11/02/2013 00:18
4-BFB	104		70-130		11/02/2013 00:18

(Cont.)



## Analytical Report

**Client:** AEI Consultants  
**Project:** #324771; FSI  
**Date Received:** 11/1/13 16:01  
**Date Prepared:** 11/1/13

**WorkOrder:** 1311018  
**Extraction Method:** SW5030B  
**Analytical Method:** SW8260B  
**Unit:** mg/kg

### Volatile Organics by P&T and GC/MS (Basic Target List)

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
<b>SWW2-9'</b>	<b>1311018-009A</b>	<b>Soil</b>	<b>11/01/2013 14:45</b>	<b>GC28</b>	<b>83543</b>
<u>Analytes</u>	<u>Result</u>	<u>RL</u>	<u>DF</u>		<u>Date Analyzed</u>
Acetone	ND	100	1000		11/01/2013 21:36
tert-Amyl methyl ether (TAME)	ND	5.0	1000		11/01/2013 21:36
Benzene	ND	5.0	1000		11/01/2013 21:36
Bromobenzene	ND	5.0	1000		11/01/2013 21:36
Bromoform	ND	5.0	1000		11/01/2013 21:36
Bromochloromethane	ND	5.0	1000		11/01/2013 21:36
Bromodichloromethane	ND	5.0	1000		11/01/2013 21:36
Bromomethane	ND	5.0	1000		11/01/2013 21:36
2-Butanone (MEK)	ND	20	1000		11/01/2013 21:36
t-Butyl alcohol (TBA)	ND	50	1000		11/01/2013 21:36
n-Butyl benzene	ND	5.0	1000		11/01/2013 21:36
sec-Butyl benzene	ND	5.0	1000		11/01/2013 21:36
tert-Butyl benzene	ND	5.0	1000		11/01/2013 21:36
Carbon Disulfide	ND	5.0	1000		11/01/2013 21:36
Carbon Tetrachloride	ND	5.0	1000		11/01/2013 21:36
Chlorobenzene	ND	5.0	1000		11/01/2013 21:36
Chloroethane	ND	5.0	1000		11/01/2013 21:36
Chloroform	ND	5.0	1000		11/01/2013 21:36
Chloromethane	ND	5.0	1000		11/01/2013 21:36
2-Chlorotoluene	ND	5.0	1000		11/01/2013 21:36
4-Chlorotoluene	ND	5.0	1000		11/01/2013 21:36
Dibromochloromethane	ND	5.0	1000		11/01/2013 21:36
1,2-Dibromo-3-chloropropane	ND	4.0	1000		11/01/2013 21:36
1,2-Dibromoethane (EDB)	ND	4.0	1000		11/01/2013 21:36
Dibromomethane	ND	5.0	1000		11/01/2013 21:36
1,2-Dichlorobenzene	ND	5.0	1000		11/01/2013 21:36
1,3-Dichlorobenzene	ND	5.0	1000		11/01/2013 21:36
1,4-Dichlorobenzene	ND	5.0	1000		11/01/2013 21:36
Dichlorodifluoromethane	ND	5.0	1000		11/01/2013 21:36
1,1-Dichloroethane	ND	5.0	1000		11/01/2013 21:36
1,2-Dichloroethane (1,2-DCA)	ND	4.0	1000		11/01/2013 21:36
1,1-Dichloroethene	ND	5.0	1000		11/01/2013 21:36
cis-1,2-Dichloroethene	ND	5.0	1000		11/01/2013 21:36
trans-1,2-Dichloroethene	ND	5.0	1000		11/01/2013 21:36
1,2-Dichloropropane	ND	5.0	1000		11/01/2013 21:36
1,3-Dichloropropane	ND	5.0	1000		11/01/2013 21:36
2,2-Dichloropropane	ND	5.0	1000		11/01/2013 21:36
1,1-Dichloropropene	ND	5.0	1000		11/01/2013 21:36

(Cont.)



## Analytical Report

**Client:** AEI Consultants  
**Project:** #324771; FSI  
**Date Received:** 11/1/13 16:01  
**Date Prepared:** 11/1/13

**WorkOrder:** 1311018  
**Extraction Method:** SW5030B  
**Analytical Method:** SW8260B  
**Unit:** mg/kg

### Volatile Organics by P&T and GC/MS (Basic Target List)

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
<b>SWW2-9'</b>	<b>1311018-009A</b>	<b>Soil</b>	<b>11/01/2013 14:45</b>	<b>GC28</b>	<b>83543</b>
<u>Analytes</u>	<u>Result</u>	<u>RL</u>	<u>DF</u>		<u>Date Analyzed</u>
cis-1,3-Dichloropropene	ND	5.0	1000		11/01/2013 21:36
trans-1,3-Dichloropropene	ND	5.0	1000		11/01/2013 21:36
Diisopropyl ether (DIPE)	ND	5.0	1000		11/01/2013 21:36
Ethylbenzene	ND	5.0	1000		11/01/2013 21:36
Ethyl tert-butyl ether (ETBE)	ND	5.0	1000		11/01/2013 21:36
Freon 113	ND	100	1000		11/01/2013 21:36
Hexachlorobutadiene	ND	5.0	1000		11/01/2013 21:36
Hexachloroethane	ND	5.0	1000		11/01/2013 21:36
2-Hexanone	ND	5.0	1000		11/01/2013 21:36
Isopropylbenzene	ND	5.0	1000		11/01/2013 21:36
4-Isopropyl toluene	ND	5.0	1000		11/01/2013 21:36
Methyl-t-butyl ether (MTBE)	ND	5.0	1000		11/01/2013 21:36
Methylene chloride	ND	5.0	1000		11/01/2013 21:36
4-Methyl-2-pentanone (MIBK)	ND	5.0	1000		11/01/2013 21:36
Naphthalene	<b>6.2</b>	5.0	1000		11/01/2013 21:36
n-Propyl benzene	ND	5.0	1000		11/01/2013 21:36
Styrene	ND	5.0	1000		11/01/2013 21:36
1,1,1,2-Tetrachloroethane	ND	5.0	1000		11/01/2013 21:36
1,1,2,2-Tetrachloroethane	ND	5.0	1000		11/01/2013 21:36
Tetrachloroethene	ND	5.0	1000		11/01/2013 21:36
Toluene	ND	5.0	1000		11/01/2013 21:36
1,2,3-Trichlorobenzene	ND	5.0	1000		11/01/2013 21:36
1,2,4-Trichlorobenzene	ND	5.0	1000		11/01/2013 21:36
1,1,1-Trichloroethane	ND	5.0	1000		11/01/2013 21:36
1,1,2-Trichloroethane	ND	5.0	1000		11/01/2013 21:36
Trichloroethene	ND	5.0	1000		11/01/2013 21:36
Trichlorofluoromethane	ND	5.0	1000		11/01/2013 21:36
1,2,3-Trichloropropane	ND	5.0	1000		11/01/2013 21:36
1,2,4-Trimethylbenzene	ND	5.0	1000		11/01/2013 21:36
1,3,5-Trimethylbenzene	ND	5.0	1000		11/01/2013 21:36
Vinyl Chloride	ND	5.0	1000		11/01/2013 21:36
Xylenes, Total	ND	5.0	1000		11/01/2013 21:36
<u>Surrogates</u>	<u>REC (%)</u>		<u>Limits</u>		
Dibromofluoromethane	104		70-130		11/01/2013 21:36
Toluene-d8	93		70-130		11/01/2013 21:36
4-BFB	95		70-130		11/01/2013 21:36

(Cont.)



## Analytical Report

**Client:** AEI Consultants  
**Project:** #324771; FSI  
**Date Received:** 11/1/13 16:01  
**Date Prepared:** 11/1/13

**WorkOrder:** 1311018  
**Extraction Method:** SW5030B  
**Analytical Method:** SW8260B  
**Unit:** mg/kg

### Volatile Organics by P&T and GC/MS (Basic Target List)

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
<b>SWW2-6'</b>	<b>1311018-010A</b>	<b>Soil</b>	<b>11/01/2013 14:50</b>	<b>GC16</b>	<b>83543</b>
<u>Analytes</u>	<u>Result</u>		<u>RL</u>	<u>DF</u>	<u>Date Analyzed</u>
Acetone	ND		0.10	1	11/02/2013 01:01
tert-Amyl methyl ether (TAME)	ND		0.0050	1	11/02/2013 01:01
Benzene	ND		0.0050	1	11/02/2013 01:01
Bromobenzene	ND		0.0050	1	11/02/2013 01:01
Bromoform	ND		0.0050	1	11/02/2013 01:01
Bromochloromethane	ND		0.0050	1	11/02/2013 01:01
Bromodichloromethane	ND		0.0050	1	11/02/2013 01:01
Bromoform	ND		0.0050	1	11/02/2013 01:01
Bromomethane	ND		0.0050	1	11/02/2013 01:01
2-Butanone (MEK)	ND		0.020	1	11/02/2013 01:01
t-Butyl alcohol (TBA)	ND		0.050	1	11/02/2013 01:01
n-Butyl benzene	ND		0.0050	1	11/02/2013 01:01
sec-Butyl benzene	ND		0.0050	1	11/02/2013 01:01
tert-Butyl benzene	ND		0.0050	1	11/02/2013 01:01
Carbon Disulfide	ND		0.0050	1	11/02/2013 01:01
Carbon Tetrachloride	ND		0.0050	1	11/02/2013 01:01
Chlorobenzene	ND		0.0050	1	11/02/2013 01:01
Chloroethane	ND		0.0050	1	11/02/2013 01:01
Chloroform	ND		0.0050	1	11/02/2013 01:01
Chloromethane	ND		0.0050	1	11/02/2013 01:01
2-Chlorotoluene	ND		0.0050	1	11/02/2013 01:01
4-Chlorotoluene	ND		0.0050	1	11/02/2013 01:01
Dibromochloromethane	ND		0.0050	1	11/02/2013 01:01
1,2-Dibromo-3-chloropropane	ND		0.0040	1	11/02/2013 01:01
1,2-Dibromoethane (EDB)	ND		0.0040	1	11/02/2013 01:01
Dibromomethane	ND		0.0050	1	11/02/2013 01:01
1,2-Dichlorobenzene	ND		0.0050	1	11/02/2013 01:01
1,3-Dichlorobenzene	ND		0.0050	1	11/02/2013 01:01
1,4-Dichlorobenzene	ND		0.0050	1	11/02/2013 01:01
Dichlorodifluoromethane	ND		0.0050	1	11/02/2013 01:01
1,1-Dichloroethane	ND		0.0050	1	11/02/2013 01:01
1,2-Dichloroethane (1,2-DCA)	ND		0.0040	1	11/02/2013 01:01
1,1-Dichloroethene	ND		0.0050	1	11/02/2013 01:01
cis-1,2-Dichloroethene	ND		0.0050	1	11/02/2013 01:01
trans-1,2-Dichloroethene	ND		0.0050	1	11/02/2013 01:01
1,2-Dichloropropane	ND		0.0050	1	11/02/2013 01:01
1,3-Dichloropropane	ND		0.0050	1	11/02/2013 01:01
2,2-Dichloropropane	ND		0.0050	1	11/02/2013 01:01
1,1-Dichloropropene	ND		0.0050	1	11/02/2013 01:01

(Cont.)



## Analytical Report

**Client:** AEI Consultants  
**Project:** #324771; FSI  
**Date Received:** 11/1/13 16:01  
**Date Prepared:** 11/1/13

**WorkOrder:** 1311018  
**Extraction Method:** SW5030B  
**Analytical Method:** SW8260B  
**Unit:** mg/kg

### Volatile Organics by P&T and GC/MS (Basic Target List)

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
<b>SWW2-6'</b>	<b>1311018-010A</b>	<b>Soil</b>	<b>11/01/2013 14:50</b>	<b>GC16</b>	<b>83543</b>
<u>Analytes</u>	<u>Result</u>		<u>RL</u>	<u>DF</u>	<u>Date Analyzed</u>
cis-1,3-Dichloropropene	ND		0.0050	1	11/02/2013 01:01
trans-1,3-Dichloropropene	ND		0.0050	1	11/02/2013 01:01
Diisopropyl ether (DIPE)	ND		0.0050	1	11/02/2013 01:01
Ethylbenzene	ND		0.0050	1	11/02/2013 01:01
Ethyl tert-butyl ether (ETBE)	ND		0.0050	1	11/02/2013 01:01
Freon 113	ND		0.10	1	11/02/2013 01:01
Hexachlorobutadiene	ND		0.0050	1	11/02/2013 01:01
Hexachloroethane	ND		0.0050	1	11/02/2013 01:01
2-Hexanone	ND		0.0050	1	11/02/2013 01:01
Isopropylbenzene	ND		0.0050	1	11/02/2013 01:01
4-Isopropyl toluene	ND		0.0050	1	11/02/2013 01:01
Methyl-t-butyl ether (MTBE)	ND		0.0050	1	11/02/2013 01:01
Methylene chloride	ND		0.0050	1	11/02/2013 01:01
4-Methyl-2-pentanone (MIBK)	ND		0.0050	1	11/02/2013 01:01
Naphthalene	ND		0.0050	1	11/02/2013 01:01
n-Propyl benzene	ND		0.0050	1	11/02/2013 01:01
Styrene	ND		0.0050	1	11/02/2013 01:01
1,1,1,2-Tetrachloroethane	ND		0.0050	1	11/02/2013 01:01
1,1,2,2-Tetrachloroethane	ND		0.0050	1	11/02/2013 01:01
Tetrachloroethene	ND		0.0050	1	11/02/2013 01:01
Toluene	ND		0.0050	1	11/02/2013 01:01
1,2,3-Trichlorobenzene	ND		0.0050	1	11/02/2013 01:01
1,2,4-Trichlorobenzene	ND		0.0050	1	11/02/2013 01:01
1,1,1-Trichloroethane	ND		0.0050	1	11/02/2013 01:01
1,1,2-Trichloroethane	ND		0.0050	1	11/02/2013 01:01
Trichloroethene	ND		0.0050	1	11/02/2013 01:01
Trichlorofluoromethane	ND		0.0050	1	11/02/2013 01:01
1,2,3-Trichloropropane	ND		0.0050	1	11/02/2013 01:01
1,2,4-Trimethylbenzene	ND		0.0050	1	11/02/2013 01:01
1,3,5-Trimethylbenzene	ND		0.0050	1	11/02/2013 01:01
Vinyl Chloride	ND		0.0050	1	11/02/2013 01:01
Xylenes, Total	ND		0.0050	1	11/02/2013 01:01
<u>Surrogates</u>	<u>REC (%)</u>		<u>Limits</u>		
Dibromofluoromethane	97		70-130		11/02/2013 01:01
Toluene-d8	99		70-130		11/02/2013 01:01
4-BFB	102		70-130		11/02/2013 01:01

(Cont.)



## Analytical Report

**Client:** AEI Consultants  
**Project:** #324771; FSI  
**Date Received:** 11/1/13 16:01  
**Date Prepared:** 11/1/13

**WorkOrder:** 1311018  
**Extraction Method:** SW5030B  
**Analytical Method:** SW8260B  
**Unit:** mg/kg

### Volatile Organics by P&T and GC/MS (Basic Target List)

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
SWE2-9'	1311018-012A	Soil	11/01/2013 15:00	GC16	83543
<u>Analytes</u>	<u>Result</u>	<u>RL</u>	<u>DF</u>		<u>Date Analyzed</u>
Acetone	ND	0.10	1		11/02/2013 01:44
tert-Amyl methyl ether (TAME)	ND	0.0050	1		11/02/2013 01:44
Benzene	ND	0.0050	1		11/02/2013 01:44
Bromobenzene	ND	0.0050	1		11/02/2013 01:44
Bromoform	ND	0.0050	1		11/02/2013 01:44
Bromochloromethane	ND	0.0050	1		11/02/2013 01:44
Bromodichloromethane	ND	0.0050	1		11/02/2013 01:44
Bromomethane	ND	0.0050	1		11/02/2013 01:44
2-Butanone (MEK)	ND	0.020	1		11/02/2013 01:44
t-Butyl alcohol (TBA)	ND	0.050	1		11/02/2013 01:44
n-Butyl benzene	ND	0.0050	1		11/02/2013 01:44
sec-Butyl benzene	ND	0.0050	1		11/02/2013 01:44
tert-Butyl benzene	ND	0.0050	1		11/02/2013 01:44
Carbon Disulfide	ND	0.0050	1		11/02/2013 01:44
Carbon Tetrachloride	ND	0.0050	1		11/02/2013 01:44
Chlorobenzene	ND	0.0050	1		11/02/2013 01:44
Chloroethane	ND	0.0050	1		11/02/2013 01:44
Chloroform	ND	0.0050	1		11/02/2013 01:44
Chloromethane	ND	0.0050	1		11/02/2013 01:44
2-Chlorotoluene	ND	0.0050	1		11/02/2013 01:44
4-Chlorotoluene	ND	0.0050	1		11/02/2013 01:44
Dibromochloromethane	ND	0.0050	1		11/02/2013 01:44
1,2-Dibromo-3-chloropropane	ND	0.0040	1		11/02/2013 01:44
1,2-Dibromoethane (EDB)	ND	0.0040	1		11/02/2013 01:44
Dibromomethane	ND	0.0050	1		11/02/2013 01:44
1,2-Dichlorobenzene	ND	0.0050	1		11/02/2013 01:44
1,3-Dichlorobenzene	ND	0.0050	1		11/02/2013 01:44
1,4-Dichlorobenzene	ND	0.0050	1		11/02/2013 01:44
Dichlorodifluoromethane	ND	0.0050	1		11/02/2013 01:44
1,1-Dichloroethane	ND	0.0050	1		11/02/2013 01:44
1,2-Dichloroethane (1,2-DCA)	ND	0.0040	1		11/02/2013 01:44
1,1-Dichloroethene	ND	0.0050	1		11/02/2013 01:44
cis-1,2-Dichloroethene	ND	0.0050	1		11/02/2013 01:44
trans-1,2-Dichloroethene	ND	0.0050	1		11/02/2013 01:44
1,2-Dichloropropane	ND	0.0050	1		11/02/2013 01:44
1,3-Dichloropropane	ND	0.0050	1		11/02/2013 01:44
2,2-Dichloropropane	ND	0.0050	1		11/02/2013 01:44
1,1-Dichloropropene	ND	0.0050	1		11/02/2013 01:44

(Cont.)



## Analytical Report

**Client:** AEI Consultants  
**Project:** #324771; FSI  
**Date Received:** 11/1/13 16:01  
**Date Prepared:** 11/1/13

**WorkOrder:** 1311018  
**Extraction Method:** SW5030B  
**Analytical Method:** SW8260B  
**Unit:** mg/kg

### Volatile Organics by P&T and GC/MS (Basic Target List)

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
SWE2-9'	1311018-012A	Soil	11/01/2013 15:00	GC16	83543
<u>Analytes</u>	<u>Result</u>		<u>RL</u>	<u>DF</u>	<u>Date Analyzed</u>
cis-1,3-Dichloropropene	ND		0.0050	1	11/02/2013 01:44
trans-1,3-Dichloropropene	ND		0.0050	1	11/02/2013 01:44
Diisopropyl ether (DIPE)	ND		0.0050	1	11/02/2013 01:44
Ethylbenzene	ND		0.0050	1	11/02/2013 01:44
Ethyl tert-butyl ether (ETBE)	ND		0.0050	1	11/02/2013 01:44
Freon 113	ND		0.10	1	11/02/2013 01:44
Hexachlorobutadiene	ND		0.0050	1	11/02/2013 01:44
Hexachloroethane	ND		0.0050	1	11/02/2013 01:44
2-Hexanone	ND		0.0050	1	11/02/2013 01:44
Isopropylbenzene	ND		0.0050	1	11/02/2013 01:44
4-Isopropyl toluene	ND		0.0050	1	11/02/2013 01:44
Methyl-t-butyl ether (MTBE)	ND		0.0050	1	11/02/2013 01:44
Methylene chloride	ND		0.0050	1	11/02/2013 01:44
4-Methyl-2-pentanone (MIBK)	ND		0.0050	1	11/02/2013 01:44
Naphthalene	ND		0.0050	1	11/02/2013 01:44
n-Propyl benzene	ND		0.0050	1	11/02/2013 01:44
Styrene	ND		0.0050	1	11/02/2013 01:44
1,1,1,2-Tetrachloroethane	ND		0.0050	1	11/02/2013 01:44
1,1,2,2-Tetrachloroethane	ND		0.0050	1	11/02/2013 01:44
Tetrachloroethene	ND		0.0050	1	11/02/2013 01:44
Toluene	ND		0.0050	1	11/02/2013 01:44
1,2,3-Trichlorobenzene	ND		0.0050	1	11/02/2013 01:44
1,2,4-Trichlorobenzene	ND		0.0050	1	11/02/2013 01:44
1,1,1-Trichloroethane	ND		0.0050	1	11/02/2013 01:44
1,1,2-Trichloroethane	ND		0.0050	1	11/02/2013 01:44
Trichloroethene	ND		0.0050	1	11/02/2013 01:44
Trichlorofluoromethane	ND		0.0050	1	11/02/2013 01:44
1,2,3-Trichloropropane	ND		0.0050	1	11/02/2013 01:44
1,2,4-Trimethylbenzene	ND		0.0050	1	11/02/2013 01:44
1,3,5-Trimethylbenzene	ND		0.0050	1	11/02/2013 01:44
Vinyl Chloride	ND		0.0050	1	11/02/2013 01:44
Xylenes, Total	ND		0.0050	1	11/02/2013 01:44
<u>Surrogates</u>	<u>REC (%)</u>		<u>Limits</u>		
Dibromofluoromethane	96		70-130		11/02/2013 01:44
Toluene-d8	98		70-130		11/02/2013 01:44
4-BFB	106		70-130		11/02/2013 01:44

(Cont.)



## Analytical Report

**Client:** AEI Consultants  
**Project:** #324771; FSI  
**Date Received:** 11/1/13 16:01  
**Date Prepared:** 11/1/13

**WorkOrder:** 1311018  
**Extraction Method:** SW5030B  
**Analytical Method:** SW8260B  
**Unit:** mg/kg

### Volatile Organics by P&T and GC/MS (Basic Target List)

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
SWE2-6'	1311018-013A	Soil	11/01/2013 15:05	GC16	83585
<u>Analytes</u>	<u>Result</u>	<u>RL</u>	<u>DF</u>		<u>Date Analyzed</u>
Acetone	ND	0.10	1		11/02/2013 02:26
tert-Amyl methyl ether (TAME)	ND	0.0050	1		11/02/2013 02:26
Benzene	ND	0.0050	1		11/02/2013 02:26
Bromobenzene	ND	0.0050	1		11/02/2013 02:26
Bromoform	ND	0.0050	1		11/02/2013 02:26
Bromochloromethane	ND	0.0050	1		11/02/2013 02:26
Bromodichloromethane	ND	0.0050	1		11/02/2013 02:26
Bromoform	ND	0.0050	1		11/02/2013 02:26
Bromomethane	ND	0.0050	1		11/02/2013 02:26
2-Butanone (MEK)	ND	0.020	1		11/02/2013 02:26
t-Butyl alcohol (TBA)	ND	0.050	1		11/02/2013 02:26
n-Butyl benzene	ND	0.0050	1		11/02/2013 02:26
sec-Butyl benzene	ND	0.0050	1		11/02/2013 02:26
tert-Butyl benzene	ND	0.0050	1		11/02/2013 02:26
Carbon Disulfide	ND	0.0050	1		11/02/2013 02:26
Carbon Tetrachloride	ND	0.0050	1		11/02/2013 02:26
Chlorobenzene	ND	0.0050	1		11/02/2013 02:26
Chloroethane	ND	0.0050	1		11/02/2013 02:26
Chloroform	ND	0.0050	1		11/02/2013 02:26
Chloromethane	ND	0.0050	1		11/02/2013 02:26
2-Chlorotoluene	ND	0.0050	1		11/02/2013 02:26
4-Chlorotoluene	ND	0.0050	1		11/02/2013 02:26
Dibromochloromethane	ND	0.0050	1		11/02/2013 02:26
1,2-Dibromo-3-chloropropane	ND	0.0040	1		11/02/2013 02:26
1,2-Dibromoethane (EDB)	ND	0.0040	1		11/02/2013 02:26
Dibromomethane	ND	0.0050	1		11/02/2013 02:26
1,2-Dichlorobenzene	ND	0.0050	1		11/02/2013 02:26
1,3-Dichlorobenzene	ND	0.0050	1		11/02/2013 02:26
1,4-Dichlorobenzene	ND	0.0050	1		11/02/2013 02:26
Dichlorodifluoromethane	ND	0.0050	1		11/02/2013 02:26
1,1-Dichloroethane	ND	0.0050	1		11/02/2013 02:26
1,2-Dichloroethane (1,2-DCA)	ND	0.0040	1		11/02/2013 02:26
1,1-Dichloroethene	ND	0.0050	1		11/02/2013 02:26
cis-1,2-Dichloroethene	ND	0.0050	1		11/02/2013 02:26
trans-1,2-Dichloroethene	ND	0.0050	1		11/02/2013 02:26
1,2-Dichloropropane	ND	0.0050	1		11/02/2013 02:26
1,3-Dichloropropane	ND	0.0050	1		11/02/2013 02:26
2,2-Dichloropropane	ND	0.0050	1		11/02/2013 02:26
1,1-Dichloropropene	ND	0.0050	1		11/02/2013 02:26

(Cont.)



## Analytical Report

**Client:** AEI Consultants  
**Project:** #324771; FSI  
**Date Received:** 11/1/13 16:01  
**Date Prepared:** 11/1/13

**WorkOrder:** 1311018  
**Extraction Method:** SW5030B  
**Analytical Method:** SW8260B  
**Unit:** mg/kg

### Volatile Organics by P&T and GC/MS (Basic Target List)

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
SWE2-6'	1311018-013A	Soil	11/01/2013 15:05	GC16	83585
<u>Analytes</u>	<u>Result</u>		<u>RL</u>	<u>DF</u>	<u>Date Analyzed</u>
cis-1,3-Dichloropropene	ND		0.0050	1	11/02/2013 02:26
trans-1,3-Dichloropropene	ND		0.0050	1	11/02/2013 02:26
Diisopropyl ether (DIPE)	ND		0.0050	1	11/02/2013 02:26
Ethylbenzene	ND		0.0050	1	11/02/2013 02:26
Ethyl tert-butyl ether (ETBE)	ND		0.0050	1	11/02/2013 02:26
Freon 113	ND		0.10	1	11/02/2013 02:26
Hexachlorobutadiene	ND		0.0050	1	11/02/2013 02:26
Hexachloroethane	ND		0.0050	1	11/02/2013 02:26
2-Hexanone	ND		0.0050	1	11/02/2013 02:26
Isopropylbenzene	ND		0.0050	1	11/02/2013 02:26
4-Isopropyl toluene	ND		0.0050	1	11/02/2013 02:26
Methyl-t-butyl ether (MTBE)	ND		0.0050	1	11/02/2013 02:26
Methylene chloride	ND		0.0050	1	11/02/2013 02:26
4-Methyl-2-pentanone (MIBK)	ND		0.0050	1	11/02/2013 02:26
Naphthalene	ND		0.0050	1	11/02/2013 02:26
n-Propyl benzene	ND		0.0050	1	11/02/2013 02:26
Styrene	ND		0.0050	1	11/02/2013 02:26
1,1,1,2-Tetrachloroethane	ND		0.0050	1	11/02/2013 02:26
1,1,2,2-Tetrachloroethane	ND		0.0050	1	11/02/2013 02:26
Tetrachloroethene	ND		0.0050	1	11/02/2013 02:26
Toluene	ND		0.0050	1	11/02/2013 02:26
1,2,3-Trichlorobenzene	ND		0.0050	1	11/02/2013 02:26
1,2,4-Trichlorobenzene	ND		0.0050	1	11/02/2013 02:26
1,1,1-Trichloroethane	ND		0.0050	1	11/02/2013 02:26
1,1,2-Trichloroethane	ND		0.0050	1	11/02/2013 02:26
Trichloroethene	ND		0.0050	1	11/02/2013 02:26
Trichlorofluoromethane	ND		0.0050	1	11/02/2013 02:26
1,2,3-Trichloropropane	ND		0.0050	1	11/02/2013 02:26
1,2,4-Trimethylbenzene	ND		0.0050	1	11/02/2013 02:26
1,3,5-Trimethylbenzene	ND		0.0050	1	11/02/2013 02:26
Vinyl Chloride	ND		0.0050	1	11/02/2013 02:26
Xylenes, Total	ND		0.0050	1	11/02/2013 02:26
<u>Surrogates</u>	<u>REC (%)</u>		<u>Limits</u>		
Dibromofluoromethane	97		70-130		11/02/2013 02:26
Toluene-d8	98		70-130		11/02/2013 02:26
4-BFB	106		70-130		11/02/2013 02:26

(Cont.)



## Analytical Report

**Client:** AEI Consultants  
**Project:** #324771; FSI  
**Date Received:** 11/1/13 16:01  
**Date Prepared:** 11/1/13

**WorkOrder:** 1311018  
**Extraction Method:** SW5030B  
**Analytical Method:** SW8260B  
**Unit:** mg/kg

### Volatile Organics by P&T and GC/MS (Basic Target List)

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
<b>SW5-9'</b>	<b>1311018-015A</b>	<b>Soil</b>	<b>11/01/2013 15:15</b>	<b>GC16</b>	<b>83585</b>
<u>Analytes</u>	<u>Result</u>	<u>RL</u>	<u>DF</u>		<u>Date Analyzed</u>
Acetone	ND	0.10	1		11/02/2013 03:09
tert-Amyl methyl ether (TAME)	ND	0.0050	1		11/02/2013 03:09
Benzene	ND	0.0050	1		11/02/2013 03:09
Bromobenzene	ND	0.0050	1		11/02/2013 03:09
Bromoform	ND	0.0050	1		11/02/2013 03:09
Bromochloromethane	ND	0.0050	1		11/02/2013 03:09
Bromodichloromethane	ND	0.0050	1		11/02/2013 03:09
Bromoform	ND	0.0050	1		11/02/2013 03:09
Bromomethane	ND	0.0050	1		11/02/2013 03:09
2-Butanone (MEK)	ND	0.020	1		11/02/2013 03:09
t-Butyl alcohol (TBA)	ND	0.050	1		11/02/2013 03:09
n-Butyl benzene	ND	0.0050	1		11/02/2013 03:09
sec-Butyl benzene	ND	0.0050	1		11/02/2013 03:09
tert-Butyl benzene	ND	0.0050	1		11/02/2013 03:09
Carbon Disulfide	ND	0.0050	1		11/02/2013 03:09
Carbon Tetrachloride	ND	0.0050	1		11/02/2013 03:09
Chlorobenzene	ND	0.0050	1		11/02/2013 03:09
Chloroethane	ND	0.0050	1		11/02/2013 03:09
Chloroform	ND	0.0050	1		11/02/2013 03:09
Chloromethane	ND	0.0050	1		11/02/2013 03:09
2-Chlorotoluene	ND	0.0050	1		11/02/2013 03:09
4-Chlorotoluene	ND	0.0050	1		11/02/2013 03:09
Dibromochloromethane	ND	0.0050	1		11/02/2013 03:09
1,2-Dibromo-3-chloropropane	ND	0.0040	1		11/02/2013 03:09
1,2-Dibromoethane (EDB)	ND	0.0040	1		11/02/2013 03:09
Dibromomethane	ND	0.0050	1		11/02/2013 03:09
1,2-Dichlorobenzene	ND	0.0050	1		11/02/2013 03:09
1,3-Dichlorobenzene	ND	0.0050	1		11/02/2013 03:09
1,4-Dichlorobenzene	ND	0.0050	1		11/02/2013 03:09
Dichlorodifluoromethane	ND	0.0050	1		11/02/2013 03:09
1,1-Dichloroethane	ND	0.0050	1		11/02/2013 03:09
1,2-Dichloroethane (1,2-DCA)	ND	0.0040	1		11/02/2013 03:09
1,1-Dichloroethene	ND	0.0050	1		11/02/2013 03:09
cis-1,2-Dichloroethene	ND	0.0050	1		11/02/2013 03:09
trans-1,2-Dichloroethene	ND	0.0050	1		11/02/2013 03:09
1,2-Dichloropropane	ND	0.0050	1		11/02/2013 03:09
1,3-Dichloropropane	ND	0.0050	1		11/02/2013 03:09
2,2-Dichloropropane	ND	0.0050	1		11/02/2013 03:09
1,1-Dichloropropene	ND	0.0050	1		11/02/2013 03:09

(Cont.)



## Analytical Report

**Client:** AEI Consultants  
**Project:** #324771; FSI  
**Date Received:** 11/1/13 16:01  
**Date Prepared:** 11/1/13

**WorkOrder:** 1311018  
**Extraction Method:** SW5030B  
**Analytical Method:** SW8260B  
**Unit:** mg/kg

### Volatile Organics by P&T and GC/MS (Basic Target List)

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
<b>SW5-9'</b>	<b>1311018-015A</b>	<b>Soil</b>	<b>11/01/2013 15:15</b>	<b>GC16</b>	<b>83585</b>
<u>Analytes</u>	<u>Result</u>		<u>RL</u>	<u>DF</u>	<u>Date Analyzed</u>
cis-1,3-Dichloropropene	ND		0.0050	1	11/02/2013 03:09
trans-1,3-Dichloropropene	ND		0.0050	1	11/02/2013 03:09
Diisopropyl ether (DIPE)	ND		0.0050	1	11/02/2013 03:09
Ethylbenzene	ND		0.0050	1	11/02/2013 03:09
Ethyl tert-butyl ether (ETBE)	ND		0.0050	1	11/02/2013 03:09
Freon 113	ND		0.10	1	11/02/2013 03:09
Hexachlorobutadiene	ND		0.0050	1	11/02/2013 03:09
Hexachloroethane	ND		0.0050	1	11/02/2013 03:09
2-Hexanone	ND		0.0050	1	11/02/2013 03:09
Isopropylbenzene	ND		0.0050	1	11/02/2013 03:09
4-Isopropyl toluene	ND		0.0050	1	11/02/2013 03:09
Methyl-t-butyl ether (MTBE)	ND		0.0050	1	11/02/2013 03:09
Methylene chloride	ND		0.0050	1	11/02/2013 03:09
4-Methyl-2-pentanone (MIBK)	ND		0.0050	1	11/02/2013 03:09
Naphthalene	ND		0.0050	1	11/02/2013 03:09
n-Propyl benzene	ND		0.0050	1	11/02/2013 03:09
Styrene	ND		0.0050	1	11/02/2013 03:09
1,1,1,2-Tetrachloroethane	ND		0.0050	1	11/02/2013 03:09
1,1,2,2-Tetrachloroethane	ND		0.0050	1	11/02/2013 03:09
Tetrachloroethene	ND		0.0050	1	11/02/2013 03:09
Toluene	ND		0.0050	1	11/02/2013 03:09
1,2,3-Trichlorobenzene	ND		0.0050	1	11/02/2013 03:09
1,2,4-Trichlorobenzene	ND		0.0050	1	11/02/2013 03:09
1,1,1-Trichloroethane	ND		0.0050	1	11/02/2013 03:09
1,1,2-Trichloroethane	ND		0.0050	1	11/02/2013 03:09
Trichloroethene	ND		0.0050	1	11/02/2013 03:09
Trichlorofluoromethane	ND		0.0050	1	11/02/2013 03:09
1,2,3-Trichloropropane	ND		0.0050	1	11/02/2013 03:09
1,2,4-Trimethylbenzene	ND		0.0050	1	11/02/2013 03:09
1,3,5-Trimethylbenzene	ND		0.0050	1	11/02/2013 03:09
Vinyl Chloride	ND		0.0050	1	11/02/2013 03:09
Xylenes, Total	ND		0.0050	1	11/02/2013 03:09
<u>Surrogates</u>	<u>REC (%)</u>		<u>Limits</u>		
Dibromofluoromethane	97		70-130		11/02/2013 03:09
Toluene-d8	98		70-130		11/02/2013 03:09
4-BFB	104		70-130		11/02/2013 03:09



## Analytical Report

**Client:** AEI Consultants      **WorkOrder:** 1311018  
**Project:** #324771; FSI      **Extraction Method:** SW5030B  
**Date Received:** 11/1/13 16:01      **Analytical Method:** SW8021B/8015Bm  
**Date Prepared:** 11/1/13      **Unit:** mg/Kg

### Gasoline Range (C6-C12) Volatile Hydrocarbons as Gasoline with BTEX and MTBE

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
<b>EB1-12'</b>	<b>1311018-001A</b>	<b>Soil</b>	<b>11/01/2013 09:30</b>	<b>GC7</b>	<b>83551</b>
<u>Analytes</u>	<u>Result</u>		<u>RL</u>	<u>DF</u>	<u>Date Analyzed</u>
TPH(g)	ND		1.0	1	11/02/2013 04:45
MTBE	---		0.050	1	11/02/2013 04:45
Benzene	---		0.0050	1	11/02/2013 04:45
Toluene	---		0.0050	1	11/02/2013 04:45
Ethylbenzene	---		0.0050	1	11/02/2013 04:45
Xylenes	---		0.0050	1	11/02/2013 04:45
<u>Surrogates</u>	<u>REC (%)</u>		<u>Limits</u>		
2-Fluorotoluene	95		70-130		11/02/2013 04:45
<b>SWN-7'</b>	<b>1311018-002A</b>	<b>Soil</b>	<b>11/01/2013 09:05</b>	<b>GC7</b>	<b>83551</b>
<u>Analytes</u>	<u>Result</u>		<u>RL</u>	<u>DF</u>	<u>Date Analyzed</u>
TPH(g)	ND		1.0	1	11/02/2013 05:15
MTBE	---		0.050	1	11/02/2013 05:15
Benzene	---		0.0050	1	11/02/2013 05:15
Toluene	---		0.0050	1	11/02/2013 05:15
Ethylbenzene	---		0.0050	1	11/02/2013 05:15
Xylenes	---		0.0050	1	11/02/2013 05:15
<u>Surrogates</u>	<u>REC (%)</u>		<u>Limits</u>		
2-Fluorotoluene	97		70-130		11/02/2013 05:15
<b>SWW-9'</b>	<b>1311018-003A</b>	<b>Soil</b>	<b>11/01/2013 09:30</b>	<b>GC7</b>	<b>83551</b>
<u>Analytes</u>	<u>Result</u>		<u>RL</u>	<u>DF</u>	<u>Date Analyzed</u>
TPH(g)	2000		200	200	11/02/2013 02:45
MTBE	---		10	200	11/02/2013 02:45
Benzene	---		1.0	200	11/02/2013 02:45
Toluene	---		1.0	200	11/02/2013 02:45
Ethylbenzene	---		1.0	200	11/02/2013 02:45
Xylenes	---		1.0	200	11/02/2013 02:45
<u>Surrogates</u>	<u>REC (%)</u>		<u>Limits</u>	Analytical Comments: d9	
2-Fluorotoluene	78		70-130		11/02/2013 02:45

(Cont.)



## Analytical Report

**Client:** AEI Consultants      **WorkOrder:** 1311018  
**Project:** #324771; FSI      **Extraction Method:** SW5030B  
**Date Received:** 11/1/13 16:01      **Analytical Method:** SW8021B/8015Bm  
**Date Prepared:** 11/1/13      **Unit:** mg/Kg

### Gasoline Range (C6-C12) Volatile Hydrocarbons as Gasoline with BTEX and MTBE

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
<b>SWW-6</b>	<b>1311018-004A</b>	<b>Soil</b>	<b>11/01/2013 09:45</b>	<b>GC7</b>	<b>83551</b>
<u>Analytes</u>	<u>Result</u>		<u>RL</u>	<u>DF</u>	<u>Date Analyzed</u>
TPH(g)	ND		1.0	1	11/02/2013 06:15
MTBE	---		0.050	1	11/02/2013 06:15
Benzene	---		0.0050	1	11/02/2013 06:15
Toluene	---		0.0050	1	11/02/2013 06:15
Ethylbenzene	---		0.0050	1	11/02/2013 06:15
Xylenes	---		0.0050	1	11/02/2013 06:15
<u>Surrogates</u>	<u>REC (%)</u>		<u>Limits</u>		
2-Fluorotoluene	111		70-130		11/02/2013 06:15
<b>SWE-9'</b>	<b>1311018-006A</b>	<b>Soil</b>	<b>11/01/2013 10:00</b>	<b>GC7</b>	<b>83551</b>
<u>Analytes</u>	<u>Result</u>		<u>RL</u>	<u>DF</u>	<u>Date Analyzed</u>
TPH(g)	ND		1.0	1	11/02/2013 06:45
MTBE	---		0.050	1	11/02/2013 06:45
Benzene	---		0.0050	1	11/02/2013 06:45
Toluene	---		0.0050	1	11/02/2013 06:45
Ethylbenzene	---		0.0050	1	11/02/2013 06:45
Xylenes	---		0.0050	1	11/02/2013 06:45
<u>Surrogates</u>	<u>REC (%)</u>		<u>Limits</u>		
2-Fluorotoluene	97		70-130		11/02/2013 06:45
<b>SWE-6'</b>	<b>1311018-007A</b>	<b>Soil</b>	<b>11/01/2013 10:05</b>	<b>GC7</b>	<b>83551</b>
<u>Analytes</u>	<u>Result</u>		<u>RL</u>	<u>DF</u>	<u>Date Analyzed</u>
TPH(g)	ND		1.0	1	11/02/2013 07:15
MTBE	---		0.050	1	11/02/2013 07:15
Benzene	---		0.0050	1	11/02/2013 07:15
Toluene	---		0.0050	1	11/02/2013 07:15
Ethylbenzene	---		0.0050	1	11/02/2013 07:15
Xylenes	---		0.0050	1	11/02/2013 07:15
<u>Surrogates</u>	<u>REC (%)</u>		<u>Limits</u>		
2-Fluorotoluene	103		70-130		11/02/2013 07:15

(Cont.)



## Analytical Report

**Client:** AEI Consultants      **WorkOrder:** 1311018  
**Project:** #324771; FSI      **Extraction Method:** SW5030B  
**Date Received:** 11/1/13 16:01      **Analytical Method:** SW8021B/8015Bm  
**Date Prepared:** 11/1/13      **Unit:** mg/Kg

### Gasoline Range (C6-C12) Volatile Hydrocarbons as Gasoline with BTEX and MTBE

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
<b>SWW2-9'</b>	<b>1311018-009A</b>	<b>Soil</b>	<b>11/01/2013 14:45</b>	<b>GC7</b>	<b>83551</b>
<u>Analytes</u>	<u>Result</u>		<u>RL</u>	<u>DF</u>	<u>Date Analyzed</u>
TPH(g)	2000		200	200	11/02/2013 12:48
MTBE	---		10	200	11/02/2013 12:48
Benzene	---		1.0	200	11/02/2013 12:48
Toluene	---		1.0	200	11/02/2013 12:48
Ethylbenzene	---		1.0	200	11/02/2013 12:48
Xylenes	---		1.0	200	11/02/2013 12:48
<u>Surrogates</u>	<u>REC (%)</u>		<u>Limits</u>	Analytical Comments: d9	
2-Fluorotoluene	85		70-130		11/02/2013 12:48
<b>SWW2-6'</b>	<b>1311018-010A</b>	<b>Soil</b>	<b>11/01/2013 14:50</b>	<b>GC7</b>	<b>83551</b>
<u>Analytes</u>	<u>Result</u>		<u>RL</u>	<u>DF</u>	<u>Date Analyzed</u>
TPH(g)	ND		1.0	1	11/02/2013 11:16
MTBE	---		0.050	1	11/02/2013 11:16
Benzene	---		0.0050	1	11/02/2013 11:16
Toluene	---		0.0050	1	11/02/2013 11:16
Ethylbenzene	---		0.0050	1	11/02/2013 11:16
Xylenes	---		0.0050	1	11/02/2013 11:16
<u>Surrogates</u>	<u>REC (%)</u>		<u>Limits</u>		
2-Fluorotoluene	98		70-130		11/02/2013 11:16
<b>SWE2-9'</b>	<b>1311018-012A</b>	<b>Soil</b>	<b>11/01/2013 15:00</b>	<b>GC7</b>	<b>83551</b>
<u>Analytes</u>	<u>Result</u>		<u>RL</u>	<u>DF</u>	<u>Date Analyzed</u>
TPH(g)	ND		1.0	1	11/02/2013 11:47
MTBE	---		0.050	1	11/02/2013 11:47
Benzene	---		0.0050	1	11/02/2013 11:47
Toluene	---		0.0050	1	11/02/2013 11:47
Ethylbenzene	---		0.0050	1	11/02/2013 11:47
Xylenes	---		0.0050	1	11/02/2013 11:47
<u>Surrogates</u>	<u>REC (%)</u>		<u>Limits</u>		
2-Fluorotoluene	93		70-130		11/02/2013 11:47

(Cont.)



## Analytical Report

**Client:** AEI Consultants      **WorkOrder:** 1311018  
**Project:** #324771; FSI      **Extraction Method:** SW5030B  
**Date Received:** 11/1/13 16:01      **Analytical Method:** SW8021B/8015Bm  
**Date Prepared:** 11/1/13      **Unit:** mg/Kg

### Gasoline Range (C6-C12) Volatile Hydrocarbons as Gasoline with BTEX and MTBE

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
SWE2-6'	1311018-013A	Soil	11/01/2013 15:05	GC7	83587
<u>Analytes</u>	<u>Result</u>		<u>RL</u>	<u>DF</u>	<u>Date Analyzed</u>
TPH(g)	ND		1.0	1	11/02/2013 08:15
MTBE	---		0.050	1	11/02/2013 08:15
Benzene	---		0.0050	1	11/02/2013 08:15
Toluene	---		0.0050	1	11/02/2013 08:15
Ethylbenzene	---		0.0050	1	11/02/2013 08:15
Xylenes	---		0.0050	1	11/02/2013 08:15
<u>Surrogates</u>	<u>REC (%)</u>		<u>Limits</u>		
2-Fluorotoluene	101		70-130		11/02/2013 08:15
SW5-9'	1311018-015A	Soil	11/01/2013 15:15	GC7	83587
<u>Analytes</u>	<u>Result</u>		<u>RL</u>	<u>DF</u>	<u>Date Analyzed</u>
TPH(g)	ND		1.0	1	11/02/2013 08:45
MTBE	---		0.050	1	11/02/2013 08:45
Benzene	---		0.0050	1	11/02/2013 08:45
Toluene	---		0.0050	1	11/02/2013 08:45
Ethylbenzene	---		0.0050	1	11/02/2013 08:45
Xylenes	---		0.0050	1	11/02/2013 08:45
<u>Surrogates</u>	<u>REC (%)</u>		<u>Limits</u>		
2-Fluorotoluene	100		70-130		11/02/2013 08:45



## Analytical Report

**Client:** AEI Consultants  
**Project:** #324771; FSI  
**Date Received:** 11/1/13 16:01  
**Date Prepared:** 11/1/13

**WorkOrder:** 1311018  
**Extraction Method:** SW3550B/3630C  
**Analytical Method:** SW8015B  
**Unit:** mg/Kg

### Total Extractable Petroleum Hydrocarbons with Silica Gel Clean-Up

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
<b>EB1-12'</b>	<b>1311018-001A</b>	<b>Soil</b>	<b>11/01/2013 09:30</b>	<b>GC6A</b>	<b>83582</b>
<u>Analytes</u>	<u>Result</u>		<u>RL</u>	<u>DF</u>	<u>Date Analyzed</u>
TPH-Diesel (C10-C23)	ND		1.0	1	11/02/2013 13:21
TPH-Motor Oil (C18-C36)	ND		5.0	1	11/02/2013 13:21
<u>Surrogates</u>	<u>REC (%)</u>		<u>Limits</u>		
C9	107		70-130		11/02/2013 13:21
<b>SWN-7'</b>	<b>1311018-002A</b>	<b>Soil</b>	<b>11/01/2013 09:05</b>	<b>GC6A</b>	<b>83582</b>
<u>Analytes</u>	<u>Result</u>		<u>RL</u>	<u>DF</u>	<u>Date Analyzed</u>
TPH-Diesel (C10-C23)	ND		1.0	1	11/02/2013 10:51
TPH-Motor Oil (C18-C36)	ND		5.0	1	11/02/2013 10:51
<u>Surrogates</u>	<u>REC (%)</u>		<u>Limits</u>		
C9	109		70-130		11/02/2013 10:51
<b>SWW-9'</b>	<b>1311018-003A</b>	<b>Soil</b>	<b>11/01/2013 09:30</b>	<b>GC6A</b>	<b>83582</b>
<u>Analytes</u>	<u>Result</u>		<u>RL</u>	<u>DF</u>	<u>Date Analyzed</u>
TPH-Diesel (C10-C23)	650		1.0	1	11/04/2013 13:45
TPH-Motor Oil (C18-C36)	14		5.0	1	11/04/2013 13:45
<u>Surrogates</u>	<u>REC (%)</u>		<u>Limits</u>	Analytical Comments: e11	
C9	101		70-130		11/04/2013 13:45
<b>SWW-6</b>	<b>1311018-004A</b>	<b>Soil</b>	<b>11/01/2013 09:45</b>	<b>GC6A</b>	<b>83582</b>
<u>Analytes</u>	<u>Result</u>		<u>RL</u>	<u>DF</u>	<u>Date Analyzed</u>
TPH-Diesel (C10-C23)	ND		1.0	1	11/02/2013 05:55
TPH-Motor Oil (C18-C36)	ND		5.0	1	11/02/2013 05:55
<u>Surrogates</u>	<u>REC (%)</u>		<u>Limits</u>		
C9	101		70-130		11/02/2013 05:55

(Cont.)



## Analytical Report

**Client:** AEI Consultants  
**Project:** #324771; FSI  
**Date Received:** 11/1/13 16:01  
**Date Prepared:** 11/1/13

**WorkOrder:** 1311018  
**Extraction Method:** SW3550B/3630C  
**Analytical Method:** SW8015B  
**Unit:** mg/Kg

### Total Extractable Petroleum Hydrocarbons with Silica Gel Clean-Up

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
SWE-9'	1311018-006A	Soil	11/01/2013 10:00	GC6A	83582
<u>Analytes</u>	<u>Result</u>		<u>RL</u>	<u>DF</u>	<u>Date Analyzed</u>
TPH-Diesel (C10-C23)	ND		1.0	1	11/02/2013 12:05
TPH-Motor Oil (C18-C36)	ND		5.0	1	11/02/2013 12:05
<u>Surrogates</u>	<u>REC (%)</u>		<u>Limits</u>		
C9	103		70-130		11/02/2013 12:05
SWE-6'	1311018-007A	Soil	11/01/2013 10:05	GC6A	83582
<u>Analytes</u>	<u>Result</u>		<u>RL</u>	<u>DF</u>	<u>Date Analyzed</u>
TPH-Diesel (C10-C23)	ND		1.0	1	11/02/2013 01:06
TPH-Motor Oil (C18-C36)	ND		5.0	1	11/02/2013 01:06
<u>Surrogates</u>	<u>REC (%)</u>		<u>Limits</u>		
C9	101		70-130		11/02/2013 01:06
SWW2-9'	1311018-009A	Soil	11/01/2013 14:45	GC6B	83582
<u>Analytes</u>	<u>Result</u>		<u>RL</u>	<u>DF</u>	<u>Date Analyzed</u>
TPH-Diesel (C10-C23)	930		2.0	2	11/04/2013 12:31
TPH-Motor Oil (C18-C36)	21		10	2	11/04/2013 12:31
<u>Surrogates</u>	<u>REC (%)</u>		<u>Limits</u>	Analytical Comments: e11	
C9	118		70-130		11/04/2013 12:31
SWW2-6'	1311018-010A	Soil	11/01/2013 14:50	GC6A	83582
<u>Analytes</u>	<u>Result</u>		<u>RL</u>	<u>DF</u>	<u>Date Analyzed</u>
TPH-Diesel (C10-C23)	ND		1.0	1	11/04/2013 11:18
TPH-Motor Oil (C18-C36)	ND		5.0	1	11/04/2013 11:18
<u>Surrogates</u>	<u>REC (%)</u>		<u>Limits</u>		
C9	104		70-130		11/04/2013 11:18

(Cont.)



## Analytical Report

**Client:** AEI Consultants  
**Project:** #324771; FSI  
**Date Received:** 11/1/13 16:01  
**Date Prepared:** 11/1/13

**WorkOrder:** 1311018  
**Extraction Method:** SW3550B/3630C  
**Analytical Method:** SW8015B  
**Unit:** mg/Kg

### Total Extractable Petroleum Hydrocarbons with Silica Gel Clean-Up

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
SWE2-9'	1311018-012A	Soil	11/01/2013 15:00	GC6B	83582
<u>Analytes</u>	<u>Result</u>		<u>RL</u>	<u>DF</u>	<u>Date Analyzed</u>
TPH-Diesel (C10-C23)	ND		1.0	1	11/02/2013 01:06
TPH-Motor Oil (C18-C36)	ND		5.0	1	11/02/2013 01:06
<u>Surrogates</u>	<u>REC (%)</u>		<u>Limits</u>		
C9	123		70-130		11/02/2013 01:06
SWE2-6'	1311018-013A	Soil	11/01/2013 15:05	GC6A	83582
<u>Analytes</u>	<u>Result</u>		<u>RL</u>	<u>DF</u>	<u>Date Analyzed</u>
TPH-Diesel (C10-C23)	ND		1.0	1	11/02/2013 09:35
TPH-Motor Oil (C18-C36)	ND		5.0	1	11/02/2013 09:35
<u>Surrogates</u>	<u>REC (%)</u>		<u>Limits</u>		
C9	102		70-130		11/02/2013 09:35
SW5-9'	1311018-015A	Soil	11/01/2013 15:15	GC6A	83582
<u>Analytes</u>	<u>Result</u>		<u>RL</u>	<u>DF</u>	<u>Date Analyzed</u>
TPH-Diesel (C10-C23)	1.1		1.0	1	11/04/2013 12:31
TPH-Motor Oil (C18-C36)	ND		5.0	1	11/04/2013 12:31
<u>Surrogates</u>	<u>REC (%)</u>		<u>Limits</u>	Analytical Comments: e1	
C9	100		70-130		11/04/2013 12:31



## Quality Control Report

**Client:** AEI Consultants  
**Date Prepared:** 10/31/13  
**Date Analyzed:** 11/1/13  
**Instrument:** GC16  
**Matrix:** Soil  
**Project:** #324771; FSI

**WorkOrder:** 1311018  
**BatchID:** 83543  
**Extraction Method:** SW5030B  
**Analytical Method:** SW8260B  
**Unit:** mg/Kg  
**Sample ID:** MB/LCS-83543  
1310A42-001AMS/MSD

### QC Summary Report for SW8260B

Analyte	MB Result	LCS Result	RL	SPK Val	MB SS %REC	LCS %REC	LCS Limits
Acetone	ND	-	0.10	-	-	-	-
tert-Amyl methyl ether (TAME)	ND	0.04685	0.0050	0.050	-	93.7	70-130
Benzene	ND	0.04022	0.0050	0.050	-	80.4	70-130
Bromobenzene	ND	-	0.0050	-	-	-	-
Bromochloromethane	ND	-	0.0050	-	-	-	-
Bromodichloromethane	ND	-	0.0050	-	-	-	-
Bromoform	ND	-	0.0050	-	-	-	-
Bromomethane	ND	-	0.0050	-	-	-	-
2-Butanone (MEK)	ND	-	0.020	-	-	-	-
t-Butyl alcohol (TBA)	ND	0.2262	0.050	0.20	-	113	70-130
n-Butyl benzene	ND	-	0.0050	-	-	-	-
sec-Butyl benzene	ND	-	0.0050	-	-	-	-
tert-Butyl benzene	ND	-	0.0050	-	-	-	-
Carbon Disulfide	ND	-	0.0050	-	-	-	-
Carbon Tetrachloride	ND	-	0.0050	-	-	-	-
Chlorobenzene	ND	0.04238	0.0050	0.050	-	84.8	70-130
Chloroethane	ND	-	0.0050	-	-	-	-
Chloroform	ND	-	0.0050	-	-	-	-
Chloromethane	ND	-	0.0050	-	-	-	-
2-Chlorotoluene	ND	-	0.0050	-	-	-	-
4-Chlorotoluene	ND	-	0.0050	-	-	-	-
Dibromochloromethane	ND	-	0.0050	-	-	-	-
1,2-Dibromo-3-chloropropane	ND	-	0.0040	-	-	-	-
1,2-Dibromoethane (EDB)	ND	0.04474	0.0040	0.050	-	89.5	70-130
Dibromomethane	ND	-	0.0050	-	-	-	-
1,2-Dichlorobenzene	ND	-	0.0050	-	-	-	-
1,3-Dichlorobenzene	ND	-	0.0050	-	-	-	-
1,4-Dichlorobenzene	ND	-	0.0050	-	-	-	-
Dichlorodifluoromethane	ND	-	0.0050	-	-	-	-
1,1-Dichloroethane	ND	-	0.0050	-	-	-	-
1,2-Dichloroethane (1,2-DCA)	ND	0.0427	0.0040	0.050	-	85.4	70-130
1,1-Dichloroethene	ND	0.03297	0.0050	0.050	-	65.9, F2	70-130
cis-1,2-Dichloroethene	ND	-	0.0050	-	-	-	-
trans-1,2-Dichloroethene	ND	-	0.0050	-	-	-	-
1,2-Dichloropropane	ND	-	0.0050	-	-	-	-
1,3-Dichloropropane	ND	-	0.0050	-	-	-	-
2,2-Dichloropropane	ND	-	0.0050	-	-	-	-
1,1-Dichloropropene	ND	-	0.0050	-	-	-	-
cis-1,3-Dichloropropene	ND	-	0.0050	-	-	-	-
trans-1,3-Dichloropropene	ND	-	0.0050	-	-	-	-

(Cont.)

CDPH ELAP 1644 ♦ NELAP 12283CA

 QA/QC Officer



## Quality Control Report

**Client:** AEI Consultants  
**Date Prepared:** 10/31/13  
**Date Analyzed:** 11/1/13  
**Instrument:** GC16  
**Matrix:** Soil  
**Project:** #324771; FSI

**WorkOrder:** 1311018  
**BatchID:** 83543  
**Extraction Method:** SW5030B  
**Analytical Method:** SW8260B  
**Unit:** mg/Kg  
**Sample ID:** MB/LCS-83543  
1310A42-001AMS/MSD

### QC Summary Report for SW8260B

Analyte	MB Result	LCS Result	RL	SPK Val	MB SS %REC	LCS %REC	LCS Limits
Diisopropyl ether (DIPE)	ND	0.04268	0.0050	0.050	-	85.4	70-130
Ethylbenzene	ND	-	0.0050	-	-	-	-
Ethyl tert-butyl ether (ETBE)	ND	0.04319	0.0050	0.050	-	86.4	70-130
Freon 113	ND	-	0.0050	-	-	-	-
Hexachlorobutadiene	ND	-	0.0050	-	-	-	-
Hexachloroethane	ND	-	0.0050	-	-	-	-
2-Hexanone	ND	-	0.0050	-	-	-	-
Isopropylbenzene	ND	-	0.0050	-	-	-	-
4-Isopropyl toluene	ND	-	0.0050	-	-	-	-
Methyl-t-butyl ether (MTBE)	ND	0.04578	0.0050	0.050	-	91.6	70-130
Methylene chloride	ND	-	0.0050	-	-	-	-
4-Methyl-2-pentanone (MIBK)	ND	-	0.0050	-	-	-	-
Naphthalene	ND	-	0.0050	-	-	-	-
n-Propyl benzene	ND	-	0.0050	-	-	-	-
Styrene	ND	-	0.0050	-	-	-	-
1,1,1,2-Tetrachloroethane	ND	-	0.0050	-	-	-	-
1,1,2,2-Tetrachloroethane	ND	-	0.0050	-	-	-	-
Tetrachloroethene	ND	-	0.0050	-	-	-	-
Toluene	ND	0.0427	0.0050	0.050	-	85.4	70-130
1,2,3-Trichlorobenzene	ND	-	0.0050	-	-	-	-
1,2,4-Trichlorobenzene	ND	-	0.0050	-	-	-	-
1,1,1-Trichloroethane	ND	-	0.0050	-	-	-	-
1,1,2-Trichloroethane	ND	-	0.0050	-	-	-	-
Trichloroethene	ND	0.04509	0.0050	0.050	-	90.2	70-130
Trichlorofluoromethane	ND	-	0.0050	-	-	-	-
1,2,3-Trichloropropane	ND	-	0.0050	-	-	-	-
1,2,4-Trimethylbenzene	ND	-	0.0050	-	-	-	-
1,3,5-Trimethylbenzene	ND	-	0.0050	-	-	-	-
Vinyl Chloride	ND	-	0.0050	-	-	-	-
Xylenes, Total	ND	-	0.0050	-	-	-	-

#### Surrogate Recovery

Dibromofluoromethane	0.1184	0.1215	0.12	95	97	70-130
Toluene-d8	0.1264	0.1255	0.12	101	100	70-130
4-BFB	0.01314	0.01291	0.012	105	103	70-130

(Cont.)

CDPH ELAP 1644 ♦ NELAP 12283CA

 QA/QC Officer



## Quality Control Report

**Client:** AEI Consultants  
**Date Prepared:** 10/31/13  
**Date Analyzed:** 11/1/13  
**Instrument:** GC16  
**Matrix:** Soil  
**Project:** #324771; FSI

**WorkOrder:** 1311018  
**BatchID:** 83543  
**Extraction Method:** SW5030B  
**Analytical Method:** SW8260B  
**Unit:** mg/Kg  
**Sample ID:** MB/LCS-83543  
1310A42-001AMS/MSD

### QC Summary Report for SW8260B

Analyte	MS Result	MSD Result	SPK Val	SPKRef Val	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD Limit
tert-Amyl methyl ether (TAME)	0.0459	0.04638	0.050	ND	91.8	92.8	56-94	1.04	30
Benzene	0.03937	0.0406	0.050	ND	78.7	81.2	60-106	3.08	30
t-Butyl alcohol (TBA)	0.2229	0.2172	0.20	ND	111	109	56-140	2.58	30
Chlorobenzene	0.04198	0.04238	0.050	ND	84	84.8	61-108	0.951	30
1,2-Dibromoethane (EDB)	0.04439	0.04443	0.050	ND	88.8	88.9	54-119	0.0825	30
1,2-Dichloroethane (1,2-DCA)	0.04165	0.04215	0.050	ND	83.3	84.3	48-115	1.21	30
1,1-Dichloroethene	0.03212	0.03299	0.050	ND	64.2	66	46-111	2.70	30
Diisopropyl ether (DIPE)	0.04191	0.0433	0.050	ND	83.8	86.6	53-111	3.26	30
Ethyl tert-butyl ether (ETBE)	0.04281	0.04322	0.050	ND	85.6	86.4	61-104	0.953	30
Methyl-t-butyl ether (MTBE)	0.04558	0.04596	0.050	ND	91.2	91.9	58-107	0.845	30
Toluene	0.04184	0.04286	0.050	ND	83.7	85.7	64-114	2.41	30
Trichloroethylene	0.04028	0.04186	0.050	ND	80.6	83.7	60-116	3.85	30
<b>Surrogate Recovery</b>									
Dibromofluoromethane	0.1212	0.1205	0.12		97	96	70-130	0.587	30
Toluene-d8	0.126	0.1257	0.12		101	101	70-130	0	30
4-BFB	0.01237	0.01206	0.012		99	96	70-130	2.49	30

(Cont.)

CDPH ELAP 1644 ♦ NELAP 12283CA

 QA/QC Officer



## Quality Control Report

**Client:** AEI Consultants  
**Date Prepared:** 11/1/13  
**Date Analyzed:** 11/1/13  
**Instrument:** GC16  
**Matrix:** Soil  
**Project:** #324771; FSI

**WorkOrder:** 1311018  
**BatchID:** 83585  
**Extraction Method:** SW5030B  
**Analytical Method:** SW8260B  
**Unit:** mg/Kg  
**Sample ID:** MB/LCS-83585  
1311018-015AMS/MSD

### QC Summary Report for SW8260B

Analyte	MB Result	LCS Result	RL	SPK Val	MB SS %REC	LCS %REC	LCS Limits
Acetone	ND	-	0.10	-	-	-	-
tert-Amyl methyl ether (TAME)	ND	0.05406	0.0050	0.050	-	108	70-130
Benzene	ND	0.0488	0.0050	0.050	-	97.6	70-130
Bromobenzene	ND	-	0.0050	-	-	-	-
Bromochloromethane	ND	-	0.0050	-	-	-	-
Bromodichloromethane	ND	-	0.0050	-	-	-	-
Bromoform	ND	-	0.0050	-	-	-	-
Bromomethane	ND	-	0.0050	-	-	-	-
2-Butanone (MEK)	ND	-	0.020	-	-	-	-
t-Butyl alcohol (TBA)	ND	0.2661	0.050	0.20	-	133, F2	70-130
n-Butyl benzene	ND	-	0.0050	-	-	-	-
sec-Butyl benzene	ND	-	0.0050	-	-	-	-
tert-Butyl benzene	ND	-	0.0050	-	-	-	-
Carbon Disulfide	ND	-	0.0050	-	-	-	-
Carbon Tetrachloride	ND	-	0.0050	-	-	-	-
Chlorobenzene	ND	0.05	0.0050	0.050	-	100	70-130
Chloroethane	ND	-	0.0050	-	-	-	-
Chloroform	ND	-	0.0050	-	-	-	-
Chloromethane	ND	-	0.0050	-	-	-	-
2-Chlorotoluene	ND	-	0.0050	-	-	-	-
4-Chlorotoluene	ND	-	0.0050	-	-	-	-
Dibromochloromethane	ND	-	0.0050	-	-	-	-
1,2-Dibromo-3-chloropropane	ND	-	0.0040	-	-	-	-
1,2-Dibromoethane (EDB)	ND	0.05282	0.0040	0.050	-	106	70-130
Dibromomethane	ND	-	0.0050	-	-	-	-
1,2-Dichlorobenzene	ND	-	0.0050	-	-	-	-
1,3-Dichlorobenzene	ND	-	0.0050	-	-	-	-
1,4-Dichlorobenzene	ND	-	0.0050	-	-	-	-
Dichlorodifluoromethane	ND	-	0.0050	-	-	-	-
1,1-Dichloroethane	ND	-	0.0050	-	-	-	-
1,2-Dichloroethane (1,2-DCA)	ND	0.05087	0.0040	0.050	-	102	70-130
1,1-Dichloroethene	ND	0.04779	0.0050	0.050	-	95.6	70-130
cis-1,2-Dichloroethene	ND	-	0.0050	-	-	-	-
trans-1,2-Dichloroethene	ND	-	0.0050	-	-	-	-
1,2-Dichloropropane	ND	-	0.0050	-	-	-	-
1,3-Dichloropropane	ND	-	0.0050	-	-	-	-
2,2-Dichloropropane	ND	-	0.0050	-	-	-	-
1,1-Dichloropropene	ND	-	0.0050	-	-	-	-
cis-1,3-Dichloropropene	ND	-	0.0050	-	-	-	-
trans-1,3-Dichloropropene	ND	-	0.0050	-	-	-	-

(Cont.)

CDPH ELAP 1644 ♦ NELAP 12283CA

 QA/QC Officer



## Quality Control Report

**Client:** AEI Consultants  
**Date Prepared:** 11/1/13  
**Date Analyzed:** 11/1/13  
**Instrument:** GC16  
**Matrix:** Soil  
**Project:** #324771; FSI

**WorkOrder:** 1311018  
**BatchID:** 83585  
**Extraction Method:** SW5030B  
**Analytical Method:** SW8260B  
**Unit:** mg/Kg  
**Sample ID:** MB/LCS-83585  
1311018-015AMS/MSD

### QC Summary Report for SW8260B

Analyte	MB Result	LCS Result	RL	SPK Val	MB SS %REC	LCS %REC	LCS Limits
Diisopropyl ether (DIPE)	ND	0.05206	0.0050	0.050	-	104	70-130
Ethylbenzene	ND	-	0.0050	-	-	-	-
Ethyl tert-butyl ether (ETBE)	ND	0.05167	0.0050	0.050	-	103	70-130
Freon 113	ND	-	0.0050	-	-	-	-
Hexachlorobutadiene	ND	-	0.0050	-	-	-	-
Hexachloroethane	ND	-	0.0050	-	-	-	-
2-Hexanone	ND	-	0.0050	-	-	-	-
Isopropylbenzene	ND	-	0.0050	-	-	-	-
4-Isopropyl toluene	ND	-	0.0050	-	-	-	-
Methyl-t-butyl ether (MTBE)	ND	0.05512	0.0050	0.050	-	110	70-130
Methylene chloride	ND	-	0.0050	-	-	-	-
4-Methyl-2-pentanone (MIBK)	ND	-	0.0050	-	-	-	-
Naphthalene	ND	-	0.0050	-	-	-	-
n-Propyl benzene	ND	-	0.0050	-	-	-	-
Styrene	ND	-	0.0050	-	-	-	-
1,1,1,2-Tetrachloroethane	ND	-	0.0050	-	-	-	-
1,1,2,2-Tetrachloroethane	ND	-	0.0050	-	-	-	-
Tetrachloroethene	ND	-	0.0050	-	-	-	-
Toluene	ND	0.05123	0.0050	0.050	-	102	70-130
1,2,3-Trichlorobenzene	ND	-	0.0050	-	-	-	-
1,2,4-Trichlorobenzene	ND	-	0.0050	-	-	-	-
1,1,1-Trichloroethane	ND	-	0.0050	-	-	-	-
1,1,2-Trichloroethane	ND	-	0.0050	-	-	-	-
Trichloroethene	ND	0.05169	0.0050	0.050	-	103	70-130
Trichlorofluoromethane	ND	-	0.0050	-	-	-	-
1,2,3-Trichloropropane	ND	-	0.0050	-	-	-	-
1,2,4-Trimethylbenzene	ND	-	0.0050	-	-	-	-
1,3,5-Trimethylbenzene	ND	-	0.0050	-	-	-	-
Vinyl Chloride	ND	-	0.0050	-	-	-	-
Xylenes, Total	ND	-	0.0050	-	-	-	-

#### Surrogate Recovery

Dibromofluoromethane	0.1196	0.1207	0.12	96	97	70-130
Toluene-d8	0.1252	0.1279	0.12	100	102	70-130
4-BFB	0.01332	0.01278	0.012	107	102	70-130

(Cont.)

CDPH ELAP 1644 ♦ NELAP 12283CA

 QA/QC Officer



## Quality Control Report

**Client:** AEI Consultants  
**Date Prepared:** 11/1/13  
**Date Analyzed:** 11/1/13  
**Instrument:** GC16  
**Matrix:** Soil  
**Project:** #324771; FSI

**WorkOrder:** 1311018  
**BatchID:** 83585  
**Extraction Method:** SW5030B  
**Analytical Method:** SW8260B  
**Unit:** mg/Kg  
**Sample ID:** MB/LCS-83585  
1311018-015AMS/MSD

### QC Summary Report for SW8260B

Analyte	MS Result	MSD Result	SPK Val	SPKRef Val	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD Limit
tert-Amyl methyl ether (TAME)	0.04747	0.0464	0.050	ND	94.9,F1	92.8	56-94	2.29	30
Benzene	0.04211	0.04137	0.050	ND	84.2	82.7	60-106	1.76	30
t-Butyl alcohol (TBA)	0.212	0.2114	0.20	ND	106	106	56-140	0	30
Chlorobenzene	0.04257	0.04207	0.050	ND	85.1	84.1	61-108	1.18	30
1,2-Dibromoethane (EDB)	0.04494	0.04403	0.050	ND	89.9	88.1	54-119	2.06	30
1,2-Dichloroethane (1,2-DCA)	0.04352	0.04307	0.050	ND	87	86.1	48-115	1.05	30
1,1-Dichloroethene	0.03979	0.03921	0.050	ND	79.6	78.4	46-111	1.49	30
Diisopropyl ether (DIPE)	0.04532	0.04463	0.050	ND	90.6	89.3	53-111	1.53	30
Ethyl tert-butyl ether (ETBE)	0.04539	0.04423	0.050	ND	90.8	88.5	61-104	2.58	30
Methyl-t-butyl ether (MTBE)	0.04766	0.04655	0.050	ND	95.3	93.1	58-107	2.35	30
Toluene	0.04334	0.04215	0.050	ND	86.7	84.3	64-114	2.78	30
Trichloroethylene	0.0433	0.04193	0.050	ND	86.6	83.9	60-116	3.21	30
<b>Surrogate Recovery</b>									
Dibromofluoromethane	0.1207	0.1213	0.12		97	97	70-130	0	30
Toluene-d8	0.1252	0.1248	0.12		100	100	70-130	0	30
4-BFB	0.01254	0.01275	0.012		100	102	70-130	1.69	30



## Quality Control Report

<b>Client:</b>	AEI Consultants	<b>WorkOrder:</b>	1311018
<b>Date Prepared:</b>	10/31/13	<b>BatchID:</b>	83551
<b>Date Analyzed:</b>	11/1/13	<b>Extraction Method</b>	SW5030B
<b>Instrument:</b>	GC7	<b>Analytical Method:</b>	SW8021B/8015Bm
<b>Matrix:</b>	Soil	<b>Unit:</b>	mg/Kg
<b>Project:</b>	#324771; FSI	<b>Sample ID:</b>	MB/LCS-83551 1310A42-011AMS/MSD

### QC Summary Report for SW8021B/8015Bm

Analyte	MB Result	LCS Result	RL	SPK Val	MB SS %REC	LCS %REC	LCS Limits
TPH(btex)	ND	0.6367	0.40	0.60	-	106	70-130
MTBE	ND	0.1035	0.050	0.10	-	103	70-130
Benzene	ND	0.1175	0.0050	0.10	-	118	70-130
Toluene	ND	0.1099	0.0050	0.10	-	110	70-130
Ethylbenzene	ND	0.1182	0.0050	0.10	-	118	70-130
Xylenes	ND	0.3491	0.0050	0.30	-	116	70-130

#### Surrogate Recovery

2-Fluorotoluene	0.1057	0.1126	0.10	106	113	70-130
-----------------	--------	--------	------	-----	-----	--------

Analyte	MS Result	MSD Result	SPK Val	SPKRef Val	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD Limit
TPH(btex)	0.6004	0.5786	0.60	ND	100	96.4	70-130	3.70	20
MTBE	0.09734	0.09034	0.10	ND	97.3	90.3	70-130	7.46	20
Benzene	0.1108	0.1022	0.10	ND	111	102	70-130	8.10	20
Toluene	0.1043	0.09506	0.10	ND	104	95.1	70-130	9.24	20
Ethylbenzene	0.1131	0.1047	0.10	ND	113	105	70-130	7.71	20
Xylenes	0.339	0.3084	0.30	ND	113	103	70-130	9.46	20

#### Surrogate Recovery

2-Fluorotoluene	0.108	0.09961	0.10	108	100	70-130	8.08	20
-----------------	-------	---------	------	-----	-----	--------	------	----

(Cont.)



## Quality Control Report

<b>Client:</b>	AEI Consultants	<b>WorkOrder:</b>	1311018
<b>Date Prepared:</b>	11/1/13	<b>BatchID:</b>	83587
<b>Date Analyzed:</b>	11/2/13	<b>Extraction Method</b>	SW5030B
<b>Instrument:</b>	GC7	<b>Analytical Method:</b>	SW8021B/8015Bm
<b>Matrix:</b>	Soil	<b>Unit:</b>	mg/Kg
<b>Project:</b>	#324771; FSI	<b>Sample ID:</b>	MB/LCS-83587 1311018-015AMS/MSD

### QC Summary Report for SW8021B/8015Bm

Analyte	MB Result	LCS Result	RL	SPK Val	MB SS %REC	LCS %REC	LCS Limits
TPH(btex)	ND	0.6411	0.40	0.60	-	107	70-130
MTBE	ND	0.09008	0.050	0.10	-	90.1	70-130
Benzene	ND	0.1115	0.0050	0.10	-	111	70-130
Toluene	ND	0.105	0.0050	0.10	-	105	70-130
Ethylbenzene	ND	0.1157	0.0050	0.10	-	116	70-130
Xylenes	ND	0.3432	0.0050	0.30	-	114	70-130

#### Surrogate Recovery

2-Fluorotoluene	0.1151	0.1086	0.10	115	109	70-130
-----------------	--------	--------	------	-----	-----	--------

Analyte	MS Result	MSD Result	SPK Val	SPKRef Val	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD Limit
TPH(btex)	0.5739	0.5651	0.60	ND	95.6	94.2	70-130	1.53	20
MTBE	0.09356	0.09022	0.10	ND	93.6	90.2	70-130	3.64	20
Benzene	0.09993	0.09852	0.10	ND	99.9	98.5	70-130	1.42	20
Toluene	0.09535	0.09218	0.10	ND	95.3	92.2	70-130	3.38	20
Ethylbenzene	0.1059	0.1038	0.10	ND	106	104	70-130	2.00	20
Xylenes	0.3149	0.31	0.30	ND	105	103	70-130	1.55	20

#### Surrogate Recovery

2-Fluorotoluene	0.09785	0.09711	0.10	98	97	70-130	0.760	20
-----------------	---------	---------	------	----	----	--------	-------	----



# Quality Control Report

**Client:** AEI Consultants  
**Date Prepared:** 11/1/13  
**Date Analyzed:** 11/1/13  
**Instrument:** GC6A  
**Matrix:** Soil  
**Project:** #324771; FSI

**WorkOrder:** 1311018  
**BatchID:** 83582  
**Extraction Method:** SW3550B/3630C  
**Analytical Method:** SW8015B  
**Unit:** mg/Kg  
**Sample ID:** MB/LCS-83582  
1311018-007AMS/MSD

# QC SUMMARY REPORT FOR SW8015B

Analyte	MB Result	LCS Result	RL	SPK Val	MB SS %REC	LCS %REC	LCS Limits		
TPH-Diesel (C10-C23)	ND	41.54	1.0	40	-	104	70-130		
<b>Surrogate Recovery</b>									
C9	22.84	22.5		25	91	90	70-130		
<hr/>									
Analyte	MS Result	MSD Result	SPK Val	SPKRef Val	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD Limit
TPH-Diesel (C10-C23)	44.99	45.84	40	ND	112	115	70-130	1.89	30
<b>Surrogate Recovery</b>									
C9	24.19	24.43	25		97	98	70-130	0.986	30



# CHAIN-OF-CUSTODY RECORD

WorkOrder: 1311018

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: #WC084448  
ProjectNo: #324771; FSI

## Bill to:

Sara Guerin  
AEI Consultants  
2500 Camino Diablo, Ste. #200  
Walnut Creek, CA 94597  
AccountsPayable@AEIconsultants.co

Requested TAT: 1 day

Date Received: 11/01/2013

Date Printed: 11/01/2013

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
1311018-001	EB1-12'	Soil	11/1/2013 9:30	<input type="checkbox"/>	A	A										
1311018-002	SWN-7'	Soil	11/1/2013 9:05	<input type="checkbox"/>	A	A										
1311018-003	SWW-9'	Soil	11/1/2013 9:30	<input type="checkbox"/>	A	A										
1311018-004	SWW-6	Soil	11/1/2013 9:45	<input type="checkbox"/>	A	A										
1311018-006	SWE-9'	Soil	11/1/2013 10:00	<input type="checkbox"/>	A	A										
1311018-007	SWE-6'	Soil	11/1/2013 10:05	<input type="checkbox"/>	A	A										
1311018-009	SWW2-9'	Soil	11/1/2013 14:45	<input type="checkbox"/>	A	A										
1311018-010	SWW2-6'	Soil	11/1/2013 14:50	<input type="checkbox"/>	A	A										
1311018-012	SWE2-9'	Soil	11/1/2013 15:00	<input type="checkbox"/>	A	A										
1311018-013	SWE2-6'	Soil	11/1/2013 15:05	<input type="checkbox"/>	A	A										
1311018-015	SW5-9'	Soil	11/1/2013 15:15	<input type="checkbox"/>	A	A										

Test Legend:

<input type="checkbox"/> 1	8260B_S	<input type="checkbox"/> 2	TPH(DMO)WSG_S	<input type="checkbox"/> 3		<input type="checkbox"/> 4		<input type="checkbox"/> 5	
<input type="checkbox"/> 6		<input type="checkbox"/> 7		<input type="checkbox"/> 8		<input type="checkbox"/> 9		<input type="checkbox"/> 10	
<input type="checkbox"/> 11		<input type="checkbox"/> 12							

The following SamplIDs: 001A, 002A, 003A, 004A, 006A, 007A, 009A, 010A, 012A, 013A, 015A contain testgroup.

Prepared by: Maria Venegas

Comments: 24hr Rush

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.

1311018

McCAMPBELL ANALYTICAL INC.

1538 Willow Pass Road, Pittsburg, CA 94565

Telephone: (925) 252-9262

Fax: (925) 252-9269

## **CHAIN OF CUSTODY RECORD**

# RUSH RECORD

## **TURN AROUND TIME**

RUSH 24 HR 48 HR 72 HR 5 DAY  
PDF Required?  Yes  No

Report To: Jeremy Smith	Bill To: AEI Consultants
Company: AEI Consultants, 2500 Camino Diablo, Walnut Creek, CA 94597	
PO# WC084448	Global ID:
	E-Mail: jasmith@aeiconsultatns.com
Telephone: (925) 746-6000, ext. 1128	Fax: (925) 746-6099
AEI Project No. 324771	Project Name: FSI
Project Location: 1600 Park St., Alameda, CA 94501	
Sampler Signature: 	



## Sample Receipt Checklist

Client Name: **AEI Consultants**

Date and Time Received: **11/1/2013 4:01:46 PM**

Project Name: **#324771; FSI**

Login Reviewed by:

Maria Venegas

WorkOrder N°: **1311018**

Matrix: Soil

Carrier: Client Drop-In

### Chain of Custody (COC) Information

- |   |   |                             |
|---|---|-----------------------------|
| Chain of custody present?                               | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> |
| Chain of custody signed when relinquished and received? | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> |
| Chain of custody agrees with sample labels?             | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> |
| Sample IDs noted by Client on COC?                      | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> |
| Date and Time of collection noted by Client on COC?     | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> |
| Sampler's name noted on COC?                            | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> |

### Sample Receipt Information

- |  |   |                             |  |
|--|---|-----------------------------|--|
| Custody seals intact on shipping container/cooler? | Yes <input type="checkbox"/>            | No <input type="checkbox"/> | NA <input checked="" type="checkbox"/> |
| Shipping container/cooler in good condition?       | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> |  |
| Samples in proper containers/bottles?              | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> |  |
| Sample containers intact?                          | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> |  |
| Sufficient sample volume for indicated test?       | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> |  |

### Sample Preservation and Hold Time (HT) Information

- |   |   |                             |  |
|---|---|-----------------------------|--|
| All samples received within holding time?           | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> |  |
| Container/Temp Blank temperature                    | Cooler Temp: 7.2°C                      |                             | NA <input type="checkbox"/>            |
| Water - VOA vials have zero headspace / no bubbles? | Yes <input type="checkbox"/>            | No <input type="checkbox"/> | NA <input checked="" type="checkbox"/> |
| Sample labels checked for correct preservation?     | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> |  |
| Metal - pH acceptable upon receipt (pH<2)?          | Yes <input type="checkbox"/>            | No <input type="checkbox"/> | NA <input checked="" type="checkbox"/> |
| Samples Received on Ice?                            | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> |  |

(Ice Type: WET ICE )

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

Comments:



# McCormick Analytical, Inc.

"When Quality Counts"

## Analytical Report

**WorkOrder:** 1311059

**Report Created for:** AEI Consultants  
2500 Camino Diablo, Ste.#200  
Walnut Creek, CA 94597

**Project Contact:** Andrew Wallace

**Project P.O.:**

**Project Name:** #324771; FSI

**Project Received:** 11/04/2013

Analytical Report reviewed & approved for release on 11/07/2013 by:

Question about  
your data?

[Click here to email](#)  
[McCormick](#)

Angela Rydelius,  
Laboratory Manager

***The report shall not be reproduced except in full, without the written approval of the laboratory.  
The analytical results relate only to the items tested. Results reported conform to the most  
current NELAP standards, where applicable, unless otherwise stated in the case narrative.***



1534 Willow Pass Rd. Pittsburg, CA 94565 ♦ TEL: (877) 252-9262 ♦ FAX: (925) 252-9269 ♦ [www.mccormickanalytical.com](http://www.mccormickanalytical.com)

NELAP: 12283CA ♦ ELAP: 1644 ♦ ISO/IEC: 17025:2005 ♦ WSDE: C972-11 ♦ ADEC: UST-098 ♦ UCMR3



## Glossary of Terms & Qualifier Definitions

**Client:** AEI Consultants

**Project:** #324771; FSI

**WorkOrder:** 1311059

### Glossary Abbreviation

<u>Glossary Abbreviation</u>	<u>Description</u>
95% Interval	95% Confident Interval
DF	Dilution Factor
DUP	Duplicate
LCS	Laboratory Control Sample
MB	Method Blank
MB % Rec	% Recovery of Surrogate in Method Blank, if applicable
MDL	Method Detection Limit
MS	Matrix Spike
MSD	Matrix Spike Duplicate
ND	Not detected at or above the indicated MDL or RL
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.
RD	Relative Difference
RL	Reporting Limit
RPD	Relative Percent Deviation
SPK Val	Spike Value
SPKRef Val	Spike Reference Value

### Analytical Qualifier

S	spike recovery outside accepted recovery limits
c4	surrogate recovery outside of the control limits due to coelution with another peak(s) / cluttered chromatogram.
d1	weakly modified or unmodified gasoline is significant
e4	gasoline range compounds are significant.

### Quality Control Qualifier

F1	MS/MSD recovery was out of acceptance criteria; LCS validated the prep batch.
----	---



## Analytical Report

**Client:** AEI Consultants  
**Project:** #324771; FSI  
**Date Received:** 11/4/13 16:30  
**Date Prepared:** 11/5/13

**WorkOrder:** 1311059  
**Extraction Method:** SW5030B  
**Analytical Method:** SW8260B  
**Unit:** µg/L

### Volatile Organics by P&T and GC/MS (Basic Target List)

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
GW-1	1311059-001B	Water	11/04/2013 11:30	GC28	83670
<u>Analytes</u>	<u>Result</u>		<u>RL</u>	<u>DF</u>	<u>Date Analyzed</u>
Acetone	10		10	1	11/05/2013 12:25
tert-Amyl methyl ether (TAME)	ND		0.50	1	11/05/2013 12:25
Benzene	ND		0.50	1	11/05/2013 12:25
Bromobenzene	ND		0.50	1	11/05/2013 12:25
Bromoform	ND		0.50	1	11/05/2013 12:25
Bromochloromethane	ND		0.50	1	11/05/2013 12:25
Bromodichloromethane	ND		0.50	1	11/05/2013 12:25
Bromoform	ND		0.50	1	11/05/2013 12:25
Bromomethane	ND		0.50	1	11/05/2013 12:25
2-Butanone (MEK)	4.8		2.0	1	11/05/2013 12:25
t-Butyl alcohol (TBA)	ND		2.0	1	11/05/2013 12:25
n-Butyl benzene	2.7		0.50	1	11/05/2013 12:25
sec-Butyl benzene	0.65		0.50	1	11/05/2013 12:25
tert-Butyl benzene	ND		0.50	1	11/05/2013 12:25
Carbon Disulfide	ND		0.50	1	11/05/2013 12:25
Carbon Tetrachloride	ND		0.50	1	11/05/2013 12:25
Chlorobenzene	ND		0.50	1	11/05/2013 12:25
Chloroethane	ND		0.50	1	11/05/2013 12:25
Chloroform	ND		0.50	1	11/05/2013 12:25
Chloromethane	ND		0.50	1	11/05/2013 12:25
2-Chlorotoluene	ND		0.50	1	11/05/2013 12:25
4-Chlorotoluene	ND		0.50	1	11/05/2013 12:25
Dibromochloromethane	ND		0.50	1	11/05/2013 12:25
1,2-Dibromo-3-chloropropane	ND		0.20	1	11/05/2013 12:25
1,2-Dibromoethane (EDB)	ND		0.50	1	11/05/2013 12:25
Dibromomethane	ND		0.50	1	11/05/2013 12:25
1,2-Dichlorobenzene	ND		0.50	1	11/05/2013 12:25
1,3-Dichlorobenzene	ND		0.50	1	11/05/2013 12:25
1,4-Dichlorobenzene	ND		0.50	1	11/05/2013 12:25
Dichlorodifluoromethane	ND		0.50	1	11/05/2013 12:25
1,1-Dichloroethane	ND		0.50	1	11/05/2013 12:25
1,2-Dichloroethane (1,2-DCA)	ND		0.50	1	11/05/2013 12:25
1,1-Dichloroethene	ND		0.50	1	11/05/2013 12:25
cis-1,2-Dichloroethene	ND		0.50	1	11/05/2013 12:25
trans-1,2-Dichloroethene	ND		0.50	1	11/05/2013 12:25
1,2-Dichloropropane	ND		0.50	1	11/05/2013 12:25
1,3-Dichloropropane	ND		0.50	1	11/05/2013 12:25
2,2-Dichloropropane	ND		0.50	1	11/05/2013 12:25
1,1-Dichloropropene	ND		0.50	1	11/05/2013 12:25

(Cont.)



## Analytical Report

**Client:** AEI Consultants  
**Project:** #324771; FSI  
**Date Received:** 11/4/13 16:30  
**Date Prepared:** 11/5/13

**WorkOrder:** 1311059  
**Extraction Method:** SW5030B  
**Analytical Method:** SW8260B  
**Unit:** µg/L

### Volatile Organics by P&T and GC/MS (Basic Target List)

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
<b>GW-1</b>	<b>1311059-001B</b>	<b>Water</b>	<b>11/04/2013 11:30</b>	<b>GC28</b>	<b>83670</b>
<u>Analytes</u>	<u>Result</u>		<u>RL</u>	<u>DF</u>	<u>Date Analyzed</u>
cis-1,3-Dichloropropene	ND		0.50	1	11/05/2013 12:25
trans-1,3-Dichloropropene	ND		0.50	1	11/05/2013 12:25
Diisopropyl ether (DIPE)	ND		0.50	1	11/05/2013 12:25
Ethylbenzene	<b>0.93</b>		0.50	1	11/05/2013 12:25
Ethyl tert-butyl ether (ETBE)	ND		0.50	1	11/05/2013 12:25
Freon 113	ND		0.50	1	11/05/2013 12:25
Hexachlorobutadiene	ND		0.50	1	11/05/2013 12:25
Hexachloroethane	ND		0.50	1	11/05/2013 12:25
2-Hexanone	ND		0.50	1	11/05/2013 12:25
Isopropylbenzene	ND		0.50	1	11/05/2013 12:25
4-Isopropyl toluene	<b>0.98</b>		0.50	1	11/05/2013 12:25
Methyl-t-butyl ether (MTBE)	ND		0.50	1	11/05/2013 12:25
Methylene chloride	ND		0.50	1	11/05/2013 12:25
4-Methyl-2-pentanone (MIBK)	ND		0.50	1	11/05/2013 12:25
Naphthalene	ND		0.50	1	11/05/2013 12:25
n-Propyl benzene	ND		0.50	1	11/05/2013 12:25
Styrene	ND		0.50	1	11/05/2013 12:25
1,1,1,2-Tetrachloroethane	ND		0.50	1	11/05/2013 12:25
1,1,2,2-Tetrachloroethane	ND		0.50	1	11/05/2013 12:25
Tetrachloroethene	ND		0.50	1	11/05/2013 12:25
Toluene	ND		0.50	1	11/05/2013 12:25
1,2,3-Trichlorobenzene	ND		0.50	1	11/05/2013 12:25
1,2,4-Trichlorobenzene	ND		0.50	1	11/05/2013 12:25
1,1,1-Trichloroethane	ND		0.50	1	11/05/2013 12:25
1,1,2-Trichloroethane	ND		0.50	1	11/05/2013 12:25
Trichloroethene	ND		0.50	1	11/05/2013 12:25
Trichlorofluoromethane	ND		0.50	1	11/05/2013 12:25
1,2,3-Trichloropropane	ND		0.50	1	11/05/2013 12:25
1,2,4-Trimethylbenzene	<b>2.3</b>		0.50	1	11/05/2013 12:25
1,3,5-Trimethylbenzene	<b>15</b>		0.50	1	11/05/2013 12:25
Vinyl Chloride	ND		0.50	1	11/05/2013 12:25
Xylenes, Total	<b>13</b>		0.50	1	11/05/2013 12:25
<u>Surrogates</u>	<u>REC (%)</u>		<u>Limits</u>		
Dibromofluoromethane	101		70-130		11/05/2013 12:25
Toluene-d8	93		70-130		11/05/2013 12:25
4-BFB	105		70-130		11/05/2013 12:25



## Analytical Report

**Client:** AEI Consultants

**WorkOrder:** 1311059

**Project:** #324771; FSI

**Extraction Method** SW5030B

**Date Received:** 11/4/13 16:30

**Analytical Method:** SW8021B/8015Bm

**Date Prepared:** 11/4/13

**Unit:**  $\mu\text{g/L}$

### Gasoline Range (C6-C12) Volatile Hydrocarbons as Gasoline with BTEX and MTBE

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
GW-1	1311059-001A	Water	11/04/2013 11:30	GC3	83628
<u>Analytes</u>	<u>Result</u>		<u>RL</u>	<u>DF</u>	<u>Date Analyzed</u>
TPH(g)	1500		50	1	11/04/2013 19:14
MTBE	---		5.0	1	11/04/2013 19:14
Benzene	---		0.50	1	11/04/2013 19:14
Toluene	---		0.50	1	11/04/2013 19:14
Ethylbenzene	---		0.50	1	11/04/2013 19:14
Xylenes	---		0.50	1	11/04/2013 19:14
<u>Surrogates</u>	<u>REC (%)</u>	<u>Qualifiers</u>	<u>Limits</u>	Analytical Comments: d1,c4	
aaa-TFT	207	S	70-130		11/04/2013 19:14



## Analytical Report

**Client:** AEI Consultants

**WorkOrder:** 1311059

**Project:** #324771; FSI

**Extraction Method** SW3510C

**Date Received:** 11/4/13 16:30

**Analytical Method:** SW8015B

**Date Prepared:** 11/4/13

**Unit:**  $\mu\text{g/L}$

### Total Extractable Petroleum Hydrocarbons

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
GW-1	1311059-001A	Water	11/04/2013 11:30	GC6A	83613
<u>Analytes</u>	<u>Result</u>		<u>RL</u>	<u>DF</u>	<u>Date Analyzed</u>
TPH-Diesel (C10-C23)	620		50	1	11/06/2013 02:23
TPH-Motor Oil (C18-C36)	ND		250	1	11/06/2013 02:23
<u>Surrogates</u>	<u>REC (%)</u>		<u>Limits</u>	Analytical Comments: e4	
C9	77		70-130		11/06/2013 02:23



## Quality Control Report

**Client:** AEI Consultants  
**Date Prepared:** 11/5/13  
**Date Analyzed:** 11/5/13  
**Instrument:** GC28  
**Matrix:** Water  
**Project:** #324771; FSI

**WorkOrder:** 1311059  
**BatchID:** 83670  
**Extraction Method:** SW5030B  
**Analytical Method:** SW8260B  
**Unit:** µg/L  
**Sample ID:** MB/LCS-83670  
1311072-001AMS/MSD

### QC SUMMARY REPORT FOR SW8260B

Analyte	MB Result	LCS Result	RL	SPK Val	MB SS %REC	LCS %REC	LCS Limits
Acetone	ND	-	10	-	-	-	-
tert-Amyl methyl ether (TAME)	ND	21.13	0.50	20	-	106	70-130
Benzene	ND	19.75	0.50	20	-	98.8	70-130
Bromobenzene	ND	-	0.50	-	-	-	-
Bromochloromethane	ND	-	0.50	-	-	-	-
Bromodichloromethane	ND	-	0.50	-	-	-	-
Bromoform	ND	-	0.50	-	-	-	-
Bromomethane	ND	-	0.50	-	-	-	-
2-Butanone (MEK)	ND	-	2.0	-	-	-	-
t-Butyl alcohol (TBA)	ND	87.71	2.0	80	-	110	70-130
n-Butyl benzene	ND	-	0.50	-	-	-	-
sec-Butyl benzene	ND	-	0.50	-	-	-	-
tert-Butyl benzene	ND	-	0.50	-	-	-	-
Carbon Disulfide	ND	-	0.50	-	-	-	-
Carbon Tetrachloride	ND	-	0.50	-	-	-	-
Chlorobenzene	ND	20.6	0.50	20	-	103	70-130
Chloroethane	ND	-	0.50	-	-	-	-
Chloroform	ND	-	0.50	-	-	-	-
Chloromethane	ND	-	0.50	-	-	-	-
2-Chlorotoluene	ND	-	0.50	-	-	-	-
4-Chlorotoluene	ND	-	0.50	-	-	-	-
Dibromochloromethane	ND	-	0.50	-	-	-	-
1,2-Dibromo-3-chloropropane	ND	-	0.20	-	-	-	-
1,2-Dibromoethane (EDB)	ND	20.07	0.50	20	-	100	70-130
Dibromomethane	ND	-	0.50	-	-	-	-
1,2-Dichlorobenzene	ND	-	0.50	-	-	-	-
1,3-Dichlorobenzene	ND	-	0.50	-	-	-	-
1,4-Dichlorobenzene	ND	-	0.50	-	-	-	-
Dichlorodifluoromethane	ND	-	0.50	-	-	-	-
1,1-Dichloroethane	ND	-	0.50	-	-	-	-
1,2-Dichloroethane (1,2-DCA)	ND	20.38	0.50	20	-	102	70-130
1,1-Dichloroethene	ND	18.53	0.50	20	-	92.7	70-130
cis-1,2-Dichloroethene	ND	-	0.50	-	-	-	-
trans-1,2-Dichloroethene	ND	-	0.50	-	-	-	-
1,2-Dichloropropane	ND	-	0.50	-	-	-	-
1,3-Dichloropropane	ND	-	0.50	-	-	-	-
2,2-Dichloropropane	ND	-	0.50	-	-	-	-
1,1-Dichloropropene	ND	-	0.50	-	-	-	-
cis-1,3-Dichloropropene	ND	-	0.50	-	-	-	-
trans-1,3-Dichloropropene	ND	-	0.50	-	-	-	-

(Cont.)



## Quality Control Report

**Client:** AEI Consultants  
**Date Prepared:** 11/5/13  
**Date Analyzed:** 11/5/13  
**Instrument:** GC28  
**Matrix:** Water  
**Project:** #324771; FSI

**WorkOrder:** 1311059  
**BatchID:** 83670  
**Extraction Method:** SW5030B  
**Analytical Method:** SW8260B  
**Unit:** µg/L  
**Sample ID:** MB/LCS-83670  
1311072-001AMS/MSD

### QC SUMMARY REPORT FOR SW8260B

Analyte	MB Result	LCS Result	RL	SPK Val	MB SS %REC	LCS %REC	LCS Limits
Diisopropyl ether (DIPE)	ND	20.66	0.50	20	-	103	70-130
Ethylbenzene	ND	-	0.50	-	-	-	-
Ethyl tert-butyl ether (ETBE)	ND	21.45	0.50	20	-	107	70-130
Freon 113	ND	-	0.50	-	-	-	-
Hexachlorobutadiene	ND	-	0.50	-	-	-	-
Hexachloroethane	ND	-	0.50	-	-	-	-
2-Hexanone	ND	-	0.50	-	-	-	-
Isopropylbenzene	ND	-	0.50	-	-	-	-
4-Isopropyl toluene	ND	-	0.50	-	-	-	-
Methyl-t-butyl ether (MTBE)	ND	20.54	0.50	20	-	103	70-130
Methylene chloride	ND	-	0.50	-	-	-	-
4-Methyl-2-pentanone (MIBK)	ND	-	0.50	-	-	-	-
Naphthalene	ND	-	0.50	-	-	-	-
n-Propyl benzene	ND	-	0.50	-	-	-	-
Styrene	ND	-	0.50	-	-	-	-
1,1,1,2-Tetrachloroethane	ND	-	0.50	-	-	-	-
1,1,2,2-Tetrachloroethane	ND	-	0.50	-	-	-	-
Tetrachloroethene	ND	-	0.50	-	-	-	-
Toluene	ND	20.02	0.50	20	-	100	70-130
1,2,3-Trichlorobenzene	ND	-	0.50	-	-	-	-
1,2,4-Trichlorobenzene	ND	-	0.50	-	-	-	-
1,1,1-Trichloroethane	ND	-	0.50	-	-	-	-
1,1,2-Trichloroethane	ND	-	0.50	-	-	-	-
Trichloroethene	ND	21.9	0.50	20	-	110	70-130
Trichlorofluoromethane	ND	-	0.50	-	-	-	-
1,2,3-Trichloropropane	ND	-	0.50	-	-	-	-
1,2,4-Trimethylbenzene	ND	-	0.50	-	-	-	-
1,3,5-Trimethylbenzene	ND	-	0.50	-	-	-	-
Vinyl Chloride	ND	-	0.50	-	-	-	-
Xylenes, Total	ND	-	0.50	-	-	-	-

#### Surrogate Recovery

Dibromofluoromethane	25.56	45.58	45	102	101	70-130
Toluene-d8	24.44	43.54	45	98	97	70-130
4-BFB	2.276	4.106	4.5	91	91	70-130

(Cont.)



## Quality Control Report

**Client:** AEI Consultants  
**Date Prepared:** 11/5/13  
**Date Analyzed:** 11/5/13  
**Instrument:** GC28  
**Matrix:** Water  
**Project:** #324771; FSI

**WorkOrder:** 1311059  
**BatchID:** 83670  
**Extraction Method:** SW5030B  
**Analytical Method:** SW8260B  
**Unit:** µg/L  
**Sample ID:** MB/LCS-83670  
1311072-001AMS/MSD

### QC SUMMARY REPORT FOR SW8260B

Analyte	MS Result	MSD Result	SPK Val	SPKRef Val	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD Limit
tert-Amyl methyl ether (TAME)	23.96	24.59	20	ND	120	123	70-130	2.62	20
Benzene	21.02	21.3	20	ND	105	106	70-130	1.30	20
t-Butyl alcohol (TBA)	104.1	109.7	80	ND	130,F1	137,F1	70-130	5.24	20
Chlorobenzene	21.22	21.45	20	ND	106	107	70-130	1.09	20
1,2-Dibromoethane (EDB)	21.21	21.33	20	ND	106	107	70-130	0.540	20
1,2-Dichloroethane (1,2-DCA)	23.29	23.54	20	ND	116	118	70-130	1.10	20
1,1-Dichloroethene	19.63	19.49	20	ND	98.2	97.4	70-130	0.725	20
Diisopropyl ether (DIPE)	22.23	22.5	20	ND	111	113	70-130	1.23	20
Ethyl tert-butyl ether (ETBE)	24.12	24.31	20	ND	121	122	70-130	0.817	20
Methyl-t-butyl ether (MTBE)	22.75	23.06	20	ND	114	115	70-130	1.32	20
Toluene	20.42	20.28	20	ND	102	101	70-130	0.681	20
Trichloroethylene	23.73	23.86	20	ND	119	119	70-130	0	20
<b>Surrogate Recovery</b>									
Dibromofluoromethane	48.58	49.18	45		108	109	70-130	1.24	20
Toluene-d8	43.23	42.8	45		96	95	70-130	0.997	20
4-BFB	4.033	4.085	4.5		90	91	70-130	1.29	20



## Quality Control Report

<b>Client:</b>	AEI Consultants	<b>WorkOrder:</b>	1311059
<b>Date Prepared:</b>	11/4/13	<b>BatchID:</b>	83628
<b>Date Analyzed:</b>	11/4/13	<b>Extraction Method</b>	SW5030B
<b>Instrument:</b>	GC3	<b>Analytical Method:</b>	SW8021B/8015Bm
<b>Matrix:</b>	Water	<b>Unit:</b>	µg/L
<b>Project:</b>	#324771; FSI	<b>Sample ID:</b>	MB/LCS-83628 1311026-002AMS/MSD

### QC SUMMARY REPORT FOR SW8021B/8015Bm

Analyte	MB Result	LCS Result	RL	SPK Val	MB SS %REC	LCS %REC	LCS Limits
TPH(btex)	ND	59.72	40	60	-	99.5	70-130
MTBE	ND	10.97	5.0	10	-	110	70-130
Benzene	ND	10.36	0.50	10	-	104	70-130
Toluene	ND	10.32	0.50	10	-	103	70-130
Ethylbenzene	ND	10.25	0.50	10	-	102	70-130
Xylenes	ND	31.02	0.50	30	-	103	70-130

**Surrogate Recovery**

aaa-TFT	10.23	9.93	10	102	99	70-130
---------	-------	------	----	-----	----	--------

Analyte	MS Result	MSD Result	SPK Val	SPKRef Val	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD Limit
TPH(btex)	63.58	61.86	60	ND	106	103	70-130	2.74	20
MTBE	11.76	11.4	10	ND	118	114	70-130	3.13	20
Benzene	10.75	10.7	10	ND	108	107	70-130	0.432	20
Toluene	10.76	10.72	10	ND	108	107	70-130	0.384	20
Ethylbenzene	10.72	10.65	10	ND	107	106	70-130	0.673	20
Xylenes	32.61	32.23	30	ND	109	107	70-130	1.17	20

**Surrogate Recovery**

aaa-TFT	9.862	9.884	10	99	99	70-130	0	20
---------	-------	-------	----	----	----	--------	---	----



## Quality Control Report

**Client:** AEI Consultants  
**Date Prepared:** 11/4/13  
**Date Analyzed:** 11/5/13  
**Instrument:** GC6B  
**Matrix:** Water  
**Project:** #324771; FSI

**WorkOrder:** 1311059  
**BatchID:** 83613  
**Extraction Method:** SW3510C  
**Analytical Method:** SW8015B  
**Unit:** µg/L  
**Sample ID:** MB/LCS-83613

---

### QC SUMMARY REPORT FOR SW8015B

---

Analyte	MB Result	LCS Result	RL	SPK Val	MB SS %REC	LCS %REC	LCS Limits
TPH-Diesel (C10-C23)	ND	1189	50	1000	-	119	70-130
<b>Surrogate Recovery</b>							
C9	671.4	626.9		625	107	100	70-130

---



# CHAIN-OF-CUSTODY RECORD

Page 1 of 1

**WorkOrder:** 1311059

**ClientCode:** AEL

WaterTrax     WriteOn     EDF     Excel     EQuIS     Email     HardCopy     ThirdParty     J-flag

**Report to:**

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

Email: awallace@aeiconsultants.com  
cc:  
PO: ProjectNo: #324771; FSI

**Bill to:**

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

**Requested TAT:** 5 days

**Date Received:** 11/04/2013

**Date Printed:** 11/04/2013

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
1311059-001	GW-1	Water	11/4/2013 11:30	<input type="checkbox"/>	B	A										

**Test Legend:**

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

The following SamplID: 001A contains testgroup.

**Prepared by:** Daniel Loa

**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.

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

131059

## CHAIN OF CUSTODY RECORD

## TURN AROUND TIME

 RUSH     24 HR     48 HR     72 HR     5 DAYGeoTracker EDF  PDF  Excel  Write On (DW)  Check if sample is effluent and "J" flag is required

Report To: Andrew Wallace      Bill To: AEI Consultants  
 Company: AEI Consultants  
 2500 Camino Diablo #200, Walnut Creek 94597  
 E-Mail: awallace@aeiconsultants.com  
 Tele: (925) 746-6000 x105      Fax: (925) 746-6099  
 Project #: 324771      Project Name: F61  
 Project Location: 1630 Park St, Alameda  
 Sampler Signature: *Wall*

SAMPLE ID	LOCATION/ Field Point Name	SAMPLING		# Containers	MATRIX		METHOD PRESERVED
		Date	Time		Type	Containers	
GW-1		11/4/13	11:30	4	VOC	X	
GW-2							
GW-3							
GW-4							
GW-5							
GW-6							
GW-7							
GW-8							
GW-9							
GW-10							
GW-11							
GW-12							
GW-13							
GW-14							
GW-15							
GW-16							
GW-17							
GW-18							
GW-19							
GW-20							
GW-21							
GW-22							
GW-23							
GW-24							
GW-25							
GW-26							
GW-27							
GW-28							
GW-29							
GW-30							
GW-31							
GW-32							
GW-33							
GW-34							
GW-35							
GW-36							
GW-37							
GW-38							
GW-39							
GW-40							
GW-41							
GW-42							
GW-43							
GW-44							
GW-45							
GW-46							
GW-47							
GW-48							
GW-49							
GW-50							
GW-51							
GW-52							
GW-53							
GW-54							
GW-55							
GW-56							
GW-57							
GW-58							
GW-59							
GW-60							
GW-61							
GW-62							
GW-63							
GW-64							
GW-65							
GW-66							
GW-67							
GW-68							
GW-69							
GW-70							
GW-71							
GW-72							
GW-73							
GW-74							
GW-75							
GW-76							
GW-77							
GW-78							
GW-79							
GW-80							
GW-81							
GW-82							
GW-83							
GW-84							
GW-85							
GW-86							
GW-87							
GW-88							
GW-89							
GW-90							
GW-91							
GW-92							
GW-93							
GW-94							
GW-95							
GW-96							
GW-97							
GW-98							
GW-99							
GW-100							
GW-101							
GW-102							
GW-103							
GW-104							
GW-105							
GW-106							
GW-107							
GW-108							
GW-109							
GW-110							
GW-111							
GW-112							
GW-113							
GW-114							
GW-115							
GW-116							
GW-117							
GW-118							
GW-119							
GW-120							
GW-121							
GW-122							
GW-123							
GW-124							
GW-125							
GW-126							
GW-127							
GW-128							
GW-129							
GW-130							
GW-131							
GW-132							
GW-133							
GW-134							
GW-135							
GW-136							
GW-137							
GW-138							
GW-139							
GW-140							
GW-141							
GW-142							
GW-143							
GW-144							
GW-145							
GW-146							
GW-147							
GW-148							
GW-149							
GW-150							
GW-151							
GW-152							
GW-153							
GW-154							
GW-155							
GW-156							
GW-157							
GW-158							
GW-159							
GW-160							
GW-161							
GW-162							
GW-163							
GW-164							
GW-165							
GW-166							
GW-167							
GW-168							
GW-169							
GW-170							
GW-171							
GW-172							
GW-173							
GW-174							
GW-175							
GW-176							
GW-177							
GW-178							
GW-179							
GW-180							
GW-181							
GW-182							
GW-183							
GW-184							
GW-185							
GW-186							
GW-187							
GW-188							
GW-189							
GW-190							
GW-191							
GW-192							
GW-193							
GW-194							
GW-195							
GW-196							
GW-197							
GW-198							
GW-199							
GW-200							
GW-201							
GW-202							
GW-203							
GW-204							
GW-205							
GW-206							
GW-207							
GW-208							
GW-209							
GW-210							
GW-211							
GW-212							
GW-213							
GW-214							
GW-215							
GW-216							
GW-217							
GW-218							
GW-219							
GW-220							
GW-221							
GW-222							
GW-223							
GW-224							
GW-225							
GW-226							
GW-227							
GW-228							
GW-229							
GW-230							
GW-231							
GW-232							
GW-233							
GW-234							
GW-235							
GW-236							
GW-237							
GW-238							
GW-239							
GW-240							
GW-241							
GW							



## Sample Receipt Checklist

Client Name: **AEI Consultants**

Date and Time Received: **11/4/2013 4:30:42 PM**

Project Name: **#324771; FSI**

Login Reviewed by: **Daniel Loa**

WorkOrder N°: **1311059**

Matrix: Water

Carrier: Rob Pringle (MAI Courier)

### Chain of Custody (COC) Information

- |   |   |                             |
|---|---|-----------------------------|
| Chain of custody present?                               | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> |
| Chain of custody signed when relinquished and received? | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> |
| Chain of custody agrees with sample labels?             | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> |
| Sample IDs noted by Client on COC?                      | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> |
| Date and Time of collection noted by Client on COC?     | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> |
| Sampler's name noted on COC?                            | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> |

### Sample Receipt Information

- |  |   |                             |  |
|--|---|-----------------------------|--|
| Custody seals intact on shipping container/cooler? | Yes <input type="checkbox"/>            | No <input type="checkbox"/> | NA <input checked="" type="checkbox"/> |
| Shipping container/cooler in good condition?       | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> |  |
| Samples in proper containers/bottles?              | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> |  |
| Sample containers intact?                          | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> |  |
| Sufficient sample volume for indicated test?       | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> |  |

### Sample Preservation and Hold Time (HT) Information

- |   |   |                             |  |
|---|---|-----------------------------|--|
| All samples received within holding time?           | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> |  |
| Container/Temp Blank temperature                    | Cooler Temp: 5.3°C                      |                             | NA <input type="checkbox"/>            |
| Water - VOA vials have zero headspace / no bubbles? | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> | NA <input type="checkbox"/>            |
| Sample labels checked for correct preservation?     | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> |  |
| Metal - pH acceptable upon receipt (pH<2)?          | Yes <input type="checkbox"/>            | No <input type="checkbox"/> | NA <input checked="" type="checkbox"/> |
| Samples Received on Ice?                            | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> |  |

(Ice Type: WET ICE )

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

Comments:



# McCampbell Analytical, Inc.

"When Quality Counts"

## Analytical Report

**WorkOrder:** 1311015

**Report Created for:** AEI Consultants  
2500 Camino Diablo, Ste.#200  
Walnut Creek, CA 94597

**Project Contact:** Jeremy Smith  
**Project P.O.:** #WC084446  
**Project Name:** #324771; FSI

**Project Received:** 11/01/2013

Analytical Report reviewed & approved for release on 11/04/2013 by:

Question about  
your data?

[Click here to email](#)  
[McCAMPBELL](#)

Angela Rydelius,  
Laboratory Manager

***The report shall not be reproduced except in full, without the written approval of the laboratory.  
The analytical results relate only to the items tested. Results reported conform to the most  
current NELAP standards, where applicable, unless otherwise stated in the case narrative.***



1534 Willow Pass Rd. Pittsburg, CA 94565 ♦ TEL: (877) 252-9262 ♦ FAX: (925) 252-9269 ♦ [www.mccampbell.com](http://www.mccampbell.com)

NELAP: 12283CA ♦ ELAP: 1644 ♦ ISO/IEC: 17025:2005 ♦ WSDE: C972-11 ♦ ADEC: UST-098 ♦ UCMR3



## Glossary of Terms & Qualifier Definitions

**Client:** AEI Consultants

**Project:** #324771; FSI

**WorkOrder:** 1311015

<u>Glossary Abbreviation</u>	<u>Description</u>
95% Interval	95% Confident Interval
DF	Dilution Factor
DUP	Duplicate
LCS	Laboratory Control Sample
MB	Method Blank
MB % Rec	% Recovery of Surrogate in Method Blank, if applicable
MDL	Method Detection Limit
MS	Matrix Spike
MSD	Matrix Spike Duplicate
ND	Not detected at or above the indicated MDL or RL
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.
RD	Relative Difference
RL	Reporting Limit
RPD	Relative Percent Deviation
SPK Val	Spike Value
SPKRef Val	Spike Reference Value



## Case Narrative

**Client:** AEI Consultants  
**Project:** #324771; FSI

**Work Order:** 1311015  
November 04, 2013

### TO-15 ANALYSIS

All summa canisters are EVACUATED 5 days after the reporting of the results. Please call or email if a longer retention time is required.

In an effort to attain the lowest reporting limits possible for the majority of the TO-15 target list, high level compounds may be analyzed using EPA Method 8260B.

Polymer (Tedlar) bags are not recommended for TO15 samples. The disadvantages are listed in Appendix B of the DTSC Advisory of April 2012.



## Analytical Report

**Client:** AEI Consultants  
**Project:** #324771; FSI  
**Date Received:** 11/1/13 14:58  
**Date Prepared:** 11/4/13

**WorkOrder:** 1311015  
**Extraction Method:** ASTM D 1946-90  
**Analytical Method:** ASTM D 1946-90  
**Unit:** %

### Helium

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
SV-16	1311015-001A	Soil/DISS.	11/01/2013 13:28	GC26	83623

**Initial Pressure (psia)**                    **Final Pressure (psia)**

13.38	26.66
-------	-------

<u>Analytes</u>	<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Date Analyzed</u>
Helium	0.057	0.0050	1	11/04/2013 12:03

SV-17	1311015-002A	Soil/DISS.	11/01/2013 13:01	GC26	83623
-------	--------------	------------	------------------	------	-------

**Initial Pressure (psia)**                    **Final Pressure (psia)**

12.19	24.28
-------	-------

<u>Analytes</u>	<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Date Analyzed</u>
Helium	0.018	0.0050	1	11/04/2013 12:18

SV-18	1311015-003A	Soil/DISS.	11/01/2013 12:41	GC26	83623
-------	--------------	------------	------------------	------	-------

**Initial Pressure (psia)**                    **Final Pressure (psia)**

13.06	26.04
-------	-------

<u>Analytes</u>	<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Date Analyzed</u>
Helium	0.012	0.0050	1	11/04/2013 12:31



## Analytical Report

**Client:** AEI Consultants  
**Project:** #324771; FSI  
**Date Received:** 11/1/13 14:58  
**Date Prepared:** 11/4/13

**WorkOrder:** 1311015  
**Extraction Method:** ASTM D 1946-90  
**Analytical Method:** ASTM D 1946-90  
**Unit:** uL/L

### Light Gases

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
SV-16	1311015-001A	Soil/DISS.	11/01/2013 13:28	GC26	83624

**Initial Pressure (psia)**      **Final Pressure (psia)**

13.38	26.66
-------	-------

Analytes	Result	RL	DF	Date Analyzed
Carbon Dioxide	2000	50	1	11/04/2013 14:33
Methane	5.1	1.0	1	11/04/2013 15:59
Oxygen	170,000	4000	1	11/04/2013 14:33

SV-17	1311015-002A	Soil/DISS.	11/01/2013 13:01	GC26	83624
-------	--------------	------------	------------------	------	-------

**Initial Pressure (psia)**      **Final Pressure (psia)**

12.19	24.28
-------	-------

Analytes	Result	RL	DF	Date Analyzed
Carbon Dioxide	2500	50	1	11/04/2013 14:54
Methane	3.3	1.0	1	11/04/2013 16:12
Oxygen	170,000	4000	1	11/04/2013 14:54

SV-18	1311015-003A	Soil/DISS.	11/01/2013 12:41	GC26	83624
-------	--------------	------------	------------------	------	-------

**Initial Pressure (psia)**      **Final Pressure (psia)**

13.06	26.04
-------	-------

Analytes	Result	RL	DF	Date Analyzed
Carbon Dioxide	1200	50	1	11/04/2013 15:15
Methane	ND	1.0	1	11/04/2013 16:24
Oxygen	170,000	4000	1	11/04/2013 15:15



## Analytical Report

**Client:** AEI Consultants  
**Project:** #324771; FSI  
**Date Received:** 11/1/13 14:58  
**Date Prepared:** 11/2/13

**WorkOrder:** 1311015  
**Extraction Method:** TO15  
**Analytical Method:** TO15  
**Unit:**  $\mu\text{g}/\text{m}^3$

### TPH gas + Volatile Organic Compounds in $\mu\text{g}/\text{m}^3$

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
SV-16	1311015-001A	Soil	11/01/2013 13:28	GC24	83625

Initial Pressure (psia)	Final Pressure (psia)
13.38	26.66

Analytes	Result	RL	DF	Date Analyzed
Acetone	ND	60	1	11/02/2013 02:35
Acrolein	ND	1.6	1	11/02/2013 02:35
Acrylonitrile	ND	1.1	1	11/02/2013 02:35
tert-Amyl methyl ether (TAME)	ND	2.1	1	11/02/2013 02:35
Benzene	<b>8.2</b>	1.6	1	11/02/2013 02:35
Benzyl chloride	ND	2.6	1	11/02/2013 02:35
Bromodichloromethane	ND	3.5	1	11/02/2013 02:35
Bromoform	ND	5.2	1	11/02/2013 02:35
Bromomethane	ND	2.0	1	11/02/2013 02:35
1,3-Butadiene	ND	1.1	1	11/02/2013 02:35
2-Butanone (MEK)	ND	75	1	11/02/2013 02:35
t-Butyl alcohol (TBA)	ND	31	1	11/02/2013 02:35
Carbon Disulfide	<b>3.4</b>	1.6	1	11/02/2013 02:35
Carbon Tetrachloride	ND	3.2	1	11/02/2013 02:35
Chlorobenzene	ND	2.4	1	11/02/2013 02:35
Chloroethane	ND	1.3	1	11/02/2013 02:35
Chloroform	ND	2.4	1	11/02/2013 02:35
Chloromethane	ND	1.0	1	11/02/2013 02:35
Cyclohexane	ND	18	1	11/02/2013 02:35
Dibromochloromethane	ND	4.4	1	11/02/2013 02:35
1,2-Dibromo-3-chloropropane	ND	0.12	1	11/02/2013 02:35
1,2-Dibromoethane (EDB)	ND	3.9	1	11/02/2013 02:35
1,2-Dichlorobenzene	ND	3.0	1	11/02/2013 02:35
1,3-Dichlorobenzene	ND	3.0	1	11/02/2013 02:35
1,4-Dichlorobenzene	ND	3.0	1	11/02/2013 02:35
Dichlorodifluoromethane	ND	2.5	1	11/02/2013 02:35
1,1-Dichloroethane	ND	2.0	1	11/02/2013 02:35
1,2-Dichloroethane (1,2-DCA)	ND	2.0	1	11/02/2013 02:35
1,1-Dichloroethene	ND	2.0	1	11/02/2013 02:35
cis-1,2-Dichloroethene	ND	2.0	1	11/02/2013 02:35
trans-1,2-Dichloroethene	ND	2.0	1	11/02/2013 02:35
1,2-Dichloropropane	ND	2.4	1	11/02/2013 02:35
cis-1,3-Dichloropropene	ND	2.3	1	11/02/2013 02:35
trans-1,3-Dichloropropene	ND	2.3	1	11/02/2013 02:35

(Cont.)



## Analytical Report

**Client:** AEI Consultants  
**Project:** #324771; FSI  
**Date Received:** 11/1/13 14:58  
**Date Prepared:** 11/2/13

**WorkOrder:** 1311015  
**Extraction Method:** TO15  
**Analytical Method:** TO15  
**Unit:**  $\mu\text{g}/\text{m}^3$

### TPH gas + Volatile Organic Compounds in $\mu\text{g}/\text{m}^3$

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
SV-16	1311015-001A	Soil	11/01/2013 13:28	GC24	83625

Initial Pressure (psia)	Final Pressure (psia)
13.38	26.66

Analytes	Result	RL	DF	Date Analyzed
1,2-Dichloro-1,1,2,2-tetrafluoroethane	ND	3.6	1	11/02/2013 02:35
Diisopropyl ether (DIPE)	ND	2.1	1	11/02/2013 02:35
1,4-Dioxane	ND	1.8	1	11/02/2013 02:35
Ethanol	ND	96	1	11/02/2013 02:35
Ethyl acetate	ND	1.8	1	11/02/2013 02:35
Ethyl tert-butyl ether (ETBE)	ND	2.1	1	11/02/2013 02:35
Ethylbenzene	<b>2.6</b>	2.2	1	11/02/2013 02:35
4-Ethyltoluene	ND	2.5	1	11/02/2013 02:35
Freon 113	ND	3.9	1	11/02/2013 02:35
Heptane	ND	21	1	11/02/2013 02:35
Hexachlorobutadiene	ND	5.4	1	11/02/2013 02:35
Hexane	ND	18	1	11/02/2013 02:35
2-Hexanone	ND	2.1	1	11/02/2013 02:35
4-Methyl-2-pentanone (MIBK)	ND	2.1	1	11/02/2013 02:35
Methyl-t-butyl ether (MTBE)	ND	1.8	1	11/02/2013 02:35
Methylene chloride	ND	1.8	1	11/02/2013 02:35
Methyl methacrylate	ND	2.1	1	11/02/2013 02:35
Naphthalene	ND	5.3	1	11/02/2013 02:35
Propene	ND	88	1	11/02/2013 02:35
Styrene	ND	2.2	1	11/02/2013 02:35
1,1,1,2-Tetrachloroethane	ND	3.5	1	11/02/2013 02:35
1,1,2,2-Tetrachloroethane	ND	3.5	1	11/02/2013 02:35
Tetrachloroethene	<b>4.9</b>	3.4	1	11/02/2013 02:35
Tetrahydrofuran	<b>13</b>	1.5	1	11/02/2013 02:35
Toluene	<b>8.7</b>	1.9	1	11/02/2013 02:35
TPH(g)	ND	720	1	11/02/2013 02:35
1,2,4-Trichlorobenzene	ND	3.8	1	11/02/2013 02:35
1,1,1-Trichloroethane	ND	2.8	1	11/02/2013 02:35
1,1,2-Trichloroethane	ND	2.8	1	11/02/2013 02:35
Trichloroethene	<b>4.4</b>	2.8	1	11/02/2013 02:35
Trichlorofluoromethane	ND	2.8	1	11/02/2013 02:35
1,2,4-Trimethylbenzene	<b>3.8</b>	2.5	1	11/02/2013 02:35
1,3,5-Trimethylbenzene	ND	2.5	1	11/02/2013 02:35
Vinyl Acetate	ND	1.8	1	11/02/2013 02:35

(Cont.)



## Analytical Report

**Client:** AEI Consultants  
**Project:** #324771; FSI  
**Date Received:** 11/1/13 14:58  
**Date Prepared:** 11/2/13

**WorkOrder:** 1311015  
**Extraction Method:** TO15  
**Analytical Method:** TO15  
**Unit:**  $\mu\text{g}/\text{m}^3$

### TPH gas + Volatile Organic Compounds in $\mu\text{g}/\text{m}^3$

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
SV-16	1311015-001A	Soil	11/01/2013 13:28	GC24	83625

#### Initial Pressure (psia)

#### Final Pressure (psia)

13.38	26.66
-------	-------

Analytes	Result	RL	DF	Date Analyzed
Vinyl Chloride	ND	1.3	1	11/02/2013 02:35
Xylenes, Total	ND	6.6	1	11/02/2013 02:35
Surrogates	REC (%)	Limits		
1,2-DCA-d4	117	70-130		11/02/2013 02:35
Toluene-d8	107	70-130		11/02/2013 02:35
4-BFB	111	70-130		11/02/2013 02:35

(Cont.)

CDPH ELAP 1644 ♦ NELAP 12283CA

\_\_\_\_ GM Analyst's Initial

 Angela Rydelius, Lab Manager



## Analytical Report

**Client:** AEI Consultants  
**Project:** #324771; FSI  
**Date Received:** 11/1/13 14:58  
**Date Prepared:** 11/2/13

**WorkOrder:** 1311015  
**Extraction Method:** TO15  
**Analytical Method:** TO15  
**Unit:**  $\mu\text{g}/\text{m}^3$

### TPH gas + Volatile Organic Compounds in $\mu\text{g}/\text{m}^3$

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
SV-17	1311015-002A	Soil	11/01/2013 13:01	GC24	83625

Initial Pressure (psia)	Final Pressure (psia)
12.19	24.28

Analytes	Result	RL	DF	Date Analyzed
Acetone	ND	60	1	11/02/2013 03:15
Acrolein	ND	1.6	1	11/02/2013 03:15
Acrylonitrile	ND	1.1	1	11/02/2013 03:15
tert-Amyl methyl ether (TAME)	ND	2.1	1	11/02/2013 03:15
Benzene	<b>6.5</b>	1.6	1	11/02/2013 03:15
Benzyl chloride	ND	2.6	1	11/02/2013 03:15
Bromodichloromethane	ND	3.5	1	11/02/2013 03:15
Bromoform	ND	5.2	1	11/02/2013 03:15
Bromomethane	ND	2.0	1	11/02/2013 03:15
1,3-Butadiene	ND	1.1	1	11/02/2013 03:15
2-Butanone (MEK)	ND	75	1	11/02/2013 03:15
t-Butyl alcohol (TBA)	ND	31	1	11/02/2013 03:15
Carbon Disulfide	<b>1.9</b>	1.6	1	11/02/2013 03:15
Carbon Tetrachloride	ND	3.2	1	11/02/2013 03:15
Chlorobenzene	ND	2.4	1	11/02/2013 03:15
Chloroethane	ND	1.3	1	11/02/2013 03:15
Chloroform	ND	2.4	1	11/02/2013 03:15
Chloromethane	ND	1.0	1	11/02/2013 03:15
Cyclohexane	ND	18	1	11/02/2013 03:15
Dibromochloromethane	ND	4.4	1	11/02/2013 03:15
1,2-Dibromo-3-chloropropane	ND	0.12	1	11/02/2013 03:15
1,2-Dibromoethane (EDB)	ND	3.9	1	11/02/2013 03:15
1,2-Dichlorobenzene	ND	3.0	1	11/02/2013 03:15
1,3-Dichlorobenzene	ND	3.0	1	11/02/2013 03:15
1,4-Dichlorobenzene	ND	3.0	1	11/02/2013 03:15
Dichlorodifluoromethane	ND	2.5	1	11/02/2013 03:15
1,1-Dichloroethane	ND	2.0	1	11/02/2013 03:15
1,2-Dichloroethane (1,2-DCA)	ND	2.0	1	11/02/2013 03:15
1,1-Dichloroethene	ND	2.0	1	11/02/2013 03:15
cis-1,2-Dichloroethene	ND	2.0	1	11/02/2013 03:15
trans-1,2-Dichloroethene	ND	2.0	1	11/02/2013 03:15
1,2-Dichloropropane	ND	2.4	1	11/02/2013 03:15
cis-1,3-Dichloropropene	ND	2.3	1	11/02/2013 03:15
trans-1,3-Dichloropropene	ND	2.3	1	11/02/2013 03:15

(Cont.)



## Analytical Report

**Client:** AEI Consultants  
**Project:** #324771; FSI  
**Date Received:** 11/1/13 14:58  
**Date Prepared:** 11/2/13

**WorkOrder:** 1311015  
**Extraction Method:** TO15  
**Analytical Method:** TO15  
**Unit:**  $\mu\text{g}/\text{m}^3$

### TPH gas + Volatile Organic Compounds in $\mu\text{g}/\text{m}^3$

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
SV-17	1311015-002A	Soil	11/01/2013 13:01	GC24	83625

Initial Pressure (psia)	Final Pressure (psia)
12.19	24.28

Analytes	Result	RL	DF	Date Analyzed
1,2-Dichloro-1,1,2,2-tetrafluoroethane	ND	3.6	1	11/02/2013 03:15
Diisopropyl ether (DIPE)	ND	2.1	1	11/02/2013 03:15
1,4-Dioxane	ND	1.8	1	11/02/2013 03:15
Ethanol	ND	96	1	11/02/2013 03:15
Ethyl acetate	ND	1.8	1	11/02/2013 03:15
Ethyl tert-butyl ether (ETBE)	ND	2.1	1	11/02/2013 03:15
Ethylbenzene	ND	2.2	1	11/02/2013 03:15
4-Ethyltoluene	ND	2.5	1	11/02/2013 03:15
Freon 113	ND	3.9	1	11/02/2013 03:15
Heptane	ND	21	1	11/02/2013 03:15
Hexachlorobutadiene	ND	5.4	1	11/02/2013 03:15
Hexane	ND	18	1	11/02/2013 03:15
2-Hexanone	ND	2.1	1	11/02/2013 03:15
4-Methyl-2-pentanone (MIBK)	ND	2.1	1	11/02/2013 03:15
Methyl-t-butyl ether (MTBE)	ND	1.8	1	11/02/2013 03:15
Methylene chloride	ND	1.8	1	11/02/2013 03:15
Methyl methacrylate	ND	2.1	1	11/02/2013 03:15
Naphthalene	ND	5.3	1	11/02/2013 03:15
Propene	ND	88	1	11/02/2013 03:15
Styrene	ND	2.2	1	11/02/2013 03:15
1,1,1,2-Tetrachloroethane	ND	3.5	1	11/02/2013 03:15
1,1,2,2-Tetrachloroethane	ND	3.5	1	11/02/2013 03:15
Tetrachloroethene	9.3	3.4	1	11/02/2013 03:15
Tetrahydrofuran	ND	1.5	1	11/02/2013 03:15
Toluene	7.3	1.9	1	11/02/2013 03:15
TPH(g)	ND	720	1	11/02/2013 03:15
1,2,4-Trichlorobenzene	ND	3.8	1	11/02/2013 03:15
1,1,1-Trichloroethane	ND	2.8	1	11/02/2013 03:15
1,1,2-Trichloroethane	ND	2.8	1	11/02/2013 03:15
Trichloroethene	ND	2.8	1	11/02/2013 03:15
Trichlorofluoromethane	ND	2.8	1	11/02/2013 03:15
1,2,4-Trimethylbenzene	3.2	2.5	1	11/02/2013 03:15
1,3,5-Trimethylbenzene	ND	2.5	1	11/02/2013 03:15
Vinyl Acetate	ND	1.8	1	11/02/2013 03:15

(Cont.)



## Analytical Report

**Client:** AEI Consultants

**WorkOrder:** 1311015

**Project:** #324771; FSI

**Extraction Method** TO15

**Date Received:** 11/1/13 14:58

**Analytical Method:** TO15

**Date Prepared:** 11/2/13

**Unit:**  $\mu\text{g}/\text{m}^3$

### TPH gas + Volatile Organic Compounds in $\mu\text{g}/\text{m}^3$

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
SV-17	1311015-002A	Soil	11/01/2013 13:01	GC24	83625

#### Initial Pressure (psia)

#### Final Pressure (psia)

12.19	24.28
-------	-------

Analytes	Result	RL	DF	Date Analyzed
Vinyl Chloride	ND	1.3	1	11/02/2013 03:15
Xylenes, Total	ND	6.6	1	11/02/2013 03:15
Surrogates	REC (%)	Limits		
1,2-DCA-d4	109	70-130		11/02/2013 03:15
Toluene-d8	106	70-130		11/02/2013 03:15
4-BFB	108	70-130		11/02/2013 03:15

(Cont.)

CDPH ELAP 1644 ♦ NELAP 12283CA

\_\_\_\_ GM Analyst's Initial

 Angela Rydelius, Lab Manager



## Analytical Report

**Client:** AEI Consultants  
**Project:** #324771; FSI  
**Date Received:** 11/1/13 14:58  
**Date Prepared:** 11/2/13

**WorkOrder:** 1311015  
**Extraction Method:** TO15  
**Analytical Method:** TO15  
**Unit:**  $\mu\text{g}/\text{m}^3$

### TPH gas + Volatile Organic Compounds in $\mu\text{g}/\text{m}^3$

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
SV-18	1311015-003A	Soil	11/01/2013 12:41	GC24	83625

Initial Pressure (psia)	Final Pressure (psia)
13.06	26.04

Analytes	Result	RL	DF	Date Analyzed
Acetone	110	60	1	11/02/2013 03:56
Acrolein	ND	1.6	1	11/02/2013 03:56
Acrylonitrile	ND	1.1	1	11/02/2013 03:56
tert-Amyl methyl ether (TAME)	ND	2.1	1	11/02/2013 03:56
Benzene	5.0	1.6	1	11/02/2013 03:56
Benzyl chloride	ND	2.6	1	11/02/2013 03:56
Bromodichloromethane	ND	3.5	1	11/02/2013 03:56
Bromoform	ND	5.2	1	11/02/2013 03:56
Bromomethane	ND	2.0	1	11/02/2013 03:56
1,3-Butadiene	ND	1.1	1	11/02/2013 03:56
2-Butanone (MEK)	ND	75	1	11/02/2013 03:56
t-Butyl alcohol (TBA)	ND	31	1	11/02/2013 03:56
Carbon Disulfide	ND	1.6	1	11/02/2013 03:56
Carbon Tetrachloride	ND	3.2	1	11/02/2013 03:56
Chlorobenzene	ND	2.4	1	11/02/2013 03:56
Chloroethane	ND	1.3	1	11/02/2013 03:56
Chloroform	ND	2.4	1	11/02/2013 03:56
Chloromethane	ND	1.0	1	11/02/2013 03:56
Cyclohexane	ND	18	1	11/02/2013 03:56
Dibromochloromethane	ND	4.4	1	11/02/2013 03:56
1,2-Dibromo-3-chloropropane	ND	0.12	1	11/02/2013 03:56
1,2-Dibromoethane (EDB)	ND	3.9	1	11/02/2013 03:56
1,2-Dichlorobenzene	ND	3.0	1	11/02/2013 03:56
1,3-Dichlorobenzene	ND	3.0	1	11/02/2013 03:56
1,4-Dichlorobenzene	ND	3.0	1	11/02/2013 03:56
Dichlorodifluoromethane	ND	2.5	1	11/02/2013 03:56
1,1-Dichloroethane	ND	2.0	1	11/02/2013 03:56
1,2-Dichloroethane (1,2-DCA)	ND	2.0	1	11/02/2013 03:56
1,1-Dichloroethene	ND	2.0	1	11/02/2013 03:56
cis-1,2-Dichloroethene	ND	2.0	1	11/02/2013 03:56
trans-1,2-Dichloroethene	ND	2.0	1	11/02/2013 03:56
1,2-Dichloropropane	ND	2.4	1	11/02/2013 03:56
cis-1,3-Dichloropropene	ND	2.3	1	11/02/2013 03:56
trans-1,3-Dichloropropene	ND	2.3	1	11/02/2013 03:56

(Cont.)



## Analytical Report

**Client:** AEI Consultants  
**Project:** #324771; FSI  
**Date Received:** 11/1/13 14:58  
**Date Prepared:** 11/2/13

**WorkOrder:** 1311015  
**Extraction Method:** TO15  
**Analytical Method:** TO15  
**Unit:**  $\mu\text{g}/\text{m}^3$

### TPH gas + Volatile Organic Compounds in $\mu\text{g}/\text{m}^3$

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
SV-18	1311015-003A	Soil	11/01/2013 12:41	GC24	83625

Initial Pressure (psia)	Final Pressure (psia)				
13.06	26.04				
Analytes	Result	RL	DF	Date Analyzed	
1,2-Dichloro-1,1,2,2-tetrafluoroethane	ND	3.6	1	11/02/2013 03:56	
Diisopropyl ether (DIPE)	ND	2.1	1	11/02/2013 03:56	
1,4-Dioxane	ND	1.8	1	11/02/2013 03:56	
Ethanol	ND	96	1	11/02/2013 03:56	
Ethyl acetate	ND	1.8	1	11/02/2013 03:56	
Ethyl tert-butyl ether (ETBE)	ND	2.1	1	11/02/2013 03:56	
Ethylbenzene	<b>2.7</b>	2.2	1	11/02/2013 03:56	
4-Ethyltoluene	<b>3.6</b>	2.5	1	11/02/2013 03:56	
Freon 113	ND	3.9	1	11/02/2013 03:56	
Heptane	ND	21	1	11/02/2013 03:56	
Hexachlorobutadiene	ND	5.4	1	11/02/2013 03:56	
Hexane	ND	18	1	11/02/2013 03:56	
2-Hexanone	ND	2.1	1	11/02/2013 03:56	
4-Methyl-2-pentanone (MIBK)	ND	2.1	1	11/02/2013 03:56	
Methyl-t-butyl ether (MTBE)	ND	1.8	1	11/02/2013 03:56	
Methylene chloride	ND	1.8	1	11/02/2013 03:56	
Methyl methacrylate	ND	2.1	1	11/02/2013 03:56	
Naphthalene	ND	5.3	1	11/02/2013 03:56	
Propene	ND	88	1	11/02/2013 03:56	
Styrene	ND	2.2	1	11/02/2013 03:56	
1,1,1,2-Tetrachloroethane	ND	3.5	1	11/02/2013 03:56	
1,1,2,2-Tetrachloroethane	ND	3.5	1	11/02/2013 03:56	
Tetrachloroethene	<b>11</b>	3.4	1	11/02/2013 03:56	
Tetrahydrofuran	ND	1.5	1	11/02/2013 03:56	
Toluene	<b>7.1</b>	1.9	1	11/02/2013 03:56	
TPH(g)	<b>2700</b>	720	1	11/02/2013 03:56	
1,2,4-Trichlorobenzene	ND	3.8	1	11/02/2013 03:56	
1,1,1-Trichloroethane	ND	2.8	1	11/02/2013 03:56	
1,1,2-Trichloroethane	ND	2.8	1	11/02/2013 03:56	
Trichloroethene	ND	2.8	1	11/02/2013 03:56	
Trichlorofluoromethane	ND	2.8	1	11/02/2013 03:56	
1,2,4-Trimethylbenzene	<b>8.9</b>	2.5	1	11/02/2013 03:56	
1,3,5-Trimethylbenzene	<b>3.0</b>	2.5	1	11/02/2013 03:56	
Vinyl Acetate	ND	1.8	1	11/02/2013 03:56	

(Cont.)



## Analytical Report

**Client:** AEI Consultants  
**Project:** #324771; FSI  
**Date Received:** 11/1/13 14:58  
**Date Prepared:** 11/2/13

**WorkOrder:** 1311015  
**Extraction Method:** TO15  
**Analytical Method:** TO15  
**Unit:**  $\mu\text{g}/\text{m}^3$

### TPH gas + Volatile Organic Compounds in $\mu\text{g}/\text{m}^3$

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
SV-18	1311015-003A	Soil	11/01/2013 12:41	GC24	83625

#### Initial Pressure (psia)

#### Final Pressure (psia)

13.06	26.04
-------	-------

Analytes	Result	RL	DF	Date Analyzed
Vinyl Chloride	ND	1.3	1	11/02/2013 03:56
Xylenes, Total	ND	6.6	1	11/02/2013 03:56
Surrogates	REC (%)	Limits		
1,2-DCA-d4	112	70-130		11/02/2013 03:56
Toluene-d8	109	70-130		11/02/2013 03:56
4-BFB	115	70-130		11/02/2013 03:56



## Quality Control Report

**Client:** AEI Consultants  
**Date Prepared:** 11/4/13  
**Date Analyzed:** 11/4/13  
**Instrument:** GC26  
**Matrix:** Soilgas  
**Project:** #324771; FSI

**WorkOrder:** 1311015  
**BatchID:** 83623  
**Extraction Method:** ASTM D 1946-90  
**Analytical Method:** ASTM D 1946-90  
**Unit:** %  
**Sample ID:** MB/LCS-83623

---

### QC SUMMARY REPORT FOR ASTM D 1946-90

---

Analyte	MB Result	LCS Result	RL	SPK Val	MB SS %REC	LCS %REC	LCS Limits
Helium	ND	0.008304	0.0050	0.010	-	83	60-140

---



## Quality Control Report

**Client:** AEI Consultants  
**Date Prepared:** 11/4/13  
**Date Analyzed:** 11/4/13  
**Instrument:** GC26  
**Matrix:** SoilGas  
**Project:** #324771; FSI

**WorkOrder:** 1311015  
**BatchID:** 83624  
**Extraction Method:** ASTM D 1946-90  
**Analytical Method:** ASTM D 1946-90  
**Unit:** uL/L  
**Sample ID:** MB/LCS-83624

---

### QC SUMMARY REPORT FOR ASTM D 1946-90

---

Analyte	MB Result	LCS Result	RL	SPK Val	MB SS %REC	LCS %REC	LCS Limits
Carbon Dioxide	ND	292.9	50	250	-	117	70-130
Methane	ND	230.7	1.0	250	-	92.3	70-130
Oxygen	ND	6881	4000	7000	-	98.3	70-130

---



## Quality Control Report

**Client:** AEI Consultants  
**Date Prepared:** 11/1/13  
**Date Analyzed:** 11/1/13  
**Instrument:** GC24  
**Matrix:** Soilgas  
**Project:** #324771; FSI

**WorkOrder:** 1311015  
**BatchID:** 83625  
**Extraction Method:** TO15  
**Analytical Method:** TO15  
**Unit:** nL/L  
**Sample ID:** MB/LCS-83625

### QC SUMMARY REPORT FOR TO15

Analyte	MB Result	LCS Result	RL	SPK Val	MB SS %REC	LCS %REC	LCS Limits
Acetone	ND	-	25	-	-	-	-
Acrylonitrile	ND	22.77	0.50	25	-	91.1	60-140
tert-Amyl methyl ether (TAME)	ND	22.54	0.50	25	-	90.2	60-140
Benzene	ND	21.25	0.50	25	-	85	60-140
Benzyl chloride	ND	23.37	0.50	25	-	93.5	60-140
Bromodichloromethane	ND	20.19	0.50	25	-	80.8	60-140
Bromoform	ND	21.67	0.50	25	-	86.7	60-140
Bromomethane	ND	-	0.50	-	-	-	-
1,3-Butadiene	ND	-	0.50	-	-	-	-
2-Butanone (MEK)	ND	-	25	-	-	-	-
t-Butyl alcohol (TBA)	ND	21	10	25	-	84	60-140
Carbon Disulfide	ND	21.28	0.50	25	-	85.1	60-140
Carbon Tetrachloride	ND	23.53	0.50	25	-	94.1	60-140
Chlorobenzene	ND	19.84	0.50	25	-	79.4	60-140
Chloroethane	ND	20.69	0.50	25	-	82.7	60-140
Chloroform	ND	17.95	0.50	25	-	71.8	60-140
Chloromethane	ND	19.41	0.50	25	-	77.7	60-140
Cyclohexane	ND	-	5.0	-	-	-	-
Dibromochloromethane	ND	24.71	0.50	25	-	98.8	60-140
1,2-Dibromo-3-chloropropane	ND	26.64	0.012	25	-	107	60-140
1,2-Dibromoethane (EDB)	ND	19.68	0.50	25	-	78.7	60-140
1,2-Dichlorobenzene	ND	-	0.50	-	-	-	-
1,3-Dichlorobenzene	ND	20.93	0.50	25	-	83.7	60-140
1,4-Dichlorobenzene	ND	18.55	0.50	25	-	74.2	60-140
Dichlorodifluoromethane	ND	20.71	0.50	25	-	82.8	60-140
1,1-Dichloroethane	ND	20.72	0.50	25	-	82.9	60-140
1,2-Dichloroethane (1,2-DCA)	ND	18.32	0.50	25	-	73.3	60-140
1,1-Dichloroethene	ND	-	0.50	-	-	-	-
cis-1,2-Dichloroethene	ND	21.1	0.50	25	-	84.4	60-140
trans-1,2-Dichloroethene	ND	21.45	0.50	25	-	85.8	60-140
1,2-Dichloropropane	ND	18.94	0.50	25	-	75.8	60-140
cis-1,3-Dichloropropene	ND	23.85	0.50	25	-	95.4	60-140
trans-1,3-Dichloropropene	ND	22.05	0.50	25	-	88.2	60-140
1,2-Dichloro-1,1,2,2-tetrafluoroethane	ND	20.41	0.50	25	-	81.7	60-140
Diisopropyl ether (DIPE)	ND	28.86	0.50	25	-	115	60-140
1,4-Dioxane	ND	21.46	0.50	25	-	85.9	60-140
Ethanol	ND	-	50	-	-	-	-
Ethyl acetate	ND	22.12	0.50	25	-	88.5	60-140
Ethyl tert-butyl ether (ETBE)	ND	22.98	0.50	25	-	91.9	60-140
Ethylbenzene	ND	20.99	0.50	25	-	83.9	60-140

(Cont.)



## Quality Control Report

**Client:** AEI Consultants  
**Date Prepared:** 11/1/13  
**Date Analyzed:** 11/1/13  
**Instrument:** GC24  
**Matrix:** Soilgas  
**Project:** #324771; FSI

**WorkOrder:** 1311015  
**BatchID:** 83625  
**Extraction Method:** TO15  
**Analytical Method:** TO15  
**Unit:** nL/L  
**Sample ID:** MB/LCS-83625

### QC SUMMARY REPORT FOR TO15

Analyte	MB Result	LCS Result	RL	SPK Val	MB SS %REC	LCS %REC	LCS Limits
4-Ethyltoluene	ND	-	0.50	-	-	-	-
Freon 113	ND	20.12	0.50	25	-	80.5	60-140
Heptane	ND	-	5.0	-	-	-	-
Hexachlorobutadiene	ND	21.15	0.50	25	-	84.6	60-140
Hexane	ND	-	5.0	-	-	-	-
2-Hexanone	ND	-	0.50	-	-	-	-
4-Methyl-2-pentanone (MIBK)	ND	25.25	0.50	25	-	101	60-140
Methyl-t-butyl ether (MTBE)	ND	22.57	0.50	25	-	90.3	60-140
Methylene chloride	ND	18.38	0.50	25	-	73.5	60-140
Naphthalene	ND	43.16	1.0	50	-	86.3	60-140
Propene	ND	-	50	-	-	-	-
Styrene	ND	21.95	0.50	25	-	87.8	60-140
1,1,1,2-Tetrachloroethane	ND	22.99	0.50	25	-	91.9	60-140
1,1,2,2-Tetrachloroethane	ND	17.86	0.50	25	-	71.4	60-140
Tetrachloroethene	ND	19.78	0.50	25	-	79.1	60-140
Tetrahydrofuran	ND	17.52	0.50	25	-	70.1	60-140
Toluene	ND	19.32	0.50	25	-	77.3	60-140
1,2,4-Trichlorobenzene	ND	21.87	0.50	25	-	87.5	60-140
1,1,1-Trichloroethane	ND	23.15	0.50	25	-	92.6	60-140
1,1,2-Trichloroethane	ND	18.51	0.50	25	-	74	60-140
Trichloroethene	ND	16.85	0.50	25	-	67.4	60-140
Trichlorofluoromethane	ND	-	0.50	-	-	-	-
1,2,4-Trimethylbenzene	ND	21.02	0.50	25	-	84.1	60-140
1,3,5-Trimethylbenzene	ND	21.29	0.50	25	-	85.2	60-140
Vinyl Acetate	ND	-	0.50	-	-	-	-
Vinyl Chloride	ND	17.88	0.50	25	-	71.5	60-140
Xylenes, Total	ND	61.89	1.5	75	-	82.5	60-140

#### Surrogate Recovery

1,2-DCA-d4	538.9	550.5	500	108	110	60-140
Toluene-d8	514.3	529.7	500	103	106	60-140
4-BFB	529.8	538.5	500	106	108	60-140



# CHAIN-OF-CUSTODY RECORD

WorkOrder: 1311015

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:  
ProjectNo: #324771; FSI

## Bill to:

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

Requested TAT: 1 day

Date Received: 11/01/2013

Date Printed: 11/01/2013

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
1311015-001	SV-16	Soil	11/1/2013 13:28	<input type="checkbox"/>	A	A	A	A								
1311015-002	SV-17	Soil	11/1/2013 13:01	<input type="checkbox"/>	A		A		A							
1311015-003	SV-18	Soil	11/1/2013 12:41	<input type="checkbox"/>	A		A		A							

Test Legend:

1	LG_SUMMA_SOILGAS	2	PREF REPORT	3	PRHELIUM SHROUD	4	PRUNUSEDSUMMA	5	5+GAS_Scan-SIM_SOIL(UG)
6		7		8		9		10	
11		12							

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

Prepared by: Maria Venegas

Comments: 24hr Rush

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.

1311015

<b>McCAMPBELL ANALYTICAL INC.</b> 1534 Willow Pass Road Pittsburg, CA 94565-1701 <a href="http://www.main@mccampbell.com">www.main@mccampbell.com</a> Telephone: (925) 252-9262      Fax: (925) 252-9269				<b>CHAIN OF CUSTODY RECORD</b> <b>TURN AROUND TIME</b> EDF Required? <input type="checkbox"/> No <input checked="" type="checkbox"/> Yes							
				<b>RUSH</b> <input type="checkbox"/> 24 HR <input type="checkbox"/> 48 HR <input type="checkbox"/> 72 HR <input type="checkbox"/> 3 DAY							
Report To: Jeremy Smith      Bill To: PO# WC084446 Company: AEI Consultants 2500 Camino Diablo, Walnut Creek, California 94597 E-Mail: jasmith@aeiconsultants.com Tele: (925) 746-6000      Fax: (925) 746-6099 Project #: 324771      Project Name: FSI Project Location: 1600 Park St., Alameda, California				Lab Use Only							
Sampler Signature: <i>Jerry S</i>				Notes: <i>Helium leak check</i>							
Field Sample ID (Location)	Collection		Canister SN#	Sampler Kit SN#	Analysis Requested	Indoor Air	Soil Gas	Canister Pressure/Vacuum			
	Date	Time						Initial	Final	Receipt	Final (psi)
SV-16	11-1-13	128	6413	316-1218	TPH(g)/VOCs by TO-15, Fix Gas ASTM1946		X	-30	-5		
SV-17	1	101	6419	316-172	1	1	X	-29	-5		
SV-18	1	1241	6172	316-1999	1	1	X	-30	-5		
Relinquished By:	Date:	Time:	Received By:	Temp (°C) : _____ Work Order #: _____ Condition: _____ Custody Seals Intact?: Yes _____ No _____ None _____ Shipped Via: _____							
Relinquished By:	Date:	Time:	Received By:								



## Sample Receipt Checklist

Client Name: **AEI Consultants**

Date and Time Received: **11/1/2013 2:58:39 PM**

Project Name: **#324771; FSI**

Login Reviewed by:

Maria Venegas

WorkOrder N°: **1311015**

Matrix: Soil

Carrier: Client Drop-In

### Chain of Custody (COC) Information

- |   |   |                             |
|---|---|-----------------------------|
| Chain of custody present?                               | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> |
| Chain of custody signed when relinquished and received? | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> |
| Chain of custody agrees with sample labels?             | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> |
| Sample IDs noted by Client on COC?                      | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> |
| Date and Time of collection noted by Client on COC?     | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> |
| Sampler's name noted on COC?                            | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> |

### Sample Receipt Information

- |   |   |                             |  |
|---|---|-----------------------------|--|
| Custody seals intact on shipping container/coolier? | Yes <input type="checkbox"/>            | No <input type="checkbox"/> | NA <input checked="" type="checkbox"/> |
| Shipping container/coolier in good condition?       | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> |  |
| Samples in proper containers/bottles?               | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> |  |
| Sample containers intact?                           | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> |  |
| Sufficient sample volume for indicated test?        | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> |  |

### Sample Preservation and Hold Time (HT) Information

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

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

Comments:

**APPENDIX D**

**QUARRY DOCUMENTATION**



# SYAR INDUSTRIES, INC.

2301 NAPA-VALLEJO HWY. • P.O. BOX 2540 • NAPA, CA 94558-0524  
PHONE: 707/252-8711 • FAX: 707/224-5932

## Letter of Transmittal

Date: December 16, 2013  
Attention: Andrew  
Contract No.:  
Project: 1620 Park Road  
Alameda, California

To: A E I CONSULTANTS  
ALL ENVIRONMENTAL INC  
2500 CAMINO DIABLO SUITE 100  
WALNUT CREEK CA 94803

THE FOLLOWING ITEMS ARE BEING TRANSMITTED VIA:  EMAIL  FAX

WE ARE SENDING YOU  SUBMITTAL(S)  ADDITIONAL SUBMITTAL(S)  REVISED/REPLACEMENT SUBMITTAL(S)

SUBMITTAL NO.	PLANT	DESCRIPTION
131222	Lake Herman	3/4" Class 2 Aggregate Base
131223	Lake Herman	3/4" Drain Rock

THESE ARE TRANSMITTED as checked below:

For approval  As requested  Corrected as noted

REMARKS:

Debby Pannell

Debby Pannell  
Quality Control Coordinator

Copies To:  
File Folder LH068361



# SYAR INDUSTRIES, INC.

2301 NAPA-VALLEJO HWY. • P.O. BOX 2540 • NAPA, CA 94558-0524

PHONE: 707/252-8711 • FAX: 707/224-5932

December 16, 2013

A E I CONSULTANTS  
ALL ENVIRONMENTAL INC  
2500 CAMINO DIABLO SUITE 100  
WALNUT CREEK CA 94803

## Syar Submittal No. 131222

Re: Certificate of Compliance  
Syar Product Code: 1305 - 3/4" Class 2 Aggregate Base

Project: 1620 Park Road  
Alameda, California

To whom it may concern:

This letter will certify that the 3/4" (19-mm) Class 2 Aggregate Base Material, to be supplied to the above mentioned project from our Lake Herman Plant, will comply with Section No. 26 in the July 1999, May 2006 & 2010 Caltrans Standard Specifications as well as the July 2002 Standard Specifications for Construction of Local Streets and Roads. ***This material is 100% crushed virgin quarried rock produced at the Lake Herman Quarry in Vallejo, California.***

### 3/4" (19-mm) Class 2 Aggregate Base

<u>English Sieve Size</u>	<u>Metric Sieve Size</u>	<u>Percent Passing</u>	<u>Specified Requirements</u>
1"	25-mm	100	100
3/4"	19-mm	98	90-100
#4	4.75-mm	46	35-60
#30	600-µm	15	10-30
#200	75-µm	6.3	2-9

<u>Test Name</u>	<u>California Test Number</u>	<u>Test Results</u>	<u>Specification Requirements</u>
Resistance (R-Value)	301	85	78 Min.
Sand Equivalent	217	43	25 Min.
Durability Index	229	44	35 Min.

If we may be of any further assistance please contact us.

Sincerely,

A handwritten signature in blue ink that reads "MH:dp".

Mike Herlax  
Quality Control Manager

MH:dp

cc: Lake Herman SH & Lab  
File No. LH068361



# SYAR INDUSTRIES, INC.

2301 NAPA-VALLEJO HWY. • P.O. BOX 2540 • NAPA, CA 94558-0524

PHONE: 707/252-8711 • FAX: 707/224-5932

December 16, 2013

A E I CONSULTANTS  
ALL ENVIRONMENTAL INC  
2500 CAMINO DIABLO SUITE 100  
WALNUT CREEK CA 94803

## Syar Submittal No. 131223

Re: Certificate of Compliance  
Syar Product Code: 1735 - 3/4" Crushed Drain Rock

Project: 1620 Park Road  
Alameda, California

To whom it may concern:

This letter will certify that the 3/4" Crushed Drain Rock-Straight, to be supplied to the above mentioned project from our Lake Herman Plant, has the following typical gradation. ***This material is 100% crushed virgin quarried rock produced at the Lake Herman Quarry in Vallejo, California.***

### 3/4" Crushed Drain Rock

<u>English Sieve Size</u>	<u>Metric Sieve Size</u>	<u>Percent Passing</u>
1"	25-mm	100
3/4"	19-mm	86
1/2"	12.5-mm	10
3/8"	9.5-mm	2
#4	4.75-mm	1
#8	2.36-mm	1

If we may be of any further assistance, please contact us.

Sincerely,

A handwritten signature in blue ink that reads "MH:dp".

Mike Herlax  
Quality Control Manager

MH:dp

cc: Lake Herman SH & Lab (3/4" Drain Rock-STRAIGHT)  
File No. LH068361

**APPENDIX E**

**COMPACTION TESTING**



2211 Fortune Drive, Suite C  
San Jose, California 95131  
(408) 577-1090 Office  
(408) 577-1099 Fax

November 30, 2013

Project No. 5-613-0762

Mr. Camilo Cielo  
**Walgreens Company**  
106 Wilmot Road, MS 1630  
Deerfield, IL 60015

**Subject:** COMPACTATION TESTING REPORT - BUILDING PAD  
WALGREENS STORE NO. 15666  
1600 PARK STREET  
ALAMEDA, CALIFORNIA

Dear Mr. Cielo:

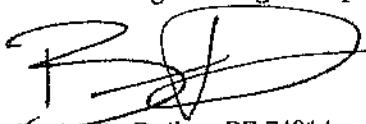
At your request and authorization, SALEM Engineering Group, Inc. (SALEM), has prepared this Compaction Testing Report for the above-referenced site.

A representative of SALEM conducted compaction testing for the subject project between the dates of November 5, 2013 and November 22, 2013. A total of thirty (30) in-place density tests were conducted. The individual test data are summarized in the attached Table. The depth and frequency of testing was directed at providing a preliminary evaluation of the backfill compaction. The in-place density tests were performed using a nuclear gauge in accordance with ASTM Test Methods D2922 and D3017. The locations were determined by pacing and steel tape and should be considered accurate to within 0.5 and 5 feet in vertical and lateral dimension, respectively.

Based on the result of the in-place density tests, it is concluded that the aggregate mixtures has been placed in accordance with accepted engineering practice and has been compacted to a minimum of 95 percent of maximum density based on ASTM D1557 Test Method. However, 2 failed tests occurred and contractor was notified. Re-testing will be required in these areas.

Should you have questions regarding this report or need additional information, please contact the undersigned at (408) 577-1090.

Respectfully submitted,  
**SALEM Engineering Group, Inc.**

  
Benjamin Dailey, PE 74014

Engineering Manager



Geotechnical • Environmental

Forensic • Laboratory

- |                                 |                              |                  |                      |
|---------------------------------|------------------------------|------------------|----------------------|
| 4729 W. Jacquelyn Avenue        | • Fresno, CA 93722           | • (559) 271-9700 | • Fax (559) 271-0827 |
| 2809 Unicorn Rd., Ste.1103      | • Bakersfield, CA 93308      | • (661) 393-9711 | • Fax (661) 393-9710 |
| 11650 Mission Park Dr. Set. 108 | • Rancho Cucamonga, CA 91730 | • (909) 980-6455 | • Fax (909) 980-6435 |
| 3850 North Wilcox Rd., Ste. F   | • Stockton, CA 95215         | • (209) 931-2226 | • Fax (209) 931-2227 |
| 2211 Fortune Drive, Ste. C      | • San Jose, CA 95131         | • (408) 577-1090 | • Fax (408) 577-1099 |
| 3420 C. Street NE, Suite 304    | • Auburn, WA 98002           | • (253) 737-5992 | • Fax (253) 929-6094 |

**SUMMARY OF COMPACTION TEST RESULTS -Building Pad**

Walgreens Pharmacy No. 15666

1600 Park Street, Alameda, CA

Curve No.	Depth (ft)	Optimum Moisture (%)	Maximum Dry Density (pcf)	Sample Location	Soil Description			Tested by	
Test Number	Elevation (ft)	In-Place Moisture (%)	In-Place Dry Density (pcf)	Maximum Dry Density (pcf)	Relative Compaction (%)	Required Compaction (%)	Pass or Fail	Location	Test Date
S - 1		9.2	126.5	On-Site	Dark Brown Silty Sand with Aggregate Mixtures			SALEM	
S - 2		9.4	115.2	On-Site	S/M, Sand			SALEM	
S - 3		7.4	138.2	On-Site	Aggregate Base Mixtures			SALEM	
1	-2'	7.0	138.1	138.2	100	95%	Pass	See Map	11/5/2013
2	-1'	8.4	138.3	138.2	100	95%	Pass	See Map	11/5/2013
3	-6"	8.0	138.5	138.2	100	95%	Pass	See Map	11/5/2013
4	-4'	7.7	137.0	138.2	99	95%	Pass	See Map	11/5/2013
5	-4'	8.1	137.2	138.2	99	95%	Pass	See Map	11/5/2013
6	-3'	7.7	137.7	138.2	100	95%	Pass	See Map	11/5/2013
7	-3'	8.2	137.7	138.2	100	95%	Pass	See Map	11/5/2013
8	-2'	7.8	137.8	138.2	100	95%	Pass	See Map	11/5/2013
9	-2'	8.2	138.9	138.2	101	95%	Pass	See Map	11/5/2013
10	-2.5'	7.5	114.2	115.2	99	95%	Pass	See Map	11/5/2013
11	-2.5'	8.4	114.6	115.2	99	95%	Pass	See Map	11/5/2013
1	-1.5'	6.7	135.9	138.2	98	95%	Pass	See Map	11/6/2013
2	-1.5'	7.3	136.0	138.2	98	95%	Pass	See Map	11/6/2013
3	-1'	7.8	137.5	138.2	99	95%	Pass	See Map	11/6/2013
4	-1'	8.2	136.7	138.2	99	95%	Pass	See Map	11/6/2013
5	FG	7.6	137.2	138.2	99	95%	Pass	See Map	11/6/2013
6	FG	7.7	137.4	138.2	99	95%	Pass	See Map	11/6/2013
7	-1.5'	7.7	114.2	115.2	99	95%	Pass	See Map	11/6/2013
8	-1.5'	7.8	112.5	115.2	98	95%	Pass	See Map	11/6/2013
9	-1.5'	7.5	111.6	115.2	97	95%	Pass	See Map	11/6/2013

**APPENDIX F**

**DRILLING PERMIT**

# Alameda County Public Works Agency - Water Resources Well Permit



399 Elmhurst Street  
Hayward, CA 94544-1395  
Telephone: (510)670-6633 Fax:(510)782-1939

Application Approved on: 10/31/2013 By jamesy

Permit Numbers: W2013-0892  
Permits Valid from 11/01/2013 to 11/01/2013

**Application Id:** 1383251581598      **City of Project Site:** Alameda  
**Site Location:** 1600 Park Street      **Completion Date:** 11/01/2013  
**Project Start Date:** 11/01/2013  
**Assigned Inspector:** Contact James Yoo at (510) 670-6633 or jamesy@acpwa.org

**Applicant:** AEI Consultants - Jeremy Smith      **Phone:** 925-746-6000 x1128  
2500 Camino Diablo, Walnut Creek, CA 94519  
**Property Owner:** John Buestad      **Phone:** --  
2533 Clement Ave., Alameda, CA 94501  
**Client:** \*\* same as Property Owner \*\*

<b>Receipt Number:</b> WR2013-0411	<b>Total Due:</b>	\$265.00
<b>Payer Name :</b> Jeremy Smith	<b>Total Amount Paid:</b>	\$265.00
	<b>Paid By:</b> VISA	<b>PAID IN FULL</b>

## Works Requesting Permits:

Borehole(s) for Investigation-Environmental/Monitorinig Study - 3 Boreholes

Driller: ECA - Lic #: 695970 - Method: DP

**Work Total: \$265.00**

## Specifications

Permit Number	Issued Dt	Expire Dt	#	Hole Diam	Max Depth
W2013-0892	10/31/2013	01/30/2014	3	1.25 in.	6.00 ft

## Specific Work Permit Conditions

1. Backfill bore hole by tremie with cement grout or cement grout/sand mixture. Upper two-three feet replaced in kind or with compacted cuttings. All cuttings remaining or unused shall be containerized and hauled off site. The containers shall be clearly labeled to the ownership of the container and labeled hazardous or non-hazardous.
2. Boreholes shall not be left open for a period of more than 24 hours. All boreholes left open more than 24 hours will need approval from Alameda County Public Works Agency, Water Resources Section. All boreholes shall be backfilled according to permit destruction requirements and all concrete material and asphalt material shall be to Caltrans Spec or County/City Codes. No borehole(s) shall be left in a manner to act as a conduit at any time.
3. Permittee shall assume entire responsibility for all activities and uses under this permit and shall indemnify, defend and save the Alameda County Public Works Agency, its officers, agents, and employees free and harmless from any and all expense, cost, liability in connection with or resulting from the exercise of this Permit including, but not limited to, properly damage, personal injury and wrongful death.
4. Applicant shall contact James Yoo for an inspection time at 510-670-6633 at least five (5) working days prior to starting, once the permit has been approved. Confirm the scheduled date(s) at least 24 hours prior to drilling.
5. Copy of approved drilling permit must be on site at all times. Failure to present or show proof of the approved permit application on site shall result in a fine of \$500.00.
6. NOTE:  
Under California laws, the owner/operator are responsible for reporting the contamination to the governmental regulatory

## **Alameda County Public Works Agency - Water Resources Well Permit**

agencies under Section 25295(a). The owner/operator is liable for civil penalties under Section 25299(a)(4) and criminal penalties under Section 25299(d) for failure to report a leak. The owner/operator is liable for civil penalties under Section 25299(b)(4) for knowing failure to ensure compliance with the law by the operator. These penalty provisions do not apply to a potential buyer.

7. Prior to any drilling activities onto any public right-of-ways, it shall be the applicants responsibilities to contact and coordinate a Underground Service Alert (USA), obtain encroachment permit(s), excavation permit(s) or any other permits required for that City or to the County and follow all City or County Ordinances. It shall also be the applicants responsibilities to provide to the Cities or to Alameda County a Traffic Safety Plan for any lane closures or detours planned. No work shall begin until all the permits and requirements have been approved or obtained.
  8. Permit is valid only for the purpose specified herein. No changes in construction procedures, as described on this permit application. Boreholes shall not be converted to monitoring wells, without a permit application process.
-