



**ENVIRONMENTAL INVESTIGATION SERVICES, INC.**  
15951 Los Gatos Boulevard, Suite #17, Los Gatos CA 95032

---

December 9, 2016

Velda Goe – Development Program Manager  
California Affordable Housing Initiatives, Inc.  
1801 Harrison Street, 2<sup>nd</sup> Floor  
Oakland, CA 94612

**Subject: Phase II Limited Soil & Soil Vapor Investigation Report  
1228-1236 East 17<sup>th</sup> Street, Oakland, California  
EIS Project # 1652-2**

Dear Ms. Goe:

Environmental Investigation Services Inc. (EIS) is submitting the results of a Phase II Limited Soil & Soil Vapor Investigation conducted at 1228-1236 East 17<sup>th</sup> Street in Oakland, Alameda County, California, hereafter called the Site. The location of the Site is shown on Figure 1 of this report. The purpose of this investigation was to assess the documented lead impacts in soil and potential volatile organic compound (VOC) impacts in soil vapor.

## **I. BACKGROUND**

### **A. Site Overview**

The Site, located at 1228-1236 East 17<sup>th</sup> Street in Oakland, California is comprised of three parcels of assessor parcel numbers (APNs) 020-0214-012-1, 020-0214-013, and 020-0214-014, covering an irregularly shaped area of approximately 12,298 square feet (SF). The property is currently an undeveloped vacant lot vegetated with grass and weeds. EIS completed a previous Phase I Environmental Site Assessment (ESA) for the Site on October 24, 2016. The Phase I ESA identified a recognized environmental concern associated with the documented lead impacted site soil and a potential vapor intrusion concern associated with the historical solvent use/storage at neighboring property 1745 14<sup>th</sup> Avenue.

### **B. Historical Photograph Review**

EIS reviewed a series of photos on Google Maps street view feature. In a photo dated January 2014, a three story residential structure is visible on the central and southeastern portion of the Site, with a paved cement parking lot and possible grassy play area on the northwest portion of the property. Dirt and grass areas appear on the southwest and southeast property boundary. The residential building appears to be unoccupied in this photo, as all windows are boarded up and signs of fire damage are visible. A chain-link fence and locked gate surrounds the entire property.

In the next available photograph, dated August 2014, the majority of the cement parking lot is crushed and broken, with the rubble piled on the northwest side of the property. There appear to be no other significant changes from the January 2014 photograph.

In the next available photograph dated July 2015, the Site appears as it does in present day. The photo depicts the property as a fenced vacant dirt lot vegetated with grass and weeds, as it exists in present day. There are no visible signs of leftover rubble from the former building or parking lot. Images discussed in this section are included in Attachment C of this report.

## **II. PHASE II LIMITED SOIL AND SOIL VAPOR INVESTIGATION**

The Phase II Limited Subsurface Soil and Soil Vapor Investigation included the following tasks:

- Notified USA North of the proposed boring locations and contracted with a private utility locator to clear underground utilities.
- Prepared a sampling plan with a site-specific health and safety plan for all field activities.
- Obtained required Water Resources Well Permit from Alameda County Public Works Agency (ACPWA) prior to initiating fieldwork. A copy of the permit is included in Attachment D of this report.
- Advanced sixteen temporary soil borings using track-mounted GeoProbe direct push technology (DPT) drilling equipment on the subject property. Fourteen borings (SB-1 through SB-14) were advanced for the purpose of soil sample collection along with two borings (SV-1 and SV-2) for soil vapor sample collection. SB-1 through SB-14 were advanced throughout the entire property. SV-1 and SV-2 were advanced on the southeastern portion of the property.
- Collected soil samples at depths of 0.5 and 3 feet (ft.) below ground surface (bgs) from soil borings SB-1 through SB-14.
- Collected soil vapor samples at a depth of 5 ft. bgs from borings SV-1 and SV-2.
- Transferred soil vapor samples collected from borings SV-1 and SV-2 to Eurofins Air Toxics (Eurofins), a California state licensed laboratory. Transferred soil samples collected from SB-1 through SB-14 to McCampbell Analytical, Inc. (McCampbell), a California state licensed laboratory. All samples were transferred under chain-of-custody documentation. Analyzed all soil vapor samples for VOCs using EPA method TO-15. Analyzed all soil samples for lead using EPA method 6020, and samples SB-1@0.5' and SB-7@0.5' for organochlorine pesticides using EPA method 8081A.
- Observed and logged subsurface conditions from each boring, noting any field evidence of contaminants (such as odors or discoloration).

- Prepared this technical report to present field procedures, laboratory methods, analytical results, and investigation findings.

### **III. FIELD PROCEDURES**

#### **A. Exploratory Drilling and Sampling Activities**

Prior to drilling activities, EIS notified USA North of proposed boring locations to clear for possible conflicts with underground utilities. In addition, EIS contracted Coast Wide Utility Locators (CWUL) on November 14, 2016 to search for any existing private utilities conflicting with planned boring locations. CWUL found no indications of buried utilities in the proposed boring vicinities. However, CWUL stated that scanning equipment picked up a number of anomalous signals, particularly on the central and northwestern sides of the property. CWUL interpreted these readings as indications of buried rubble.

EIS contracted with Environmental Control Associates (ECA) of Aptos, California, a C-57 licensed drilling company to advance a total of sixteen temporary soil borings using direct push (GeoProbe<sup>TM</sup>) technology. On November 17, 2016, ECA advanced fourteen temporary soil borings (SB-1 through SB-14) for the purpose of soil sample collection and two temporary soil borings (SV-1 and SV-2) for the purpose of soil vapor sample collection. SB-1 through SB-14 were advanced throughout the entire property. SV-1 and SV-2 were advanced on the southeastern portion of the property.

Soil borings were advanced by hydraulically pushing the GeoProbe<sup>TM</sup> sampling device to the desired depths and recovering the soil cores from each boring. The sampler, which is equipped with a 2-inch diameter acetate liner, is capable of collecting a continuous soil core up to 4 feet long. After each sample drive, the sampler was removed from the borehole, the soil filled acetate liner was removed, and the sampler was decontaminated and fitted with a new acetate liner. The sampler was then inserted back into the borehole and hydraulically pushed through the next sample interval. Soil samples were collected from borings SB-1 through SB-14 from depth intervals of 0-0.5 ft. bgs and 2.5-3.0 ft. bgs. Sample IDs were designated with the boring number as the prefix and ending interval depth as the suffix (e.g. sample from 0-0.5' at SB-2 was designated SB-2@0.5'). Soil samples collected for chemical analysis were sealed in acetate liners with Teflon tape and plastic endcaps on both sides. Soil samples were then labelled, logged onto chain-of-custody documentation, and placed in a chilled ice chest with crushed ice.

#### **B. Subsurface Observations**

Soils encountered in all borings were logged for relative moisture content and soil texture using the Unified Soil Classification System (USCS). Logs of exploratory borings are included in Attachment A of this report. Native soils and sediments encountered in all of the borings primarily consisted of damp, fine to coarse-grained gravelly sand, medium to high plasticity sandy and silty clay, and silty to clayey sand. In addition, pieces of brick were encountered in boring SB-12. Groundwater was not encountered in any of the borings.

### C. Soil Vapor Sampling

Soil vapor sampling performed during this project generally followed the guidelines of the Department of Toxic Substances Control's (DTSC) "Guidance for the Evaluation and Mitigation of Subsurface Vapor Intrusion to Indoor Air" (DTSC, 2011) and "Advisory - Active Soil Gas Investigations" (DTSC, 2015).

Temporary soil vapor probes were advanced at depths of 5 and 10 feet in borings SV-1 and SV-2. The soil vapor probe consisted of a preassembled soil vapor-sampling tip with polypropylene (Nylaflo<sup>®</sup>) tubing surrounded by dry sand pack backfill. The sand pack was topped with dry bentonite, and then hydrated bentonite to the surface to seal the air space inside the borehole and to prevent air short-circuiting. A schematic diagram of the soil vapor sampling probe construction is presented on Figure 3, and a schematic diagram of the sampling train is presented in Figure 4.

The polypropylene tubing from the sampling tip was extended above the ground surface and connected to an in-line filter, a flow regulator, and a laboratory-prepared sampling Summa<sup>TM</sup> canister. After the construction of the soil vapor sampling system was completed, the entire soil vapor sampling assembly was left inactive for an equilibrium period.

Following the equilibrium period, a shut-in test was performed to ensure the sampling assembly was free from leaks before purging and sampling. Following the shut-in test, the soil vapor probe and sampling train was purged of the default three casing volumes which includes the internal volume of the tubing, the void space of the sand pack around the probe tip, and the void space of the dry bentonite in the annular space.

Leak testing was performed using isopropanol, a liquid leak check compound, by applying isopropanol with a clean towel to all aboveground fittings in the sampling train and placing an isopropanol saturated towel adjacent to the borehole beneath a shroud.

After purging was completed, the sampling Summa<sup>TM</sup> canister valve was opened and a soil vapor sample was collected. A flow rate of 167 ml/min was maintained with flow controllers provided by Eurofins Air Toxics Laboratory. The Summa<sup>TM</sup> canisters were closed when a vacuum of two to five inches of mercury was reached. The soil vapor samples were contained in the sampling Summa<sup>TM</sup> canisters after the sampling valves were closed and each sample was logged onto a chain-of-custody document, delivered to the appropriate analytical laboratory, and analyzed. For each sampling container, the sample ID, canister and corresponding flow regulator identification numbers, initial and final vacuum readings, sampling time, and locations were recorded for each sample in the field (see attached soil vapor sampling field note sheets).

Eurofins Summa<sup>TM</sup> canisters for samples SV-1@5' DUP and SV-1@10' were defective. Upon opening each canister valve, pressure gauges indicated insufficient vacuums to allow sample collection. EIS attempted sample collection and submitted both samples to Eurofins. Based on field observations and recommendations of Eurofins staff, EIS cancelled the analysis of both samples. In addition, no sample was collected for SV-2@10' due to the highly plastic clay encountered at 10 ft.

bgs. The canister vacuum was unable to draw a sufficient soil vapor sample due to the low air permeability of the clay.

#### **D. Completion Activities**

Immediately following completion of drilling work, EIS communicated with the assigned ACPWA inspector Marcellino Vialpando via phone call. The ACPWA inspector was not able to visit the Site due to schedule constraints, and instructed EIS to proceed with completion activities.

Per inspector and permit instruction, borings SB-1 through SB-14 were backfilled with compacted soil cuttings. Following soil vapor sample collection, soil vapor tubing was pulled from borings SV-1 and SV-2 and disposed. Borings SV-1 and SV-2 were re-drilled to remove the artificial sand-pack and bentonite, and subsequently filled with neat cement grout. Used acetate liners and polypropylene tubing were stored in a 55-gallon metal drum and disposed of by ECA.

### **IV. ANALYTICAL RESULTS**

#### **A. Laboratory Analyses**

Soil vapor samples were transported to Eurofins, a state-licensed laboratory in Folsom, California. Soil vapor samples were analyzed for VOCs using EPA method TO-15. Soil samples were placed in chilled chest on crushed ice, and transported by the laboratory courier to McCampbell, a state-licensed laboratory in Pittsburg, California. Soil samples were analyzed for lead by EPA method 6020. Soil samples SB-1@0.5' and SB-7@0.5' for organochlorine pesticides by EPA method 8081A.

Soil and soil vapor sample analytical data are summarized respectively in Tables 1 and 2. Laboratory certified analytical reports and chain-of-custody documents for all samples are included in Attachment B of this report.

#### **B. Soil Sample Analytical Results**

Laboratory analytical results revealed lead concentrations in all soil samples collected from borings SB-1 through SB-14. Soil samples collected from the 0.5 ft. bgs depth interval contained lead concentrations ranging from 27 to 1,400 milligrams per-kilogram (mg/kg), while lead concentrations in soil samples collected from the 3 ft. bgs depth interval ranged from 4 to 2,100 mg/kg.

Analytical results revealed no detectable concentrations of organochlorine pesticides in soil samples SB-1@0.5' and SB-7@0.5'.

Soil sample analytical data are summarized in Table 1. Certified laboratory analytical reports and chain-of-custody documents for all samples are included in Attachment B of this report.

#### **C. Soil Vapor Sample Analytical Results**

Analysis of soil vapor samples collected from the subject property revealed low concentrations of benzene, toluene, ethylbenzene, xylenes (BTEX) and methyl ethyl ketone. Soil vapor sample SV-1@5' contained concentrations of benzene at 5.4 micrograms per cubic meter ( $\mu\text{g}/\text{m}^3$ ), toluene at 20  $\mu\text{g}/\text{m}^3$ , ethylbenzene at 8  $\mu\text{g}/\text{m}^3$  and total xylenes (o, m, p-xylenes) at 38  $\mu\text{g}/\text{m}^3$ . Soil vapor sample

SV-2@5' contained concentrations of benzene at 4.5 µg/m<sup>3</sup>, toluene at 41 µg/m<sup>3</sup>, ethylbenzene at 4.9 µg/m<sup>3</sup> and xylenes at 22.2 µg/m<sup>3</sup>. Each sample also contained low concentrations of miscellaneous VOCs including 1,3-butadiene, ethanol, acetone, hexane, cyclohexane, heptane, carbon disulfide, and tetrahydrofuran.

Soil vapor sample analytical results are summarized in Table 2. Refer to Attachment B of this report for a full listing of analytes and specific detection limits.

## V. CONCLUSIONS

EIS advanced sixteen temporary soil borings on the subject property for the purpose of soil and soil vapor sample collection on November 17, 2016. EIS offers the following conclusions:

- Soils encountered during the investigation primarily consisted of damp, fine to coarse-grained gravelly sand, medium to high plasticity sandy and silty clay, and silty to clayey sand. Groundwater was not encountered in any of the borings. No field evidence of contamination, such as odor or staining in soil, was observed.
- Rubble from the previous building and/or parking lot may be buried in the shallow Site subsurface based on historical photos, private utility locator findings, and pieces of building material encountered in soil borings.
- Twenty-one of the twenty eight analyzed soil samples contained concentrations of lead that exceeded the Regional Water Quality Control Boards Environmental Screening Level (RWQCB ESL) of 80 mg/kg. Twelve of fourteen soil samples collected from 0.5 ft. depths and nine of fourteen soil samples collected from 3 ft. depths exceed the ESL of 80 mg/kg. Four soil samples revealed lead concentrations over 1,000 mg/kg that exceed the Total Threshold Limit Concentration (T TLC).
- Soil vapor sample analysis revealed low detections of BTEX, methyl ethyl ketone, and several other miscellaneous VOCs at concentrations beneath applicable RWQCB ESLs for residential land use.

EIS recommends the following:

- Based on the number of lead detections in soil samples that exceeded the residential use RWQCB ESL, EIS recommends submitting this report to Alameda County Environmental Health.

## **VI. LIMITATIONS**

This report has been prepared specifically for the Site located at 1228-1236 E. 17<sup>th</sup> Street in Oakland, California and was done according to the current State and local agency suggested guidance documents for these investigations. The interpretations, conclusions and recommendations made herein are based on the data and analysis for the soil vapor samples collected on-site. Conditions of the property can change over time and the use of this report by third parties is entirely at their own risk.

The soil borings can only present information accurately on the area directly at the point of the boring. They give a general indication of the condition of the site, but will not serve as a basis for a guarantee of non-contamination of the site. The conclusions and professional opinions presented are developed in accordance with generally accepted practice as outlined in the guidelines of the California Regional Water Quality Control Board and/or other agencies for soil and groundwater sampling, and Department of Toxic Substances Control for soil vapor sampling.

The chemical analysis results are based on data collected at the sampling locations only, therefore Environmental Investigation Services, Inc. cannot have complete knowledge of the underlying conditions. Conditions at the project site will change with time due to natural processes or the works of man.

Please note that reports of contamination must be submitted to the agencies in a timely manner. This report has been prepared for use solely of California Affordable Housing Initiatives, Inc., our Client. This report shall not be relied upon by or transferred to any other party, or used for any other purpose, without the express written authorization of our Client. Environmental Investigation Services, Inc. is not responsible for errors neither in contract laboratory analysis and reporting, nor for information not available, nor unreported or unknown sources of site contamination during the course of the study. Accordingly, the findings of this report will apply to the present conditions only; the opinions expressed therein are subject to revisions in light of new information, and no warranties are expressed or implied therein.

All reports and findings are based on the conditions and practices observed and information made available to Environmental Investigation Services Inc. Our services consist of professional opinions; conclusions and recommendations made herein were in accordance with generally accepted engineering principles and practices.

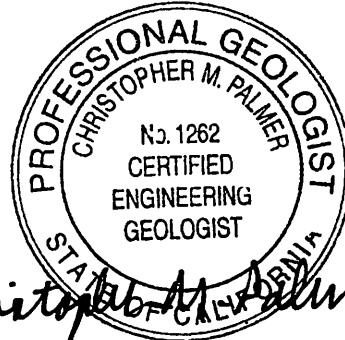
If you have any questions or comments regarding this report, please contact EIS at (408) 402-9800.

Sincerely,

**Environmental Investigation Services, Inc.**



Tyler Sproule  
Staff Geologist



Christopher M. Palmer, C. E. G. 1262  
Senior Consulting Geologist

Attachments:

Table 1 – Summary of Soil Sample Analytical Results

Table 2 – Summary of Soil Vapor Sample Analytical Results

Figure 1 – Site Location Map

Figure 2 – Soil Boring Location Map & Lead Concentrations

Figure 3 – Soil Vapor Probe Construction Diagrams

Figure 4 – Soil Vapor Sampling Train Diagram

Attachment A – Boring Logs

Attachment B – Laboratory Report and Chain of Custody Documents

Attachment C – Historical Photos of Subject Property

Attachment D – Alameda County Public Works Agency Permit

References:

“Phase I Environmental Site Assessment: 1228-1236 E. 17<sup>th</sup> Street, Oakland, CA.” EIS, Inc. October 24, 2016.

“Compendium of Methods for the Determination of Toxic Organic Compounds in Ambient Air – Second Edition” U.S. Environmental Protection Agency Office of Research and Development. January 1999.

“Advisory: Active Soil Gas Investigations” California Environmental Protection Agency, Department of Toxic Substances Control, Los Angeles Regional Water Quality Control Board, and San Francisco Regional Water Quality Control Board. July 2015.

“Final Guidance for the Evaluation and Mitigation of Subsurface Vapor Intrusion to Indoor Air (Vapor Intrusion Guidance” Department of Toxic Substances Control and California Environmental Protection Agency. October 2011.

San Francisco Bay Regional Water Quality Control Board, Interim Final 2016 Rev 3, User’s Guide Derivation and Application of Environmental Screening Levels. February 2016.

Element Concentrations in Soils and Other Surficial Materials of the Conterminous United States, 1984, U.S. Geological Survey Professional Paper 1270.

Analysis of Background Distributions of Metals in the Soil at Lawrence Berkeley National Laboratory. Lawrence Berkeley National Lab Environmental Restoration Program. June 2002 (Revised April 2009).

Lead Based Paint Risk Assessment Report: CA 30-365, Site 373. Environmental Science & Engineering, Inc. 1993.

Official California Code of Regulations, Title 22, Division 4.5, Chapter 11, Article 3.

Table 1 - Summary of Soil Sample Analytical Results

Lead and Pesticides  
1228-1236 E. 17th Street  
Oakland, California

EIS Project #: 1652-2

| Boring ID                                  | Depth (ft.) | Sample ID  | Date       | Lead         | Organochlorine Pesticides <sup>a</sup> |
|--|-------------|------------|------------|--------------|--|
| <i>RWQCB ESLs (Human Health - Res A.1)</i> |             |            |            | 80           | --                                     |
| SB-1                                       | 0.5'        | SB-1@0.5'  | 11/17/2016 | 27           | ND                                     |
|  | 3'          | SB-1@3'    |            | 4            | NA                                     |
| SB-2                                       | 0.5'        | SB-2@0.5'  | 11/17/2016 | <b>110</b>   | ND                                     |
|  | 3'          | SB-2@3'    |            | 5.8          | NA                                     |
| SB-3                                       | 0.5'        | SB-3@0.5'  | 11/17/2016 | <b>1,400</b> | NA                                     |
|  | 3'          | SB-3@3'    |            | 53           | NA                                     |
| SB-4                                       | 0.5'        | SB-4@0.5'  | 11/17/2016 | <b>180</b>   | NA                                     |
|  | 3'          | SB-4@3'    |            | 5.3          | NA                                     |
| SB-5                                       | 0.5'        | SB-5@0.5'  | 11/17/2016 | <b>260</b>   | NA                                     |
|  | 3'          | SB-5@3'    |            | 29           | NA                                     |
| SB-6                                       | 0.5'        | SB-6@0.5'  | 11/17/2016 | <b>500</b>   | NA                                     |
|  | 3'          | SB-6@3'    |            | <b>110</b>   | NA                                     |
| SB-7                                       | 0.5'        | SB-7@0.5'  | 11/17/2016 | <b>240</b>   | NA                                     |
|  | 3'          | SB-7@3'    |            | <b>660</b>   | NA                                     |
| SB-8                                       | 0.5'        | SB-8@0.5'  | 11/17/2016 | <b>920</b>   | NA                                     |
|  | 3'          | SB-8@3'    |            | <b>95</b>    | NA                                     |
| SB-9                                       | 0.5'        | SB-9@0.5'  | 11/17/2016 | <b>220</b>   | NA                                     |
|  | 3'          | SB-9@3'    |            | <b>960</b>   | NA                                     |
| SB-10                                      | 0.5'        | SB-10@0.5' | 11/17/2016 | <b>140</b>   | NA                                     |
|  | 3'          | SB-10@3'   |            | <b>2,100</b> | NA                                     |
| SB-11                                      | 0.5'        | SB-11@0.5' | 11/17/2016 | 68           | NA                                     |
|  | 3'          | SB-11@3'   |            | <b>1,800</b> | NA                                     |
| SB-12                                      | 0.5'        | SB-12@0.5' | 11/17/2016 | <b>130</b>   | NA                                     |
|  | 3'          | SB-12@3'   |            | <b>110</b>   | NA                                     |
| SB-13                                      | 0.5'        | SB-13@0.5' | 11/17/2016 | <b>160</b>   | NA                                     |
|  | 3'          | SB-13@3'   |            | 99           | NA                                     |
| SB-14                                      | 0.5'        | SB-14@0.5' | 11/17/2016 | <b>220</b>   | NA                                     |
|  | 3'          | SB-14@3'   |            | <b>1,700</b> | NA                                     |

**Notes**

Data are reported in milligrams per kilogram (mg/kg)

EPA Method 8081A for Organochlorine Pesticides, EPA Method 6020 for Lead

Bold = results which are greater than the ESLs or CHHSLs

RWQCB ESLs = Regional Water Quality Control Board's Environmental Screening Levels  
(San Francisco Bay Region, Feb. 2016, Rev. 3)

ND = Not Detected

NA = Not Analyzed

-- = Not Established

<sup>a</sup> Refer to certified laboratory analytical report for full list of analytes and detection limits

Table 2 - Summary of Soil Vapor Sample Analytical Results  
1228-1236 E. 17th Street, Oakland, California

EIS Project #1659-2

| Sample ID                            | Depth | Date       | PCE  | TCE  | 2-Butanone<br>(Methyl Ethyl<br>Ketone) | 1,3-Butadiene | Ethanol | Acetone | Cyclohexane | Hexane | Heptane | Benzene | Toluene | Ethylbenzene | <i>o</i> -Xylene | m,p-Xylene | Vinyl Chloride | Tetrahydrofuran | Carbon Disulfide | 2-Propanol | Other VOCs* |
|--------------------------------------|-------|------------|------|------|--|---------------|---------|---------|-------------|--------|---------|---------|---------|--------------|------------------|------------|----------------|-----------------|------------------|------------|-------------|
| <i>RWQCB ESLs (Residential SG-1)</i> |       |            | 240  | 240  | 2.6E+06                                | --            | --      | 1.6E+07 | --          | --     | --      | 48      | 160,000 | 560          | 52,000           | 52,000     | 4.7            | --              | --               | --         | --          |
| SV-1                                 | 5'    | 11/17/2016 | <7.3 | <5.8 | 17                                     | 11            | 14      | 42      | 7.2         | 140    | 7.4     | 5.4     | 20      | 8.0          | 10               | 28         | <2.8           | <3.2            | <13              | <11        | ND          |
| SV-2                                 | 5'    | 11/17/2016 | <7.2 | <5.7 | 39                                     | 9.6           | 15      | 130     | 3.7         | 120    | 5.6     | 4.5     | 41      | 4.9          | 6.2              | 16         | <2.7           | 4.6             | 14               | <10        | ND          |

Notes

Data are reported in micrograms per cubic meter ( $\mu\text{g}/\text{m}^3$ )

EPA Method TO-15 for VOC analysis

VOCs = Volatile Organic Compounds

PCE = Tetrachloroethylene

TCE = Trichloroethylene

< = Non-detection as reported by the analytical laboratory with specified detection limit of analytic run

\* = See certified laboratory analytical report for full analyte listings and detection limits

*RWQCB ESLs* = Regional Water Quality Control Board's Environmental Screening Levels (San Francisco Bay Region, Feb. 2016, Revision 3)



Environmental Investigation Services, Inc.  
15951 Los Gatos Boulevard, Suite 17  
Los Gatos, CA 95032  
Ph: (408) 402-9800 Fax: (408) 402-9830



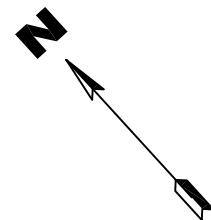
### Site Location Map

1228, 1232, and 1236 E. 17th Street, Oakland, California

**Figure: I**  
EIS Project: 1652  
December 9, 2016

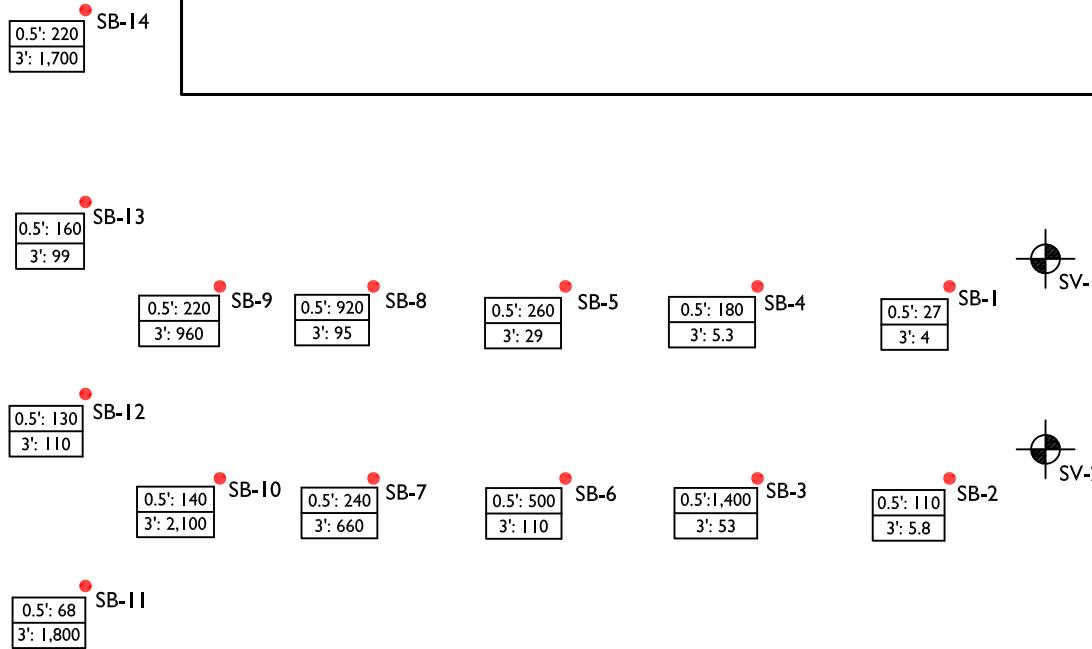
1720 12th Avenue  
(Neighboring Property)

1713 13th Avenue  
(Neighboring Property)



13TH AVENUE

Sidewalk



EXPLANATION:



Temporary Soil Vapor Well location



Temporary Soil Boring Location

|           |                                   |
|-----------|-----------------------------------|
| SB-2      | Boring ID                         |
| 0.5': 200 | Lead concentration at 0.5 ft. bgs |
| 3': 10    | Lead concentration at 3 ft. bgs   |

Tables display chemical concentration data from soil samples collected on November 17, 2016. All chemical concentration data displayed are in milligrams per-kilogram (mg/kg).

EAST 17TH STREET

Approximate Scale: 1" = 25'

Environmental Investigation Services, Inc.  
15951 Los Gatos Boulevard, Suite 17  
Los Gatos, CA 95032  
Ph: (408) 402-9800 Fax: (408) 402-9830

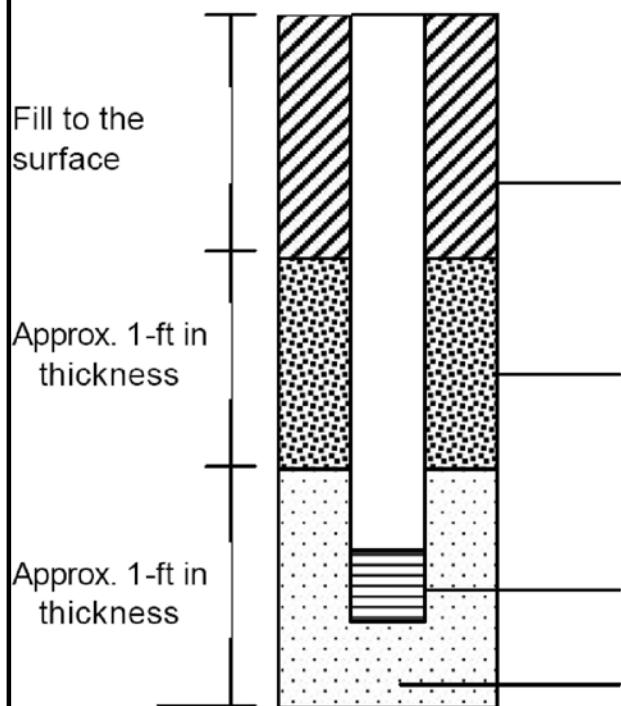


Soil Boring Location Map & Lead Concentrations

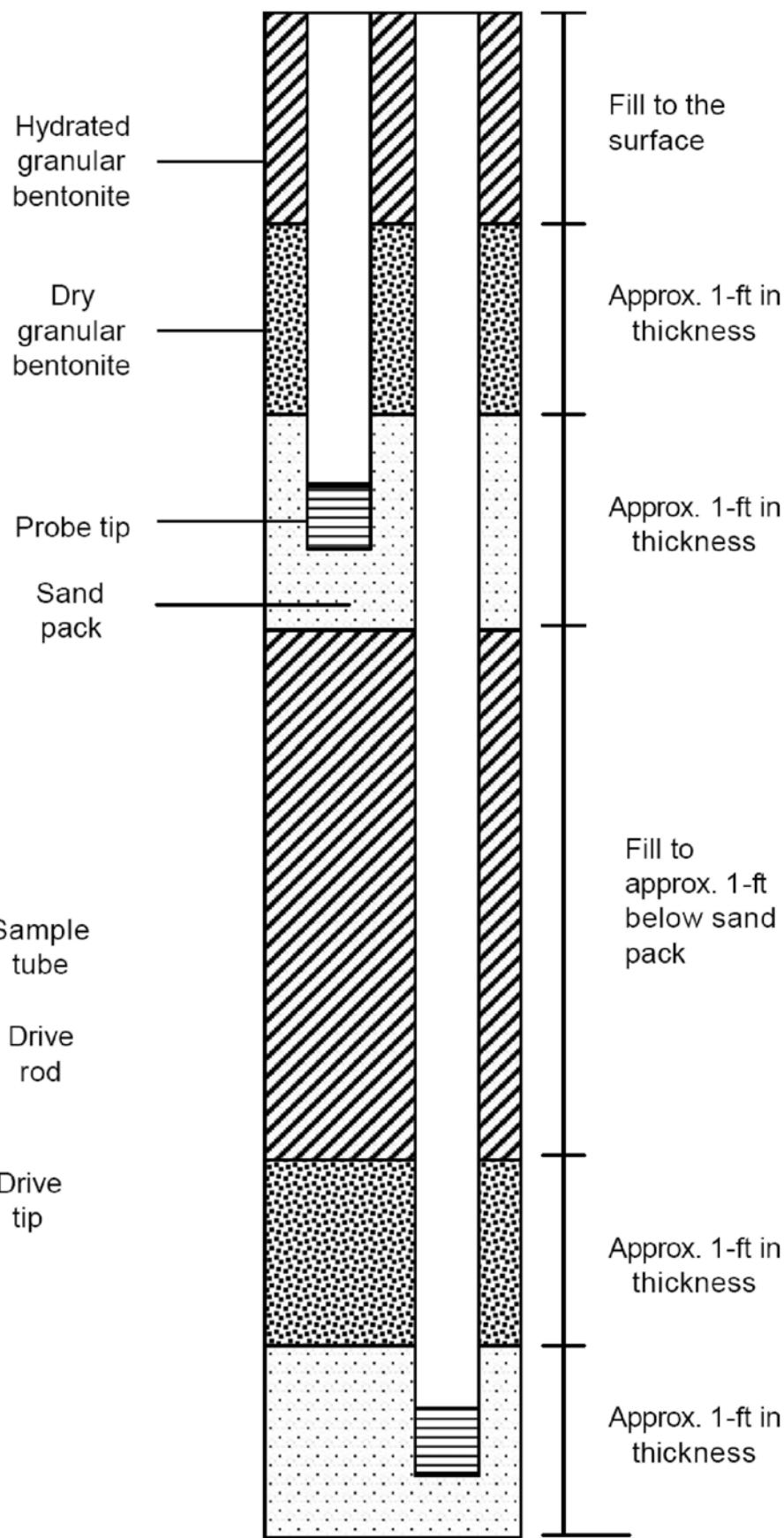
I228, I232, and I236 E. 17th Street, Oakland, California

Figure: 2  
EIS Project: 1652-2  
December 9, 2016

Permanent/Semi-permanent Gas Probe Construction Diagram

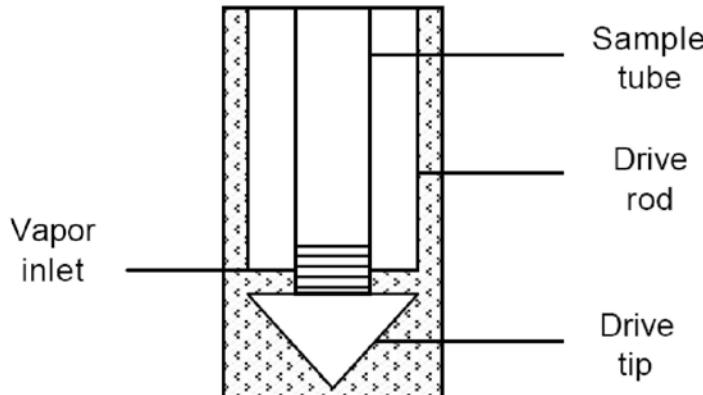


Multi-depth Gas Probe Construction Diagram



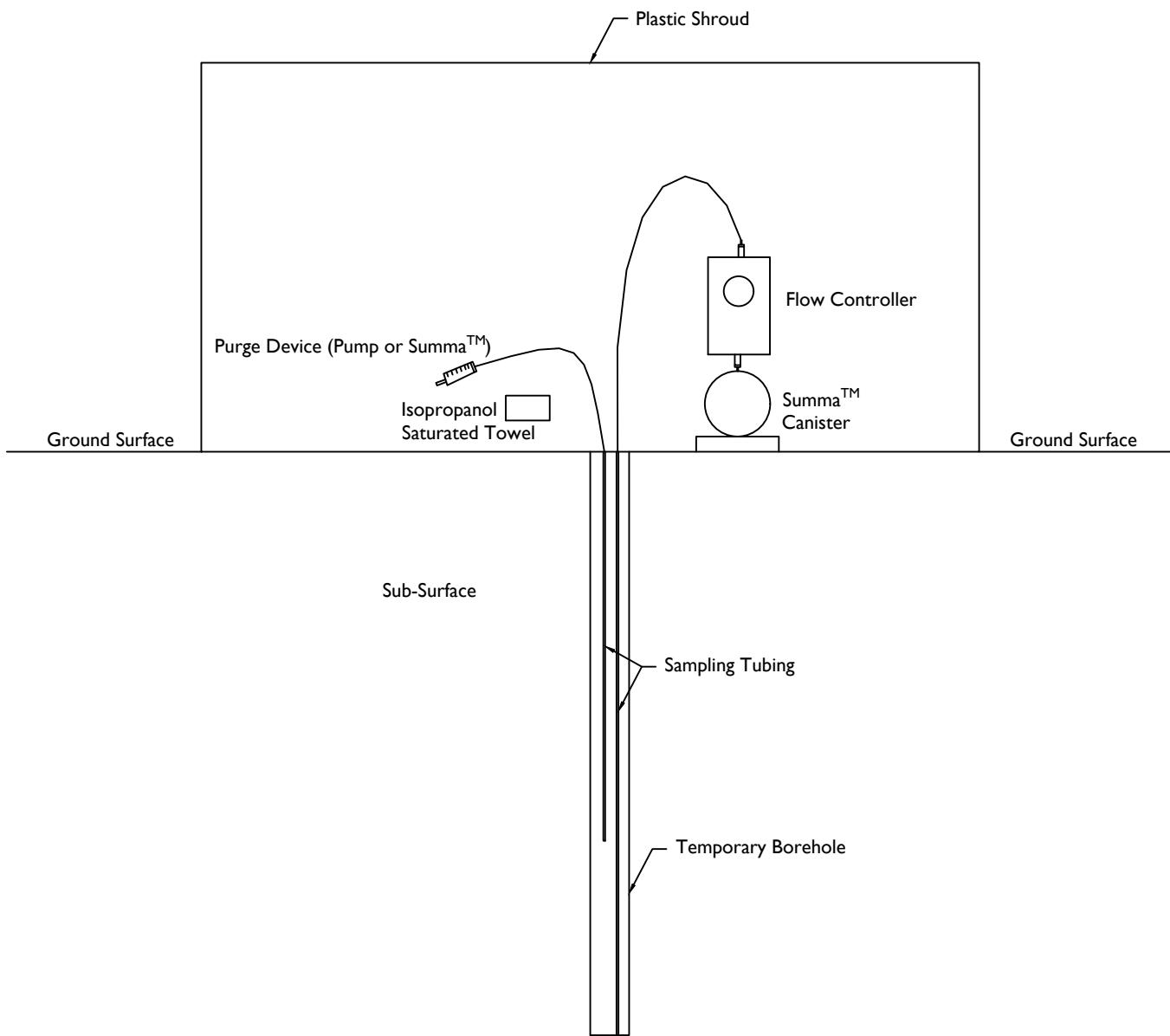
Temporary Gas Probe Method

To Surface



**Note:** Probes are not drawn to scale.  
Total depths are to be determined in  
the field.





**Drawing Not to Scale**

Environmental Investigation Services, Inc.  
15951 Los Gatos Boulevard, Suite 17  
Los Gatos, CA 95032  
Ph: (408) 402-9800 Fax: (408) 402-9830



**Soil Vapor Probe Sampling Train Schematic Diagram**

1228-1236 E. 17th Street  
Oakland, California

**Figure: 4**  
EIS Project: 1652-2  
December 9, 2016

ATTACHMENT A – BORING LOGS

**EIS****BOREHOLE LOG****BOREHOLE : SB-1**PROJECT NUMBER: **1652-2**BORING DIAMETER: **2 in.**PROJECT NAME: **Oakland Housing Authority**TOTAL DEPTH: **3 ft.**LOCATION: **1236 E. 17th St., Oakland, CA**STATIC WATER LEVEL (BGS): **[ ]**DRILLING COMPANY: **ECA**FIRST GROUNDWATER ENCOUNTER: **[ ]**DRILLING METHOD: **GeoProbe 7822DT**SAMPLING EQUIPMENT: **Macro-Core**LOGGED BY: **TS**

Permit # W2016-0789

DATE: **11/17/2016**REVIEWED BY: **PG**

| DEPTH | SAMPLES | SAMPLE NUMBER | TIME  | RECOVERY (FT/FT) | GROUNDWATER | SOIL TYPE | LITHOLOGY  | DESCRIPTION         |
|-------|---------|---------------|-------|------------------|-------------|-----------|--|---------------------|
| 0.0   |         | SB-1 @0.5'    | 10:05 | 3/3              |             | SP        | Gravelly SAND; 10YR 7/3, very pale brown; 20% GRAVEL, fine to coarse, angular; medium dense; poorly-graded; damp |                     |
| 1.0   |         |               |       |                  |             |           |  |                     |
| 2.0   |         |               |       |                  |             |           |  |                     |
| 3.0   |         | SB-1 @3'      | 10:05 |                  |             |           |  | Total depth = 3 ft. |
| 4.0   |         |               |       |                  |             |           |  |                     |
| 5.0   |         |               |       |                  |             |           |  |                     |
| 6.0   |         |               |       |                  |             |           |  |                     |
| 7.0   |         |               |       |                  |             |           |  |                     |
| 8.0   |         |               |       |                  |             |           |  |                     |
| 9.0   |         |               |       |                  |             |           |  |                     |
| 10.0  |         |               |       |                  |             |           |  |                     |

**Environmental Investigation Services, Inc.**  
**15951 Los Gatos Blvd, Suite 17**  
**Los Gatos, California 95032**

**Notes:** Boring completed at 3 ft. depth. Dry on completion.

**EIS****BOREHOLE LOG****BOREHOLE : SB-3**PROJECT NUMBER: **1652-2**BORING DIAMETER: **2 in.**PROJECT NAME: **Oakland Housing Authority**TOTAL DEPTH: **3 ft.**LOCATION: **1236 E. 17th St., Oakland, CA**STATIC WATER LEVEL (BGS): **[ ]**DRILLING COMPANY: **ECA**FIRST GROUNDWATER ENCOUNTER: **[ ]**DRILLING METHOD: **GeoProbe 7822DT**SAMPLING EQUIPMENT: **Macro-Core**LOGGED BY: **TS**DATE: **11/17/2016**REVIEWED BY: **PG**

Permit # W2016-0789

| DEPTH | SAMPLES | SAMPLE NUMBER | TIME  | RECOVERY (FT/FT) | GROUNDWATER | SOIL TYPE | LITHOLOGY | DESCRIPTION  |
|-------|---------|---------------|-------|------------------|-------------|-----------|-----------|--|
| 0.0   |         | SB-3 @0.5'    | 10:10 | 2.5/3.0          |             | CL        |           | Silty CLAY; 10YR 4/2, dark grayish brown; 20% SILT; 10% SAND, fine; stiff; medium plasticity; damp |
| 1.0   |         |               |       |                  |             |           |           |  |
| 2.0   |         |               |       |                  |             |           |           |  |
| 3.0   |         | SB-3 @3'      | 10:10 |                  |             |           |           | Total depth = 3 ft.  |
| 4.0   |         |               |       |                  |             |           |           |  |
| 5.0   |         |               |       |                  |             |           |           |  |
| 6.0   |         |               |       |                  |             |           |           |  |
| 7.0   |         |               |       |                  |             |           |           |  |
| 8.0   |         |               |       |                  |             |           |           |  |
| 9.0   |         |               |       |                  |             |           |           |  |
| 10.0  |         |               |       |                  |             |           |           |  |

**Environmental Investigation Services, Inc.**  
15951 Los Gatos Blvd, Suite 17  
Los Gatos, California 95032

**Notes:** Boring completed at 3 ft. depth. Dry on completion.

**EIS****BOREHOLE LOG****BOREHOLE : SB-3**PROJECT NUMBER: **1652-2**BORING DIAMETER: **2 in.**PROJECT NAME: **Oakland Housing Authority**TOTAL DEPTH: **3 ft.**LOCATION: **1236 E. 17th St., Oakland, CA**STATIC WATER LEVEL (BGS): **[ ]**DRILLING COMPANY: **ECA**FIRST GROUNDWATER ENCOUNTER: **[ ]**DRILLING METHOD: **GeoProbe 7822DT**SAMPLING EQUIPMENT: **Macro-Core**LOGGED BY: **TS**DATE: **11/17/2016**REVIEWED BY: **PG**

Permit # W2016-0789

| DEPTH | SAMPLES | SAMPLE NUMBER | TIME  | RECOVERY (FT/FT) | GROUNDWATER | SOIL TYPE | LITHOLOGY | DESCRIPTION  |
|-------|---------|---------------|-------|------------------|-------------|-----------|-----------|--|
| 0.0   |         | SB-3 @0.5'    | 10:10 | 2.5/3.0          |             | CL        |           | Silty CLAY; 10YR 4/2, dark grayish brown; 20% SILT; 10% SAND, fine; stiff; medium plasticity; damp |
| 1.0   |         |               |       |                  |             |           |           |  |
| 2.0   |         |               |       |                  |             |           |           |  |
| 3.0   |         | SB-3 @3'      | 10:10 |                  |             |           |           | Total depth = 3 ft.  |
| 4.0   |         |               |       |                  |             |           |           |  |
| 5.0   |         |               |       |                  |             |           |           |  |
| 6.0   |         |               |       |                  |             |           |           |  |
| 7.0   |         |               |       |                  |             |           |           |  |
| 8.0   |         |               |       |                  |             |           |           |  |
| 9.0   |         |               |       |                  |             |           |           |  |
| 10.0  |         |               |       |                  |             |           |           |  |

**Environmental Investigation Services, Inc.**  
15951 Los Gatos Blvd, Suite 17  
Los Gatos, California 95032

**Notes:** Boring completed at 3 ft. depth. Dry on completion.

**EIS****BOREHOLE LOG****BOREHOLE : SB-4**PROJECT NUMBER: **1652-2**BORING DIAMETER: **2 in.**PROJECT NAME: **Oakland Housing Authority**TOTAL DEPTH: **3 ft.**LOCATION: **1236 E. 17th St., Oakland, CA**STATIC WATER LEVEL (BGS): **[ ]**DRILLING COMPANY: **ECA**FIRST GROUNDWATER ENCOUNTER: **[ ]**DRILLING METHOD: **GeoProbe 7822DT**SAMPLING EQUIPMENT: **Macro-Core**LOGGED BY: **TS**DATE: **11/17/2016**REVIEWED BY: **PG**

Permit # W2016-0789

| DEPTH | SAMPLES | SAMPLE NUMBER | TIME  | RECOVERY (FT/FT) | GROUNDWATER | SOIL TYPE | LITHOLOGY | DESCRIPTION  |
|-------|---------|---------------|-------|------------------|-------------|-----------|-----------|--|
| 0.0   |         | SB-4 @0.5'    | 10:15 | 2.5/3.0          |             | CL        |           | Silty CLAY; 10YR 4/2, dark grayish brown; 20% SILT; 10% SAND, fine; stiff; medium plasticity; damp |
| 1.0   |         |               |       |                  |             |           |           |  |
| 2.0   |         |               |       |                  |             |           |           |  |
| 3.0   |         | SB-4 @3'      | 10:15 |                  |             |           |           | Total depth = 3 ft   |
| 4.0   |         |               |       |                  |             |           |           |  |
| 5.0   |         |               |       |                  |             |           |           |  |
| 6.0   |         |               |       |                  |             |           |           |  |
| 7.0   |         |               |       |                  |             |           |           |  |
| 8.0   |         |               |       |                  |             |           |           |  |
| 9.0   |         |               |       |                  |             |           |           |  |
| 10.0  |         |               |       |                  |             |           |           |  |

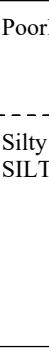
**Environmental Investigation Services, Inc.**  
**15951 Los Gatos Blvd, Suite 17**  
**Los Gatos, California 95032**

**Notes:** Boring completed at 3 ft. depth. Dry on completion.

**EIS****BOREHOLE LOG****BOREHOLE : SB-5**PROJECT NUMBER: **1652-2**BORING DIAMETER: **2 in.**PROJECT NAME: **Oakland Housing Authority**TOTAL DEPTH: **3 ft.**LOCATION: **1236 E. 17th St., Oakland, CA**STATIC WATER LEVEL (BGS): **[ ]**DRILLING COMPANY: **ECA**FIRST GROUNDWATER ENCOUNTER: **[ ]**DRILLING METHOD: **GeoProbe 7822DT**SAMPLING EQUIPMENT: **Macro-Core**LOGGED BY: **TS**

Permit # W2016-0789

DATE: **11/17/2016**REVIEWED BY: **PG**

| DEPTH | SAMPLES | SAMPLE NUMBER | TIME  | RECOVERY (FT/FT) | GROUNDWATER | SOIL TYPE | LITHOLOGY  | DESCRIPTION  |
|-------|---------|---------------|-------|------------------|-------------|-----------|--|--|
| 0.0   |         | SB-5 @0.5'    | 10:45 | 3/3              |             | SP        |  | Poorly-graded SAND, artificial fill; loose to medium dense; damp   |
| 1.0   |         |               |       |                  | SM-SC       |           |  | Silty SAND to clayey SAND; 10YR 2/2, very dark brown; 20% CLAY; 15% SILT; loose to medium dense; damp to moist |
| 2.0   |         |               |       |                  |             |           |  |  |
| 3.0   |         | SB-5 @3'      | 10:45 |                  |             |           |  | Total depth = 3'   |
| 4.0   |         |               |       |                  |             |           |  |  |
| 5.0   |         |               |       |                  |             |           |  |  |
| 6.0   |         |               |       |                  |             |           |  |  |
| 7.0   |         |               |       |                  |             |           |  |  |
| 8.0   |         |               |       |                  |             |           |  |  |
| 9.0   |         |               |       |                  |             |           |  |  |
| 10.0  |         |               |       |                  |             |           |  |  |

**Environmental Investigation Services, Inc.**  
15951 Los Gatos Blvd, Suite 17  
Los Gatos, California 95032

**Notes:** Boring completed at 3 ft. depth. Dry on completion.

**EIS****BOREHOLE LOG****BOREHOLE : SB-6**PROJECT NUMBER: **1652-2**BORING DIAMETER: **2 in.**PROJECT NAME: **Oakland Housing Authority**TOTAL DEPTH: **3 ft.**LOCATION: **1236 E. 17th St., Oakland, CA**STATIC WATER LEVEL (BGS): **[ ]**DRILLING COMPANY: **ECA**FIRST GROUNDWATER ENCOUNTER: **[ ]**DRILLING METHOD: **GeoProbe 7822DT**SAMPLING EQUIPMENT: **Macro-Core**LOGGED BY: **TS**DATE: **11/17/2016**REVIEWED BY: **PG**

Permit # W2016-0789

| DEPTH | SAMPLES | SAMPLE NUMBER | TIME | RECOVERY (FT/FT) | GROUNDWATER | SOIL TYPE | LITHOLOGY | DESCRIPTION  |
|-------|---------|---------------|------|------------------|-------------|-----------|-----------|--|
| 0.0   |         | SB-6 @0.5'    | 9:40 | 3/3              |             | SM-SC     |           | Silty SAND to clayey SAND; 10YR 2/2, very dark brown; 20% CLAY; 15% SILT; loose to medium dense; damp to moist |
| 1.0   |         |               |      |                  |             |           |           |  |
| 2.0   |         |               |      |                  |             |           |           |  |
| 3.0   |         | SB-6 @3'      | 9:40 |                  |             |           |           | Total depth = 3'   |
| 4.0   |         |               |      |                  |             |           |           |  |
| 5.0   |         |               |      |                  |             |           |           |  |
| 6.0   |         |               |      |                  |             |           |           |  |
| 7.0   |         |               |      |                  |             |           |           |  |
| 8.0   |         |               |      |                  |             |           |           |  |
| 9.0   |         |               |      |                  |             |           |           |  |
| 10.0  |         |               |      |                  |             |           |           |  |

**Environmental Investigation Services, Inc.**  
**15951 Los Gatos Blvd, Suite 17**  
**Los Gatos, California 95032**

**Notes:** Boring completed at 3 ft. depth. Dry on completion.

**EIS****BOREHOLE LOG****BOREHOLE : SB-7**PROJECT NUMBER: **1652-2**BORING DIAMETER: **2 in.**PROJECT NAME: **Oakland Housing Authority**TOTAL DEPTH: **3 ft.**LOCATION: **1236 E. 17th St., Oakland, CA**STATIC WATER LEVEL (BGS): **[ ]**DRILLING COMPANY: **ECA**FIRST GROUNDWATER ENCOUNTER: **[ ]**DRILLING METHOD: **GeoProbe 7822DT**SAMPLING EQUIPMENT: **Macro-Core**LOGGED BY: **TS**Permit # **W2016-0789**DATE: **11/17/2016**REVIEWED BY: **PG**

| DEPTH | SAMPLES | SAMPLE NUMBER | TIME | RECOVERY (FT/FT) | GROUNDWATER | SOIL TYPE | LITHOLOGY | DESCRIPTION  |
|-------|---------|---------------|------|------------------|-------------|-----------|-----------|--|
| 0.0   |         | SB-7 @0.5'    | 9:50 | 3/3              |             | SM-SC     |           | Silty SAND to clayey SAND; 10YR 2/2, very dark brown; 20% CLAY; 15% SILT; loose to medium dense; damp to moist |
| 1.0   |         |               |      |                  |             |           |           |  |
| 2.0   |         |               |      |                  |             |           |           |  |
| 3.0   |         | SB-7 @3'      | 9:50 |                  |             |           |           | Total depth = 3'   |
| 4.0   |         |               |      |                  |             |           |           |  |
| 5.0   |         |               |      |                  |             |           |           |  |
| 6.0   |         |               |      |                  |             |           |           |  |
| 7.0   |         |               |      |                  |             |           |           |  |
| 8.0   |         |               |      |                  |             |           |           |  |
| 9.0   |         |               |      |                  |             |           |           |  |
| 10.0  |         |               |      |                  |             |           |           |  |

**Environmental Investigation Services, Inc.**  
15951 Los Gatos Blvd, Suite 17  
Los Gatos, California 95032

**Notes:** Boring completed at 3 ft. depth. Dry on completion.

**EIS****BOREHOLE LOG****BOREHOLE : SB-8**PROJECT NUMBER: **1652-2**BORING DIAMETER: **2 in.**PROJECT NAME: **Oakland Housing Authority**TOTAL DEPTH: **3 ft.**LOCATION: **1236 E. 17th St., Oakland, CA**STATIC WATER LEVEL (BGS): **[ ]**DRILLING COMPANY: **ECA**FIRST GROUNDWATER ENCOUNTER: **[ ]**DRILLING METHOD: **GeoProbe 7822DT**SAMPLING EQUIPMENT: **Macro-Core**LOGGED BY: **TS**DATE: **11/17/2016**REVIEWED BY: **PG**

Permit # W2016-0789

| DEPTH | SAMPLES | SAMPLE NUMBER | TIME  | RECOVERY (FT/FT) | GROUNDWATER | SOIL TYPE | LITHOLOGY | DESCRIPTION  |
|-------|---------|---------------|-------|------------------|-------------|-----------|-----------|--|
| 0.0   |         | SB-8 @0.5'    | 10:20 | 3/3              |             | CL        |           | Silty CLAY; 10YR 3/4, dark yellowish brown ; 20% SILT; medium plasticity; firm; damp |
| 1.0   |         |               |       |                  |             |           |           |  |
| 2.0   |         |               |       |                  |             |           |           |  |
| 3.0   |         | SB-8 @3'      | 10:20 |                  |             |           |           | Total depth = 3 ft.  |
| 4.0   |         |               |       |                  |             |           |           |  |
| 5.0   |         |               |       |                  |             |           |           |  |
| 6.0   |         |               |       |                  |             |           |           |  |
| 7.0   |         |               |       |                  |             |           |           |  |
| 8.0   |         |               |       |                  |             |           |           |  |
| 9.0   |         |               |       |                  |             |           |           |  |
| 10.0  |         |               |       |                  |             |           |           |  |

**Environmental Investigation Services, Inc.**  
15951 Los Gatos Blvd, Suite 17  
Los Gatos, California 95032

**Notes:** Boring completed at 3 ft. depth. Dry on completion.

**EIS****BOREHOLE LOG****BOREHOLE : SB-9**PROJECT NUMBER: **1652-2**BORING DIAMETER: **2 in.**PROJECT NAME: **Oakland Housing Authority**TOTAL DEPTH: **3 ft.**LOCATION: **1236 E. 17th St., Oakland, CA**STATIC WATER LEVEL (BGS): **[ ]**DRILLING COMPANY: **ECA**FIRST GROUNDWATER ENCOUNTER: **[ ]**DRILLING METHOD: **GeoProbe 7822DT**SAMPLING EQUIPMENT: **Macro-Core**LOGGED BY: **TS**DATE: **11/17/2016**REVIEWED BY: **PG**

Permit # W2016-0789

| DEPTH | SAMPLES | SAMPLE NUMBER | TIME  | RECOVERY (FT/FT) | GROUNDWATER | SOIL TYPE | LITHOLOGY | DESCRIPTION  |
|-------|---------|---------------|-------|------------------|-------------|-----------|-----------|--|
| 0.0   |         | SB-9 @0.5'    | 10:00 | 3/3              |             | SM        |           | Silty SAND; 10YR 3/3, dark brown; 15% SILT; 10% CLAY; 10% GRAVEL; medium dense; damp |
| 1.0   |         |               |       |                  |             |           |           |  |
| 2.0   |         |               |       |                  |             |           |           |  |
| 3.0   |         | SB-9 @3'      | 10:00 |                  |             |           |           | Total depth = 3 ft   |
| 4.0   |         |               |       |                  |             |           |           |  |
| 5.0   |         |               |       |                  |             |           |           |  |
| 6.0   |         |               |       |                  |             |           |           |  |
| 7.0   |         |               |       |                  |             |           |           |  |
| 8.0   |         |               |       |                  |             |           |           |  |
| 9.0   |         |               |       |                  |             |           |           |  |
| 10.0  |         |               |       |                  |             |           |           |  |

**Environmental Investigation Services, Inc.**  
15951 Los Gatos Blvd, Suite 17  
Los Gatos, California 95032

**Notes:** Boring completed at 3 ft. depth. Dry on completion.

**EIS****BOREHOLE LOG****BOREHOLE : SB-10**PROJECT NUMBER: **1652-2**BORING DIAMETER: **2 in.**PROJECT NAME: **Oakland Housing Authority**TOTAL DEPTH: **3 ft.**LOCATION: **1236 E. 17th St., Oakland, CA**STATIC WATER LEVEL (BGS): **[ ]**DRILLING COMPANY: **ECA**FIRST GROUNDWATER ENCOUNTER: **[ ]**DRILLING METHOD: **GeoProbe 7822DT**SAMPLING EQUIPMENT: **Macro-Core**LOGGED BY: **TS**

Permit # W2016-0789

DATE: **11/17/2016**REVIEWED BY: **PG**

| DEPTH | SAMPLES | SAMPLE NUMBER | TIME | RECOVERY (FT/FT) | GROUNDWATER | SOIL TYPE | LITHOLOGY | DESCRIPTION  |
|-------|---------|---------------|------|------------------|-------------|-----------|-----------|--|
| 0.0   |         | SB-10 @0.5'   | 9:45 | 3/3              |             | SM        |           | Silty SAND; 10YR 3/3, dark brown; 20% SILT; 10% CLAY; medium dense; damp |
| 1.0   |         |               |      |                  |             |           |           |  |
| 2.0   |         |               |      |                  |             |           |           |  |
| 3.0   |         | SB-10 @3'     | 9:45 |                  |             |           |           | Total depth = 3 ft   |
| 4.0   |         |               |      |                  |             |           |           |  |
| 5.0   |         |               |      |                  |             |           |           |  |
| 6.0   |         |               |      |                  |             |           |           |  |
| 7.0   |         |               |      |                  |             |           |           |  |
| 8.0   |         |               |      |                  |             |           |           |  |
| 9.0   |         |               |      |                  |             |           |           |  |
| 10.0  |         |               |      |                  |             |           |           |  |

**Environmental Investigation Services, Inc.**  
15951 Los Gatos Blvd, Suite 17  
Los Gatos, California 95032

**Notes:** Boring completed at 3 ft. depth. Dry on completion.

**EIS****BOREHOLE LOG****BOREHOLE : SB-11**PROJECT NUMBER: **1652-2**BORING DIAMETER: **2 in.**PROJECT NAME: **Oakland Housing Authority**TOTAL DEPTH: **3 ft.**LOCATION: **1236 E. 17th St., Oakland, CA**STATIC WATER LEVEL (BGS): **[ ]**DRILLING COMPANY: **ECA**FIRST GROUNDWATER ENCOUNTER: **[ ]**DRILLING METHOD: **GeoProbe 7822DT**SAMPLING EQUIPMENT: **Macro-Core**LOGGED BY: **TS**

Permit # W2016-0789

DATE: **11/17/2016**REVIEWED BY: **PG**

| DEPTH | SAMPLES | SAMPLE NUMBER | TIME  | RECOVERY (FT/FT) | GROUNDWATER | SOIL TYPE | LITHOLOGY | DESCRIPTION  |
|-------|---------|---------------|-------|------------------|-------------|-----------|-----------|--|
| 0.0   |         | SB-11 @0.5'   | 11:00 | 3/3              |             | SM        |           | Silty SAND; 10YR 2/2, very dark brown; 15% SILT; 10% CLAY; 5% GRAVEL; loose; damp to moist |
| 1.0   |         |               |       |                  |             |           |           |  |
| 2.0   |         |               |       |                  |             |           |           |  |
| 3.0   |         | SB-11 @3'     | 11:00 |                  |             |           |           | Total depth = 3 ft   |
| 4.0   |         |               |       |                  |             |           |           |  |
| 5.0   |         |               |       |                  |             |           |           |  |
| 6.0   |         |               |       |                  |             |           |           |  |
| 7.0   |         |               |       |                  |             |           |           |  |
| 8.0   |         |               |       |                  |             |           |           |  |
| 9.0   |         |               |       |                  |             |           |           |  |
| 10.0  |         |               |       |                  |             |           |           |  |

**Environmental Investigation Services, Inc.**  
15951 Los Gatos Blvd, Suite 17  
Los Gatos, California 95032

**Notes:** Boring completed at 3 ft. depth. Dry on completion.

**EIS****BOREHOLE LOG****BOREHOLE : SB-12**PROJECT NUMBER: **1652-2**BORING DIAMETER: **2 in.**PROJECT NAME: **Oakland Housing Authority**TOTAL DEPTH: **3 ft.**LOCATION: **1236 E. 17th St., Oakland, CA**STATIC WATER LEVEL (BGS): **[ ]**DRILLING COMPANY: **ECA**FIRST GROUNDWATER ENCOUNTER: **[ ]**DRILLING METHOD: **GeoProbe 7822DT**SAMPLING EQUIPMENT: **Macro-Core**LOGGED BY: **TS**

Permit # W2016-0789

DATE: **11/17/2016**REVIEWED BY: **PG**

| DEPTH | SAMPLES | SAMPLE NUMBER | TIME  | RECOVERY (FT/FT) | GROUNDWATER | SOIL TYPE | LITHOLOGY | DESCRIPTION   |
|-------|---------|---------------|-------|------------------|-------------|-----------|-----------|---|
| 0.0   |         | SB-12 @0.5'   | 10:50 | 2.5/3            |             | SM        |           | Silty SAND; 10YR 3/3, dark brown; 15% SILT; 10% CLAY; 10% GRAVEL; medium dense; pieces of brick; damp |
| 1.0   |         |               |       |                  |             |           |           |   |
| 2.0   |         |               |       |                  |             |           |           |   |
| 3.0   |         | SB-12 @3'     | 10:50 |                  |             |           |           | Total depth = 3 ft  |
| 4.0   |         |               |       |                  |             |           |           |   |
| 5.0   |         |               |       |                  |             |           |           |   |
| 6.0   |         |               |       |                  |             |           |           |   |
| 7.0   |         |               |       |                  |             |           |           |   |
| 8.0   |         |               |       |                  |             |           |           |   |
| 9.0   |         |               |       |                  |             |           |           |   |
| 10.0  |         |               |       |                  |             |           |           |   |

**Environmental Investigation Services, Inc.**  
15951 Los Gatos Blvd, Suite 17  
Los Gatos, California 95032

**Notes:** Boring completed at 3 ft. depth. Dry on completion.

**EIS****BOREHOLE LOG****BOREHOLE : SB-13**PROJECT NUMBER: **1652-2**BORING DIAMETER: **2 in.**PROJECT NAME: **Oakland Housing Authority**TOTAL DEPTH: **3 ft.**LOCATION: **1236 E. 17th St., Oakland, CA**STATIC WATER LEVEL (BGS): **[ ]**DRILLING COMPANY: **ECA**FIRST GROUNDWATER ENCOUNTER: **[ ]**DRILLING METHOD: **GeoProbe 7822DT**SAMPLING EQUIPMENT: **Macro-Core**LOGGED BY: **TS**

Permit # W2016-0789

DATE: **11/17/2016**REVIEWED BY: **PG**

| DEPTH | SAMPLES | SAMPLE NUMBER | TIME  | RECOVERY (FT/FT) | GROUNDWATER | SOIL TYPE | LITHOLOGY | DESCRIPTION  |
|-------|---------|---------------|-------|------------------|-------------|-----------|-----------|--|
| 0.0   |         | SB-13 @0.5'   | 10:25 | 3/3              |             | SM        |           | Silty SAND; 10YR 2/2, very dark brown; 15% SILT; 10% CLAY; 5% GRAVEL; loose; damp to moist |
| 1.0   |         |               |       |                  |             |           |           |  |
| 2.0   |         |               |       |                  |             |           |           |  |
| 3.0   |         | SB-13 @3'     | 10:25 |                  |             |           |           | Total depth = 3 ft   |
| 4.0   |         |               |       |                  |             |           |           |  |
| 5.0   |         |               |       |                  |             |           |           |  |
| 6.0   |         |               |       |                  |             |           |           |  |
| 7.0   |         |               |       |                  |             |           |           |  |
| 8.0   |         |               |       |                  |             |           |           |  |
| 9.0   |         |               |       |                  |             |           |           |  |
| 10.0  |         |               |       |                  |             |           |           |  |

**Environmental Investigation Services, Inc.**  
15951 Los Gatos Blvd, Suite 17  
Los Gatos, California 95032

**Notes:** Boring completed at 3 ft. depth. Dry on completion.

**EIS****BOREHOLE LOG****BOREHOLE : SB-14**PROJECT NUMBER: **1652-2**BORING DIAMETER: **2 in.**PROJECT NAME: **Oakland Housing Authority**TOTAL DEPTH: **3 ft.**LOCATION: **1236 E. 17th St., Oakland, CA**STATIC WATER LEVEL (BGS): **[ ]**DRILLING COMPANY: **ECA**FIRST GROUNDWATER ENCOUNTER: **[ ]**DRILLING METHOD: **GeoProbe 7822DT**SAMPLING EQUIPMENT: **Macro-Core**LOGGED BY: **TS**

Permit # W2016-0789

DATE: **11/17/2016**REVIEWED BY: **PG**

| DEPTH | SAMPLES | SAMPLE NUMBER | TIME  | RECOVERY (FT/FT) | GROUNDWATER | SOIL TYPE | LITHOLOGY | DESCRIPTION  |
|-------|---------|---------------|-------|------------------|-------------|-----------|-----------|--|
| 0.0   |         | SB-14 @0.5'   | 10:40 | 3/3              |             | SM        |           | Silty SAND; 10YR 2/2, very dark brown; 15% SILT; 10% CLAY; 10% GRAVEL; loose; damp |
| 1.0   |         |               |       |                  |             |           |           |  |
| 2.0   |         |               |       |                  |             |           |           |  |
| 3.0   |         | SB-14 @3'     | 10:40 |                  |             |           |           | Total depth = 3 ft   |
| 4.0   |         |               |       |                  |             |           |           |  |
| 5.0   |         |               |       |                  |             |           |           |  |
| 6.0   |         |               |       |                  |             |           |           |  |
| 7.0   |         |               |       |                  |             |           |           |  |
| 8.0   |         |               |       |                  |             |           |           |  |
| 9.0   |         |               |       |                  |             |           |           |  |
| 10.0  |         |               |       |                  |             |           |           |  |

**Environmental Investigation Services, Inc.**  
**15951 Los Gatos Blvd, Suite 17**  
**Los Gatos, California 95032**

**Notes:** Boring completed at 3 ft. depth. Dry on completion.



## Environmental Investigation Services, Inc.

15951 Los Gatos Blvd, Suite# 17

Los Gatos, California 95032

Ph: (408) 402-9800 Fax: (408) 402-9830

Well Number

**SV-1**

### TEMPORARY WELL LOG

Project Name: **Oakland Housing Authority**

Drilling Company: **ECA**

Site Location: **1236 E. 17th St., Oakland, CA**

Boring Dia: **2 inches**

Job Number: **1652-2**

Boring Depth: **10 ft.**

Dates Drilled: **11/17/16** Permit # **W2016-0789**

Method of Drilling: **Geoprobe 7822DT**

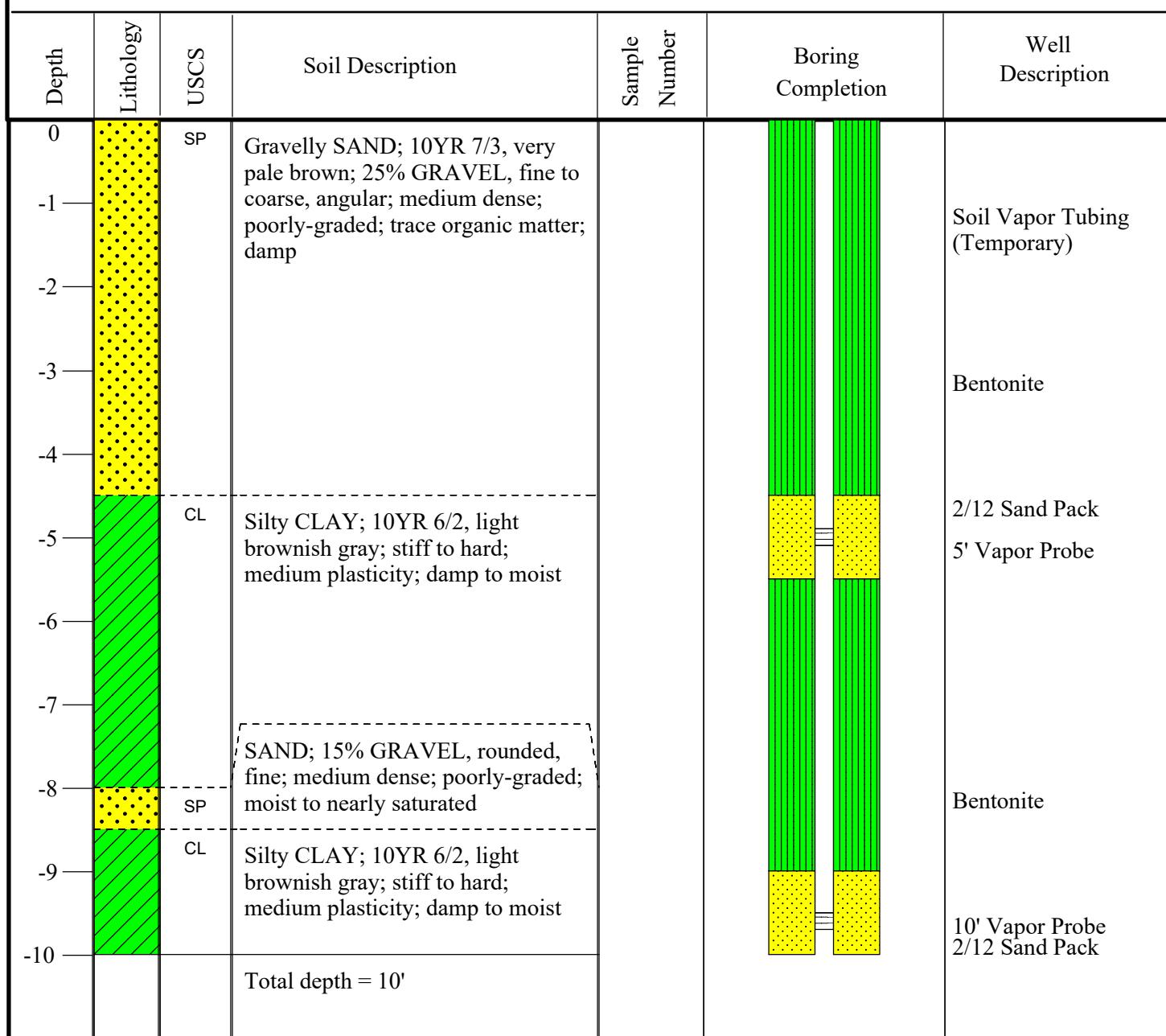
Logged By: **TS**

Reviewed By: **PG**

Sampling Method: **Macro-Core**

Water level during drilling : [-]

Water level in completed well : [-]



Notes: Boring completed at 10 ft. depth. Dry on completion. Soil vapor probes set at 5' & 10'.  
Backfilled with neat cement grout.

Page 1 of 1



## Environmental Investigation Services, Inc.

15951 Los Gatos Blvd, Suite# 17

Los Gatos, California 95032

Ph: (408) 402-9800 Fax: (408) 402-9830

Well Number

**SV-2**

### TEMPORARY WELL LOG

Project Name: **Oakland Housing Authority**

Drilling Company: **ECA**

Site Location: **1236 E. 17th St., Oakland, CA**

Boring Dia: **2 inches**

Job Number: **1652-2**

Boring Depth: **10 ft.**

Dates Drilled: **11/17/16** Permit # W2016-0789

Method of Drilling: **Geoprobe 7822DT**

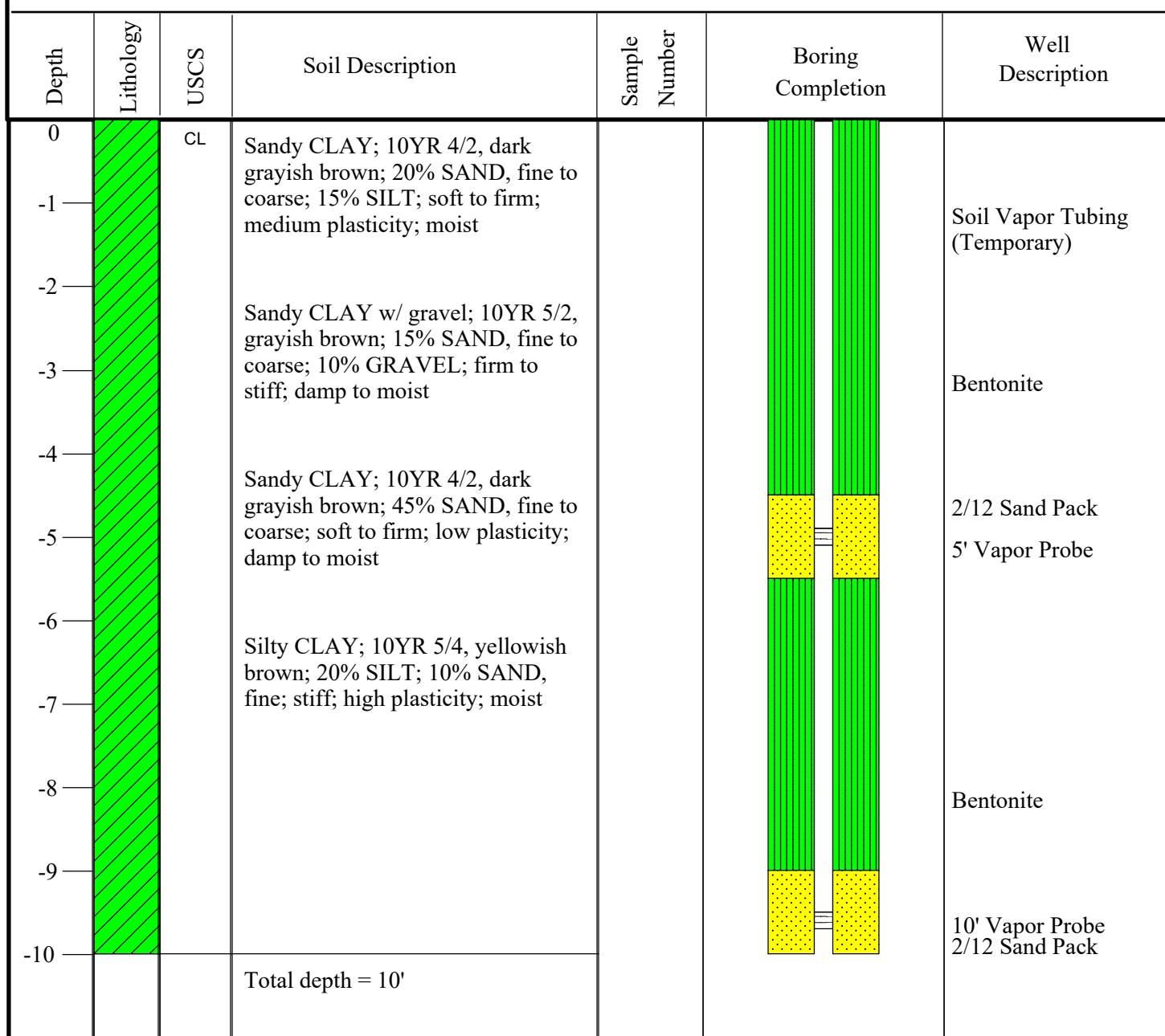
Logged By: **TS**

Reviewed By: **PG**

Sampling Method: **Macro-Core**

Water level during drilling : [-]

Water level in completed well : [-]



Notes: Boring completed at 10 ft. depth. Dry on completion. Soil vapor probes set at 5' & 10'.  
Backfilled with neat cement grout.

**ATTACHMENT B – LABORATORY ANALYTICAL REPORTS AND  
CHAIN OF CUSTODY DOCUMENTS**



# McCampbell Analytical, Inc.

"When Quality Counts"

## Analytical Report

**WorkOrder:** 1611A19 A

**Report Created for:** Environmental Investigation Services, Inc.

15951 Los Gatos Blvd., Suite 17  
Los Gatos, CA 95032

**Project Contact:** Peter Littman

**Project P.O.:**

**Project Name:** 1652-2; OHA

**Project Received:** 11/21/2016

Analytical Report reviewed & approved for release on 12/07/2016 by:

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.*





## Glossary of Terms & Qualifier Definitions

**Client:** Environmental Investigation Services, Inc.  
**Project:** 1652-2; OHA  
**WorkOrder:** 1611A19

### Glossary Abbreviation

|              |  |
|--------------|--|
| %D           | Serial Dilution Percent Difference   |
| 95% Interval | 95% Confident Interval   |
| DF           | Dilution Factor  |
| DI WET       | (DISTLC) Waste Extraction Test using DI water  |
| DISS         | Dissolved (direct analysis of 0.45 µm filtered and acidified water sample)               |
| DLT          | Dilution Test (Serial Dilution)  |
| DUP          | Duplicate  |
| EDL          | Estimated Detection Limit  |
| ITEF         | International Toxicity Equivalence Factor  |
| LCS          | Laboratory Control Sample  |
| MB           | Method Blank   |
| MB % Rec     | % Recovery of Surrogate in Method Blank, if applicable                                   |
| MDL          | Method Detection Limit   |
| ML           | Minimum Level of Quantitation  |
| MS           | Matrix Spike   |
| MSD          | Matrix Spike Duplicate   |
| N/A          | Not Applicable   |
| ND           | Not detected at or above the indicated MDL or RL   |
| NR           | Data Not Reported due to matrix interference or insufficient sample amount.              |
| PDS          | Post Digestion Spike   |
| PDSD         | Post Digestion Spike Duplicate   |
| PF           | Prep Factor  |
| RD           | Relative Difference  |
| RL           | Reporting Limit (The RL is the lowest calibration standard in a multipoint calibration.) |
| RPD          | Relative Percent Deviation   |
| RRT          | Relative Retention Time  |
| SPK Val      | Spike Value  |
| SPKRef Val   | Spike Reference Value  |
| SPLP         | Synthetic Precipitation Leachate Procedure   |
| ST           | Sorbent Tube   |
| TCLP         | Toxicity Characteristic Leachate Procedure   |
| TEQ          | Toxicity Equivalents   |
| WET (STLC)   | Waste Extraction Test (Soluble Threshold Limit Concentration)                            |

### Analytical Qualifiers

a3 sample diluted due to high organic content.



## Glossary of Terms & Qualifier Definitions

**Client:** Environmental Investigation Services, Inc.

**Project:** 1652-2; OHA

**WorkOrder:** 1611A19

### Quality Control Qualifiers

- |     |   |
|-----|---|
| F1  | MS/MSD recovery and/or RPD is out of acceptance criteria; LCS validates the prep batch. |
| F2  | LCS/LCSD recovery and/or RPD is out of acceptance criteria.                             |
| F13 | Indigenous sample results too high for a representative matrix spike analysis.          |



## Analytical Report

**Client:** Environmental Investigation Services, Inc.  
**Date Received:** 11/21/16 17:10  
**Date Prepared:** 12/1/16  
**Project:** 1652-2; OHA

**WorkOrder:** 1611A19  
**Extraction Method:** SW3050B  
**Analytical Method:** SW6020  
**Unit:** mg/Kg

### Lead

| Client ID | Lab ID       | Matrix | Date Collected   | Instrument | Batch ID |
|-----------|--------------|--------|------------------|------------|----------|
| SB-1@3    | 1611A19-002A | Soil   | 11/17/2016 10:05 | ICP-MS3    | 130591   |

|                   |                |               |           |                      |
|-------------------|----------------|---------------|-----------|----------------------|
| <u>Analytes</u>   | <u>Result</u>  | <u>RL</u>     | <u>DF</u> | <u>Date Analyzed</u> |
| Lead              | 4.0            | 0.50          | 1         | 12/02/2016 12:59     |
| <u>Surrogates</u> | <u>REC (%)</u> | <u>Limits</u> |           |                      |
| Terbium           | 114            | 70-130        |           | 12/02/2016 12:59     |

Analyst(s): MIG

| Client ID | Lab ID       | Matrix | Date Collected   | Instrument | Batch ID |
|-----------|--------------|--------|------------------|------------|----------|
| SB-2@3    | 1611A19-004A | Soil   | 11/17/2016 09:35 | ICP-MS3    | 130591   |

|                   |                |               |           |                      |
|-------------------|----------------|---------------|-----------|----------------------|
| <u>Analytes</u>   | <u>Result</u>  | <u>RL</u>     | <u>DF</u> | <u>Date Analyzed</u> |
| Lead              | 5.8            | 0.50          | 1         | 12/02/2016 13:05     |
| <u>Surrogates</u> | <u>REC (%)</u> | <u>Limits</u> |           |                      |
| Terbium           | 112            | 70-130        |           | 12/02/2016 13:05     |

Analyst(s): MIG

| Client ID | Lab ID       | Matrix | Date Collected   | Instrument | Batch ID |
|-----------|--------------|--------|------------------|------------|----------|
| SB-3@3    | 1611A19-006A | Soil   | 11/17/2016 10:10 | ICP-MS3    | 130591   |

|                   |                |               |           |                      |
|-------------------|----------------|---------------|-----------|----------------------|
| <u>Analytes</u>   | <u>Result</u>  | <u>RL</u>     | <u>DF</u> | <u>Date Analyzed</u> |
| Lead              | 53             | 0.50          | 1         | 12/02/2016 13:11     |
| <u>Surrogates</u> | <u>REC (%)</u> | <u>Limits</u> |           |                      |

Terbium 111 70-130 12/02/2016 13:11

Analyst(s): MIG

| Client ID | Lab ID       | Matrix | Date Collected   | Instrument | Batch ID |
|-----------|--------------|--------|------------------|------------|----------|
| SB-4@3    | 1611A19-008A | Soil   | 11/17/2016 10:15 | ICP-MS3    | 130591   |

|                   |                |               |           |                      |
|-------------------|----------------|---------------|-----------|----------------------|
| <u>Analytes</u>   | <u>Result</u>  | <u>RL</u>     | <u>DF</u> | <u>Date Analyzed</u> |
| Lead              | 5.3            | 0.50          | 1         | 12/02/2016 13:17     |
| <u>Surrogates</u> | <u>REC (%)</u> | <u>Limits</u> |           |                      |

Terbium 112 70-130 12/02/2016 13:17

Analyst(s): MIG

(Cont.)



## Analytical Report

**Client:** Environmental Investigation Services, Inc.  
**Date Received:** 11/21/16 17:10  
**Date Prepared:** 12/1/16  
**Project:** 1652-2; OHA

**WorkOrder:** 1611A19  
**Extraction Method:** SW3050B  
**Analytical Method:** SW6020  
**Unit:** mg/Kg

### Lead

| Client ID          | Lab ID         | Matrix | Date Collected   | Instrument | Batch ID             |
|--------------------|----------------|--------|------------------|------------|----------------------|
| SB-5@3             | 1611A19-010A   | Soil   | 11/17/2016 10:45 | ICP-MS3    | 130591               |
| <u>Analytes</u>    | <u>Result</u>  |        | <u>RL</u>        | <u>DF</u>  | <u>Date Analyzed</u> |
| Lead               | 29             |        | 0.50             | 1          | 12/01/2016 22:41     |
| <u>Surrogates</u>  | <u>REC (%)</u> |        | <u>Limits</u>    |            |                      |
| Terbium            | 103            |        | 70-130           |            | 12/01/2016 22:41     |
| <u>Analyst(s):</u> | DB             |        |                  |            |                      |

| Client ID          | Lab ID         | Matrix | Date Collected   | Instrument | Batch ID             |
|--------------------|----------------|--------|------------------|------------|----------------------|
| SB-6@3             | 1611A19-012A   | Soil   | 11/17/2016 09:40 | ICP-MS3    | 130591               |
| <u>Analytes</u>    | <u>Result</u>  |        | <u>RL</u>        | <u>DF</u>  | <u>Date Analyzed</u> |
| Lead               | 110            |        | 0.50             | 1          | 12/01/2016 22:47     |
| <u>Surrogates</u>  | <u>REC (%)</u> |        | <u>Limits</u>    |            |                      |
| Terbium            | 108            |        | 70-130           |            | 12/01/2016 22:47     |
| <u>Analyst(s):</u> | DB             |        |                  |            |                      |

| Client ID          | Lab ID         | Matrix | Date Collected   | Instrument | Batch ID             |
|--------------------|----------------|--------|------------------|------------|----------------------|
| SB-7@3             | 1611A19-014A   | Soil   | 11/17/2016 09:50 | ICP-MS3    | 130591               |
| <u>Analytes</u>    | <u>Result</u>  |        | <u>RL</u>        | <u>DF</u>  | <u>Date Analyzed</u> |
| Lead               | 660            |        | 5.0              | 10         | 12/02/2016 09:39     |
| <u>Surrogates</u>  | <u>REC (%)</u> |        | <u>Limits</u>    |            |                      |
| Terbium            | 87             |        | 70-130           |            | 12/02/2016 09:39     |
| <u>Analyst(s):</u> | BBO            |        |                  |            |                      |

| Client ID          | Lab ID         | Matrix | Date Collected   | Instrument | Batch ID             |
|--------------------|----------------|--------|------------------|------------|----------------------|
| SB-8@3             | 1611A19-016A   | Soil   | 11/17/2016 10:20 | ICP-MS3    | 130591               |
| <u>Analytes</u>    | <u>Result</u>  |        | <u>RL</u>        | <u>DF</u>  | <u>Date Analyzed</u> |
| Lead               | 95             |        | 0.50             | 1          | 12/01/2016 23:18     |
| <u>Surrogates</u>  | <u>REC (%)</u> |        | <u>Limits</u>    |            |                      |
| Terbium            | 104            |        | 70-130           |            | 12/01/2016 23:18     |
| <u>Analyst(s):</u> | DB             |        |                  |            |                      |

(Cont.)



## Analytical Report

**Client:** Environmental Investigation Services, Inc.  
**Date Received:** 11/21/16 17:10  
**Date Prepared:** 12/1/16  
**Project:** 1652-2; OHA

**WorkOrder:** 1611A19  
**Extraction Method:** SW3050B  
**Analytical Method:** SW6020  
**Unit:** mg/Kg

### Lead

| Client ID          | Lab ID         | Matrix | Date Collected   | Instrument | Batch ID             |
|--------------------|----------------|--------|------------------|------------|----------------------|
| SB-9@3             | 1611A19-018A   | Soil   | 11/17/2016 10:00 | ICP-MS3    | 130599               |
| <u>Analytes</u>    | <u>Result</u>  |        | <u>RL</u>        | <u>DF</u>  | <u>Date Analyzed</u> |
| Lead               | 960            |        | 5.0              | 10         | 12/02/2016 09:45     |
| <u>Surrogates</u>  | <u>REC (%)</u> |        | <u>Limits</u>    |            |                      |
| Terbium            | 107            |        | 70-130           |            | 12/02/2016 09:45     |
| <u>Analyst(s):</u> | BBO            |        |                  |            |                      |

| Client ID          | Lab ID         | Matrix | Date Collected   | Instrument | Batch ID             |
|--------------------|----------------|--------|------------------|------------|----------------------|
| SB-10@3            | 1611A19-020A   | Soil   | 11/17/2016 09:45 | ICP-MS3    | 130599               |
| <u>Analytes</u>    | <u>Result</u>  |        | <u>RL</u>        | <u>DF</u>  | <u>Date Analyzed</u> |
| Lead               | 2100           |        | 5.0              | 10         | 12/07/2016 11:59     |
| <u>Surrogates</u>  | <u>REC (%)</u> |        | <u>Limits</u>    |            |                      |
| Terbium            | 116            |        | 70-130           |            | 12/07/2016 11:59     |
| <u>Analyst(s):</u> | DVH            |        |                  |            |                      |

| Client ID          | Lab ID         | Matrix | Date Collected   | Instrument | Batch ID             |
|--------------------|----------------|--------|------------------|------------|----------------------|
| SB-11@3            | 1611A19-022A   | Soil   | 11/17/2016 11:00 | ICP-MS3    | 130599               |
| <u>Analytes</u>    | <u>Result</u>  |        | <u>RL</u>        | <u>DF</u>  | <u>Date Analyzed</u> |
| Lead               | 1800           |        | 5.0              | 10         | 12/02/2016 09:52     |
| <u>Surrogates</u>  | <u>REC (%)</u> |        | <u>Limits</u>    |            |                      |
| Terbium            | 107            |        | 70-130           |            | 12/02/2016 09:52     |
| <u>Analyst(s):</u> | BBO            |        |                  |            |                      |

| Client ID          | Lab ID         | Matrix | Date Collected   | Instrument | Batch ID             |
|--------------------|----------------|--------|------------------|------------|----------------------|
| SB-12@3            | 1611A19-024A   | Soil   | 11/17/2016 10:50 | ICP-MS3    | 130599               |
| <u>Analytes</u>    | <u>Result</u>  |        | <u>RL</u>        | <u>DF</u>  | <u>Date Analyzed</u> |
| Lead               | 110            |        | 0.50             | 1          | 12/01/2016 23:36     |
| <u>Surrogates</u>  | <u>REC (%)</u> |        | <u>Limits</u>    |            |                      |
| Terbium            | 102            |        | 70-130           |            | 12/01/2016 23:36     |
| <u>Analyst(s):</u> | DB             |        |                  |            |                      |

(Cont.)



## Analytical Report

**Client:** Environmental Investigation Services, Inc.  
**Date Received:** 11/21/16 17:10  
**Date Prepared:** 12/1/16  
**Project:** 1652-2; OHA

**WorkOrder:** 1611A19  
**Extraction Method:** SW3050B  
**Analytical Method:** SW6020  
**Unit:** mg/Kg

### Lead

| Client ID | Lab ID       | Matrix | Date Collected   | Instrument | Batch ID |
|-----------|--------------|--------|------------------|------------|----------|
| SB-13@3   | 1611A19-026A | Soil   | 11/17/2016 10:25 | ICP-MS3    | 130599   |

| Analyses | Result | RL   | DF | Date Analyzed    |
|----------|--------|------|----|------------------|
| Lead     | 99     | 0.50 | 1  | 12/01/2016 23:43 |

| Surrogates | REC (%) | Limits |                  |
|------------|---------|--------|------------------|
| Terbium    | 99      | 70-130 | 12/01/2016 23:43 |

Analyst(s): DB

| Client ID | Lab ID       | Matrix | Date Collected   | Instrument | Batch ID |
|-----------|--------------|--------|------------------|------------|----------|
| SB-14@3   | 1611A19-028A | Soil   | 11/17/2016 10:40 | ICP-MS3    | 130599   |

| Analyses | Result | RL  | DF | Date Analyzed    |
|----------|--------|-----|----|------------------|
| Lead     | 1700   | 5.0 | 10 | 12/02/2016 10:04 |

| Surrogates | REC (%) | Limits |                  |
|------------|---------|--------|------------------|
| Terbium    | 106     | 70-130 | 12/02/2016 10:04 |

Analyst(s): BBO



## Quality Control Report

|                       |  |                           |                                     |
|-----------------------|--|---------------------------|-------------------------------------|
| <b>Client:</b>        | Environmental Investigation Services, Inc. | <b>WorkOrder:</b>         | 1611A19                             |
| <b>Date Prepared:</b> | 12/1/16                                    | <b>BatchID:</b>           | 130591                              |
| <b>Date Analyzed:</b> | 12/1/16                                    | <b>Extraction Method:</b> | SW3050B                             |
| <b>Instrument:</b>    | ICP-MS2                                    | <b>Analytical Method:</b> | SW6020                              |
| <b>Matrix:</b>        | Soil                                       | <b>Unit:</b>              | mg/Kg                               |
| <b>Project:</b>       | 1652-2; OHA                                | <b>Sample ID:</b>         | MB/LCS-130591<br>1612001-019AMS/MSD |

### QC Summary Report for Metals

| Analyte                   | MB Result  | LCS Result | RL      | SPK Val    | MB SS %REC | LCS %REC | LCS Limits    |     |           |
|---------------------------|------------|------------|---------|------------|------------|----------|---------------|-----|-----------|
| Lead                      | ND         | 49.5       | 0.50    | 50         | -          | 99       | 75-125        |     |           |
| <b>Surrogate Recovery</b> |            |            |         |            |            |          |               |     |           |
| Terbium                   | 515        | 528        |         | 500        | 103        | 106      | 70-130        |     |           |
| <b>Surrogate Recovery</b> |            |            |         |            |            |          |               |     |           |
| Analyte                   | MS Result  | MSD Result | SPK Val | SPKRef Val | MS %REC    | MSD %REC | MS/MSD Limits | RPD | RPD Limit |
| Lead                      | 55.9       | 56.0       | 50      | 3.291      | 105        | 105      | 75-125        | 0   | 20        |
| Terbium                   | 555        | 554        | 500     |            | 111        | 111      | 70-130        | 0   | 20        |
| Analyte                   | DLT Result | DLTRef Val |         |            | %D         | %D       | Limit         |     |           |
| Lead                      | 3.35       | 3.291      |         |            | 1.79       |          |               |     | -         |

%D Control Limit applied to analytes with concentrations greater than 25 times the reporting limits.

(Cont.)

CDPH ELAP 1644 • NELAP 4033ORELAP

 QA/QC Officer



## Quality Control Report

|                       |  |                           |                                     |
|-----------------------|--|---------------------------|-------------------------------------|
| <b>Client:</b>        | Environmental Investigation Services, Inc. | <b>WorkOrder:</b>         | 1611A19                             |
| <b>Date Prepared:</b> | 12/1/16                                    | <b>BatchID:</b>           | 130599                              |
| <b>Date Analyzed:</b> | 12/1/16 - 12/2/16                          | <b>Extraction Method:</b> | SW3050B                             |
| <b>Instrument:</b>    | ICP-MS3                                    | <b>Analytical Method:</b> | SW6020                              |
| <b>Matrix:</b>        | Soil                                       | <b>Unit:</b>              | mg/Kg                               |
| <b>Project:</b>       | 1652-2; OHA                                | <b>Sample ID:</b>         | MB/LCS-130599<br>1611A19-028AMS/MSD |

### QC Summary Report for Metals

| Analyte                   | MB Result  | LCS Result | RL      | SPK Val    | MB SS %REC | LCS %REC | LCS Limits    |      |           |
|---------------------------|------------|------------|---------|------------|------------|----------|---------------|------|-----------|
| Lead                      | ND         | 48.5       | 0.50    | 50         | -          | 97       | 75-125        |      |           |
| <b>Surrogate Recovery</b> |            |            |         |            |            |          |               |      |           |
| Terbium                   | 530        | 544        |         | 500        | 106        | 109      | 70-130        |      |           |
| <br>                      |            |            |         |            |            |          |               |      |           |
| Analyte                   | MS Result  | MSD Result | SPK Val | SPKRef Val | MS %REC    | MSD %REC | MS/MSD Limits | RPD  | RPD Limit |
| Lead                      | 1170       | 2110       | 50      | 1730       | 0,F13      | 758,F13  | 75-125        | NA   | 20        |
| <b>Surrogate Recovery</b> |            |            |         |            |            |          |               |      |           |
| Terbium                   | 466        | 540        | 500     |            | 93         | 108      | 70-130        | 14.7 | 20        |
| <br>                      |            |            |         |            |            |          |               |      |           |
| Analyte                   | DLT Result | DLTRef Val |         |            |            | %D       | %D Limit      |      |           |
| Lead                      | 1620       | 1730       |         |            |            | 6.36     | 20            |      |           |

%D Control Limit applied to analytes with concentrations greater than 25 times the reporting limits.

# McCampbell Analytical, Inc.

1534 Willow Pass Rd  
Pittsburg, CA 94565-1701  
(925) 252-9262

# CHAIN-OF-CUSTODY RECORD

Page 1 of 1

**WorkOrder:** 161A19 A **ClientCode:** EISI

Water-Trax  WriteOn  EDF

**Report to:**  
Peter Littman  
Environmental Investigation Services, In  
15951 Los Gatos Blvd., Suite 17  
Los Gatos, CA 95032  
(408) 871-1470

**Email:** plittman@eis1.net; tyler@eis1.net; diana@  
co3rd Party:  
PO:  
ProjectNo: 1652-2; OHA

**Bill to:**  
Env. Investigation Svcs., Inc.  
15951 Los Gatos Blvd., Suite 17  
Los Gatos, CA 95032  
barbara@eis1.net

**Date Received:** 11/21/2016  
**Date Logged:** 11/21/2016  
**Date Add-On:** 11/30/2016

| Lab ID      | Client ID | Matrix | Collection Date  | Hold                     | Requested Tests (See legend below) |   |   |   |   |   |   |   |   |
|-------------|-----------|--------|------------------|--------------------------|------------------------------------|---|---|---|---|---|---|---|---|
|             |           |        |                  |                          | 1                                  | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
| 1611A19-002 | SB-1@3    | Soil   | 11/17/2016 10:05 | <input type="checkbox"/> | A                                  |   |   |   |   |   |   |   |   |
| 1611A19-004 | SB-2@3    | Soil   | 11/17/2016 09:35 | <input type="checkbox"/> | A                                  |   |   |   |   |   |   |   |   |
| 1611A19-006 | SB-3@3    | Soil   | 11/17/2016 10:10 | <input type="checkbox"/> | A                                  |   |   |   |   |   |   |   |   |
| 1611A19-008 | SB-4@3    | Soil   | 11/17/2016 10:15 | <input type="checkbox"/> | A                                  |   |   |   |   |   |   |   |   |
| 1611A19-010 | SB-5@3    | Soil   | 11/17/2016 10:45 | <input type="checkbox"/> | A                                  |   |   |   |   |   |   |   |   |
| 1611A19-012 | SB-6@3    | Soil   | 11/17/2016 09:40 | <input type="checkbox"/> | A                                  |   |   |   |   |   |   |   |   |
| 1611A19-014 | SB-7@3    | Soil   | 11/17/2016 09:50 | <input type="checkbox"/> | A                                  |   |   |   |   |   |   |   |   |
| 1611A19-016 | SB-8@3    | Soil   | 11/17/2016 10:20 | <input type="checkbox"/> | A                                  |   |   |   |   |   |   |   |   |
| 1611A19-018 | SB-9@3    | Soil   | 11/17/2016 10:00 | <input type="checkbox"/> | A                                  |   |   |   |   |   |   |   |   |
| 1611A19-020 | SB-10@3   | Soil   | 11/17/2016 09:45 | <input type="checkbox"/> | A                                  |   |   |   |   |   |   |   |   |
| 1611A19-022 | SB-11@3   | Soil   | 11/17/2016 11:00 | <input type="checkbox"/> | A                                  |   |   |   |   |   |   |   |   |
| 1611A19-024 | SB-12@3   | Soil   | 11/17/2016 10:50 | <input type="checkbox"/> | A                                  |   |   |   |   |   |   |   |   |
| 1611A19-026 | SB-13@3   | Soil   | 11/17/2016 10:25 | <input type="checkbox"/> | A                                  |   |   |   |   |   |   |   |   |
| 1611A19-028 | SB-14@3   | Soil   | 11/17/2016 10:40 | <input type="checkbox"/> | A                                  |   |   |   |   |   |   |   |   |

## Test Legend:

|          |                    |           |           |           |
|----------|--------------------|-----------|-----------|-----------|
| <b>1</b> | <b>PBMS_TTLC_S</b> | <b>2</b>  | <b>3</b>  | <b>4</b>  |
| <b>5</b> |                    | <b>6</b>  | <b>7</b>  | <b>8</b>  |
| <b>9</b> |                    | <b>10</b> | <b>11</b> | <b>12</b> |
|          |                    |           |           |           |

**Comments:** Samples off HOLD 11/30/16 STAT.

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.

**Prepared by:** Alexandra Imitz  
**Add-On Prepared By:** Maria Venegas



**McCampbell Analytical, Inc.**  
"When Quality Counts"

1534 Willow Pass Road, Pittsburgh, CA 94565-1701  
Toll Free Telephone: (877) 252-9762 Fax: (925) 252-9269  
<http://www.mccampbell.com> / E-mail: main@mccampbell.com

## WORK ORDER SUMMARY

**Client Name:** ENVIRONMENTAL INVESTIGATION SERVICES,      **Project:** 1652-2; OHA  
**Client Contact:** Peter Littman  
**Contact's Email:** plittman@eis1.net; tyler@eis1.net; diana@eis1.net

**Comments:** Samples off HOLD 11/30/16 STAT.

**Work Order:** 1611A19  
**QC Level:** LEVEL 2  
**Date Logged:** 11/21/2016  
**Date Add-On:** 11/30/2016

| Lab ID       | Client ID | Matrix | Test Name     | Containers /Composites | Bottle & Preservative | Collection Date & Time | TAT    | Sediment Hold SubOut Content |
|--------------|-----------|--------|---------------|------------------------|-----------------------|------------------------|--------|------------------------------|
| 1611A19-002A | SB-1@3    | Soil   | SW6020 (Lead) | 1                      | Acetate Liner         | 11/17/2016 10:05       | 5 days | <input type="checkbox"/>     |
| 1611A19-004A | SB-2@3    | Soil   | SW6020 (Lead) | 1                      | Acetate Liner         | 11/17/2016 9:35        | 5 days | <input type="checkbox"/>     |
| 1611A19-006A | SB-3@3    | Soil   | SW6020 (Lead) | 1                      | Acetate Liner         | 11/17/2016 10:10       | 5 days | <input type="checkbox"/>     |
| 1611A19-008A | SB-4@3    | Soil   | SW6020 (Lead) | 1                      | Acetate Liner         | 11/17/2016 10:15       | 5 days | <input type="checkbox"/>     |
| 1611A19-010A | SB-5@3    | Soil   | SW6020 (Lead) | 1                      | Acetate Liner         | 11/17/2016 10:45       | 5 days | <input type="checkbox"/>     |
| 1611A19-012A | SB-6@3    | Soil   | SW6020 (Lead) | 1                      | Acetate Liner         | 11/17/2016 9:40        | 5 days | <input type="checkbox"/>     |
| 1611A19-014A | SB-7@3    | Soil   | SW6020 (Lead) | 1                      | Acetate Liner         | 11/17/2016 9:50        | 5 days | <input type="checkbox"/>     |
| 1611A19-016A | SB-8@3    | Soil   | SW6020 (Lead) | 1                      | Acetate Liner         | 11/17/2016 10:20       | 5 days | <input type="checkbox"/>     |
| 1611A19-018A | SB-9@3    | Soil   | SW6020 (Lead) | 1                      | Acetate Liner         | 11/17/2016 10:00       | 5 days | <input type="checkbox"/>     |
| 1611A19-020A | SB-10@3   | Soil   | SW6020 (Lead) | 1                      | Acetate Liner         | 11/17/2016 9:45        | 5 days | <input type="checkbox"/>     |
| 1611A19-022A | SB-11@3   | Soil   | SW6020 (Lead) | 1                      | Acetate Liner         | 11/17/2016 11:00       | 5 days | <input type="checkbox"/>     |
| 1611A19-024A | SB-12@3   | Soil   | SW6020 (Lead) | 1                      | Acetate Liner         | 11/17/2016 10:50       | 5 days | <input type="checkbox"/>     |
| 1611A19-026A | SB-13@3   | Soil   | SW6020 (Lead) | 1                      | Acetate Liner         | 11/17/2016 10:25       | 5 days | <input type="checkbox"/>     |
| 1611A19-028A | SB-14@3   | Soil   | SW6020 (Lead) | 1                      | Acetate Liner         | 11/17/2016 10:40       | 5 days | <input type="checkbox"/>     |

**NOTES:** - STLIC and TCLP extractions require 2 days to complete; therefore, all TATs begin after the extraction is completed (i.e., One-day TAT yields results in 3 days from sample submission).  
- MAI assumes that all material present in the provided sampling container is considered part of the sample - MAI does not exclude any material from the sample prior to sample preparation unless requested in writing by the client.



# McCampbell Analytical, Inc.

1534 Willow Pass Rd. / Pittsburg, Ca. 94565-1701  
[www.mccampbell.com](http://www.mccampbell.com) / main@mccampbell.com  
 Telephone: (877) 252-9262 / Fax: (925) 252-9269

Report To: Peter Littman / Emlyn Stokes Bill To: EIS, Inc.

Company: Environmental Investigation Services, Inc.

15951 Los Gatos Blvd. Suite 17  
 Los Gatos, CA 95032

E-Mail: emlyn@eis1.net

Fax: (408) 402 9800

Project Name: *OH/A*

Project Location: *1236 E 17th St, Oakland Purchase Order#*

Sampler Signature: *Jeanne*

TURN AROUND TIME: RUSH

1 DAY

2 DAY

3 DAY

5 DAY

10 DAY

Geo Tracker EDF

PDF

EDD

Write On (DW)

EQuIS

Effluent Sample Requiring "J" flag

UST Clean Up Fund Project

Claim # \_\_\_\_\_

## CHAIN OF CUSTODY RECORD

| Analysis Request |                                  |         |       |               |              |             |                |                     |  |
|------------------|----------------------------------|---------|-------|---------------|--------------|-------------|----------------|---------------------|--|
| SAMPLE ID        | Location/<br>Field Point<br>Name | Date    | Time  | MATRIX        |              |             |                | METHOD<br>PRESERVED |  |
|                  |                                  |         |       | # Contameters | Ground Water | Waste Water | Drinking Water |                     |  |
| SB-1@0.5'        |                                  | 1/17/06 | 10:45 | /             | /            | /           | /              |                     |  |
| SB-1@3'          |                                  |         | 10:05 | /             | /            | /           | /              |                     |  |
| SB-2@0.5'        |                                  |         | 9:35  | /             | /            | /           | /              |                     |  |
| SB-2@3'          |                                  |         | 9:35  | /             | /            | /           | /              |                     |  |
| SB-3@0.5'        |                                  |         | 9:40  | /             | /            | /           | /              |                     |  |
| SB-3@3'          |                                  |         | 10:00 | /             | /            | /           | /              |                     |  |
| SB-4@0.5'        |                                  |         | 10:15 | /             | /            | /           | /              |                     |  |
| SB-4@3'          |                                  |         | 10:15 | /             | /            | /           | /              |                     |  |
| SB-5@0.5'        |                                  |         | 10:45 | /             | /            | /           | /              |                     |  |
| SB-5@3'          |                                  |         | 10:45 | /             | /            | /           | /              |                     |  |
| SB-6@0.5'        |                                  |         | 9:45  | /             | /            | /           | /              |                     |  |
|                  |                                  |         |       |               |              |             |                | X                   |  |

\*\*MAI clients MUST disclose any dangerous chemicals known to be present in their submitted samples in concentrations that may cause immediate harm or serious future health endangerment as a result of brief, gloved, open air, sample handling by MAI staff. Non-disclosure incurs an immediate \$250 surcharge and the client is subject to full legal liability for harm suffered. Thank you for your understanding and for allowing us to work safely.

Relinquished By:

*John*

Date: 1/17/06 Time: 12:23 Received By: *John*

Relinquished By:

*John*

Date: 1/17/06 Time: 17:10 Received By: *John*

ICER# 52

GOOD CONDITION  
 HEAD SPACE ABSENT  
 DECHLORINATED IN LAB  
 APPROPRIATE CONTAINERS  
 PRESERVED IN LAB

VOAS O&G METALS OTHER HAZARDOUS:  
 pH<2

COMMENTS:

*Samples off Hold 1/30/06  
 STAT*





11/30/2016

Mr. Emlyn Stokes  
Environmental Investigation Services, Inc.  
15951 Los Gatos Blvd  
Suite 17  
Los Gatos CA 95032

Project Name: OHA  
Project #: 1652-2  
Workorder #: 1611361A

Dear Mr. Emlyn Stokes

The following report includes the data for the above referenced project for sample(s) received on 11/18/2016 at Air Toxics Ltd.

The data and associated QC analyzed by TO-15 are compliant with the project requirements or laboratory criteria with the exception of the deviations noted in the attached case narrative.

Thank you for choosing Eurofins Air Toxics Inc. for your air analysis needs. Eurofins Air Toxics Inc. is committed to providing accurate data of the highest quality. Please feel free to contact the Project Manager: Rachel Selenis at 916-985-1000 if you have any questions regarding the data in this report.

Regards,



Rachel Selenis  
Project Manager

A Eurofins Lancaster Laboratories Company

## WORK ORDER #: 1611361A

## Work Order Summary

**CLIENT:** Mr. Emlyn Stokes  
Environmental Investigation Services,  
Inc.  
15951 Los Gatos Blvd  
Suite 17  
**PHONE:** Los Gatos, CA 95032  
408-402-9800  
**FAX:** 408-402-9830  
**DATE RECEIVED:** 11/18/2016  
**DATE COMPLETED:** 11/30/2016

**BILL TO:** Mr. Emlyn Stokes  
Environmental Investigation Services,  
Inc.  
15951 Los Gatos Blvd  
Suite 17

**P.O. #**

**PROJECT #** 1652-2 OHA

**CONTACT:** Rachel Selenis

| <u>FRACTION #</u> | <u>NAME</u> | <u>TEST</u> | <u>RECEIPT VAC/PRES.</u> | <u>FINAL PRESSURE</u> |
|-------------------|-------------|-------------|--------------------------|-----------------------|
| 01A               | SV-1@5'     | TO-15       | 2 "Hg                    | 15 psi                |
| 04A               | SV-2@5'     | TO-15       | 1.8 "Hg                  | 14.8 psi              |
| 05A(cancelled)    | SV-2@10'    | TO-15       | 27.6 "Hg                 | 14.5 psi              |
| 06A               | Lab Blank   | TO-15       | NA                       | NA                    |
| 07A               | CCV         | TO-15       | NA                       | NA                    |
| 08A               | LCS         | TO-15       | NA                       | NA                    |
| 08AA              | LCSD        | TO-15       | NA                       | NA                    |

CERTIFIED BY:



DATE: 11/30/16

Technical Director

Certification numbers: AZ Licensure AZ0775, NJ NELAP - CA016, NY NELAP - 11291,  
TX NELAP - T104704434-15-9, UT NELAP CA0093332015-6, VA NELAP - 8113, WA NELAP - C935  
Name of Accreditation Body: NELAP/ORELAP (Oregon Environmental Laboratory Accreditation Program)

Accreditation number: CA300005, Effective date: 10/18/2015, Expiration date: 10/17/2016.

Eurofins Air Toxics Inc.. certifies that the test results contained in this report meet all requirements of the NELAC standards

This report shall not be reproduced, except in full, without the written approval of Eurofins Air Toxics, Inc.

180 BLUE RAVINE ROAD, SUITE B FOLSOM, CA - 95630  
(916) 985-1000 . (800) 985-5955 . FAX (916) 985-1020

**LABORATORY NARRATIVE  
EPA Method TO-15  
Environmental Investigation Services, Inc.  
Workorder# 1611361A**

Three 1 Liter Summa Canister samples were received on November 18, 2016. The laboratory performed analysis via EPA Method TO-15 using GC/MS in the full scan mode.

This workorder was independently validated prior to submittal using 'USEPA National Functional Guidelines' as generally applied to the analysis of volatile organic compounds in air. A rules-based, logic driven, independent validation engine was employed to assess completeness, evaluate pass/fail of relevant project quality control requirements and verification of all quantified amounts.

#### **Receiving Notes**

Sample SV-2@10' was received with significant vacuum remaining in the canister. The client was notified and requested the sample be cancelled.

#### **Analytical Notes**

There were no analytical discrepancies.

#### **Definition of Data Qualifying Flags**

Eight qualifiers may have been used on the data analysis sheets and indicates as follows:

B - Compound present in laboratory blank greater than reporting limit (background subtraction not performed).

J - Estimated value.

E - Exceeds instrument calibration range.

S - Saturated peak.

Q - Exceeds quality control limits.

U - Compound analyzed for but not detected above the reporting limit, LOD, or MDL value. See data page for project specific U-flag definition.

UJ- Non-detected compound associated with low bias in the CCV

N - The identification is based on presumptive evidence.

File extensions may have been used on the data analysis sheets and indicates as follows:

a-File was requantified

b-File was quantified by a second column and detector

r1-File was requantified for the purpose of reissue

## Summary of Detected Compounds EPA METHOD TO-15 GC/MS FULL SCAN

**Client Sample ID: SV-1@5'**

**Lab ID#: 1611361A-01A**

| Compound                         | Rpt. Limit<br>(ppbv) | Amount<br>(ppbv) | Rpt. Limit<br>(ug/m3) | Amount<br>(ug/m3) |
|----------------------------------|----------------------|------------------|-----------------------|-------------------|
| 1,3-Butadiene                    | 1.1                  | 5.0              | 2.4                   | 11                |
| Ethanol                          | 4.3                  | 7.2              | 8.1                   | 14                |
| Acetone                          | 11                   | 18               | 26                    | 42                |
| Hexane                           | 1.1                  | 39               | 3.8                   | 140               |
| 2-Butanone (Methyl Ethyl Ketone) | 4.3                  | 5.9              | 13                    | 17                |
| Cyclohexane                      | 1.1                  | 2.1              | 3.7                   | 7.2               |
| Benzene                          | 1.1                  | 1.7              | 3.4                   | 5.4               |
| Heptane                          | 1.1                  | 1.8              | 4.4                   | 7.4               |
| Toluene                          | 1.1                  | 5.3              | 4.1                   | 20                |
| Ethyl Benzene                    | 1.1                  | 1.8              | 4.7                   | 8.0               |
| m,p-Xylene                       | 1.1                  | 6.5              | 4.7                   | 28                |
| o-Xylene                         | 1.1                  | 2.3              | 4.7                   | 10                |

**Client Sample ID: SV-2@5'**

**Lab ID#: 1611361A-04A**

| Compound                         | Rpt. Limit<br>(ppbv) | Amount<br>(ppbv) | Rpt. Limit<br>(ug/m3) | Amount<br>(ug/m3) |
|----------------------------------|----------------------|------------------|-----------------------|-------------------|
| 1,3-Butadiene                    | 1.1                  | 4.3              | 2.4                   | 9.6               |
| Ethanol                          | 4.3                  | 8.2              | 8.0                   | 15                |
| Acetone                          | 11                   | 54               | 25                    | 130               |
| Carbon Disulfide                 | 4.3                  | 4.6              | 13                    | 14                |
| Hexane                           | 1.1                  | 34               | 3.8                   | 120               |
| 2-Butanone (Methyl Ethyl Ketone) | 4.3                  | 13               | 12                    | 39                |
| Tetrahydrofuran                  | 1.1                  | 1.6              | 3.1                   | 4.6               |
| Cyclohexane                      | 1.1                  | 1.1              | 3.7                   | 3.7               |
| Benzene                          | 1.1                  | 1.4              | 3.4                   | 4.5               |
| Heptane                          | 1.1                  | 1.4              | 4.4                   | 5.6               |
| Toluene                          | 1.1                  | 11               | 4.0                   | 41                |
| Ethyl Benzene                    | 1.1                  | 1.1              | 4.6                   | 4.9               |
| m,p-Xylene                       | 1.1                  | 3.8              | 4.6                   | 16                |
| o-Xylene                         | 1.1                  | 1.4              | 4.6                   | 6.2               |



Air Toxics

Client Sample ID: SV-1@5'

Lab ID#: 1611361A-01A

## EPA METHOD TO-15 GC/MS FULL SCAN

| File Name:                       | a112208              | Date of Collection: 11/17/16 11:29:00 A |                       |                   |
|----------------------------------|----------------------|---|-----------------------|-------------------|
| Dil. Factor:                     | 2.16                 | Date of Analysis: 11/22/16 05:35 PM     |                       |                   |
| Compound                         | Rpt. Limit<br>(ppbv) | Amount<br>(ppbv)                        | Rpt. Limit<br>(ug/m3) | Amount<br>(ug/m3) |
| Freon 12                         | 1.1                  | Not Detected                            | 5.3                   | Not Detected      |
| Freon 114                        | 1.1                  | Not Detected                            | 7.6                   | Not Detected      |
| Chloromethane                    | 11                   | Not Detected                            | 22                    | Not Detected      |
| Vinyl Chloride                   | 1.1                  | Not Detected                            | 2.8                   | Not Detected      |
| 1,3-Butadiene                    | 1.1                  | 5.0                                     | 2.4                   | 11                |
| Bromomethane                     | 11                   | Not Detected                            | 42                    | Not Detected      |
| Chloroethane                     | 4.3                  | Not Detected                            | 11                    | Not Detected      |
| Freon 11                         | 1.1                  | Not Detected                            | 6.1                   | Not Detected      |
| Ethanol                          | 4.3                  | 7.2                                     | 8.1                   | 14                |
| Freon 113                        | 1.1                  | Not Detected                            | 8.3                   | Not Detected      |
| 1,1-Dichloroethene               | 1.1                  | Not Detected                            | 4.3                   | Not Detected      |
| Acetone                          | 11                   | 18                                      | 26                    | 42                |
| 2-Propanol                       | 4.3                  | Not Detected                            | 11                    | Not Detected      |
| Carbon Disulfide                 | 4.3                  | Not Detected                            | 13                    | Not Detected      |
| 3-Chloropropene                  | 4.3                  | Not Detected                            | 14                    | Not Detected      |
| Methylene Chloride               | 11                   | Not Detected                            | 38                    | Not Detected      |
| Methyl tert-butyl ether          | 4.3                  | Not Detected                            | 16                    | Not Detected      |
| trans-1,2-Dichloroethene         | 1.1                  | Not Detected                            | 4.3                   | Not Detected      |
| Hexane                           | 1.1                  | 39                                      | 3.8                   | 140               |
| 1,1-Dichloroethane               | 1.1                  | Not Detected                            | 4.4                   | Not Detected      |
| 2-Butanone (Methyl Ethyl Ketone) | 4.3                  | 5.9                                     | 13                    | 17                |
| cis-1,2-Dichloroethene           | 1.1                  | Not Detected                            | 4.3                   | Not Detected      |
| Tetrahydrofuran                  | 1.1                  | Not Detected                            | 3.2                   | Not Detected      |
| Chloroform                       | 1.1                  | Not Detected                            | 5.3                   | Not Detected      |
| 1,1,1-Trichloroethane            | 1.1                  | Not Detected                            | 5.9                   | Not Detected      |
| Cyclohexane                      | 1.1                  | 2.1                                     | 3.7                   | 7.2               |
| Carbon Tetrachloride             | 1.1                  | Not Detected                            | 6.8                   | Not Detected      |
| 2,2,4-Trimethylpentane           | 1.1                  | Not Detected                            | 5.0                   | Not Detected      |
| Benzene                          | 1.1                  | 1.7                                     | 3.4                   | 5.4               |
| 1,2-Dichloroethane               | 1.1                  | Not Detected                            | 4.4                   | Not Detected      |
| Heptane                          | 1.1                  | 1.8                                     | 4.4                   | 7.4               |
| Trichloroethene                  | 1.1                  | Not Detected                            | 5.8                   | Not Detected      |
| 1,2-Dichloropropane              | 1.1                  | Not Detected                            | 5.0                   | Not Detected      |
| 1,4-Dioxane                      | 4.3                  | Not Detected                            | 16                    | Not Detected      |
| Bromodichloromethane             | 1.1                  | Not Detected                            | 7.2                   | Not Detected      |
| cis-1,3-Dichloropropene          | 1.1                  | Not Detected                            | 4.9                   | Not Detected      |
| 4-Methyl-2-pentanone             | 1.1                  | Not Detected                            | 4.4                   | Not Detected      |
| Toluene                          | 1.1                  | 5.3                                     | 4.1                   | 20                |
| trans-1,3-Dichloropropene        | 1.1                  | Not Detected                            | 4.9                   | Not Detected      |
| 1,1,2-Trichloroethane            | 1.1                  | Not Detected                            | 5.9                   | Not Detected      |
| Tetrachloroethene                | 1.1                  | Not Detected                            | 7.3                   | Not Detected      |
| 2-Hexanone                       | 4.3                  | Not Detected                            | 18                    | Not Detected      |



Air Toxics

Client Sample ID: SV-1@5'

Lab ID#: 1611361A-01A

## EPA METHOD TO-15 GC/MS FULL SCAN

| File Name:                | a112208              | Date of Collection: | 11/17/16 11:29:00 A   |                   |
|---------------------------|----------------------|---------------------|-----------------------|-------------------|
| Dil. Factor:              | 2.16                 | Date of Analysis:   | 11/22/16 05:35 PM     |                   |
| Compound                  | Rpt. Limit<br>(ppbv) | Amount<br>(ppbv)    | Rpt. Limit<br>(ug/m3) | Amount<br>(ug/m3) |
| Dibromochloromethane      | 1.1                  | Not Detected        | 9.2                   | Not Detected      |
| 1,2-Dibromoethane (EDB)   | 1.1                  | Not Detected        | 8.3                   | Not Detected      |
| Chlorobenzene             | 1.1                  | Not Detected        | 5.0                   | Not Detected      |
| Ethyl Benzene             | 1.1                  | 1.8                 | 4.7                   | 8.0               |
| m,p-Xylene                | 1.1                  | 6.5                 | 4.7                   | 28                |
| o-Xylene                  | 1.1                  | 2.3                 | 4.7                   | 10                |
| Styrene                   | 1.1                  | Not Detected        | 4.6                   | Not Detected      |
| Bromoform                 | 1.1                  | Not Detected        | 11                    | Not Detected      |
| Cumene                    | 1.1                  | Not Detected        | 5.3                   | Not Detected      |
| 1,1,2,2-Tetrachloroethane | 1.1                  | Not Detected        | 7.4                   | Not Detected      |
| Propylbenzene             | 1.1                  | Not Detected        | 5.3                   | Not Detected      |
| 4-Ethyltoluene            | 1.1                  | Not Detected        | 5.3                   | Not Detected      |
| 1,3,5-Trimethylbenzene    | 1.1                  | Not Detected        | 5.3                   | Not Detected      |
| 1,2,4-Trimethylbenzene    | 1.1                  | Not Detected        | 5.3                   | Not Detected      |
| 1,3-Dichlorobenzene       | 1.1                  | Not Detected        | 6.5                   | Not Detected      |
| 1,4-Dichlorobenzene       | 1.1                  | Not Detected        | 6.5                   | Not Detected      |
| alpha-Chlorotoluene       | 1.1                  | Not Detected        | 5.6                   | Not Detected      |
| 1,2-Dichlorobenzene       | 1.1                  | Not Detected        | 6.5                   | Not Detected      |
| 1,2,4-Trichlorobenzene    | 4.3                  | Not Detected        | 32                    | Not Detected      |
| Hexachlorobutadiene       | 4.3                  | Not Detected        | 46                    | Not Detected      |

Container Type: 1 Liter Summa Canister

| Surrogates            | %Recovery | Method Limits |
|-----------------------|-----------|---------------|
| Toluene-d8            | 103       | 70-130        |
| 1,2-Dichloroethane-d4 | 101       | 70-130        |
| 4-Bromofluorobenzene  | 106       | 70-130        |



Air Toxics

Client Sample ID: SV-2@5'

Lab ID#: 1611361A-04A

## EPA METHOD TO-15 GC/MS FULL SCAN

| File Name:                       | a112209              | Date of Collection: | 11/17/16 11:42:00 A   |                   |
|----------------------------------|----------------------|---------------------|-----------------------|-------------------|
| Dil. Factor:                     | 2.13                 | Date of Analysis:   | 11/22/16 06:02 PM     |                   |
| Compound                         | Rpt. Limit<br>(ppbv) | Amount<br>(ppbv)    | Rpt. Limit<br>(ug/m3) | Amount<br>(ug/m3) |
| Freon 12                         | 1.1                  | Not Detected        | 5.3                   | Not Detected      |
| Freon 114                        | 1.1                  | Not Detected        | 7.4                   | Not Detected      |
| Chloromethane                    | 11                   | Not Detected        | 22                    | Not Detected      |
| Vinyl Chloride                   | 1.1                  | Not Detected        | 2.7                   | Not Detected      |
| 1,3-Butadiene                    | 1.1                  | 4.3                 | 2.4                   | 9.6               |
| Bromomethane                     | 11                   | Not Detected        | 41                    | Not Detected      |
| Chloroethane                     | 4.3                  | Not Detected        | 11                    | Not Detected      |
| Freon 11                         | 1.1                  | Not Detected        | 6.0                   | Not Detected      |
| Ethanol                          | 4.3                  | 8.2                 | 8.0                   | 15                |
| Freon 113                        | 1.1                  | Not Detected        | 8.2                   | Not Detected      |
| 1,1-Dichloroethene               | 1.1                  | Not Detected        | 4.2                   | Not Detected      |
| Acetone                          | 11                   | 54                  | 25                    | 130               |
| 2-Propanol                       | 4.3                  | Not Detected        | 10                    | Not Detected      |
| Carbon Disulfide                 | 4.3                  | 4.6                 | 13                    | 14                |
| 3-Chloropropene                  | 4.3                  | Not Detected        | 13                    | Not Detected      |
| Methylene Chloride               | 11                   | Not Detected        | 37                    | Not Detected      |
| Methyl tert-butyl ether          | 4.3                  | Not Detected        | 15                    | Not Detected      |
| trans-1,2-Dichloroethene         | 1.1                  | Not Detected        | 4.2                   | Not Detected      |
| Hexane                           | 1.1                  | 34                  | 3.8                   | 120               |
| 1,1-Dichloroethane               | 1.1                  | Not Detected        | 4.3                   | Not Detected      |
| 2-Butanone (Methyl Ethyl Ketone) | 4.3                  | 13                  | 12                    | 39                |
| cis-1,2-Dichloroethene           | 1.1                  | Not Detected        | 4.2                   | Not Detected      |
| Tetrahydrofuran                  | 1.1                  | 1.6                 | 3.1                   | 4.6               |
| Chloroform                       | 1.1                  | Not Detected        | 5.2                   | Not Detected      |
| 1,1,1-Trichloroethane            | 1.1                  | Not Detected        | 5.8                   | Not Detected      |
| Cyclohexane                      | 1.1                  | 1.1                 | 3.7                   | 3.7               |
| Carbon Tetrachloride             | 1.1                  | Not Detected        | 6.7                   | Not Detected      |
| 2,2,4-Trimethylpentane           | 1.1                  | Not Detected        | 5.0                   | Not Detected      |
| Benzene                          | 1.1                  | 1.4                 | 3.4                   | 4.5               |
| 1,2-Dichloroethane               | 1.1                  | Not Detected        | 4.3                   | Not Detected      |
| Heptane                          | 1.1                  | 1.4                 | 4.4                   | 5.6               |
| Trichloroethene                  | 1.1                  | Not Detected        | 5.7                   | Not Detected      |
| 1,2-Dichloropropane              | 1.1                  | Not Detected        | 4.9                   | Not Detected      |
| 1,4-Dioxane                      | 4.3                  | Not Detected        | 15                    | Not Detected      |
| Bromodichloromethane             | 1.1                  | Not Detected        | 7.1                   | Not Detected      |
| cis-1,3-Dichloropropene          | 1.1                  | Not Detected        | 4.8                   | Not Detected      |
| 4-Methyl-2-pentanone             | 1.1                  | Not Detected        | 4.4                   | Not Detected      |
| Toluene                          | 1.1                  | 11                  | 4.0                   | 41                |
| trans-1,3-Dichloropropene        | 1.1                  | Not Detected        | 4.8                   | Not Detected      |
| 1,1,2-Trichloroethane            | 1.1                  | Not Detected        | 5.8                   | Not Detected      |
| Tetrachloroethene                | 1.1                  | Not Detected        | 7.2                   | Not Detected      |
| 2-Hexanone                       | 4.3                  | Not Detected        | 17                    | Not Detected      |



Air Toxics

Client Sample ID: SV-2@5'

Lab ID#: 1611361A-04A

## EPA METHOD TO-15 GC/MS FULL SCAN

| File Name:                | a112209              | Date of Collection: | 11/17/16 11:42:00 A   |                   |
|---------------------------|----------------------|---------------------|-----------------------|-------------------|
| Dil. Factor:              | 2.13                 | Date of Analysis:   | 11/22/16 06:02 PM     |                   |
| Compound                  | Rpt. Limit<br>(ppbv) | Amount<br>(ppbv)    | Rpt. Limit<br>(ug/m3) | Amount<br>(ug/m3) |
| Dibromochloromethane      | 1.1                  | Not Detected        | 9.1                   | Not Detected      |
| 1,2-Dibromoethane (EDB)   | 1.1                  | Not Detected        | 8.2                   | Not Detected      |
| Chlorobenzene             | 1.1                  | Not Detected        | 4.9                   | Not Detected      |
| Ethyl Benzene             | 1.1                  | 1.1                 | 4.6                   | 4.9               |
| m,p-Xylene                | 1.1                  | 3.8                 | 4.6                   | 16                |
| o-Xylene                  | 1.1                  | 1.4                 | 4.6                   | 6.2               |
| Styrene                   | 1.1                  | Not Detected        | 4.5                   | Not Detected      |
| Bromoform                 | 1.1                  | Not Detected        | 11                    | Not Detected      |
| Cumene                    | 1.1                  | Not Detected        | 5.2                   | Not Detected      |
| 1,1,2,2-Tetrachloroethane | 1.1                  | Not Detected        | 7.3                   | Not Detected      |
| Propylbenzene             | 1.1                  | Not Detected        | 5.2                   | Not Detected      |
| 4-Ethyltoluene            | 1.1                  | Not Detected        | 5.2                   | Not Detected      |
| 1,3,5-Trimethylbenzene    | 1.1                  | Not Detected        | 5.2                   | Not Detected      |
| 1,2,4-Trimethylbenzene    | 1.1                  | Not Detected        | 5.2                   | Not Detected      |
| 1,3-Dichlorobenzene       | 1.1                  | Not Detected        | 6.4                   | Not Detected      |
| 1,4-Dichlorobenzene       | 1.1                  | Not Detected        | 6.4                   | Not Detected      |
| alpha-Chlorotoluene       | 1.1                  | Not Detected        | 5.5                   | Not Detected      |
| 1,2-Dichlorobenzene       | 1.1                  | Not Detected        | 6.4                   | Not Detected      |
| 1,2,4-Trichlorobenzene    | 4.3                  | Not Detected        | 32                    | Not Detected      |
| Hexachlorobutadiene       | 4.3                  | Not Detected        | 45                    | Not Detected      |

Container Type: 1 Liter Summa Canister

| Surrogates            | %Recovery | Method Limits |
|-----------------------|-----------|---------------|
| Toluene-d8            | 105       | 70-130        |
| 1,2-Dichloroethane-d4 | 101       | 70-130        |
| 4-Bromofluorobenzene  | 106       | 70-130        |



Air Toxics

Client Sample ID: Lab Blank

Lab ID#: 1611361A-06A

## EPA METHOD TO-15 GC/MS FULL SCAN

| File Name:                       | a112205              | Date of Collection: NA              |                       |                   |
|----------------------------------|----------------------|-------------------------------------|-----------------------|-------------------|
| Dil. Factor:                     | 1.00                 | Date of Analysis: 11/22/16 12:01 PM |                       |                   |
| Compound                         | Rpt. Limit<br>(ppbv) | Amount<br>(ppbv)                    | Rpt. Limit<br>(ug/m3) | Amount<br>(ug/m3) |
| Freon 12                         | 0.50                 | Not Detected                        | 2.5                   | Not Detected      |
| Freon 114                        | 0.50                 | Not Detected                        | 3.5                   | Not Detected      |
| Chloromethane                    | 5.0                  | Not Detected                        | 10                    | Not Detected      |
| Vinyl Chloride                   | 0.50                 | Not Detected                        | 1.3                   | Not Detected      |
| 1,3-Butadiene                    | 0.50                 | Not Detected                        | 1.1                   | Not Detected      |
| Bromomethane                     | 5.0                  | Not Detected                        | 19                    | Not Detected      |
| Chloroethane                     | 2.0                  | Not Detected                        | 5.3                   | Not Detected      |
| Freon 11                         | 0.50                 | Not Detected                        | 2.8                   | Not Detected      |
| Ethanol                          | 2.0                  | Not Detected                        | 3.8                   | Not Detected      |
| Freon 113                        | 0.50                 | Not Detected                        | 3.8                   | Not Detected      |
| 1,1-Dichloroethene               | 0.50                 | Not Detected                        | 2.0                   | Not Detected      |
| Acetone                          | 5.0                  | Not Detected                        | 12                    | Not Detected      |
| 2-Propanol                       | 2.0                  | Not Detected                        | 4.9                   | Not Detected      |
| Carbon Disulfide                 | 2.0                  | Not Detected                        | 6.2                   | Not Detected      |
| 3-Chloropropene                  | 2.0                  | Not Detected                        | 6.3                   | Not Detected      |
| Methylene Chloride               | 5.0                  | Not Detected                        | 17                    | Not Detected      |
| Methyl tert-butyl ether          | 2.0                  | Not Detected                        | 7.2                   | Not Detected      |
| trans-1,2-Dichloroethene         | 0.50                 | Not Detected                        | 2.0                   | Not Detected      |
| Hexane                           | 0.50                 | Not Detected                        | 1.8                   | Not Detected      |
| 1,1-Dichloroethane               | 0.50                 | Not Detected                        | 2.0                   | Not Detected      |
| 2-Butanone (Methyl Ethyl Ketone) | 2.0                  | Not Detected                        | 5.9                   | Not Detected      |
| cis-1,2-Dichloroethene           | 0.50                 | Not Detected                        | 2.0                   | Not Detected      |
| Tetrahydrofuran                  | 0.50                 | Not Detected                        | 1.5                   | Not Detected      |
| Chloroform                       | 0.50                 | Not Detected                        | 2.4                   | Not Detected      |
| 1,1,1-Trichloroethane            | 0.50                 | Not Detected                        | 2.7                   | Not Detected      |
| Cyclohexane                      | 0.50                 | Not Detected                        | 1.7                   | Not Detected      |
| Carbon Tetrachloride             | 0.50                 | Not Detected                        | 3.1                   | Not Detected      |
| 2,2,4-Trimethylpentane           | 0.50                 | Not Detected                        | 2.3                   | Not Detected      |
| Benzene                          | 0.50                 | Not Detected                        | 1.6                   | Not Detected      |
| 1,2-Dichloroethane               | 0.50                 | Not Detected                        | 2.0                   | Not Detected      |
| Heptane                          | 0.50                 | Not Detected                        | 2.0                   | Not Detected      |
| Trichloroethene                  | 0.50                 | Not Detected                        | 2.7                   | Not Detected      |
| 1,2-Dichloropropane              | 0.50                 | Not Detected                        | 2.3                   | Not Detected      |
| 1,4-Dioxane                      | 2.0                  | Not Detected                        | 7.2                   | Not Detected      |
| Bromodichloromethane             | 0.50                 | Not Detected                        | 3.4                   | Not Detected      |
| cis-1,3-Dichloropropene          | 0.50                 | Not Detected                        | 2.3                   | Not Detected      |
| 4-Methyl-2-pentanone             | 0.50                 | Not Detected                        | 2.0                   | Not Detected      |
| Toluene                          | 0.50                 | Not Detected                        | 1.9                   | Not Detected      |
| trans-1,3-Dichloropropene        | 0.50                 | Not Detected                        | 2.3                   | Not Detected      |
| 1,1,2-Trichloroethane            | 0.50                 | Not Detected                        | 2.7                   | Not Detected      |
| Tetrachloroethene                | 0.50                 | Not Detected                        | 3.4                   | Not Detected      |
| 2-Hexanone                       | 2.0                  | Not Detected                        | 8.2                   | Not Detected      |



Air Toxics

Client Sample ID: Lab Blank

Lab ID#: 1611361A-06A

## EPA METHOD TO-15 GC/MS FULL SCAN

| File Name:                | a112205              | Date of Collection: | NA                    |                   |
|---------------------------|----------------------|---------------------|-----------------------|-------------------|
| Dil. Factor:              | 1.00                 | Date of Analysis:   | 11/22/16 12:01 PM     |                   |
| Compound                  | Rpt. Limit<br>(ppbv) | Amount<br>(ppbv)    | Rpt. Limit<br>(ug/m3) | Amount<br>(ug/m3) |
| Dibromochloromethane      | 0.50                 | Not Detected        | 4.2                   | Not Detected      |
| 1,2-Dibromoethane (EDB)   | 0.50                 | Not Detected        | 3.8                   | Not Detected      |
| Chlorobenzene             | 0.50                 | Not Detected        | 2.3                   | Not Detected      |
| Ethyl Benzene             | 0.50                 | Not Detected        | 2.2                   | Not Detected      |
| m,p-Xylene                | 0.50                 | Not Detected        | 2.2                   | Not Detected      |
| o-Xylene                  | 0.50                 | Not Detected        | 2.2                   | Not Detected      |
| Styrene                   | 0.50                 | Not Detected        | 2.1                   | Not Detected      |
| Bromoform                 | 0.50                 | Not Detected        | 5.2                   | Not Detected      |
| Cumene                    | 0.50                 | Not Detected        | 2.4                   | Not Detected      |
| 1,1,2,2-Tetrachloroethane | 0.50                 | Not Detected        | 3.4                   | Not Detected      |
| Propylbenzene             | 0.50                 | Not Detected        | 2.4                   | Not Detected      |
| 4-Ethyltoluene            | 0.50                 | Not Detected        | 2.4                   | Not Detected      |
| 1,3,5-Trimethylbenzene    | 0.50                 | Not Detected        | 2.4                   | Not Detected      |
| 1,2,4-Trimethylbenzene    | 0.50                 | Not Detected        | 2.4                   | Not Detected      |
| 1,3-Dichlorobenzene       | 0.50                 | Not Detected        | 3.0                   | Not Detected      |
| 1,4-Dichlorobenzene       | 0.50                 | Not Detected        | 3.0                   | Not Detected      |
| alpha-Chlorotoluene       | 0.50                 | Not Detected        | 2.6                   | Not Detected      |
| 1,2-Dichlorobenzene       | 0.50                 | Not Detected        | 3.0                   | Not Detected      |
| 1,2,4-Trichlorobenzene    | 2.0                  | Not Detected        | 15                    | Not Detected      |
| Hexachlorobutadiene       | 2.0                  | Not Detected        | 21                    | Not Detected      |

Container Type: NA - Not Applicable

| Surrogates            | %Recovery | Method Limits |
|-----------------------|-----------|---------------|
| Toluene-d8            | 103       | 70-130        |
| 1,2-Dichloroethane-d4 | 101       | 70-130        |
| 4-Bromofluorobenzene  | 103       | 70-130        |



Air Toxics

Client Sample ID: CCV

Lab ID#: 1611361A-07A

## EPA METHOD TO-15 GC/MS FULL SCAN

|              |         |                     |                   |
|--------------|---------|---------------------|-------------------|
| File Name:   | a112202 | Date of Collection: | NA                |
| Dil. Factor: | 1.00    | Date of Analysis:   | 11/22/16 10:01 AM |

| Compound                         | %Recovery |
|----------------------------------|-----------|
| Freon 12                         | 88        |
| Freon 114                        | 87        |
| Chloromethane                    | 86        |
| Vinyl Chloride                   | 80        |
| 1,3-Butadiene                    | 82        |
| Bromomethane                     | 88        |
| Chloroethane                     | 81        |
| Freon 11                         | 89        |
| Ethanol                          | 82        |
| Freon 113                        | 87        |
| 1,1-Dichloroethene               | 85        |
| Acetone                          | 79        |
| 2-Propanol                       | 84        |
| Carbon Disulfide                 | 79        |
| 3-Chloropropene                  | 81        |
| Methylene Chloride               | 82        |
| Methyl tert-butyl ether          | 88        |
| trans-1,2-Dichloroethene         | 78        |
| Hexane                           | 84        |
| 1,1-Dichloroethane               | 84        |
| 2-Butanone (Methyl Ethyl Ketone) | 87        |
| cis-1,2-Dichloroethene           | 91        |
| Tetrahydrofuran                  | 86        |
| Chloroform                       | 86        |
| 1,1,1-Trichloroethane            | 90        |
| Cyclohexane                      | 83        |
| Carbon Tetrachloride             | 94        |
| 2,2,4-Trimethylpentane           | 92        |
| Benzene                          | 82        |
| 1,2-Dichloroethane               | 88        |
| Heptane                          | 91        |
| Trichloroethene                  | 87        |
| 1,2-Dichloropropane              | 87        |
| 1,4-Dioxane                      | 93        |
| Bromodichloromethane             | 92        |
| cis-1,3-Dichloropropene          | 85        |
| 4-Methyl-2-pentanone             | 94        |
| Toluene                          | 95        |
| trans-1,3-Dichloropropene        | 83        |
| 1,1,2-Trichloroethane            | 80        |
| Tetrachloroethene                | 82        |
| 2-Hexanone                       | 89        |



Air Toxics

Client Sample ID: CCV

Lab ID#: 1611361A-07A

**EPA METHOD TO-15 GC/MS FULL SCAN**

|              |         |                     |                   |
|--------------|---------|---------------------|-------------------|
| File Name:   | a112202 | Date of Collection: | NA                |
| Dil. Factor: | 1.00    | Date of Analysis:   | 11/22/16 10:01 AM |

| Compound                  | %Recovery |
|---------------------------|-----------|
| Dibromochloromethane      | 85        |
| 1,2-Dibromoethane (EDB)   | 81        |
| Chlorobenzene             | 84        |
| Ethyl Benzene             | 89        |
| m,p-Xylene                | 84        |
| o-Xylene                  | 92        |
| Styrene                   | 94        |
| Bromoform                 | 89        |
| Cumene                    | 89        |
| 1,1,2,2-Tetrachloroethane | 86        |
| Propylbenzene             | 88        |
| 4-Ethyltoluene            | 87        |
| 1,3,5-Trimethylbenzene    | 94        |
| 1,2,4-Trimethylbenzene    | 93        |
| 1,3-Dichlorobenzene       | 88        |
| 1,4-Dichlorobenzene       | 91        |
| alpha-Chlorotoluene       | 96        |
| 1,2-Dichlorobenzene       | 90        |
| 1,2,4-Trichlorobenzene    | 89        |
| Hexachlorobutadiene       | 90        |

**Container Type: NA - Not Applicable**

| Surrogates            | %Recovery | Method Limits |
|-----------------------|-----------|---------------|
| Toluene-d8            | 103       | 70-130        |
| 1,2-Dichloroethane-d4 | 103       | 70-130        |
| 4-Bromofluorobenzene  | 105       | 70-130        |



Air Toxics

Client Sample ID: LCS

Lab ID#: 1611361A-08A

## EPA METHOD TO-15 GC/MS FULL SCAN

| File Name:                       | a112203   | Date of Collection: | NA                |
|----------------------------------|-----------|---------------------|-------------------|
| Dil. Factor:                     | 1.00      | Date of Analysis:   | 11/22/16 10:26 AM |
| Compound                         | %Recovery | Method              | Limits            |
| Freon 12                         | 93        | 70-130              |                   |
| Freon 114                        | 95        | 70-130              |                   |
| Chloromethane                    | 93        | 70-130              |                   |
| Vinyl Chloride                   | 86        | 70-130              |                   |
| 1,3-Butadiene                    | 83        | 70-130              |                   |
| Bromomethane                     | 95        | 70-130              |                   |
| Chloroethane                     | 89        | 70-130              |                   |
| Freon 11                         | 94        | 70-130              |                   |
| Ethanol                          | 77        | 70-130              |                   |
| Freon 113                        | 89        | 70-130              |                   |
| 1,1-Dichloroethene               | 91        | 70-130              |                   |
| Acetone                          | 81        | 70-130              |                   |
| 2-Propanol                       | 88        | 70-130              |                   |
| Carbon Disulfide                 | 85        | 70-130              |                   |
| 3-Chloropropene                  | 86        | 70-130              |                   |
| Methylene Chloride               | 85        | 70-130              |                   |
| Methyl tert-butyl ether          | 89        | 70-130              |                   |
| trans-1,2-Dichloroethene         | 87        | 70-130              |                   |
| Hexane                           | 88        | 70-130              |                   |
| 1,1-Dichloroethane               | 86        | 70-130              |                   |
| 2-Butanone (Methyl Ethyl Ketone) | 94        | 70-130              |                   |
| cis-1,2-Dichloroethene           | 90        | 70-130              |                   |
| Tetrahydrofuran                  | 89        | 70-130              |                   |
| Chloroform                       | 92        | 70-130              |                   |
| 1,1,1-Trichloroethane            | 92        | 70-130              |                   |
| Cyclohexane                      | 86        | 70-130              |                   |
| Carbon Tetrachloride             | 96        | 70-130              |                   |
| 2,2,4-Trimethylpentane           | 97        | 70-130              |                   |
| Benzene                          | 86        | 70-130              |                   |
| 1,2-Dichloroethane               | 90        | 70-130              |                   |
| Heptane                          | 93        | 70-130              |                   |
| Trichloroethene                  | 90        | 70-130              |                   |
| 1,2-Dichloropropane              | 89        | 70-130              |                   |
| 1,4-Dioxane                      | 95        | 70-130              |                   |
| Bromodichloromethane             | 95        | 70-130              |                   |
| cis-1,3-Dichloropropene          | 92        | 70-130              |                   |
| 4-Methyl-2-pentanone             | 95        | 70-130              |                   |
| Toluene                          | 96        | 70-130              |                   |
| trans-1,3-Dichloropropene        | 83        | 70-130              |                   |
| 1,1,2-Trichloroethane            | 80        | 70-130              |                   |
| Tetrachloroethene                | 82        | 70-130              |                   |
| 2-Hexanone                       | 90        | 70-130              |                   |



Air Toxics

Client Sample ID: LCS

Lab ID#: 1611361A-08A

## EPA METHOD TO-15 GC/MS FULL SCAN

|              |         |                     |                   |
|--------------|---------|---------------------|-------------------|
| File Name:   | a112203 | Date of Collection: | NA                |
| Dil. Factor: | 1.00    | Date of Analysis:   | 11/22/16 10:26 AM |

| Compound                  | %Recovery | Method Limits |
|---------------------------|-----------|---------------|
| Dibromochloromethane      | 88        | 70-130        |
| 1,2-Dibromoethane (EDB)   | 83        | 70-130        |
| Chlorobenzene             | 84        | 70-130        |
| Ethyl Benzene             | 92        | 70-130        |
| m,p-Xylene                | 84        | 70-130        |
| o-Xylene                  | 93        | 70-130        |
| Styrene                   | 94        | 70-130        |
| Bromoform                 | 90        | 70-130        |
| Cumene                    | 88        | 70-130        |
| 1,1,2,2-Tetrachloroethane | 84        | 70-130        |
| Propylbenzene             | 90        | 70-130        |
| 4-Ethyltoluene            | 91        | 70-130        |
| 1,3,5-Trimethylbenzene    | 96        | 70-130        |
| 1,2,4-Trimethylbenzene    | 93        | 70-130        |
| 1,3-Dichlorobenzene       | 88        | 70-130        |
| 1,4-Dichlorobenzene       | 93        | 70-130        |
| alpha-Chlorotoluene       | 98        | 70-130        |
| 1,2-Dichlorobenzene       | 92        | 70-130        |
| 1,2,4-Trichlorobenzene    | 111       | 70-130        |
| Hexachlorobutadiene       | 111       | 70-130        |

Container Type: NA - Not Applicable

| Surrogates            | %Recovery | Method Limits |
|-----------------------|-----------|---------------|
| Toluene-d8            | 103       | 70-130        |
| 1,2-Dichloroethane-d4 | 100       | 70-130        |
| 4-Bromofluorobenzene  | 103       | 70-130        |



Air Toxics

Client Sample ID: LCSD

Lab ID#: 1611361A-08AA

## EPA METHOD TO-15 GC/MS FULL SCAN

| File Name:                       | a112204   | Date of Collection: | NA                |
|----------------------------------|-----------|---------------------|-------------------|
| Dil. Factor:                     | 1.00      | Date of Analysis:   | 11/22/16 10:51 AM |
| Compound                         | %Recovery | Method              | Limits            |
| Freon 12                         | 90        | 70-130              |                   |
| Freon 114                        | 90        | 70-130              |                   |
| Chloromethane                    | 86        | 70-130              |                   |
| Vinyl Chloride                   | 83        | 70-130              |                   |
| 1,3-Butadiene                    | 80        | 70-130              |                   |
| Bromomethane                     | 90        | 70-130              |                   |
| Chloroethane                     | 84        | 70-130              |                   |
| Freon 11                         | 90        | 70-130              |                   |
| Ethanol                          | 71        | 70-130              |                   |
| Freon 113                        | 88        | 70-130              |                   |
| 1,1-Dichloroethene               | 88        | 70-130              |                   |
| Acetone                          | 76        | 70-130              |                   |
| 2-Propanol                       | 84        | 70-130              |                   |
| Carbon Disulfide                 | 81        | 70-130              |                   |
| 3-Chloropropene                  | 82        | 70-130              |                   |
| Methylene Chloride               | 83        | 70-130              |                   |
| Methyl tert-butyl ether          | 85        | 70-130              |                   |
| trans-1,2-Dichloroethene         | 85        | 70-130              |                   |
| Hexane                           | 86        | 70-130              |                   |
| 1,1-Dichloroethane               | 84        | 70-130              |                   |
| 2-Butanone (Methyl Ethyl Ketone) | 92        | 70-130              |                   |
| cis-1,2-Dichloroethene           | 86        | 70-130              |                   |
| Tetrahydrofuran                  | 84        | 70-130              |                   |
| Chloroform                       | 89        | 70-130              |                   |
| 1,1,1-Trichloroethane            | 90        | 70-130              |                   |
| Cyclohexane                      | 85        | 70-130              |                   |
| Carbon Tetrachloride             | 92        | 70-130              |                   |
| 2,2,4-Trimethylpentane           | 94        | 70-130              |                   |
| Benzene                          | 85        | 70-130              |                   |
| 1,2-Dichloroethane               | 92        | 70-130              |                   |
| Heptane                          | 95        | 70-130              |                   |
| Trichloroethene                  | 94        | 70-130              |                   |
| 1,2-Dichloropropane              | 90        | 70-130              |                   |
| 1,4-Dioxane                      | 96        | 70-130              |                   |
| Bromodichloromethane             | 95        | 70-130              |                   |
| cis-1,3-Dichloropropene          | 94        | 70-130              |                   |
| 4-Methyl-2-pentanone             | 97        | 70-130              |                   |
| Toluene                          | 98        | 70-130              |                   |
| trans-1,3-Dichloropropene        | 83        | 70-130              |                   |
| 1,1,2-Trichloroethane            | 80        | 70-130              |                   |
| Tetrachloroethene                | 84        | 70-130              |                   |
| 2-Hexanone                       | 91        | 70-130              |                   |



Air Toxics

Client Sample ID: LCSD

Lab ID#: 1611361A-08AA

## EPA METHOD TO-15 GC/MS FULL SCAN

|              |         |                     |                   |
|--------------|---------|---------------------|-------------------|
| File Name:   | a112204 | Date of Collection: | NA                |
| Dil. Factor: | 1.00    | Date of Analysis:   | 11/22/16 10:51 AM |

| Compound                  | %Recovery | Method Limits |
|---------------------------|-----------|---------------|
| Dibromochloromethane      | 88        | 70-130        |
| 1,2-Dibromoethane (EDB)   | 82        | 70-130        |
| Chlorobenzene             | 85        | 70-130        |
| Ethyl Benzene             | 94        | 70-130        |
| m,p-Xylene                | 84        | 70-130        |
| o-Xylene                  | 94        | 70-130        |
| Styrene                   | 95        | 70-130        |
| Bromoform                 | 91        | 70-130        |
| Cumene                    | 90        | 70-130        |
| 1,1,2,2-Tetrachloroethane | 86        | 70-130        |
| Propylbenzene             | 91        | 70-130        |
| 4-Ethyltoluene            | 91        | 70-130        |
| 1,3,5-Trimethylbenzene    | 97        | 70-130        |
| 1,2,4-Trimethylbenzene    | 96        | 70-130        |
| 1,3-Dichlorobenzene       | 90        | 70-130        |
| 1,4-Dichlorobenzene       | 95        | 70-130        |
| alpha-Chlorotoluene       | 100       | 70-130        |
| 1,2-Dichlorobenzene       | 93        | 70-130        |
| 1,2,4-Trichlorobenzene    | 115       | 70-130        |
| Hexachlorobutadiene       | 114       | 70-130        |

Container Type: NA - Not Applicable

| Surrogates            | %Recovery | Method Limits |
|-----------------------|-----------|---------------|
| Toluene-d8            | 104       | 70-130        |
| 1,2-Dichloroethane-d4 | 97        | 70-130        |
| 4-Bromofluorobenzene  | 105       | 70-130        |



# McCampbell Analytical, Inc.

"When Quality Counts"

## Analytical Report

**WorkOrder:** 1611A19

**Report Created for:** Environmental Investigation Services, Inc.

15951 Los Gatos Blvd., Suite 17  
Los Gatos, CA 95032

**Project Contact:** Peter Littman

**Project P.O.:**

**Project Name:** 1652-2; OHA

**Project Received:** 11/21/2016

Analytical Report reviewed & approved for release on 11/29/2016 by:

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.*





## Glossary of Terms & Qualifier Definitions

**Client:** Environmental Investigation Services, Inc.  
**Project:** 1652-2; OHA  
**WorkOrder:** 1611A19

### Glossary Abbreviation

|              |  |
|--------------|--|
| %D           | Serial Dilution Percent Difference   |
| 95% Interval | 95% Confident Interval   |
| DF           | Dilution Factor  |
| DI WET       | (DISTLC) Waste Extraction Test using DI water  |
| DISS         | Dissolved (direct analysis of 0.45 µm filtered and acidified water sample)               |
| DLT          | Dilution Test (Serial Dilution)  |
| DUP          | Duplicate  |
| EDL          | Estimated Detection Limit  |
| ITEF         | International Toxicity Equivalence Factor  |
| LCS          | Laboratory Control Sample  |
| MB           | Method Blank   |
| MB % Rec     | % Recovery of Surrogate in Method Blank, if applicable                                   |
| MDL          | Method Detection Limit   |
| ML           | Minimum Level of Quantitation  |
| MS           | Matrix Spike   |
| MSD          | Matrix Spike Duplicate   |
| N/A          | Not Applicable   |
| ND           | Not detected at or above the indicated MDL or RL   |
| NR           | Data Not Reported due to matrix interference or insufficient sample amount.              |
| PDS          | Post Digestion Spike   |
| PDSD         | Post Digestion Spike Duplicate   |
| PF           | Prep Factor  |
| RD           | Relative Difference  |
| RL           | Reporting Limit (The RL is the lowest calibration standard in a multipoint calibration.) |
| RPD          | Relative Percent Deviation   |
| RRT          | Relative Retention Time  |
| SPK Val      | Spike Value  |
| SPKRef Val   | Spike Reference Value  |
| SPLP         | Synthetic Precipitation Leachate Procedure   |
| ST           | Sorbent Tube   |
| TCLP         | Toxicity Characteristic Leachate Procedure   |
| TEQ          | Toxicity Equivalents   |
| WET (STLC)   | Waste Extraction Test (Soluble Threshold Limit Concentration)                            |

### Analytical Qualifiers

a3 sample diluted due to high organic content.



## Glossary of Terms & Qualifier Definitions

**Client:** Environmental Investigation Services, Inc.

**Project:** 1652-2; OHA

**WorkOrder:** 1611A19

### Quality Control Qualifiers

- |     |   |
|-----|---|
| F1  | MS/MSD recovery and/or RPD is out of acceptance criteria; LCS validates the prep batch. |
| F2  | LCS/LCSD recovery and/or RPD is out of acceptance criteria.                             |
| F13 | Indigenous sample results too high for a representative matrix spike analysis.          |



## Analytical Report

**Client:** Environmental Investigation Services, Inc.  
**Date Received:** 11/21/16 17:10  
**Date Prepared:** 11/21/16  
**Project:** 1652-2; OHA

**WorkOrder:** 1611A19  
**Extraction Method:** SW3550B  
**Analytical Method:** SW8081A  
**Unit:** mg/kg

### Organochlorine Pesticides

| Client ID                 | Lab ID                         | Matrix | Date Collected   | Instrument | Batch ID             |
|---------------------------|--------------------------------|--------|------------------|------------|----------------------|
| SB-1@0.5                  | 1611A19-001A                   | Soil   | 11/17/2016 10:05 | GC40       | 130117               |
| <u>Analytes</u>           | <u>Result</u>                  |        | <u>RL</u>        | <u>DF</u>  | <u>Date Analyzed</u> |
| Aldrin                    | ND                             |        | 0.0020           | 2          | 11/22/2016 22:52     |
| a-BHC                     | ND                             |        | 0.0020           | 2          | 11/22/2016 22:52     |
| b-BHC                     | ND                             |        | 0.0020           | 2          | 11/22/2016 22:52     |
| d-BHC                     | ND                             |        | 0.0020           | 2          | 11/22/2016 22:52     |
| g-BHC                     | ND                             |        | 0.0020           | 2          | 11/22/2016 22:52     |
| Chlordane (Technical)     | ND                             |        | 0.050            | 2          | 11/22/2016 22:52     |
| a-Chlordane               | ND                             |        | 0.0020           | 2          | 11/22/2016 22:52     |
| g-Chlordane               | ND                             |        | 0.0020           | 2          | 11/22/2016 22:52     |
| p,p-DDD                   | ND                             |        | 0.0020           | 2          | 11/22/2016 22:52     |
| p,p-DDE                   | ND                             |        | 0.0020           | 2          | 11/22/2016 22:52     |
| p,p-DDT                   | ND                             |        | 0.0020           | 2          | 11/22/2016 22:52     |
| Dieldrin                  | ND                             |        | 0.0020           | 2          | 11/22/2016 22:52     |
| Endosulfan I              | ND                             |        | 0.0020           | 2          | 11/22/2016 22:52     |
| Endosulfan II             | ND                             |        | 0.0020           | 2          | 11/22/2016 22:52     |
| Endosulfan sulfate        | ND                             |        | 0.0020           | 2          | 11/22/2016 22:52     |
| Endrin                    | ND                             |        | 0.0020           | 2          | 11/22/2016 22:52     |
| Endrin aldehyde           | ND                             |        | 0.0020           | 2          | 11/22/2016 22:52     |
| Endrin ketone             | ND                             |        | 0.0020           | 2          | 11/22/2016 22:52     |
| Heptachlor                | ND                             |        | 0.0020           | 2          | 11/22/2016 22:52     |
| Heptachlor epoxide        | ND                             |        | 0.0020           | 2          | 11/22/2016 22:52     |
| Hexachlorobenzene         | ND                             |        | 0.020            | 2          | 11/22/2016 22:52     |
| Hexachlorocyclopentadiene | ND                             |        | 0.040            | 2          | 11/22/2016 22:52     |
| Methoxychlor              | ND                             |        | 0.0020           | 2          | 11/22/2016 22:52     |
| Toxaphene                 | ND                             |        | 0.10             | 2          | 11/22/2016 22:52     |
| <u>Surrogates</u>         | <u>REC (%)</u>                 |        | <u>Limits</u>    |            |                      |
| Decachlorobiphenyl        | 73                             |        | 70-130           |            | 11/22/2016 22:52     |
| <u>Analyst(s):</u>        | <u>Analytical Comments:</u> a3 |        |                  |            |                      |

(Cont.)

NELAP 4033ORELAP

 Angela Rydelius, Lab Manager



## Analytical Report

**Client:** Environmental Investigation Services, Inc.  
**Date Received:** 11/21/16 17:10  
**Date Prepared:** 11/21/16  
**Project:** 1652-2; OHA

**WorkOrder:** 1611A19  
**Extraction Method:** SW3550B  
**Analytical Method:** SW8081A  
**Unit:** mg/kg

### Organochlorine Pesticides

| Client ID                 | Lab ID                         | Matrix | Date Collected   | Instrument | Batch ID             |
|---------------------------|--------------------------------|--------|------------------|------------|----------------------|
| SB-7@0,5                  | 1611A19-013A                   | Soil   | 11/17/2016 09:50 | GC40       | 130117               |
| <u>Analytes</u>           | <u>Result</u>                  |        | <u>RL</u>        | <u>DF</u>  | <u>Date Analyzed</u> |
| Aldrin                    | ND                             |        | 0.0050           | 5          | 11/22/2016 23:30     |
| a-BHC                     | ND                             |        | 0.0050           | 5          | 11/22/2016 23:30     |
| b-BHC                     | ND                             |        | 0.0050           | 5          | 11/22/2016 23:30     |
| d-BHC                     | ND                             |        | 0.0050           | 5          | 11/22/2016 23:30     |
| g-BHC                     | ND                             |        | 0.0050           | 5          | 11/22/2016 23:30     |
| Chlordane (Technical)     | ND                             |        | 0.12             | 5          | 11/22/2016 23:30     |
| a-Chlordane               | ND                             |        | 0.0050           | 5          | 11/22/2016 23:30     |
| g-Chlordane               | ND                             |        | 0.0050           | 5          | 11/22/2016 23:30     |
| p,p-DDD                   | ND                             |        | 0.0050           | 5          | 11/22/2016 23:30     |
| p,p-DDE                   | ND                             |        | 0.0050           | 5          | 11/22/2016 23:30     |
| p,p-DDT                   | ND                             |        | 0.0050           | 5          | 11/22/2016 23:30     |
| Dieldrin                  | ND                             |        | 0.0050           | 5          | 11/22/2016 23:30     |
| Endosulfan I              | ND                             |        | 0.010            | 5          | 11/22/2016 23:30     |
| Endosulfan II             | ND                             |        | 0.0050           | 5          | 11/22/2016 23:30     |
| Endosulfan sulfate        | ND                             |        | 0.0050           | 5          | 11/22/2016 23:30     |
| Endrin                    | ND                             |        | 0.0050           | 5          | 11/22/2016 23:30     |
| Endrin aldehyde           | ND                             |        | 0.0050           | 5          | 11/22/2016 23:30     |
| Endrin ketone             | ND                             |        | 0.0050           | 5          | 11/22/2016 23:30     |
| Heptachlor                | ND                             |        | 0.0050           | 5          | 11/22/2016 23:30     |
| Heptachlor epoxide        | ND                             |        | 0.0050           | 5          | 11/22/2016 23:30     |
| Hexachlorobenzene         | ND                             |        | 0.050            | 5          | 11/22/2016 23:30     |
| Hexachlorocyclopentadiene | ND                             |        | 0.10             | 5          | 11/22/2016 23:30     |
| Methoxychlor              | ND                             |        | 0.020            | 5          | 11/22/2016 23:30     |
| Toxaphene                 | ND                             |        | 0.25             | 5          | 11/22/2016 23:30     |
| <u>Surrogates</u>         | <u>REC (%)</u>                 |        | <u>Limits</u>    |            |                      |
| Decachlorobiphenyl        | 73                             |        | 70-130           |            | 11/22/2016 23:30     |
| <u>Analyst(s):</u>        | <u>Analytical Comments:</u> a3 |        |                  |            |                      |



## Analytical Report

**Client:** Environmental Investigation Services, Inc.  
**Date Received:** 11/21/16 17:10  
**Date Prepared:** 11/21/16  
**Project:** 1652-2; OHA

**WorkOrder:** 1611A19  
**Extraction Method:** SW3050B  
**Analytical Method:** SW6020  
**Unit:** mg/Kg

### Lead

| Client ID          | Lab ID         | Matrix | Date Collected   | Instrument | Batch ID             |
|--------------------|----------------|--------|------------------|------------|----------------------|
| SB-1@0.5           | 1611A19-001A   | Soil   | 11/17/2016 10:05 | ICP-MS3    | 130124               |
| <u>Analytes</u>    | <u>Result</u>  |        | <u>RL</u>        | <u>DF</u>  | <u>Date Analyzed</u> |
| Lead               | 27             |        | 0.50             | 1          | 11/22/2016 22:34     |
| <u>Surrogates</u>  | <u>REC (%)</u> |        | <u>Limits</u>    |            |                      |
| Terbium            | 106            |        | 70-130           |            | 11/22/2016 22:34     |
| <u>Analyst(s):</u> | MIG            |        |                  |            |                      |

| Client ID          | Lab ID         | Matrix | Date Collected   | Instrument | Batch ID             |
|--------------------|----------------|--------|------------------|------------|----------------------|
| SB-2@0.5           | 1611A19-003A   | Soil   | 11/17/2016 09:35 | ICP-MS3    | 130124               |
| <u>Analytes</u>    | <u>Result</u>  |        | <u>RL</u>        | <u>DF</u>  | <u>Date Analyzed</u> |
| Lead               | 110            |        | 0.50             | 1          | 11/22/2016 22:40     |
| <u>Surrogates</u>  | <u>REC (%)</u> |        | <u>Limits</u>    |            |                      |
| Terbium            | 104            |        | 70-130           |            | 11/22/2016 22:40     |
| <u>Analyst(s):</u> | MIG            |        |                  |            |                      |

| Client ID          | Lab ID         | Matrix | Date Collected   | Instrument | Batch ID             |
|--------------------|----------------|--------|------------------|------------|----------------------|
| SB-3@0.5           | 1611A19-005A   | Soil   | 11/17/2016 10:10 | ICP-MS3    | 130124               |
| <u>Analytes</u>    | <u>Result</u>  |        | <u>RL</u>        | <u>DF</u>  | <u>Date Analyzed</u> |
| Lead               | 1400           |        | 5.0              | 10         | 11/23/2016 23:49     |
| <u>Surrogates</u>  | <u>REC (%)</u> |        | <u>Limits</u>    |            |                      |
| Terbium            | 98             |        | 70-130           |            | 11/23/2016 23:49     |
| <u>Analyst(s):</u> | DVH            |        |                  |            |                      |

| Client ID          | Lab ID         | Matrix | Date Collected   | Instrument | Batch ID             |
|--------------------|----------------|--------|------------------|------------|----------------------|
| SB-4@0.5           | 1611A19-007A   | Soil   | 11/17/2016 10:15 | ICP-MS3    | 130166               |
| <u>Analytes</u>    | <u>Result</u>  |        | <u>RL</u>        | <u>DF</u>  | <u>Date Analyzed</u> |
| Lead               | 180            |        | 0.50             | 1          | 11/22/2016 22:52     |
| <u>Surrogates</u>  | <u>REC (%)</u> |        | <u>Limits</u>    |            |                      |
| Terbium            | 106            |        | 70-130           |            | 11/22/2016 22:52     |
| <u>Analyst(s):</u> | MIG            |        |                  |            |                      |

(Cont.)



## Analytical Report

**Client:** Environmental Investigation Services, Inc.  
**Date Received:** 11/21/16 17:10  
**Date Prepared:** 11/21/16  
**Project:** 1652-2; OHA

**WorkOrder:** 1611A19  
**Extraction Method:** SW3050B  
**Analytical Method:** SW6020  
**Unit:** mg/Kg

### Lead

| Client ID | Lab ID       | Matrix | Date Collected   | Instrument | Batch ID |
|-----------|--------------|--------|------------------|------------|----------|
| SB-5@0.5  | 1611A19-009A | Soil   | 11/17/2016 10:45 | ICP-MS3    | 130166   |

|                   |                |               |           |                      |
|-------------------|----------------|---------------|-----------|----------------------|
| <u>Analytes</u>   | <u>Result</u>  | <u>RL</u>     | <u>DF</u> | <u>Date Analyzed</u> |
| Lead              | 260            | 0.50          | 1         | 11/22/2016 22:58     |
| <u>Surrogates</u> | <u>REC (%)</u> | <u>Limits</u> |           |                      |
| Terbium           | 108            | 70-130        |           | 11/22/2016 22:58     |

Analyst(s): MIG

| Client ID | Lab ID       | Matrix | Date Collected   | Instrument | Batch ID |
|-----------|--------------|--------|------------------|------------|----------|
| SB-6@0.5  | 1611A19-011A | Soil   | 11/17/2016 09:40 | ICP-MS3    | 130166   |

|                   |                |               |           |                      |
|-------------------|----------------|---------------|-----------|----------------------|
| <u>Analytes</u>   | <u>Result</u>  | <u>RL</u>     | <u>DF</u> | <u>Date Analyzed</u> |
| Lead              | 500            | 5.0           | 10        | 11/23/2016 23:56     |
| <u>Surrogates</u> | <u>REC (%)</u> | <u>Limits</u> |           |                      |
| Terbium           | 106            | 70-130        |           | 11/23/2016 23:56     |

Analyst(s): DVH

| Client ID | Lab ID       | Matrix | Date Collected   | Instrument | Batch ID |
|-----------|--------------|--------|------------------|------------|----------|
| SB-7@0.5  | 1611A19-013A | Soil   | 11/17/2016 09:50 | ICP-MS3    | 130166   |

|                   |                |               |           |                      |
|-------------------|----------------|---------------|-----------|----------------------|
| <u>Analytes</u>   | <u>Result</u>  | <u>RL</u>     | <u>DF</u> | <u>Date Analyzed</u> |
| Lead              | 240            | 0.50          | 1         | 11/22/2016 23:11     |
| <u>Surrogates</u> | <u>REC (%)</u> | <u>Limits</u> |           |                      |

Terbium 104 70-130 11/22/2016 23:11

Analyst(s): MIG

| Client ID | Lab ID       | Matrix | Date Collected   | Instrument | Batch ID |
|-----------|--------------|--------|------------------|------------|----------|
| SB-8@0.5  | 1611A19-015A | Soil   | 11/17/2016 10:20 | ICP-MS3    | 130166   |

|                   |                |               |           |                      |
|-------------------|----------------|---------------|-----------|----------------------|
| <u>Analytes</u>   | <u>Result</u>  | <u>RL</u>     | <u>DF</u> | <u>Date Analyzed</u> |
| Lead              | 920            | 5.0           | 10        | 11/24/2016 00:02     |
| <u>Surrogates</u> | <u>REC (%)</u> | <u>Limits</u> |           |                      |

Terbium 98 70-130 11/24/2016 00:02

Analyst(s): DVH

(Cont.)



## Analytical Report

**Client:** Environmental Investigation Services, Inc.  
**Date Received:** 11/21/16 17:10  
**Date Prepared:** 11/21/16  
**Project:** 1652-2; OHA

**WorkOrder:** 1611A19  
**Extraction Method:** SW3050B  
**Analytical Method:** SW6020  
**Unit:** mg/Kg

### Lead

| Client ID | Lab ID       | Matrix | Date Collected   | Instrument | Batch ID |
|-----------|--------------|--------|------------------|------------|----------|
| SB-9@0.5  | 1611A19-017A | Soil   | 11/17/2016 10:00 | ICP-MS3    | 130166   |

|                   |                |               |           |                      |
|-------------------|----------------|---------------|-----------|----------------------|
| <u>Analytes</u>   | <u>Result</u>  | <u>RL</u>     | <u>DF</u> | <u>Date Analyzed</u> |
| Lead              | 220            | 0.50          | 1         | 11/22/2016 23:42     |
| <u>Surrogates</u> | <u>REC (%)</u> | <u>Limits</u> |           |                      |
| Terbium           | 99             | 70-130        |           | 11/22/2016 23:42     |

Analyst(s): MIG

| Client ID | Lab ID       | Matrix | Date Collected   | Instrument | Batch ID |
|-----------|--------------|--------|------------------|------------|----------|
| SB-10@0.5 | 1611A19-019A | Soil   | 11/17/2016 09:45 | ICP-MS3    | 130166   |

|                   |                |               |           |                      |
|-------------------|----------------|---------------|-----------|----------------------|
| <u>Analytes</u>   | <u>Result</u>  | <u>RL</u>     | <u>DF</u> | <u>Date Analyzed</u> |
| Lead              | 140            | 0.50          | 1         | 11/22/2016 23:48     |
| <u>Surrogates</u> | <u>REC (%)</u> | <u>Limits</u> |           |                      |
| Terbium           | 105            | 70-130        |           | 11/22/2016 23:48     |

Analyst(s): MIG

| Client ID | Lab ID       | Matrix | Date Collected   | Instrument | Batch ID |
|-----------|--------------|--------|------------------|------------|----------|
| SB-11@0.5 | 1611A19-021A | Soil   | 11/17/2016 11:00 | ICP-MS3    | 130166   |

|                   |                |               |           |                      |
|-------------------|----------------|---------------|-----------|----------------------|
| <u>Analytes</u>   | <u>Result</u>  | <u>RL</u>     | <u>DF</u> | <u>Date Analyzed</u> |
| Lead              | 68             | 0.50          | 1         | 11/22/2016 23:54     |
| <u>Surrogates</u> | <u>REC (%)</u> | <u>Limits</u> |           |                      |
| Terbium           | 100            | 70-130        |           | 11/22/2016 23:54     |

Analyst(s): MIG

| Client ID | Lab ID       | Matrix | Date Collected   | Instrument | Batch ID |
|-----------|--------------|--------|------------------|------------|----------|
| SB-12@0.5 | 1611A19-023A | Soil   | 11/17/2016 10:50 | ICP-MS3    | 130166   |

|                   |                |               |           |                      |
|-------------------|----------------|---------------|-----------|----------------------|
| <u>Analytes</u>   | <u>Result</u>  | <u>RL</u>     | <u>DF</u> | <u>Date Analyzed</u> |
| Lead              | 130            | 0.50          | 1         | 11/23/2016 00:00     |
| <u>Surrogates</u> | <u>REC (%)</u> | <u>Limits</u> |           |                      |
| Terbium           | 102            | 70-130        |           | 11/23/2016 00:00     |

Analyst(s): MIG

(Cont.)



## Analytical Report

**Client:** Environmental Investigation Services, Inc.  
**Date Received:** 11/21/16 17:10  
**Date Prepared:** 11/21/16  
**Project:** 1652-2; OHA

**WorkOrder:** 1611A19  
**Extraction Method:** SW3050B  
**Analytical Method:** SW6020  
**Unit:** mg/Kg

---

### Lead

---

| Client ID | Lab ID       | Matrix | Date Collected   | Instrument | Batch ID |
|-----------|--------------|--------|------------------|------------|----------|
| SB-13@0.5 | 1611A19-025A | Soil   | 11/17/2016 10:25 | ICP-MS3    | 130166   |

| Analyses | Result | RL   | DF | Date Analyzed    |
|----------|--------|------|----|------------------|
| Lead     | 160    | 0.50 | 1  | 11/23/2016 00:06 |

| Surrogates | REC (%) | Limits |                  |
|------------|---------|--------|------------------|
| Terbium    | 105     | 70-130 | 11/23/2016 00:06 |

Analyst(s): MIG

| Client ID | Lab ID       | Matrix | Date Collected   | Instrument | Batch ID |
|-----------|--------------|--------|------------------|------------|----------|
| SB-14@0.5 | 1611A19-027A | Soil   | 11/17/2016 10:40 | ICP-MS2    | 130166   |

| Analyses | Result | RL   | DF | Date Analyzed    |
|----------|--------|------|----|------------------|
| Lead     | 220    | 0.50 | 1  | 11/22/2016 22:45 |

| Surrogates | REC (%) | Limits |                  |
|------------|---------|--------|------------------|
| Terbium    | 109     | 70-130 | 11/22/2016 22:45 |

Analyst(s): DB

---



## Quality Control Report

|                       |  |                           |                                     |
|-----------------------|--|---------------------------|-------------------------------------|
| <b>Client:</b>        | Environmental Investigation Services, Inc. | <b>WorkOrder:</b>         | 1611A19                             |
| <b>Date Prepared:</b> | 11/21/16                                   | <b>BatchID:</b>           | 130117                              |
| <b>Date Analyzed:</b> | 11/22/16                                   | <b>Extraction Method:</b> | SW3550B                             |
| <b>Instrument:</b>    | GC40                                       | <b>Analytical Method:</b> | SW8081A                             |
| <b>Matrix:</b>        | Soil                                       | <b>Unit:</b>              | mg/kg                               |
| <b>Project:</b>       | 1652-2; OHA                                | <b>Sample ID:</b>         | MB/LCS-130117<br>1611975-001AMS/MSD |

### QC Summary Report for SW8081A

| Analyte                   | MB Result | LCS Result | RL     | SPK Val | MB SS %REC | LCS %REC | LCS Limits |
|---------------------------|-----------|------------|--------|---------|------------|----------|------------|
| Aldrin                    | ND        | 0.0500     | 0.0010 | 0.050   | -          | 100      | 70-130     |
| a-BHC                     | ND        | -          | 0.0010 | -       | -          | -        | -          |
| b-BHC                     | ND        | -          | 0.0010 | -       | -          | -        | -          |
| d-BHC                     | ND        | -          | 0.0010 | -       | -          | -        | -          |
| g-BHC                     | ND        | 0.0329     | 0.0010 | 0.050   | -          | 66, F2   | 70-130     |
| Chlordane (Technical)     | ND        | -          | 0.025  | -       | -          | -        | -          |
| a-Chlordane               | ND        | -          | 0.0010 | -       | -          | -        | -          |
| g-Chlordane               | ND        | -          | 0.0010 | -       | -          | -        | -          |
| p,p-DDD                   | ND        | -          | 0.0010 | -       | -          | -        | -          |
| p,p-DDE                   | ND        | -          | 0.0010 | -       | -          | -        | -          |
| p,p-DDT                   | ND        | 0.0474     | 0.0010 | 0.050   | -          | 95       | 70-130     |
| Dieldrin                  | ND        | 0.0491     | 0.0010 | 0.050   | -          | 98       | 70-130     |
| Endosulfan I              | ND        | -          | 0.0010 | -       | -          | -        | -          |
| Endosulfan II             | ND        | -          | 0.0010 | -       | -          | -        | -          |
| Endosulfan sulfate        | ND        | -          | 0.0010 | -       | -          | -        | -          |
| Endrin                    | ND        | 0.0416     | 0.0010 | 0.050   | -          | 83       | 70-130     |
| Endrin aldehyde           | ND        | -          | 0.0010 | -       | -          | -        | -          |
| Endrin ketone             | ND        | -          | 0.0010 | -       | -          | -        | -          |
| Heptachlor                | ND        | 0.0467     | 0.0010 | 0.050   | -          | 93       | 70-130     |
| Heptachlor epoxide        | ND        | -          | 0.0010 | -       | -          | -        | -          |
| Hexachlorobenzene         | ND        | -          | 0.010  | -       | -          | -        | -          |
| Hexachlorocyclopentadiene | ND        | -          | 0.020  | -       | -          | -        | -          |
| Methoxychlor              | ND        | -          | 0.0010 | -       | -          | -        | -          |
| Toxaphene                 | ND        | -          | 0.050  | -       | -          | -        | -          |
| <b>Surrogate Recovery</b> |           |            |        |         |            |          |            |
| Decachlorobiphenyl        | 0.0362    | 0.0373     |        | 0.050   | 73         | 75       | 70-130     |

(Cont.)

NELAP 4033ORELAP

 QA/QC Officer



# Quality Control Report

**Client:** Environmental Investigation Services, Inc.  
**Date Prepared:** 11/21/16  
**Date Analyzed:** 11/22/16  
**Instrument:** GC40  
**Matrix:** Soil  
**Project:** 1652-2; OHA

**WorkOrder:** 1611A19  
**BatchID:** 130117  
**Extraction Method:** SW3550B  
**Analytical Method:** SW8081A  
**Unit:** mg/kg  
**Sample ID:** MB/LCS-130117  
1611975-001AMS/MSD

## QC Summary Report for SW8081A

| Analyte                   | MS Result | MSD Result | SPK Val | SPKRef Val | MS %REC | MSD %REC | MS/MSD Limits | RPD   | RPD Limit |
|---------------------------|-----------|------------|---------|------------|---------|----------|---------------|-------|-----------|
| Aldrin                    | 0.0485    | 0.0479     | 0.050   | ND         | 97      | 96       | 70-130        | 1.21  | 20        |
| g-BHC                     | 0.0316    | 0.0311     | 0.050   | ND         | 63,F1   | 62,F1    | 70-130        | 1.53  | 20        |
| p,p-DDT                   | 0.0553    | 0.0552     | 0.050   | 0.008003   | 95      | 94       | 70-130        | 0.185 | 20        |
| Dieldrin                  | 0.0522    | 0.0513     | 0.050   | 0.004112   | 96      | 94       | 70-130        | 1.70  | 20        |
| Endrin                    | 0.0331    | 0.0337     | 0.050   | ND         | 66,F1   | 67,F1    | 70-130        | 1.82  | 20        |
| Heptachlor                | 0.0452    | 0.0451     | 0.050   | ND         | 90      | 90       | 70-130        | 0     | 20        |
| <b>Surrogate Recovery</b> |           |            |         |            |         |          |               |       |           |
| Decachlorobiphenyl        | 0.0384    | 0.0381     | 0.050   |            | 77      | 76       | 70-130        | 0.924 | 20        |



## Quality Control Report

|                       |  |                           |                                     |
|-----------------------|--|---------------------------|-------------------------------------|
| <b>Client:</b>        | Environmental Investigation Services, Inc. | <b>WorkOrder:</b>         | 1611A19                             |
| <b>Date Prepared:</b> | 11/18/16 - 11/21/16                        | <b>BatchID:</b>           | 130124                              |
| <b>Date Analyzed:</b> | 11/21/16 - 11/22/16                        | <b>Extraction Method:</b> | SW3050B                             |
| <b>Instrument:</b>    | ICP-MS2                                    | <b>Analytical Method:</b> | SW6020                              |
| <b>Matrix:</b>        | Soil                                       | <b>Unit:</b>              | mg/Kg                               |
| <b>Project:</b>       | 1652-2; OHA                                | <b>Sample ID:</b>         | MB/LCS-130124<br>1611876-029BMS/MSD |

### QC Summary Report for Metals

| Analyte                   | MB Result  | LCS Result | RL      | SPK Val    | MB SS %REC | LCS %REC | LCS Limits    |          |           |
|---------------------------|------------|------------|---------|------------|------------|----------|---------------|----------|-----------|
| Lead                      | ND         | 50.2       | 0.50    | 50         | -          | 100      | 75-125        |          |           |
| <b>Surrogate Recovery</b> |            |            |         |            |            |          |               |          |           |
| Terbium                   | 533        | 527        |         | 500        | 107        | 105      | 70-130        |          |           |
| <hr/>                     |            |            |         |            |            |          |               |          |           |
| Analyte                   | MS Result  | MSD Result | SPK Val | SPKRef Val | MS %REC    | MSD %REC | MS/MSD Limits | RPD      | RPD Limit |
| Lead                      | 536        | 408        | 50      | 790        | 0,F13      | 0,F13    | 75-125        | NA       | 20        |
| <b>Surrogate Recovery</b> |            |            |         |            |            |          |               |          |           |
| Terbium                   | 551        | 556        | 500     |            | 110        | 111      | 70-130        | 0.777    | 20        |
| <hr/>                     |            |            |         |            |            |          |               |          |           |
| Analyte                   | DLT Result | DLTRef Val |         |            |            | %D       |               | %D Limit |           |
| Lead                      | 752        | 790        |         |            |            | 4.81     |               | 20       |           |

%D Control Limit applied to analytes with concentrations greater than 25 times the reporting limits.

(Cont.)

CDPH ELAP 1644 • NELAP 4033ORELAP



QA/QC Officer



# Quality Control Report

**Client:** Environmental Investigation Services, Inc.  
**Date Prepared:** 11/21/16  
**Date Analyzed:** 11/22/16 - 11/23/16  
**Instrument:** ICP-MS2  
**Matrix:** Soil  
**Project:** 1652-2; OHA

**WorkOrder:** 1611A19  
**BatchID:** 130166  
**Extraction Method:** SW3050B  
**Analytical Method:** SW6020  
**Unit:** mg/Kg  
**Sample ID:** MB/LCS-130166  
1611A19-027AMS/MSD

## QC Summary Report for Metals

| Analyte | MB Result | LCS Result | RL   | SPK Val | MB SS %REC | LCS %REC | LCS Limits |
|---------|-----------|------------|------|---------|------------|----------|------------|
| Lead    | ND        | 49.1       | 0.50 | 50      | -          | 98       | 75-125     |

## Surrogate Recovery

Terbium 534 532 500 107 106 70-130

| Analyte                   | MS Result | MSD Result | SPK Val | SPKRef Val | MS %REC | MSD %REC | MS/MSD Limits | RPD  | RPD Limit |
|---------------------------|-----------|------------|---------|------------|---------|----------|---------------|------|-----------|
| Lead                      | 311       | 286        | 50      | 220.8      | 180,F13 | 130,F13  | 75-125        | 8.35 | 20        |
| <b>Surrogate Recovery</b> |           |            |         |            |         |          |               |      |           |
| Terbium                   | 507       | 516        | 500     |            | 101     | 103      | 70-130        | 1.92 | 20        |

| Analyte | DLT<br>Result | DLTRef<br>Val | %D   | %D<br>Limit |
|---------|---------------|---------------|------|-------------|
| Lead    | 210           | 220.8         | 4.89 | 20          |

%D Control Limit applied to analytes with concentrations greater than 25 times the reporting limits.

# McCampbell Analytical, Inc.



# CHAIN-OF-CUSTODY RECORD

Page 1 of 1

**WorkOrder:** 1611A19      **ClientCode:** EISI

WaterTrax     WriteOn     EDF     Excel     EQuIS     Email     HardCopy     ThirdParty     J-flag

**Report to:**

Peter Littman  
Environmental Investigation Services, In  
15951 Los Gatos Blvd., Suite 17  
Los Gatos, CA 95032      FAX: (408) 871-1470  
Email: plittman@eis1.net; emlyn@eis1.net; tyler@  
co3rd Party:  
PO:  
ProjectNo: 1652-2; OHA  
(408) 871-1520

| <b>Lab ID</b> | <b>Client ID</b> | <b>Matrix</b> | <b>Collection Date</b> | <b>Hold</b>      | Requested Tests (See legend below) |          |          |          |          |          |          |          |          |
|---------------|------------------|---------------|------------------------|------------------|------------------------------------|----------|----------|----------|----------|----------|----------|----------|----------|
|               |                  |               |                        |                  | <b>1</b>                           | <b>2</b> | <b>3</b> | <b>4</b> | <b>5</b> | <b>6</b> | <b>7</b> | <b>8</b> | <b>9</b> |
| 1611A19-001   |                  | SB-1@0.5      | Soil                   | 11/17/2016 10:05 | <input type="checkbox"/>           | A        | A        |          |          |          |          |          |          |
| 1611A19-003   |                  | SB-2@0.5      | Soil                   | 11/17/2016 09:35 | <input type="checkbox"/>           |          |          |          |          |          |          |          |          |
| 1611A19-005   |                  | SB-3@0.5      | Soil                   | 11/17/2016 10:10 | <input type="checkbox"/>           | A        |          |          |          |          |          |          |          |
| 1611A19-007   |                  | SB-4@0.5      | Soil                   | 11/17/2016 10:15 | <input type="checkbox"/>           |          | A        |          |          |          |          |          |          |
| 1611A19-009   |                  | SB-5@0.5      | Soil                   | 11/17/2016 10:45 | <input type="checkbox"/>           |          |          | A        |          |          |          |          |          |
| 1611A19-011   |                  | SB-6@0.5      | Soil                   | 11/17/2016 09:40 | <input type="checkbox"/>           |          |          |          | A        |          |          |          |          |
| 1611A19-013   |                  | SB-7@0.5      | Soil                   | 11/17/2016 09:50 | <input type="checkbox"/>           |          | A        |          | A        |          |          |          |          |
| 1611A19-015   |                  | SB-8@0.5      | Soil                   | 11/17/2016 10:20 | <input type="checkbox"/>           |          |          | A        |          |          |          |          |          |
| 1611A19-017   |                  | SB-9@0.5      | Soil                   | 11/17/2016 10:00 | <input type="checkbox"/>           |          |          |          | A        |          |          |          |          |
| 1611A19-019   |                  | SB-10@0.5     | Soil                   | 11/17/2016 09:45 | <input type="checkbox"/>           |          |          |          |          | A        |          |          |          |
| 1611A19-021   |                  | SB-11@0.5     | Soil                   | 11/17/2016 11:00 | <input type="checkbox"/>           |          |          |          |          | A        |          |          |          |
| 1611A19-023   |                  | SB-12@0.5     | Soil                   | 11/17/2016 10:50 | <input type="checkbox"/>           |          |          |          |          | A        |          |          |          |
| 1611A19-025   |                  | SB-13@0.5     | Soil                   | 11/17/2016 10:25 | <input type="checkbox"/>           |          |          |          |          | A        |          |          |          |
| 1611A19-027   |                  | SB-14@0.5     | Soil                   | 11/17/2016 10:40 | <input type="checkbox"/>           |          |          |          |          |          | A        |          |          |

## Test Legend:

|                            |        |                             |              |                             |
|----------------------------|--------|-----------------------------|--------------|-----------------------------|
| <input type="checkbox"/> 1 | 8081_S | <input type="checkbox"/> 2  | PBMS_TTL_C_S | <input type="checkbox"/> 3  |
| <input type="checkbox"/> 5 |        | <input type="checkbox"/> 6  |              | <input type="checkbox"/> 7  |
| <input type="checkbox"/> 9 |        | <input type="checkbox"/> 10 |              | <input type="checkbox"/> 11 |
|                            |        |                             |              | <input type="checkbox"/> 12 |

## 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.

Prepared by: Alexandra Iniguez



**McCampbell Analytical, Inc.**  
"When Quality Counts"

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

## WORK ORDER SUMMARY

**Client Name:** ENVIRONMENTAL INVESTIGATION SERVICES, IN    **Project:** 1652-2; OHA  
**Client Contact:** Peter Littman  
**Contact's Email:** plittman@eis1.net; emlyn@eis1.net; tyler@eis1.net

### Comments:

WaterTrax     WriteOn     EDF

Fax     Excel

Email     HardCopy

ThirdParty     J-flag

| Lab ID       | Client ID | Matrix | Test Name                                | Containers /Composites | Bottle & Preservative | De-chlorinated           | Collection Date & Time | TAT                                 | Sediment Hold Content               | SubOut                              |
|--------------|-----------|--------|--|------------------------|-----------------------|--------------------------|------------------------|-------------------------------------|-------------------------------------|-------------------------------------|
| 1611A19-001A | SB-1@0.5  | Soil   | SW6020 (Lead)<br>SW8081A (OC Pesticides) | 1                      | Acetate Liner         | <input type="checkbox"/> | 11/17/2016 10:05       | 5 days                              | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |
| 1611A19-002A | SB-1@3    | Soil   | SW6020 (Lead)                            | 1                      | Acetate Liner         | <input type="checkbox"/> | 11/17/2016 10:05       | 5 days                              | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| 1611A19-003A | SB-2@0.5  | Soil   | SW6020 (Lead)                            | 1                      | Acetate Liner         | <input type="checkbox"/> | 11/17/2016 9:35        | 5 days                              | <input type="checkbox"/>            | <input type="checkbox"/>            |
| 1611A19-004A | SB-2@3    | Soil   | SW6020 (Lead)                            | 1                      | Acetate Liner         | <input type="checkbox"/> | 11/17/2016 9:35        | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| 1611A19-005A | SB-3@0.5  | Soil   | SW6020 (Lead)                            | 1                      | Acetate Liner         | <input type="checkbox"/> | 11/17/2016 10:10       | 5 days                              | <input type="checkbox"/>            | <input type="checkbox"/>            |
| 1611A19-006A | SB-3@3    | Soil   | SW6020 (Lead)                            | 1                      | Acetate Liner         | <input type="checkbox"/> | 11/17/2016 10:10       | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| 1611A19-007A | SB-4@0.5  | Soil   | SW6020 (Lead)                            | 1                      | Acetate Liner         | <input type="checkbox"/> | 11/17/2016 10:15       | 5 days                              | <input type="checkbox"/>            | <input type="checkbox"/>            |
| 1611A19-008A | SB-4@3    | Soil   | SW6020 (Lead)                            | 1                      | Acetate Liner         | <input type="checkbox"/> | 11/17/2016 10:15       | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| 1611A19-009A | SB-5@0.5  | Soil   | SW6020 (Lead)                            | 1                      | Acetate Liner         | <input type="checkbox"/> | 11/17/2016 10:45       | 5 days                              | <input type="checkbox"/>            | <input type="checkbox"/>            |
| 1611A19-010A | SB-5@3    | Soil   | SW6020 (Lead)                            | 1                      | Acetate Liner         | <input type="checkbox"/> | 11/17/2016 10:45       | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| 1611A19-011A | SB-6@0.5  | Soil   | SW6020 (Lead)                            | 1                      | Acetate Liner         | <input type="checkbox"/> | 11/17/2016 9:40        | 5 days                              | <input type="checkbox"/>            | <input type="checkbox"/>            |
| 1611A19-012A | SB-6@3    | Soil   | SW6020 (Lead)                            | 1                      | Acetate Liner         | <input type="checkbox"/> | 11/17/2016 9:40        | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/>            |
| 1611A19-013A | SB-7@0.5  | Soil   | SW6020 (Lead)<br>SW8081A (OC Pesticides) | 1                      | Acetate Liner         | <input type="checkbox"/> | 11/17/2016 9:50        | 5 days                              | <input type="checkbox"/>            | <input type="checkbox"/>            |
| 1611A19-014A | SB-7@3    | Soil   |  | 1                      | Acetate Liner         | <input type="checkbox"/> | 11/17/2016 9:50        | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |

**NOTES:** - **STLC and TCLP extractions require 2 days to complete; therefore, all TATs begin after the extraction is completed (i.e., One-day TAT yields results in 3 days from sample submission).**

- **MAI assumes that all material present in the provided sampling container is considered part of the sample - MAI does not exclude any material from the sample prior to sample preparation unless requested in writing by the client.**



**McCampbell Analytical, Inc.**  
"When Quality Counts"

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

## WORK ORDER SUMMARY

**Client Name:** ENVIRONMENTAL INVESTIGATION SERVICES, INC    **Project:** 1652-2; OHA  
**Client Contact:** Peter Littman  
**Contact's Email:** plittman@eis1.net; emlyn@eis1.net; tyler@eis1.net

**Comments:**

WaterTrax     WriteOn     EDF     Excel     Fax     Email     HardCopy     ThirdParty     J-flag

| Lab ID       | Client ID | Matrix | Test Name     | Containers /Composites | Bottle & Preservative | De-chlorinated           | Collection Date & Time | TAT                                 | Sediment Hold SubOut Content |
|--------------|-----------|--------|---------------|------------------------|-----------------------|--------------------------|------------------------|-------------------------------------|------------------------------|
| 1611A19-015A | SB-8@0.5  | Soil   | SW6020 (Lead) | 1                      | Acetate Liner         | <input type="checkbox"/> | 11/17/2016 10:20       | 5 days                              | <input type="checkbox"/>     |
| 1611A19-016A | SB-8@3    | Soil   |               | 1                      | Acetate Liner         | <input type="checkbox"/> | 11/17/2016 10:20       | <input checked="" type="checkbox"/> |                              |
| 1611A19-017A | SB-9@0.5  | Soil   | SW6020 (Lead) | 1                      | Acetate Liner         | <input type="checkbox"/> | 11/17/2016 10:00       | 5 days                              | <input type="checkbox"/>     |
| 1611A19-018A | SB-9@3    | Soil   |               | 1                      | Acetate Liner         | <input type="checkbox"/> | 11/17/2016 10:00       | <input checked="" type="checkbox"/> |                              |
| 1611A19-019A | SB-10@0.5 | Soil   | SW6020 (Lead) | 1                      | Acetate Liner         | <input type="checkbox"/> | 11/17/2016 9:45        | 5 days                              | <input type="checkbox"/>     |
| 1611A19-020A | SB-10@3   | Soil   |               | 1                      | Acetate Liner         | <input type="checkbox"/> | 11/17/2016 9:45        | <input checked="" type="checkbox"/> |                              |
| 1611A19-021A | SB-11@0.5 | Soil   | SW6020 (Lead) | 1                      | Acetate Liner         | <input type="checkbox"/> | 11/17/2016 11:00       | 5 days                              | <input type="checkbox"/>     |
| 1611A19-022A | SB-11@3   | Soil   |               | 1                      | Acetate Liner         | <input type="checkbox"/> | 11/17/2016 11:00       | <input checked="" type="checkbox"/> |                              |
| 1611A19-023A | SB-12@0.5 | Soil   | SW6020 (Lead) | 1                      | Acetate Liner         | <input type="checkbox"/> | 11/17/2016 10:50       | 5 days                              | <input type="checkbox"/>     |
| 1611A19-024A | SB-12@3   | Soil   |               | 1                      | Acetate Liner         | <input type="checkbox"/> | 11/17/2016 10:50       | <input checked="" type="checkbox"/> |                              |
| 1611A19-025A | SB-13@0.5 | Soil   | SW6020 (Lead) | 1                      | Acetate Liner         | <input type="checkbox"/> | 11/17/2016 10:25       | 5 days                              | <input type="checkbox"/>     |
| 1611A19-026A | SB-13@3   | Soil   |               | 1                      | Acetate Liner         | <input type="checkbox"/> | 11/17/2016 10:25       | <input checked="" type="checkbox"/> |                              |
| 1611A19-027A | SB-14@0.5 | Soil   | SW6020 (Lead) | 1                      | Acetate Liner         | <input type="checkbox"/> | 11/17/2016 10:40       | 5 days                              | <input type="checkbox"/>     |
| 1611A19-028A | SB-14@3   | Soil   |               | 1                      | Acetate Liner         | <input type="checkbox"/> | 11/17/2016 10:40       | <input checked="" type="checkbox"/> |                              |

**NOTES:** - **STLC and TCLP extractions require 2 days to complete; therefore, all TATs begin after the extraction is completed (i.e., One-day TAT yields results in 3 days from sample submission).**

- **MAI assumes that all material present in the provided sampling container is considered part of the sample - MAI does not exclude any material from the sample prior to sample preparation unless requested in writing by the client.**







McCampbell Analytical, Inc.

1534 Willow Pass Rd. / Pittsburgh, Ca. 94565-1701  
[www.mccampbell.com](http://www.mccampbell.com) / main@mccampbell.com  
Telephone: (877) 252-2262 / Fax: (925) 252-9269

**CHAIN OF CUSTODY RECORD**

**TURN AROUND TIME:** RUSH  1 DAY  2 DAY  3 DAY  5 DAY   
GeoTracker EDF  PDF  EDD  Write On (DW)  EQuIS  10 DAY   
**Effluent Sample Requiring "J" flag**  UST Clean Up Fund Project  Claim # \_\_\_\_\_

**Report To:** Peter Littman / Emyln Stokes      **Bill To:** EIS, Inc.  
**Company:** Environmental Investigation Services, Inc.  
15951 Los Gatos Blvd. Suite 17  
Los Gatos, CA 95032  
**Tele:** ( 408 ) 402 9800      **E-Mail:** emlyn@eis1.net  
**Project #:** 652-7      **Fax:** ( 408 ) 402 9800  
**Project Location:** 1236 E. 17th St. Orlando      **Project Name:** OHIA  
**Sampler Signature:** M. J. Jones      **Purchase Order #:**

| Analysis Request                                 | Condition    |                        |                               |       | Comments: |
|--|--------------|------------------------|-------------------------------|-------|-----------|
|  | Space Absent | Ozone Generated in Lab | Ozone Generated in Containers | Other |           |
| TPH as Diesel (8015)                             |              |                        |                               |       |           |
| Total Petroleum Oil & Grease (1664 / 5520 E/B&F) |              |                        |                               |       |           |
| Total Petroleum Hydrocarbons (418.1)             |              |                        |                               |       |           |
| EPA 505 / 608 / 8081 (CI Pesticides)             |              |                        |                               |       |           |
| EPA 608 / 8082 PCB's ; Aroclors / Congeners      |              |                        |                               |       |           |
| EPA 507 / 8141 (NP Pesticides)                   |              |                        |                               |       |           |
| EPA 515 / 8151 (Aroclic CI Herbicides)           |              |                        |                               |       |           |
| BTX / MTBE & TPH as Gases (8260)                 |              |                        |                               |       |           |
| EPA 524.2 / 624 / 8260 (VOCs)                    |              |                        |                               |       |           |
| EPA 525.2 / 625 / 8270 (SVOCs)                   |              |                        |                               |       |           |
| EPA 8270 SIM / 8310 (PAHS / PNAs)                |              |                        |                               |       |           |
| CAMI 17 Metals (200.7 / 200.8 / 6010 / 6020)     |              |                        |                               |       |           |
| LURFT 5 Metals (200.7 / 200.8 / 6010 / 6020)     |              |                        |                               |       |           |
| Metals (200.7 / 200.8 / 6010 / 6020)             |              |                        |                               |       |           |
| Filter sample for DISSOLVED metals analysis      |              |                        |                               |       |           |
| Lead (6010B)                                     | HOLD         | X                      | X                             | X     |           |
| Organochlorine Pesticides (8081)                 |              |                        |                               |       |           |

\*\*MAI clients MUST disclose any dangerous chemicals known to be present in their submitted samples in concentrations that may cause immediate harm or serious future health endangerment as a result of brief, gloved, open-air, sample handling by MAI staff. Non-disclosure incurs an immediate \$250 surcharge and the client is subject to full legal liability for harm suffered. Thank you for your understanding and for allowing us to do our job.

| Comments:  |                           |                                   |   |  |           |
|--|---------------------------|-----------------------------------|---|--|-----------|
| ICE/ <sup>o</sup> C<br>Received By:<br><i>John Frank</i> | Date: 1/16/06 Time: 12:04 | Received By:<br><i>Bruce</i>      | GOOD CONDITION<br>HEAD SPACE ABSENT<br>DECHLORINATED IN LAB<br>APPROPRIATE CONTAINERS<br>PRESERVED IN LAB |  |           |
| Refinishing By:<br><i>Bruce</i>                          | Date: 1/21/06 Time: 1710  | Received By:<br><i>John Frank</i> |   |  |           |
| Refinishing By:<br><i>Bruce</i>                          |                           |                                   | PRESERVATION<br>VOAS O&G METALS OTHER pH<2  |  | HAZARDOUS |



## Sample Receipt Checklist

Client Name: **Environmental Investigation Services, Inc.** Date and Time Received **11/21/2016 17:10**  
Project Name: **1652-2; OHA** Date Logged: **11/21/2016**  
WorkOrder No: **1611A19** Received by: **Alexandra Iniguez**  
Carrier: **Benjamin Yslas (MAI Courier)** Logged by: **Alexandra Iniguez**

### 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 checked="" type="checkbox"/> | No <input type="checkbox"/> | NA <input 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"/> | NA <input type="checkbox"/>            |
| Sample/Temp Blank temperature                               | Temp: 5.2°C                             |                             |  |
| 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"/> |  |
| pH acceptable upon receipt (Metal: <2; 522: <4; 218.7: >8)? | 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 )

### UCMR3 Samples:

|  |                              |                             |  |
|--|------------------------------|-----------------------------|--|
| Total Chlorine tested and acceptable upon receipt for EPA 522?                   | Yes <input type="checkbox"/> | No <input type="checkbox"/> | NA <input checked="" type="checkbox"/> |
| Free Chlorine tested and acceptable upon receipt for EPA 218.7, 300.1, 537, 539? | Yes <input type="checkbox"/> | No <input type="checkbox"/> | NA <input checked="" type="checkbox"/> |

Comments:

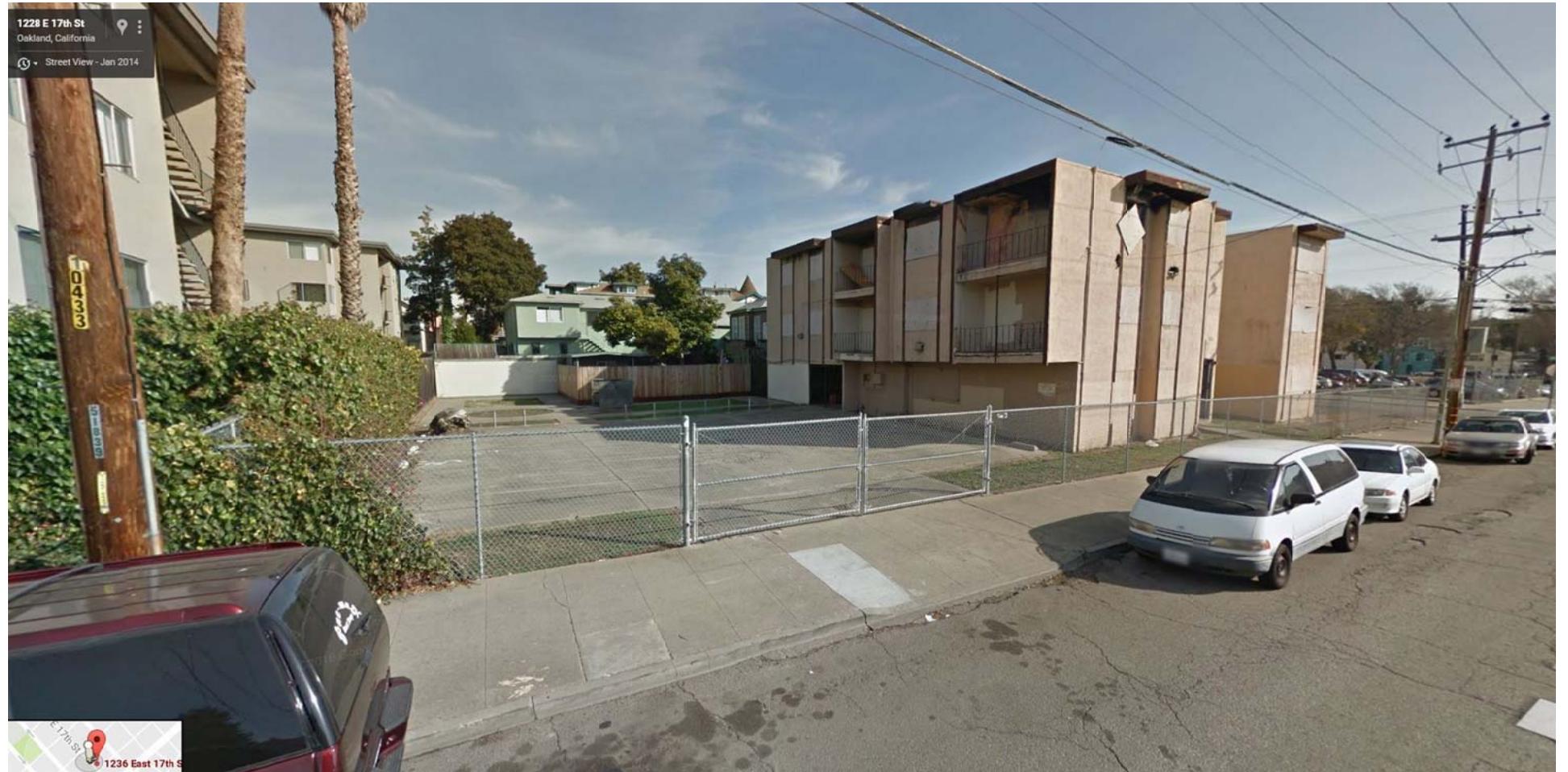
ATTACHMENT C – HISTORICAL PHOTOS OF SUBJECT PROPERTY



1. View of the subject property in July 2015 via Googlemaps.



2. View of the subject property in August 2014 via Googlemaps.



3. View of the subject property in January 2014 via Googlemaps.

ATTACHMENT D – ALAMEDA COUNTY PUBLIC WORKS AGENCY  
PERMIT

# Alameda County Public Works Agency - Water Resources Well Permit



Public Works Agency  
Alameda County

399 Elmhurst Street  
Hayward, CA 94544-1395  
Telephone: (510)670-6633 Fax:(510)782-1939

Application Approved on: 11/09/2016 By jamesy

Permit Numbers: W2016-0789  
Permits Valid from 11/17/2016 to 11/29/2016

|                     |   |                       |                                    |
|---------------------|---|-----------------------|------------------------------------|
| Application Id:     | 1478203636324   | City of Project Site: | Oakland                            |
| Site Location:      | 1236 East 17th Street, Oakland  |                       |                                    |
| Project Start Date: | Vacant Dirt Lot<br>11/17/2016   | Completion Date:      | 11/29/2016                         |
| Assigned Inspector: | Contact Marcelino Vialpando at (510) 670-5760 or Marcelino@cpwa.org   |                       |                                    |
| Applicant:          | Environmental Investigation Services, Inc. -  | Phone:                | 408-402-9800                       |
| Property Owner:     | Peter Littman<br>15951 Los Gatos Boulevard #17, Los Gatos, CA 95032<br>Velda / Last name: Goe Oakland Housing<br>Authority Initiatives, Inc.<br>1801 Harrison Street, Oakland, CA 94612 | Phone:                | 510-587-2145                       |
| Client:             | Velda Oakland Housing Authority Initiatives, Inc.<br>1801 Harrison Street, Oakland, CA 94612  | Phone:                | 510-587-2145                       |
| Contact:            | Peter Littman   | Phone:                | 408-402-9800<br>Cell: 408-402-9800 |

|                             |                    |                     |
|-----------------------------|--------------------|---------------------|
| Receipt Number: WR2016-0546 | Total Due:         | \$265.00            |
| Payer Name : Peter Littman  | Total Amount Paid: | \$265.00            |
|                             | Paid By: MC        | <b>PAID IN FULL</b> |

## Works Requesting Permits:

Borehole(s) for Geo Probes-Sampling 24 to 72 hours only - 16 Boreholes

Driller: Environmental Control Associates, Inc. - Lic #: 695970 - Method: DP

**Work Total: \$265.00**

## Specifications

| Permit Number | Issued Dt  | Expire Dt  | #  | Hole Diam | Max Depth |
|---------------|------------|------------|----|-----------|-----------|
| W2016-0789    | 11/09/2016 | 02/15/2017 | 16 | 2.00 in.  | 10.00 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 assigned inspector listed on the top of the permit 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.

## **Alameda County Public Works Agency - Water Resources Well Permit**

5. Permittee, permittee's contractors, consultants or agents shall be responsible to assure that all material or waters generated during drilling, boring destruction, and/or other activities associated with this Permit will be safely handled, properly managed, and disposed of according to all applicable federal, state, and local statutes regulating such. In no case shall these materials and/or waters be allowed to enter, or potentially enter, on or off-site storm sewers, dry wells, or waterways or be allowed to move off the property where work is being completed.
  6. 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.
  7. NOTE:  
Under California laws, the owner/operator are responsible for reporting the contamination to the governmental regulatory 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.
  8. 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.
  9. 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.
-